

WG20

Gear Units and Geared Motors up to 18000 Nm

TECHNICAL CATALOGUE



Motors | Automation | Energy | Transmission & Distribution | Coatings



WEG Group - Transforming energy into solutions.

WEG is a leading global manufacturer and solutions provider of drive technology, energy production and distribution, and automation systems and switchgear construction. Founded in Brazil in 1961 by three entrepreneurs, WEG has grown to become one of the most important global manufacturers of electric motors. WEG has more than 37,000 employees around the world. The annual turnover of around 3 billion euro reflects its increasing success. The company's global presence is supported by branches in 39 countries, production facilities, and a network of authorised dealers on all five continents.

Your requirements - our expertise

As one of the leading global manufacturers and solutions providers of drive technology, WEG's aim was to expand its extensive range of products by gear units produced in its own facilities. Perfect coordination of products throughout the drive train has put WEG in a position to offer customers even more superior and efficient solutions.

Under the leadership of Watt Drive, the challenge was to develop a program which not only meets the current demands of the market, but also satisfied WEG's high quality requirements. The Group's own centre of excellence for geared motors in Austria, part of the WEG Group since 2011, can draw on more than 40 years of experience in development, production and sales of gear units and geared motors.

In order to satisfy the requirements of state-of-the-art geared motors the following market requirements were taken into account during the development phase:

Standard mounting dimensions

For users, the aim was to make the new range of geared motors as easy and effortless to use as possible. To ensure installation in an existing system or production line worked effortlessly without incurring unnecessary costs for conversions, the developers decided to adapt the

mounting dimensions of the new gear units to products already established on the market. The objective: worldwide, easy and cost-effective interchangeability.

Torque transmission

The gear units needed to be compact, efficient, robust and reliable. In order to achieve this goal a transmission had to be designed which allows large ratio ranges in a two-stage model while being able to integrate easily into the new design gear housing.

Efficiency

Energy efficiency has always been of paramount importance to WEG. The aim here was to live up to this demand when designing the new WG20 geared motors. This requires the perfect interaction of sophisticated technology and exclusive use of high quality components.

Worldwide use

To meet the requirements of global mechanical and plant engineering, it was vital that the new geared motors can be used worldwide, whilst maintaining a high level of flexibility for applications.

The solution is **WG20**.





www.cat4cad.com

Easy product selection

The “cat4CAD®” product configuration tool makes it easy to interactively select products. Comprehensive wizards, user-friendly navigation and many other extra features allow quick configuration of the required drive.

Advantages

- Extensive product library
- Fast configuration of motors and geared motors
- Creation of project files with comprehensive technical documentation
- Easy modification of generated product data by means of the project file
- Quick request times

Features

- The entire menu is available in many languages.
- To-scale 2D/3D drawings and PDF and DXF dimension sheet drawings of the previously selected drive.
- The 2D/3D data can be exported for use in standard CAD programs.
- Comprehensive technical data sheets of the configured gear unit and motor at the click of a button.
- The project file allows complete management of previously selected drives on one screen.
At the click of a button one can save or print this project file, create PDF and DXF dimension drawings, and send enquiries directly to our sales team.

Online version available at www.cat4cad.com

Offline version for download at www.wattdrive.com



WG20 - Gear units and Geared motors up to 18000 Nm

WG20 is the first geared motor range to be completely developed in-house at WEG. It comprises helical, parallel shaft and helical bevel gear units with torques between 50 and 18000 Nm. Already the two-stage units excel with their large ratio range, as well as being exceptionally efficient thanks to the sophisticated design. The light aluminium housings of the gear units up to 600 Nm and the robust cast iron housings from 800 Nm provide a highly versatile and reliable product, with a wide range of possible applications.

C

Helical gear units

Nominal torque: 50 - 18000 Nm

Power range: 0.12 - 75 kW

Ratio range: 2.44 - 22,405.25

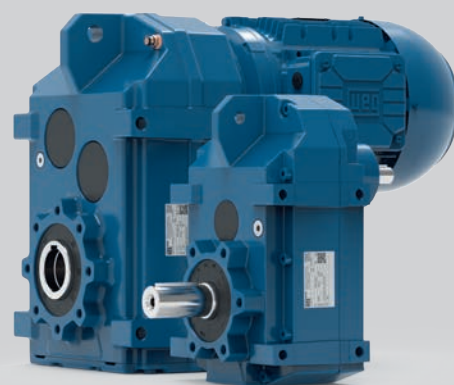
**F**

Parallel shaft gear units

Nominal torque: 130 - 18000 Nm

Power range: 0.12 - 75 kW

Ratio range: 3.85 - 24,805.81

**K**

Helical bevel gear units

Nominal torque: 110 - 18000 Nm

Power range: 0.12 - 75 kW

Ratio range: 3.82 - 14,005.40

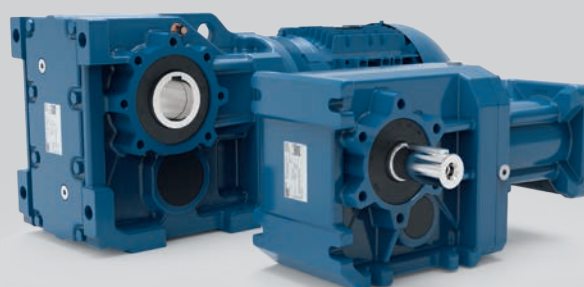


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Disclaimer

This catalogue contains information (descriptions and characteristics), which do not always apply as described in case of actual use. Data can also change due to product development. Characteristics are only binding if explicitly agreed to in the contract. Delivery opportunities and technical modifications subject to change without notice.

Drive calculation

1. Drive power

The required total power is divided into static and dynamic components. The static power is the component at constant speed (friction and lifting force). The dynamic component is the power for accelerating and decelerating of masses.

The selected rated motor power (P_N) must be bigger than the required static drive power. The required total power can be bigger than the rated motor power but it must be smaller than the maximum motor power.

| | Formula | Unit |
|-------------------------------|--|----------------------|
| Output speed of the gear unit | $n_2 = \frac{v \cdot 30}{\pi \cdot r}$ | [min ⁻¹] |

| Static drive power | | |
|---|---|------|
| Linear movement Horizontal movement (conveyor, travel drive) | $P_{\text{stat}} = \frac{m \cdot g \cdot \mu \cdot v}{1000 \cdot \eta}$ | [kW] |
| Inclined movement (inclined conveyor, travel drive with inclination) | $P_{\text{stat}} = \frac{m \cdot g \cdot v \cdot (\sin\alpha + \mu \cdot \cos\alpha)}{1000 \cdot \eta}$ | [kW] |
| Vertical movement (lifting drive, hoist, bucket elevator) | $P_{\text{stat}} = \frac{m \cdot g \cdot v}{1000 \cdot \eta}$ | [kW] |
| Static output torque | $M_{2\text{stat}} = \frac{P_{\text{stat}} \cdot 9550}{n_2}$ | [Nm] |

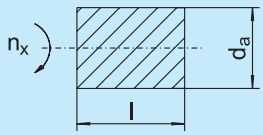
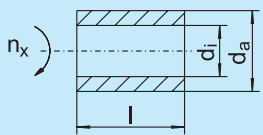
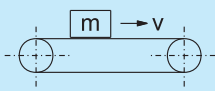
| Dynamic drive power (acceleration/deceleration power) | | |
|---|---|------|
| Horizontal movement | $P_{\text{dyn,A,(B)}} = \frac{m \cdot v^2}{1000 \cdot t_{\text{A,(B)}} \cdot \eta}$ | [kW] |
| Rotary motion | $P_{\text{dyn,A,(B)}} = \frac{\Sigma J_{\text{red.}} \cdot n_1^2}{9,12 \cdot 10^4 \cdot t_{\text{A,(B)}} \cdot \eta}$ | [kW] |
| Starting resp. braking time | $t_{\text{A,(B)}} = \frac{\Sigma J_{\text{red.}} \cdot n_1}{9,55 \cdot (M_{\text{A,(B)}} \pm M_L)}$ | [s] |
| Minimum starting time against slipping | $t_{\text{Amin}} = \frac{v}{\mu_0 \cdot g}$ | [s] |
| Load torque of motor | $M_L = \frac{M_{2\text{stat}}}{i}$ | [Nm] |
| Starting power | $P_A = P_{\text{dyn,A}} + P_{\text{stat}}$ | [kW] |
| Braking power | $P_B = P_{\text{dyn,B}} \pm P_{\text{stat}}$ | [kW] |
| Starting / braking torque | $M_{2,A,(B)} = \frac{P_{\text{A,(B)}} \cdot 9550}{n_2}$ | [Nm] |

+ M_L for braking when the load acts braking (e.g. lifts when going up)

- M_L for starting or for braking when the load acts accelerative (e.g. lifts when going down)

Mass moments of inertia

External load moments of inertia have to be reduced onto the motor shaft by squared ratios.

| | | |
|---|--|---------------------|
| Reduced mass moment of inertia | $J_{ex.red.} = \frac{J_{ex}}{i^2}$ | [kgm ²] |
| Solid cylinder  | $J_{ex.red.} = 98,2 \cdot \rho \cdot l \cdot d_a^4 \cdot \left(\frac{n_x}{n_1}\right)^2$ | [kgm ²] |
| Hollow cylinder  | $J_{ex.red.} = 98,2 \cdot \rho \cdot l \cdot (d_a^4 - d_i^4) \cdot \left(\frac{n_x}{n_1}\right)^2$ | [kgm ²] |
| Linear movement  | $J_{ex.red.} = 91,2 \cdot m \cdot \left(\frac{v}{n_1}\right)^2$ | [kgm ²] |

Approximate values for friction coefficients:

Rolling friction: $\mu_r = 0.005 - 0.02$ steel/steel
 $\mu_r = 0.02 - 0.06$ plastic/steel
 $\mu_r = 0.06 - 0.2$ rubber/steel

Static friction: $\mu_0 = 0.15$ steel/steel

Friction coefficient for conveyors:

$\mu_r = 0.13$ 10 m conveyor length
 $\mu_r = 0.08$ 25 m conveyor length
 $\mu_r = 0.06$ 50 m conveyor length
 $\mu_r = 0.05$ 100 m conveyor length

| Designation | Unit | Description |
|-------------------|---------------------|---|
| d_a | [m] | Outside diameter |
| d_i | [m] | Inside diameter |
| f_B | | Service factor |
| F_I | | Inertial factor |
| g | [m/s ²] | Acceleration due to gravity |
| i | | Gear ratio |
| $J_{ex.red.}$ | [kgm ²] | All external mass moments of inertia corrected to motor input |
| J_{ex} | [kgm ²] | All external mass moments of inertia |
| J_{mot} | [kgm ²] | Mass moment of inertia of the motor |
| $\Sigma J_{red.}$ | [kgm ²] | Sum of all $J_{red.}$ values |
| l | [m] | Length |
| m | [kg] | Mass |
| $M_{2,A}$ | [Nm] | Output torque of gear unit for starting |
| $M_{2,B}$ | [Nm] | Output torque of gear unit for braking |
| M_{2Nenn} | [Nm] | Permissible output torque |
| M_{2stat} | [Nm] | Static output torque |
| M_A | [Nm] | Starting torque of the motor (see motor electric data sheets from page 487) |
| M_B | [Nm] | Brake torque |

| Designation | Unit | Description |
|-------------|-----------------------|--|
| M_L | [Nm] | Load torque of motor |
| n_1 | [min ⁻¹] | Input speed (motor speed) |
| n_2 | [min ⁻¹] | Output speed (gear unit) |
| n_x | [min ⁻¹] | Speed of calculated components |
| P_A | [kW] | Power of gear unit at start |
| P_B | [kW] | Power of gear unit at stop |
| P_{stat} | [kW] | Static power |
| $P_{dyn,A}$ | [kW] | Dynamic acceleration power |
| $P_{dyn,B}$ | [kW] | Dynamic deceleration power |
| r | [m] | Sprocket / roller radius |
| t_{Amin} | [s] | Minimum starting time with risk of slip |
| t_A | [s] | Starting time |
| t_B | [s] | Braking time |
| v | [m/s] | Linear velocity |
| α | [°] | Angle of inclination |
| η | | Efficiency of the gear unit, system |
| μ | | Coefficient of friction |
| μ_0 | | Coefficient of static friction |
| μ_r | | Coefficient of rolling friction |
| ρ | [kg/dm ³] | Density (steel=7.85 kg/dm ³) |

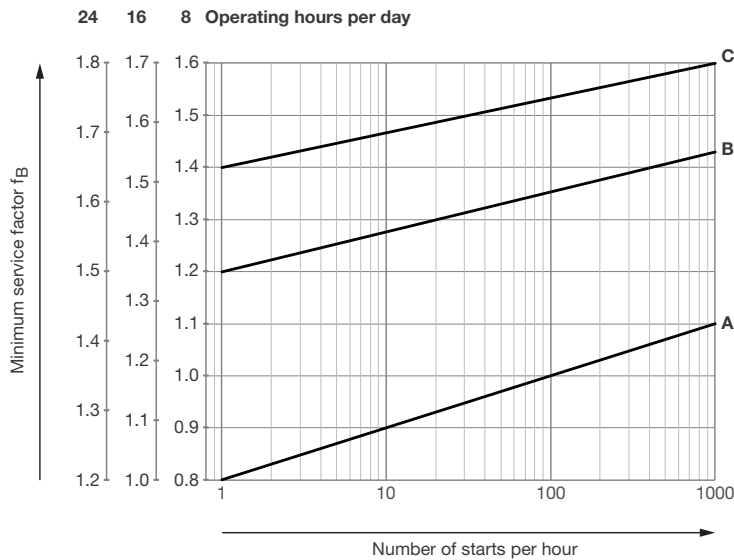
2. Load types

| Load type A | Load type B | Load type C |
|---|---|--|
| Uniform load, small masses to be accelerated, no shocks | Non-uniform load, medium masses to be accelerated, medium shocks | Extremely rough conditions, high masses to be accelerated, heavy shocks and alternating load |
| Examples: Continuous conveyor for bulk goods, light conveyors, blowers, centrifugal pumps, light elevators, screw conveyors, fluid agitators | Examples: Bucket conveyors, rotary furnaces, printing and dyeing machines, conveyor drums, centrifugal pumps and semi-fluid good agitators, wood working machines, elevators, screw conveyors, concrete mixers | Examples: Ramming machines, calenders, duty rolling mills, presses, heavy mixer, stone crushers, shredders, heavy winches and lifts |

3. Service factor

The gear unit required can be selected from the following tables showing the power, torque and output speed options. All our gear units are adequately dimensioned for long-life industrial applications and are designed for continuous loading under uniform operating conditions with small masses to be accelerated. Operating times of 8-10 hours a day are considered standard. No drive can be built to withstand all possible conditions, therefore the load conditions at the site have to be determined accurately and the proper load type identified. After determining the daily operating hours, selecting the type and establishing the number of starts (c/h), see the following diagram to find out the necessary service factor f_B . The inertial factor F_I assists in evaluating and attributing the masses to be accelerated. The service factor given in the tables indicates the reserve load in the rated torque for the specific gear unit.

In the tables you can usually choose between two types of gear units with the same or similar speeds, but different service factors. When you select the correct gear unit, the f_B from the diagram below should always be less than or equal to the available f_B (from the selection tables) for the chosen type. For short time operation, you can sometimes select a smaller gear unit, while for peak operation, a large number of starts or 24-hour continuous operation, a larger type is necessary. The output speed figures shown in the selection tables have been rounded up or rounded off. They may however vary due to the motor size and are valid for nominal load. Deviations of +/- 3 % are permissible.



| | Formula | Unit |
|-----------------|---|----------------------|
| Service factor | $f_B = \frac{M_{2Nenn}}{M_{2stat}}$ | |
| Inertial factor | $F_I = \frac{\sum J_{ex,red} + J_{mot}}{J_{mot}}$ | [min ⁻¹] |

Modes of operation DIN EN 60034-1 see page 482.

Legend see page 9.

Thermal power limit

The thermal power limit P_t must always be taken into account when designing a drive. It represents the maximum input power which can be transmitted by the gear unit at the given ambient temperature in a continuous operation mode (S1).

The technical data of the geared motors shown in the selection tables apply to an ambient temperature of +20°C. Thermal power limits for other temperatures can be seen in the table below.

Parameters to be considered:

- Higher / lower temperatures
- Vertical mounting positions (M2 or M4)
- Higher speed (> 1800 min⁻¹) due to e.g. use of frequency inverter
- Small ratios
- Little mounting space

For such conditions we recommend consulting WEG. The geared motors can be adapted according to customer requirements by using e.g. lubricant expansion, optimised oil quantities, synthetic oils or Viton seal rings.

| Gear unit size | Ambient temperature | | | | | | | | |
|----------------|---------------------|--------|------|--------|--------|--------|--------|--------|--------|
| | -20 °C | -10 °C | 0 °C | +10 °C | +20 °C | +30 °C | +40 °C | +50 °C | +60 °C |
| C002 | 2.5 | 2.1 | 1.8 | 1.5 | 1.2 | 1.0 | 0.7 | 0.5 | 0.3 |
| C012 | 5.0 | 4.3 | 3.6 | 3.0 | 2.5 | 2.0 | 1.5 | 1.1 | 0.7 |
| C032 | 10 | 8.7 | 7.4 | 6.2 | 5.0 | 4.0 | 3.0 | 2.1 | 1.3 |
| C033 | 6.1 | 5.2 | 4.5 | 3.7 | 3.0 | 2.4 | 1.8 | 1.3 | 0.8 |
| C052 | 19 | 16 | 14 | 12 | 9.5 | 7.5 | 5.7 | 4.0 | 2.5 |
| C053 | 11 | 9.8 | 8.4 | 7.0 | 5.7 | 4.5 | 3.4 | 2.4 | 1.5 |
| C062 | 26 | 22 | 19 | 16 | 13 | 10 | 7.8 | 5.5 | 3.5 |
| C063 | 16 | 14 | 11 | 9.6 | 7.8 | 6.2 | 4.7 | 3.3 | 2.1 |
| C072 | 34 | 29 | 25 | 21 | 17 | 13 | 10 | 7.2 | 4.5 |
| C073 | 20 | 17 | 15 | 12 | 10 | 8.1 | 6.1 | 4.3 | 2.7 |
| C082 | 58 | 50 | 42 | 35 | 29 | 23 | 17 | 12 | 7.7 |
| C083 | 35 | 30 | 26 | 21 | 17 | 14 | 11 | 7.4 | 4.7 |
| C092 | 82 | 71 | 60 | 50 | 41 | 32 | 25 | 17 | 11 |
| C093 | 49 | 43 | 36 | 30 | 25 | 20 | 15 | 11 | 6.6 |
| C094 | 34 | 29 | 25 | 21 | 17 | 13 | 10 | 7.2 | 4.5 |
| C102 | 103 | 89 | 75 | 63 | 51 | 41 | 31 | 22 | 14 |
| C103 | 62 | 54 | 46 | 38 | 31 | 25 | 19 | 13 | 8.3 |
| C104 | 42 | 36 | 31 | 26 | 21 | 17 | 13 | 9 | 5.6 |
| C132 | 142 | 123 | 105 | 87 | 71 | 57 | 43 | 30 | 19 |
| C133 | 86 | 74 | 63 | 53 | 43 | 34 | 26 | 18 | 12 |
| C134 | 58 | 50 | 43 | 36 | 29 | 23 | 18 | 12 | 7.8 |
| C142 | 191 | 165 | 140 | 117 | 96 | 76 | 57 | 41 | 26 |
| C143 | 115 | 99 | 85 | 71 | 58 | 46 | 35 | 25 | 15 |
| C144 | 78 | 68 | 57 | 48 | 39 | 31 | 24 | 17 | 11 |
| C162 | 271 | 234 | 199 | 167 | 136 | 108 | 82 | 58 | 36 |
| C163 | 164 | 141 | 120 | 101 | 82 | 65 | 49 | 35 | 22 |
| C164 | 111 | 96 | 82 | 68 | 56 | 44 | 34 | 24 | 15 |
| C165 | 81 | 70 | 59 | 50 | 41 | 32 | 24 | 17 | 11 |
| F022 | 8.4 | 7.2 | 6.1 | 5.1 | 4.2 | 3.3 | 2.5 | 1.8 | 1.1 |
| F032 | 11 | 9.7 | 8.3 | 6.9 | 5.7 | 4.5 | 3.4 | 2.4 | 1.5 |
| F042 | 18 | 15 | 13 | 11 | 8.9 | 7.1 | 5.4 | 3.8 | 2.4 |
| F043 | 11 | 9.3 | 7.9 | 6.6 | 5.4 | 4.3 | 3.2 | 2.3 | 1.4 |
| F052 | 24 | 21 | 18 | 15 | 12 | 9.7 | 7.3 | 5.2 | 3.3 |
| F053 | 15 | 13 | 11 | 9.0 | 7.4 | 5.8 | 4.4 | 3.1 | 2.0 |
| F062 | 31 | 27 | 23 | 19 | 15 | 12 | 9.3 | 6.6 | 4.1 |
| F063 | 19 | 16 | 14 | 11 | 9.3 | 7.4 | 5.6 | 4.0 | 2.5 |
| F072 | 51 | 44 | 37 | 31 | 25 | 20 | 15 | 11 | 6.8 |
| F073 | 31 | 26 | 23 | 19 | 15 | 12 | 9.2 | 6.6 | 4.1 |
| F082 | 73 | 63 | 54 | 45 | 37 | 29 | 22 | 16 | 9.8 |
| F083 | 44 | 38 | 32 | 27 | 22 | 18 | 13 | 9.4 | 5.9 |
| F084 | 30 | 26 | 22 | 18 | 15 | 12 | 9 | 6.4 | 4.0 |
| F092 | 107 | 92 | 78 | 65 | 53 | 42 | 32 | 23 | 14 |

| | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|----|-----|
| F093 | 64 | 56 | 47 | 40 | 32 | 26 | 19 | 14 | 8.6 |
| F094 | 44 | 38 | 32 | 27 | 22 | 17 | 13 | 9 | 5.9 |
| F102 | 157 | 136 | 115 | 96 | 79 | 62 | 47 | 34 | 21 |
| F103 | 95 | 82 | 70 | 58 | 48 | 38 | 29 | 20 | 13 |
| F104 | 64 | 56 | 47 | 40 | 32 | 26 | 19 | 14 | 9 |
| F122 | 220 | 190 | 162 | 135 | 110 | 87 | 66 | 47 | 30 |
| F123 | 133 | 115 | 98 | 82 | 67 | 53 | 40 | 28 | 18 |
| F124 | 90 | 78 | 66 | 55 | 45 | 36 | 27 | 19 | 12 |
| F152 | 337 | 291 | 247 | 207 | 169 | 134 | 101 | 72 | 45 |
| F153 | 203 | 176 | 149 | 125 | 102 | 81 | 61 | 43 | 27 |
| F154 | 138 | 119 | 101 | 85 | 69 | 55 | 42 | 30 | 19 |
| F155 | 100 | 87 | 74 | 62 | 50 | 40 | 30 | 21 | 13 |

| Gear unit size | Ambient temperature | | | | | | | | |
|----------------|---------------------|--------|------|--------|--------|--------|--------|--------|--------|
| | -20 °C | -10 °C | 0 °C | +10 °C | +20 °C | +30 °C | +40 °C | +50 °C | +60 °C |
| K022 | 10 | 8.8 | 7.4 | 6.2 | 5.1 | 4.0 | 3.1 | 2.2 | 1.4 |
| K033 | 10 | 8.6 | 7.3 | 6.1 | 5.0 | 4.0 | 3.0 | 2.1 | 1.3 |
| K043 | 16 | 14 | 12 | 9.8 | 8.0 | 6.3 | 4.8 | 3.4 | 2.1 |
| K053 | 21 | 18 | 15 | 13 | 10 | 8.3 | 6.3 | 4.5 | 2.8 |
| K063 | 23 | 20 | 17 | 14 | 12 | 9.3 | 7.0 | 5.0 | 3.1 |
| K073 | 37 | 32 | 27 | 23 | 19 | 15 | 11 | 8.0 | 5.0 |
| K083 | 44 | 38 | 32 | 27 | 22 | 17 | 13 | 9.4 | 5.9 |
| K084 | 30 | 26 | 22 | 18 | 15 | 12 | 9.0 | 6.4 | 4.0 |
| K093 | 62 | 54 | 46 | 38 | 31 | 25 | 19 | 13 | 8.3 |
| K094 | 42 | 36 | 31 | 26 | 21 | 17 | 13 | 9.0 | 5.7 |
| K103 | 95 | 82 | 69 | 58 | 47 | 38 | 29 | 20 | 13 |
| K104 | 64 | 55 | 47 | 39 | 32 | 26 | 19 | 14 | 8.6 |
| K123 | 131 | 113 | 96 | 80 | 66 | 52 | 39 | 28 | 18 |
| K124 | 89 | 77 | 65 | 55 | 45 | 35 | 27 | 19 | 12 |
| K153 | 185 | 160 | 136 | 114 | 93 | 74 | 56 | 40 | 25 |
| K154 | 126 | 109 | 92 | 77 | 63 | 50 | 38 | 27 | 17 |
| K155 | 91 | 79 | 67 | 56 | 46 | 36 | 28 | 20 | 12 |

Thermal power limit P_t [kW]

Input types

1. IEC Adapter I

Standard motors complying with DIN EN 50347 IM B5 can be mounted on WG20 gear units with IEC adapters. The adapters are oil-tight. The motors are attached using different couplings, depending on the adapter size:

- **I63 to I100: Plug-in adapter**

The connecting coupling is one part; the motor shaft is inserted directly into the coupling shaft. Before mounting, the motor shaft is to be cleaned and coated with lubricating paste (e.g. Klüberpaste 46 MR 401).

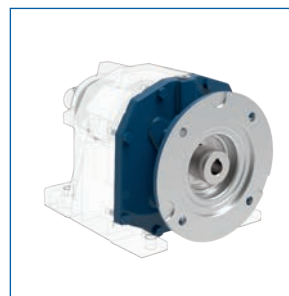
This makes it easier to disassemble the shaft when servicing is required and protects the connection against frictional corrosion.

- **I112 to I132: Curved teeth coupling**

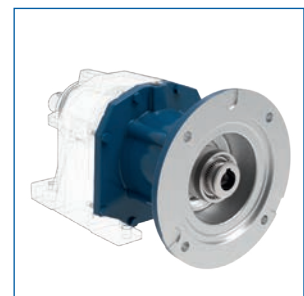
The connecting coupling comprises two parts; a coupling hub is mounted on the motor shaft and fixed using a threaded pin. Power is transmitted by means of the internally toothed coupling sleeve.

- **I160 to I280: Claw coupling**

The connecting coupling comprises two parts; a coupling hub is mounted on the motor shaft and fixed using a threaded pin. Power is transmitted by means of a flexible coupling star.



Plug-in adapter



Adapter with coupling

Complete drive systems with WEG IEC motors:

By mounting, for example, WEG W22 IEC motors or WEG roller table motors, complete packages can be supplied for a wide range of applications.

2. NEMA Adapter N

Standard motors complying with NEMA C-face standard can be mounted on WG20 gear units with NEMA adapters. The adapters are oil-tight. The motors are attached using different couplings, depending on the adapter size:

- **N56 to N182: Plug-in adapter**

The connecting coupling is one part; the motor shaft is inserted directly into the coupling shaft. Before mounting, the motor shaft is to be cleaned and coated with lubricating paste (e.g. Klüberpaste 46 MR 401).

This makes it easier to disassemble the shaft when servicing is required and protects the connection against frictional corrosion.

- **N184 to N215: Curved teeth coupling**

The connecting coupling comprises two parts; a coupling hub is mounted on the motor shaft and fixed using a threaded pin. Power is transmitted by means of the internally toothed coupling sleeve.

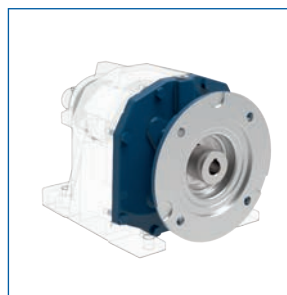
- **N254 to N364: Claw coupling**

The connecting coupling comprises two parts; a coupling hub is mounted on the motor shaft and fixed using a threaded pin. Power is transmitted by means of a flexible coupling star.

Complete drive systems with WEG NEMA motors:

By mounting, for example, WEG W22 NEMA motors, complete packages can be supplied for a wide range of applications.

It is recommended that the motors are sealed with a sealant (e.g. Loctite 510) when IEC and NEMA adapters are mounted to the flange to prevent water or dust ingress. Use screws of strength class 8.8 (or higher) to fasten the motors to the flanges. Observe the corresponding tightening torques according to the mounting instruction.



Plug-in adapter



Adapter with coupling

3. SERVO Adapter S

WG20 gear units with SERVO adapters can be fitted with servomotors from different manufacturers. The adapters are oil-tight, and the motors are mounted using flexible servo couplings. The backlash-free connection between the motor shaft and the adapter shaft is made by means of a clamp connection.

Both servo motors with smooth shaft and servo motors with feather key can be mounted. The mounting clearance between the motor shaft and coupling is reduced to 0 by means of a clamp ring.



Servo coupling

- **S92 to S190: Servo coupling**

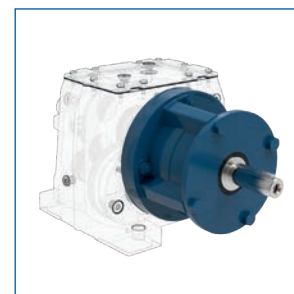
4. Input Unit U

Gear unit versions with input unit enable the WG20 gear units to be operated by attaching drive elements such as couplings or belt drives. Permissible shear forces or thermal power limits must be checked accordingly.

- **Input unit sizes: U2, U3, U5, U6, U7**



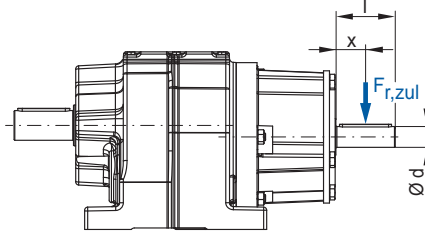
Input unit U2 and U3



Input unit U5 to U7

| Size | U2 | U3 | U5 | | | U6 | U7 |
|------------------|-------|-------|-------|-------|--------|--------|--------|
| Input shaft [mm] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |

The shear forces given in the following table (Permissible shear forces - Input unit on page 14) apply to input units with force applied to the shaft centre $x = l/2$. When determining the permissible shear forces, the unfavourable rotating direction and the most unfavourable force direction is assumed, as well as an input speed $n_1 = 1400 \text{ min}^{-1}$ at a given rated power P_N . The calculation was made with a standard shaft and standard bearing. For exact determination of the permissible shear force $F_{r,zul}$, the direction of force and the rotating direction must be specified.



| Input shaft unit [mm] | M_{max} [Nm] at $F_r = 0$ | Nominal power P_N [kW] | | | | | | | | | | | | | |
|-----------------------|-----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | | 0.12 | 0.18 | 0.25 | 0.37 | 0.55 | 0.75 | 1.1 | 1.5 | 2.2 | 3 | 4 | 5.5 | | |
| | | Permissible shear force $F_{r,zul}$ [N] | | | | | | | | | | | | | |
| U2 | 18 | 2600 | 2500 | 2400 | 2300 | 2000 | 1800 | 1600 | 1300 | 700 | - | - | - | - | |
| U3 | 100 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 4600 | 4200 | 3400 | 2500 | 2200 | 1700 | - | |
| U5 | 100 | 6500 | 6500 | 6500 | 6500 | 6500 | 6500 | 6500 | 6400 | 6400 | 6400 | 6300 | 6300 | - | |
| | 170 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 10500 | 10500 | 10000 | 9500 | |
| | 240 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 11000 | 10500 | 10500 | 10000 | 9500 | |
| U6 | 490 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 14500 | 14500 | |
| U7 | 970 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | |

| Input shaft unit [mm] | M_{max} [Nm] at $F_r = 0$ | Nominal power P_N [kW] | | | | | | | | | | | |
|-----------------------|-----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| | | 7.5 | 9.2 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | |
| | | Permissible shear force $F_{r,zul}$ [N] | | | | | | | | | | | |
| U2 | 18 | - | - | - | - | - | - | - | - | - | - | - | - |
| U3 | 100 | 1000 | 500 | - | - | - | - | - | - | - | - | - | - |
| U5 | 100 | 6200 | 6100 | 6000 | - | - | - | - | - | - | - | - | - |
| | 170 | 9000 | 8000 | 7500 | 6000 | 4500 | - | - | - | - | - | - | - |
| | 240 | 9000 | 8000 | 7500 | 6000 | 4500 | 3000 | - | - | - | - | - | - |
| U6 | 490 | 14000 | 13500 | 13000 | 11500 | 10500 | 9500 | 7500 | 5500 | 3000 | - | - | - |
| U7 | 970 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 25000 | 24000 | 23000 | 21000 | - |

Permissible shear force - Input unit $F_{r,zul}$ at $x = l/2$

Explosion-proof gear units and geared motors

WG20 type series gear units meet the requirements of Directive 2014/34/EU on equipment for use in potentially hazardous areas. Both gear units and geared motors can be used.



WG20 geared motor for application in zones 2 + 22



WG20 geared motor for application in zones 1 + 21

General information

The operation of systems requires special measures in areas with explosive air/gas mixtures or air/dust mixtures. The Directive governs the possible uses of equipment within the existing danger zones, whereby both electrical and mechanical equipment, such as gear units, must meet the minimum requirements specified in the standard.

Zoning

Zoning takes into account whether the Ex atmosphere is a mixture of air with gas or with dust.

Relevant areas

- **Category 2G/2D and EPL Gb/Db units**

are intended for use in areas in which there is *occasionally* an explosive atmosphere. They are permitted for use in zone 1 (category 2G) and zone 21 (category 2D), and zone 2 (3G) and 22 (3D).

- **Category 3G/3D and EPL Gc/Dc units**

are intended for use in areas in which an explosive atmosphere caused by gases, vapours, mists or suspended dust is unlikely to occur. However, if this does occur, it will occur only *rarely or for a short period of time*. These units are permitted for use in zone 2 (category 3G) or zone 22 (category 3D).

Marking according to standards

| Category | Equipment group I | | Equipment group II | | | | | |
|-----------------------------------|-------------------|----|---|----|----------------------------|-----------------------------|---|----------------------------|
| | Mines | | Other areas with dust or gas explosive atmosphere | | | | | |
| | M1 | M2 | 1 | | 2 | | 3 | |
| Presence of explosive atmospheres | | | continuous, frequent or for long periods | | likely in normal operation | | not likely in normal operation, only for short period of time | |
| Surrounding atmosphere | | | G | D | G | D | G | D |
| Zone | | | 0 | 20 | 1 | 21 | 2 | 22 |
| Equipment Protection Level | Ma | Mb | Ga | Da | Gb | Db | Gc | Dc |
| Type of protection (not electric) | | | | | h (c, k) | h (c, k) | h (c, k) | h (c, k) |
| Type of protection (electric) | | | | | d, eb | tb | ec | tc |
| Ex-marking gear unit | | | | | II 2G Ex h IIC T4 Gb | II 2D Ex h IIIC T125°C Db | II 3G Ex h IIC T4 Gc | II 3D Ex h IIIC T125°C Dc |
| Ex-marking motor | | | | | II 2G Ex d IIC T4 Gb | II 2D Ex tb IIIC T125 °C Db | II 3G Ex ec IIC T3 Gc | II 3D Ex tc IIIC T125°C Dc |

Possible range of application for WG20 products

Types of ignition protection used

The ignition of an explosive mixture in the classified zones is to be prevented by the various types of ignition protection used for the equipment.

- **Types of ignition protection for non-electrical equipment: according to EN ISO 80079-36 and -37**

„c“: Protection by means of structural safety

„k“: Protection by means of fluid coupling

- **Types of ignition protection for electrical equipment: according to EN ISO 60079-07 and -31**

„ec“ and „eb“: Protection by means of increased safety

„tc“ and „tb“: Protection by means of housing

„d“: flameproof enclosure

Applicable explosive atmospheres

For the types of ignition protection used, parts which can be exposed to an explosive atmosphere without restriction must not reach excessively high temperatures.

Temperature classes for gas explosion protection (G)

Flammable gases and vapours are divided into temperature classes according to their flammability. The influence of ambient temperature and self-heating of the equipment must also be taken into account.

The maximum surface temperature of the equipment may only assume values that correspond to the temperature class for gases. In fact, the ignition temperature represents the lowest temperature value at which a hot surface can ignite the corresponding explosive atmosphere.

In addition, gases and vapours are classified in explosion groups IIA, IIB and IIC. The hazardousness of gases increases from explosion group IIA to IIC.

WG20 geared motors can be used in temperature class T3 (max. surface temperature 200 °C).

WG20 gear units with input types can be used in temperature class T4 (max. surface temperature 135 °C).

| Temperature class | T1 | T2 | T3 | T4 | T5 | T6 |
|--------------------------------------|--------|--------|--------|--------|--------|-------|
| Max. permissible surface temperature | 450 °C | 300 °C | 200 °C | 135 °C | 100 °C | 85 °C |

Possible range of application for WG20 products

Surface temperature for dust explosion protection (D)

Dusts are not divided into temperature classes, but the value of the minimum ignition temperature is specified.

WG20 gear units and geared motors are classified with a max. surface temperature of 125 °C.

| Dust group | Description | Degree of protection | |
|------------|---------------------|----------------------|------|
| | | tb | tc |
| IIIA | Combustible flyings | IP5X | IP5X |
| IIIB | Non-conductive dust | IP6X | IP5X |
| IIC | Conductive dust | IP6X | IP6X |

Necessary degree of protection for dust explosive atmospheres

Table of lubricants

| Recommended ambient temperatures | -10 °C ... +60 °C | -20 °C ... +80 °C | -25 °C ... +60 °C | -40 °C ... +80 °C | -20 °C ... +40 °C |
|----------------------------------|---------------------------------|-------------------------|-------------------------|--|----------------------|
| DIN (ISO) | CLP (mineral oil) ¹⁾ | CLP PG (polyglycol oil) | CLP PG (polyglycol oil) | CLP-HC (polyalphaolefin oil) ²⁾ | food grade |
| ISO VG | 220 | 460 | 220 | 220 | 220 |
| ARAL | Degol BG 220 | Degol GS 460 | Degol GS 220 | Degol PAS 220 | - |
| BP | Energol GR-XP 220 | Energol SG-XP 460 | Energol SG-XP 220 | Energol HTX 220 | - |
| Castrol | Alpha SP 220 | Alphasyn PG 460 | Alphasyn PG 220 | Alphasyn HTX 220 | Optileb GT 220 |
| Klüber | Klüberoil GEM 1-220 N | Klübersynth GH 6-460 | Klübersynth GH 6-220 | Klübersynth GEM 4-220 N | Klüberoil 4UH1 220 N |
| Mobil | Mobilgear 600 XP 220 | Glygoyle 460 | Glygoyle 220 | SHC 630 | SHC Cibus 220 |
| Shell | Omala S2 G 220 | Omala S4 WE 460 | Omala S4 WE 220 | Omala S4 GX 220 | - |
| Addinol | Gear Oil 220 F | Poly Gear PG 460 | Poly Gear PG 220 | Eco Gear 220 S | Ecoleb 220 FG |

1) standard lubricant acc. to DIN 51517 part 3 - CLP ISO VG 220

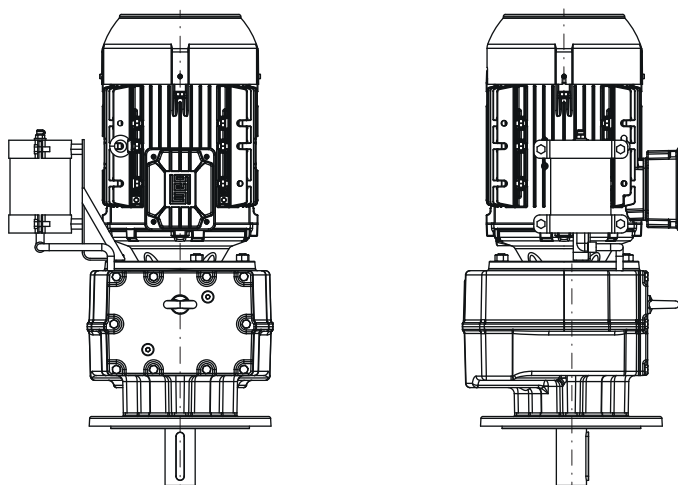
2) note critical starting behaviour at low temperatures

Lubricant expansion unit

For gear units and geared motors in M4 design, high oil levels are required for lubrication of the first gear stage. To prevent oil leaking from the gear unit during operation, expansion units are to be used at reductions $i < 20$ or at higher motor speeds (e.g. frequency drives operation $> 2000 \text{ min}^{-1}$).

The use of lubricant expansion units is recommended for gear unit sizes from C07 (helical gear unit), F06 (parallel shaft gear unit) and K06 (helical bevel gear unit) and for the conditions described above.

Example: CF082-11P-132S-04E-TH-TF



Painting

Standard colour geared motors: RAL 7011 (RAL 5009, RAL 9005 without additional costs)

In addition to the standard high-grade polyurethane-based surface finish other special finishes for applications that are subject to specific environmental conditions are offered. Paintwork is basically categorised according to the composition of the applied surface finish. The standard program contains 6 painting systems categorised from LA0 to LC5. Special colours are possible.

| Painting system | Application | Layering | NDFT Nominal dry film thickness | Temperature range | Corrosion category DIN EN ISO 12944-5 |
|-----------------------|--|---|---------------------------------------|-------------------------|--|
| not painted | | | | | |
| LA0 | Primer | Dip primer Base coat (2 pack PUR) | | -40 °C - +120 °C | |
| LC1 (Standard) | Indoor installation, neutral atmosphere | Dip primer Varnish (1K-AY-PUR*) or (2 pack PUR**) | 40 µm | -40 °C - +120 °C | C1 |
| LC2 | Protected outdoor installation, neutral atmosphere | Dip primer 2x Varnish (2 pack PUR) | 140 µm | -40 °C - +120 °C | C2 |
| LC3 | Outdoor installation, industrial atmosphere | Dip primer Base coat (2 pack PUR) Varnish (2 pack PUR) | 160 µm | -40 °C - +120 °C | C3 |
| LC4 | Outdoor installation, aggressive atmosphere | Dip primer Base coat (2 pack EP) Intermediate base coat (2 pack PUR) Varnish (2 pack PUR) | 240 µm | -40 °C - +120 °C | C4 |
| LC5 | Coast or offshore, very aggressive atmosphere, under water | Dip primer Base coat (2 pack EP) Intermediate base coat (2 pack PUR) 2x Varnish (2 pack PUR) | 320 µm | -40 °C - +120 °C | C5 |

*) Colours RAL 7011, RAL 5009, RAL 9005, RAL 9007

**) All other colours

Degrees of protection

Degree of protection according to DIN EN 60034-5.

The designation to indicate the degrees of protection consists of the characteristic letters IP followed by two numerals.

Code figure 1: degree of protection against contact with live or moving parts and against ingress of solid foreign objects

Code figure 2: degree of protection against harm for ingress of water

| Code figure 1 | |
|---------------|--|
| | Description |
| 0 | No protection |
| 1 | Protected against solid foreign objects of 50 mm diameter and larger: the probe (50 mm ball) may not fully penetrate. |
| 2 | Protected against solid foreign objects of 12.5 mm diameter and larger: the probe (ball 12.5 mm) shall not fully penetrate. |
| 3 | Protected against solid foreign objects of 2.5 mm diameter: the probe (ball 2.5 mm) must not penetrate at all. |
| 4 | Protected against solid foreign objects of 1 mm and larger: the probe (1 mm ball) must not penetrate at all. |
| 5 | Dust protected: ingress of dust is not totally prevented, but dust shall not penetrate in a quantity that the operation of the device is affected or to impair safety. |
| 6 | Dustproof: no ingress of dust at underpressure of 20 mbar in the housing |

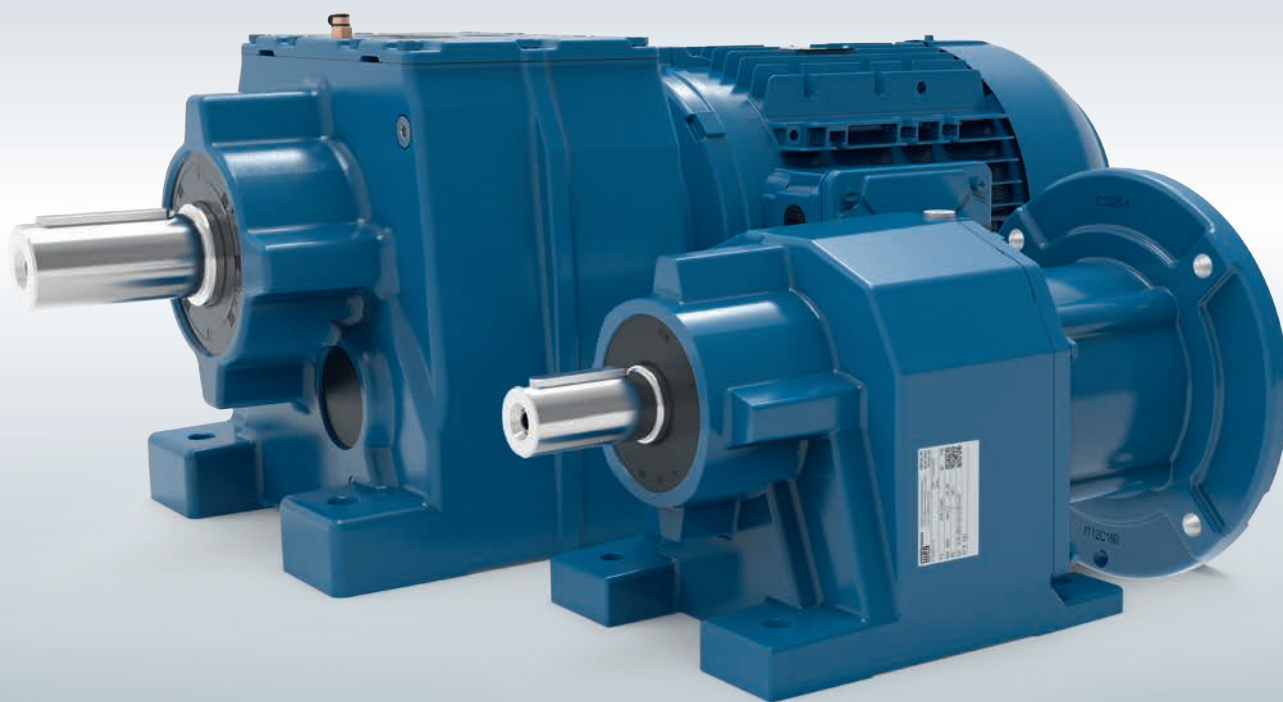
| Code figure 2 | |
|---------------|--|
| | Description |
| 0 | No protection |
| 1 | Protected against dripping water: vertically falling drops may not have any harmful effects. |
| 2 | Protected against dripping water when the housing is inclined up to 15°: vertically falling drops may not have any harmful effects when the housing is inclined up to 15° from the vertical. |
| 3 | Protected against water spray: water sprayed at an angle up to 60° on both sides of the vertical may not have any harmful effects. |
| 4 | Protected against splash water: water splashed against the housing from any direction may not have any harmful effects. |
| 5 | Protected against water jets: water that is from any direction in jets against the housing may not have any harmful effects. |
| 6 | Protected against strong water jets: water that is from any direction in powerful jets against the housing may not have any harmful effects. |
| 7 | Protected against the effects of temporary (1m for 30 min) immersion in water: water must not enter in quantities causing harmful effects, if the housing is under standardised conditions of pressure and time temporarily submerged in water. |
| 8 | Protected against the effects of continuous immersion in water: water must not enter in quantities causing harmful effects when the enclosure is permanently submerged in water under conditions to be agreed between manufacturer and user. The conditions must be more stringent than for index 7. |

Degree of protection:

Modular system motor: IP55 (standard) to IP67

Brake: IP55 (standard) to IP66

Gear unit: IP65 (standard) to IP68



Helical gear units and Helical geared motors C

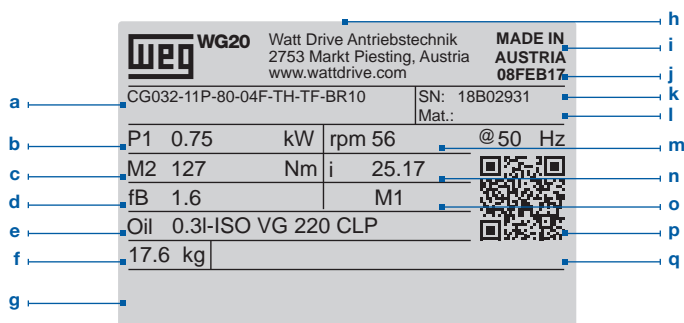


Technical Data

| Size | C00 | C01 | C03 | C05 | C06 | C07 | C08 | C09 | C10 | C13 | C14 | C16 |
|------------------|--|---|-------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| Power [kW] | 0.12 - 0.75 | 0.12 - 1.5 | 0.12 - 3 kW | 0.12 - 7.5 | 0.12 - 9.2 | 0.12 - 15 | 0.18 - 22 | 0.55 - 30 | 1.1 - 30 | 4 - 55 | 4 - 55 | 11 - 75 |
| Torque [Nm] | 50 | 85 | 200 | 400 | 600 | 820 | 1550 | 3000 | 4500 | 8000 | 13000 | 18000 |
| Ratio | 2.44 | 3.09 | 3.34 | 3.69 | 3.73 | 5.30 | 5.12 | 4.22 | 4.19 | 4.00 | 5.17 | 5.96 |
| | 47.44 | 66.5 | 286.32 | 328.43 | 375.71 | 351.33 | 368.94 | 3282.02 | 2636.78 | 1891.77 | 2162.84 | 22405.25 |
| Number of stages | 2 | 2 | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 / 4 | 2 / 3 / 4 | 2 / 3 / 4 | 2 / 3 / 4 | 2 / 3 / 4 / 5 |
| Housing material | aluminium | | | | | | cast iron | | | | | |
| Solid shaft | Type | with key acc. to DIN 6885.1 and threaded bore acc. to DIN 332 sheet 2 | | | | | | | | | | |
| | Tolerance | < Ø 55: k6 / ≥ Ø 55: m6 | | | | | | | | | | |
| | Material | standard: C45E (1.1191) / stainless steel on request | | | | | | | | | | |
| Flanges | Tolerance | centring ≤ 250: j6 / > 250: h6 acc. to DIN EN 50347 | | | | | | | | | | |
| | Material | cast iron | | | | | | | | | | |
| Gear wheels | Type | honed - designed and produced according to DIN 3990/3991 - Q7 | | | | | | | | | | |
| | Material | 16MnCr5 (1.7131) case hardened - minimum 58HRC | | | | | | | | | | |
| Shaft seals | Type | type AS acc. to DIN 3760 | | | | | | | | | | |
| | Material | standard NBR / special FKM | | | | | | | | | | |
| Bearing | standard / reinforced | | | | | | | | | | | |
| Lubricants | Type | standard CLP 220 / special CLP HC 220 | | | | | | | | | | |
| | Quantity | depending on mounting position | | | | | | | | | | |
| Axle height | acc. to DIN 747: ≤ 50: -0.4; > 50 to ≤ 250: -0.5; > 250: -1 for foot-mounted gear motors, the motor may extend below the mounting surface | | | | | | | | | | | |

General information

1. Nameplate



| | | | |
|---|-------------------------------------|---|---|
| a | Type code | j | Production date |
| b | Motor power | k | Serial number |
| c | Output torque | l | Material number |
| d | Service factor | m | Output speed and Frequency |
| e | Type and quantity of lubricant | n | Total gear ratio |
| f | Weight | o | Mounting position |
| g | Space for ATEX code (if applicable) | p | QR-Code linked online to additional information |
| h | Manufacturer address | q | Space for additional information |
| i | Country of origin | | |

2. Type code

CG083-EX-11P-90S/L-04F ...

1 2 3 4 5 6 7 8 9 10

CG083-EX-I112-HT

1 2 3 4 5 11 12

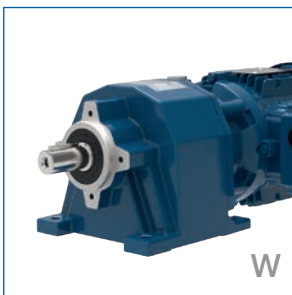
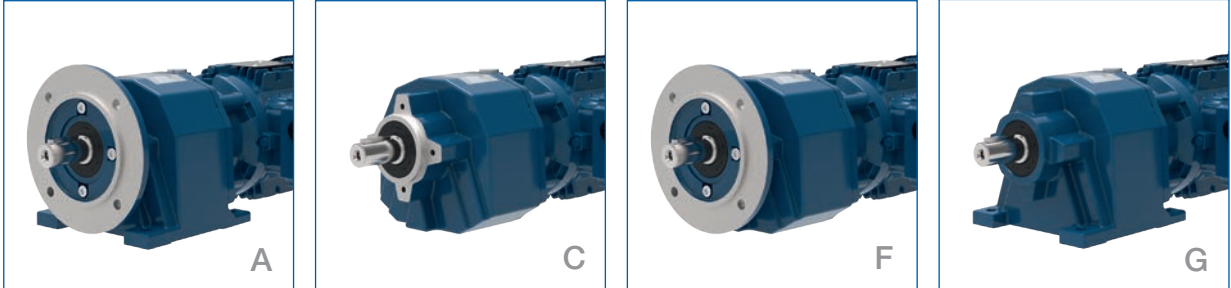
| | | |
|-----------|---------------------------------|--|
| 1 | Type: | C = Helical gear unit |
| 2 | Design: | A = Foot mounted and B5 flange execution with output shaft C = B14 flange execution with output shaft F = Flange execution with output shaft G = Foot mounted with output shaft W = Foot mounted and B14 flange execution with output shaft |
| 3 | Size: | 00 01 03 05 06 07 08 09 10 13 14 16 |
| 4 | Number of stages: | 2 = 2 gear stages 3 = 3 gear stages 4 = 4 gear stages 5 = 5 gear stages |
| 5 | ATEX execution: | when operated in explosive atmospheres, see page 15 |
| 6 | Motor type: | 14P = Integral motor aluminium IE3 11P = Integral motor aluminium IE3 22P = Integral motor cast iron IE3 |
| 7 | Motor frame size: | 63 71 80 L80 90S/L 100L L100L 112M 132S 132M L132M 160M 160L 180M 180L 200L 225S/M 250S/M |
| 8 | Number of poles: | 04 = 4 poles 06 = 6 poles |
| 9 | Power indicator: | D E F G |
| 10 | Motor modules: | see from page 501 |
| 11 | Adapters, Input unit: | IEC adapter I63 I71 I80 I90 I100 I112 I132 I160 I180 I200 I225 I250 I280 NEMA adapter N56 N143 N182 N184 N213 N254 N284 N324 N364 SERVO adapter S92 S105 S114 S115 S130 S141 S142 S180 S189 S190 Input unit U2 U3 U5 U6 U7 Direct mounting (IEC): IEC63 IEC71 IEC80 IEC90 IEC100 IEC112 IEC132 IEC160 IEC180 IEC200 IEC225 IEC250 |
| 12 | High/Low temperature execution: | HT LT |

Type code Motor see page 477

3. Range

| Size | C00 | C01 | C03 | C05 | C06 | C07 | C08 | C09 | C10 | C13 | C14 | C16 |
|------------------|-----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|
| Housing material | Aluminium | | | | | Cast iron | | | | | | |

4. Design

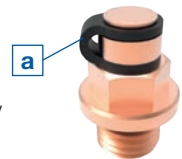


| | |
|----------|---|
| A | Foot mounted and B5 flange execution with output shaft |
| C | B14 flange execution with output shaft |
| F | Flange execution with output shaft |
| G | Foot mounted with output shaft |
| W | Foot mounted and B14 flange execution with output shaft |

5. Venting the gear unit

The helical gear unit sizes C00 to C06 are neither equipped with a venting nor an oil drain screw. They are supplied with lifetime-lubrication.

By default, the helical gear units from C07 are equipped with venting screws with a safety strap for transportation (see illustration). The rubber strap (a) of the venting screw must be removed entirely before the initial startup. The venting screw is placed accordingly to the mounting position (see chapter Mounting positions, page 26).



6. Overhung and axial loads

The overhung loads (F_{rN}) indicated in the respective selection tables apply to gear units with the force acting on the shaft center ($x=l/2$). The permissible overhung loads listed are based on the least favourable loading direction and calculated for standard shafts and standard bearings. Other load directions and action can be calculated with equations Q1 to Q3. If transmission elements are placed on the output shaft, an appropriate factor (f_z) has to be taken into consideration when determining the overhung load.

| Gear wheels | Sprockets | | V-belts | Flat belts |
|------------------------------|------------------------------|---------------------------|-----------|------------|
| | | | | |
| $f_z=1.1$ ($z \leq 17$) | $f_z=1.2$ ($z \leq 13$) | $f_z=1.1$ ($z > 13$) | $f_z=1.8$ | $f_z=2.5$ |

Use the following equations Q1 and Q2 to calculate the permissible radial loads on the output shaft. Q3 is to calculate the real existing shaft loads for your application. The results are to be compared by using the equation Q4.

| | |
|-----------|---|
| Q1 | $F_{zL} = F_{rN} \cdot a_1$ |
| Q2 | $F_{zW} = F_W \cdot a_2$ |
| Q3 | $F_{Qvorh} = \frac{2 \cdot M_2}{d_0} \cdot f_z$ |
| Q4 | $F_{Qvorh} \leq F_{zL}$ |
| | $F_{Qvorh} \leq F_{zW}$ |

| Variable | Unit | Description |
|----------|------|---|
| a1 | | Load action factor - output shaft bearing from Table 1 |
| a2 | | Load action factor - output shaft from Table 1 |
| d0 | [m] | Effective diameter of the transmission element |
| M2 | [Nm] | Geared motor output torque (from selection tables) or required calculated output torque |
| FzL | [N] | Permissible overhung load for output shaft bearings |
| FzW | [N] | Permissible overhung load for output shaft |
| FrN | [N] | Permissible overhung load from selection tables |
| Fw | [N] | Permissible overhung load - Output shaft x=l/2 from Table 2 |
| FQvorh | [N] | Existing overhung load at gear shaft |
| fz | | Factor for transmission element |
| Mmax | [Nm] | Highest possible output torque for coupling operation (Table 2) |

Always use both equations Q1 and Q2 for your calculations.

| | | x / l | | | | | | |
|--|--|------------------|------|------|------|------|------|------|
| | | 0 | 0.25 | 0.5 | 0.75 | 1 | 1.5 | 2 |
| | | a1 → Equation Q1 | | | | | | |
| | | 1.39 | 1.18 | 1.00 | 0.85 | 0.73 | 0.52 | 0.38 |
| | | a2 → Equation Q2 | | | | | | |
| | | 2.00 | 2.00 | 1.00 | 0.55 | 0.38 | 0.23 | 0.17 |

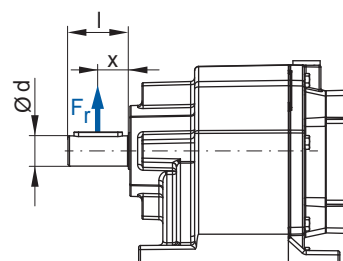


Table 1: Load action factors a1, a2

Intermediate values can be interpolated linearly. Combined load ($F_r \neq 0$; $F_a = 0$) on request.

| Output shaft [mm] | | Mmax at Fr = 0 | Output torque M2 [Nm] | | | | | | | | | | | | | | |
|-------------------|-----|----------------|------------------------------------|-----|------|------|------|------|------|------|-------|-------|-------|-------|--|--|--|
| | | | 50 | 85 | 200 | 400 | 600 | 820 | 1550 | 3000 | 4500 | 8000 | 13000 | 18000 | | | |
| Ø d | l | | Fw [kN] at x/l = 0.5 → Equation Q2 | | | | | | | | | | | | | | |
| 20 | 40 | 160 | 3.4 | 3.1 | | | | | | | | | | | | | |
| 25 | 50 | 300 | 5.9 | 5.7 | 4.8 | | | | | | | | | | | | |
| 30 | 60 | 500 | | 7.6 | 7.1 | 5.0 | | | | | | | | | | | |
| 35 | 70 | 800 | | | 11.0 | 10.0 | 8.3 | | | | | | | | | | |
| 40 | 80 | 1170 | | | | 13.0 | 12.0 | 10.7 | | | | | | | | | |
| 50 | 100 | 2250 | | | | 24.0 | 24.0 | 23.0 | 20.0 | | | | | | | | |
| 60 | 120 | 3740 | | | | | | 31.0 | 30.0 | 23.0 | | | | | | | |
| 70 | 140 | 5850 | | | | | | 44.0 | 41.0 | 36.0 | | | | | | | |
| 90 | 170 | 11700 | | | | | | | | 72.0 | 70.0 | 61.0 | | | | | |
| 110 | 210 | 20800 | | | | | | | | | 106.0 | 103.0 | 93.0 | | | | |
| 120 | 210 | 26700 | | | | | | | | | | 129.0 | 121.0 | 109.0 | | | |

Table 2: Permissible overhung load - output shaft x = l/2

The axial loads (F_{aN}) for execution with output shaft, given in the following selection tables, are valid at radial force $F_{rN} = 0$. If there are axial loads or radial and axial components acting on the drive which are extraordinarily high, we recommend to contact the manufacturer.

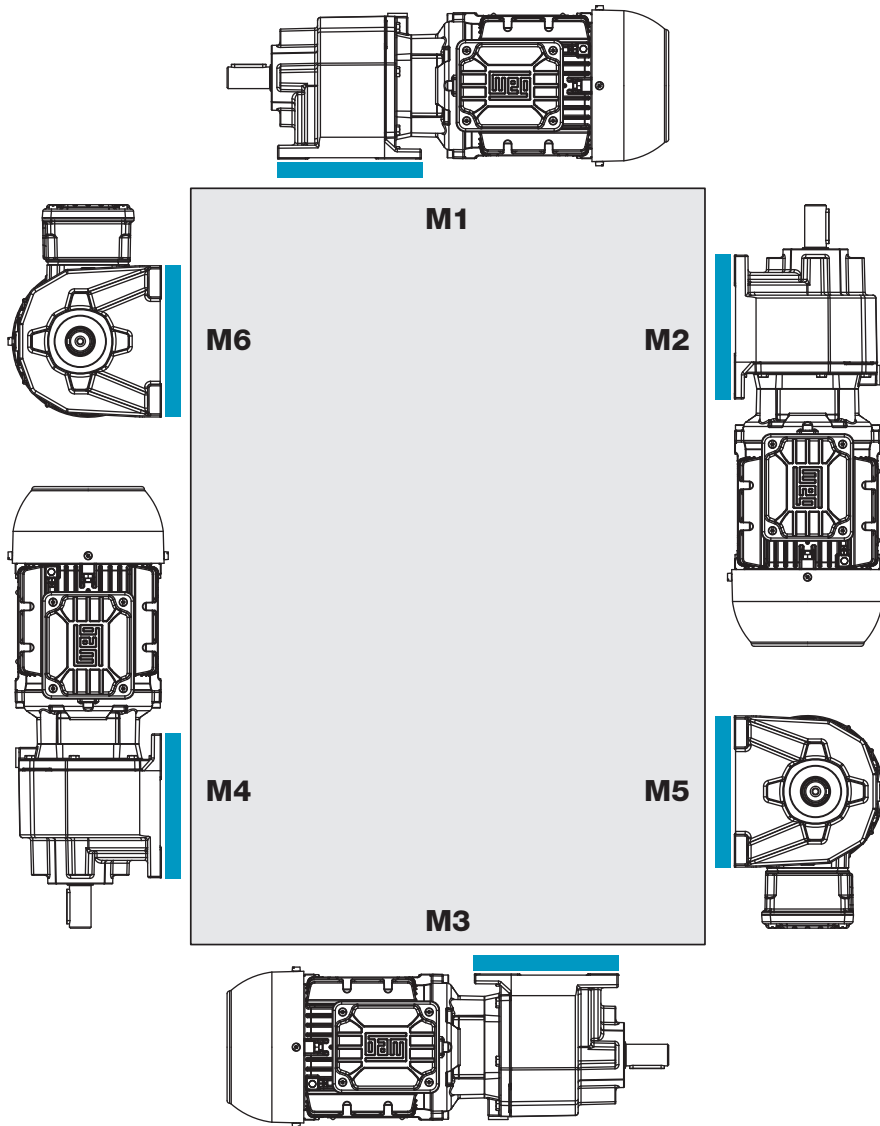
7. Mounting positions, Position of the terminal box and Cable entry

Mounting positions foot type - Sizes C00 to C06

Gear units C00 to C06 are not ventilated and supplied with lifetime lubrication

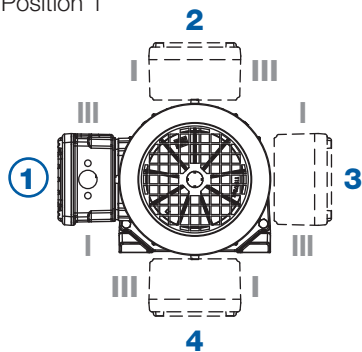
Reference area

C



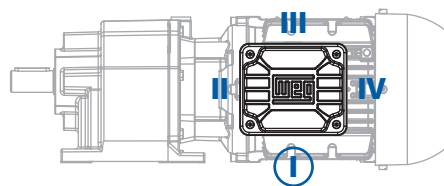
Position of the terminal box

Standard: Position 1



Cable entry

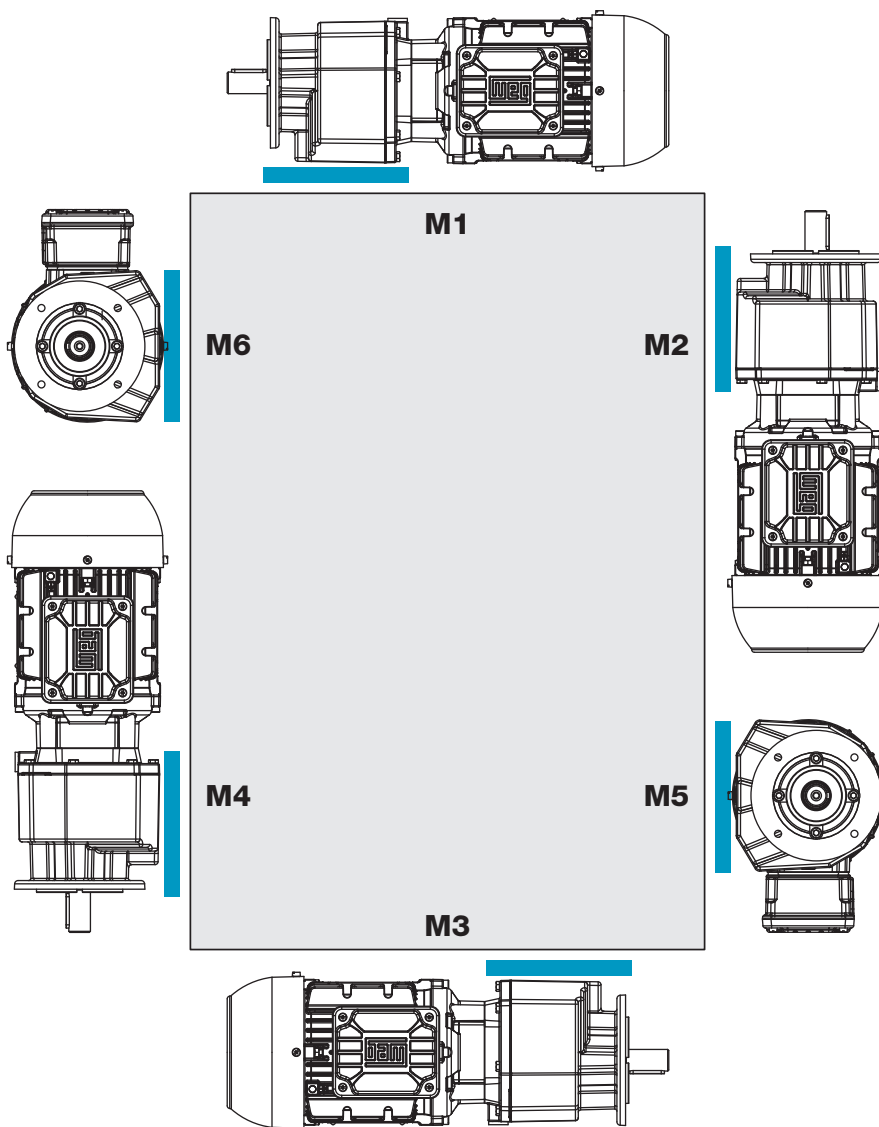
Standard: Position I



Mounting positions flange type - Sizes C00 to C06

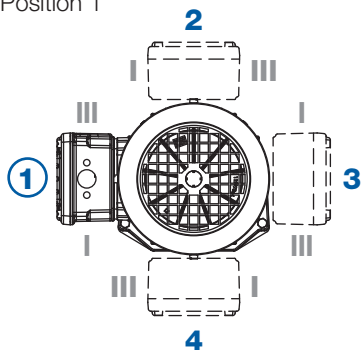
Gear units C00 to C06 are not ventilated and supplied with lifetime lubrication.

■ Reference area



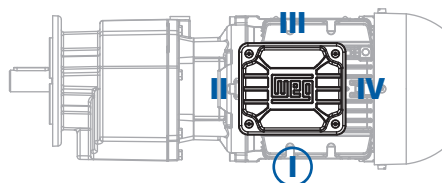
Position of the terminal box

Standard: Position 1



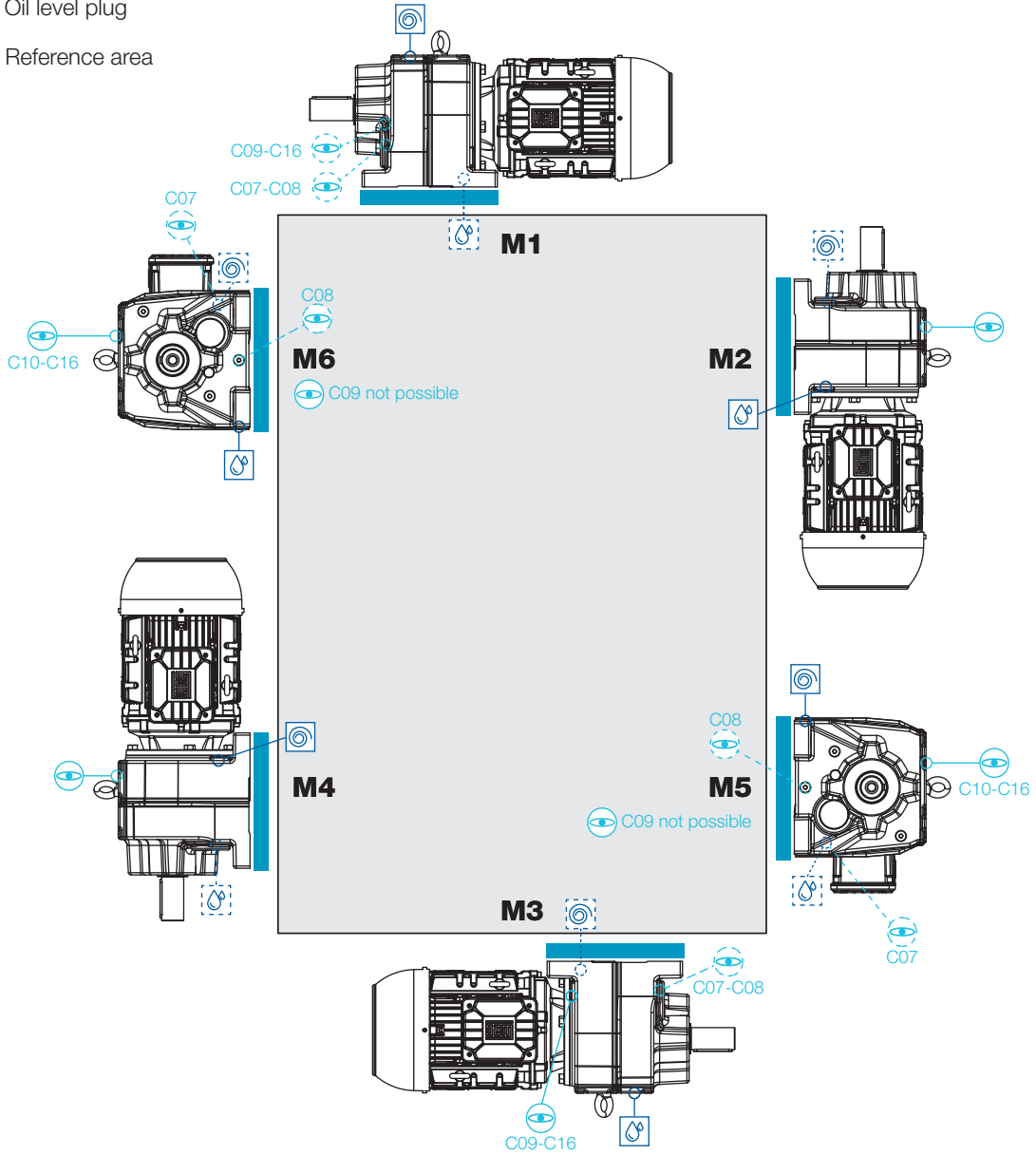
Cable entry

Standard: Position I



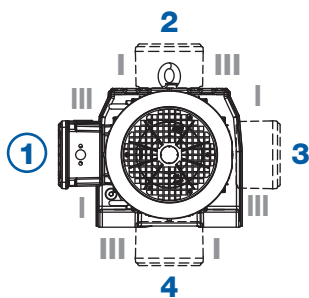
Mounting positions foot type - Sizes C07 to C16

- ☉ Venting screw
- ☉ Position visible on this side
- ☹ Oil drain screw
- ☹ Position covered or on the far side of the gear unit
- ☞ Oil level plug
- Reference area



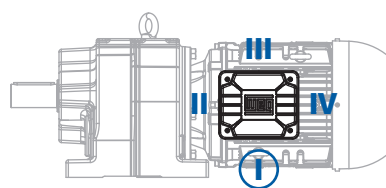
Position of the terminal box

Standard: Position 1



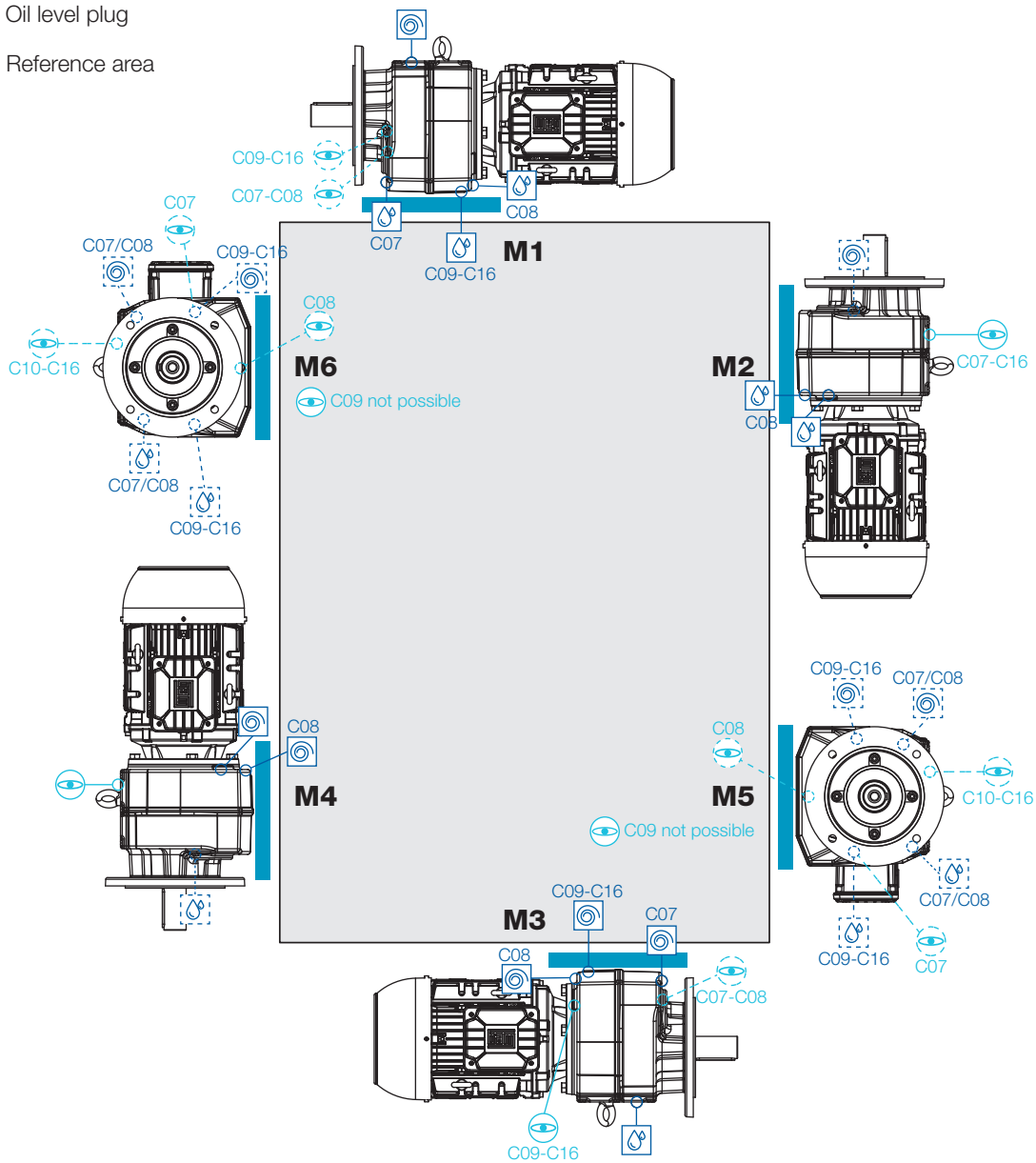
Cable entry

Standard: Position I



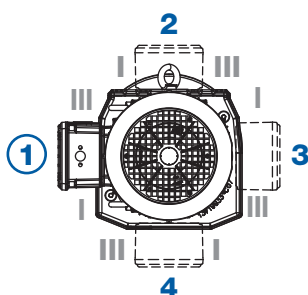
Mounting positions flange type - Sizes C07 to C16

- Position visible on this side
- Position covered or on the far side of the gear unit
- ⦿
 Venting screw
- ⦿
 Oil drain screw
- ⦿
 Oil level plug
- Reference area



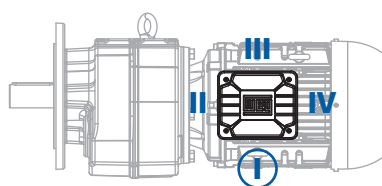
Position of the terminal box

Standard: Position 1



Cable entry

Standard: Position I



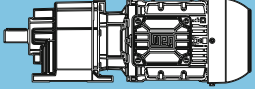
Selection tables - Geared motors

The technical data of the geared motors shown in the selection tables apply to an ambient temperature of +20 °C.

The selection tables are calculated with following motor data:

| Power (IEC frame size) | Motor series (IE class) |
|--------------------------|-------------------------|
| up to 0.55 kW (63 - 80) | 14P (IE3) - aluminium |
| 0.75 - 9.2 kW (80 - 132) | 11P (IE3) - aluminium |
| 11 - 75 kW (160 - 250) | 22P (IE3) - cast iron |

Structure of the selection tables

| 1 | | | | | | | | | | 2 | |
|--------------------------|-------------------|----------------|----------------|---|--|-----------------|-----------------|--|--|---------|-----------------------------|
| P _N = 0.12 kW | | | | | | | | | | IE3 | |
| 50 Hz | | 60 Hz | | | | at 50 Hz | |  | | m kg | Dimension sheet see page |
| 0.12 kW | 0.14 kW | | | | | F _{rn} | F _{an} | | | | |
| n ₅₀ | n ₆₀ | M ₂ | f _B | i | | kN | kN | | | | |
| min ⁻¹ | min ⁻¹ | Nm | | | | | | | | | |
| 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 | | 11 | 12 |

- 1 Rated power of the motor
- 2 Given values are based on the respective efficiency class
- 3 Output speed at 50 Hz
- 4 Output speed at 60 Hz
- 5 Output torque
- 6 Service factor
- 7 Total ratio
- 8 Permissible radial load at midpoint of the output shaft extension (standard bearing) at axial load=0
- 9 Permissible axial load (standard bearing) at radial load=0
- 10 Geared motor type
- 11 Weight
- 12 Page reference for dimension sheet

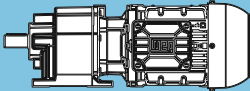
*) Increased rated power at 60 Hz can only be reached together with increased voltage within the wide range (for details see page 485).

| Increased rated power |
|-----------------------|
| 1.2 x P _N |

| P _N = 0.12 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|----------|-----------------------|-----------------------|--------------------------------------|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | m kg | Dimension sheet see page |
| 0.12 kW | | 0.14 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | | | | | |
| 0.05 | 0.06 | 20103 | 0.90 | 18322.05 | 106.8 | 22.2 | CG165-14P-63-06F CF165-14P-63-06F | 695 718 | 170 |
| 0.06 | 0.07 | 16816 | 1.10 | 15484.09 | 116.5 | 25.2 | | | |
| 0.07 | 0.09 | 13576 | 1.35 | 12662.22 | 123.8 | 28.2 | | | |
| 0.08 | 0.10 | 11904 | 1.55 | 11217.58 | 126.8 | 29.7 | | | |
| 0.09 | 0.11 | 10501 | 1.75 | 9998.22 | 129.0 | 31.0 | | | |
| 0.10 | 0.12 | 9568 | 1.90 | 9181.16 | 130.3 | 31.8 | | | |
| 0.12 | 0.15 | 7913 | 2.30 | 7752.38 | 132.3 | 33.3 | | | |
| 0.13 | 0.16 | 7120 | 2.55 | 7067.08 | 133.1 | 34.0 | | | |
| 0.15 | 0.18 | 6277 | 2.90 | 6345.03 | 133.8 | 34.8 | | | |
| 0.06 | 0.08 | 15979 | 1.15 | 22405.25 | 118.6 | 26.0 | CG165-14P-63-04E CF165-14P-63-04E | 695 718 | 170 |
| 0.08 | 0.09 | 12900 | 1.40 | 18322.05 | 125.1 | 28.8 | | | |
| 0.09 | 0.11 | 10734 | 1.70 | 15484.09 | 128.7 | 30.7 | | | |
| 0.10 | 0.12 | 9952 | 1.85 | 14467.28 | 129.8 | 31.5 | | | |
| 0.11 | 0.14 | 8598 | 2.10 | 12662.22 | 131.5 | 32.7 | | | |
| 0.13 | 0.15 | 7480 | 2.45 | 11217.58 | 132.7 | 33.7 | | | |
| 0.14 | 0.17 | 6563 | 2.75 | 9998.22 | 133.6 | 34.5 | | | |
| 0.35 | 0.43 | 2880 | 1.60 | 2636.78 | 41.7 | 23.5 | CG104-14P-63-06F CF104-14P-63-06F | 170 174 | 156 |
| 0.41 | 0.51 | 2405 | 1.90 | 2229.16 | 42.9 | 24.1 | | | |
| 0.43 | 0.53 | 2321 | 1.95 | 2156.24 | 43.1 | 24.2 | | | |
| 0.51 | 0.63 | 1930 | 2.35 | 1822.91 | 43.9 | 24.7 | | | |
| 0.54 | 0.67 | 1788 | 2.55 | 1702.59 | 44.1 | 24.9 | | | |
| 0.28 | 0.35 | 3697 | 0.85 | 3282.02 | 16.4 | 24.5 | CG094-14P-63-06F CF094-14P-63-06F | 128 126 | 152 |
| 0.34 | 0.42 | 3005 | 1.00 | 2683.89 | 22.9 | 25.6 | | | |
| 0.36 | 0.44 | 2902 | 1.05 | 2597.68 | 23.6 | 25.7 | | | |
| 0.41 | 0.50 | 2519 | 1.20 | 2268.18 | 25.9 | 26.3 | | | |
| 0.44 | 0.54 | 2349 | 1.30 | 2124.27 | 26.7 | 26.5 | | | |
| 0.50 | 0.61 | 2034 | 1.50 | 1854.82 | 28.1 | 27.0 | | | |
| 0.55 | 0.68 | 1828 | 1.65 | 1677.34 | 28.9 | 27.3 | | | |
| 0.56 | 0.69 | 1787 | 1.70 | 1643.20 | 29.0 | 27.4 | | | |
| 0.63 | 0.78 | 1580 | 1.90 | 1464.58 | 29.6 | 27.7 | | | |
| 0.69 | 0.85 | 1439 | 2.10 | 1344.90 | 30.0 | 27.9 | | | |
| 0.71 | 0.88 | 1386 | 2.20 | 1300.57 | 30.2 | 28.0 | | | |
| 0.81 | 1.0 | 1192 | 2.55 | 1135.60 | 30.6 | 28.2 | | | |
| 0.87 | 1.1 | 1108 | 2.75 | 1064.47 | 30.8 | 28.4 | | | |
| 0.89 | 1.1 | 1076 | 2.80 | 1035.22 | 30.9 | 28.4 | | | |
| 0.43 | 0.52 | 2390 | 1.30 | 3282.02 | 26.5 | 26.5 | CG094-14P-63-04E CF094-14P-63-04E | 127 125 | 152 |
| 0.52 | 0.64 | 1930 | 1.60 | 2683.89 | 28.5 | 27.1 | | | |
| 0.54 | 0.66 | 1864 | 1.65 | 2597.68 | 28.7 | 27.2 | | | |
| 0.62 | 0.76 | 1611 | 1.90 | 2268.18 | 29.6 | 27.6 | | | |
| 0.66 | 0.81 | 1503 | 2.00 | 2124.27 | 29.9 | 27.8 | | | |
| 0.76 | 0.93 | 1293 | 2.35 | 1854.82 | 30.4 | 28.1 | | | |
| 0.84 | 1.0 | 1157 | 2.60 | 1677.34 | 30.7 | 28.3 | | | |
| 0.86 | 1.0 | 1129 | 2.70 | 1643.20 | 30.8 | 28.3 | | | |
| 2.6 | 3.2 | 435 | 1.90 | 351.33 | 13.2 | 14.2 | CG073-14P-63-06F CF073-14P-63-06F | 38 42 | 146 |
| 2.9 | 3.6 | 396 | 2.10 | 319.60 | 13.3 | 14.2 | | | |
| 3.3 | 4.1 | 345 | 2.40 | 278.44 | 13.5 | 14.4 | | | |
| 3.7 | 4.5 | 314 | 2.65 | 253.30 | 13.6 | 14.4 | | | |
| 4.0 | 4.9 | 287 | 2.90 | 351.33 | 13.7 | 14.6 | CG073-14P-63-04E CF073-14P-63-04E | 38 42 | 146 |
| 2.5 | 3.0 | 465 | 1.30 | 375.71 | 9.6 | 6.8 | CG063-14P-63-06F CF063-14P-63-06F | 22 27 | 144 |
| 2.7 | 3.3 | 427 | 1.45 | 344.51 | 9.9 | 6.8 | | | |
| 3.0 | 3.7 | 381 | 1.60 | 307.24 | 10.2 | 7.0 | | | |
| 3.3 | 4.0 | 349 | 1.75 | 281.73 | 10.3 | 7.1 | | | |
| 3.8 | 4.7 | 301 | 2.00 | 242.60 | 10.6 | 7.2 | | | |
| 4.2 | 5.1 | 276 | 2.20 | 222.46 | 10.7 | 7.3 | | | |
| 4.9 | 6.1 | 233 | 2.60 | 188.11 | 10.9 | 7.4 | | | |
| 5.4 | 6.6 | 214 | 2.85 | 172.49 | 10.9 | 7.5 | | | |
| 3.7 | 4.6 | 306 | 2.00 | 375.71 | 10.6 | 7.2 | CG063-14P-63-04E CF063-14P-63-04E | 21 26 | 144 |
| 4.1 | 5.0 | 281 | 2.15 | 344.51 | 10.7 | 7.3 | | | |
| 4.6 | 5.6 | 251 | 2.40 | 307.24 | 10.8 | 7.4 | | | |
| 5.0 | 6.1 | 230 | 2.65 | 281.73 | 10.9 | 7.4 | | | |

Legend see page 29

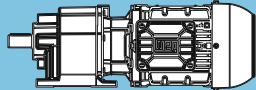
** ... on request

| P _N = 0.12 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|-----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.12 kW | | 0.14 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 2.8 | 3.5 | 407 | 1.00 | 328.43 | 4.8 | 6.3 | CG053-14P-63-06F CF053-14P-63-06F | 17 22 | 142 |
| 3.1 | 3.8 | 370 | 1.10 | 298.57 | 5.4 | 6.4 | | | |
| 3.5 | 4.3 | 332 | 1.25 | 267.93 | 6.0 | 6.6 | | | |
| 3.8 | 4.7 | 302 | 1.35 | 243.57 | 6.3 | 6.7 | | | |
| 4.3 | 5.3 | 265 | 1.55 | 213.71 | 6.7 | 6.9 | | | |
| 4.8 | 5.9 | 241 | 1.70 | 194.29 | 6.8 | 7.0 | | | |
| 5.6 | 6.9 | 205 | 2.00 | 165.45 | 7.1 | 7.2 | | | |
| 6.1 | 7.6 | 186 | 2.15 | 150.41 | 7.2 | 7.2 | | | |
| 7.0 | 8.6 | 165 | 2.45 | 132.97 | 7.3 | 7.4 | | | |
| 7.7 | 9.4 | 150 | 2.70 | 120.88 | 7.4 | 7.4 | | | |
| 4.3 | 5.2 | 268 | 1.50 | 328.43 | 6.6 | 6.9 | CG053-14P-63-04E CF053-14P-63-04E | 17 22 | 142 |
| 4.7 | 5.8 | 244 | 1.65 | 298.57 | 6.8 | 7.0 | | | |
| 5.2 | 6.4 | 219 | 1.85 | 267.93 | 7.0 | 7.1 | | | |
| 5.8 | 7.1 | 199 | 2.05 | 243.57 | 7.1 | 7.2 | | | |
| 6.6 | 8.0 | 174 | 2.30 | 213.71 | 7.3 | 7.3 | | | |
| 7.2 | 8.9 | 158 | 2.55 | 194.29 | 7.4 | 7.4 | | | |
| 8.5 | 10 | 135 | 3.00 | 165.45 | 7.5 | 7.5 | | | |
| 4.6 | 5.6 | 251 | 0.80 | 202.55 | 3.9 | 3.0 | CG033-14P-63-06F CF033-14P-63-06F | 13 15 | 140 |
| 5.1 | 6.3 | 224 | 0.90 | 180.83 | 4.4 | 3.2 | | | |
| 5.6 | 6.9 | 203 | 1.00 | 164.23 | 4.7 | 3.3 | | | |
| 6.5 | 8.0 | 177 | 1.15 | 142.47 | 5.0 | 3.5 | | | |
| 7.1 | 8.8 | 160 | 1.25 | 129.39 | 5.2 | 3.6 | | | |
| 8.4 | 10 | 136 | 1.50 | 109.79 | 5.4 | 3.8 | | | |
| 9.3 | 11 | 124 | 1.65 | 99.71 | 5.5 | 3.8 | | | |
| 11 | 13 | 106 | 1.90 | 85.78 | 5.6 | 3.9 | | | |
| 12 | 15 | 97 | 2.10 | 77.90 | 5.7 | 4.0 | | | |
| 14 | 18 | 79 | 2.55 | 64.05 | 5.8 | 4.1 | | | |
| 16 | 20 | 72 | 2.80 | 58.17 | 5.8 | 4.1 | | | |
| 4.9 | 6.0 | 234 | 0.90 | 286.32 | 4.2 | 3.1 | CG033-14P-63-04E CF033-14P-63-04E | 12 14 | 140 |
| 5.4 | 6.6 | 212 | 0.95 | 260.03 | 4.6 | 3.3 | | | |
| 6.3 | 7.7 | 182 | 1.10 | 223.03 | 5.0 | 3.5 | | | |
| 6.9 | 8.5 | 165 | 1.25 | 202.55 | 5.2 | 3.6 | | | |
| 7.8 | 9.5 | 147 | 1.40 | 180.83 | 5.3 | 3.7 | | | |
| 8.6 | 10 | 134 | 1.50 | 164.23 | 5.4 | 3.8 | | | |
| 9.9 | 12 | 116 | 1.75 | 142.47 | 5.6 | 3.9 | | | |
| 11 | 13 | 106 | 1.90 | 129.39 | 5.6 | 3.9 | | | |
| 13 | 16 | 90 | 2.25 | 109.79 | 5.7 | 4.0 | | | |
| 14 | 17 | 81 | 2.50 | 99.71 | 5.7 | 4.1 | | | |
| 16 | 20 | 70 | 2.90 | 85.78 | 5.8 | 4.2 | | | |
| 14 | 17 | 82 | 1.05 | 66.50 | 3.1 | 1.1 | CG012-14P-63-06F CF012-14P-63-06F | 9.9 11 | 138 |
| 16 | 19 | 74 | 1.20 | 59.59 | 3.2 | 1.1 | | | |
| 18 | 22 | 64 | 1.35 | 51.80 | 3.3 | 1.2 | | | |
| 20 | 25 | 58 | 1.50 | 46.42 | 3.4 | 1.3 | | | |
| 22 | 27 | 52 | 1.65 | 42.00 | 3.4 | 1.3 | | | |
| 25 | 30 | 47 | 1.85 | 37.64 | 3.4 | 1.3 | | | |
| 28 | 34 | 41 | 2.10 | 33.09 | 3.5 | 1.4 | | | |
| 31 | 38 | 37 | 2.35 | 29.65 | 3.5 | 1.4 | | | |
| 36 | 45 | 32 | 2.70 | 25.50 | 3.5 | 1.4 | | | |
| 37 | 46 | 31 | 1.35 | 25.05 | 3.5 | 1.3 | | | |
| 47 | 58 | 24 | 2.75 | 19.51 | 3.6 | 1.4 | | | |
| 21 | 26 | 54 | 1.60 | 66.50 | 3.4 | 1.3 | CG012-14P-63-04E CF012-14P-63-04E | 9.5 11 | 138 |
| 24 | 29 | 49 | 1.75 | 59.59 | 3.4 | 1.3 | | | |
| 27 | 33 | 42 | 2.05 | 51.80 | 3.5 | 1.4 | | | |
| 30 | 37 | 38 | 2.25 | 46.42 | 3.5 | 1.4 | | | |
| 33 | 41 | 34 | 2.50 | 42.00 | 3.5 | 1.4 | | | |
| 37 | 46 | 31 | 2.80 | 37.64 | 3.5 | 1.4 | | | |
| 56 | 69 | 20 | 2.05 | 25.05 | 3.6 | 1.4 | | | |

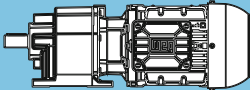


Legend see page 29

** ... on request

| P _N = 0.12 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.12 kW | 0.14 kW | | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | | | |
| 19 | 24 | 59 | 0.90 | 47.44 | 3.6 | 1.1 | CG002-14P-63-06F CF002-14P-63-06F | 8.8 10 | 136 |
| 22 | 27 | 52 | 1.00 | 42.34 | 3.6 | 1.2 | | | |
| 25 | 31 | 46 | 1.10 | 36.85 | 3.7 | 1.3 | | | |
| 28 | 35 | 41 | 1.25 | 32.89 | 3.7 | 1.3 | | | |
| 32 | 39 | 36 | 1.40 | 29.33 | 3.7 | 1.3 | | | |
| 35 | 44 | 32 | 1.55 | 26.18 | 3.7 | 1.4 | | | |
| 40 | 50 | 28 | 1.80 | 23.00 | 3.8 | 1.4 | | | |
| 45 | 56 | 25 | 2.00 | 20.53 | 3.8 | 1.4 | | | |
| 54 | 66 | 21 | 2.35 | 17.29 | 3.7 | 1.5 | | | |
| 55 | 68 | 21 | 1.50 | 16.86 | 3.7 | 1.4 | | | |
| 60 | 74 | 19 | 2.65 | 15.43 | 3.6 | 1.5 | | | |
| 68 | 84 | 17 | 3.00 | 13.54 | 3.5 | 1.5 | | | |
| 71 | 87 | 16 | 2.70 | 13.10 | 3.4 | 1.4 | | | |
| 30 | 36 | 39 | 1.30 | 47.44 | 3.7 | 1.3 | CG002-14P-63-04E CF002-14P-63-04E | 8.4 9.7 | 136 |
| 33 | 41 | 35 | 1.45 | 42.34 | 3.7 | 1.3 | | | |
| 38 | 47 | 30 | 1.70 | 36.85 | 3.8 | 1.4 | | | |
| 43 | 52 | 27 | 1.90 | 32.89 | 3.8 | 1.4 | | | |
| 48 | 59 | 24 | 2.10 | 29.33 | 3.8 | 1.4 | | | |
| 54 | 66 | 21 | 2.35 | 26.18 | 3.7 | 1.4 | | | |
| 61 | 75 | 19 | 2.70 | 23.00 | 3.6 | 1.5 | | | |
| 68 | 84 | 17 | 3.00 | 20.53 | 3.5 | 1.5 | | | |
| 81 | 100 | 14 | 3.55 | 17.29 | 3.3 | 1.5 | | | |
| 83 | 102 | 14 | 2.30 | 16.86 | 3.2 | 1.5 | | | |
| 91 | 111 | 13 | 4.00 | 15.43 | 3.2 | 1.5 | | | |
| 104 | 127 | 11 | 4.55 | 13.54 | 3.0 | 1.5 | | | |
| 107 | 131 | 11 | 4.05 | 13.10 | 3.0 | 1.5 | | | |
| 116 | 142 | 10 | 5.10 | 12.08 | 2.9 | 1.5 | | | |
| 135 | 165 | 9 | 5.30 | 10.42 | 2.8 | 1.5 | | | |
| 141 | 173 | 8 | 6.15 | 9.97 | 2.8 | 1.6 | | | |
| 158 | 193 | 7 | 6.90 | 8.90 | 2.7 | 1.6 | | | |
| 172 | 210 | 7 | 6.75 | 8.17 | 2.6 | 1.5 | | | |
| 204 | 250 | 6 | 8.75 | 6.88 | 2.5 | 1.6 | | | |
| 229 | 280 | 5 | 10.00 | 6.14 | 2.4 | 1.6 | | | |
| 292 | 357 | 4 | 9.95 | 4.81 | 2.2 | 1.6 | | | |
| 397 | 486 | 3 | 12.15 | 3.54 | 2.0 | 1.6 | | | |

Legend see page 29

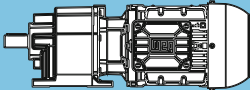
| P _N = 0.18 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|----------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.18 kW | | 0.22 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 0.07 | 0.09 | 21474 | 0.85 | 12662.22 | 101.9 | 21.0 | CG165-14P-71-06E CF165-14P-71-06E | 698 721 | 170 |
| 0.08 | 0.10 | 18878 | 1.00 | 11217.58 | 110.7 | 23.3 | | | |
| 0.09 | 0.11 | 16740 | 1.10 | 9998.22 | 116.7 | 25.3 | | | |
| 0.10 | 0.12 | 15293 | 1.20 | 9181.16 | 120.2 | 26.6 | | | |
| 0.12 | 0.14 | 12748 | 1.45 | 7752.38 | 125.4 | 28.9 | | | |
| 0.13 | 0.16 | 11532 | 1.60 | 7067.08 | 127.4 | 30.0 | | | |
| 0.14 | 0.17 | 10247 | 1.80 | 6345.03 | 129.4 | 31.2 | | | |
| 0.17 | 0.21 | 8468 | 2.15 | 5339.57 | 131.7 | 32.8 | | | |
| 0.18 | 0.23 | 7666 | 2.35 | 4884.00 | 132.5 | 33.5 | | | |
| 0.21 | 0.25 | 6735 | 2.70 | 4369.98 | 133.4 | 34.4 | | | |
| 0.08 | 0.09 | 20212 | 0.90 | 18322.05 | 106.4 | 22.1 | CG165-14P-63-04F CF165-14P-63-04F | 695 718 | 170 |
| 0.09 | 0.11 | 16907 | 1.10 | 15484.09 | 116.3 | 25.1 | | | |
| 0.10 | 0.12 | 15757 | 1.15 | 14467.28 | 119.1 | 26.2 | | | |
| 0.11 | 0.13 | 13650 | 1.35 | 12662.22 | 123.7 | 28.1 | | | |
| 0.12 | 0.15 | 11968 | 1.55 | 11217.58 | 126.7 | 29.6 | | | |
| 0.14 | 0.17 | 10558 | 1.75 | 9998.22 | 128.9 | 30.9 | | | |
| 0.15 | 0.19 | 9620 | 1.90 | 9181.16 | 130.2 | 31.8 | | | |
| 0.18 | 0.22 | 7956 | 2.30 | 7752.38 | 132.2 | 33.3 | | | |
| 0.20 | 0.24 | 7159 | 2.55 | 7067.08 | 133.0 | 34.0 | | | |
| 0.22 | 0.27 | 6328 | 2.85 | 6345.03 | 133.8 | 34.8 | | | |
| 0.48 | 0.59 | 3050 | 2.65 | 1891.77 | 73.7 | 26.0 | CG134-14P-71-06E CF134-14P-71-06E | 287 289 | 160 |
| 0.34 | 0.42 | 4551 | 1.00 | 2636.78 | 35.3 | 21.4 | CG104-14P-71-06E CF104-14P-71-06E | 173 177 | 156 |
| 0.40 | 0.50 | 3816 | 1.20 | 2229.16 | 38.6 | 22.3 | | | |
| 0.42 | 0.51 | 3684 | 1.25 | 2156.24 | 39.1 | 22.5 | | | |
| 0.49 | 0.61 | 3082 | 1.50 | 1822.91 | 41.1 | 23.3 | | | |
| 0.53 | 0.65 | 2867 | 1.60 | 1702.59 | 41.8 | 23.6 | | | |
| 0.63 | 0.77 | 2394 | 1.90 | 1439.39 | 42.9 | 24.2 | | | |
| 0.68 | 0.84 | 2178 | 2.10 | 1320.15 | 43.4 | 24.4 | | | |
| 0.81 | 0.99 | 1811 | 2.50 | 1116.07 | 44.1 | 24.9 | | | |
| 0.83 | 1.0 | 1746 | 2.60 | 1080.49 | 44.2 | 25.0 | | | |
| 0.52 | 0.64 | 2896 | 1.60 | 2636.78 | 41.7 | 23.5 | CG104-14P-63-04F CF104-14P-63-04F | 170 174 | 156 |
| 0.62 | 0.76 | 2418 | 1.90 | 2229.16 | 42.9 | 24.1 | | | |
| 0.64 | 0.79 | 2334 | 1.95 | 2156.24 | 43.1 | 24.2 | | | |
| 0.76 | 0.93 | 1941 | 2.35 | 1822.91 | 43.9 | 24.7 | | | |
| 0.81 | 1.0 | 1801 | 2.50 | 1702.59 | 44.1 | 24.9 | | | |
| 0.40 | 0.49 | 3947 | 0.80 | 2268.18 | 12.8 | 24.2 | CG094-14P-71-06E CF094-14P-71-06E | 130 128 | 152 |
| 0.42 | 0.52 | 3689 | 0.85 | 2124.27 | 16.5 | 24.5 | | | |
| 0.49 | 0.60 | 3208 | 0.95 | 1854.82 | 21.3 | 25.3 | | | |
| 0.54 | 0.66 | 2889 | 1.05 | 1677.34 | 23.7 | 25.7 | | | |
| 0.55 | 0.68 | 2825 | 1.10 | 1643.20 | 24.1 | 25.8 | | | |
| 0.61 | 0.76 | 2507 | 1.20 | 1464.58 | 25.9 | 26.3 | | | |
| 0.67 | 0.83 | 2288 | 1.35 | 1344.90 | 27.0 | 26.6 | | | |
| 0.69 | 0.85 | 2208 | 1.40 | 1300.57 | 27.4 | 26.7 | | | |
| 0.79 | 0.98 | 1912 | 1.60 | 1135.60 | 28.6 | 27.2 | | | |
| 0.85 | 1.0 | 1785 | 1.70 | 1064.47 | 29.0 | 27.4 | | | |
| 0.87 | 1.1 | 1732 | 1.75 | 1035.22 | 29.2 | 27.4 | | | |
| 0.97 | 1.2 | 1543 | 1.95 | 929.45 | 29.8 | 27.7 | | | |
| 1.1 | 1.4 | 1343 | 2.25 | 819.36 | 30.3 | 28.0 | | | |
| 1.2 | 1.4 | 1277 | 2.35 | 782.16 | 30.4 | 28.1 | | | |
| 1.3 | 1.6 | 1156 | 2.60 | 715.43 | 30.7 | 28.3 | | | |
| 1.4 | 1.7 | 1019 | 2.95 | 640.13 | 31.0 | 28.5 | | | |



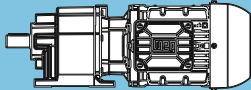
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| P _N = 0.18 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------|-----------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | | at 50 Hz | | | m kg | Dimension sheet see page |
| 0.18 kW | 0.22 kW | M ₂ Nm | f _b | i | F _{rN} | F _{aN} | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | kN | kN | | | |
| 0.42 | 0.52 | 3717 | 0.85 | 3282.02 | 16.1 | 24.5 | CG094-14P-63-04F CF094-14P-63-04F | 128 126 | 152 |
| 0.51 | 0.63 | 3021 | 1.00 | 2683.89 | 22.7 | 25.5 | | | |
| 0.53 | 0.65 | 2918 | 1.05 | 2597.68 | 23.5 | 25.7 | | | |
| 0.61 | 0.75 | 2532 | 1.20 | 2268.18 | 25.8 | 26.3 | | | |
| 0.65 | 0.80 | 2362 | 1.30 | 2124.27 | 26.7 | 26.5 | | | |
| 0.74 | 0.92 | 2045 | 1.50 | 1854.82 | 28.1 | 27.0 | | | |
| 0.82 | 1.0 | 1838 | 1.65 | 1677.34 | 28.8 | 27.3 | | | |
| 0.84 | 1.0 | 1797 | 1.70 | 1643.20 | 29.0 | 27.3 | | | |
| 0.94 | 1.2 | 1589 | 1.90 | 1464.58 | 29.6 | 27.7 | | | |
| 1.0 | 1.3 | 1447 | 2.10 | 1344.90 | 30.0 | 27.9 | | | |
| 1.1 | 1.3 | 1396 | 2.15 | 1300.57 | 30.1 | 27.9 | | | |
| 1.2 | 1.5 | 1201 | 2.50 | 1135.60 | 30.6 | 28.2 | | | |
| 1.3 | 1.6 | 1117 | 2.70 | 1064.47 | 30.8 | 28.4 | | | |
| 2.4 | 3.0 | 705 | 2.20 | 368.94 | 23.7 | 21.1 | CG083-14P-71-06E CF083-14P-71-06E | 65 69 | 148 |
| 3.2 | 3.9 | 544 | 2.85 | 284.84 | 24.0 | 21.4 | | | |
| 2.6 | 3.2 | 671 | 1.25 | 351.33 | 11.9 | 13.5 | CG073-14P-71-06E CF073-14P-71-06E | 41 45 | 146 |
| 2.8 | 3.5 | 610 | 1.35 | 319.60 | 12.3 | 13.5 | | | |
| 3.2 | 4.0 | 532 | 1.55 | 278.44 | 12.7 | 13.9 | | | |
| 3.6 | 4.4 | 484 | 1.70 | 253.30 | 13.0 | 13.9 | | | |
| 4.2 | 5.1 | 413 | 2.00 | 216.20 | 13.3 | 14.3 | | | |
| 4.6 | 5.6 | 376 | 2.20 | 196.68 | 13.4 | 14.3 | | | |
| 5.1 | 6.3 | 339 | 2.45 | 177.39 | 13.5 | 14.5 | | | |
| 5.6 | 6.9 | 308 | 2.70 | 161.38 | 13.6 | 14.5 | | | |
| 3.9 | 4.8 | 438 | 1.90 | 351.33 | 13.2 | 14.2 | CG073-14P-63-04F CF073-14P-63-04F | 38 42 | 146 |
| 4.3 | 5.3 | 398 | 2.10 | 319.60 | 13.3 | 14.2 | | | |
| 5.0 | 6.1 | 347 | 2.40 | 278.44 | 13.5 | 14.4 | | | |
| 5.4 | 6.7 | 316 | 2.60 | 253.30 | 13.6 | 14.4 | | | |
| 2.4 | 3.0 | 718 | 0.85 | 375.71 | 6.6 | 6.0 | CG063-14P-71-06E CF063-14P-71-06E | 24 29 | 144 |
| 2.6 | 3.2 | 658 | 0.95 | 344.51 | 7.5 | 6.2 | | | |
| 2.9 | 3.6 | 587 | 1.05 | 307.24 | 8.4 | 6.4 | | | |
| 3.2 | 3.9 | 538 | 1.15 | 281.73 | 8.9 | 6.5 | | | |
| 3.7 | 4.6 | 463 | 1.30 | 242.60 | 9.6 | 6.8 | | | |
| 4.0 | 5.0 | 425 | 1.45 | 222.46 | 9.9 | 6.9 | | | |
| 4.8 | 5.9 | 359 | 1.70 | 188.11 | 10.3 | 7.1 | | | |
| 5.2 | 6.4 | 329 | 1.85 | 172.49 | 10.4 | 7.1 | | | |
| 5.8 | 7.2 | 294 | 2.05 | 153.96 | 10.6 | 7.2 | | | |
| 6.4 | 7.9 | 270 | 2.25 | 141.17 | 10.7 | 7.3 | | | |
| 7.6 | 9.4 | 226 | 2.70 | 118.51 | 10.9 | 7.4 | | | |
| 8.3 | 10 | 208 | 2.90 | 108.67 | 10.9 | 7.5 | | | |
| 3.7 | 4.5 | 468 | 1.30 | 375.71 | 9.6 | 6.7 | CG063-14P-63-04F CF063-14P-63-04F | 22 27 | 144 |
| 4.0 | 4.9 | 429 | 1.40 | 344.51 | 9.8 | 6.8 | | | |
| 4.5 | 5.5 | 383 | 1.60 | 307.24 | 10.1 | 7.0 | | | |
| 4.9 | 6.0 | 351 | 1.75 | 281.73 | 10.3 | 7.1 | | | |
| 5.7 | 7.0 | 302 | 2.00 | 242.60 | 10.6 | 7.2 | | | |
| 6.2 | 7.6 | 277 | 2.20 | 222.46 | 10.7 | 7.3 | | | |
| 7.3 | 9.0 | 234 | 2.60 | 188.11 | 10.8 | 7.4 | | | |
| 8.0 | 9.9 | 215 | 2.80 | 172.49 | 10.9 | 7.5 | | | |
| 3.4 | 4.1 | 512 | 0.80 | 267.93 | 1.5 | 5.8 | CG053-14P-71-06E CF053-14P-71-06E | 19 24 | 142 |
| 3.7 | 4.6 | 465 | 0.90 | 243.57 | 3.5 | 6.0 | | | |
| 4.2 | 5.2 | 408 | 1.00 | 213.71 | 4.8 | 6.2 | | | |
| 4.6 | 5.7 | 371 | 1.10 | 194.29 | 5.4 | 6.4 | | | |
| 5.4 | 6.7 | 316 | 1.30 | 165.45 | 6.1 | 6.7 | | | |
| 6.0 | 7.4 | 287 | 1.40 | 150.41 | 6.4 | 6.8 | | | |
| 6.8 | 8.3 | 254 | 1.60 | 132.97 | 6.7 | 6.9 | | | |
| 7.4 | 9.2 | 231 | 1.75 | 120.88 | 6.9 | 7.0 | | | |
| 8.9 | 11 | 194 | 2.10 | 101.55 | 7.2 | 7.2 | | | |
| 9.7 | 12 | 176 | 2.30 | 92.32 | 7.3 | 7.3 | | | |
| 12 | 14 | 149 | 2.70 | 77.79 | 7.4 | 7.4 | | | |
| 13 | 16 | 135 | 3.00 | 70.71 | 7.5 | 7.5 | | | |

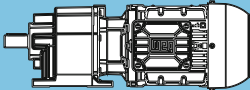
Legend see page 29

| P _N = 0.18 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|-----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.18 kW | | 0.22 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 4.2 | 5.2 | 409 | 1.00 | 328.43 | 4.8 | 6.2 | CG053-14P-63-04F CF053-14P-63-04F | 17 22 | 142 |
| 4.6 | 5.7 | 372 | 1.10 | 298.57 | 5.4 | 6.4 | | | |
| 5.2 | 6.3 | 334 | 1.20 | 267.93 | 5.9 | 6.6 | | | |
| 5.7 | 7.0 | 303 | 1.35 | 243.57 | 6.3 | 6.7 | | | |
| 6.5 | 8.0 | 266 | 1.55 | 213.71 | 6.6 | 6.9 | | | |
| 7.1 | 8.8 | 242 | 1.70 | 194.29 | 6.8 | 7.0 | | | |
| 8.3 | 10 | 206 | 1.95 | 165.45 | 7.1 | 7.2 | | | |
| 9.2 | 11 | 187 | 2.15 | 150.41 | 7.2 | 7.2 | | | |
| 10 | 13 | 166 | 2.45 | 132.97 | 7.3 | 7.3 | | | |
| 11 | 14 | 151 | 2.70 | 120.88 | 7.4 | 7.4 | | | |
| 15 | 19 | 112 | 2.25 | 58.85 | 7.5 | 7.6 | CG052-14P-71-06E CF052-14P-71-06E | 19 24 | 142 |
| 17 | 21 | 102 | 2.25 | 53.50 | 7.6 | 7.6 | | | |
| 25 | 31 | 68 | 2.25 | 35.67 | 7.7 | 7.7 | | | |
| 7.0 | 8.6 | 247 | 0.85 | 129.39 | 4.0 | 3.0 | CG033-14P-71-06E CF033-14P-71-06E | 15 17 | 140 |
| 8.2 | 10 | 210 | 1.00 | 109.79 | 4.6 | 3.3 | | | |
| 9.0 | 11 | 190 | 1.10 | 99.71 | 4.9 | 3.4 | | | |
| 10 | 13 | 164 | 1.25 | 85.78 | 5.2 | 3.6 | | | |
| 12 | 14 | 149 | 1.35 | 77.90 | 5.3 | 3.7 | | | |
| 14 | 17 | 122 | 1.65 | 64.05 | 5.5 | 3.8 | | | |
| 15 | 19 | 111 | 1.85 | 58.17 | 5.6 | 3.9 | | | |
| 19 | 23 | 92 | 2.20 | 48.22 | 5.7 | 4.0 | | | |
| 21 | 25 | 84 | 2.40 | 43.79 | 5.7 | 4.1 | | | |
| 25 | 31 | 68 | 3.00 | 35.38 | 5.8 | 4.2 | | | |
| 6.8 | 8.4 | 252 | 0.80 | 202.55 | 3.9 | 3.0 | CG033-14P-63-04F CF033-14P-63-04F | 12 14 | 140 |
| 7.6 | 9.4 | 225 | 0.90 | 180.83 | 4.4 | 3.2 | | | |
| 8.4 | 10 | 205 | 1.00 | 164.23 | 4.7 | 3.3 | | | |
| 9.7 | 12 | 177 | 1.15 | 142.47 | 5.0 | 3.5 | | | |
| 11 | 13 | 161 | 1.25 | 129.39 | 5.2 | 3.6 | | | |
| 13 | 15 | 137 | 1.50 | 109.79 | 5.4 | 3.7 | | | |
| 14 | 17 | 124 | 1.65 | 99.71 | 5.5 | 3.8 | | | |
| 16 | 20 | 107 | 1.90 | 85.78 | 5.6 | 3.9 | | | |
| 18 | 22 | 97 | 2.10 | 77.90 | 5.7 | 4.0 | | | |
| 22 | 27 | 80 | 2.55 | 64.05 | 5.8 | 4.1 | | | |
| 24 | 29 | 72 | 2.80 | 58.17 | 5.8 | 4.1 | | | |
| 21 | 26 | 82 | 2.25 | 42.88 | 5.7 | 4.1 | CG032-14P-71-06E CF032-14P-71-06E | 15 17 | 140 |
| 23 | 29 | 74 | 2.30 | 38.95 | 5.8 | 4.1 | | | |
| 37 | 46 | 46 | 2.25 | 24.03 | 5.9 | 4.3 | | | |
| 17 | 21 | 99 | 0.90 | 51.80 | 2.8 | 1.0 | CG012-14P-71-06E CF012-14P-71-06E | 12 13 | 138 |
| 19 | 24 | 89 | 1.00 | 46.42 | 3.0 | 1.0 | | | |
| 21 | 26 | 80 | 1.10 | 42.00 | 3.1 | 1.1 | | | |
| 24 | 29 | 72 | 1.20 | 37.64 | 3.2 | 1.2 | | | |
| 27 | 34 | 63 | 1.35 | 33.09 | 3.3 | 1.2 | | | |
| 30 | 37 | 57 | 1.55 | 29.65 | 3.4 | 1.3 | | | |
| 35 | 44 | 49 | 1.75 | 25.50 | 3.4 | 1.3 | | | |
| 36 | 44 | 48 | 0.90 | 25.05 | 3.4 | 1.2 | | | |
| 39 | 49 | 44 | 1.95 | 22.85 | 3.5 | 1.3 | | | |
| 45 | 56 | 38 | 2.25 | 19.92 | 3.5 | 1.4 | | | |
| 46 | 57 | 37 | 1.80 | 19.51 | 3.5 | 1.3 | | | |
| 50 | 62 | 34 | 2.50 | 17.85 | 3.5 | 1.4 | | | |
| 57 | 70 | 30 | 2.20 | 15.82 | 3.5 | 1.4 | | | |
| 61 | 75 | 28 | 3.00 | 14.88 | 3.5 | 1.4 | | | |
| 72 | 89 | 24 | 2.80 | 12.46 | 3.5 | 1.4 | | | |
| 21 | 26 | 83 | 1.05 | 66.50 | 3.1 | 1.1 | CG012-14P-63-04F CF012-14P-63-04F | 9.7 11 | 138 |
| 23 | 29 | 74 | 1.15 | 59.59 | 3.2 | 1.1 | | | |
| 27 | 33 | 65 | 1.35 | 51.80 | 3.3 | 1.2 | | | |
| 30 | 37 | 58 | 1.50 | 46.42 | 3.4 | 1.2 | | | |
| 33 | 40 | 52 | 1.65 | 42.00 | 3.4 | 1.3 | | | |
| 37 | 45 | 47 | 1.85 | 37.64 | 3.4 | 1.3 | | | |
| 42 | 51 | 41 | 2.10 | 33.09 | 3.5 | 1.4 | | | |
| 47 | 57 | 37 | 2.35 | 29.65 | 3.5 | 1.4 | | | |
| 54 | 67 | 32 | 2.70 | 25.50 | 3.5 | 1.4 | | | |
| 55 | 68 | 31 | 1.35 | 25.05 | 3.5 | 1.3 | | | |
| 60 | 74 | 28 | 3.00 | 22.85 | 3.5 | 1.4 | | | |
| 71 | 87 | 24 | 2.75 | 19.51 | 3.6 | 1.4 | | | |

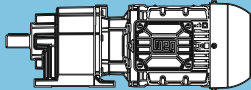


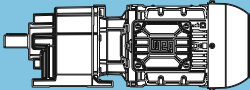
| P _N = 0.18 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.18 kW | 0.22 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 27 | 34 | 63 | 0.80 | 32.89 | 3.6 | 1.1 | CG002-14P-71-06E CF002-14P-71-06E | 11 12 | 136 |
| 31 | 38 | 56 | 0.90 | 29.33 | 3.6 | 1.2 | | | |
| 34 | 42 | 50 | 1.00 | 26.18 | 3.7 | 1.2 | | | |
| 39 | 48 | 44 | 1.15 | 23.00 | 3.7 | 1.3 | | | |
| 44 | 54 | 39 | 1.30 | 20.53 | 3.7 | 1.3 | | | |
| 52 | 64 | 33 | 1.55 | 17.29 | 3.7 | 1.4 | | | |
| 53 | 66 | 32 | 1.00 | 16.86 | 3.6 | 1.2 | | | |
| 58 | 72 | 29 | 1.70 | 15.43 | 3.6 | 1.4 | | | |
| 66 | 82 | 26 | 1.95 | 13.54 | 3.4 | 1.4 | | | |
| 69 | 85 | 25 | 1.75 | 13.10 | 3.4 | 1.3 | | | |
| 74 | 92 | 23 | 2.20 | 12.08 | 3.3 | 1.4 | | | |
| 86 | 106 | 20 | 2.30 | 10.42 | 3.1 | 1.4 | | | |
| 90 | 111 | 19 | 2.65 | 9.97 | 3.1 | 1.5 | | | |
| 101 | 125 | 17 | 2.95 | 8.90 | 3.0 | 1.5 | | | |
| 110 | 136 | 16 | 2.90 | 8.17 | 2.9 | 1.4 | | | |
| 29 | 36 | 59 | 0.85 | 47.44 | 3.6 | 1.1 | CG002-14P-63-04F CF002-14P-63-04F | 8.6 9.9 | 136 |
| 33 | 40 | 53 | 0.95 | 42.34 | 3.6 | 1.2 | | | |
| 37 | 46 | 46 | 1.10 | 36.85 | 3.7 | 1.3 | | | |
| 42 | 52 | 41 | 1.25 | 32.89 | 3.7 | 1.3 | | | |
| 47 | 58 | 37 | 1.40 | 29.33 | 3.7 | 1.3 | | | |
| 53 | 65 | 33 | 1.55 | 26.18 | 3.7 | 1.4 | | | |
| 60 | 74 | 29 | 1.75 | 23.00 | 3.5 | 1.4 | | | |
| 67 | 83 | 26 | 2.00 | 20.53 | 3.4 | 1.4 | | | |
| 80 | 98 | 22 | 2.35 | 17.29 | 3.3 | 1.4 | | | |
| 82 | 101 | 21 | 1.50 | 16.86 | 3.2 | 1.4 | | | |
| 89 | 110 | 19 | 2.65 | 15.43 | 3.1 | 1.5 | | | |
| 102 | 126 | 17 | 3.00 | 13.54 | 3.0 | 1.5 | | | |
| 105 | 130 | 16 | 2.65 | 13.10 | 3.0 | 1.4 | | | |
| 114 | 141 | 15 | 3.35 | 12.08 | 2.9 | 1.5 | | | |
| 132 | 163 | 13 | 3.50 | 10.42 | 2.8 | 1.5 | | | |
| 138 | 171 | 12 | 4.05 | 9.97 | 2.8 | 1.5 | | | |
| 155 | 191 | 11 | 4.55 | 8.90 | 2.7 | 1.5 | | | |
| 169 | 208 | 10 | 4.45 | 8.17 | 2.6 | 1.5 | | | |
| 201 | 247 | 9 | 5.75 | 6.88 | 2.4 | 1.6 | | | |
| 225 | 277 | 8 | 6.55 | 6.14 | 2.4 | 1.6 | | | |
| 225 | 277 | 8 | 5.50 | 6.14 | 2.3 | 1.5 | | | |
| 287 | 353 | 6 | 6.55 | 4.81 | 2.2 | 1.6 | | | |
| 390 | 480 | 4 | 7.95 | 3.54 | 2.0 | 1.6 | | | |

Legend see page 29

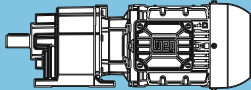
| P_N = 0.25 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|------------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.25 kW | | 0.30 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 0.10 | 0.12 | 22193 | 0.85 | 9998.22 | 99.1 | 20.3 | CG165-14P-80-06D CF165-14P-80-06D | 698 721 | 170 |
| 0.12 | 0.15 | 16989 | 1.10 | 7752.38 | 116.0 | 25.1 | | | |
| 0.14 | 0.17 | 15408 | 1.20 | 7067.08 | 119.9 | 26.5 | | | |
| 0.15 | 0.19 | 13727 | 1.35 | 6345.03 | 123.5 | 28.0 | | | |
| 0.18 | 0.22 | 11404 | 1.60 | 5339.57 | 127.6 | 30.1 | | | |
| 0.20 | 0.24 | 10351 | 1.75 | 4884.00 | 129.2 | 31.1 | | | |
| 0.22 | 0.27 | 9142 | 2.00 | 4369.98 | 130.9 | 32.2 | | | |
| 0.26 | 0.32 | 7561 | 2.40 | 3690.13 | 132.6 | 33.6 | | | |
| 0.27 | 0.33 | 7223 | 2.50 | 3543.61 | 133.0 | 33.9 | | | |
| 0.09 | 0.11 | 23846 | 0.80 | 15484.09 | 92.0 | 18.8 | CG165-14P-71-04E CF165-14P-71-04E | 696 719 | 170 |
| 0.10 | 0.12 | 22224 | 0.85 | 14467.28 | 99.0 | 20.3 | | | |
| 0.11 | 0.13 | 19351 | 0.95 | 12662.22 | 109.3 | 22.9 | | | |
| 0.12 | 0.15 | 17012 | 1.10 | 11217.58 | 116.0 | 25.0 | | | |
| 0.14 | 0.17 | 15085 | 1.20 | 9998.22 | 120.6 | 26.8 | | | |
| 0.15 | 0.19 | 13746 | 1.35 | 9181.16 | 123.5 | 28.0 | | | |
| 0.18 | 0.22 | 11458 | 1.60 | 7752.38 | 127.6 | 30.1 | | | |
| 0.20 | 0.24 | 10365 | 1.75 | 7067.08 | 129.2 | 31.1 | | | |
| 0.22 | 0.27 | 9186 | 2.00 | 6345.03 | 130.8 | 32.2 | | | |
| 0.26 | 0.32 | 7572 | 2.40 | 5339.57 | 132.6 | 33.6 | | | |
| 0.28 | 0.35 | 6836 | 2.65 | 4884.00 | 133.3 | 34.3 | | | |
| 0.32 | 0.39 | 6006 | 3.00 | 4369.98 | 134.1 | 35.0 | | | |
| 0.44 | 0.55 | 4516 | 2.90 | 2162.84 | 109.7 | 23.0 | CG144-14P-80-06D CF144-14P-80-06D | 434 452 | 164 |
| 0.50 | 0.63 | 4110 | 1.95 | 1891.77 | 72.2 | 24.8 | CG134-14P-80-06D CF134-14P-80-06D | 287 289 | 160 |
| 0.58 | 0.72 | 3516 | 2.30 | 1642.17 | 73.1 | 25.5 | | | |
| 0.65 | 0.81 | 3088 | 2.60 | 1460.54 | 73.6 | 26.0 | | | |
| 0.67 | 0.84 | 2988 | 2.70 | 1418.83 | 73.7 | 26.1 | | | |
| 0.73 | 0.90 | 2728 | 2.95 | 1891.77 | 74.0 | 26.4 | CG134-14P-71-04E CF134-14P-71-04E | 285 287 | 160 |
| 0.43 | 0.53 | 5057 | 0.90 | 2229.16 | 32.4 | 20.8 | CG104-14P-80-06D CF104-14P-80-06D | 173 177 | 156 |
| 0.44 | 0.55 | 4881 | 0.95 | 2156.24 | 33.4 | 21.0 | | | |
| 0.52 | 0.65 | 4101 | 1.10 | 1822.91 | 37.4 | 22.0 | | | |
| 0.56 | 0.70 | 3815 | 1.20 | 1702.59 | 38.6 | 22.3 | | | |
| 0.66 | 0.82 | 3192 | 1.45 | 1439.39 | 40.8 | 23.1 | | | |
| 0.72 | 0.90 | 2916 | 1.55 | 1320.15 | 41.6 | 23.5 | | | |
| 0.86 | 1.1 | 2435 | 1.85 | 1116.07 | 42.9 | 24.1 | | | |
| 0.88 | 1.1 | 2347 | 1.95 | 1080.49 | 43.0 | 24.2 | | | |
| 1.0 | 1.3 | 1952 | 2.35 | 913.46 | 43.8 | 24.7 | | | |
| 1.1 | 1.4 | 1759 | 2.60 | 831.69 | 44.2 | 25.0 | | | |
| 0.52 | 0.64 | 4106 | 1.10 | 2636.78 | 37.4 | 22.0 | CG104-14P-71-04E CF104-14P-71-04E | 171 175 | 156 |
| 0.62 | 0.76 | 3435 | 1.35 | 2229.16 | 40.0 | 22.8 | | | |
| 0.64 | 0.79 | 3316 | 1.40 | 2156.24 | 40.4 | 23.0 | | | |
| 0.76 | 0.93 | 2775 | 1.65 | 1822.91 | 42.0 | 23.7 | | | |
| 0.81 | 1.0 | 2581 | 1.75 | 1702.59 | 42.5 | 23.9 | | | |
| 0.96 | 1.2 | 2151 | 2.10 | 1439.39 | 43.5 | 24.5 | | | |
| 1.0 | 1.3 | 1952 | 2.35 | 1320.15 | 43.8 | 24.7 | | | |
| 1.2 | 1.5 | 1620 | 2.80 | 1116.07 | 44.4 | 25.1 | | | |
| 1.3 | 1.6 | 1561 | 2.90 | 1080.49 | 44.5 | 25.2 | | | |
| 0.57 | 0.71 | 3821 | 0.80 | 1677.34 | 14.8 | 24.4 | | | |
| 0.58 | 0.72 | 3735 | 0.85 | 1643.20 | 15.9 | 24.5 | | | |
| 0.65 | 0.81 | 3316 | 0.95 | 1464.58 | 20.4 | 25.1 | | | |
| 0.71 | 0.88 | 3038 | 1.00 | 1344.90 | 22.6 | 25.5 | | | |
| 0.73 | 0.91 | 2932 | 1.05 | 1300.57 | 23.4 | 25.7 | | | |
| 0.84 | 1.0 | 2545 | 1.20 | 1135.60 | 25.7 | 26.2 | | | |
| 0.90 | 1.1 | 2375 | 1.30 | 1064.47 | 26.6 | 26.5 | | | |
| 0.92 | 1.1 | 2310 | 1.30 | 1035.22 | 26.9 | 26.6 | | | |
| 1.0 | 1.3 | 2057 | 1.50 | 929.45 | 28.0 | 27.0 | | | |
| 1.2 | 1.4 | 1799 | 1.70 | 819.36 | 29.0 | 27.3 | | | |
| 1.3 | 1.7 | 1554 | 1.95 | 715.43 | 29.7 | 27.7 | | | |
| 1.5 | 1.9 | 1376 | 2.20 | 640.13 | 30.2 | 28.0 | | | |
| 1.8 | 2.2 | 1141 | 2.65 | 540.55 | 30.7 | 28.3 | | | |
| 1.9 | 2.3 | 1060 | 2.85 | 506.66 | 30.9 | 28.4 | | | |

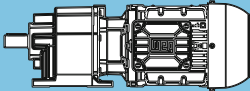
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| P _N = 0.25 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.25 kW | 0.30 kW | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 0.61 | 0.75 | 3568 | 0.85 | 2268.18 | 17.9 | 24.7 | CG094-14P-71-04E CF094-14P-71-04E | 128 126 | 152 |
| 0.65 | 0.8 | 3335 | 0.90 | 2124.27 | 20.2 | 25.1 | | | |
| 0.74 | 0.92 | 2894 | 1.05 | 1854.82 | 23.6 | 25.7 | | | |
| 0.82 | 1.0 | 2601 | 1.20 | 1677.34 | 25.4 | 26.2 | | | |
| 0.84 | 1.0 | 2548 | 1.20 | 1643.20 | 25.7 | 26.2 | | | |
| 0.94 | 1.2 | 2257 | 1.35 | 1464.58 | 27.2 | 26.7 | | | |
| 1.0 | 1.3 | 2060 | 1.50 | 1344.90 | 28.0 | 27.0 | | | |
| 1.1 | 1.3 | 1988 | 1.55 | 1300.57 | 28.3 | 27.1 | | | |
| 1.2 | 1.5 | 1721 | 1.75 | 1135.60 | 29.2 | 27.5 | | | |
| 1.3 | 1.6 | 1604 | 1.90 | 1064.47 | 29.6 | 27.6 | | | |
| 1.5 | 1.8 | 1383 | 2.20 | 929.45 | 30.2 | 28.0 | | | |
| 1.7 | 2.1 | 1204 | 2.50 | 819.36 | 30.6 | 28.2 | | | |
| 1.8 | 2.2 | 1142 | 2.65 | 782.16 | 30.7 | 28.3 | | | |
| 1.9 | 2.4 | 1032 | 2.95 | 715.43 | 30.9 | 28.5 | | | |
| 2.6 | 3.2 | 922 | 1.70 | 368.94 | 23.1 | 20.6 | CG083-14P-80-06D CF083-14P-80-06D | 65 69 | 148 |
| 3.4 | 4.2 | 712 | 2.20 | 284.84 | 23.7 | 21.0 | | | |
| 4.0 | 5.0 | 597 | 2.60 | 238.89 | 23.9 | 21.3 | | | |
| 3.7 | 4.6 | 638 | 2.45 | 368.94 | 23.9 | 21.2 | CG083-14P-71-04E CF083-14P-71-04E | 63 67 | 148 |
| 2.7 | 3.4 | 878 | 0.95 | 351.33 | 10.1 | 13.0 | | | |
| 3.0 | 3.7 | 799 | 1.05 | 319.60 | 10.9 | 13.0 | | | |
| 3.4 | 4.3 | 696 | 1.20 | 278.44 | 11.7 | 13.5 | | | |
| 3.8 | 4.7 | 633 | 1.30 | 253.30 | 12.2 | 13.5 | | | |
| 4.4 | 5.5 | 541 | 1.55 | 216.20 | 12.7 | 13.9 | | | |
| 4.9 | 6.0 | 492 | 1.70 | 196.68 | 12.9 | 13.9 | | | |
| 5.4 | 6.7 | 443 | 1.85 | 177.39 | 13.2 | 14.2 | | | |
| 5.9 | 7.3 | 403 | 2.05 | 161.38 | 13.3 | 14.2 | | | |
| 7.0 | 8.6 | 343 | 2.40 | 137.38 | 13.5 | 14.5 | | | |
| 7.6 | 9.5 | 312 | 2.65 | 124.97 | 13.6 | 14.4 | | | |
| 3.9 | 4.8 | 608 | 1.35 | 351.33 | 12.3 | 13.7 | CG073-14P-80-06D CF073-14P-80-06D | 41 45 | 146 |
| 4.3 | 5.3 | 553 | 1.50 | 319.60 | 12.6 | 13.7 | | | |
| 5.0 | 6.1 | 482 | 1.75 | 278.44 | 13.0 | 14.1 | | | |
| 5.4 | 6.7 | 438 | 1.90 | 253.30 | 13.2 | 14.1 | | | |
| 6.4 | 7.9 | 374 | 2.20 | 216.20 | 13.4 | 14.4 | | | |
| 7.0 | 8.6 | 340 | 2.45 | 196.68 | 13.5 | 14.4 | | | |
| 7.8 | 9.6 | 307 | 2.70 | 177.39 | 13.6 | 14.6 | | | |
| 8.6 | 11 | 279 | 2.95 | 161.38 | 13.7 | 14.5 | | | |
| 3.1 | 3.9 | 768 | 0.80 | 307.24 | 5.6 | 5.9 | CG063-14P-80-06D CF063-14P-80-06D | 25 30 | 144 |
| 3.4 | 4.2 | 704 | 0.90 | 281.73 | 6.8 | 6.0 | | | |
| 3.9 | 4.9 | 606 | 1.00 | 242.60 | 8.2 | 6.3 | | | |
| 4.3 | 5.3 | 556 | 1.10 | 222.46 | 8.8 | 6.5 | | | |
| 5.1 | 6.3 | 470 | 1.30 | 188.11 | 9.5 | 6.7 | | | |
| 5.5 | 6.9 | 431 | 1.40 | 172.49 | 9.8 | 6.8 | | | |
| 6.2 | 7.7 | 385 | 1.60 | 153.96 | 10.1 | 7.0 | | | |
| 6.8 | 8.4 | 353 | 1.75 | 141.17 | 10.3 | 7.1 | | | |
| 8.1 | 10 | 296 | 2.05 | 118.51 | 10.6 | 7.2 | | | |
| 8.8 | 11 | 272 | 2.25 | 108.67 | 10.7 | 7.3 | | | |
| 11 | 13 | 224 | 2.70 | 89.54 | 10.9 | 7.5 | | | |
| 12 | 14 | 205 | 2.95 | 82.10 | 10.9 | 7.5 | | | |
| 3.7 | 4.5 | 650 | 0.95 | 375.71 | 7.7 | 6.2 | CG063-14P-71-04E CF063-14P-71-04E | 22 27 | 144 |
| 4.0 | 4.9 | 596 | 1.05 | 344.51 | 8.3 | 6.4 | | | |
| 4.5 | 5.5 | 532 | 1.15 | 307.24 | 9.0 | 6.6 | | | |
| 4.9 | 6.0 | 487 | 1.25 | 281.73 | 9.4 | 6.7 | | | |
| 5.7 | 7.0 | 420 | 1.45 | 242.60 | 9.9 | 6.9 | | | |
| 6.2 | 7.6 | 385 | 1.60 | 222.46 | 10.1 | 7.0 | | | |
| 7.3 | 9.0 | 325 | 1.85 | 188.11 | 10.5 | 7.2 | | | |
| 8.0 | 9.9 | 298 | 2.05 | 172.49 | 10.6 | 7.2 | | | |
| 9.0 | 11 | 266 | 2.30 | 153.96 | 10.7 | 7.3 | | | |
| 9.8 | 12 | 244 | 2.50 | 141.17 | 10.8 | 7.4 | | | |
| 12 | 14 | 205 | 2.95 | 118.51 | 10.9 | 7.5 | | | |
| 16 | 20 | 150 | 2.80 | 60.00 | 11.1 | 7.7 | | | |
| 17 | 22 | 138 | 2.80 | 55.02 | 11.1 | 7.7 | | | |
| 29 | 35 | 84 | 2.85 | 33.43 | 11.2 | 7.8 | | | |

| P _N = 0.25 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.25 kW | | 0.30 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 4.9 | 6.1 | 486 | 0.85 | 194.29 | 2.8 | 5.9 | CG053-14P-80-06D CF053-14P-80-06D | 20 25 | 142 |
| 5.8 | 7.2 | 414 | 1.00 | 165.45 | 4.7 | 6.2 | | | |
| 6.3 | 7.9 | 376 | 1.10 | 150.41 | 5.4 | 6.4 | | | |
| 7.2 | 8.9 | 332 | 1.25 | 132.97 | 6.0 | 6.6 | | | |
| 7.9 | 9.8 | 302 | 1.35 | 120.88 | 6.3 | 6.7 | | | |
| 9.4 | 12 | 254 | 1.60 | 101.55 | 6.7 | 6.9 | | | |
| 10 | 13 | 231 | 1.75 | 92.32 | 6.9 | 7.0 | | | |
| 12 | 15 | 194 | 2.10 | 77.79 | 7.2 | 7.2 | | | |
| 14 | 17 | 177 | 2.30 | 70.71 | 7.3 | 7.3 | | | |
| 15 | 19 | 154 | 2.60 | 61.63 | 7.4 | 7.4 | | | |
| 17 | 21 | 140 | 2.90 | 56.02 | 7.4 | 7.5 | | | |
| 4.6 | 5.7 | 517 | 0.80 | 298.57 | 1.1 | 5.7 | CG053-14P-71-04E CF053-14P-71-04E | 18 23 | 142 |
| 5.2 | 6.3 | 464 | 0.90 | 267.93 | 3.6 | 6.0 | | | |
| 5.7 | 7.0 | 421 | 0.95 | 243.57 | 4.6 | 6.2 | | | |
| 6.5 | 8.0 | 370 | 1.10 | 213.71 | 5.4 | 6.4 | | | |
| 7.1 | 8.8 | 336 | 1.20 | 194.29 | 5.9 | 6.5 | | | |
| 8.3 | 10 | 286 | 1.40 | 165.45 | 6.5 | 6.8 | | | |
| 9.2 | 11 | 260 | 1.55 | 150.41 | 6.7 | 6.9 | | | |
| 10 | 13 | 230 | 1.75 | 132.97 | 6.9 | 7.1 | | | |
| 11 | 14 | 209 | 1.95 | 120.88 | 7.1 | 7.1 | | | |
| 14 | 17 | 176 | 2.30 | 101.55 | 7.3 | 7.3 | | | |
| 15 | 18 | 160 | 2.55 | 92.32 | 7.3 | 7.4 | | | |
| 18 | 22 | 135 | 3.00 | 77.79 | 7.5 | 7.5 | | | |
| 16 | 20 | 147 | 1.70 | 58.85 | 7.4 | 7.4 | CG052-14P-80-06D CF052-14P-80-06D | 19 24 | 142 |
| 18 | 22 | 134 | 1.70 | 53.50 | 7.5 | 7.5 | | | |
| 20 | 25 | 120 | 2.85 | 48.13 | 7.5 | 7.6 | | | |
| 22 | 27 | 109 | 2.85 | 43.75 | 7.5 | 7.6 | | | |
| 27 | 33 | 89 | 1.70 | 35.67 | 7.6 | 7.6 | | | |
| 33 | 41 | 73 | 2.80 | 29.17 | 7.6 | 7.7 | | | |
| 23 | 29 | 102 | 2.50 | 58.85 | 7.6 | 7.6 | CG052-14P-71-04E CF052-14P-71-04E | 17 22 | 142 |
| 26 | 32 | 93 | 2.50 | 53.50 | 7.6 | 7.7 | | | |
| 39 | 48 | 62 | 2.45 | 35.67 | 7.7 | 7.7 | | | |
| 9.6 | 12 | 249 | 0.85 | 99.71 | 3.9 | 3.0 | CG033-14P-80-06D CF033-14P-80-06D | 16 18 | 140 |
| 11 | 14 | 214 | 0.95 | 85.78 | 4.5 | 3.3 | | | |
| 12 | 15 | 195 | 1.05 | 77.90 | 4.8 | 3.4 | | | |
| 15 | 19 | 160 | 1.25 | 64.05 | 5.2 | 3.6 | | | |
| 16 | 20 | 145 | 1.40 | 58.17 | 5.3 | 3.7 | | | |
| 17 | 21 | 138 | 1.45 | 55.25 | 5.4 | 3.7 | | | |
| 19 | 24 | 125 | 1.60 | 50.18 | 5.5 | 3.8 | | | |
| 20 | 25 | 121 | 1.70 | 48.22 | 5.5 | 3.8 | | | |
| 22 | 27 | 109 | 1.85 | 43.79 | 5.6 | 3.9 | | | |
| 27 | 34 | 88 | 2.30 | 35.38 | 5.7 | 4.0 | | | |
| 30 | 37 | 80 | 2.50 | 32.13 | 5.8 | 4.1 | | | |
| 9.7 | 12 | 246 | 0.85 | 142.47 | 4.0 | 3.1 | CG033-14P-71-04E CF033-14P-71-04E | 13 15 | 140 |
| 11 | 13 | 224 | 0.90 | 129.39 | 4.4 | 3.2 | | | |
| 13 | 15 | 190 | 1.10 | 109.79 | 4.9 | 3.4 | | | |
| 14 | 17 | 173 | 1.20 | 99.71 | 5.1 | 3.5 | | | |
| 16 | 20 | 148 | 1.35 | 85.78 | 5.3 | 3.7 | | | |
| 18 | 22 | 135 | 1.50 | 77.90 | 5.4 | 3.7 | | | |
| 22 | 27 | 111 | 1.85 | 64.05 | 5.6 | 3.9 | | | |
| 24 | 29 | 101 | 2.00 | 58.17 | 5.7 | 4.0 | | | |
| 29 | 35 | 83 | 2.40 | 48.22 | 5.7 | 4.1 | | | |
| 32 | 39 | 76 | 2.65 | 43.79 | 5.8 | 4.1 | | | |
| 22 | 28 | 107 | 1.75 | 42.88 | 5.6 | 3.9 | CG032-14P-80-06D CF032-14P-80-06D | 15 17 | 140 |
| 25 | 30 | 97 | 1.75 | 38.95 | 5.7 | 4.0 | | | |
| 27 | 34 | 87 | 2.30 | 34.88 | 5.7 | 4.1 | | | |
| 30 | 37 | 79 | 2.55 | 31.67 | 5.8 | 4.1 | | | |
| 34 | 43 | 69 | 2.90 | 27.71 | 5.8 | 4.2 | | | |
| 40 | 49 | 60 | 1.75 | 24.03 | 5.8 | 4.1 | | | |
| 49 | 61 | 49 | 2.65 | 19.54 | 5.6 | 4.2 | | | |
| 32 | 40 | 74 | 2.50 | 42.88 | 5.8 | 4.1 | CG032-14P-71-04E CF032-14P-71-04E | 13 15 | 140 |
| 35 | 44 | 67 | 2.50 | 38.95 | 5.8 | 4.2 | | | |
| 57 | 71 | 42 | 2.50 | 24.03 | 5.3 | 4.3 | | | |

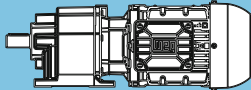


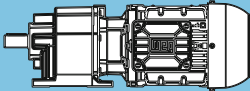
| P _N = 0.25 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|-----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.25 kW | 0.30 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 23 | 28 | 105 | 0.85 | 42.00 | 2.7 | 1.0 | CG012-14P-80-06D CF012-14P-80-06D | 13 14 | 138 |
| 25 | 32 | 94 | 0.95 | 37.64 | 2.9 | 1.0 | | | |
| 29 | 36 | 83 | 1.05 | 33.09 | 3.1 | 1.1 | | | |
| 32 | 40 | 74 | 1.15 | 29.65 | 3.2 | 1.1 | | | |
| 37 | 47 | 64 | 1.35 | 25.50 | 3.3 | 1.2 | | | |
| 42 | 52 | 57 | 1.50 | 22.85 | 3.4 | 1.3 | | | |
| 48 | 60 | 50 | 1.75 | 19.92 | 3.4 | 1.3 | | | |
| 49 | 61 | 49 | 1.40 | 19.51 | 3.4 | 1.2 | | | |
| 53 | 66 | 45 | 1.95 | 17.85 | 3.5 | 1.3 | | | |
| 60 | 75 | 40 | 1.70 | 15.82 | 3.5 | 1.3 | | | |
| 64 | 80 | 37 | 2.30 | 14.88 | 3.5 | 1.4 | | | |
| 72 | 89 | 33 | 2.60 | 13.33 | 3.5 | 1.4 | | | |
| 74 | 92 | 32 | 2.65 | 12.83 | 3.5 | 1.4 | | | |
| 77 | 95 | 31 | 2.15 | 12.46 | 3.4 | 1.3 | | | |
| 83 | 103 | 29 | 3.00 | 11.50 | 3.4 | 1.4 | | | |
| 85 | 106 | 28 | 3.00 | 11.20 | 3.3 | 1.4 | | | |
| 99 | 123 | 24 | 2.75 | 9.60 | 3.2 | 1.4 | | | |
| 23 | 29 | 103 | 0.85 | 59.59 | 2.8 | 1.0 | CG012-14P-71-04E CF012-14P-71-04E | 11 12 | 138 |
| 27 | 33 | 90 | 0.95 | 51.80 | 3.0 | 1.0 | | | |
| 30 | 37 | 80 | 1.10 | 46.42 | 3.1 | 1.1 | | | |
| 33 | 40 | 73 | 1.20 | 42.00 | 3.2 | 1.2 | | | |
| 37 | 45 | 65 | 1.35 | 37.64 | 3.3 | 1.2 | | | |
| 42 | 51 | 57 | 1.50 | 33.09 | 3.4 | 1.3 | | | |
| 47 | 57 | 51 | 1.70 | 29.65 | 3.4 | 1.3 | | | |
| 54 | 67 | 44 | 1.95 | 25.50 | 3.5 | 1.3 | | | |
| 55 | 68 | 43 | 0.95 | 25.05 | 3.5 | 1.2 | | | |
| 60 | 74 | 40 | 2.20 | 22.85 | 3.5 | 1.4 | | | |
| 69 | 85 | 34 | 2.50 | 19.92 | 3.5 | 1.4 | | | |
| 71 | 87 | 34 | 2.00 | 19.51 | 3.5 | 1.3 | | | |
| 77 | 95 | 31 | 2.80 | 17.85 | 3.4 | 1.4 | | | |
| 87 | 107 | 27 | 2.45 | 15.82 | 3.3 | 1.4 | | | |
| 36 | 45 | 65 | 0.80 | 26.18 | 3.5 | 1.1 | CG002-14P-80-06D CF002-14P-80-06D | 12 13 | 136 |
| 42 | 52 | 58 | 0.90 | 23.00 | 3.6 | 1.2 | | | |
| 47 | 58 | 51 | 1.00 | 20.53 | 3.6 | 1.2 | | | |
| 55 | 69 | 43 | 1.20 | 17.29 | 3.6 | 1.3 | | | |
| 62 | 77 | 39 | 1.30 | 15.43 | 3.4 | 1.3 | | | |
| 71 | 88 | 34 | 1.50 | 13.54 | 3.3 | 1.3 | | | |
| 73 | 91 | 33 | 1.35 | 13.10 | 3.2 | 1.2 | | | |
| 79 | 98 | 30 | 1.70 | 12.08 | 3.2 | 1.4 | | | |
| 92 | 114 | 26 | 1.75 | 10.42 | 3.0 | 1.3 | | | |
| 96 | 119 | 25 | 2.05 | 9.97 | 3.0 | 1.4 | | | |
| 107 | 133 | 22 | 2.25 | 8.90 | 2.9 | 1.4 | | | |
| 117 | 145 | 20 | 2.25 | 8.17 | 2.8 | 1.4 | | | |
| 139 | 173 | 17 | 2.90 | 6.88 | 2.7 | 1.5 | | | |
| 155 | 193 | 15 | 2.75 | 6.14 | 2.6 | 1.4 | | | |
| 37 | 46 | 64 | 0.80 | 36.85 | 3.5 | 1.1 | CG002-14P-71-04E CF002-14P-71-04E | 9.5 11 | 136 |
| 42 | 52 | 57 | 0.90 | 32.89 | 3.6 | 1.2 | | | |
| 47 | 58 | 51 | 1.00 | 29.33 | 3.6 | 1.2 | | | |
| 53 | 65 | 45 | 1.15 | 26.18 | 3.6 | 1.2 | | | |
| 60 | 74 | 40 | 1.30 | 23.00 | 3.5 | 1.3 | | | |
| 67 | 83 | 36 | 1.45 | 20.53 | 3.4 | 1.3 | | | |
| 80 | 98 | 30 | 1.70 | 17.29 | 3.2 | 1.4 | | | |
| 82 | 101 | 29 | 1.10 | 16.86 | 3.1 | 1.3 | | | |
| 89 | 110 | 27 | 1.90 | 15.43 | 3.1 | 1.4 | | | |
| 102 | 126 | 23 | 2.15 | 13.54 | 3.0 | 1.4 | | | |
| 105 | 130 | 23 | 1.90 | 13.10 | 2.9 | 1.4 | | | |
| 114 | 141 | 21 | 2.40 | 12.08 | 2.9 | 1.5 | | | |
| 132 | 163 | 18 | 2.50 | 10.42 | 2.7 | 1.4 | | | |
| 138 | 171 | 17 | 2.90 | 9.97 | 2.7 | 1.5 | | | |
| 155 | 191 | 15 | 3.25 | 8.90 | 2.6 | 1.5 | | | |
| 169 | 208 | 14 | 3.20 | 8.17 | 2.5 | 1.5 | | | |
| 201 | 247 | 12 | 4.15 | 6.88 | 2.4 | 1.5 | | | |
| 225 | 277 | 11 | 4.75 | 6.14 | 2.3 | 1.5 | | | |
| 287 | 353 | 8 | 4.70 | 4.81 | 2.1 | 1.5 | | | |
| 390 | 480 | 6 | 5.75 | 3.54 | 2.0 | 1.6 | | | |

| P_N = 0.37 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 0.15 | 0.18 | 21521 | 0.85 | 6345.03 | 101.8 | 20.9 | CG165-14P-80-06E CF165-14P-80-06E | 700 723 | 170 |
| 0.17 | 0.21 | 17926 | 1.05 | 5339.57 | 113.5 | 24.2 | | | |
| 0.19 | 0.23 | 16312 | 1.15 | 4884.00 | 117.8 | 25.7 | | | |
| 0.21 | 0.26 | 14521 | 1.25 | 4369.98 | 121.9 | 27.3 | | | |
| 0.25 | 0.31 | 12105 | 1.50 | 3690.13 | 126.5 | 29.5 | | | |
| 0.26 | 0.32 | 11565 | 1.60 | 3543.61 | 127.4 | 30.0 | | | |
| 0.31 | 0.38 | 9704 | 1.90 | 3020.06 | 130.1 | 31.7 | | | |
| 0.38 | 0.47 | 7688 | 2.35 | 2448.96 | 132.5 | 33.5 | | | |
| 0.38 | 0.47 | 7527 | 2.40 | 2404.16 | 132.7 | 33.7 | | | |
| 0.45 | 0.56 | 6253 | 2.90 | 2050.07 | 133.9 | 34.8 | | | |
| 0.14 | 0.17 | 22544 | 0.80 | 9998.22 | 97.7 | 20.0 | CG165-14P-71-04F CF165-14P-71-04F | 697 720 | 170 |
| 0.15 | 0.19 | 20596 | 0.90 | 9181.16 | 105.1 | 21.8 | | | |
| 0.18 | 0.22 | 17257 | 1.05 | 7752.38 | 115.3 | 24.8 | | | |
| 0.20 | 0.24 | 15611 | 1.20 | 7067.08 | 119.4 | 26.3 | | | |
| 0.22 | 0.27 | 13944 | 1.30 | 6345.03 | 123.1 | 27.8 | | | |
| 0.26 | 0.32 | 11555 | 1.60 | 5339.57 | 127.4 | 30.0 | | | |
| 0.29 | 0.35 | 10487 | 1.75 | 4884.00 | 129.0 | 31.0 | | | |
| 0.32 | 0.39 | 9287 | 1.95 | 4369.98 | 130.7 | 32.1 | | | |
| 0.38 | 0.46 | 7681 | 2.35 | 3690.13 | 132.5 | 33.5 | | | |
| 0.46 | 0.57 | 6077 | 3.00 | 3020.06 | 134.0 | 35.0 | | | |
| 0.44 | 0.54 | 6737 | 2.70 | 2093.95 | 133.4 | 34.4 | CG164-14P-80-06E CF164-14P-80-06E | 687 710 | 168 |
| 0.43 | 0.53 | 7224 | 1.80 | 2162.84 | 107.1 | 20.3 | CG144-14P-80-06E CF144-14P-80-06E | 436 454 | 164 |
| 0.49 | 0.60 | 6221 | 2.10 | 1885.79 | 108.2 | 21.3 | | | |
| 0.55 | 0.68 | 5440 | 2.40 | 1669.82 | 109.0 | 22.0 | | | |
| 0.57 | 0.70 | 5270 | 2.50 | 1624.38 | 109.1 | 22.2 | | | |
| 0.64 | 0.78 | 4665 | 2.80 | 1455.92 | 109.6 | 22.8 | | | |
| 0.66 | 0.81 | 4459 | 2.95 | 1400.42 | 109.8 | 23.0 | | | |
| 0.64 | 0.79 | 4586 | 2.85 | 2162.84 | 109.7 | 22.9 | CG144-14P-71-04F CF144-14P-71-04F | 433 451 | 164 |
| 0.49 | 0.60 | 6464 | 1.25 | 1891.77 | 67.4 | 22.1 | CG134-14P-80-06E CF134-14P-80-06E | 289 291 | 160 |
| 0.56 | 0.69 | 5565 | 1.45 | 1642.17 | 69.5 | 23.1 | | | |
| 0.63 | 0.78 | 4909 | 1.65 | 1460.54 | 70.9 | 23.9 | | | |
| 0.65 | 0.80 | 4759 | 1.70 | 1418.83 | 71.2 | 24.1 | | | |
| 0.73 | 0.90 | 4217 | 1.90 | 1267.83 | 72.1 | 24.7 | | | |
| 0.76 | 0.93 | 4058 | 2.00 | 1224.91 | 72.3 | 24.9 | | | |
| 0.84 | 1.0 | 3591 | 2.25 | 1095.41 | 73.0 | 25.4 | | | |
| 0.87 | 1.1 | 3479 | 2.30 | 1063.29 | 73.1 | 25.5 | | | |
| 0.96 | 1.2 | 3106 | 2.60 | 961.31 | 73.6 | 26.0 | | | |
| 1.0 | 1.2 | 2950 | 2.75 | 918.68 | 73.8 | 26.1 | | | |
| 0.74 | 0.9 | 4164 | 1.95 | 1891.77 | 72.2 | 24.7 | CG134-14P-71-04F CF134-14P-71-04F | 286 288 | 160 |
| 0.85 | 1.0 | 3570 | 2.25 | 1642.17 | 73.0 | 25.4 | | | |
| 0.96 | 1.2 | 3129 | 2.60 | 1460.54 | 73.6 | 25.9 | | | |
| 0.98 | 1.2 | 3033 | 2.65 | 1418.83 | 73.7 | 26.0 | | | |
| 1.1 | 1.3 | 2671 | 3.00 | 1267.83 | 74.1 | 26.4 | | | |
| 0.54 | 0.67 | 5926 | 0.80 | 1702.59 | 25.8 | 19.7 | CG104-14P-80-06E CF104-14P-80-06E | 175 179 | 156 |
| 0.64 | 0.79 | 4979 | 0.95 | 1439.39 | 32.9 | 20.9 | | | |
| 0.70 | 0.86 | 4557 | 1.00 | 1320.15 | 35.2 | 21.4 | | | |
| 0.83 | 1.0 | 3821 | 1.20 | 1116.07 | 38.6 | 22.3 | | | |
| 0.86 | 1.1 | 3692 | 1.25 | 1080.49 | 39.1 | 22.5 | | | |
| 1.0 | 1.2 | 3089 | 1.50 | 913.46 | 41.1 | 23.3 | | | |
| 1.1 | 1.4 | 2795 | 1.65 | 831.69 | 42.0 | 23.6 | | | |
| 1.3 | 1.6 | 2334 | 1.95 | 703.12 | 43.1 | 24.2 | | | |
| 1.5 | 1.8 | 2064 | 2.20 | 628.39 | 43.6 | 24.6 | | | |
| 1.7 | 2.1 | 1713 | 2.65 | 531.25 | 44.2 | 25.0 | | | |
| 1.8 | 2.2 | 1651 | 2.75 | 514.28 | 44.3 | 25.1 | | | |



Legend see page 29

| P _N = 0.37 kW | | | | | | | IE3 | | |
|--------------------------|------------------|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 0.37 kW | 60 Hz 0.44 kW | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 0.63 | 0.77 | 5124 | 0.90 | 2229.16 | 32.0 | 20.7 | CG104-14P-80-06E CF104-14P-80-06E | 172 176 | 156 |
| 0.65 | 0.79 | 4946 | 0.95 | 2156.24 | 33.1 | 20.9 | | | |
| 0.77 | 0.94 | 4156 | 1.10 | 1822.91 | 37.2 | 21.9 | | | |
| 0.82 | 1.0 | 3865 | 1.20 | 1702.59 | 38.4 | 22.3 | | | |
| 0.97 | 1.2 | 3241 | 1.40 | 1439.39 | 40.7 | 23.1 | | | |
| 1.1 | 1.3 | 2954 | 1.55 | 1320.15 | 41.5 | 23.4 | | | |
| 1.2 | 1.5 | 2467 | 1.85 | 1116.07 | 42.8 | 24.1 | | | |
| 1.3 | 1.6 | 2383 | 1.90 | 1080.49 | 43.0 | 24.2 | | | |
| 1.5 | 1.9 | 1982 | 2.30 | 913.46 | 43.8 | 24.7 | | | |
| 1.7 | 2.1 | 1786 | 2.55 | 831.69 | 44.1 | 24.9 | | | |
| 0.81 | 1.0 | 3952 | 0.80 | 1135.60 | 12.7 | 24.2 | CG094-14P-80-06E CF094-14P-80-06E | 133 131 | 152 |
| 0.87 | 1.1 | 3697 | 0.85 | 1064.47 | 16.4 | 24.5 | | | |
| 0.89 | 1.1 | 3596 | 0.85 | 1035.22 | 17.6 | 24.7 | | | |
| 1.0 | 1.2 | 3215 | 0.95 | 929.45 | 21.2 | 25.3 | | | |
| 1.1 | 1.4 | 2817 | 1.10 | 819.36 | 24.1 | 25.8 | | | |
| 1.2 | 1.5 | 2684 | 1.15 | 782.16 | 24.9 | 26.0 | | | |
| 1.3 | 1.6 | 2444 | 1.25 | 715.43 | 26.3 | 26.4 | | | |
| 1.4 | 1.8 | 2174 | 1.40 | 640.13 | 27.5 | 26.8 | | | |
| 1.5 | 1.8 | 2098 | 1.45 | 619.07 | 27.8 | 26.9 | | | |
| 1.7 | 2.1 | 1813 | 1.70 | 540.55 | 28.9 | 27.3 | | | |
| 1.8 | 2.2 | 1737 | 1.75 | 519.08 | 29.2 | 27.4 | | | |
| 2.1 | 2.6 | 1459 | 2.10 | 442.39 | 30.0 | 27.8 | | | |
| 2.1 | 2.6 | 1433 | 2.10 | 434.54 | 30.1 | 27.9 | | | |
| 2.3 | 2.8 | 1347 | 2.25 | 410.85 | 30.3 | 28.0 | | | |
| 2.6 | 3.2 | 1159 | 2.60 | 358.73 | 30.7 | 28.3 | | | |
| 2.7 | 3.3 | 1104 | 2.75 | 343.93 | 30.8 | 28.4 | | | |
| 0.83 | 1.0 | 3871 | 0.80 | 1677.34 | 14.0 | 24.3 | CG094-14P-71-04F CF094-14P-71-04F | 129 127 | 152 |
| 0.85 | 1.0 | 3792 | 0.80 | 1643.20 | 15.2 | 24.4 | | | |
| 0.95 | 1.2 | 3366 | 0.90 | 1464.58 | 19.9 | 25.0 | | | |
| 1.0 | 1.3 | 3078 | 1.00 | 1344.90 | 22.3 | 25.5 | | | |
| 1.1 | 1.3 | 2971 | 1.05 | 1300.57 | 23.1 | 25.6 | | | |
| 1.2 | 1.5 | 2578 | 1.20 | 1135.60 | 25.5 | 26.2 | | | |
| 1.3 | 1.6 | 2412 | 1.25 | 1064.47 | 26.4 | 26.4 | | | |
| 1.5 | 1.8 | 2089 | 1.45 | 929.45 | 27.9 | 26.9 | | | |
| 1.7 | 2.1 | 1826 | 1.65 | 819.36 | 28.9 | 27.3 | | | |
| 1.8 | 2.2 | 1736 | 1.75 | 782.16 | 29.2 | 27.4 | | | |
| 1.9 | 2.4 | 1575 | 1.95 | 715.43 | 29.7 | 27.7 | | | |
| 2.2 | 2.7 | 1397 | 2.15 | 640.13 | 30.1 | 27.9 | | | |
| 2.3 | 2.8 | 1346 | 2.25 | 619.07 | 30.3 | 28.0 | | | |
| 2.6 | 3.2 | 1158 | 2.60 | 540.55 | 30.7 | 28.3 | | | |
| 2.8 | 3.4 | 1076 | 2.80 | 506.66 | 30.9 | 28.4 | | | |
| 3.0 | 3.7 | 1172 | 2.60 | 306.73 | 30.7 | 28.3 | | | |
| 2.5 | 3.1 | 1409 | 1.10 | 368.94 | 21.1 | 19.6 | CG083-14P-80-06E CF083-14P-80-06E | 67 71 | 148 |
| 3.2 | 4.0 | 1088 | 1.45 | 284.84 | 22.5 | 20.3 | | | |
| 3.9 | 4.8 | 913 | 1.70 | 238.89 | 23.2 | 20.6 | | | |
| 4.9 | 6.1 | 716 | 2.20 | 187.48 | 23.7 | 21.0 | | | |
| 6.4 | 7.9 | 553 | 2.85 | 144.69 | 24.0 | 21.4 | | | |
| 3.8 | 4.6 | 935 | 1.70 | 368.94 | 23.1 | 20.6 | CG083-14P-71-04F CF083-14P-71-04F | 64 68 | 148 |
| 4.9 | 6.0 | 721 | 2.15 | 284.84 | 23.7 | 21.0 | | | |
| 5.8 | 7.2 | 605 | 2.60 | 238.89 | 23.9 | 21.3 | | | |
| 3.3 | 4.1 | 1064 | 0.80 | 278.44 | 7.6 | 12.5 | CG073-14P-80-06E CF073-14P-80-06E | 43 47 | 146 |
| 3.7 | 4.5 | 968 | 0.85 | 253.30 | 9.1 | 12.4 | | | |
| 4.3 | 5.3 | 826 | 1.00 | 216.20 | 10.6 | 13.1 | | | |
| 4.7 | 5.8 | 751 | 1.10 | 196.68 | 11.3 | 13.1 | | | |
| 5.2 | 6.4 | 678 | 1.25 | 177.39 | 11.9 | 13.5 | | | |
| 5.7 | 7.1 | 616 | 1.35 | 161.38 | 12.3 | 13.5 | | | |
| 6.7 | 8.3 | 525 | 1.60 | 137.38 | 12.8 | 13.9 | | | |
| 7.4 | 9.1 | 477 | 1.75 | 124.97 | 13.0 | 13.9 | | | |
| 8.9 | 11 | 399 | 2.10 | 104.50 | 13.3 | 14.3 | | | |
| 9.7 | 12 | 363 | 2.30 | 95.06 | 13.5 | 14.3 | | | |
| 11 | 13 | 329 | 2.50 | 86.17 | 13.6 | 14.5 | | | |
| 12 | 15 | 299 | 2.75 | 78.39 | 13.6 | 14.5 | | | |

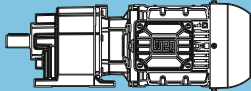
| P_N = 0.37 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|------------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 4.0 | 4.9 | 890 | 0.95 | 351.33 | 10.0 | 12.9 | CG073-14P-71-04F CF073-14P-71-04F | 40 44 | 146 |
| 4.4 | 5.4 | 810 | 1.05 | 319.60 | 10.8 | 12.9 | | | |
| 5.0 | 6.1 | 705 | 1.20 | 278.44 | 11.7 | 13.5 | | | |
| 5.5 | 6.8 | 642 | 1.30 | 253.30 | 12.1 | 13.4 | | | |
| 6.5 | 7.9 | 548 | 1.50 | 216.20 | 12.7 | 13.9 | | | |
| 7.1 | 8.7 | 498 | 1.65 | 196.68 | 12.9 | 13.9 | | | |
| 7.9 | 9.6 | 449 | 1.85 | 177.39 | 13.1 | 14.2 | | | |
| 8.6 | 11 | 409 | 2.05 | 161.38 | 13.3 | 14.2 | | | |
| 10 | 12 | 348 | 2.40 | 137.38 | 13.5 | 14.4 | | | |
| 11 | 14 | 317 | 2.60 | 124.97 | 13.6 | 14.4 | | | |
| 4.9 | 6.1 | 719 | 0.85 | 188.11 | 6.6 | 6.0 | CG063-14P-80-06E CF063-14P-80-06E | 27 32 | 144 |
| 5.4 | 6.6 | 659 | 0.95 | 172.49 | 7.5 | 6.2 | | | |
| 6.0 | 7.4 | 588 | 1.05 | 153.96 | 8.4 | 6.4 | | | |
| 6.6 | 8.1 | 539 | 1.15 | 141.17 | 8.9 | 6.5 | | | |
| 7.8 | 9.6 | 453 | 1.35 | 118.51 | 9.7 | 6.8 | | | |
| 8.5 | 10 | 415 | 1.45 | 108.67 | 9.9 | 6.9 | | | |
| 10 | 13 | 342 | 1.80 | 89.54 | 10.4 | 7.1 | | | |
| 11 | 14 | 314 | 1.95 | 82.10 | 10.5 | 7.2 | | | |
| 13 | 16 | 280 | 2.15 | 73.28 | 10.7 | 7.3 | | | |
| 14 | 17 | 257 | 2.35 | 67.19 | 10.8 | 7.3 | | | |
| 16 | 19 | 227 | 2.65 | 59.42 | 10.9 | 7.4 | | | |
| 17 | 21 | 208 | 2.90 | 54.49 | 10.9 | 7.5 | | | |
| 4.5 | 5.6 | 778 | 0.80 | 307.24 | 5.4 | 5.8 | | | |
| 5.0 | 6.1 | 714 | 0.85 | 281.73 | 6.7 | 6.0 | | | |
| 5.8 | 7.0 | 614 | 1.00 | 242.60 | 8.1 | 6.3 | | | |
| 6.3 | 7.7 | 563 | 1.10 | 222.46 | 8.7 | 6.4 | | | |
| 7.4 | 9.1 | 476 | 1.30 | 188.11 | 9.5 | 6.7 | | | |
| 8.1 | 9.9 | 437 | 1.40 | 172.49 | 9.8 | 6.8 | | | |
| 9.1 | 11 | 390 | 1.55 | 153.96 | 10.1 | 7.0 | | | |
| 9.9 | 12 | 358 | 1.70 | 141.17 | 10.3 | 7.1 | | | |
| 12 | 14 | 300 | 2.00 | 118.51 | 10.6 | 7.2 | | | |
| 13 | 16 | 275 | 2.20 | 108.67 | 10.7 | 7.3 | | | |
| 16 | 19 | 227 | 2.65 | 89.54 | 10.9 | 7.4 | | | |
| 17 | 21 | 208 | 2.90 | 82.10 | 10.9 | 7.5 | | | |
| 15 | 19 | 229 | 1.85 | 60.00 | 10.9 | 7.4 | CG062-14P-80-06E CF062-14P-80-06E | 26 31 | 144 |
| 17 | 21 | 210 | 1.85 | 55.02 | 10.9 | 7.5 | | | |
| 28 | 34 | 128 | 1.85 | 33.43 | 11.1 | 7.6 | | | |
| 23 | 29 | 152 | 2.80 | 60.00 | 11.1 | 7.7 | CG062-14P-71-04F CF062-14P-71-04F | 23 28 | 144 |
| 25 | 31 | 139 | 2.80 | 55.02 | 11.1 | 7.7 | | | |
| 42 | 51 | 85 | 2.80 | 33.43 | 11.2 | 7.7 | | | |
| 7.0 | 8.6 | 508 | 0.80 | 132.97 | 1.8 | 5.8 | CG053-14P-80-06E CF053-14P-80-06E | 22 27 | 142 |
| 7.7 | 9.4 | 462 | 0.90 | 120.88 | 3.6 | 6.0 | | | |
| 9.1 | 11 | 388 | 1.05 | 101.55 | 5.2 | 6.3 | | | |
| 10 | 12 | 353 | 1.15 | 92.32 | 5.7 | 6.5 | | | |
| 12 | 15 | 297 | 1.35 | 77.79 | 6.3 | 6.8 | | | |
| 13 | 16 | 270 | 1.50 | 70.71 | 6.6 | 6.9 | | | |
| 15 | 18 | 235 | 1.70 | 61.63 | 6.9 | 7.0 | | | |
| 17 | 20 | 214 | 1.90 | 56.02 | 7.0 | 7.1 | | | |
| 19 | 23 | 188 | 2.15 | 49.20 | 7.2 | 7.2 | | | |
| 21 | 25 | 171 | 2.35 | 44.73 | 7.3 | 7.3 | | | |
| 7.2 | 8.8 | 492 | 0.85 | 194.29 | 2.6 | 5.8 | | | |
| 8.4 | 10 | 419 | 1.00 | 165.45 | 4.6 | 6.2 | | | |
| 9.3 | 11 | 381 | 1.05 | 150.41 | 5.3 | 6.3 | | | |
| 10 | 13 | 337 | 1.20 | 132.97 | 5.9 | 6.6 | | | |
| 12 | 14 | 306 | 1.35 | 120.88 | 6.3 | 6.7 | | | |
| 14 | 17 | 257 | 1.60 | 101.55 | 6.7 | 6.9 | | | |
| 15 | 19 | 234 | 1.75 | 92.32 | 6.9 | 7.0 | | | |
| 18 | 22 | 197 | 2.05 | 77.79 | 7.1 | 7.2 | | | |
| 20 | 24 | 179 | 2.25 | 70.71 | 7.2 | 7.3 | | | |
| 23 | 28 | 156 | 2.60 | 61.63 | 7.4 | 7.4 | | | |
| 25 | 31 | 142 | 2.85 | 56.02 | 7.4 | 7.4 | | | |



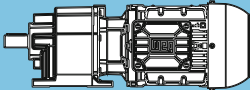
Legend see page 29

$P_N = 0.37 \text{ kW}$

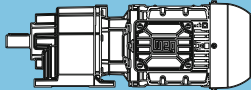
IE3

| 50 Hz 0.37 kW | 60 Hz 0.44 kW | M_2 Nm | f_b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
|------------------|------------------|-------------|-------|-------|----------------|----------------|--|----------|--------------------------------|
| | | | | | F_{rN} kN | F_{aN} kN | | | |
| 16 | 19 | 225 | 1.15 | 58.85 | 7.0 | 7.1 | CG052-14P-80-06E CF052-14P-80-06E | 21 26 | 142 |
| 17 | 21 | 204 | 1.15 | 53.50 | 7.1 | 7.2 | | | |
| 19 | 24 | 184 | 1.85 | 48.13 | 7.2 | 7.3 | | | |
| 21 | 26 | 167 | 1.85 | 43.75 | 7.3 | 7.3 | | | |
| 24 | 30 | 145 | 2.80 | 38.00 | 7.4 | 7.4 | | | |
| 26 | 32 | 136 | 1.15 | 35.67 | 7.5 | 7.3 | | | |
| 32 | 39 | 111 | 1.85 | 29.17 | 7.5 | 7.5 | CG052-14P-71-04F CF052-14P-71-04F | 18 23 | 142 |
| 24 | 29 | 149 | 1.70 | 58.85 | 7.4 | 7.4 | | | |
| 26 | 32 | 136 | 1.70 | 53.50 | 7.5 | 7.5 | | | |
| 29 | 36 | 122 | 2.80 | 48.13 | 7.5 | 7.5 | | | |
| 32 | 39 | 111 | 2.80 | 43.75 | 7.5 | 7.6 | | | |
| 39 | 48 | 90 | 1.70 | 35.67 | 7.6 | 7.6 | | | |
| 48 | 59 | 74 | 2.80 | 29.17 | 7.6 | 7.7 | CG033-14P-80-06E CF033-14P-80-06E | 17 19 | 140 |
| 14 | 18 | 245 | 0.85 | 64.05 | 4.0 | 3.1 | | | |
| 16 | 20 | 222 | 0.95 | 58.17 | 4.4 | 3.2 | | | |
| 17 | 21 | 211 | 0.95 | 55.25 | 4.6 | 3.3 | | | |
| 18 | 23 | 192 | 1.05 | 50.18 | 4.9 | 3.4 | | | |
| 19 | 24 | 184 | 1.10 | 48.22 | 4.9 | 3.5 | | | |
| 21 | 26 | 167 | 1.20 | 43.79 | 5.1 | 3.5 | | | |
| 26 | 32 | 135 | 1.50 | 35.38 | 5.4 | 3.8 | | | |
| 29 | 35 | 123 | 1.65 | 32.13 | 5.5 | 3.8 | | | |
| 14 | 17 | 253 | 0.80 | 99.71 | 3.9 | 3.0 | CG033-14P-71-04F CF033-14P-71-04F | 14 16 | 140 |
| 16 | 20 | 217 | 0.95 | 85.78 | 4.5 | 3.2 | | | |
| 18 | 22 | 197 | 1.05 | 77.90 | 4.8 | 3.3 | | | |
| 22 | 27 | 162 | 1.25 | 64.05 | 5.2 | 3.6 | | | |
| 24 | 29 | 147 | 1.40 | 58.17 | 5.3 | 3.7 | | | |
| 29 | 35 | 122 | 1.65 | 48.22 | 5.5 | 3.8 | | | |
| 32 | 39 | 111 | 1.85 | 43.79 | 5.6 | 3.9 | | | |
| 39 | 48 | 90 | 2.25 | 35.38 | 5.7 | 4.0 | | | |
| 43 | 53 | 81 | 2.50 | 32.13 | 5.7 | 4.1 | | | |
| 22 | 27 | 164 | 1.15 | 42.88 | 5.2 | 3.6 | CG032-14P-80-06E CF032-14P-80-06E | 17 19 | 140 |
| 24 | 29 | 149 | 1.15 | 38.95 | 5.3 | 3.7 | | | |
| 27 | 33 | 133 | 1.55 | 34.88 | 5.4 | 3.8 | | | |
| 29 | 36 | 121 | 1.70 | 31.67 | 5.5 | 3.8 | | | |
| 33 | 41 | 106 | 1.90 | 27.71 | 5.6 | 3.9 | | | |
| 37 | 45 | 96 | 2.10 | 25.17 | 5.7 | 4.0 | | | |
| 38 | 47 | 92 | 1.15 | 24.03 | 5.7 | 3.9 | | | |
| 43 | 53 | 82 | 2.45 | 21.40 | 5.7 | 4.1 | | | |
| 47 | 58 | 75 | 1.75 | 19.54 | 5.5 | 4.0 | | | |
| 48 | 59 | 74 | 2.70 | 19.44 | 5.5 | 4.1 | | | |
| 60 | 73 | 59 | 2.20 | 15.53 | 5.1 | 4.2 | | | |
| 77 | 95 | 46 | 2.85 | 11.99 | 4.8 | 4.3 | | | |
| 33 | 40 | 109 | 1.70 | 42.88 | 5.6 | 3.9 | CG032-14P-71-04F CF032-14P-71-04F | 14 16 | 140 |
| 36 | 44 | 99 | 1.75 | 38.95 | 5.7 | 4.0 | | | |
| 40 | 49 | 88 | 2.30 | 34.88 | 5.7 | 4.0 | | | |
| 44 | 54 | 80 | 2.50 | 31.67 | 5.6 | 4.1 | | | |
| 50 | 62 | 70 | 2.85 | 27.71 | 5.5 | 4.2 | | | |
| 58 | 71 | 61 | 1.70 | 24.03 | 5.2 | 4.1 | | | |
| 71 | 88 | 49 | 2.60 | 19.54 | 4.9 | 4.2 | | | |

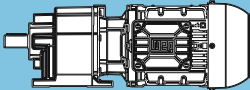
Legend see page 29

| P_N = 0.37 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|------------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 31 | 38 | 113 | 0.80 | 29.65 | 2.6 | 0.9 | CG012-14P-80-06E CF012-14P-80-06E | 15 16 | 138 |
| 36 | 45 | 97 | 0.90 | 25.50 | 2.9 | 1.0 | | | |
| 40 | 50 | 87 | 1.00 | 22.85 | 3.0 | 1.1 | | | |
| 46 | 57 | 76 | 1.15 | 19.92 | 3.2 | 1.1 | | | |
| 47 | 58 | 75 | 0.90 | 19.51 | 3.2 | 1.0 | | | |
| 52 | 64 | 68 | 1.25 | 17.85 | 3.3 | 1.2 | | | |
| 58 | 72 | 60 | 1.10 | 15.82 | 3.3 | 1.1 | | | |
| 62 | 77 | 57 | 1.50 | 14.88 | 3.4 | 1.3 | | | |
| 69 | 86 | 51 | 1.70 | 13.33 | 3.4 | 1.3 | | | |
| 72 | 89 | 49 | 1.75 | 12.83 | 3.4 | 1.3 | | | |
| 74 | 91 | 48 | 1.40 | 12.46 | 3.3 | 1.2 | | | |
| 80 | 99 | 44 | 1.95 | 11.50 | 3.3 | 1.3 | | | |
| 83 | 102 | 43 | 2.00 | 11.20 | 3.3 | 1.4 | | | |
| 92 | 114 | 38 | 2.15 | 10.04 | 3.2 | 1.4 | | | |
| 96 | 119 | 37 | 1.80 | 9.60 | 3.1 | 1.3 | | | |
| 113 | 139 | 31 | 2.45 | 8.22 | 3.0 | 1.4 | | | |
| 123 | 152 | 29 | 2.35 | 7.50 | 2.9 | 1.4 | | | |
| 126 | 155 | 28 | 2.65 | 7.36 | 2.9 | 1.4 | | | |
| 33 | 41 | 106 | 0.80 | 42.00 | 2.7 | 0.9 | CG012-14P-71-04F CF012-14P-71-04F | 12 13 | 138 |
| 37 | 45 | 95 | 0.90 | 37.64 | 2.9 | 1.0 | | | |
| 42 | 52 | 84 | 1.05 | 33.09 | 3.1 | 1.1 | | | |
| 47 | 58 | 75 | 1.15 | 29.65 | 3.2 | 1.1 | | | |
| 55 | 67 | 65 | 1.35 | 25.50 | 3.3 | 1.2 | | | |
| 61 | 75 | 58 | 1.50 | 22.85 | 3.4 | 1.2 | | | |
| 70 | 86 | 50 | 1.70 | 19.92 | 3.4 | 1.3 | | | |
| 72 | 88 | 49 | 1.35 | 19.51 | 3.4 | 1.2 | | | |
| 78 | 96 | 45 | 1.90 | 17.85 | 3.3 | 1.3 | | | |
| 88 | 108 | 40 | 1.65 | 15.82 | 3.2 | 1.3 | | | |
| 94 | 115 | 38 | 2.30 | 14.88 | 3.2 | 1.4 | | | |
| 105 | 128 | 34 | 2.55 | 13.33 | 3.1 | 1.4 | | | |
| 112 | 137 | 32 | 2.10 | 12.46 | 3.0 | 1.3 | | | |
| 125 | 153 | 28 | 3.00 | 11.20 | 2.9 | 1.4 | | | |
| 145 | 178 | 24 | 2.75 | 9.60 | 2.8 | 1.4 | | | |
| 54 | 66 | 66 | 0.80 | 17.29 | 3.4 | 1.1 | CG002-14P-80-06E CF002-14P-80-06E | 14 15 | 136 |
| 60 | 74 | 59 | 0.85 | 15.43 | 3.3 | 1.1 | | | |
| 68 | 84 | 52 | 1.00 | 13.54 | 3.2 | 1.2 | | | |
| 71 | 87 | 50 | 0.90 | 13.10 | 3.1 | 1.0 | | | |
| 77 | 94 | 46 | 1.10 | 12.08 | 3.1 | 1.2 | | | |
| 89 | 109 | 40 | 1.15 | 10.42 | 2.9 | 1.1 | | | |
| 93 | 114 | 38 | 1.35 | 9.97 | 3.0 | 1.3 | | | |
| 104 | 128 | 34 | 1.50 | 8.90 | 2.9 | 1.3 | | | |
| 113 | 139 | 31 | 1.45 | 8.17 | 2.8 | 1.2 | | | |
| 135 | 166 | 26 | 1.90 | 6.88 | 2.7 | 1.4 | | | |
| 151 | 186 | 23 | 2.15 | 6.14 | 2.6 | 1.4 | | | |
| 192 | 237 | 18 | 2.15 | 4.81 | 2.4 | 1.4 | | | |
| 261 | 322 | 14 | 2.60 | 3.54 | 2.2 | 1.5 | | | |
| 53 | 65 | 66 | 0.80 | 26.18 | 3.4 | 1.1 | CG002-14P-71-04F CF002-14P-71-04F | 10 11 | 136 |
| 61 | 74 | 58 | 0.90 | 23.00 | 3.3 | 1.1 | | | |
| 68 | 83 | 52 | 1.00 | 20.53 | 3.2 | 1.2 | | | |
| 81 | 99 | 44 | 1.15 | 17.29 | 3.1 | 1.3 | | | |
| 90 | 111 | 39 | 1.30 | 15.43 | 3.0 | 1.3 | | | |
| 103 | 126 | 34 | 1.50 | 13.54 | 2.9 | 1.3 | | | |
| 107 | 131 | 33 | 1.30 | 13.10 | 2.8 | 1.2 | | | |
| 115 | 142 | 31 | 1.65 | 12.08 | 2.8 | 1.4 | | | |
| 134 | 164 | 26 | 1.75 | 10.42 | 2.6 | 1.3 | | | |
| 140 | 172 | 25 | 2.00 | 9.97 | 2.6 | 1.4 | | | |
| 157 | 192 | 23 | 2.25 | 8.90 | 2.6 | 1.4 | | | |
| 171 | 209 | 21 | 2.20 | 8.17 | 2.5 | 1.4 | | | |
| 203 | 249 | 17 | 2.85 | 6.88 | 2.4 | 1.5 | | | |
| 227 | 279 | 16 | 3.25 | 6.14 | 2.3 | 1.5 | | | |
| 290 | 355 | 12 | 3.25 | 4.81 | 2.1 | 1.5 | | | |
| 394 | 483 | 9 | 3.95 | 3.54 | 1.9 | 1.5 | | | |

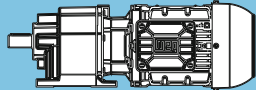
Legend see page 29

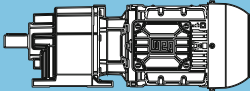
| P _N = 0.55 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------|-----------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.55 kW | 0.66 kW | M ₂ Nm | f _b | i | F _{rN} | F _{aN} | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | kN | kN | | | |
| 0.22 | 0.26 | 21566 | 0.85 | 4369.98 | 101.6 | 20.9 | CG165-14P-L80-06F CF165-14P-L80-06F | 701 724 | 170 |
| 0.26 | 0.31 | 18072 | 1.00 | 3690.13 | 113.1 | 24.1 | | | |
| 0.27 | 0.33 | 17310 | 1.05 | 3543.61 | 115.2 | 24.8 | | | |
| 0.31 | 0.38 | 14602 | 1.25 | 3020.06 | 121.7 | 27.2 | | | |
| 0.32 | 0.39 | 14305 | 1.30 | 2966.43 | 122.3 | 27.5 | | | |
| 0.39 | 0.47 | 11659 | 1.55 | 2448.96 | 127.2 | 29.9 | | | |
| 0.39 | 0.48 | 11416 | 1.60 | 2404.16 | 127.6 | 30.1 | | | |
| 0.46 | 0.56 | 9585 | 1.90 | 2050.07 | 130.3 | 31.8 | | | |
| 0.57 | 0.70 | 7569 | 2.40 | 1661.50 | 132.6 | 33.6 | | | |
| 0.20 | 0.24 | 23270 | 0.80 | 7067.08 | 94.6 | 19.4 | CG165-14P-80-04E CF165-14P-80-04E | 699 722 | 170 |
| 0.22 | 0.27 | 20785 | 0.90 | 6345.03 | 104.4 | 21.6 | | | |
| 0.27 | 0.32 | 17358 | 1.05 | 5339.57 | 115.1 | 24.7 | | | |
| 0.29 | 0.35 | 15795 | 1.15 | 4884.00 | 119.0 | 26.1 | | | |
| 0.32 | 0.39 | 14025 | 1.30 | 4369.98 | 122.9 | 27.8 | | | |
| 0.38 | 0.47 | 11691 | 1.55 | 3690.13 | 127.2 | 29.9 | | | |
| 0.40 | 0.49 | 11169 | 1.65 | 3543.61 | 128.0 | 30.4 | | | |
| 0.47 | 0.57 | 9372 | 1.95 | 3020.06 | 130.6 | 32.0 | | | |
| 0.48 | 0.58 | 9182 | 2.00 | 2966.43 | 130.8 | 32.2 | | | |
| 0.58 | 0.70 | 7405 | 2.45 | 2448.96 | 132.8 | 33.8 | | | |
| 0.59 | 0.72 | 7251 | 2.50 | 2404.16 | 133.0 | 33.9 | | | |
| 0.69 | 0.84 | 6024 | 3.00 | 2050.07 | 134.0 | 35.0 | | | |
| 0.45 | 0.55 | 10177 | 1.80 | 2093.95 | 129.5 | 31.3 | CG164-14P-L80-06F CF164-14P-L80-06F | 688 711 | 168 |
| 0.52 | 0.64 | 8657 | 2.10 | 1803.51 | 131.4 | 32.6 | | | |
| 0.57 | 0.70 | 7889 | 2.30 | 1657.33 | 132.3 | 33.3 | | | |
| 0.61 | 0.74 | 7380 | 2.45 | 1559.96 | 132.8 | 33.8 | | | |
| 0.65 | 0.80 | 6775 | 2.70 | 1447.11 | 133.4 | 34.3 | | | |
| 0.66 | 0.81 | 6683 | 2.70 | 1427.45 | 133.5 | 34.4 | | | |
| 0.68 | 0.82 | 6497 | 2.80 | 2093.95 | 133.6 | 34.6 | CG164-14P-80-04E CF164-14P-80-04E | 686 709 | 168 |
| 0.44 | 0.53 | 10753 | 1.25 | 2162.84 | 101.7 | 16.7 | CG144-14P-L80-06F CF144-14P-L80-06F | 437 455 | 164 |
| 0.50 | 0.61 | 9318 | 1.40 | 1885.79 | 104.2 | 18.2 | | | |
| 0.57 | 0.69 | 8183 | 1.60 | 1669.82 | 105.9 | 19.3 | | | |
| 0.58 | 0.71 | 7944 | 1.65 | 1624.38 | 106.2 | 19.5 | | | |
| 0.65 | 0.79 | 7061 | 1.85 | 1455.92 | 107.3 | 20.4 | | | |
| 0.67 | 0.82 | 6764 | 1.95 | 1400.42 | 107.7 | 20.7 | | | |
| 0.68 | 0.83 | 6756 | 1.95 | 1398.80 | 107.7 | 20.7 | | | |
| 0.75 | 0.92 | 5995 | 2.20 | 1254.10 | 108.5 | 21.5 | | | |
| 0.77 | 0.95 | 5825 | 2.25 | 1221.03 | 108.6 | 21.7 | | | |
| 0.86 | 1.1 | 5178 | 2.55 | 1099.05 | 109.2 | 22.3 | | | |
| 0.88 | 1.1 | 5077 | 2.60 | 1079.94 | 109.3 | 22.4 | | | |
| 0.90 | 1.1 | 4934 | 2.65 | 1051.77 | 109.4 | 22.6 | | | |
| 0.99 | 1.2 | 4440 | 2.95 | 958.27 | 109.8 | 23.1 | | | |
| 0.66 | 0.80 | 6966 | 1.90 | 2162.84 | 107.4 | 20.5 | CG144-14P-80-04E CF144-14P-80-04E | 435 453 | 164 |
| 0.75 | 0.91 | 5999 | 2.20 | 1885.79 | 108.5 | 21.5 | | | |
| 0.85 | 1.0 | 5246 | 2.50 | 1669.82 | 109.2 | 22.2 | | | |
| 0.87 | 1.1 | 5082 | 2.60 | 1624.38 | 109.3 | 22.4 | | | |
| 0.98 | 1.2 | 4498 | 2.90 | 1455.92 | 109.8 | 23.0 | | | |
| 0.50 | 0.61 | 9561 | 0.85 | 1891.77 | 56.5 | 18.6 | CG134-14P-L80-06F CF134-14P-L80-06F | 290 292 | 160 |
| 0.58 | 0.70 | 8248 | 1.00 | 1642.17 | 61.9 | 20.1 | | | |
| 0.65 | 0.79 | 7306 | 1.10 | 1460.54 | 65.0 | 21.2 | | | |
| 0.67 | 0.81 | 7083 | 1.15 | 1418.83 | 65.7 | 21.4 | | | |
| 0.75 | 0.91 | 6290 | 1.30 | 1267.83 | 67.8 | 22.3 | | | |
| 0.77 | 0.94 | 6065 | 1.35 | 1224.91 | 68.4 | 22.6 | | | |
| 0.86 | 1.1 | 5390 | 1.50 | 1095.41 | 69.9 | 23.3 | | | |
| 0.89 | 1.1 | 5221 | 1.55 | 1063.29 | 70.3 | 23.5 | | | |
| 0.98 | 1.2 | 4682 | 1.75 | 961.31 | 71.3 | 24.2 | | | |
| 1.0 | 1.3 | 4465 | 1.80 | 918.68 | 71.7 | 24.4 | | | |
| 1.1 | 1.4 | 4022 | 2.00 | 834.47 | 72.4 | 24.9 | | | |
| 1.3 | 1.6 | 3532 | 2.30 | 741.90 | 73.1 | 25.5 | | | |
| 1.3 | 1.6 | 3425 | 2.35 | 720.98 | 73.2 | 25.6 | | | |
| 1.5 | 1.8 | 3021 | 2.65 | 644.01 | 73.7 | 26.0 | | | |
| 1.5 | 1.9 | 2861 | 2.80 | 613.66 | 73.9 | 26.2 | | | |

Legend see page 29

| $P_N = 0.55 \text{ kW}$ | | | | | | | | IE3 | |
|-------------------------------|-------------------------------|-------------|-------|---------|----------------|----------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | | F_{rn} kN | F_{an} kN | | | |
| n_{50} min ⁻¹ | n_{60} min ⁻¹ | M_2 Nm | f_b | | | | | | |
| 0.75 | 0.91 | 6246 | 1.30 | 1891.77 | 68.0 | 22.4 | CG134-14P-80-04E CF134-14P-80-04E | 288 290 | 160 |
| 0.86 | 1.0 | 5378 | 1.50 | 1642.17 | 69.9 | 23.4 | | | |
| 0.97 | 1.2 | 4743 | 1.70 | 1460.54 | 71.2 | 24.1 | | | |
| 1.0 | 1.2 | 4598 | 1.75 | 1418.83 | 71.4 | 24.2 | | | |
| 1.1 | 1.4 | 4067 | 2.00 | 1267.83 | 72.3 | 24.9 | | | |
| 1.2 | 1.4 | 3921 | 2.05 | 1224.91 | 72.5 | 25.0 | | | |
| 1.3 | 1.6 | 3463 | 2.35 | 1095.41 | 73.2 | 25.5 | | | |
| 1.5 | 1.8 | 2995 | 2.70 | 961.31 | 73.7 | 26.1 | | | |
| 0.85 | 1.0 | 5652 | 0.80 | 1116.07 | 28.1 | 20.0 | CG104-14P-L80-06F CF104-14P-L80-06F | 176 180 | 156 |
| 0.87 | 1.1 | 5461 | 0.85 | 1080.49 | 29.6 | 20.3 | | | |
| 1.0 | 1.3 | 4588 | 1.00 | 913.46 | 35.1 | 21.4 | | | |
| 1.1 | 1.4 | 4160 | 1.10 | 831.69 | 37.1 | 21.9 | | | |
| 1.3 | 1.6 | 3488 | 1.30 | 703.12 | 39.8 | 22.8 | | | |
| 1.5 | 1.8 | 3092 | 1.50 | 628.39 | 41.1 | 23.3 | | | |
| 1.8 | 2.2 | 2587 | 1.75 | 531.25 | 42.5 | 23.9 | | | |
| 2.2 | 2.7 | 2078 | 2.20 | 434.78 | 43.6 | 24.6 | | | |
| 2.3 | 2.8 | 1985 | 2.30 | 417.03 | 43.8 | 24.7 | | | |
| 2.7 | 3.3 | 1647 | 2.75 | 352.56 | 44.3 | 25.1 | | | |
| 0.83 | 1.0 | 5738 | 0.80 | 1702.59 | 27.4 | 19.9 | CG104-14P-80-04E CF104-14P-80-04E | 174 178 | 156 |
| 0.99 | 1.2 | 4821 | 0.95 | 1439.39 | 33.8 | 21.1 | | | |
| 1.1 | 1.3 | 4404 | 1.05 | 1320.15 | 36.0 | 21.6 | | | |
| 1.3 | 1.5 | 3693 | 1.25 | 1116.07 | 39.1 | 22.5 | | | |
| 1.6 | 1.9 | 2985 | 1.55 | 913.46 | 41.4 | 23.4 | | | |
| 1.7 | 2.1 | 2701 | 1.70 | 831.69 | 42.2 | 23.8 | | | |
| 2.0 | 2.4 | 2255 | 2.00 | 703.12 | 43.2 | 24.3 | | | |
| 2.3 | 2.7 | 1991 | 2.30 | 628.39 | 43.8 | 24.7 | | | |
| 2.7 | 3.2 | 1652 | 2.75 | 531.25 | 44.3 | 25.1 | | | |
| 2.8 | 3.3 | 1592 | 2.85 | 514.28 | 44.4 | 25.2 | | | |
| 1.2 | 1.5 | 3961 | 0.80 | 782.16 | 12.6 | 24.1 | CG094-14P-L80-06F CF094-14P-L80-06F | 134 132 | 152 |
| 1.3 | 1.6 | 3616 | 0.85 | 715.43 | 17.4 | 24.7 | | | |
| 1.5 | 1.8 | 3222 | 0.95 | 640.13 | 21.2 | 25.2 | | | |
| 1.7 | 2.1 | 2698 | 1.15 | 540.55 | 24.9 | 26.0 | | | |
| 1.8 | 2.2 | 2586 | 1.20 | 519.08 | 25.5 | 26.2 | | | |
| 1.9 | 2.3 | 2524 | 1.20 | 506.66 | 25.8 | 26.3 | | | |
| 2.1 | 2.6 | 2186 | 1.40 | 442.39 | 27.5 | 26.8 | | | |
| 2.2 | 2.7 | 2147 | 1.40 | 434.54 | 27.6 | 26.8 | | | |
| 2.3 | 2.8 | 2022 | 1.50 | 410.85 | 28.1 | 27.0 | | | |
| 2.6 | 3.2 | 1747 | 1.75 | 358.73 | 29.1 | 27.4 | | | |
| 2.7 | 3.3 | 1715 | 1.75 | 352.17 | 29.2 | 27.5 | | | |
| 3.1 | 3.8 | 1441 | 2.10 | 300.30 | 30.0 | 27.9 | | | |
| 3.4 | 4.1 | 1327 | 2.30 | 278.74 | 30.3 | 28.0 | | | |
| 3.9 | 4.7 | 1142 | 2.65 | 243.38 | 30.7 | 28.3 | | | |
| 1.3 | 1.5 | 3827 | 0.80 | 1135.60 | 14.7 | 24.3 | CG094-14P-80-04E CF094-14P-80-04E | 132 130 | 152 |
| 1.4 | 1.7 | 3475 | 0.90 | 1035.22 | 18.9 | 24.9 | | | |
| 1.5 | 1.9 | 3107 | 1.00 | 929.45 | 22.1 | 25.4 | | | |
| 1.7 | 2.1 | 2728 | 1.10 | 819.36 | 24.7 | 26.0 | | | |
| 1.8 | 2.2 | 2593 | 1.20 | 782.16 | 25.5 | 26.2 | | | |
| 2.0 | 2.4 | 2362 | 1.30 | 715.43 | 26.7 | 26.5 | | | |
| 2.2 | 2.7 | 2101 | 1.45 | 640.13 | 27.8 | 26.9 | | | |
| 2.3 | 2.8 | 2027 | 1.50 | 619.07 | 28.1 | 27.0 | | | |
| 2.6 | 3.2 | 1752 | 1.75 | 540.55 | 29.1 | 27.4 | | | |
| 2.7 | 3.3 | 1679 | 1.80 | 519.08 | 29.4 | 27.5 | | | |
| 2.8 | 3.4 | 1635 | 1.85 | 506.66 | 29.5 | 27.6 | | | |
| 3.2 | 3.9 | 1410 | 2.15 | 442.39 | 30.1 | 27.9 | | | |
| 3.3 | 4.0 | 1382 | 2.20 | 434.54 | 30.2 | 28.0 | | | |
| 3.5 | 4.2 | 1299 | 2.35 | 410.85 | 30.4 | 28.1 | | | |
| 4.0 | 4.8 | 1118 | 2.70 | 358.73 | 30.8 | 28.3 | | | |
| 4.1 | 5.0 | 1065 | 2.85 | 343.93 | 30.9 | 28.4 | | | |
| 3.1 | 3.8 | 1705 | 1.80 | 306.73 | 29.3 | 27.5 | CG093-14P-L80-06F CF093-14P-L80-06F | 121 119 | 150 |
| 3.9 | 4.8 | 1349 | 2.25 | 242.77 | 30.3 | 28.0 | | | |
| 4.5 | 5.4 | 1178 | 2.55 | 211.98 | 30.7 | 28.3 | | | |
| 5.0 | 6.2 | 1041 | 2.90 | 187.34 | 30.9 | 28.5 | | | |

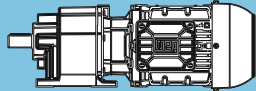
Legend see page 29

| P _N = 0.55 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.55 kW | 0.66 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 4.6 | 5.6 | 1135 | 2.65 | 306.73 | 30.7 | 28.3 | CG093-14P-80-04E CF093-14P-80-04E | 119 117 | 150 |
| 2.6 | 3.1 | 2051 | 0.80 | 368.94 | 16.5 | 18.3 | CG083-14P-L80-06F CF083-14P-L80-06F | 68 72 | 148 |
| 3.3 | 4.1 | 1583 | 1.00 | 284.84 | 20.1 | 19.3 | | | |
| 4.0 | 4.8 | 1328 | 1.20 | 238.89 | 21.5 | 19.8 | | | |
| 5.0 | 6.2 | 1042 | 1.50 | 187.48 | 22.7 | 20.4 | | | |
| 6.5 | 8.0 | 804 | 1.95 | 144.69 | 23.5 | 20.9 | | | |
| 7.9 | 9.7 | 665 | 2.35 | 119.68 | 23.8 | 21.1 | | | |
| 9.3 | 11 | 566 | 2.75 | 101.80 | 24.0 | 21.3 | CG083-14P-80-04E CF083-14P-80-04E | 66 70 | 148 |
| 3.8 | 4.7 | 1365 | 1.15 | 368.94 | 21.3 | 19.7 | | | |
| 5.0 | 6.0 | 1054 | 1.50 | 284.84 | 22.7 | 20.3 | | | |
| 5.9 | 7.2 | 884 | 1.80 | 238.89 | 23.2 | 20.7 | | | |
| 7.6 | 9.2 | 693 | 2.25 | 187.48 | 23.7 | 21.1 | | | |
| 9.8 | 12 | 535 | 2.90 | 144.69 | 24.1 | 21.4 | | | |
| 4.8 | 5.9 | 1093 | 0.80 | 196.68 | 7.1 | 12.1 | CG073-14P-L80-06F CF073-14P-L80-06F | 44 48 | 146 |
| 5.3 | 6.5 | 986 | 0.85 | 177.39 | 8.8 | 12.7 | | | |
| 5.9 | 7.2 | 897 | 0.95 | 161.38 | 9.9 | 12.7 | | | |
| 6.9 | 8.4 | 764 | 1.10 | 137.38 | 11.2 | 13.3 | | | |
| 7.6 | 9.2 | 695 | 1.20 | 124.97 | 11.7 | 13.3 | | | |
| 9.0 | 11 | 581 | 1.45 | 104.50 | 12.5 | 13.8 | | | |
| 9.9 | 12 | 528 | 1.60 | 95.06 | 12.8 | 13.8 | | | |
| 11 | 13 | 479 | 1.75 | 86.17 | 13.0 | 14.1 | | | |
| 12 | 15 | 436 | 1.90 | 78.39 | 13.2 | 14.1 | | | |
| 13 | 16 | 393 | 2.10 | 70.68 | 13.4 | 14.3 | | | |
| 15 | 18 | 357 | 2.30 | 64.30 | 13.5 | 14.3 | | | |
| 16 | 19 | 334 | 2.50 | 60.06 | 13.5 | 14.5 | | | |
| 17 | 21 | 304 | 2.75 | 54.63 | 13.6 | 14.5 | | | |
| 19 | 23 | 274 | 3.00 | 49.38 | 13.7 | 14.6 | | | |
| 5.1 | 6.2 | 1030 | 0.80 | 278.44 | 8.2 | 12.6 | CG073-14P-80-04E CF073-14P-80-04E | 42 46 | 146 |
| 5.6 | 6.8 | 937 | 0.90 | 253.30 | 9.5 | 12.5 | | | |
| 6.6 | 8.0 | 800 | 1.05 | 216.20 | 10.9 | 13.2 | | | |
| 7.2 | 8.7 | 727 | 1.15 | 196.68 | 11.5 | 13.2 | | | |
| 8.0 | 9.7 | 656 | 1.25 | 177.39 | 12.0 | 13.6 | | | |
| 8.8 | 11 | 597 | 1.40 | 161.38 | 12.4 | 13.6 | | | |
| 10 | 13 | 508 | 1.65 | 137.38 | 12.9 | 14.0 | | | |
| 11 | 14 | 462 | 1.80 | 124.97 | 13.1 | 14.0 | | | |
| 14 | 16 | 387 | 2.15 | 104.50 | 13.4 | 14.3 | | | |
| 15 | 18 | 352 | 2.35 | 95.06 | 13.5 | 14.3 | | | |
| 16 | 20 | 319 | 2.60 | 86.17 | 13.6 | 14.5 | | | |
| 18 | 22 | 290 | 2.85 | 78.39 | 13.7 | 14.5 | | | |
| 6.7 | 8.2 | 785 | 0.80 | 141.17 | 5.3 | 5.8 | CG063-14P-L80-06F CF063-14P-L80-06F | 28 33 | 144 |
| 8.0 | 9.7 | 659 | 0.95 | 118.51 | 7.5 | 6.2 | | | |
| 8.7 | 11 | 604 | 1.00 | 108.67 | 8.2 | 6.3 | | | |
| 11 | 13 | 498 | 1.25 | 89.54 | 9.3 | 6.7 | | | |
| 12 | 14 | 456 | 1.35 | 82.10 | 9.6 | 6.8 | | | |
| 13 | 16 | 407 | 1.50 | 73.28 | 10.0 | 6.9 | | | |
| 14 | 17 | 373 | 1.65 | 67.19 | 10.2 | 7.0 | | | |
| 16 | 19 | 330 | 1.85 | 59.42 | 10.4 | 7.1 | | | |
| 17 | 21 | 303 | 2.00 | 54.49 | 10.6 | 7.2 | | | |
| 19 | 23 | 276 | 2.20 | 49.74 | 10.7 | 7.3 | | | |
| 21 | 25 | 254 | 2.40 | 45.61 | 10.8 | 7.4 | | | |
| 7.5 | 9.1 | 696 | 0.90 | 188.11 | 7.0 | 6.1 | CG063-14P-80-04E CF063-14P-80-04E | 26 31 | 144 |
| 8.2 | 10 | 638 | 0.95 | 172.49 | 7.8 | 6.2 | | | |
| 9.2 | 11 | 569 | 1.10 | 153.96 | 8.6 | 6.5 | | | |
| 10 | 12 | 522 | 1.15 | 141.17 | 9.1 | 6.6 | | | |
| 12 | 15 | 438 | 1.40 | 118.51 | 9.8 | 6.8 | | | |
| 13 | 16 | 402 | 1.50 | 108.67 | 10.0 | 6.9 | | | |
| 16 | 19 | 331 | 1.85 | 89.54 | 10.4 | 7.1 | | | |
| 17 | 21 | 304 | 2.00 | 82.10 | 10.6 | 7.2 | | | |
| 19 | 23 | 271 | 2.25 | 73.28 | 10.7 | 7.3 | | | |
| 21 | 26 | 249 | 2.45 | 67.19 | 10.8 | 7.4 | | | |
| 24 | 29 | 220 | 2.75 | 59.42 | 10.9 | 7.5 | | | |
| 26 | 32 | 202 | 3.00 | 54.49 | 11.0 | 7.5 | | | |

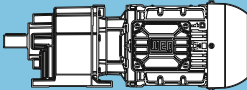
| P _N = 0.55 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 16 | 19 | 333 | 1.30 | 60.00 | 10.4 | 7.1 | CG062-14P-L80-06F CF062-14P-L80-06F | 28 33 | 144 |
| 17 | 21 | 306 | 1.30 | 55.02 | 10.6 | 7.2 | | | |
| 20 | 24 | 264 | 2.30 | 47.55 | 10.7 | 7.3 | | | |
| 22 | 26 | 242 | 2.35 | 43.60 | 10.8 | 7.4 | | | |
| 26 | 31 | 205 | 2.95 | 36.92 | 10.9 | 7.5 | | | |
| 28 | 35 | 186 | 1.30 | 33.43 | 11.0 | 7.3 | | | |
| 36 | 44 | 147 | 2.35 | 26.49 | 11.1 | 7.5 | | | |
| 24 | 29 | 222 | 1.90 | 60.00 | 10.9 | 7.5 | CG062-14P-80-04E CF062-14P-80-04E | 25 30 | 144 |
| 26 | 31 | 204 | 1.90 | 55.02 | 10.9 | 7.5 | | | |
| 42 | 51 | 124 | 1.90 | 33.43 | 11.1 | 7.6 | | | |
| 10 | 13 | 513 | 0.80 | 92.32 | 1.4 | 5.7 | CG053-14P-L80-06F CF053-14P-L80-06F | 23 28 | 142 |
| 12 | 15 | 432 | 0.95 | 77.79 | 4.3 | 6.1 | | | |
| 13 | 16 | 393 | 1.05 | 70.71 | 5.1 | 6.3 | | | |
| 15 | 19 | 343 | 1.20 | 61.63 | 5.8 | 6.5 | | | |
| 17 | 21 | 311 | 1.30 | 56.02 | 6.2 | 6.7 | | | |
| 19 | 23 | 273 | 1.50 | 49.20 | 6.6 | 6.9 | | | |
| 21 | 26 | 249 | 1.65 | 44.73 | 6.8 | 7.0 | | | |
| 11 | 13 | 492 | 0.85 | 132.97 | 2.6 | 5.9 | CG053-14P-80-04E CF053-14P-80-04E | 21 26 | 142 |
| 12 | 14 | 447 | 0.90 | 120.88 | 4.0 | 6.0 | | | |
| 14 | 17 | 376 | 1.10 | 101.55 | 5.4 | 6.4 | | | |
| 15 | 19 | 341 | 1.20 | 92.32 | 5.8 | 6.5 | | | |
| 18 | 22 | 288 | 1.40 | 77.79 | 6.4 | 6.8 | | | |
| 20 | 24 | 262 | 1.55 | 70.71 | 6.7 | 6.9 | | | |
| 23 | 28 | 228 | 1.80 | 61.63 | 6.9 | 7.1 | | | |
| 25 | 31 | 207 | 1.95 | 56.02 | 7.1 | 7.1 | | | |
| 29 | 35 | 182 | 2.20 | 49.20 | 7.2 | 7.3 | | | |
| 32 | 38 | 165 | 2.45 | 44.73 | 7.3 | 7.3 | | | |
| 16 | 20 | 327 | 0.80 | 58.85 | 6.0 | 6.6 | CG052-14P-L80-06F CF052-14P-L80-06F | 22 27 | 142 |
| 18 | 22 | 297 | 0.80 | 53.50 | 6.3 | 6.7 | | | |
| 20 | 24 | 267 | 1.30 | 48.13 | 6.6 | 6.9 | | | |
| 22 | 26 | 243 | 1.30 | 43.75 | 6.8 | 7.0 | | | |
| 25 | 30 | 211 | 1.90 | 38.00 | 7.1 | 7.1 | | | |
| 26 | 32 | 198 | 0.80 | 35.67 | 7.1 | 7.0 | | | |
| 27 | 33 | 192 | 2.10 | 34.55 | 7.2 | 7.2 | | | |
| 32 | 39 | 164 | 2.45 | 29.46 | 7.3 | 7.4 | | | |
| 35 | 43 | 149 | 2.70 | 26.79 | 7.4 | 7.4 | | | |
| 39 | 48 | 134 | 3.00 | 24.12 | 7.5 | 7.5 | | | |
| 41 | 50 | 128 | 2.10 | 23.03 | 7.5 | 7.4 | | | |
| 53 | 65 | 99 | 2.70 | 17.86 | 7.6 | 7.5 | | | |
| 24 | 29 | 218 | 1.15 | 58.85 | 7.0 | 7.1 | CG052-14P-80-04E CF052-14P-80-04E | 20 25 | 142 |
| 27 | 32 | 198 | 1.15 | 53.50 | 7.1 | 7.2 | | | |
| 30 | 36 | 178 | 1.90 | 48.13 | 7.3 | 7.3 | | | |
| 32 | 39 | 162 | 1.90 | 43.75 | 7.3 | 7.4 | | | |
| 37 | 45 | 141 | 2.85 | 38.00 | 7.4 | 7.5 | | | |
| 40 | 48 | 132 | 1.15 | 35.67 | 7.5 | 7.3 | | | |
| 49 | 59 | 108 | 1.90 | 29.17 | 7.6 | 7.5 | | | |
| 22 | 26 | 243 | 0.85 | 43.79 | 4.1 | 3.1 | CG033-14P-L80-06F CF033-14P-L80-06F | 19 21 | 140 |
| 27 | 33 | 197 | 1.05 | 35.38 | 4.8 | 3.4 | | | |
| 29 | 36 | 179 | 1.15 | 32.13 | 5.0 | 3.5 | | | |
| 22 | 27 | 237 | 0.85 | 64.05 | 4.2 | 3.1 | CG033-14P-80-04E CF033-14P-80-04E | 16 18 | 140 |
| 24 | 30 | 215 | 0.95 | 58.17 | 4.5 | 3.2 | | | |
| 26 | 31 | 204 | 1.00 | 55.25 | 4.7 | 3.3 | | | |
| 28 | 34 | 186 | 1.10 | 50.18 | 4.9 | 3.4 | | | |
| 29 | 36 | 178 | 1.15 | 48.22 | 5.0 | 3.5 | | | |
| 32 | 39 | 162 | 1.25 | 43.79 | 5.2 | 3.6 | | | |
| 40 | 49 | 131 | 1.55 | 35.38 | 5.5 | 3.8 | | | |
| 44 | 54 | 119 | 1.70 | 32.13 | 5.4 | 3.8 | | | |



Legend see page 29

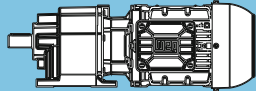
| P _N = 0.55 kW | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|--|----------|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page | | | |
| 0.55 kW | 0.66 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | | | | |
| 22 | 27 | 238 | 0.80 | 42.88 | 4.2 | 3.1 | CG032-14P-L80-06F CF032-14P-L80-06F | 18 20 | 140 | | | |
| 24 | 30 | 216 | 0.80 | 38.95 | 4.5 | 3.2 | | | | | | |
| 27 | 33 | 194 | 1.05 | 34.88 | 4.8 | 3.4 | | | | | | |
| 30 | 36 | 176 | 1.15 | 31.67 | 5.0 | 3.5 | | | | | | |
| 34 | 42 | 154 | 1.30 | 27.71 | 5.3 | 3.6 | | | | | | |
| 38 | 46 | 140 | 1.45 | 25.17 | 5.4 | 3.7 | | | | | | |
| 39 | 48 | 134 | 0.80 | 24.03 | 5.4 | 3.6 | | | | | | |
| 44 | 54 | 119 | 1.70 | 21.40 | 5.4 | 3.9 | | | | | | |
| 48 | 59 | 109 | 1.20 | 19.54 | 5.2 | 3.8 | | | | | | |
| 49 | 59 | 108 | 1.90 | 19.44 | 5.3 | 3.9 | | | | | | |
| 55 | 68 | 95 | 2.15 | 17.09 | 5.1 | 4.0 | | | | | | |
| 61 | 74 | 86 | 1.55 | 15.53 | 4.9 | 4.0 | | | | | | |
| 73 | 89 | 72 | 2.75 | 12.92 | 4.8 | 4.2 | | | | | | |
| 79 | 96 | 67 | 2.00 | 11.99 | 4.6 | 4.1 | | | | | | |
| 99 | 121 | 53 | 2.45 | 9.57 | 4.3 | 4.2 | | | | | | |
| 33 | 40 | 159 | 1.20 | 42.88 | 5.2 | 3.6 | CG032-14P-80-04E CF032-14P-80-04E | 16 18 | 140 | | | |
| 36 | 44 | 144 | 1.20 | 38.95 | 5.3 | 3.7 | | | | | | |
| 41 | 49 | 129 | 1.60 | 34.88 | 5.5 | 3.8 | | | | | | |
| 45 | 54 | 117 | 1.75 | 31.67 | 5.4 | 3.9 | | | | | | |
| 51 | 62 | 103 | 2.00 | 27.71 | 5.2 | 4.0 | | | | | | |
| 56 | 68 | 93 | 2.15 | 25.17 | 5.1 | 4.0 | | | | | | |
| 59 | 72 | 89 | 1.20 | 24.03 | 5.0 | 3.9 | | | | | | |
| 66 | 80 | 79 | 2.55 | 21.40 | 4.9 | 4.1 | | | | | | |
| 73 | 88 | 72 | 1.80 | 19.54 | 4.7 | 4.1 | | | | | | |
| 91 | 111 | 57 | 2.30 | 15.53 | 4.4 | 4.2 | | | | | | |
| 118 | 143 | 44 | 2.95 | 11.99 | 4.1 | 4.3 | | | | | | |
| 47 | 58 | 111 | 0.80 | 19.92 | 2.6 | 0.9 | | | | CG012-14P-L80-06F CF012-14P-L80-06F | 16 17 | 138 |
| 53 | 65 | 99 | 0.90 | 17.85 | 2.8 | 1.0 | | | | | | |
| 60 | 73 | 88 | 0.80 | 15.82 | 3.0 | 0.8 | | | | | | |
| 64 | 78 | 83 | 1.05 | 14.88 | 3.1 | 1.1 | | | | | | |
| 71 | 87 | 74 | 1.15 | 13.33 | 3.2 | 1.1 | | | | | | |
| 74 | 90 | 71 | 1.20 | 12.83 | 3.2 | 1.2 | | | | | | |
| 76 | 93 | 69 | 1.00 | 12.46 | 3.2 | 1.0 | | | | | | |
| 82 | 100 | 64 | 1.35 | 11.50 | 3.2 | 1.2 | | | | | | |
| 84 | 103 | 62 | 1.35 | 11.20 | 3.2 | 1.2 | | | | | | |
| 94 | 115 | 56 | 1.50 | 10.04 | 3.1 | 1.3 | | | | | | |
| 98 | 120 | 53 | 1.25 | 9.60 | 3.0 | 1.1 | | | | | | |
| 115 | 141 | 46 | 1.70 | 8.22 | 2.9 | 1.3 | | | | | | |
| 126 | 154 | 42 | 1.60 | 7.50 | 2.8 | 1.3 | | | | | | |
| 128 | 157 | 41 | 1.85 | 7.36 | 2.8 | 1.4 | | | | | | |
| 169 | 206 | 31 | 2.15 | 5.60 | 2.6 | 1.3 | | | | | | |
| 196 | 239 | 27 | 2.50 | 4.83 | 2.5 | 1.4 | | | | | | |
| 224 | 274 | 23 | 2.85 | 4.22 | 2.4 | 1.4 | | | | | | |
| 48 | 58 | 110 | 0.80 | 29.65 | 2.6 | 0.9 | CG012-14P-80-04E CF012-14P-80-04E | 14 15 | 138 | | | |
| 56 | 67 | 94 | 0.95 | 25.50 | 2.9 | 1.0 | | | | | | |
| 62 | 75 | 85 | 1.05 | 22.85 | 3.1 | 1.1 | | | | | | |
| 71 | 86 | 74 | 1.20 | 19.92 | 3.2 | 1.2 | | | | | | |
| 73 | 88 | 72 | 0.95 | 19.51 | 3.2 | 1.0 | | | | | | |
| 80 | 96 | 66 | 1.30 | 17.85 | 3.2 | 1.2 | | | | | | |
| 90 | 109 | 59 | 1.15 | 15.82 | 3.0 | 1.1 | | | | | | |
| 95 | 116 | 55 | 1.55 | 14.88 | 3.1 | 1.3 | | | | | | |
| 107 | 129 | 49 | 1.75 | 13.33 | 3.0 | 1.3 | | | | | | |
| 111 | 134 | 47 | 1.80 | 12.83 | 2.9 | 1.3 | | | | | | |
| 114 | 138 | 46 | 1.45 | 12.46 | 2.9 | 1.2 | | | | | | |
| 123 | 150 | 43 | 2.00 | 11.50 | 2.8 | 1.3 | | | | | | |
| 127 | 154 | 41 | 2.05 | 11.20 | 2.8 | 1.4 | | | | | | |
| 141 | 171 | 37 | 2.20 | 10.04 | 2.7 | 1.4 | | | | | | |
| 148 | 179 | 36 | 1.90 | 9.60 | 2.7 | 1.3 | | | | | | |
| 173 | 209 | 30 | 2.55 | 8.22 | 2.6 | 1.4 | | | | | | |
| 189 | 229 | 28 | 2.40 | 7.50 | 2.5 | 1.4 | | | | | | |
| 193 | 234 | 27 | 2.75 | 7.36 | 2.5 | 1.4 | | | | | | |

Legend see page 29

| P _N = 0.55 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 91 | 111 | 58 | 0.80 | 10.42 | 2.7 | 0.9 | CG002-14P-L80-06F CF002-14P-L80-06F | 15 16 | 136 |
| 95 | 116 | 55 | 0.95 | 9.97 | 2.8 | 1.2 | | | |
| 106 | 130 | 49 | 1.05 | 8.90 | 2.7 | 1.2 | | | |
| 116 | 141 | 45 | 1.00 | 8.17 | 2.6 | 1.1 | | | |
| 137 | 168 | 38 | 1.30 | 6.88 | 2.6 | 1.3 | | | |
| 154 | 188 | 34 | 1.25 | 6.14 | 2.4 | 1.2 | | | |
| 196 | 240 | 27 | 1.50 | 4.81 | 2.3 | 1.3 | | | |
| 267 | 326 | 20 | 1.80 | 3.54 | 2.1 | 1.4 | | | |
| 387 | 473 | 14 | 2.30 | 2.44 | 1.9 | 1.5 | | | |
| 82 | 100 | 64 | 0.80 | 17.29 | 2.9 | 1.1 | CG002-14P-80-04E CF002-14P-80-04E | 13 14 | 136 |
| 92 | 111 | 57 | 0.90 | 15.43 | 2.8 | 1.1 | | | |
| 105 | 127 | 50 | 1.00 | 13.54 | 2.8 | 1.2 | | | |
| 108 | 131 | 48 | 0.90 | 13.10 | 2.6 | 1.0 | | | |
| 118 | 142 | 45 | 1.15 | 12.08 | 2.7 | 1.3 | | | |
| 136 | 165 | 39 | 1.20 | 10.42 | 2.5 | 1.2 | | | |
| 142 | 173 | 37 | 1.40 | 9.97 | 2.6 | 1.3 | | | |
| 160 | 193 | 33 | 1.55 | 8.90 | 2.5 | 1.4 | | | |
| 174 | 210 | 30 | 1.50 | 8.17 | 2.4 | 1.3 | | | |
| 207 | 250 | 25 | 1.95 | 6.88 | 2.3 | 1.4 | | | |
| 231 | 280 | 23 | 1.85 | 6.14 | 2.2 | 1.4 | | | |
| 295 | 357 | 18 | 2.20 | 4.81 | 2.0 | 1.4 | | | |
| 401 | 486 | 13 | 2.70 | 3.54 | 1.9 | 1.5 | | | |



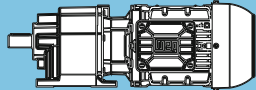
Legend see page 29

| P _N = 0.75 kW | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|--|------------|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page | | | |
| 0.75 kW | 0.90 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | | | | |
| 0.31 | 0.38 | 20380 | 0.90 | 3020.06 | 105.9 | 22.0 | CG165-11P-90S/L-06E CF165-11P-90S/L-06E | 707 730 | 170 | | | |
| 0.32 | 0.39 | 20018 | 0.90 | 2966.43 | 107.1 | 22.3 | | | | | | |
| 0.38 | 0.47 | 16315 | 1.15 | 2448.96 | 117.8 | 25.7 | | | | | | |
| 0.39 | 0.48 | 16017 | 1.15 | 2404.16 | 118.5 | 25.9 | | | | | | |
| 0.46 | 0.56 | 13518 | 1.35 | 2050.07 | 123.9 | 28.2 | | | | | | |
| 0.57 | 0.69 | 10760 | 1.70 | 1661.50 | 128.6 | 30.7 | | | | | | |
| 0.27 | 0.33 | 23807 | 0.80 | 5339.57 | 92.2 | 18.9 | CG165-11P-80-04F CF165-11P-80-04F | 701 724 | 170 | | | |
| 0.29 | 0.36 | 21720 | 0.85 | 4884.00 | 101.0 | 20.8 | | | | | | |
| 0.33 | 0.4 | 19335 | 0.95 | 4369.98 | 109.3 | 22.9 | | | | | | |
| 0.39 | 0.47 | 16160 | 1.15 | 3690.13 | 118.1 | 25.8 | | | | | | |
| 0.40 | 0.49 | 15479 | 1.20 | 3543.61 | 119.8 | 26.4 | | | | | | |
| 0.47 | 0.58 | 13057 | 1.40 | 3020.06 | 124.8 | 28.6 | | | | | | |
| 0.48 | 0.59 | 12792 | 1.45 | 2966.43 | 125.3 | 28.9 | | | | | | |
| 0.58 | 0.71 | 10398 | 1.75 | 2448.96 | 129.2 | 31.1 | | | | | | |
| 0.59 | 0.72 | 10182 | 1.80 | 2404.16 | 129.5 | 31.2 | | | | | | |
| 0.70 | 0.85 | 8526 | 2.15 | 2050.07 | 131.6 | 32.8 | | | | | | |
| 0.86 | 1.0 | 6715 | 2.70 | 1661.50 | 133.5 | 34.4 | | | | | | |
| 0.45 | 0.55 | 14242 | 1.30 | 2093.95 | 122.5 | 27.6 | | | | CG164-11P-90S/L-06E CF164-11P-90S/L-06E | 694 717 | 168 |
| 0.52 | 0.63 | 12166 | 1.50 | 1803.51 | 126.4 | 29.4 | | | | | | |
| 0.57 | 0.69 | 11111 | 1.65 | 1657.33 | 128.1 | 30.4 | | | | | | |
| 0.60 | 0.73 | 10415 | 1.75 | 1559.96 | 129.1 | 31.0 | | | | | | |
| 0.65 | 0.79 | 9602 | 1.90 | 1447.11 | 130.3 | 31.8 | | | | | | |
| 0.66 | 0.80 | 9452 | 1.95 | 1427.45 | 130.5 | 31.9 | | | | | | |
| 0.73 | 0.90 | 8398 | 2.15 | 1278.93 | 131.7 | 32.9 | | | | | | |
| 0.75 | 0.92 | 8151 | 2.25 | 1246.39 | 132.0 | 33.1 | | | | | | |
| 0.76 | 0.93 | 8074 | 2.25 | 1234.69 | 132.1 | 33.2 | | | | | | |
| 0.85 | 1.0 | 7114 | 2.55 | 1101.54 | 133.1 | 34.0 | | | | | | |
| 0.87 | 1.1 | 6970 | 2.60 | 1081.51 | 133.2 | 34.2 | | | | | | |
| 0.99 | 1.2 | 6039 | 3.00 | 952.78 | 134.0 | 35.0 | | | | | | |
| 0.68 | 0.83 | 9095 | 2.00 | 2093.95 | 130.9 | 32.2 | CG164-11P-80-04F CF164-11P-80-04F | 688 711 | 168 | | | |
| 0.79 | 0.96 | 7720 | 2.35 | 1803.51 | 132.5 | 33.5 | | | | | | |
| 0.86 | 1.0 | 7021 | 2.60 | 1657.33 | 133.2 | 34.1 | | | | | | |
| 0.92 | 1.1 | 6567 | 2.75 | 1559.96 | 133.6 | 34.5 | | | | | | |
| 0.99 | 1.2 | 6029 | 3.00 | 1447.11 | 134.0 | 35.0 | | | | | | |
| 0.43 | 0.53 | 14954 | 0.90 | 2162.84 | 91.8 | 12.5 | | | | CG144-11P-90S/L-06E CF144-11P-90S/L-06E | 443 461 | 164 |
| 0.50 | 0.61 | 12959 | 1.05 | 1885.79 | 97.0 | 14.5 | | | | | | |
| 0.56 | 0.69 | 11427 | 1.15 | 1669.82 | 100.4 | 16.0 | | | | | | |
| 0.58 | 0.70 | 11094 | 1.20 | 1624.38 | 101.1 | 16.4 | | | | | | |
| 0.65 | 0.79 | 9882 | 1.35 | 1455.92 | 103.3 | 17.6 | | | | | | |
| 0.67 | 0.82 | 9486 | 1.40 | 1400.42 | 103.9 | 18.0 | | | | | | |
| 0.75 | 0.91 | 8442 | 1.55 | 1254.10 | 105.5 | 19.0 | | | | | | |
| 0.77 | 0.94 | 8203 | 1.60 | 1221.03 | 105.9 | 19.3 | | | | | | |
| 0.86 | 1.0 | 7323 | 1.80 | 1099.05 | 107.0 | 20.2 | | | | | | |
| 0.87 | 1.1 | 7180 | 1.85 | 1079.94 | 107.2 | 20.3 | | | | | | |
| 0.89 | 1.1 | 6979 | 1.90 | 1051.77 | 107.4 | 20.5 | | | | | | |
| 0.98 | 1.2 | 6306 | 2.10 | 958.27 | 108.2 | 21.2 | | | | | | |
| 1.0 | 1.3 | 5935 | 2.20 | 905.71 | 108.5 | 21.6 | | | | | | |
| 1.1 | 1.3 | 5512 | 2.40 | 848.21 | 108.9 | 22.0 | | | | | | |
| 1.3 | 1.5 | 4737 | 2.75 | 739.56 | 109.6 | 22.8 | | | | | | |
| 0.66 | 0.80 | 9650 | 1.35 | 2162.84 | 103.7 | 17.8 | CG144-11P-80-04F CF144-11P-80-04F | 437 455 | 164 | | | |
| 0.76 | 0.92 | 8328 | 1.60 | 1885.79 | 105.7 | 19.2 | | | | | | |
| 0.86 | 1.0 | 7313 | 1.80 | 1669.82 | 107.0 | 20.2 | | | | | | |
| 0.88 | 1.1 | 7099 | 1.85 | 1624.38 | 107.3 | 20.4 | | | | | | |
| 0.98 | 1.2 | 6298 | 2.10 | 1455.92 | 108.2 | 21.2 | | | | | | |
| 1.0 | 1.2 | 6032 | 2.20 | 1400.42 | 108.4 | 21.5 | | | | | | |
| 1.1 | 1.4 | 5346 | 2.45 | 1254.10 | 109.1 | 22.1 | | | | | | |
| 1.2 | 1.4 | 5184 | 2.55 | 1221.03 | 109.2 | 22.3 | | | | | | |
| 1.3 | 1.6 | 4608 | 2.85 | 1099.05 | 109.7 | 22.9 | | | | | | |
| 1.4 | 1.7 | 4382 | 3.00 | 1051.77 | 109.8 | 23.1 | | | | | | |

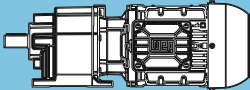
Legend see page 29

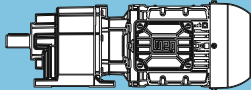
| P _N = 0.75 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 0.64 | 0.78 | 10140 | 0.80 | 1460.54 | 53.7 | 17.9 | CG134-11P-90S/L-06E CF134-11P-90S/L-06E | 296 298 | 160 |
| 0.66 | 0.81 | 9830 | 0.85 | 1418.83 | 55.2 | 18.3 | | | |
| 0.74 | 0.9 | 8748 | 0.95 | 1267.83 | 60.0 | 19.5 | | | |
| 0.77 | 0.93 | 8452 | 0.95 | 1224.91 | 61.1 | 19.8 | | | |
| 0.86 | 1.0 | 7512 | 1.10 | 1095.41 | 64.4 | 20.9 | | | |
| 0.88 | 1.1 | 7292 | 1.10 | 1063.29 | 65.1 | 21.2 | | | |
| 0.98 | 1.2 | 6552 | 1.25 | 961.31 | 67.2 | 22.0 | | | |
| 1.0 | 1.2 | 6248 | 1.30 | 918.68 | 67.9 | 22.4 | | | |
| 1.1 | 1.4 | 5641 | 1.45 | 834.47 | 69.4 | 23.1 | | | |
| 1.3 | 1.5 | 4974 | 1.65 | 741.90 | 70.8 | 23.8 | | | |
| 1.5 | 1.8 | 4273 | 1.90 | 644.01 | 72.0 | 24.6 | | | |
| 1.7 | 2.1 | 3646 | 2.20 | 556.43 | 72.9 | 25.3 | | | |
| 1.8 | 2.1 | 3469 | 2.35 | 532.69 | 73.2 | 25.5 | | | |
| 2.0 | 2.5 | 2948 | 2.75 | 460.25 | 73.8 | 26.1 | | | |
| 2.1 | 2.5 | 2896 | 2.80 | 453.11 | 73.8 | 26.2 | | | |
| 0.76 | 0.92 | 8580 | 0.95 | 1891.77 | 60.6 | 19.7 | CG134-11P-80-04F CF134-11P-80-04F | 290 292 | 160 |
| 0.87 | 1.1 | 7403 | 1.10 | 1642.17 | 64.7 | 21.0 | | | |
| 0.98 | 1.2 | 6543 | 1.25 | 1460.54 | 67.2 | 22.0 | | | |
| 1.0 | 1.2 | 6343 | 1.30 | 1418.83 | 67.7 | 22.3 | | | |
| 1.1 | 1.4 | 5633 | 1.45 | 1267.83 | 69.4 | 23.1 | | | |
| 1.2 | 1.4 | 5431 | 1.50 | 1224.91 | 69.8 | 23.3 | | | |
| 1.3 | 1.6 | 4817 | 1.70 | 1095.41 | 71.0 | 24.0 | | | |
| 1.5 | 1.8 | 4184 | 1.95 | 961.31 | 72.1 | 24.7 | | | |
| 1.6 | 1.9 | 3982 | 2.05 | 918.68 | 72.4 | 25.0 | | | |
| 1.7 | 2.1 | 3587 | 2.25 | 834.47 | 73.0 | 25.4 | | | |
| 1.9 | 2.3 | 3150 | 2.55 | 741.90 | 73.6 | 25.9 | | | |
| 2.0 | 2.4 | 3048 | 2.65 | 720.98 | 73.7 | 26.0 | | | |
| 2.2 | 2.7 | 2683 | 3.00 | 644.01 | 74.1 | 26.4 | | | |
| 1.1 | 1.4 | 5774 | 0.80 | 831.69 | 27.1 | 19.9 | CG104-11P-90S/L-06E CF104-11P-90S/L-06E | 182 186 | 156 |
| 1.3 | 1.6 | 4852 | 0.95 | 703.12 | 33.6 | 21.0 | | | |
| 1.5 | 1.8 | 4318 | 1.05 | 628.39 | 36.4 | 21.7 | | | |
| 1.8 | 2.2 | 3621 | 1.25 | 531.25 | 39.3 | 22.6 | | | |
| 2.2 | 2.6 | 2927 | 1.55 | 434.78 | 41.6 | 23.5 | | | |
| 2.3 | 2.7 | 2796 | 1.65 | 417.03 | 42.0 | 23.6 | | | |
| 2.7 | 3.2 | 2334 | 1.95 | 352.56 | 43.1 | 24.2 | | | |
| 3.2 | 3.9 | 1922 | 2.35 | 295.14 | 43.9 | 24.8 | | | |
| 3.3 | 4.0 | 1831 | 2.50 | 282.94 | 44.0 | 24.9 | | | |
| 3.9 | 4.8 | 1516 | 3.00 | 239.20 | 44.5 | 25.3 | | | |
| 1.3 | 1.6 | 5072 | 0.90 | 1116.07 | 32.3 | 20.7 | CG104-11P-80-04F CF104-11P-80-04F | 176 180 | 156 |
| 1.6 | 1.9 | 4118 | 1.10 | 913.46 | 37.3 | 22.0 | | | |
| 1.7 | 2.1 | 3726 | 1.25 | 831.69 | 38.9 | 22.5 | | | |
| 2.0 | 2.5 | 3124 | 1.45 | 703.12 | 41.0 | 23.2 | | | |
| 2.3 | 2.8 | 2769 | 1.65 | 628.39 | 42.0 | 23.7 | | | |
| 2.7 | 3.3 | 2312 | 1.95 | 531.25 | 43.1 | 24.3 | | | |
| 2.8 | 3.4 | 2229 | 2.05 | 514.28 | 43.3 | 24.4 | | | |
| 3.3 | 4.0 | 1853 | 2.45 | 434.78 | 44.0 | 24.8 | | | |
| 3.4 | 4.2 | 1770 | 2.55 | 417.03 | 44.1 | 24.9 | | | |
| 3.8 | 4.6 | 1878 | 2.40 | 246.43 | 44.0 | 24.8 | CG104-11P-90S/L-06E CF104-11P-90S/L-06E | 169 173 | 156 |
| 4.5 | 5.5 | 1587 | 2.85 | 208.33 | 44.4 | 25.2 | | | |
| 1.7 | 2.1 | 3753 | 0.80 | 540.55 | 15.7 | 24.5 | CG094-11P-90S/L-06E CF094-11P-90S/L-06E | 139 137 | 152 |
| 1.8 | 2.2 | 3596 | 0.85 | 519.08 | 17.6 | 24.7 | | | |
| 1.9 | 2.3 | 3503 | 0.90 | 506.66 | 18.6 | 24.8 | | | |
| 2.1 | 2.6 | 3046 | 1.00 | 442.39 | 22.6 | 25.5 | | | |
| 2.2 | 2.6 | 2986 | 1.05 | 434.54 | 23.0 | 25.6 | | | |
| 2.3 | 2.8 | 2817 | 1.10 | 410.85 | 24.1 | 25.8 | | | |
| 2.6 | 3.2 | 2445 | 1.25 | 358.73 | 26.2 | 26.4 | | | |
| 2.7 | 3.3 | 2400 | 1.25 | 352.17 | 26.5 | 26.5 | | | |
| 3.1 | 3.8 | 2026 | 1.50 | 300.30 | 28.1 | 27.0 | | | |
| 3.4 | 4.1 | 1869 | 1.65 | 278.74 | 28.7 | 27.2 | | | |
| 3.9 | 4.7 | 1615 | 1.90 | 243.38 | 29.5 | 27.6 | | | |

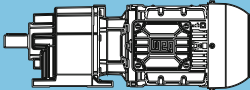
Legend see page 29

| P _N = 0.75 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.75 kW | 0.90 kW | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 1.7 | 2.1 | 3732 | 0.85 | 819.36 | 16.0 | 24.5 | CG094-11P-80-04F CF094-11P-80-04F | 133 131 | 152 |
| 1.8 | 2.2 | 3562 | 0.85 | 782.16 | 18.0 | 24.7 | | | |
| 2.0 | 2.4 | 3245 | 0.95 | 715.43 | 21.0 | 25.2 | | | |
| 2.2 | 2.7 | 2892 | 1.05 | 640.13 | 23.6 | 25.7 | | | |
| 2.3 | 2.8 | 2791 | 1.10 | 619.07 | 24.3 | 25.9 | | | |
| 2.6 | 3.2 | 2422 | 1.25 | 540.55 | 26.4 | 26.4 | | | |
| 2.8 | 3.4 | 2321 | 1.30 | 519.08 | 26.9 | 26.6 | | | |
| 3.2 | 3.9 | 1958 | 1.55 | 442.39 | 28.4 | 27.1 | | | |
| 3.3 | 4.0 | 1919 | 1.60 | 434.54 | 28.5 | 27.2 | | | |
| 3.5 | 4.2 | 1807 | 1.70 | 410.85 | 28.9 | 27.3 | | | |
| 4.0 | 4.9 | 1561 | 1.95 | 358.73 | 29.7 | 27.7 | | | |
| 4.1 | 4.9 | 1530 | 2.00 | 352.17 | 29.8 | 27.7 | | | |
| 4.2 | 5.1 | 1491 | 2.05 | 343.93 | 29.9 | 27.8 | | | |
| 4.8 | 5.8 | 1286 | 2.35 | 300.30 | 30.4 | 28.1 | | | |
| 5.1 | 6.2 | 1183 | 2.55 | 278.74 | 30.6 | 28.3 | | | |
| 5.9 | 7.1 | 1014 | 3.00 | 243.38 | 31.0 | 28.5 | | | |
| 3.1 | 3.7 | 2337 | 1.30 | 306.73 | 26.8 | 26.5 | CG093-11P-90S/L-06E CF093-11P-90S/L-06E | 126 124 | 150 |
| 3.9 | 4.7 | 1850 | 1.65 | 242.77 | 28.8 | 27.3 | | | |
| 4.4 | 5.4 | 1615 | 1.90 | 211.98 | 29.5 | 27.6 | | | |
| 5.0 | 6.1 | 1427 | 2.15 | 187.34 | 30.1 | 27.9 | | | |
| 5.9 | 7.2 | 1207 | 2.50 | 158.42 | 30.6 | 28.2 | | | |
| 6.1 | 7.4 | 1175 | 2.60 | 154.24 | 30.7 | 28.3 | | | |
| 6.9 | 8.4 | 1038 | 2.90 | 136.18 | 30.9 | 28.5 | | | |
| 4.7 | 5.7 | 1536 | 2.00 | 306.73 | 29.8 | 27.7 | CG093-11P-80-04F CF093-11P-80-04F | 120 118 | 150 |
| 5.9 | 7.2 | 1216 | 2.50 | 242.77 | 30.6 | 28.2 | | | |
| 6.7 | 8.2 | 1062 | 2.85 | 211.98 | 30.9 | 28.4 | | | |
| 3.9 | 4.8 | 1820 | 0.90 | 238.89 | 18.5 | 18.8 | CG083-11P-90S/L-06E CF083-11P-90S/L-06E | 74 78 | 148 |
| 5.0 | 6.1 | 1429 | 1.10 | 187.48 | 21.0 | 19.6 | | | |
| 6.5 | 7.9 | 1102 | 1.45 | 144.69 | 22.5 | 20.2 | | | |
| 7.9 | 9.6 | 912 | 1.70 | 119.68 | 23.2 | 20.6 | | | |
| 9.2 | 11 | 776 | 2.00 | 101.80 | 23.5 | 20.9 | | | |
| 11 | 13 | 672 | 2.35 | 88.23 | 23.8 | 21.1 | | | |
| 13 | 15 | 568 | 2.75 | 74.50 | 24.0 | 21.3 | | | |
| 3.9 | 4.7 | 1848 | 0.85 | 368.94 | 18.2 | 18.7 | CG083-11P-80-04F CF083-11P-80-04F | 68 72 | 148 |
| 5.0 | 6.1 | 1427 | 1.10 | 284.84 | 21.0 | 19.6 | | | |
| 6.0 | 7.3 | 1197 | 1.30 | 238.89 | 22.1 | 20.1 | | | |
| 7.6 | 9.3 | 939 | 1.70 | 187.48 | 23.1 | 20.6 | | | |
| 9.9 | 12 | 725 | 2.15 | 144.69 | 23.7 | 21.0 | | | |
| 12 | 15 | 599 | 2.60 | 119.68 | 23.9 | 21.3 | | | |
| 6.8 | 8.3 | 1047 | 0.80 | 137.38 | 7.9 | 12.5 | CG073-11P-90S/L-06E CF073-11P-90S/L-06E | 50 54 | 146 |
| 7.5 | 9.2 | 952 | 0.90 | 124.97 | 9.3 | 12.5 | | | |
| 9.0 | 11 | 796 | 1.05 | 104.50 | 10.9 | 13.2 | | | |
| 9.9 | 12 | 724 | 1.15 | 95.06 | 11.5 | 13.2 | | | |
| 11 | 13 | 657 | 1.25 | 86.17 | 12.0 | 13.6 | | | |
| 12 | 15 | 597 | 1.40 | 78.39 | 12.4 | 13.6 | | | |
| 13 | 16 | 539 | 1.55 | 70.68 | 12.7 | 13.9 | | | |
| 15 | 18 | 490 | 1.70 | 64.30 | 12.9 | 13.9 | | | |
| 16 | 19 | 458 | 1.80 | 60.06 | 13.1 | 14.1 | | | |
| 17 | 21 | 416 | 2.00 | 54.63 | 13.3 | 14.1 | | | |
| 19 | 23 | 376 | 2.20 | 49.38 | 13.4 | 14.4 | | | |
| 21 | 25 | 342 | 2.35 | 44.92 | 13.5 | 14.4 | | | |
| 24 | 29 | 298 | 2.60 | 39.17 | 13.6 | 14.6 | | | |
| 26 | 32 | 271 | 2.70 | 35.63 | 13.7 | 14.6 | | | |

Legend see page 29

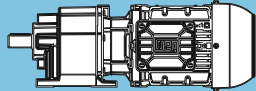
| P _N = 0.75 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 6.6 | 8.0 | 1083 | 0.80 | 216.20 | 7.3 | 12.4 | CG073-11P-80-04F CF073-11P-80-04F | 44 48 | 146 |
| 7.3 | 8.8 | 985 | 0.85 | 196.68 | 8.8 | 12.4 | | | |
| 8.1 | 9.8 | 889 | 0.95 | 177.39 | 10.0 | 12.9 | | | |
| 8.9 | 11 | 808 | 1.05 | 161.38 | 10.8 | 12.9 | | | |
| 10 | 13 | 688 | 1.20 | 137.38 | 11.8 | 13.5 | | | |
| 11 | 14 | 626 | 1.35 | 124.97 | 12.2 | 13.5 | | | |
| 14 | 17 | 523 | 1.60 | 104.50 | 12.8 | 14.0 | | | |
| 15 | 18 | 476 | 1.75 | 95.06 | 13.0 | 13.9 | | | |
| 17 | 20 | 432 | 1.90 | 86.17 | 13.2 | 14.2 | | | |
| 18 | 22 | 393 | 2.10 | 78.39 | 13.4 | 14.2 | | | |
| 20 | 25 | 354 | 2.35 | 70.68 | 13.5 | 14.4 | | | |
| 22 | 27 | 322 | 2.55 | 64.30 | 13.6 | 14.4 | | | |
| 24 | 29 | 301 | 2.75 | 60.06 | 13.6 | 14.6 | | | |
| 26 | 32 | 274 | 3.00 | 54.63 | 13.7 | 14.6 | | | |
| 24 | 29 | 297 | 2.80 | 38.92 | 13.7 | 14.6 | CG072-11P-90S/L-06E CF072-11P-90S/L-06E | 49 53 | 146 |
| 10 | 13 | 682 | 0.90 | 89.54 | 7.2 | 6.1 | CG063-11P-90S/L-06E CF063-11P-90S/L-06E | 33 38 | 144 |
| 11 | 14 | 626 | 1.00 | 82.10 | 8.0 | 6.3 | | | |
| 13 | 16 | 558 | 1.10 | 73.28 | 8.7 | 6.5 | | | |
| 14 | 17 | 512 | 1.20 | 67.19 | 9.2 | 6.6 | | | |
| 16 | 19 | 453 | 1.35 | 59.42 | 9.7 | 6.8 | | | |
| 17 | 21 | 415 | 1.45 | 54.49 | 9.9 | 6.9 | | | |
| 19 | 23 | 379 | 1.60 | 49.74 | 10.2 | 7.0 | | | |
| 21 | 25 | 348 | 1.75 | 45.61 | 10.3 | 7.1 | | | |
| 9.3 | 11 | 771 | 0.80 | 153.96 | 5.6 | 5.9 | CG063-11P-80-04F CF063-11P-80-04F | 27 32 | 144 |
| 10 | 12 | 707 | 0.85 | 141.17 | 6.8 | 6.0 | | | |
| 12 | 15 | 594 | 1.05 | 118.51 | 8.4 | 6.4 | | | |
| 13 | 16 | 544 | 1.15 | 108.67 | 8.9 | 6.5 | | | |
| 16 | 19 | 448 | 1.35 | 89.54 | 9.7 | 6.8 | | | |
| 17 | 21 | 411 | 1.50 | 82.10 | 10.0 | 6.9 | | | |
| 20 | 24 | 367 | 1.65 | 73.28 | 10.2 | 7.0 | | | |
| 21 | 26 | 337 | 1.80 | 67.19 | 10.4 | 7.1 | | | |
| 24 | 29 | 298 | 2.05 | 59.42 | 10.6 | 7.2 | | | |
| 26 | 32 | 273 | 2.20 | 54.49 | 10.7 | 7.3 | | | |
| 29 | 35 | 249 | 2.45 | 49.74 | 10.8 | 7.4 | | | |
| 31 | 38 | 228 | 2.65 | 45.61 | 10.9 | 7.4 | | | |
| 16 | 19 | 457 | 0.95 | 60.00 | 9.6 | 6.8 | CG062-11P-90S/L-06E CF062-11P-90S/L-06E | 33 38 | 144 |
| 17 | 21 | 419 | 0.95 | 55.02 | 9.9 | 6.9 | | | |
| 20 | 24 | 362 | 1.70 | 47.55 | 10.3 | 7.1 | | | |
| 22 | 26 | 332 | 1.70 | 43.60 | 10.4 | 7.1 | | | |
| 25 | 31 | 281 | 2.15 | 36.92 | 10.7 | 7.3 | | | |
| 28 | 34 | 258 | 2.35 | 33.86 | 10.8 | 7.3 | | | |
| 31 | 38 | 231 | 2.60 | 30.30 | 10.9 | 7.4 | | | |
| 34 | 41 | 212 | 2.85 | 27.78 | 10.9 | 7.5 | | | |
| 35 | 43 | 202 | 1.70 | 26.49 | 11.0 | 7.3 | | | |
| 46 | 56 | 157 | 2.45 | 20.57 | 11.1 | 7.4 | | | |
| 56 | 68 | 129 | 2.95 | 16.88 | 10.7 | 7.6 | | | |
| 24 | 29 | 301 | 1.40 | 60.00 | 10.6 | 7.2 | CG063-11P-80-04F CF063-11P-80-04F | 27 32 | 144 |
| 26 | 32 | 276 | 1.40 | 55.02 | 10.7 | 7.3 | | | |
| 30 | 37 | 238 | 2.55 | 47.55 | 10.8 | 7.4 | | | |
| 33 | 40 | 218 | 2.60 | 43.60 | 10.9 | 7.5 | | | |
| 43 | 52 | 167 | 1.40 | 33.43 | 11.0 | 7.4 | | | |
| 54 | 66 | 133 | 2.60 | 26.49 | 10.8 | 7.5 | | | |
| 15 | 19 | 470 | 0.90 | 61.63 | 3.4 | 6.0 | CG053-11P-90S/L-06E CF053-11P-90S/L-06E | 29 34 | 142 |
| 17 | 20 | 427 | 0.95 | 56.02 | 4.4 | 6.1 | | | |
| 19 | 23 | 375 | 1.10 | 49.20 | 5.4 | 6.4 | | | |
| 21 | 26 | 341 | 1.20 | 44.73 | 5.8 | 6.5 | | | |
| 14 | 17 | 509 | 0.80 | 101.55 | 1.7 | 5.8 | CG053-11P-80-04F CF053-11P-80-04F | 23 28 | 142 |
| 15 | 19 | 462 | 0.90 | 92.32 | 3.6 | 6.0 | | | |
| 18 | 22 | 390 | 1.05 | 77.79 | 5.1 | 6.3 | | | |
| 20 | 25 | 354 | 1.15 | 70.71 | 5.7 | 6.5 | | | |
| 23 | 28 | 309 | 1.30 | 61.63 | 6.2 | 6.7 | | | |
| 26 | 31 | 281 | 1.45 | 56.02 | 6.5 | 6.8 | | | |
| 29 | 35 | 246 | 1.65 | 49.20 | 6.8 | 7.0 | | | |
| 32 | 39 | 224 | 1.80 | 44.73 | 7.0 | 7.1 | | | |

| P _N = 0.75 kW | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|--------------------------------------|----------|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page | | | |
| 0.75 kW | 0.90 kW | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | | | | |
| 20 | 24 | 367 | 0.95 | 48.13 | 5.5 | 6.4 | CG052-11P-90S/L-06E CF052-11P-90S/L-06E | 28 33 | 142 | | | |
| 21 | 26 | 333 | 0.95 | 43.75 | 5.9 | 6.6 | | | | | | |
| 25 | 30 | 290 | 1.40 | 38.00 | 6.4 | 6.8 | | | | | | |
| 27 | 33 | 263 | 1.55 | 34.55 | 6.7 | 6.9 | | | | | | |
| 32 | 39 | 225 | 1.80 | 29.46 | 7.0 | 7.1 | | | | | | |
| 35 | 43 | 204 | 2.00 | 26.79 | 7.1 | 7.2 | | | | | | |
| 39 | 47 | 184 | 2.20 | 24.12 | 7.2 | 7.3 | | | | | | |
| 41 | 50 | 175 | 1.55 | 23.03 | 7.3 | 7.1 | | | | | | |
| 43 | 52 | 167 | 2.40 | 21.92 | 7.3 | 7.3 | | | | | | |
| 51 | 62 | 141 | 2.85 | 18.56 | 7.4 | 7.5 | | | | | | |
| 53 | 64 | 136 | 2.00 | 17.86 | 7.5 | 7.3 | | | | | | |
| 64 | 78 | 111 | 2.40 | 14.62 | 7.5 | 7.5 | | | | | | |
| 24 | 30 | 295 | 0.85 | 58.85 | 6.4 | 6.8 | | | | CG052-11P-80-04F CF052-11P-80-04F | 22 27 | 142 |
| 27 | 33 | 268 | 0.85 | 53.50 | 6.6 | 6.9 | | | | | | |
| 30 | 36 | 241 | 1.40 | 48.13 | 6.8 | 7.0 | | | | | | |
| 33 | 40 | 219 | 1.45 | 43.75 | 7.0 | 7.1 | | | | | | |
| 38 | 46 | 190 | 2.15 | 38.00 | 7.2 | 7.2 | | | | | | |
| 40 | 49 | 179 | 0.85 | 35.67 | 7.3 | 7.1 | | | | | | |
| 41 | 50 | 173 | 2.35 | 34.55 | 7.3 | 7.3 | | | | | | |
| 49 | 59 | 148 | 2.75 | 29.46 | 7.4 | 7.4 | | | | | | |
| 49 | 60 | 146 | 1.40 | 29.17 | 7.4 | 7.3 | | | | | | |
| 53 | 65 | 134 | 3.00 | 26.79 | 7.5 | 7.5 | | | | | | |
| 62 | 76 | 115 | 2.35 | 23.03 | 7.5 | 7.4 | | | | | | |
| 80 | 97 | 89 | 3.00 | 17.86 | 7.5 | 7.6 | | | | | | |
| 28 | 35 | 251 | 0.80 | 50.18 | 3.9 | 3 | CG033-11P-80-04F CF033-11P-80-04F | 18 20 | 140 | | | |
| 30 | 36 | 242 | 0.85 | 48.22 | 4.1 | 3.1 | | | | | | |
| 33 | 40 | 219 | 0.95 | 43.79 | 4.5 | 3.2 | | | | | | |
| 40 | 49 | 177 | 1.15 | 35.38 | 5.0 | 3.5 | | | | | | |
| 45 | 54 | 161 | 1.25 | 32.13 | 5.1 | 3.6 | | | | | | |
| 27 | 33 | 266 | 0.80 | 34.88 | 3.6 | 2.9 | CG032-11P-90S/L-06E CF032-11P-90S/L-06E | 24 26 | 140 | | | |
| 30 | 36 | 241 | 0.85 | 31.67 | 4.1 | 3.1 | | | | | | |
| 34 | 41 | 211 | 0.95 | 27.71 | 4.6 | 3.3 | | | | | | |
| 37 | 45 | 192 | 1.05 | 25.17 | 4.9 | 3.4 | | | | | | |
| 44 | 53 | 163 | 1.25 | 21.40 | 5.2 | 3.6 | | | | | | |
| 48 | 59 | 148 | 1.40 | 19.44 | 5.1 | 3.7 | | | | | | |
| 48 | 59 | 149 | 0.90 | 19.54 | 5.0 | 3.5 | | | | | | |
| 55 | 67 | 130 | 1.55 | 17.09 | 4.9 | 3.8 | | | | | | |
| 61 | 74 | 118 | 1.70 | 15.52 | 4.8 | 3.8 | | | | | | |
| 61 | 74 | 118 | 1.10 | 15.53 | 4.7 | 3.7 | | | | | | |
| 73 | 89 | 98 | 2.00 | 12.92 | 4.6 | 4.0 | | | | | | |
| 78 | 95 | 91 | 1.45 | 11.99 | 4.5 | 3.9 | | | | | | |
| 80 | 98 | 89 | 2.25 | 11.73 | 4.5 | 4.0 | | | | | | |
| 96 | 117 | 75 | 2.45 | 9.82 | 4.3 | 4.1 | | | | | | |
| 98 | 120 | 73 | 1.80 | 9.57 | 4.2 | 4.1 | | | | | | |
| 105 | 128 | 68 | 2.70 | 8.92 | 4.2 | 4.2 | | | | | | |
| 123 | 150 | 58 | 2.95 | 7.64 | 4.0 | 4.2 | | | | | | |
| 130 | 158 | 55 | 2.40 | 7.24 | 3.9 | 4.2 | | | | | | |
| 33 | 41 | 215 | 0.90 | 42.88 | 4.5 | 3.3 | CG032-11P-80-04F CF032-11P-80-04F | 18 20 | 140 | | | |
| 37 | 45 | 195 | 0.90 | 38.95 | 4.8 | 3.4 | | | | | | |
| 41 | 50 | 175 | 1.15 | 34.88 | 5.1 | 3.5 | | | | | | |
| 45 | 55 | 159 | 1.30 | 31.67 | 5.1 | 3.6 | | | | | | |
| 52 | 63 | 139 | 1.45 | 27.71 | 5.0 | 3.7 | | | | | | |
| 57 | 69 | 126 | 1.60 | 25.17 | 4.9 | 3.8 | | | | | | |
| 60 | 72 | 120 | 0.90 | 24.03 | 4.7 | 3.7 | | | | | | |
| 67 | 81 | 107 | 1.90 | 21.40 | 4.7 | 3.9 | | | | | | |
| 73 | 89 | 98 | 1.35 | 19.54 | 4.5 | 3.9 | | | | | | |
| 74 | 90 | 97 | 2.10 | 19.44 | 4.6 | 4.0 | | | | | | |
| 84 | 102 | 86 | 2.35 | 17.09 | 4.4 | 4.1 | | | | | | |
| 92 | 112 | 78 | 2.60 | 15.52 | 4.3 | 4.1 | | | | | | |
| 92 | 112 | 78 | 1.70 | 15.53 | 4.3 | 4.0 | | | | | | |
| 111 | 135 | 65 | 3.00 | 12.92 | 4.1 | 4.2 | | | | | | |
| 119 | 145 | 60 | 2.20 | 11.99 | 4.0 | 4.1 | | | | | | |
| 149 | 182 | 48 | 2.75 | 9.57 | 3.8 | 4.2 | | | | | | |

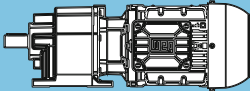
| P _N = 0.75 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 71 | 86 | 102 | 0.85 | 13.33 | 2.8 | 1.0 | CG012-11P-90S/L-06E CF012-11P-90S/L-06E | 22 23 | 138 |
| 73 | 89 | 98 | 0.90 | 12.83 | 2.9 | 1.0 | | | |
| 82 | 100 | 88 | 1.00 | 11.50 | 3.0 | 1.1 | | | |
| 84 | 102 | 85 | 1.00 | 11.20 | 3.0 | 1.1 | | | |
| 94 | 114 | 76 | 1.10 | 10.04 | 2.9 | 1.1 | | | |
| 98 | 119 | 73 | 0.95 | 9.60 | 2.8 | 1.0 | | | |
| 114 | 139 | 63 | 1.25 | 8.22 | 2.8 | 1.2 | | | |
| 125 | 153 | 57 | 1.20 | 7.50 | 2.7 | 1.1 | | | |
| 128 | 155 | 56 | 1.35 | 7.36 | 2.7 | 1.3 | | | |
| 168 | 204 | 43 | 1.55 | 5.60 | 2.5 | 1.2 | | | |
| 194 | 237 | 37 | 1.80 | 4.83 | 2.4 | 1.3 | | | |
| 223 | 271 | 32 | 2.10 | 4.22 | 2.3 | 1.3 | | | |
| 304 | 370 | 24 | 2.70 | 3.09 | 2.1 | 1.4 | | | |
| 72 | 87 | 100 | 0.90 | 19.92 | 2.8 | 1.0 | CG012-11P-80-04F CF012-11P-80-04F | 15 16 | 138 |
| 80 | 97 | 89 | 1.00 | 17.85 | 3.0 | 1.0 | | | |
| 90 | 110 | 79 | 0.85 | 15.82 | 2.9 | 0.9 | | | |
| 96 | 117 | 75 | 1.15 | 14.88 | 2.9 | 1.1 | | | |
| 107 | 131 | 67 | 1.30 | 13.33 | 2.9 | 1.2 | | | |
| 111 | 136 | 64 | 1.35 | 12.83 | 2.8 | 1.2 | | | |
| 115 | 140 | 62 | 1.10 | 12.46 | 2.7 | 1.1 | | | |
| 124 | 151 | 58 | 1.50 | 11.50 | 2.8 | 1.2 | | | |
| 128 | 155 | 56 | 1.50 | 11.20 | 2.7 | 1.3 | | | |
| 142 | 173 | 50 | 1.65 | 10.04 | 2.7 | 1.3 | | | |
| 149 | 181 | 48 | 1.40 | 9.60 | 2.6 | 1.2 | | | |
| 174 | 212 | 41 | 1.85 | 8.22 | 2.5 | 1.4 | | | |
| 191 | 232 | 38 | 1.80 | 7.50 | 2.4 | 1.3 | | | |
| 194 | 236 | 37 | 2.05 | 7.36 | 2.4 | 1.4 | | | |
| 255 | 311 | 28 | 2.40 | 5.60 | 2.2 | 1.4 | | | |
| 296 | 360 | 24 | 2.75 | 4.83 | 2.1 | 1.4 | | | |
| 118 | 144 | 61 | 0.85 | 12.08 | 2.6 | 1.1 | CG002-11P-80-04F CF002-11P-80-04F | 14 15 | 136 |
| 137 | 167 | 52 | 0.90 | 10.42 | 2.4 | 1.0 | | | |
| 143 | 175 | 50 | 1.05 | 9.97 | 2.5 | 1.2 | | | |
| 161 | 196 | 45 | 1.15 | 8.90 | 2.4 | 1.3 | | | |
| 175 | 213 | 41 | 1.10 | 8.17 | 2.3 | 1.1 | | | |
| 208 | 253 | 34 | 1.45 | 6.88 | 2.2 | 1.3 | | | |
| 233 | 283 | 31 | 1.40 | 6.14 | 2.1 | 1.3 | | | |
| 297 | 362 | 24 | 1.65 | 4.81 | 2.0 | 1.3 | | | |
| 404 | 491 | 18 | 2.00 | 3.54 | 1.8 | 1.4 | | | |



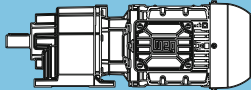
Legend see page 29

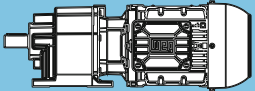
| P _N = 1.1 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 1.1 kW | 1.3 kW | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 0.39 | 0.48 | 23716 | 0.80 | 3690.13 | 92.6 | 19.0 | CG165-11P-90S/L-04E CF165-11P-90S/L-04E | 705 728 | 170 |
| 0.41 | 0.50 | 22775 | 0.80 | 3543.61 | 96.8 | 19.8 | | | |
| 0.48 | 0.58 | 19261 | 0.95 | 3020.06 | 109.5 | 23.0 | | | |
| 0.49 | 0.59 | 18871 | 1.00 | 2966.43 | 110.7 | 23.4 | | | |
| 0.59 | 0.72 | 15420 | 1.20 | 2448.96 | 119.9 | 26.5 | | | |
| 0.61 | 0.73 | 15138 | 1.20 | 2404.16 | 120.5 | 26.7 | | | |
| 0.71 | 0.86 | 12743 | 1.45 | 2050.07 | 125.4 | 28.9 | | | |
| 0.88 | 1.1 | 10143 | 1.80 | 1661.50 | 129.5 | 31.3 | | | |
| 0.39 | 0.48 | 23855 | 0.80 | 2448.96 | 92.0 | 18.8 | CG165-11P-100L-06D CF165-11P-100L-06D | 711 734 | 170 |
| 0.40 | 0.48 | 23419 | 0.80 | 2404.16 | 94.0 | 19.2 | | | |
| 0.47 | 0.57 | 19817 | 0.95 | 2050.07 | 107.8 | 22.5 | | | |
| 0.58 | 0.70 | 15897 | 1.15 | 1661.50 | 118.8 | 26.1 | | | |
| 0.69 | 0.84 | 13467 | 1.35 | 2093.95 | 124.0 | 28.3 | CG164-11P-90S/L-04E CF164-11P-90S/L-04E | 692 715 | 168 |
| 0.81 | 0.98 | 11480 | 1.60 | 1803.51 | 127.5 | 30.1 | | | |
| 0.88 | 1.1 | 10484 | 1.75 | 1657.33 | 129.0 | 31.0 | | | |
| 0.93 | 1.1 | 9828 | 1.85 | 1559.96 | 130.0 | 31.6 | | | |
| 1.0 | 1.2 | 9060 | 2.00 | 1447.11 | 131.0 | 32.3 | | | |
| 1.1 | 1.4 | 7908 | 2.30 | 1278.93 | 132.3 | 33.3 | | | |
| 1.2 | 1.4 | 7691 | 2.35 | 1246.39 | 132.5 | 33.5 | | | |
| 1.3 | 1.6 | 6699 | 2.70 | 1101.54 | 133.5 | 34.4 | | | |
| 0.46 | 0.56 | 20792 | 0.90 | 2093.95 | 104.4 | 21.6 | CG164-11P-100L-06D CF164-11P-100L-06D | 698 721 | 168 |
| 0.53 | 0.65 | 17798 | 1.05 | 1803.51 | 113.9 | 24.3 | | | |
| 0.58 | 0.70 | 16288 | 1.15 | 1657.33 | 117.8 | 25.7 | | | |
| 0.62 | 0.75 | 15300 | 1.20 | 1559.96 | 120.2 | 26.6 | | | |
| 0.66 | 0.81 | 14135 | 1.30 | 1447.11 | 122.7 | 27.7 | | | |
| 0.67 | 0.82 | 13943 | 1.30 | 1427.45 | 123.1 | 27.8 | | | |
| 0.75 | 0.91 | 12415 | 1.45 | 1278.93 | 126.0 | 29.2 | | | |
| 0.77 | 0.93 | 12074 | 1.50 | 1246.39 | 126.5 | 29.5 | | | |
| 0.78 | 0.94 | 11936 | 1.55 | 1234.69 | 126.8 | 29.7 | | | |
| 0.87 | 1.1 | 10562 | 1.75 | 1101.54 | 128.9 | 30.9 | | | |
| 0.89 | 1.1 | 10370 | 1.75 | 1081.51 | 129.2 | 31.1 | | | |
| 1.0 | 1.2 | 9041 | 2.00 | 952.78 | 131.0 | 32.3 | | | |
| 1.2 | 1.4 | 7574 | 2.40 | 811.56 | 132.6 | 33.6 | | | |
| 1.4 | 1.7 | 6402 | 2.85 | 698.99 | 133.7 | 34.7 | | | |
| 0.67 | 0.81 | 14141 | 0.95 | 2162.84 | 94.0 | 13.3 | CG144-11P-90S/L-04E CF144-11P-90S/L-04E | 441 459 | 164 |
| 0.77 | 0.93 | 12254 | 1.10 | 1885.79 | 98.6 | 15.2 | | | |
| 0.87 | 1.1 | 10784 | 1.25 | 1669.82 | 101.6 | 16.7 | | | |
| 0.90 | 1.1 | 10490 | 1.25 | 1624.38 | 102.2 | 17.0 | | | |
| 1.0 | 1.2 | 9344 | 1.40 | 1455.92 | 104.2 | 18.1 | | | |
| 1.2 | 1.4 | 7966 | 1.65 | 1254.10 | 106.2 | 19.5 | | | |
| 1.3 | 1.6 | 6910 | 1.90 | 1099.05 | 107.5 | 20.6 | | | |
| 1.4 | 1.7 | 6585 | 2.00 | 1051.77 | 107.9 | 20.9 | | | |
| 1.5 | 1.8 | 5950 | 2.20 | 958.27 | 108.5 | 21.5 | | | |
| 1.6 | 1.9 | 5589 | 2.35 | 905.71 | 108.9 | 21.9 | | | |
| 1.7 | 2.1 | 5201 | 2.50 | 848.21 | 109.2 | 22.3 | | | |
| 1.8 | 2.1 | 5041 | 2.60 | 825.43 | 109.3 | 22.4 | | | |
| 2.0 | 2.4 | 4451 | 2.95 | 739.56 | 109.8 | 23.0 | | | |

Legend see page 29

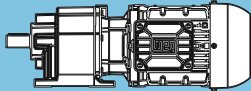
| P _N = 1.1 kW | | | | | | | | IE3 | |
|-------------------------|-----------------|----------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 1.1 kW | 60 Hz 1.3 kW | M ₂ | f _B | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 0.57 | 0.70 | 16648 | 0.80 | 1669.82 | 86.4 | 10.8 | CG144-11P-100L-06D CF144-11P-100L-06D | 447 465 | 164 |
| 0.59 | 0.72 | 16162 | 0.85 | 1624.38 | 88.0 | 11.3 | | | |
| 0.66 | 0.80 | 14456 | 0.90 | 1455.92 | 93.2 | 13.0 | | | |
| 0.69 | 0.83 | 13877 | 0.95 | 1400.42 | 94.7 | 13.6 | | | |
| 0.77 | 0.93 | 12351 | 1.10 | 1254.10 | 98.4 | 15.1 | | | |
| 0.79 | 0.95 | 12025 | 1.10 | 1221.03 | 99.1 | 15.4 | | | |
| 0.87 | 1.1 | 10757 | 1.25 | 1099.05 | 101.7 | 16.7 | | | |
| 0.89 | 1.1 | 10570 | 1.25 | 1079.94 | 102.0 | 16.9 | | | |
| 0.91 | 1.1 | 10273 | 1.30 | 1051.77 | 102.6 | 17.2 | | | |
| 1.0 | 1.2 | 9322 | 1.40 | 958.27 | 104.2 | 18.2 | | | |
| 1.1 | 1.3 | 8774 | 1.50 | 905.71 | 105.0 | 18.7 | | | |
| 1.2 | 1.4 | 7947 | 1.65 | 825.43 | 106.2 | 19.5 | | | |
| 1.3 | 1.6 | 7062 | 1.85 | 739.56 | 107.3 | 20.4 | | | |
| 1.4 | 1.6 | 6759 | 1.95 | 710.80 | 107.7 | 20.7 | | | |
| 1.5 | 1.8 | 5995 | 2.20 | 637.04 | 108.5 | 21.5 | | | |
| 1.6 | 1.9 | 5733 | 2.30 | 611.72 | 108.7 | 21.8 | | | |
| 1.7 | 2.1 | 5077 | 2.60 | 548.57 | 109.3 | 22.4 | | | |
| 1.8 | 2.2 | 4857 | 2.70 | 526.92 | 109.5 | 22.6 | | | |
| 1.9 | 2.3 | 4757 | 2.75 | 517.20 | 109.6 | 22.7 | | | |
| 1.0 | 1.2 | 9588 | 0.85 | 1460.54 | 56.4 | 18.5 | CG134-11P-90S/L-04E CF134-11P-90S/L-04E | 294 296 | 160 |
| 1.1 | 1.4 | 8272 | 1.00 | 1267.83 | 61.8 | 20.1 | | | |
| 1.2 | 1.4 | 7976 | 1.05 | 1224.91 | 62.8 | 20.4 | | | |
| 1.3 | 1.6 | 7103 | 1.15 | 1095.41 | 65.6 | 21.4 | | | |
| 1.4 | 1.7 | 6881 | 1.20 | 1063.29 | 66.3 | 21.6 | | | |
| 1.5 | 1.8 | 6195 | 1.30 | 961.31 | 68.1 | 22.4 | | | |
| 1.6 | 1.9 | 5896 | 1.40 | 918.68 | 68.8 | 22.8 | | | |
| 1.7 | 2.1 | 5334 | 1.50 | 834.47 | 70.0 | 23.4 | | | |
| 2.0 | 2.4 | 4693 | 1.75 | 741.90 | 71.3 | 24.1 | | | |
| 2.3 | 2.7 | 4032 | 2.00 | 644.01 | 72.4 | 24.9 | | | |
| 2.4 | 2.9 | 3826 | 2.10 | 613.66 | 72.7 | 25.1 | | | |
| 2.6 | 3.2 | 3434 | 2.35 | 556.43 | 73.2 | 25.6 | | | |
| 2.7 | 3.3 | 3273 | 2.45 | 532.69 | 73.4 | 25.8 | | | |
| 2.8 | 3.4 | 3201 | 2.50 | 521.98 | 73.5 | 25.8 | | | |
| 3.2 | 3.8 | 2776 | 2.90 | 460.25 | 74.0 | 26.3 | | | |
| 0.90 | 1.1 | 10601 | 0.80 | 1063.29 | 51.2 | 17.4 | CG134-11P-100L-06D CF134-11P-100L-06D | 300 302 | 160 |
| 1.0 | 1.2 | 9565 | 0.85 | 961.31 | 56.5 | 18.6 | | | |
| 1.2 | 1.4 | 8252 | 1.00 | 834.47 | 61.9 | 20.1 | | | |
| 1.3 | 1.6 | 7306 | 1.10 | 741.90 | 65.0 | 21.2 | | | |
| 1.5 | 1.8 | 6291 | 1.30 | 644.01 | 67.8 | 22.3 | | | |
| 1.6 | 1.9 | 5982 | 1.35 | 613.66 | 68.6 | 22.7 | | | |
| 1.7 | 2.1 | 5390 | 1.50 | 556.43 | 69.9 | 23.3 | | | |
| 1.8 | 2.2 | 5139 | 1.60 | 532.69 | 70.4 | 23.6 | | | |
| 2.1 | 2.5 | 4395 | 1.85 | 460.25 | 71.8 | 24.5 | | | |
| 2.4 | 3.0 | 3696 | 2.20 | 392.69 | 72.9 | 25.3 | | | |
| 2.5 | 3.0 | 3684 | 2.20 | 391.48 | 72.9 | 25.3 | | | |
| 2.8 | 3.4 | 3147 | 2.55 | 339.29 | 73.6 | 25.9 | | | |
| 2.9 | 3.5 | 3063 | 2.65 | 331.61 | 73.7 | 26.0 | | | |
| 3.1 | 3.7 | 2888 | 2.80 | 314.70 | 73.8 | 26.2 | | | |
| 1.7 | 2.1 | 5460 | 0.85 | 831.69 | 29.6 | 20.3 | CG104-11P-90S/L-04E CF104-11P-90S/L-04E | 180 184 | 156 |
| 2.1 | 2.5 | 4588 | 1.00 | 703.12 | 35.1 | 21.4 | | | |
| 2.3 | 2.8 | 4075 | 1.15 | 628.39 | 37.5 | 22.0 | | | |
| 2.7 | 3.3 | 3417 | 1.35 | 531.25 | 40.1 | 22.9 | | | |
| 2.8 | 3.4 | 3301 | 1.40 | 514.28 | 40.5 | 23.0 | | | |
| 3.3 | 4.0 | 2762 | 1.65 | 434.78 | 42.0 | 23.7 | | | |
| 3.5 | 4.2 | 2638 | 1.75 | 417.03 | 42.4 | 23.8 | | | |
| 4.1 | 5.0 | 2203 | 2.05 | 352.56 | 43.4 | 24.4 | | | |
| 4.2 | 5.0 | 2177 | 2.10 | 349.11 | 43.4 | 24.4 | | | |
| 4.9 | 6.0 | 1810 | 2.50 | 295.14 | 44.1 | 24.9 | | | |
| 5.1 | 6.2 | 1724 | 2.65 | 282.94 | 44.2 | 25.0 | | | |

Legend see page 29

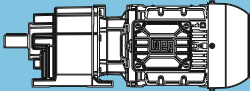
| P _N = 1.1 kW | | | | | | | | IE3 | |
|-------------------------|-----------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 1.1 kW | 60 Hz 1.3 kW | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 1.8 | 2.2 | 5275 | 0.90 | 531.25 | 30.9 | 20.5 | CG104-11P-100L-06D CF104-11P-100L-06D | 186 190 | 156 |
| 1.9 | 2.3 | 5107 | 0.90 | 514.28 | 32.1 | 20.7 | | | |
| 2.2 | 2.7 | 4291 | 1.05 | 434.78 | 36.5 | 21.7 | | | |
| 2.3 | 2.8 | 4107 | 1.10 | 417.03 | 37.4 | 22.0 | | | |
| 2.7 | 3.3 | 3437 | 1.35 | 352.56 | 40.0 | 22.8 | | | |
| 3.3 | 3.9 | 2847 | 1.60 | 295.14 | 41.8 | 23.6 | | | |
| 3.4 | 4.1 | 2718 | 1.70 | 282.94 | 42.2 | 23.7 | | | |
| 4.0 | 4.9 | 2270 | 2.00 | 239.20 | 43.2 | 24.3 | | | |
| 5.9 | 7.1 | 1779 | 2.55 | 246.43 | 44.1 | 24.9 | CG103-11P-90S/L-04E CF103-11P-90S/L-04E | 167 171 | 154 |
| 7.0 | 8.4 | 1504 | 3.00 | 208.33 | 44.5 | 25.3 | | | |
| 3.9 | 4.7 | 2697 | 1.70 | 246.43 | 42.2 | 23.8 | CG103-11P-100L-06D CF103-11P-100L-06D | 173 177 | 154 |
| 4.6 | 5.6 | 2280 | 2.00 | 208.33 | 43.2 | 24.3 | | | |
| 5.3 | 6.5 | 1973 | 2.30 | 180.35 | 43.8 | 24.7 | | | |
| 6.0 | 7.3 | 1748 | 2.60 | 159.72 | 44.2 | 25.0 | | | |
| 6.9 | 8.4 | 1512 | 3.00 | 138.17 | 44.5 | 25.3 | | | |
| 2.7 | 3.3 | 3549 | 0.85 | 540.55 | 18.1 | 24.8 | CG094-11P-90S/L-04E CF094-11P-90S/L-04E | 137 135 | 152 |
| 2.8 | 3.4 | 3401 | 0.90 | 519.08 | 19.6 | 25.0 | | | |
| 2.9 | 3.5 | 3313 | 0.95 | 506.66 | 20.4 | 25.1 | | | |
| 3.3 | 4.0 | 2880 | 1.05 | 442.39 | 23.7 | 25.7 | | | |
| 3.5 | 4.3 | 2664 | 1.15 | 410.85 | 25.1 | 26.1 | | | |
| 4.1 | 4.9 | 2312 | 1.30 | 358.73 | 26.9 | 26.6 | | | |
| 4.2 | 5.1 | 2207 | 1.40 | 343.93 | 27.4 | 26.7 | | | |
| 4.8 | 5.9 | 1912 | 1.60 | 300.30 | 28.6 | 27.2 | | | |
| 5.2 | 6.3 | 1767 | 1.70 | 278.74 | 29.1 | 27.4 | | | |
| 6.0 | 7.2 | 1524 | 2.00 | 243.38 | 29.8 | 27.7 | | | |
| 2.7 | 3.2 | 3569 | 0.85 | 358.73 | 17.9 | 24.7 | CG094-11P-100L-06D CF094-11P-100L-06D | 143 141 | 150 |
| 2.8 | 3.4 | 3415 | 0.90 | 343.93 | 19.5 | 25.0 | | | |
| 3.2 | 3.9 | 2964 | 1.05 | 300.30 | 23.1 | 25.6 | | | |
| 3.4 | 4.2 | 2745 | 1.10 | 278.74 | 24.6 | 25.9 | | | |
| 3.9 | 4.8 | 2377 | 1.30 | 243.38 | 26.6 | 26.5 | | | |
| 4.7 | 5.7 | 2215 | 1.40 | 306.73 | 27.3 | 26.7 | CG093-11P-90S/L-04E CF093-11P-90S/L-04E | 124 122 | 150 |
| 6.0 | 7.2 | 1753 | 1.75 | 242.77 | 29.1 | 27.4 | | | |
| 6.9 | 8.3 | 1530 | 2.00 | 211.98 | 29.8 | 27.7 | | | |
| 7.8 | 9.4 | 1353 | 2.25 | 187.34 | 30.3 | 28.0 | | | |
| 9.2 | 11 | 1144 | 2.65 | 158.42 | 30.7 | 28.3 | | | |
| 9.4 | 11 | 1114 | 2.70 | 154.24 | 30.8 | 28.4 | | | |
| 3.1 | 3.8 | 3356 | 0.90 | 306.73 | 20.0 | 25.0 | CG093-11P-100L-06D CF093-11P-100L-06D | 130 128 | 150 |
| 4.0 | 4.8 | 2657 | 1.15 | 242.77 | 25.1 | 26.1 | | | |
| 4.5 | 5.5 | 2320 | 1.30 | 211.98 | 26.9 | 26.6 | | | |
| 5.1 | 6.2 | 2050 | 1.50 | 187.34 | 28.0 | 27.0 | | | |
| 6.1 | 7.4 | 1734 | 1.75 | 158.42 | 29.2 | 27.4 | | | |
| 6.2 | 7.6 | 1688 | 1.80 | 154.24 | 29.3 | 27.5 | | | |
| 7.0 | 8.6 | 1490 | 2.05 | 136.18 | 29.9 | 27.8 | | | |
| 7.9 | 9.5 | 1336 | 2.25 | 122.08 | 30.3 | 28.0 | | | |
| 8.1 | 9.8 | 1301 | 2.35 | 118.88 | 30.4 | 28.1 | | | |
| 9.0 | 11 | 1166 | 2.60 | 106.60 | 30.7 | 28.3 | | | |
| 9.4 | 11 | 1115 | 2.70 | 101.85 | 30.8 | 28.4 | | | |
| 10 | 12 | 1031 | 2.95 | 94.21 | 30.9 | 28.5 | | | |
| 5.1 | 6.2 | 2057 | 0.80 | 284.84 | 16.4 | 18.3 | CG083-11P-90S/L-04E CF083-11P-90S/L-04E | 72 76 | 148 |
| 6.1 | 7.4 | 1725 | 0.90 | 238.89 | 19.2 | 19.0 | | | |
| 7.8 | 9.4 | 1354 | 1.15 | 187.48 | 21.4 | 19.7 | | | |
| 10 | 12 | 1045 | 1.50 | 144.69 | 22.7 | 20.4 | | | |
| 12 | 15 | 864 | 1.80 | 119.68 | 23.3 | 20.7 | | | |
| 14 | 17 | 735 | 2.15 | 101.80 | 23.6 | 21.0 | | | |
| 16 | 20 | 637 | 2.45 | 88.23 | 23.9 | 21.2 | | | |
| 20 | 24 | 538 | 2.90 | 74.50 | 24.1 | 21.4 | | | |
| 5.1 | 6.2 | 2052 | 0.80 | 187.48 | 16.4 | 18.3 | CG083-11P-100L-06D CF083-11P-100L-06D | 78 82 | 148 |
| 6.6 | 8.1 | 1583 | 1.00 | 144.69 | 20.1 | 19.3 | | | |
| 8.0 | 9.7 | 1310 | 1.20 | 119.68 | 21.6 | 19.8 | | | |
| 9.4 | 11 | 1114 | 1.40 | 101.80 | 22.4 | 20.2 | | | |
| 11 | 13 | 965 | 1.65 | 88.23 | 23.0 | 20.5 | | | |
| 13 | 16 | 815 | 1.95 | 74.50 | 23.4 | 20.8 | | | |
| 16 | 19 | 672 | 2.35 | 61.37 | 23.8 | 21.1 | | | |

| P _N = 1.1 kW | | | | | | | | IE3 | |
|---|---|----------------------|----------------|--------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz 1.1 kW n ₅₀ min ⁻¹ | 60 Hz 1.3 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 18 | 22 | 593 | 2.65 | 54.18 | 24.0 | 21.3 | CG082-11P-100L-06D CF082-11P-100L-06D | 77 81 | 148 |
| 11 | 13 | 992 | 0.85 | 137.38 | 8.7 | 12.7 | CG073-11P-90S/L-04E CF073-11P-90S/L-04E | 48 52 | 146 |
| 12 | 14 | 902 | 0.95 | 124.97 | 9.9 | 12.6 | | | |
| 14 | 17 | 754 | 1.10 | 104.50 | 11.3 | 13.3 | | | |
| 15 | 19 | 686 | 1.20 | 95.06 | 11.8 | 13.3 | | | |
| 17 | 20 | 622 | 1.35 | 86.17 | 12.2 | 13.7 | | | |
| 19 | 22 | 566 | 1.45 | 78.39 | 12.6 | 13.7 | | | |
| 21 | 25 | 510 | 1.65 | 70.68 | 12.9 | 14.0 | | | |
| 23 | 27 | 464 | 1.80 | 64.30 | 13.1 | 14.0 | | | |
| 24 | 29 | 434 | 1.90 | 60.06 | 13.2 | 14.2 | | | |
| 27 | 32 | 394 | 2.10 | 54.63 | 13.3 | 14.2 | | | |
| 29 | 36 | 357 | 2.35 | 49.38 | 13.5 | 14.4 | CG073-11P-100L-06D CF073-11P-100L-06D | 54 58 | 146 |
| 32 | 39 | 324 | 2.45 | 44.92 | 13.6 | 14.4 | | | |
| 37 | 45 | 283 | 2.75 | 39.17 | 13.7 | 14.6 | | | |
| 41 | 49 | 257 | 2.85 | 35.63 | 13.7 | 14.6 | | | |
| 10 | 12 | 1040 | 0.80 | 95.06 | 8.0 | 12.2 | | | |
| 11 | 14 | 943 | 0.90 | 86.17 | 9.4 | 12.8 | | | |
| 12 | 15 | 858 | 1.00 | 78.39 | 10.3 | 12.8 | | | |
| 14 | 16 | 773 | 1.10 | 70.68 | 11.1 | 13.3 | | | |
| 15 | 18 | 704 | 1.20 | 64.30 | 11.7 | 13.2 | | | |
| 16 | 19 | 657 | 1.25 | 60.06 | 12.0 | 13.6 | | | |
| 18 | 21 | 598 | 1.40 | 54.63 | 12.4 | 13.6 | | | |
| 19 | 24 | 540 | 1.55 | 49.38 | 12.7 | 13.9 | | | |
| 21 | 26 | 492 | 1.65 | 44.92 | 12.9 | 13.9 | | | |
| 25 | 30 | 429 | 1.80 | 39.17 | 13.2 | 14.2 | | | |
| 27 | 33 | 390 | 1.90 | 35.63 | 13.4 | 14.2 | | | |
| 37 | 45 | 281 | 2.95 | 38.92 | 13.7 | 14.6 | CG072-11P-90S/L-04E CF072-11P-90S/L-04E | 47 51 | 146 |
| 25 | 30 | 426 | 1.95 | 38.92 | 13.2 | 14.2 | CG072-11P-100L-06D CF072-11P-100L-06D | 53 57 | 146 |
| 27 | 33 | 387 | 2.15 | 35.41 | 13.4 | 14.2 | | | |
| 31 | 38 | 334 | 2.50 | 30.55 | 13.5 | 14.5 | | | |
| 35 | 42 | 304 | 2.70 | 27.79 | 13.6 | 14.5 | | | |
| 13 | 16 | 785 | 0.80 | 108.67 | 5.3 | 5.8 | CG063-11P-90S/L-04E CF063-11P-90S/L-04E | 31 36 | 144 |
| 16 | 20 | 646 | 0.95 | 89.54 | 7.7 | 6.2 | | | |
| 18 | 21 | 593 | 1.05 | 82.10 | 8.4 | 6.4 | | | |
| 20 | 24 | 529 | 1.15 | 73.28 | 9.0 | 6.6 | | | |
| 22 | 26 | 485 | 1.25 | 67.19 | 9.4 | 6.7 | | | |
| 24 | 30 | 429 | 1.40 | 59.42 | 9.8 | 6.9 | | | |
| 27 | 32 | 393 | 1.55 | 54.49 | 10.1 | 6.9 | | | |
| 29 | 35 | 359 | 1.70 | 49.74 | 10.3 | 7.1 | | | |
| 32 | 39 | 329 | 1.85 | 45.61 | 10.4 | 7.1 | | | |
| 14 | 17 | 735 | 0.85 | 67.19 | 6.3 | 5.9 | CG063-11P-100L-06D CF063-11P-100L-06D | 37 42 | 144 |
| 16 | 20 | 650 | 0.95 | 59.42 | 7.7 | 6.2 | | | |
| 18 | 21 | 596 | 1.05 | 54.49 | 8.3 | 6.4 | | | |
| 19 | 23 | 544 | 1.15 | 49.74 | 8.9 | 6.5 | | | |
| 21 | 26 | 499 | 1.25 | 45.61 | 9.3 | 6.6 | | | |
| 24 | 29 | 433 | 1.00 | 60.00 | 9.8 | 6.8 | CG062-11P-90S/L-04E CF062-11P-90S/L-04E | 31 36 | 144 |
| 26 | 32 | 397 | 1.00 | 55.02 | 10.1 | 6.9 | | | |
| 31 | 37 | 343 | 1.75 | 47.55 | 10.4 | 7.1 | | | |
| 33 | 40 | 315 | 1.80 | 43.60 | 10.5 | 7.2 | | | |
| 39 | 48 | 267 | 2.30 | 36.92 | 10.7 | 7.3 | | | |
| 43 | 52 | 244 | 2.50 | 33.86 | 10.8 | 7.4 | | | |
| 44 | 53 | 241 | 1.00 | 33.43 | 10.8 | 7.1 | | | |
| 48 | 58 | 219 | 2.75 | 30.30 | 10.9 | 7.5 | | | |
| 52 | 63 | 201 | 3.00 | 27.78 | 10.8 | 7.5 | | | |
| 55 | 66 | 191 | 1.80 | 26.49 | 10.6 | 7.3 | | | |
| 71 | 86 | 149 | 2.55 | 20.57 | 9.8 | 7.5 | | | |

Legend see page 29

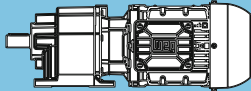
| P _N = 1.1 kW | | | | | | | | IE3 | |
|-------------------------|-----------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz 1.1 kW | 60 Hz 1.3 kW | M ₂ Nm | f _B | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 20 | 24 | 520 | 1.20 | 47.55 | 9.1 | 6.6 | CG062-11P-100L-06D CF062-11P-100L-06D | 37 42 | 144 |
| 22 | 27 | 477 | 1.20 | 43.60 | 9.5 | 6.7 | | | |
| 26 | 32 | 404 | 1.50 | 36.92 | 10.0 | 6.9 | | | |
| 28 | 34 | 370 | 1.65 | 33.86 | 10.2 | 7.0 | | | |
| 32 | 38 | 332 | 1.85 | 30.30 | 10.4 | 7.1 | | | |
| 35 | 42 | 304 | 2.00 | 27.78 | 10.6 | 7.2 | | | |
| 36 | 44 | 290 | 1.20 | 26.49 | 10.6 | 6.9 | | | |
| 41 | 50 | 257 | 2.35 | 23.46 | 10.8 | 7.4 | | | |
| 45 | 54 | 235 | 2.55 | 21.51 | 10.8 | 7.4 | | | |
| 47 | 57 | 225 | 1.70 | 20.57 | 10.9 | 7.2 | | | |
| 57 | 69 | 185 | 2.05 | 16.88 | 10.4 | 7.3 | | | |
| 73 | 89 | 143 | 2.65 | 13.07 | 9.7 | 7.5 | | | |
| 21 | 25 | 511 | 0.80 | 70.71 | 1.6 | 5.7 | | | |
| 24 | 29 | 445 | 0.90 | 61.63 | 4.0 | 6.1 | | | |
| 26 | 31 | 404 | 1.00 | 56.02 | 4.9 | 6.2 | | | |
| 30 | 36 | 355 | 1.15 | 49.20 | 5.7 | 6.5 | | | |
| 33 | 39 | 323 | 1.25 | 44.73 | 6.1 | 6.6 | | | |
| 30 | 37 | 347 | 1.00 | 48.13 | 5.8 | 6.5 | CG052-11P-90S/L-04E CF052-11P-90S/L-04E | 26 31 | 142 |
| 33 | 40 | 316 | 1.00 | 43.75 | 6.1 | 6.6 | | | |
| 38 | 46 | 274 | 1.50 | 38.00 | 6.6 | 6.9 | | | |
| 42 | 51 | 249 | 1.65 | 34.55 | 6.8 | 6.9 | | | |
| 49 | 60 | 213 | 1.90 | 29.46 | 7.0 | 7.1 | | | |
| 50 | 60 | 211 | 1.00 | 29.17 | 7.1 | 6.9 | | | |
| 54 | 66 | 193 | 2.10 | 26.79 | 7.2 | 7.2 | | | |
| 60 | 73 | 174 | 2.30 | 24.12 | 7.3 | 7.3 | | | |
| 63 | 76 | 166 | 1.65 | 23.03 | 7.3 | 7.1 | | | |
| 66 | 80 | 158 | 2.55 | 21.92 | 7.4 | 7.4 | | | |
| 78 | 95 | 134 | 3.00 | 18.56 | 7.5 | 7.5 | | | |
| 81 | 99 | 129 | 2.10 | 17.86 | 7.3 | 7.4 | | | |
| 100 | 120 | 106 | 2.55 | 14.62 | 6.9 | 7.5 | | | |
| 25 | 31 | 416 | 1.00 | 38.00 | 4.7 | 6.2 | CG052-11P-100L-06D CF052-11P-100L-06D | 32 37 | 142 |
| 28 | 34 | 378 | 1.10 | 34.55 | 5.3 | 6.4 | | | |
| 33 | 40 | 322 | 1.25 | 29.46 | 6.1 | 6.6 | | | |
| 36 | 43 | 293 | 1.40 | 26.79 | 6.4 | 6.7 | | | |
| 40 | 48 | 264 | 1.55 | 24.12 | 6.7 | 6.9 | | | |
| 42 | 51 | 252 | 1.10 | 23.03 | 6.8 | 6.7 | | | |
| 44 | 53 | 240 | 1.70 | 21.92 | 6.9 | 7.0 | | | |
| 52 | 63 | 203 | 2.00 | 18.56 | 7.1 | 7.2 | | | |
| 54 | 65 | 195 | 1.40 | 17.86 | 7.2 | 7.0 | | | |
| 57 | 69 | 185 | 2.20 | 16.88 | 7.2 | 7.2 | | | |
| 66 | 80 | 160 | 1.70 | 14.62 | 7.3 | 7.2 | | | |
| 68 | 83 | 153 | 2.65 | 14.03 | 7.4 | 7.4 | | | |
| 75 | 91 | 140 | 2.90 | 12.75 | 7.4 | 7.5 | | | |
| 85 | 104 | 123 | 2.20 | 11.25 | 7.2 | 7.4 | | | |
| 113 | 137 | 93 | 2.90 | 8.50 | 6.7 | 7.6 | | | |
| 42 | 50 | 252 | 0.80 | 34.88 | 3.9 | 3.0 | CG032-11P-90S/L-04E CF032-11P-90S/L-04E | 22 24 | 140 |
| 46 | 56 | 229 | 0.90 | 31.67 | 4.3 | 3.1 | | | |
| 53 | 64 | 200 | 1.00 | 27.71 | 4.6 | 3.4 | | | |
| 58 | 70 | 182 | 1.15 | 25.17 | 4.5 | 3.4 | | | |
| 68 | 82 | 155 | 1.30 | 21.40 | 4.4 | 3.6 | | | |
| 74 | 90 | 141 | 0.95 | 19.54 | 4.2 | 3.5 | | | |
| 75 | 91 | 140 | 1.45 | 19.44 | 4.3 | 3.7 | | | |
| 85 | 103 | 123 | 1.65 | 17.09 | 4.2 | 3.8 | | | |
| 94 | 113 | 112 | 1.20 | 15.53 | 4.0 | 3.8 | | | |
| 113 | 136 | 93 | 2.10 | 12.92 | 3.9 | 4.0 | | | |
| 121 | 147 | 87 | 1.55 | 11.99 | 3.8 | 3.9 | | | |
| 124 | 150 | 85 | 2.35 | 11.73 | 3.8 | 4.1 | | | |
| 148 | 179 | 71 | 2.55 | 9.82 | 3.7 | 4.2 | | | |
| 152 | 184 | 69 | 1.90 | 9.57 | 3.6 | 4.1 | | | |
| 163 | 197 | 64 | 2.85 | 8.92 | 3.6 | 4.2 | | | |
| 201 | 243 | 52 | 2.50 | 7.24 | 3.3 | 4.2 | | | |

Legend see page 29

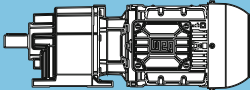
| P _N = 1.1 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 45 | 54 | 234 | 0.90 | 21.40 | 4.2 | 3.1 | CG032-11P-100L-06D CF032-11P-100L-06D | 28 30 | 140 |
| 49 | 60 | 213 | 0.95 | 19.44 | 4.6 | 3.3 | | | |
| 56 | 68 | 187 | 1.10 | 17.09 | 4.6 | 3.4 | | | |
| 62 | 75 | 170 | 0.80 | 15.53 | 4.3 | 3.3 | | | |
| 74 | 90 | 141 | 1.40 | 12.92 | 4.3 | 3.7 | | | |
| 80 | 97 | 131 | 1.00 | 11.99 | 4.2 | 3.6 | | | |
| 82 | 99 | 128 | 1.55 | 11.73 | 4.2 | 3.8 | | | |
| 98 | 119 | 107 | 1.70 | 9.82 | 4.1 | 3.9 | | | |
| 100 | 122 | 105 | 1.25 | 9.57 | 4.0 | 3.8 | | | |
| 108 | 131 | 98 | 1.90 | 8.92 | 4.0 | 4.0 | | | |
| 126 | 153 | 84 | 2.05 | 7.64 | 3.8 | 4.1 | | | |
| 133 | 161 | 79 | 1.65 | 7.24 | 3.7 | 4.0 | | | |
| 138 | 168 | 76 | 2.30 | 6.94 | 3.7 | 4.1 | | | |
| 161 | 195 | 65 | 2.45 | 5.96 | 3.6 | 4.2 | | | |
| 175 | 212 | 60 | 2.20 | 5.50 | 3.5 | 4.1 | | | |
| 177 | 215 | 59 | 2.70 | 5.41 | 3.5 | 4.2 | | | |
| 224 | 272 | 47 | 2.80 | 4.28 | 3.3 | 4.2 | | | |
| 98 | 118 | 107 | 0.80 | 14.88 | 2.7 | 0.9 | CG012-11P-90S/L-04E CF012-11P-90S/L-04E | 20 21 | 138 |
| 109 | 132 | 96 | 0.90 | 13.33 | 2.7 | 1.0 | | | |
| 113 | 137 | 93 | 0.95 | 12.83 | 2.6 | 1.0 | | | |
| 127 | 153 | 83 | 1.05 | 11.50 | 2.6 | 1.1 | | | |
| 130 | 157 | 81 | 1.05 | 11.20 | 2.6 | 1.1 | | | |
| 145 | 175 | 72 | 1.15 | 10.04 | 2.5 | 1.2 | | | |
| 152 | 183 | 69 | 1.00 | 9.60 | 2.4 | 1.0 | | | |
| 177 | 214 | 59 | 1.30 | 8.22 | 2.4 | 1.2 | | | |
| 194 | 235 | 54 | 1.25 | 7.50 | 2.3 | 1.1 | | | |
| 198 | 239 | 53 | 1.40 | 7.36 | 2.3 | 1.3 | | | |
| 260 | 314 | 40 | 1.65 | 5.60 | 2.1 | 1.3 | | | |
| 301 | 364 | 35 | 1.90 | 4.83 | 2.1 | 1.3 | | | |
| 345 | 417 | 30 | 2.20 | 4.22 | 2.0 | 1.4 | | | |
| 470 | 569 | 22 | 2.85 | 3.09 | 1.8 | 1.4 | | | |



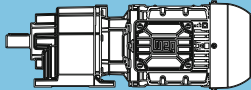
Legend see page 29

| P _N = 1.5 kW | | | | | | | | IE3 | |
|---|---|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 1.5 kW n ₅₀ min ⁻¹ | 60 Hz 1.8 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 0.59 | 0.72 | 21482 | 0.85 | 2448.96 | 101.9 | 21.0 | CG165-11P-90S/L-04F CF165-11P-90S/L-04F | 706 729 | 170 |
| 0.60 | 0.73 | 21035 | 0.90 | 2404.16 | 103.6 | 21.4 | | | |
| 0.71 | 0.86 | 17799 | 1.05 | 2050.07 | 113.9 | 24.3 | | | |
| 0.87 | 1.1 | 14242 | 1.30 | 1661.50 | 122.5 | 27.6 | | | |
| 0.69 | 0.84 | 18694 | 1.00 | 2093.95 | 111.3 | 23.5 | CG164-11P-90S/L-04F CF164-11P-90S/L-04F | 693 716 | 168 |
| 0.80 | 0.97 | 16003 | 1.15 | 1803.51 | 118.5 | 26.0 | | | |
| 0.87 | 1.1 | 14645 | 1.25 | 1657.33 | 121.6 | 27.2 | | | |
| 0.93 | 1.1 | 13728 | 1.35 | 1559.96 | 123.5 | 28.0 | | | |
| 1.0 | 1.2 | 12683 | 1.45 | 1447.11 | 125.5 | 29.0 | | | |
| 1.1 | 1.4 | 11117 | 1.65 | 1278.93 | 128.1 | 30.4 | | | |
| 1.2 | 1.4 | 10811 | 1.70 | 1246.39 | 128.6 | 30.7 | | | |
| 1.3 | 1.6 | 9476 | 1.90 | 1101.54 | 130.4 | 31.9 | | | |
| 1.5 | 1.8 | 8078 | 2.25 | 952.78 | 132.1 | 33.2 | | | |
| 1.6 | 1.9 | 7881 | 2.30 | 931.50 | 132.3 | 33.3 | | | |
| 1.8 | 2.2 | 6753 | 2.70 | 811.56 | 133.4 | 34.4 | | | |
| 0.77 | 0.93 | 16975 | 0.80 | 1885.79 | 85.3 | 10.5 | CG144-11P-90S/L-04F CF144-11P-90S/L-04F | 442 460 | 164 |
| 0.87 | 1.1 | 14969 | 0.90 | 1669.82 | 91.7 | 12.5 | | | |
| 0.89 | 1.1 | 14562 | 0.90 | 1624.38 | 92.9 | 12.9 | | | |
| 1.0 | 1.2 | 12972 | 1.05 | 1455.92 | 97.0 | 14.5 | | | |
| 1.2 | 1.4 | 11105 | 1.20 | 1254.10 | 101.0 | 16.4 | | | |
| 1.3 | 1.6 | 9672 | 1.35 | 1099.05 | 103.6 | 17.8 | | | |
| 1.4 | 1.7 | 9218 | 1.45 | 1051.77 | 104.4 | 18.3 | | | |
| 1.5 | 1.8 | 8347 | 1.60 | 958.27 | 105.7 | 19.1 | | | |
| 1.6 | 1.9 | 7856 | 1.70 | 905.71 | 106.3 | 19.6 | | | |
| 1.7 | 2.1 | 7327 | 1.80 | 848.21 | 107.0 | 20.2 | | | |
| 1.8 | 2.1 | 7116 | 1.85 | 825.43 | 107.3 | 20.4 | | | |
| 2.0 | 2.4 | 6310 | 2.10 | 739.56 | 108.1 | 21.2 | | | |
| 2.1 | 2.5 | 5961 | 2.20 | 701.59 | 108.5 | 21.5 | | | |
| 2.3 | 2.8 | 5356 | 2.45 | 637.04 | 109.1 | 22.1 | | | |
| 2.4 | 2.9 | 5122 | 2.55 | 611.72 | 109.3 | 22.4 | | | |
| 2.6 | 3.2 | 4527 | 2.90 | 548.57 | 109.7 | 23.0 | | | |
| 1.3 | 1.6 | 9840 | 0.85 | 1095.41 | 55.2 | 18.3 | CG134-11P-90S/L-04F CF134-11P-90S/L-04F | 295 297 | 160 |
| 1.4 | 1.7 | 9551 | 0.85 | 1063.29 | 56.5 | 18.6 | | | |
| 1.5 | 1.8 | 8600 | 0.95 | 961.31 | 60.6 | 19.7 | | | |
| 1.6 | 1.9 | 8202 | 1.00 | 918.68 | 62.0 | 20.1 | | | |
| 1.7 | 2.1 | 7419 | 1.10 | 834.47 | 64.7 | 21.0 | | | |
| 2.0 | 2.4 | 6556 | 1.25 | 741.90 | 67.2 | 22.0 | | | |
| 2.3 | 2.7 | 5644 | 1.45 | 644.01 | 69.4 | 23.1 | | | |
| 2.4 | 2.9 | 5367 | 1.50 | 613.66 | 70.0 | 23.4 | | | |
| 2.6 | 3.2 | 4827 | 1.70 | 556.43 | 71.0 | 24.0 | | | |
| 2.7 | 3.3 | 4611 | 1.75 | 532.69 | 71.4 | 24.2 | | | |
| 2.8 | 3.4 | 4509 | 1.80 | 521.98 | 71.6 | 24.3 | | | |
| 3.2 | 3.8 | 3935 | 2.05 | 460.25 | 72.5 | 25.0 | | | |
| 3.7 | 4.5 | 3302 | 2.45 | 392.69 | 73.4 | 25.7 | | | |
| 3.8 | 4.6 | 3205 | 2.50 | 382.01 | 73.5 | 25.8 | | | |
| 4.3 | 5.2 | 2800 | 2.90 | 339.29 | 73.9 | 26.3 | | | |
| 4.4 | 5.3 | 2731 | 2.95 | 331.61 | 74.0 | 26.4 | | | |
| 2.3 | 2.8 | 5656 | 0.80 | 628.39 | 28.1 | 20.0 | CG134-11P-90S/L-04F CF134-11P-90S/L-04F | 181 185 | 160 |
| 2.7 | 3.3 | 4753 | 0.95 | 531.25 | 34.2 | 21.2 | | | |
| 2.8 | 3.4 | 4591 | 1.00 | 514.28 | 35.0 | 21.4 | | | |
| 3.3 | 4.0 | 3850 | 1.20 | 434.78 | 38.5 | 22.3 | | | |
| 3.5 | 4.2 | 3685 | 1.25 | 417.03 | 39.1 | 22.5 | | | |
| 4.1 | 5.0 | 3084 | 1.50 | 352.56 | 41.1 | 23.3 | | | |
| 4.2 | 5.0 | 3053 | 1.50 | 349.11 | 41.2 | 23.3 | | | |
| 4.9 | 5.9 | 2550 | 1.80 | 295.14 | 42.6 | 24.0 | | | |
| 5.1 | 6.2 | 2439 | 1.85 | 282.94 | 42.8 | 24.1 | | | |
| 6.1 | 7.3 | 2028 | 2.25 | 239.20 | 43.7 | 24.6 | | | |
| 5.9 | 7.1 | 2435 | 1.85 | 246.43 | 42.9 | 24.1 | CG103-11P-90S/L-04F CF103-11P-90S/L-04F | 168 172 | 154 |
| 7.0 | 8.4 | 2058 | 2.20 | 208.33 | 43.6 | 24.6 | | | |
| 8.0 | 9.7 | 1782 | 2.55 | 180.35 | 44.1 | 24.9 | | | |
| 9.1 | 11 | 1578 | 2.90 | 159.72 | 44.4 | 25.2 | | | |

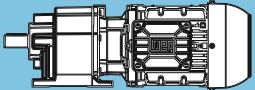
Legend see page 29

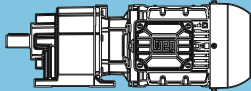
| P _N = 1.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 1.5 kW | | 1.8 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 3.3 | 4.0 | 3982 | 0.80 | 442.39 | 12.2 | 24.1 | CG094-11P-90S/L-04F CF094-11P-90S/L-04F | 139 137 | 152 |
| 3.5 | 4.3 | 3691 | 0.85 | 410.85 | 16.5 | 24.5 | | | |
| 4.0 | 4.9 | 3209 | 0.95 | 358.73 | 21.3 | 25.3 | | | |
| 4.1 | 5.0 | 3144 | 1.00 | 352.17 | 21.8 | 25.4 | | | |
| 4.2 | 5.1 | 3071 | 1.00 | 343.93 | 22.4 | 25.5 | | | |
| 4.8 | 5.8 | 2665 | 1.15 | 300.30 | 25.1 | 26.1 | | | |
| 5.2 | 6.3 | 2463 | 1.25 | 278.74 | 26.2 | 26.4 | | | |
| 6.0 | 7.2 | 2133 | 1.45 | 243.38 | 27.7 | 26.8 | | | |
| 4.7 | 5.7 | 3030 | 1.00 | 306.73 | 22.7 | 25.5 | CG093-11P-90S/L-04F CF093-11P-90S/L-04F | 126 124 | 150 |
| 6.0 | 7.2 | 2398 | 1.30 | 242.77 | 26.5 | 26.5 | | | |
| 6.8 | 8.3 | 2094 | 1.45 | 211.98 | 27.9 | 26.9 | | | |
| 7.7 | 9.4 | 1851 | 1.65 | 187.34 | 28.8 | 27.3 | | | |
| 9.2 | 11 | 1565 | 1.95 | 158.42 | 29.7 | 27.7 | | | |
| 9.4 | 11 | 1524 | 2.00 | 154.24 | 29.8 | 27.7 | | | |
| 11 | 13 | 1345 | 2.25 | 136.18 | 30.3 | 28.0 | | | |
| 12 | 14 | 1206 | 2.50 | 122.08 | 30.6 | 28.2 | | | |
| 14 | 16 | 1053 | 2.85 | 106.60 | 30.9 | 28.4 | | | |
| 7.7 | 9.4 | 1852 | 0.85 | 187.48 | 18.2 | 18.7 | CG083-11P-90S/L-04F CF083-11P-90S/L-04F | 73 77 | 148 |
| 10 | 12 | 1429 | 1.10 | 144.69 | 21.0 | 19.6 | | | |
| 12 | 15 | 1182 | 1.35 | 119.68 | 22.2 | 20.1 | | | |
| 14 | 17 | 1006 | 1.55 | 101.80 | 22.8 | 20.4 | | | |
| 16 | 20 | 872 | 1.80 | 88.23 | 23.3 | 20.7 | | | |
| 19 | 24 | 736 | 2.15 | 74.50 | 23.6 | 21.0 | | | |
| 24 | 29 | 606 | 2.60 | 61.37 | 23.9 | 21.3 | | | |
| 27 | 32 | 535 | 2.90 | 54.18 | 24.1 | 21.4 | | | |
| 14 | 17 | 1032 | 0.80 | 104.50 | 8.1 | 12.5 | CG073-11P-90S/L-04F CF073-11P-90S/L-04F | 49 53 | 146 |
| 15 | 18 | 939 | 0.90 | 95.06 | 9.4 | 12.5 | | | |
| 17 | 20 | 851 | 1.00 | 86.17 | 10.4 | 13.0 | | | |
| 18 | 22 | 774 | 1.10 | 78.39 | 11.1 | 13.0 | | | |
| 21 | 25 | 698 | 1.20 | 70.68 | 11.7 | 13.5 | | | |
| 23 | 27 | 635 | 1.30 | 64.30 | 12.1 | 13.5 | | | |
| 24 | 29 | 593 | 1.40 | 60.06 | 12.4 | 13.8 | | | |
| 27 | 32 | 540 | 1.55 | 54.63 | 12.7 | 13.8 | | | |
| 29 | 36 | 488 | 1.70 | 49.38 | 13.0 | 14.1 | | | |
| 32 | 39 | 444 | 1.80 | 44.92 | 13.2 | 14.0 | | | |
| 37 | 45 | 387 | 2.00 | 39.17 | 13.4 | 14.3 | | | |
| 41 | 49 | 352 | 2.10 | 35.63 | 13.5 | 14.3 | | | |
| 37 | 45 | 385 | 2.15 | 38.92 | 13.4 | 14.3 | CG072-11P-90S/L-04F CF072-11P-90S/L-04F | 48 52 | 146 |
| 41 | 50 | 350 | 2.35 | 35.41 | 13.5 | 14.3 | | | |
| 47 | 57 | 302 | 2.75 | 30.55 | 13.6 | 14.6 | | | |
| 52 | 63 | 275 | 3.00 | 27.79 | 13.7 | 14.6 | | | |
| 20 | 24 | 724 | 0.85 | 73.28 | 6.5 | 6.0 | CG063-11P-90S/L-04F CF063-11P-90S/L-04F | 33 38 | 144 |
| 22 | 26 | 664 | 0.95 | 67.19 | 7.5 | 6.2 | | | |
| 24 | 30 | 587 | 1.05 | 59.42 | 8.4 | 6.4 | | | |
| 27 | 32 | 538 | 1.15 | 54.49 | 8.9 | 6.5 | | | |
| 29 | 35 | 491 | 1.25 | 49.74 | 9.4 | 6.7 | | | |
| 32 | 38 | 451 | 1.35 | 45.61 | 9.7 | 6.8 | | | |
| 30 | 37 | 470 | 1.30 | 47.55 | 9.5 | 6.7 | CG062-11P-90S/L-04F CF062-11P-90S/L-04F | 33 38 | 144 |
| 33 | 40 | 431 | 1.35 | 43.60 | 9.8 | 6.8 | | | |
| 39 | 48 | 365 | 1.65 | 36.92 | 10.3 | 7.0 | | | |
| 43 | 52 | 334 | 1.80 | 33.86 | 10.4 | 7.1 | | | |
| 48 | 58 | 299 | 2.05 | 30.30 | 10.6 | 7.2 | | | |
| 52 | 63 | 274 | 2.20 | 27.78 | 10.5 | 7.3 | | | |
| 55 | 66 | 262 | 1.35 | 26.49 | 10.3 | 7.0 | | | |
| 62 | 75 | 232 | 2.60 | 23.46 | 10.0 | 7.4 | | | |
| 67 | 82 | 213 | 2.85 | 21.51 | 9.8 | 7.5 | | | |
| 70 | 85 | 203 | 1.90 | 20.57 | 9.6 | 7.3 | | | |
| 86 | 104 | 167 | 2.30 | 16.88 | 9.1 | 7.4 | | | |
| 111 | 134 | 129 | 2.95 | 13.07 | 8.4 | 7.6 | | | |
| 29 | 36 | 486 | 0.85 | 49.20 | 2.8 | 5.9 | CG053-11P-90S/L-04F CF053-11P-90S/L-04F | 28 33 | 142 |
| 32 | 39 | 442 | 0.95 | 44.73 | 4.1 | 6.1 | | | |

Legend see page 29

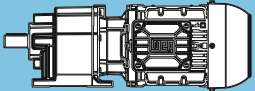
| P _N = 1.5 kW | | | | | | | | IE3 | |
|---|---|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz 1.5 kW n ₅₀ min ⁻¹ | 60 Hz 1.8 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 38 | 46 | 375 | 1.10 | 38.00 | 5.4 | 6.4 | CG052-11P-90S/L-04F CF052-11P-90S/L-04F | 27 32 | 142 |
| 42 | 51 | 341 | 1.20 | 34.55 | 5.8 | 6.5 | | | |
| 49 | 60 | 291 | 1.40 | 29.46 | 6.4 | 6.8 | | | |
| 54 | 66 | 265 | 1.55 | 26.79 | 6.7 | 6.9 | | | |
| 60 | 73 | 238 | 1.70 | 24.12 | 6.9 | 7.0 | | | |
| 63 | 76 | 228 | 1.20 | 23.03 | 6.9 | 6.8 | | | |
| 66 | 80 | 217 | 1.85 | 21.92 | 7.0 | 7.1 | | | |
| 78 | 95 | 183 | 2.20 | 18.56 | 7.2 | 7.3 | | | |
| 81 | 98 | 176 | 1.55 | 17.86 | 7.1 | 7.1 | | | |
| 86 | 104 | 167 | 2.40 | 16.88 | 7.0 | 7.3 | | | |
| 99 | 120 | 144 | 1.85 | 14.62 | 6.7 | 7.3 | | | |
| 103 | 125 | 139 | 2.90 | 14.03 | 6.7 | 7.5 | | | |
| 129 | 156 | 111 | 2.45 | 11.25 | 6.3 | 7.5 | | | |
| 58 | 70 | 249 | 0.85 | 25.17 | 4.0 | 3.0 | CG032-11P-90S/L-04F CF032-11P-90S/L-04F | 23 25 | 140 |
| 68 | 82 | 211 | 0.95 | 21.40 | 4.1 | 3.3 | | | |
| 75 | 90 | 192 | 1.05 | 19.44 | 4.0 | 3.4 | | | |
| 85 | 103 | 169 | 1.20 | 17.09 | 3.9 | 3.5 | | | |
| 93 | 113 | 153 | 1.35 | 15.52 | 3.9 | 3.6 | | | |
| 93 | 113 | 153 | 0.85 | 15.53 | 3.8 | 3.4 | | | |
| 112 | 136 | 128 | 1.55 | 12.92 | 3.7 | 3.8 | | | |
| 121 | 146 | 118 | 1.10 | 11.99 | 3.6 | 3.7 | | | |
| 124 | 150 | 116 | 1.75 | 11.73 | 3.6 | 3.9 | | | |
| 148 | 179 | 97 | 1.90 | 9.82 | 3.5 | 4.0 | | | |
| 151 | 183 | 95 | 1.40 | 9.57 | 3.4 | 3.9 | | | |
| 163 | 197 | 88 | 2.10 | 8.92 | 3.4 | 4.0 | | | |
| 190 | 230 | 75 | 2.25 | 7.64 | 3.3 | 4.1 | | | |
| 200 | 243 | 71 | 1.85 | 7.24 | 3.2 | 4.1 | | | |
| 209 | 253 | 69 | 2.50 | 6.94 | 3.2 | 4.2 | | | |
| 243 | 294 | 59 | 2.70 | 5.96 | 3.1 | 4.2 | | | |
| 264 | 319 | 54 | 2.40 | 5.50 | 3.0 | 4.2 | | | |
| 268 | 324 | 53 | 3.00 | 5.41 | 3.0 | 4.3 | | | |
| 129 | 157 | 111 | 0.80 | 11.20 | 2.4 | 0.9 | CG012-11P-90S/L-04F CF012-11P-90S/L-04F | 21 22 | 138 |
| 144 | 175 | 99 | 0.85 | 10.04 | 2.3 | 1.0 | | | |
| 176 | 214 | 81 | 0.95 | 8.22 | 2.3 | 1.1 | | | |
| 193 | 234 | 74 | 0.90 | 7.50 | 2.1 | 1.0 | | | |
| 197 | 238 | 73 | 1.05 | 7.36 | 2.2 | 1.2 | | | |
| 259 | 313 | 55 | 1.20 | 5.60 | 2.0 | 1.1 | | | |
| 300 | 363 | 48 | 1.40 | 4.83 | 2.0 | 1.2 | | | |
| 344 | 416 | 42 | 1.60 | 4.22 | 1.9 | 1.3 | | | |
| 469 | 567 | 31 | 2.10 | 3.09 | 1.8 | 1.4 | | | |

Legend see page 29

| P_N = 2.2 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|---------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 0.86 | 1.1 | 21599 | 0.85 | 1661.50 | 101.5 | 20.9 | CG165-11P-100L-04E CF165-11P-100L-04E | 716 | 170 |
| 0.90 | 1.1 | 20774 | 0.90 | 1602.16 | 104.5 | 21.6 | | 739 | |
| 0.87 | 1.1 | 22063 | 0.85 | 1657.33 | 99.7 | 20.5 | CG164-11P-100L-04E CF164-11P-100L-04E | 703 726 | 168 |
| 0.92 | 1.1 | 20725 | 0.90 | 1559.96 | 104.7 | 21.7 | | | |
| 0.99 | 1.2 | 19186 | 0.95 | 1447.11 | 109.8 | 23.1 | | | |
| 1.0 | 1.2 | 18887 | 1.00 | 1427.45 | 110.7 | 23.3 | | | |
| 1.1 | 1.4 | 16852 | 1.10 | 1278.93 | 116.4 | 25.2 | | | |
| 1.2 | 1.4 | 16423 | 1.10 | 1246.39 | 117.5 | 25.6 | | | |
| 1.3 | 1.6 | 14426 | 1.25 | 1101.54 | 122.1 | 27.4 | | | |
| 1.5 | 1.8 | 12350 | 1.50 | 952.78 | 126.1 | 29.3 | | | |
| 1.8 | 2.2 | 10411 | 1.75 | 811.56 | 129.2 | 31.0 | | | |
| 2.1 | 2.5 | 8856 | 2.05 | 698.99 | 131.2 | 32.5 | | | |
| 2.4 | 2.9 | 7550 | 2.40 | 604.60 | 132.7 | 33.6 | | | |
| 2.5 | 3.0 | 7166 | 2.55 | 577.48 | 133.0 | 34.0 | | | |
| 2.8 | 3.4 | 6348 | 2.85 | 517.99 | 133.8 | 34.7 | | | |
| 2.9 | 3.5 | 6083 | 3.00 | 499.49 | 134.0 | 35.0 | | | |
| 1.1 | 1.4 | 16730 | 0.80 | 1254.10 | 86.1 | 10.7 | CG144-11P-100L-04E CF144-11P-100L-04E | 452 470 | 164 |
| 1.2 | 1.4 | 16288 | 0.80 | 1221.03 | 87.6 | 11.2 | | | |
| 1.3 | 1.6 | 14601 | 0.90 | 1099.05 | 92.8 | 12.9 | | | |
| 1.4 | 1.7 | 13945 | 0.95 | 1051.77 | 94.5 | 13.5 | | | |
| 1.5 | 1.8 | 12653 | 1.05 | 958.27 | 97.7 | 14.8 | | | |
| 1.6 | 1.9 | 11934 | 1.10 | 905.71 | 99.3 | 15.5 | | | |
| 1.7 | 2.1 | 11131 | 1.20 | 848.21 | 101.0 | 16.3 | | | |
| 1.9 | 2.4 | 9645 | 1.35 | 739.56 | 103.7 | 17.8 | | | |
| 2.0 | 2.5 | 9232 | 1.45 | 710.80 | 104.3 | 18.2 | | | |
| 2.3 | 2.7 | 8223 | 1.60 | 637.04 | 105.8 | 19.3 | | | |
| 2.4 | 2.9 | 7672 | 1.70 | 596.77 | 106.6 | 19.8 | | | |
| 2.6 | 3.2 | 6994 | 1.90 | 548.57 | 107.4 | 20.5 | | | |
| 2.7 | 3.3 | 6704 | 1.95 | 526.92 | 107.7 | 20.8 | | | |
| 2.8 | 3.4 | 6606 | 2.00 | 520.33 | 107.8 | 20.9 | | | |
| 3.2 | 3.8 | 5690 | 2.30 | 453.75 | 108.8 | 21.8 | | | |
| 3.3 | 4.0 | 5454 | 2.40 | 436.75 | 109.0 | 22.0 | | | |
| 3.4 | 4.1 | 5237 | 2.50 | 421.15 | 109.2 | 22.3 | | | |
| 3.7 | 4.5 | 4780 | 2.75 | 388.44 | 109.5 | 22.7 | | | |
| 3.8 | 4.6 | 4676 | 2.80 | 380.80 | 109.6 | 22.8 | | | |
| 3.9 | 4.8 | 4491 | 2.90 | 367.20 | 109.8 | 23.0 | | | |
| 4.0 | 4.9 | 4382 | 3.00 | 359.79 | 109.8 | 23.1 | | | |
| 1.9 | 2.4 | 9877 | 0.85 | 741.90 | 55.0 | 18.2 | CG134-11P-100L-04E CF134-11P-100L-04E | 305 307 | 160 |
| 2.0 | 2.4 | 9598 | 0.85 | 720.98 | 56.3 | 18.5 | | | |
| 2.2 | 2.7 | 8538 | 0.95 | 644.01 | 60.8 | 19.7 | | | |
| 2.3 | 2.8 | 8119 | 1.00 | 613.66 | 62.3 | 20.2 | | | |
| 2.6 | 3.1 | 7332 | 1.10 | 556.43 | 64.9 | 21.1 | | | |
| 2.7 | 3.3 | 7005 | 1.15 | 532.69 | 65.9 | 21.5 | | | |
| 3.1 | 3.8 | 6003 | 1.35 | 460.25 | 68.6 | 22.6 | | | |
| 3.2 | 3.9 | 5897 | 1.40 | 453.11 | 68.8 | 22.8 | | | |
| 3.7 | 4.4 | 5069 | 1.60 | 392.69 | 70.6 | 23.7 | | | |
| 3.8 | 4.6 | 4921 | 1.65 | 382.01 | 70.9 | 23.9 | | | |
| 3.9 | 4.7 | 4735 | 1.70 | 368.37 | 71.2 | 24.1 | | | |
| 4.2 | 5.1 | 4335 | 1.85 | 339.29 | 71.9 | 24.5 | | | |
| 4.3 | 5.3 | 4228 | 1.90 | 331.61 | 72.1 | 24.7 | | | |
| 4.5 | 5.5 | 4060 | 2.00 | 319.76 | 72.3 | 24.9 | | | |
| 4.6 | 5.5 | 3987 | 2.05 | 314.70 | 72.4 | 24.9 | | | |
| 5.0 | 6.1 | 3600 | 2.25 | 286.51 | 73.0 | 25.4 | | | |
| 5.2 | 6.3 | 3457 | 2.35 | 276.28 | 73.2 | 25.6 | | | |
| 5.3 | 6.4 | 3418 | 2.35 | 273.18 | 73.2 | 25.6 | | | |
| 6.1 | 7.4 | 2899 | 2.80 | 236.02 | 73.8 | 26.2 | | | |
| 3.3 | 4.0 | 5800 | 0.80 | 434.78 | 26.9 | 19.8 | CG104-11P-100L-04E CF104-11P-100L-04E | 305 307 | 156 |
| 3.4 | 4.2 | 5552 | 0.85 | 417.03 | 28.9 | 20.1 | | | |
| 4.1 | 4.9 | 4665 | 1.00 | 352.56 | 34.7 | 21.3 | | | |
| 4.9 | 5.9 | 3873 | 1.20 | 295.14 | 38.4 | 22.3 | | | |
| 5.1 | 6.2 | 3705 | 1.25 | 282.94 | 39.0 | 22.5 | | | |
| 5.3 | 6.4 | 3566 | 1.30 | 272.83 | 39.5 | 22.7 | | | |
| 6.0 | 7.3 | 3107 | 1.45 | 239.20 | 41.1 | 23.2 | | | |
| 6.2 | 7.6 | 2984 | 1.55 | 230.65 | 41.4 | 23.4 | | | |

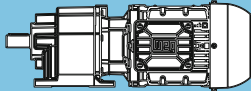
| P _N = 2.2 kW | | | | | | | | IE3 | |
|-------------------------|-----------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 2.2 kW | 60 Hz 2.6 kW | M ₂ Nm | f _B | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 5.8 | 7.1 | 3608 | 1.25 | 246.43 | 39.4 | 22.6 | CG103-11P-100L-04E CF103-11P-100L-04E | 178 182 | 154 |
| 6.9 | 8.4 | 3050 | 1.50 | 208.33 | 41.2 | 23.3 | | | |
| 8.0 | 9.7 | 2640 | 1.75 | 180.35 | 42.4 | 23.8 | | | |
| 9.0 | 11 | 2339 | 1.95 | 159.72 | 43.1 | 24.2 | | | |
| 10 | 13 | 2023 | 2.25 | 138.17 | 43.7 | 24.6 | | | |
| 11 | 13 | 1951 | 2.35 | 133.24 | 43.8 | 24.7 | | | |
| 12 | 14 | 1786 | 2.55 | 122.02 | 44.1 | 24.9 | | | |
| 14 | 17 | 1510 | 3.00 | 103.15 | 44.5 | 25.3 | | | |
| 5.1 | 6.3 | 3711 | 0.85 | 278.74 | 16.2 | 24.5 | CG094-11P-100L-04E CF094-11P-100L-04E | 149 147 | 152 |
| 5.3 | 6.5 | 3578 | 0.85 | 268.78 | 17.8 | 24.7 | | | |
| 5.9 | 7.2 | 3227 | 0.95 | 243.38 | 21.1 | 25.2 | | | |
| 6.1 | 7.4 | 3105 | 1.00 | 234.69 | 22.1 | 25.4 | | | |
| 5.9 | 7.2 | 3554 | 0.85 | 242.77 | 18.0 | 24.7 | CG093-11P-100L-04E CF093-11P-100L-04E | 136 134 | 150 |
| 6.8 | 8.2 | 3104 | 1.00 | 211.98 | 22.1 | 25.4 | | | |
| 7.7 | 9.3 | 2743 | 1.10 | 187.34 | 24.6 | 25.9 | | | |
| 9.1 | 11 | 2320 | 1.30 | 158.42 | 26.9 | 26.6 | | | |
| 9.3 | 11 | 2258 | 1.35 | 154.24 | 27.1 | 26.7 | | | |
| 11 | 13 | 1994 | 1.55 | 136.18 | 28.3 | 27.1 | | | |
| 12 | 14 | 1787 | 1.70 | 122.08 | 29.0 | 27.4 | | | |
| 13 | 16 | 1561 | 1.95 | 106.60 | 29.7 | 27.7 | | | |
| 14 | 17 | 1491 | 2.05 | 101.85 | 29.9 | 27.8 | | | |
| 15 | 18 | 1438 | 2.10 | 98.21 | 30.0 | 27.9 | | | |
| 17 | 20 | 1269 | 2.40 | 86.68 | 30.5 | 28.1 | | | |
| 18 | 22 | 1166 | 2.60 | 79.66 | 30.7 | 28.3 | | | |
| 20 | 24 | 1065 | 2.85 | 72.72 | 30.9 | 28.4 | | | |
| 21 | 25 | 1003 | 3.00 | 68.48 | 31.0 | 28.5 | | | |
| 12 | 15 | 1752 | 0.90 | 119.68 | 19.0 | 18.9 | CG083-11P-100L-04E CF083-11P-100L-04E | 83 87 | 148 |
| 14 | 17 | 1490 | 1.05 | 101.80 | 20.7 | 19.5 | | | |
| 16 | 20 | 1292 | 1.20 | 88.23 | 21.7 | 19.9 | | | |
| 19 | 23 | 1091 | 1.45 | 74.50 | 22.5 | 20.3 | | | |
| 20 | 24 | 1052 | 1.50 | 71.84 | 22.7 | 20.4 | | | |
| 23 | 28 | 899 | 1.75 | 61.37 | 23.2 | 20.7 | | | |
| 26 | 32 | 793 | 2.00 | 54.18 | 23.5 | 20.9 | CG082-11P-100L-04E CF082-11P-100L-04E | 82 86 | 148 |
| 33 | 41 | 628 | 2.50 | 42.88 | 23.9 | 21.2 | | | |
| 38 | 47 | 548 | 2.85 | 37.44 | 23.4 | 21.4 | | | |
| 46 | 56 | 457 | 2.45 | 31.23 | 22.0 | 21.4 | | | |
| 20 | 25 | 1035 | 0.80 | 70.68 | 8.1 | 12.5 | CG073-11P-100L-04E CF073-11P-100L-04E | 59 63 | 146 |
| 22 | 27 | 941 | 0.90 | 64.30 | 9.4 | 12.5 | | | |
| 24 | 29 | 879 | 0.95 | 60.06 | 10.1 | 13.0 | | | |
| 26 | 32 | 800 | 1.05 | 54.63 | 10.9 | 13.0 | | | |
| 29 | 35 | 723 | 1.15 | 49.38 | 11.5 | 13.4 | | | |
| 30 | 37 | 697 | 1.20 | 47.62 | 11.7 | 13.5 | | | |
| 32 | 39 | 658 | 1.25 | 44.92 | 12.0 | 13.4 | | | |
| 33 | 40 | 634 | 1.25 | 43.32 | 12.2 | 13.5 | | | |
| 37 | 45 | 573 | 1.35 | 39.17 | 12.5 | 13.8 | | | |
| 40 | 49 | 522 | 1.40 | 35.63 | 12.8 | 13.8 | | | |
| 37 | 45 | 570 | 1.45 | 38.92 | 12.5 | 13.8 | CG072-11P-100L-04E CF072-11P-100L-04E | 58 62 | 146 |
| 41 | 49 | 518 | 1.60 | 35.41 | 12.8 | 13.8 | | | |
| 47 | 57 | 447 | 1.85 | 30.55 | 13.1 | 14.2 | | | |
| 52 | 63 | 407 | 2.05 | 27.79 | 13.3 | 14.2 | | | |
| 61 | 74 | 345 | 2.35 | 23.58 | 13.5 | 14.4 | | | |
| 67 | 81 | 314 | 2.50 | 21.45 | 13.6 | 14.4 | | | |
| 70 | 85 | 302 | 2.30 | 20.65 | 13.6 | 14.1 | | | |
| 74 | 89 | 286 | 2.70 | 19.50 | 13.7 | 14.6 | | | |
| 81 | 98 | 260 | 2.85 | 17.74 | 13.7 | 14.6 | | | |
| 87 | 105 | 243 | 3.00 | 16.59 | 13.8 | 14.7 | | | |
| 89 | 108 | 237 | 2.85 | 16.20 | 13.8 | 14.4 | | | |
| 26 | 32 | 798 | 0.80 | 54.49 | 4.9 | 5.8 | CG063-11P-100L-04E CF063-11P-100L-04E | 43 48 | 144 |
| 29 | 35 | 728 | 0.85 | 49.74 | 6.4 | 6.0 | | | |
| 31 | 38 | 668 | 0.90 | 45.61 | 7.4 | 6.1 | | | |

Legend see page 29

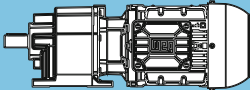
| P _N = 2.2 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 39 | 47 | 541 | 1.15 | 36.92 | 8.9 | 6.5 | CG062-11P-100L-04E CF062-11P-100L-04E | 42 47 | 144 |
| 42 | 52 | 496 | 1.25 | 33.86 | 9.3 | 6.6 | | | |
| 47 | 58 | 444 | 1.40 | 30.30 | 9.7 | 6.8 | | | |
| 52 | 63 | 407 | 1.50 | 27.78 | 10.0 | 6.9 | | | |
| 61 | 74 | 344 | 1.75 | 23.46 | 9.7 | 7.1 | | | |
| 67 | 81 | 315 | 1.95 | 21.51 | 9.5 | 7.2 | | | |
| 70 | 85 | 301 | 1.30 | 20.57 | 9.3 | 6.8 | | | |
| 80 | 98 | 261 | 2.30 | 17.85 | 9.1 | 7.3 | | | |
| 85 | 103 | 247 | 1.55 | 16.88 | 8.8 | 7.1 | | | |
| 88 | 107 | 240 | 2.55 | 16.36 | 8.8 | 7.4 | | | |
| 98 | 119 | 215 | 2.80 | 14.72 | 8.6 | 7.5 | | | |
| 110 | 133 | 191 | 2.00 | 13.07 | 8.2 | 7.3 | | | |
| 144 | 176 | 146 | 2.60 | 9.94 | 7.6 | 7.5 | | | |
| 49 | 59 | 431 | 0.95 | 29.46 | 4.3 | 6.1 | CG052-11P-100L-04E CF052-11P-100L-04E | 37 42 | 142 |
| 54 | 65 | 392 | 1.05 | 26.79 | 5.1 | 6.3 | | | |
| 60 | 72 | 353 | 1.15 | 24.12 | 5.7 | 6.5 | | | |
| 65 | 80 | 321 | 1.25 | 21.92 | 6.1 | 6.6 | | | |
| 77 | 94 | 272 | 1.50 | 18.56 | 6.6 | 6.9 | | | |
| 80 | 98 | 261 | 1.05 | 17.86 | 6.7 | 6.6 | | | |
| 85 | 103 | 247 | 1.65 | 16.88 | 6.7 | 7.0 | | | |
| 98 | 119 | 214 | 1.25 | 14.62 | 6.4 | 6.9 | | | |
| 102 | 124 | 205 | 1.95 | 14.03 | 6.5 | 7.2 | | | |
| 113 | 137 | 187 | 2.15 | 12.75 | 6.3 | 7.2 | | | |
| 125 | 152 | 168 | 2.40 | 11.48 | 6.1 | 7.3 | | | |
| 128 | 155 | 165 | 1.65 | 11.25 | 6.0 | 7.2 | | | |
| 138 | 167 | 153 | 2.65 | 10.43 | 6.0 | 7.4 | | | |
| 154 | 187 | 136 | 2.85 | 9.31 | 5.8 | 7.5 | | | |
| 169 | 205 | 124 | 2.15 | 8.50 | 5.6 | 7.4 | | | |
| 170 | 206 | 124 | 2.95 | 8.46 | 5.6 | 7.5 | | | |
| 206 | 251 | 102 | 2.65 | 6.96 | 5.3 | 7.5 | | | |
| 84 | 102 | 250 | 0.80 | 17.09 | 3.5 | 3.0 | CG032-11P-100L-04E CF032-11P-100L-04E | 33 35 | 140 |
| 92 | 112 | 227 | 0.90 | 15.52 | 3.4 | 3.2 | | | |
| 111 | 135 | 189 | 1.05 | 12.92 | 3.4 | 3.4 | | | |
| 122 | 149 | 172 | 1.20 | 11.73 | 3.3 | 3.5 | | | |
| 146 | 178 | 144 | 1.30 | 9.82 | 3.3 | 3.7 | | | |
| 150 | 182 | 140 | 0.95 | 9.57 | 3.1 | 3.5 | | | |
| 161 | 196 | 131 | 1.45 | 8.92 | 3.2 | 3.8 | | | |
| 188 | 228 | 112 | 1.55 | 7.64 | 3.1 | 3.9 | | | |
| 198 | 241 | 106 | 1.25 | 7.24 | 3.0 | 3.8 | | | |
| 207 | 252 | 102 | 1.70 | 6.94 | 3.0 | 4.0 | | | |
| 241 | 293 | 87 | 1.85 | 5.96 | 3.0 | 4.1 | | | |
| 261 | 317 | 81 | 1.65 | 5.50 | 2.9 | 4.0 | | | |
| 265 | 322 | 79 | 2.05 | 5.41 | 2.9 | 4.1 | | | |
| 335 | 408 | 63 | 2.10 | 4.28 | 2.7 | 4.1 | | | |
| 430 | 522 | 49 | 2.70 | 3.34 | 2.5 | 4.2 | | | |

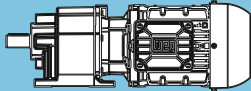


Legend see page 29

| P _N = 3.0 kW | | | | | | | IE3 | | |
|-------------------------|-----------------|----------------------|----------------|---------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 3.0 kW | 60 Hz 3.6 kW | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 1.1 | 1.4 | 23184 | 0.80 | 1278.93 | 95.0 | 19.4 | CG164-11P-L100L-04F CF164-11P-L100L-04F | 710 733 | 168 |
| 1.2 | 1.4 | 22594 | 0.80 | 1246.39 | 97.5 | 20.0 | | | |
| 1.3 | 1.6 | 19846 | 0.95 | 1101.54 | 107.7 | 22.5 | | | |
| 1.5 | 1.8 | 17061 | 1.10 | 952.78 | 115.9 | 25.0 | | | |
| 1.8 | 2.1 | 14442 | 1.25 | 811.56 | 122.0 | 27.4 | | | |
| 2.1 | 2.5 | 12312 | 1.50 | 698.99 | 126.1 | 29.3 | | | |
| 2.4 | 2.9 | 10540 | 1.75 | 604.60 | 129.0 | 30.9 | | | |
| 2.5 | 3.0 | 10046 | 1.80 | 577.48 | 129.7 | 31.4 | | | |
| 2.8 | 3.4 | 8919 | 2.05 | 517.99 | 131.1 | 32.4 | | | |
| 2.9 | 3.5 | 8582 | 2.10 | 499.49 | 131.5 | 32.7 | | | |
| 3.3 | 3.9 | 7465 | 2.45 | 440.86 | 132.7 | 33.7 | | | |
| 3.4 | 4.1 | 7225 | 2.50 | 427.56 | 133.0 | 33.9 | | | |
| 3.9 | 4.7 | 6133 | 2.95 | 369.82 | 134.0 | 34.9 | | | |
| 1.6 | 1.9 | 16418 | 0.80 | 905.71 | 87.2 | 11.0 | CG144-11P-L100L-04F CF144-11P-L100L-04F | 459 477 | 164 |
| 1.7 | 2.1 | 15345 | 0.85 | 848.21 | 90.6 | 12.1 | | | |
| 1.9 | 2.4 | 13297 | 1.00 | 739.56 | 96.2 | 14.2 | | | |
| 2.0 | 2.4 | 12754 | 1.05 | 710.80 | 97.5 | 14.7 | | | |
| 2.1 | 2.5 | 12589 | 1.05 | 701.59 | 97.9 | 14.9 | | | |
| 2.3 | 2.7 | 11383 | 1.15 | 637.04 | 100.5 | 16.1 | | | |
| 2.4 | 2.8 | 10909 | 1.20 | 611.72 | 101.4 | 16.6 | | | |
| 2.6 | 3.2 | 9722 | 1.35 | 548.57 | 103.5 | 17.8 | | | |
| 2.7 | 3.3 | 9319 | 1.40 | 526.92 | 104.2 | 18.2 | | | |
| 2.8 | 3.3 | 9184 | 1.45 | 520.33 | 104.4 | 18.3 | | | |
| 3.2 | 3.8 | 7943 | 1.65 | 453.75 | 106.2 | 19.5 | | | |
| 3.3 | 4.0 | 7614 | 1.75 | 436.75 | 106.6 | 19.9 | | | |
| 3.4 | 4.1 | 7327 | 1.80 | 421.15 | 107.0 | 20.2 | | | |
| 3.7 | 4.5 | 6716 | 1.95 | 388.44 | 107.7 | 20.8 | | | |
| 3.8 | 4.6 | 6570 | 2.00 | 380.80 | 107.9 | 20.9 | | | |
| 3.9 | 4.7 | 6309 | 2.10 | 367.20 | 108.2 | 21.2 | | | |
| 4.0 | 4.8 | 6169 | 2.15 | 359.79 | 108.3 | 21.3 | | | |
| 4.3 | 5.2 | 5700 | 2.30 | 334.50 | 108.8 | 21.8 | | | |
| 4.4 | 5.3 | 5578 | 2.35 | 328.01 | 108.9 | 21.9 | | | |
| 4.6 | 5.5 | 5356 | 2.45 | 316.30 | 109.1 | 22.1 | | | |
| 5.1 | 6.2 | 4714 | 2.80 | 282.46 | 109.6 | 22.8 | | | |
| 5.3 | 6.4 | 4526 | 2.90 | 272.37 | 109.7 | 23.0 | | | |
| 2.6 | 3.1 | 10087 | 0.80 | 556.43 | 54.0 | 18.0 | CG134-11P-L100L-04F CF134-11P-L100L-04F | 312 314 | 160 |
| 2.7 | 3.3 | 9637 | 0.85 | 532.69 | 56.1 | 18.5 | | | |
| 2.8 | 3.3 | 9443 | 0.85 | 521.98 | 57.0 | 18.7 | | | |
| 3.1 | 3.8 | 8275 | 1.00 | 460.25 | 61.8 | 20.0 | | | |
| 3.2 | 3.8 | 8147 | 1.00 | 453.11 | 62.2 | 20.2 | | | |
| 3.7 | 4.4 | 7017 | 1.15 | 392.69 | 65.9 | 21.5 | | | |
| 3.8 | 4.6 | 6812 | 1.20 | 382.01 | 66.5 | 21.7 | | | |
| 3.9 | 4.7 | 6555 | 1.25 | 368.37 | 67.2 | 22.0 | | | |
| 4.2 | 5.1 | 6013 | 1.35 | 339.29 | 68.5 | 22.6 | | | |
| 4.3 | 5.2 | 5865 | 1.40 | 331.61 | 68.9 | 22.8 | | | |
| 4.5 | 5.4 | 5644 | 1.45 | 319.76 | 69.4 | 23.1 | | | |
| 4.6 | 5.5 | 5554 | 1.45 | 314.70 | 69.6 | 23.2 | | | |
| 5.0 | 6.1 | 5026 | 1.60 | 286.51 | 70.7 | 23.8 | | | |
| 5.2 | 6.3 | 4826 | 1.70 | 276.28 | 71.0 | 24.0 | | | |
| 5.3 | 6.4 | 4772 | 1.70 | 273.18 | 71.1 | 24.0 | | | |
| 6.1 | 7.4 | 4072 | 2.00 | 236.02 | 72.3 | 24.8 | | | |
| 4.9 | 5.9 | 5339 | 0.85 | 295.14 | 30.5 | 20.4 | CG104-11P-L100L-04F CF104-11P-L100L-04F | 198 202 | 156 |
| 5.1 | 6.1 | 5108 | 0.90 | 282.94 | 32.1 | 20.7 | | | |
| 5.3 | 6.4 | 4915 | 0.95 | 272.83 | 33.2 | 20.9 | | | |
| 6.0 | 7.3 | 4292 | 1.05 | 239.20 | 36.5 | 21.7 | | | |
| 6.2 | 7.5 | 4130 | 1.10 | 230.65 | 37.3 | 21.9 | | | |

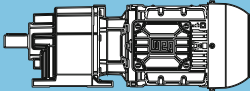
Legend see page 29

| P_N = 3.0 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 5.8 | 7.1 | 4903 | 0.95 | 246.43 | 33.3 | 21.0 | CG103-11P-L100L-04F CF103-11P-L100L-04F | 185 189 | 154 |
| 6.9 | 8.4 | 4145 | 1.10 | 208.33 | 37.2 | 21.9 | | | |
| 8.0 | 9.6 | 3588 | 1.30 | 180.35 | 39.5 | 22.6 | | | |
| 9.0 | 11 | 3178 | 1.45 | 159.72 | 40.9 | 23.2 | | | |
| 10 | 13 | 2749 | 1.65 | 138.17 | 42.1 | 23.7 | | | |
| 11 | 13 | 2651 | 1.70 | 133.24 | 42.3 | 23.8 | | | |
| 12 | 14 | 2428 | 1.90 | 122.02 | 42.9 | 24.1 | | | |
| 14 | 17 | 2052 | 2.20 | 103.15 | 43.6 | 24.6 | | | |
| 16 | 19 | 1777 | 2.55 | 89.30 | 44.1 | 24.9 | | | |
| 17 | 20 | 1717 | 2.65 | 86.31 | 43.6 | 25.0 | | | |
| 18 | 22 | 1573 | 2.90 | 79.08 | 42.6 | 25.2 | | | |
| 7.7 | 9.3 | 3727 | 0.85 | 187.34 | 16.0 | 24.5 | CG093-11P-L100L-04F CF093-11P-L100L-04F | 142 140 | 150 |
| 9.1 | 11 | 3152 | 1.00 | 158.42 | 21.7 | 25.3 | | | |
| 9.3 | 11 | 3069 | 1.00 | 154.24 | 22.4 | 25.5 | | | |
| 11 | 13 | 2709 | 1.15 | 136.18 | 24.8 | 26.0 | | | |
| 12 | 14 | 2429 | 1.25 | 122.08 | 26.3 | 26.4 | | | |
| 14 | 16 | 2121 | 1.45 | 106.60 | 27.7 | 26.9 | | | |
| 15 | 18 | 1954 | 1.55 | 98.21 | 28.4 | 27.1 | | | |
| 17 | 20 | 1725 | 1.75 | 86.68 | 29.2 | 27.5 | | | |
| 18 | 22 | 1585 | 1.90 | 79.66 | 29.6 | 27.7 | | | |
| 20 | 24 | 1447 | 2.10 | 72.72 | 30.0 | 27.9 | | | |
| 21 | 25 | 1362 | 2.25 | 68.48 | 30.2 | 28.0 | | | |
| 23 | 28 | 1219 | 2.50 | 61.28 | 30.6 | 28.2 | | | |
| 24 | 29 | 1189 | 2.55 | 59.78 | 30.6 | 28.2 | | | |
| 28 | 34 | 1019 | 2.95 | 51.22 | 31.0 | 28.5 | | | |
| 14 | 17 | 2025 | 0.80 | 101.80 | 16.7 | 18.4 | CG083-11P-L100L-04F CF083-11P-L100L-04F | 90 94 | 148 |
| 16 | 20 | 1755 | 0.90 | 88.23 | 19.0 | 18.9 | | | |
| 19 | 23 | 1482 | 1.05 | 74.50 | 20.7 | 19.5 | | | |
| 20 | 24 | 1429 | 1.10 | 71.84 | 21.0 | 19.6 | | | |
| 23 | 28 | 1221 | 1.30 | 61.37 | 22.0 | 20.0 | | | |
| 27 | 32 | 1078 | 1.45 | 54.18 | 22.6 | 20.3 | CG082-11P-L100L-04F CF082-11P-L100L-04F | 89 93 | 148 |
| 34 | 41 | 853 | 1.85 | 42.88 | 23.3 | 20.8 | | | |
| 38 | 46 | 745 | 2.10 | 37.44 | 23.6 | 21.0 | | | |
| 44 | 53 | 658 | 2.40 | 33.09 | 22.6 | 21.2 | | | |
| 46 | 56 | 621 | 1.80 | 31.23 | 22.3 | 21.0 | | | |
| 51 | 62 | 557 | 2.80 | 27.98 | 21.4 | 21.4 | | | |
| 58 | 70 | 492 | 2.30 | 24.72 | 20.5 | 21.3 | | | |
| 26 | 32 | 1087 | 0.80 | 54.63 | 7.2 | 12.1 | CG073-11P-L100L-04F CF073-11P-L100L-04F | 66 70 | 146 |
| 29 | 35 | 982 | 0.85 | 49.38 | 8.9 | 12.7 | | | |
| 30 | 37 | 947 | 0.90 | 47.62 | 9.3 | 12.8 | | | |
| 32 | 39 | 894 | 0.90 | 44.92 | 10.0 | 12.7 | | | |
| 33 | 40 | 862 | 0.95 | 43.32 | 10.3 | 12.8 | | | |
| 37 | 44 | 779 | 1.00 | 39.17 | 11.1 | 13.2 | | | |
| 40 | 49 | 709 | 1.05 | 35.63 | 11.6 | 13.2 | | | |
| 37 | 45 | 774 | 1.10 | 38.92 | 11.1 | 13.3 | CG072-11P-L100L-04F CF072-11P-L100L-04F | 65 69 | 146 |
| 41 | 49 | 704 | 1.20 | 35.41 | 11.7 | 13.2 | | | |
| 47 | 57 | 608 | 1.35 | 30.55 | 12.3 | 13.7 | | | |
| 52 | 63 | 553 | 1.50 | 27.79 | 12.6 | 13.7 | | | |
| 61 | 74 | 469 | 1.75 | 23.58 | 13.0 | 14.1 | | | |
| 67 | 81 | 427 | 1.85 | 21.45 | 13.2 | 14.1 | | | |
| 70 | 84 | 411 | 1.70 | 20.65 | 13.3 | 13.7 | | | |
| 74 | 89 | 388 | 2.00 | 19.50 | 13.4 | 14.3 | | | |
| 81 | 98 | 353 | 2.10 | 17.74 | 13.5 | 14.3 | | | |
| 87 | 105 | 330 | 2.20 | 16.59 | 13.6 | 14.5 | | | |
| 89 | 107 | 322 | 2.10 | 16.20 | 13.4 | 14.0 | | | |
| 95 | 115 | 300 | 2.35 | 15.09 | 13.6 | 14.5 | | | |
| 100 | 121 | 286 | 2.45 | 14.38 | 13.7 | 14.6 | | | |
| 110 | 133 | 260 | 2.60 | 13.08 | 13.3 | 14.6 | | | |
| 115 | 139 | 249 | 2.50 | 12.51 | 13.1 | 14.3 | | | |
| 119 | 143 | 242 | 2.75 | 12.14 | 12.9 | 14.7 | | | |
| 123 | 149 | 233 | 2.80 | 11.71 | 12.8 | 14.8 | | | |
| 130 | 158 | 220 | 2.90 | 11.04 | 12.5 | 14.7 | | | |
| 135 | 163 | 212 | 3.00 | 10.65 | 12.3 | 14.8 | | | |
| 139 | 168 | 206 | 2.85 | 10.34 | 12.3 | 14.5 | | | |

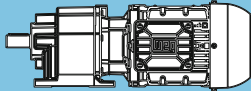
| P _N = 3.0 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | | | | | |
| 39 | 47 | 735 | 0.85 | 36.92 | 6.3 | 6.0 | CG062-11P-L100L-04F CF062-11P-L100L-04F | 49 54 | 144 |
| 43 | 51 | 674 | 0.90 | 33.86 | 7.3 | 6.1 | | | |
| 48 | 57 | 603 | 1.00 | 30.30 | 8.3 | 6.4 | | | |
| 52 | 63 | 553 | 1.10 | 27.78 | 8.8 | 6.5 | | | |
| 61 | 74 | 467 | 1.30 | 23.46 | 9.3 | 6.7 | | | |
| 67 | 81 | 428 | 1.45 | 21.51 | 9.1 | 6.8 | | | |
| 70 | 85 | 409 | 0.95 | 20.57 | 8.9 | 6.4 | | | |
| 81 | 98 | 355 | 1.70 | 17.85 | 8.7 | 7.1 | | | |
| 85 | 103 | 336 | 1.15 | 16.88 | 8.5 | 6.7 | | | |
| 88 | 106 | 326 | 1.85 | 16.36 | 8.5 | 7.1 | | | |
| 98 | 118 | 293 | 2.05 | 14.72 | 8.3 | 7.3 | | | |
| 107 | 129 | 268 | 2.25 | 13.49 | 8.1 | 7.3 | | | |
| 110 | 133 | 260 | 1.45 | 13.07 | 8.0 | 7.0 | | | |
| 119 | 144 | 240 | 2.50 | 12.07 | 7.9 | 7.4 | | | |
| 130 | 157 | 220 | 2.75 | 11.07 | 7.7 | 7.5 | | | |
| 140 | 170 | 204 | 2.95 | 10.26 | 7.6 | 7.5 | | | |
| 145 | 175 | 198 | 1.95 | 9.94 | 7.4 | 7.3 | | | |
| 176 | 212 | 163 | 2.35 | 8.20 | 7.0 | 7.4 | | | |
| 214 | 259 | 134 | 2.85 | 6.73 | 6.7 | 7.5 | | | |
| 54 | 65 | 533 | 0.80 | 26.79 | ** | 5.6 | CG052-11P-L100L-04F CF052-11P-L100L-04F | 44 49 | 142 |
| 60 | 72 | 480 | 0.85 | 24.12 | 3.0 | 5.9 | | | |
| 66 | 79 | 436 | 0.95 | 21.92 | 4.2 | 6.1 | | | |
| 78 | 94 | 369 | 1.10 | 18.56 | 5.5 | 6.4 | | | |
| 81 | 97 | 355 | 0.80 | 17.86 | 5.7 | 6.1 | | | |
| 85 | 103 | 336 | 1.20 | 16.88 | 5.9 | 6.6 | | | |
| 99 | 119 | 291 | 0.95 | 14.62 | 6.0 | 6.4 | | | |
| 103 | 124 | 279 | 1.45 | 14.03 | 6.1 | 6.8 | | | |
| 113 | 136 | 254 | 1.60 | 12.75 | 6.0 | 6.9 | | | |
| 125 | 152 | 228 | 1.80 | 11.48 | 5.9 | 7.1 | | | |
| 128 | 155 | 224 | 1.20 | 11.25 | 5.8 | 6.8 | | | |
| 138 | 167 | 208 | 1.95 | 10.43 | 5.7 | 7.1 | | | |
| 155 | 187 | 185 | 2.10 | 9.31 | 5.6 | 7.3 | | | |
| 169 | 205 | 169 | 1.60 | 8.50 | 5.4 | 7.1 | | | |
| 170 | 206 | 168 | 2.20 | 8.46 | 5.5 | 7.3 | | | |
| 185 | 223 | 155 | 2.25 | 7.79 | 5.4 | 7.4 | | | |
| 203 | 246 | 141 | 2.35 | 7.08 | 5.2 | 7.5 | | | |
| 207 | 250 | 138 | 1.95 | 6.96 | 5.1 | 7.3 | | | |
| 228 | 276 | 126 | 2.45 | 6.31 | 5.1 | 7.5 | | | |
| 236 | 286 | 121 | 2.50 | 6.09 | 5.0 | 7.5 | | | |
| 251 | 303 | 114 | 2.55 | 5.74 | 4.9 | 7.6 | | | |
| 255 | 308 | 112 | 2.35 | 5.64 | 4.9 | 7.5 | | | |
| 260 | 314 | 110 | 2.60 | 5.54 | 4.9 | 7.6 | | | |
| 305 | 368 | 94 | 2.45 | 4.72 | 4.7 | 7.6 | | | |
| 376 | 455 | 76 | 2.65 | 3.83 | 4.4 | 7.7 | | | |
| 390 | 471 | 73 | 2.70 | 3.69 | 4.3 | 7.7 | | | |
| 111 | 135 | 257 | 0.80 | 12.92 | 3.0 | 3.0 | CG032-11P-L100L-04F CF032-11P-L100L-04F | 40 42 | 140 |
| 123 | 148 | 233 | 0.85 | 11.73 | 3.0 | 3.1 | | | |
| 147 | 177 | 195 | 0.95 | 9.82 | 2.9 | 3.4 | | | |
| 162 | 195 | 177 | 1.05 | 8.92 | 2.9 | 3.5 | | | |
| 189 | 228 | 152 | 1.15 | 7.64 | 2.9 | 3.7 | | | |
| 199 | 240 | 144 | 0.95 | 7.24 | 2.8 | 3.5 | | | |
| 208 | 251 | 138 | 1.25 | 6.94 | 2.8 | 3.7 | | | |
| 242 | 292 | 119 | 1.35 | 5.96 | 2.8 | 3.9 | | | |
| 262 | 316 | 109 | 1.20 | 5.50 | 2.7 | 3.8 | | | |
| 266 | 321 | 108 | 1.50 | 5.41 | 2.7 | 3.9 | | | |
| 337 | 407 | 85 | 1.55 | 4.28 | 2.5 | 4.0 | | | |
| 431 | 521 | 66 | 2.00 | 3.34 | 2.4 | 4.1 | | | |

Legend see page 29

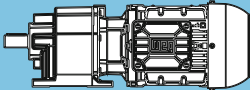
** ... on request

| P_N = 4.0 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|------------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 4.0 kW | | 4.8 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 1.5 | 1.8 | 22870 | 0.80 | 952.78 | 96.4 | 19.7 | CG164-11P-112M-04E CF164-11P-112M-04E | 711 734 | 168 |
| 1.6 | 1.9 | 22313 | 0.85 | 931.50 | 98.7 | 20.2 | | | |
| 1.8 | 2.2 | 19361 | 0.95 | 811.56 | 109.2 | 22.9 | | | |
| 2.1 | 2.5 | 16573 | 1.10 | 698.99 | 117.1 | 25.4 | | | |
| 2.2 | 2.6 | 15864 | 1.15 | 670.48 | 118.9 | 26.1 | | | |
| 2.4 | 2.9 | 14218 | 1.30 | 604.60 | 122.5 | 27.6 | | | |
| 2.5 | 3.0 | 13916 | 1.30 | 591.77 | 123.1 | 27.9 | | | |
| 2.8 | 3.4 | 12081 | 1.50 | 517.99 | 126.5 | 29.5 | | | |
| 2.9 | 3.5 | 11626 | 1.55 | 499.49 | 127.3 | 29.9 | | | |
| 3.3 | 4.0 | 10155 | 1.80 | 440.86 | 129.5 | 31.3 | | | |
| 3.4 | 4.1 | 9829 | 1.85 | 427.56 | 130.0 | 31.6 | | | |
| 3.5 | 4.2 | 9596 | 1.90 | 418.32 | 130.3 | 31.8 | | | |
| 3.9 | 4.7 | 8396 | 2.15 | 369.82 | 131.7 | 32.9 | | | |
| 4.0 | 4.9 | 8146 | 2.25 | 360.30 | 132.0 | 33.1 | | | |
| 4.7 | 5.6 | 6944 | 2.60 | 311.64 | 133.2 | 34.2 | | | |
| 2.0 | 2.5 | 17062 | 0.80 | 710.80 | 84.9 | 10.4 | CG144-11P-112M-04E CF144-11P-112M-04E | 460 478 | 164 |
| 2.1 | 2.5 | 16841 | 0.80 | 701.59 | 85.7 | 10.6 | | | |
| 2.3 | 2.8 | 15229 | 0.90 | 637.04 | 90.9 | 12.2 | | | |
| 2.4 | 2.9 | 14623 | 0.90 | 611.72 | 92.7 | 12.8 | | | |
| 2.6 | 3.2 | 13060 | 1.00 | 548.57 | 96.8 | 14.4 | | | |
| 2.8 | 3.3 | 12519 | 1.05 | 526.92 | 98.0 | 15.0 | | | |
| 3.2 | 3.9 | 10692 | 1.25 | 453.75 | 101.8 | 16.8 | | | |
| 3.3 | 4.0 | 10270 | 1.30 | 436.75 | 102.6 | 17.2 | | | |
| 3.4 | 4.2 | 9883 | 1.35 | 421.15 | 103.3 | 17.6 | | | |
| 3.7 | 4.5 | 9078 | 1.45 | 388.44 | 104.6 | 18.4 | | | |
| 3.8 | 4.5 | 9020 | 1.45 | 385.96 | 104.7 | 18.5 | | | |
| 3.9 | 4.8 | 8547 | 1.55 | 367.20 | 105.4 | 18.9 | | | |
| 4.0 | 4.9 | 8357 | 1.60 | 359.79 | 105.6 | 19.1 | | | |
| 4.3 | 5.2 | 7737 | 1.70 | 334.50 | 106.5 | 19.7 | | | |
| 4.4 | 5.4 | 7572 | 1.75 | 328.01 | 106.7 | 19.9 | | | |
| 4.6 | 5.5 | 7286 | 1.80 | 316.30 | 107.0 | 20.2 | | | |
| 5.1 | 6.2 | 6440 | 2.05 | 282.46 | 108.0 | 21.0 | | | |
| 5.3 | 6.4 | 6197 | 2.10 | 272.37 | 108.3 | 21.3 | | | |
| 5.4 | 6.5 | 6135 | 2.15 | 270.22 | 108.3 | 21.4 | | | |
| 6.2 | 7.5 | 5207 | 2.50 | 232.69 | 109.2 | 22.3 | | | |
| 7.0 | 8.5 | 5450 | 2.40 | 206.88 | 109.0 | 22.0 | CG143-11P-112M-04E CF143-11P-112M-04E | 436 454 | 162 |
| 8.0 | 9.7 | 4752 | 2.75 | 180.38 | 109.6 | 22.7 | | | |
| 8.3 | 10 | 4582 | 2.85 | 173.94 | 109.7 | 22.9 | | | |
| 3.7 | 4.5 | 9387 | 0.90 | 392.69 | 57.3 | 18.8 | CG134-11P-112M-04E CF134-11P-112M-04E | 313 315 | 160 |
| 3.8 | 4.6 | 9132 | 0.90 | 382.01 | 58.4 | 19.1 | | | |
| 3.9 | 4.8 | 8788 | 0.95 | 368.37 | 59.8 | 19.5 | | | |
| 4.3 | 5.2 | 8078 | 1.00 | 339.29 | 62.5 | 20.3 | | | |
| 4.4 | 5.3 | 7879 | 1.05 | 331.61 | 63.2 | 20.5 | | | |
| 4.5 | 5.5 | 7582 | 1.10 | 319.76 | 64.2 | 20.8 | | | |
| 4.6 | 5.6 | 7462 | 1.10 | 314.70 | 64.5 | 21.0 | | | |
| 5.1 | 6.1 | 6765 | 1.20 | 286.51 | 66.6 | 21.8 | | | |
| 5.2 | 6.4 | 6510 | 1.25 | 276.28 | 67.3 | 22.1 | | | |
| 5.3 | 6.4 | 6437 | 1.25 | 273.18 | 67.5 | 22.1 | | | |
| 6.1 | 7.4 | 5505 | 1.50 | 236.02 | 69.7 | 23.2 | CG133-11P-112M-04E CF133-11P-112M-04E | 289 291 | 158 |
| 7.1 | 8.6 | 5397 | 1.50 | 204.88 | 69.9 | 23.3 | | | |
| 8.0 | 9.7 | 4767 | 1.70 | 180.95 | 71.1 | 24.1 | | | |
| 9.2 | 11 | 4138 | 1.95 | 157.08 | 72.2 | 24.8 | | | |
| 9.6 | 12 | 3990 | 2.05 | 151.47 | 72.4 | 24.9 | | | |
| 11 | 13 | 3575 | 2.25 | 135.71 | 73.0 | 25.4 | | | |
| 12 | 15 | 3060 | 2.65 | 116.14 | 73.7 | 26.0 | | | |
| 14 | 17 | 2683 | 3.00 | 101.85 | 74.1 | 26.4 | CG104-11P-112M-04E CF104-11P-112M-04E | 199 203 | 156 |
| 6.1 | 7.3 | 5742 | 0.80 | 239.20 | 27.4 | 19.9 | | | |
| 6.3 | 7.6 | 5525 | 0.85 | 230.65 | 29.1 | 20.2 | | | |

Legend see page 29

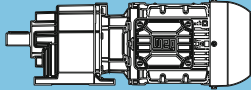
| P _N = 4.0 kW | | | | | | | | IE3 | |
|---|---|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 4.0 kW n ₅₀ min ⁻¹ | 60 Hz 4.8 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 7.0 | 8.4 | 5488 | 0.85 | 208.33 | 29.4 | 20.2 | CG103-11P-112M-04E CF103-11P-112M-04E | 186 190 | 154 |
| 8.0 | 9.7 | 4751 | 0.95 | 180.35 | 34.2 | 21.2 | | | |
| 9.1 | 11 | 4208 | 1.10 | 159.72 | 36.9 | 21.8 | | | |
| 10 | 13 | 3640 | 1.25 | 138.17 | 39.3 | 22.6 | | | |
| 11 | 13 | 3510 | 1.30 | 133.24 | 39.7 | 22.7 | | | |
| 12 | 14 | 3214 | 1.40 | 122.02 | 40.7 | 23.1 | | | |
| 14 | 17 | 2718 | 1.70 | 103.15 | 42.2 | 23.7 | | | |
| 16 | 20 | 2352 | 1.95 | 89.30 | 43.0 | 24.2 | | | |
| 17 | 20 | 2274 | 2.00 | 86.31 | 43.2 | 24.3 | | | |
| 18 | 22 | 2083 | 2.20 | 79.08 | 43.4 | 24.6 | | | |
| 21 | 26 | 1802 | 2.50 | 68.41 | 40.9 | 24.9 | | | |
| 22 | 27 | 1738 | 2.60 | 65.97 | 40.3 | 25.0 | | | |
| 25 | 30 | 1533 | 2.95 | 58.21 | 38.4 | 25.3 | | | |
| 11 | 13 | 3588 | 0.85 | 136.18 | 17.7 | 24.7 | CG093-11P-112M-04E CF093-11P-112M-04E | 143 141 | 150 |
| 12 | 14 | 3216 | 0.95 | 122.08 | 21.2 | 25.2 | | | |
| 14 | 16 | 2808 | 1.10 | 106.60 | 24.2 | 25.9 | | | |
| 15 | 18 | 2587 | 1.20 | 98.21 | 25.5 | 26.2 | | | |
| 17 | 20 | 2284 | 1.35 | 86.68 | 27.0 | 26.6 | | | |
| 18 | 22 | 2099 | 1.45 | 79.66 | 27.8 | 26.9 | | | |
| 20 | 24 | 1916 | 1.60 | 72.72 | 28.5 | 27.2 | | | |
| 21 | 26 | 1804 | 1.70 | 68.48 | 28.9 | 27.3 | | | |
| 24 | 29 | 1614 | 1.90 | 61.28 | 29.5 | 27.6 | | | |
| 28 | 34 | 1349 | 2.25 | 51.22 | 30.3 | 28.0 | | | |
| 29 | 36 | 1301 | 2.35 | 49.39 | 30.4 | 28.1 | CG092-11P-112M-04E CF092-11P-112M-04E | 141 139 | 150 |
| 33 | 40 | 1148 | 2.50 | 43.59 | 30.7 | 28.3 | | | |
| 40 | 48 | 963 | 2.80 | 36.57 | 28.9 | 28.6 | | | |
| 37 | 44 | 1043 | 2.85 | 39.60 | 29.7 | 28.5 | CG083-11P-112M-04E CF083-11P-112M-04E | 91 95 | 148 |
| 64 | 78 | 595 | 2.85 | 22.58 | 24.4 | 28.8 | | | |
| 19 | 24 | 1963 | 0.80 | 74.50 | 17.3 | 18.5 | CG082-11P-112M-04E CF082-11P-112M-04E | 90 94 | 148 |
| 20 | 24 | 1893 | 0.85 | 71.84 | 17.9 | 18.6 | | | |
| 24 | 29 | 1617 | 1.00 | 61.37 | 19.9 | 19.2 | | | |
| 27 | 32 | 1427 | 1.10 | 54.18 | 21.0 | 19.6 | | | |
| 34 | 41 | 1130 | 1.40 | 42.88 | 22.4 | 20.2 | | | |
| 39 | 47 | 986 | 1.60 | 37.44 | 22.9 | 20.5 | | | |
| 44 | 53 | 872 | 1.80 | 33.09 | 23.0 | 20.7 | | | |
| 46 | 56 | 823 | 1.40 | 31.23 | 22.7 | 20.5 | | | |
| 52 | 63 | 737 | 2.15 | 27.98 | 21.6 | 21.0 | | | |
| 59 | 71 | 651 | 1.75 | 24.72 | 20.7 | 20.9 | | | |
| 60 | 73 | 634 | 2.35 | 24.05 | 20.4 | 21.2 | | | |
| 67 | 81 | 569 | 2.35 | 21.58 | 19.7 | 21.1 | | | |
| 69 | 84 | 553 | 2.60 | 21.00 | 19.4 | 21.4 | CG073-11P-112M-04E CF073-11P-112M-04E | 67 71 | 146 |
| 76 | 92 | 503 | 2.60 | 19.08 | 18.8 | 21.3 | | | |
| 81 | 98 | 474 | 2.90 | 17.99 | 18.3 | 21.5 | | | |
| 84 | 101 | 457 | 2.95 | 17.35 | 18.1 | 21.6 | | | |
| 41 | 49 | 939 | 0.80 | 35.63 | 9.4 | 12.5 | | | |

Legend see page 29

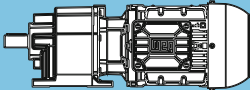
| P _N = 4.0 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------|-----------------|--|----------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 4.0 kW | | 4.8 kW | | | F _{rN} | F _{aN} | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | kN | kN | | | |
| 37 | 45 | 1025 | 0.80 | 38.92 | 8.2 | 12.6 | CG072-11P-112M-04E CF072-11P-112M-04E | 66 70 | 146 |
| 41 | 50 | 933 | 0.90 | 35.41 | 9.5 | 12.5 | | | |
| 47 | 57 | 805 | 1.05 | 30.55 | 10.8 | 13.2 | | | |
| 52 | 63 | 732 | 1.15 | 27.79 | 11.3 | 13.2 | | | |
| 62 | 74 | 621 | 1.30 | 23.58 | 11.9 | 13.7 | | | |
| 68 | 82 | 565 | 1.40 | 21.45 | 12.0 | 13.7 | | | |
| 70 | 85 | 544 | 1.30 | 20.65 | 11.2 | 13.1 | | | |
| 74 | 90 | 514 | 1.50 | 19.50 | 12.3 | 14.0 | | | |
| 82 | 99 | 467 | 1.60 | 17.74 | 12.2 | 14.0 | | | |
| 87 | 106 | 437 | 1.65 | 16.59 | 12.4 | 14.2 | | | |
| 89 | 108 | 427 | 1.60 | 16.20 | 11.6 | 13.6 | | | |
| 96 | 116 | 398 | 1.80 | 15.09 | 12.3 | 14.2 | | | |
| 101 | 122 | 379 | 1.85 | 14.38 | 12.3 | 14.4 | | | |
| 111 | 134 | 345 | 1.95 | 13.08 | 12.2 | 14.3 | | | |
| 116 | 140 | 329 | 1.90 | 12.51 | 11.7 | 14.0 | | | |
| 119 | 145 | 320 | 2.05 | 12.14 | 12.3 | 14.5 | | | |
| 124 | 150 | 308 | 2.10 | 11.71 | 12.2 | 14.5 | | | |
| 131 | 159 | 291 | 2.20 | 11.04 | 12.1 | 14.5 | | | |
| 136 | 165 | 281 | 2.25 | 10.65 | 12.1 | 14.5 | | | |
| 140 | 170 | 272 | 2.15 | 10.34 | 11.6 | 14.2 | | | |
| 145 | 176 | 263 | 2.35 | 10.00 | 12.0 | 14.7 | | | |
| 159 | 193 | 240 | 2.55 | 9.10 | 11.8 | 14.7 | | | |
| 165 | 199 | 232 | 2.40 | 8.80 | 11.4 | 14.4 | | | |
| 190 | 230 | 201 | 2.65 | 7.63 | 11.1 | 14.5 | | | |
| 225 | 273 | 170 | 2.95 | 6.44 | 10.4 | 14.7 | | | |
| 48 | 58 | 798 | 0.80 | 30.30 | 4.9 | 5.8 | CG062-11P-112M-04E CF062-11P-112M-04E | 50 55 | 144 |
| 52 | 63 | 732 | 0.85 | 27.78 | 6.4 | 6.0 | | | |
| 62 | 75 | 618 | 1.00 | 23.46 | 8.1 | 6.3 | | | |
| 67 | 82 | 567 | 1.10 | 21.51 | 8.6 | 6.4 | | | |
| 81 | 98 | 470 | 1.30 | 17.85 | 8.3 | 6.7 | | | |
| 86 | 104 | 445 | 0.85 | 16.88 | 8.0 | 6.2 | | | |
| 89 | 107 | 431 | 1.40 | 16.36 | 8.1 | 6.8 | | | |
| 99 | 119 | 388 | 1.55 | 14.72 | 7.9 | 7.0 | | | |
| 107 | 130 | 355 | 1.70 | 13.49 | 7.8 | 7.1 | | | |
| 111 | 134 | 344 | 1.10 | 13.07 | 7.6 | 6.7 | | | |
| 120 | 145 | 318 | 1.90 | 12.07 | 7.6 | 7.2 | | | |
| 131 | 159 | 292 | 2.10 | 11.07 | 7.4 | 7.2 | | | |
| 141 | 171 | 270 | 2.25 | 10.26 | 7.3 | 7.3 | | | |
| 146 | 177 | 262 | 1.45 | 9.94 | 7.2 | 7.0 | | | |
| 154 | 187 | 248 | 2.40 | 9.40 | 7.1 | 7.4 | | | |
| 172 | 208 | 222 | 2.50 | 8.43 | 7.0 | 7.5 | | | |
| 177 | 214 | 216 | 1.75 | 8.20 | 6.8 | 7.2 | | | |
| 178 | 216 | 214 | 2.50 | 8.13 | 6.9 | 7.5 | | | |
| 188 | 227 | 204 | 2.55 | 7.73 | 6.8 | 7.5 | | | |
| 194 | 235 | 196 | 2.60 | 7.46 | 6.7 | 7.5 | | | |
| 216 | 261 | 177 | 2.15 | 6.73 | 6.5 | 7.4 | | | |
| 217 | 262 | 176 | 2.70 | 6.69 | 6.5 | 7.6 | | | |
| 236 | 286 | 162 | 2.75 | 6.13 | 6.4 | 7.6 | | | |
| 254 | 307 | 151 | 2.50 | 5.71 | 6.2 | 7.5 | | | |
| 309 | 374 | 124 | 2.65 | 4.70 | 5.9 | 7.6 | | | |
| 320 | 387 | 119 | 2.70 | 4.53 | 5.8 | 7.6 | | | |
| 389 | 471 | 98 | 2.85 | 3.73 | 5.5 | 7.7 | | | |



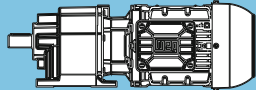
Legend see page 29

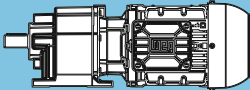
| P _N = 4.0 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | |  | m kg | Dimension sheet see page |
| 4.0 kW | 4.8 kW | | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | | | |
| 78 | 95 | 489 | 0.85 | 18.56 | 2.7 | 5.9 | CG052-11P-112M-04E CF052-11P-112M-04E | 45 50 | 142 |
| 86 | 104 | 445 | 0.90 | 16.88 | 4.0 | 6.0 | | | |
| 103 | 125 | 369 | 1.10 | 14.03 | 5.5 | 6.4 | | | |
| 114 | 138 | 336 | 1.20 | 12.75 | 5.6 | 6.6 | | | |
| 126 | 153 | 302 | 1.35 | 11.48 | 5.5 | 6.7 | | | |
| 129 | 156 | 296 | 0.95 | 11.25 | 5.4 | 6.4 | | | |
| 139 | 168 | 275 | 1.50 | 10.43 | 5.4 | 6.8 | | | |
| 156 | 189 | 245 | 1.60 | 9.31 | 5.3 | 7.0 | | | |
| 171 | 206 | 224 | 1.20 | 8.50 | 5.1 | 6.8 | | | |
| 171 | 207 | 223 | 1.65 | 8.46 | 5.2 | 7.1 | | | |
| 186 | 225 | 205 | 1.70 | 7.79 | 5.1 | 7.2 | | | |
| 205 | 248 | 187 | 1.80 | 7.08 | 5.0 | 7.2 | | | |
| 208 | 252 | 183 | 1.50 | 6.96 | 4.9 | 7.0 | | | |
| 230 | 278 | 166 | 1.85 | 6.31 | 4.9 | 7.3 | | | |
| 238 | 288 | 160 | 1.90 | 6.09 | 4.8 | 7.4 | | | |
| 253 | 306 | 151 | 1.95 | 5.74 | 4.8 | 7.4 | | | |
| 257 | 311 | 149 | 1.75 | 5.64 | 4.7 | 7.2 | | | |
| 262 | 317 | 146 | 1.95 | 5.54 | 4.7 | 7.4 | | | |
| 307 | 372 | 124 | 1.85 | 4.72 | 4.5 | 7.4 | | | |
| 379 | 459 | 101 | 2.00 | 3.83 | 4.3 | 7.5 | | | |
| 393 | 476 | 97 | 2.05 | 3.69 | 4.2 | 7.5 | | | |

Legend see page 29

| P _N = 5.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 2.1 | 2.5 | 22834 | 0.80 | 698.99 | 96.5 | 19.8 | CG164-11P-132S-04E CF164-11P-132S-04E | 729 752 | 168 |
| 2.2 | 2.6 | 21858 | 0.85 | 670.48 | 100.5 | 20.6 | | | |
| 2.4 | 2.9 | 19629 | 0.95 | 604.60 | 108.4 | 22.7 | | | |
| 2.5 | 3.0 | 19213 | 0.95 | 591.77 | 109.7 | 23.0 | | | |
| 2.8 | 3.4 | 16714 | 1.10 | 517.99 | 116.8 | 25.3 | | | |
| 2.9 | 3.5 | 16446 | 1.10 | 509.69 | 117.4 | 25.6 | | | |
| 3.0 | 3.6 | 15985 | 1.15 | 496.41 | 118.6 | 26.0 | | | |
| 3.3 | 4.0 | 14109 | 1.30 | 440.86 | 122.7 | 27.7 | | | |
| 3.4 | 4.1 | 13655 | 1.35 | 427.56 | 123.6 | 28.1 | | | |
| 3.5 | 4.2 | 13360 | 1.35 | 418.32 | 124.2 | 28.4 | | | |
| 4.0 | 4.8 | 11714 | 1.55 | 369.82 | 127.1 | 29.9 | | | |
| 4.1 | 4.9 | 11389 | 1.60 | 360.30 | 127.7 | 30.2 | | | |
| 4.7 | 5.7 | 9750 | 1.85 | 311.64 | 130.1 | 31.6 | | | |
| 2.8 | 3.3 | 17213 | 0.80 | 526.92 | 84.4 | 10.2 | CG144-11P-132S-04E CF144-11P-132S-04E | 478 496 | 164 |
| 3.2 | 3.9 | 14762 | 0.90 | 453.75 | 92.3 | 12.7 | | | |
| 3.3 | 3.9 | 14581 | 0.90 | 448.20 | 92.8 | 12.9 | | | |
| 3.4 | 4.0 | 14180 | 0.95 | 436.75 | 93.9 | 13.3 | | | |
| 3.5 | 4.2 | 13645 | 1.00 | 421.15 | 95.3 | 13.8 | | | |
| 3.8 | 4.5 | 12560 | 1.05 | 388.44 | 97.9 | 14.9 | | | |
| 4.0 | 4.8 | 11849 | 1.10 | 367.20 | 99.5 | 15.6 | | | |
| 4.1 | 4.9 | 11586 | 1.15 | 359.79 | 100.1 | 15.9 | | | |
| 4.4 | 5.3 | 10727 | 1.25 | 334.50 | 101.8 | 16.7 | | | |
| 4.5 | 5.4 | 10519 | 1.25 | 328.01 | 102.1 | 17.0 | | | |
| 4.6 | 5.6 | 10123 | 1.30 | 316.30 | 102.9 | 17.4 | | | |
| 4.7 | 5.6 | 10040 | 1.30 | 313.70 | 103.0 | 17.4 | | | |
| 5.2 | 6.2 | 8984 | 1.45 | 282.46 | 104.7 | 18.5 | | | |
| 5.4 | 6.5 | 8628 | 1.55 | 272.37 | 105.3 | 18.9 | | | |
| 6.3 | 7.6 | 7295 | 1.80 | 232.69 | 107.0 | 20.2 | | | |
| 7.1 | 8.5 | 7417 | 1.80 | 206.88 | 106.9 | 20.1 | CG143-11P-132S-04E CF143-11P-132S-04E | 454 472 | 162 |
| 8.1 | 9.8 | 6467 | 2.05 | 180.38 | 108.0 | 21.0 | | | |
| 8.4 | 10 | 6236 | 2.10 | 173.94 | 108.2 | 21.2 | | | |
| 9.4 | 11 | 5571 | 2.35 | 155.38 | 108.9 | 21.9 | | | |
| 11 | 13 | 4797 | 2.75 | 133.80 | 109.5 | 22.7 | | | |
| 4.6 | 5.5 | 10446 | 0.80 | 319.76 | 52.1 | 17.6 | CG134-11P-132S-04E CF134-11P-132S-04E | 331 333 | 160 |
| 4.7 | 5.6 | 10280 | 0.80 | 314.70 | 53.0 | 17.8 | | | |
| 5.1 | 6.2 | 9321 | 0.90 | 286.51 | 57.6 | 18.9 | | | |
| 5.3 | 6.4 | 8988 | 0.90 | 276.28 | 59.0 | 19.2 | | | |
| 5.4 | 6.5 | 8869 | 0.95 | 273.18 | 59.5 | 19.4 | | | |
| 6.2 | 7.5 | 7632 | 1.05 | 236.02 | 64.0 | 20.8 | | | |
| 7.2 | 8.6 | 7345 | 1.10 | 204.88 | 64.9 | 21.1 | CG133-11P-132S-04E CF133-11P-132S-04E | 307 309 | 158 |
| 8.1 | 9.8 | 6488 | 1.25 | 180.95 | 67.3 | 22.1 | | | |
| 9.3 | 11 | 5632 | 1.45 | 157.08 | 69.4 | 23.1 | | | |
| 9.7 | 12 | 5431 | 1.50 | 151.47 | 69.8 | 23.3 | | | |
| 11 | 13 | 4866 | 1.65 | 135.71 | 71.0 | 23.9 | | | |
| 13 | 15 | 4164 | 1.95 | 116.14 | 72.2 | 24.7 | | | |
| 14 | 17 | 3652 | 2.20 | 101.85 | 72.9 | 25.3 | | | |
| 15 | 18 | 3596 | 2.25 | 100.31 | 73.0 | 25.4 | | | |
| 16 | 20 | 3225 | 2.50 | 89.96 | 73.5 | 25.8 | | | |
| 19 | 23 | 2800 | 2.90 | 78.09 | 73.9 | 26.3 | | | |
| 9.2 | 11 | 5727 | 0.80 | 159.72 | 27.5 | 19.9 | CG103-11P-132S-04E CF103-11P-132S-04E | 204 208 | 154 |
| 11 | 13 | 4777 | 0.95 | 133.24 | 34.0 | 21.1 | | | |
| 11 | 13 | 4954 | 0.95 | 138.17 | 33.0 | 20.9 | | | |
| 12 | 14 | 4375 | 1.05 | 122.02 | 36.1 | 21.6 | | | |
| 12 | 15 | 4215 | 1.10 | 117.56 | 36.9 | 21.8 | | | |
| 14 | 17 | 3698 | 1.25 | 103.15 | 39.1 | 22.5 | | | |
| 15 | 18 | 3587 | 1.30 | 100.05 | 39.5 | 22.6 | | | |
| 16 | 20 | 3202 | 1.45 | 89.30 | 40.8 | 23.1 | | | |
| 17 | 20 | 3094 | 1.50 | 86.31 | 41.1 | 23.3 | | | |
| 19 | 22 | 2835 | 1.60 | 79.08 | 41.9 | 23.6 | | | |
| 21 | 26 | 2453 | 1.85 | 68.41 | 41.9 | 24.1 | | | |
| 22 | 27 | 2365 | 1.95 | 65.97 | 41.2 | 24.2 | | | |
| 25 | 30 | 2087 | 2.20 | 58.21 | 39.2 | 24.5 | | | |
| 30 | 36 | 1776 | 2.55 | 49.54 | 36.6 | 24.9 | | | |
| 34 | 41 | 1532 | 2.95 | 42.74 | 34.9 | 25.3 | | | |

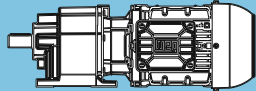


| P _N = 5.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 14 | 17 | 3822 | 0.80 | 106.60 | 14.8 | 24.4 | CG093-11P-132S-04E CF093-11P-132S-04E | 162 160 | 150 |
| 15 | 18 | 3521 | 0.90 | 98.21 | 18.4 | 24.8 | | | |
| 16 | 19 | 3378 | 0.90 | 94.21 | 19.8 | 25.0 | | | |
| 17 | 20 | 3108 | 1.00 | 86.68 | 22.1 | 25.4 | | | |
| 18 | 22 | 2856 | 1.10 | 79.66 | 23.9 | 25.8 | | | |
| 20 | 24 | 2607 | 1.20 | 72.72 | 25.4 | 26.1 | | | |
| 21 | 26 | 2455 | 1.25 | 68.48 | 26.2 | 26.4 | | | |
| 24 | 29 | 2197 | 1.40 | 61.28 | 27.4 | 26.8 | | | |
| 25 | 30 | 2143 | 1.40 | 59.78 | 27.7 | 26.8 | | | |
| 29 | 34 | 1836 | 1.65 | 51.22 | 28.8 | 27.3 | | | |
| 30 | 36 | 1771 | 1.70 | 49.39 | 29.1 | 27.4 | | | |
| 34 | 40 | 1563 | 1.85 | 43.59 | 29.7 | 27.7 | | | |
| 40 | 48 | 1311 | 2.05 | 36.57 | 29.5 | 28.1 | | | |
| 48 | 57 | 1105 | 2.30 | 30.81 | 27.5 | 28.4 | | | |
| 37 | 45 | 1420 | 2.10 | 39.60 | 30.1 | 27.9 | CG092-11P-132S-04E CF092-11P-132S-04E | 160 158 | 150 |
| 44 | 53 | 1200 | 2.50 | 33.48 | 28.4 | 28.2 | | | |
| 51 | 61 | 1039 | 2.90 | 28.98 | 26.9 | 28.5 | | | |
| 65 | 78 | 810 | 2.10 | 22.58 | 24.7 | 28.4 | | | |
| 77 | 92 | 684 | 2.50 | 19.09 | 23.2 | 28.6 | | | |
| 89 | 107 | 593 | 2.90 | 16.53 | 22.0 | 28.8 | | | |
| 27 | 33 | 1942 | 0.80 | 54.18 | 17.5 | 18.5 | CG082-11P-132S-04E CF082-11P-132S-04E | 108 112 | 148 |
| 34 | 41 | 1537 | 1.05 | 42.88 | 20.4 | 19.4 | | | |
| 39 | 47 | 1342 | 1.20 | 37.44 | 21.4 | 19.8 | | | |
| 44 | 53 | 1186 | 1.35 | 33.09 | 22.2 | 20.1 | | | |
| 47 | 57 | 1120 | 1.00 | 31.23 | 22.4 | 19.7 | | | |
| 52 | 63 | 1003 | 1.55 | 27.98 | 22.1 | 20.5 | | | |
| 59 | 71 | 886 | 1.30 | 24.72 | 21.2 | 20.3 | | | |
| 61 | 73 | 862 | 1.75 | 24.05 | 20.8 | 20.7 | | | |
| 68 | 82 | 774 | 1.75 | 21.58 | 20.1 | 20.6 | | | |
| 70 | 84 | 753 | 1.90 | 21.00 | 19.7 | 21.0 | | | |
| 77 | 93 | 684 | 1.95 | 19.08 | 19.1 | 20.8 | | | |
| 81 | 98 | 645 | 2.10 | 17.99 | 18.6 | 21.2 | | | |
| 84 | 102 | 622 | 2.20 | 17.35 | 18.4 | 21.2 | | | |
| 91 | 109 | 578 | 2.25 | 16.13 | 18.0 | 21.1 | | | |
| 96 | 115 | 549 | 2.35 | 15.31 | 17.5 | 21.4 | | | |
| 106 | 127 | 497 | 2.50 | 13.87 | 17.0 | 21.3 | | | |
| 114 | 137 | 460 | 2.65 | 12.84 | 16.4 | 21.6 | | | |
| 121 | 146 | 434 | 2.75 | 12.10 | 16.1 | 21.4 | | | |
| 135 | 163 | 388 | 3.00 | 10.82 | 15.4 | 21.7 | | | |
| 53 | 64 | 996 | 0.85 | 27.79 | 7.1 | 12.4 | CG072-11P-132S-04E CF072-11P-132S-04E | 84 88 | 146 |
| 62 | 75 | 845 | 0.95 | 23.58 | 8.5 | 13.1 | | | |
| 68 | 82 | 769 | 1.05 | 21.45 | 8.8 | 13.0 | | | |
| 71 | 85 | 740 | 0.95 | 20.65 | 7.8 | 12.3 | | | |
| 75 | 91 | 699 | 1.10 | 19.50 | 9.4 | 13.5 | | | |
| 83 | 99 | 636 | 1.20 | 17.74 | 9.5 | 13.5 | | | |
| 88 | 106 | 595 | 1.25 | 16.59 | 9.9 | 13.8 | | | |
| 90 | 109 | 581 | 1.20 | 16.20 | 9.0 | 12.9 | | | |
| 97 | 117 | 541 | 1.30 | 15.09 | 10.0 | 13.7 | | | |
| 102 | 123 | 515 | 1.35 | 14.38 | 10.2 | 14.0 | | | |
| 112 | 135 | 469 | 1.45 | 13.08 | 10.3 | 14.0 | | | |
| 117 | 141 | 448 | 1.40 | 12.51 | 9.6 | 13.5 | | | |
| 121 | 145 | 435 | 1.55 | 12.14 | 10.4 | 14.2 | | | |
| 125 | 151 | 420 | 1.55 | 11.71 | 10.5 | 14.2 | | | |
| 133 | 160 | 396 | 1.65 | 11.04 | 10.4 | 14.2 | | | |
| 138 | 166 | 382 | 1.70 | 10.65 | 10.4 | 14.2 | | | |
| 142 | 171 | 371 | 1.60 | 10.34 | 9.9 | 13.8 | | | |
| 147 | 177 | 359 | 1.75 | 10.00 | 10.5 | 14.4 | | | |
| 161 | 194 | 326 | 1.85 | 9.10 | 10.5 | 14.4 | | | |
| 167 | 201 | 315 | 1.75 | 8.80 | 10.0 | 14.1 | | | |
| 192 | 231 | 273 | 1.95 | 7.63 | 10.0 | 14.2 | | | |
| 228 | 274 | 231 | 2.20 | 6.44 | 9.9 | 14.4 | | | |
| 236 | 284 | 223 | 2.25 | 6.21 | 9.9 | 14.5 | | | |
| 276 | 333 | 190 | 2.50 | 5.30 | 9.7 | 14.6 | | | |

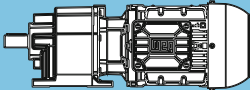
| P _N = 5.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------|----------------|-------|-----------------|-----------------|--|----------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | |  | m kg | Dimension sheet see page |
| 5.5 kW | 6.6 kW | M ₂ | f _B | i | F _{rN} | F _{aN} | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | Nm | | | kN | kN | | | |
| 68 | 82 | 771 | 0.80 | 21.51 | 5.6 | 5.8 | CG062-11P-132S-04E CF062-11P-132S-04E | 69 74 | 144 |
| 82 | 99 | 640 | 0.95 | 17.85 | 7.7 | 6.2 | | | |
| 90 | 108 | 587 | 1.05 | 16.36 | 7.5 | 6.4 | | | |
| 100 | 120 | 528 | 1.15 | 14.72 | 7.4 | 6.6 | | | |
| 109 | 131 | 484 | 1.25 | 13.49 | 7.3 | 6.7 | | | |
| 112 | 135 | 469 | 0.85 | 13.07 | 7.1 | 6.1 | | | |
| 121 | 146 | 433 | 1.40 | 12.07 | 7.2 | 6.8 | | | |
| 132 | 159 | 397 | 1.55 | 11.07 | 7.1 | 6.9 | | | |
| 143 | 172 | 368 | 1.65 | 10.26 | 6.9 | 7.0 | | | |
| 147 | 178 | 356 | 1.10 | 9.94 | 6.8 | 6.6 | | | |
| 156 | 188 | 337 | 1.75 | 9.40 | 6.8 | 7.1 | | | |
| 174 | 209 | 302 | 1.85 | 8.43 | 6.7 | 7.2 | | | |
| 179 | 215 | 294 | 1.30 | 8.20 | 6.5 | 6.9 | | | |
| 180 | 217 | 292 | 1.85 | 8.13 | 6.6 | 7.3 | | | |
| 189 | 228 | 277 | 1.90 | 7.73 | 6.5 | 7.3 | | | |
| 196 | 237 | 267 | 1.90 | 7.46 | 6.5 | 7.3 | | | |
| 218 | 262 | 241 | 1.60 | 6.73 | 6.2 | 7.1 | | | |
| 219 | 264 | 240 | 2.00 | 6.69 | 6.3 | 7.4 | | | |
| 239 | 288 | 220 | 2.05 | 6.13 | 6.2 | 7.5 | | | |
| 256 | 309 | 205 | 1.85 | 5.71 | 6.0 | 7.2 | | | |
| 312 | 376 | 168 | 1.95 | 4.70 | 5.7 | 7.4 | | | |
| 323 | 390 | 162 | 2.00 | 4.53 | 5.6 | 7.4 | | | |
| 393 | 474 | 134 | 2.10 | 3.73 | 5.4 | 7.5 | | | |
| 104 | 126 | 503 | 0.80 | 14.03 | 2.1 | 5.8 | CG052-11P-132S-04E CF052-11P-132S-04E | 63 68 | 142 |
| 115 | 138 | 457 | 0.90 | 12.75 | 3.7 | 6.0 | | | |
| 128 | 154 | 412 | 1.00 | 11.48 | 4.8 | 6.2 | | | |
| 140 | 169 | 374 | 1.10 | 10.43 | 5.0 | 6.4 | | | |
| 157 | 190 | 334 | 1.20 | 9.31 | 4.9 | 6.6 | | | |
| 172 | 208 | 305 | 0.90 | 8.50 | 4.7 | 6.3 | | | |
| 173 | 209 | 303 | 1.25 | 8.46 | 4.8 | 6.7 | | | |
| 188 | 227 | 279 | 1.25 | 7.79 | 4.8 | 6.8 | | | |
| 207 | 249 | 254 | 1.30 | 7.08 | 4.7 | 6.9 | | | |
| 211 | 254 | 249 | 1.10 | 6.96 | 4.6 | 6.7 | | | |
| 232 | 280 | 226 | 1.40 | 6.31 | 4.6 | 7.1 | | | |
| 241 | 290 | 218 | 1.40 | 6.09 | 4.6 | 7.1 | | | |
| 255 | 307 | 206 | 1.45 | 5.74 | 4.5 | 7.2 | | | |
| 260 | 313 | 202 | 1.30 | 5.64 | 4.4 | 6.9 | | | |
| 265 | 319 | 198 | 1.45 | 5.54 | 4.5 | 7.2 | | | |
| 310 | 374 | 169 | 1.40 | 4.72 | 4.3 | 7.1 | | | |
| 383 | 461 | 137 | 1.50 | 3.83 | 4.1 | 7.3 | | | |
| 397 | 478 | 132 | 1.50 | 3.69 | 4.0 | 7.3 | | | |



Legend see page 29

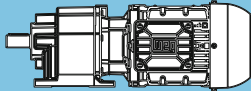
| P _N = 7.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|------------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 7.5 kW | | 9.0 kW | | | F _{rN} kN | F _{r2N} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | | | | | |
| 2.8 | 3.4 | 23074 | 0.80 | 517.99 | 95.5 | 19.5 | CG164-11P-L132M-04F CF164-11P-L132M-04F | 743 766 | 168 |
| 2.9 | 3.5 | 22704 | 0.80 | 509.69 | 97.1 | 19.9 | | | |
| 3.0 | 3.6 | 22068 | 0.85 | 496.41 | 99.6 | 20.4 | | | |
| 3.3 | 4.0 | 19518 | 0.95 | 440.86 | 108.7 | 22.8 | | | |
| 3.4 | 4.1 | 18890 | 1.00 | 427.56 | 110.7 | 23.3 | | | |
| 3.5 | 4.2 | 18482 | 1.00 | 418.32 | 111.9 | 23.7 | | | |
| 4.0 | 4.8 | 16239 | 1.15 | 369.82 | 117.9 | 25.7 | | | |
| 4.1 | 4.9 | 15821 | 1.15 | 360.30 | 119.0 | 26.1 | | | |
| 4.7 | 5.7 | 13572 | 1.35 | 311.64 | 123.8 | 28.2 | | | |
| 3.8 | 4.6 | 17193 | 0.80 | 385.96 | 84.5 | 10.3 | CG144-11P-L132M-04F CF144-11P-L132M-04F | 492 510 | 164 |
| 4.0 | 4.8 | 16357 | 0.80 | 367.20 | 87.4 | 11.1 | | | |
| 4.1 | 4.9 | 15994 | 0.85 | 359.79 | 88.6 | 11.5 | | | |
| 4.4 | 5.3 | 14839 | 0.90 | 334.50 | 92.1 | 12.6 | | | |
| 4.5 | 5.4 | 14552 | 0.90 | 328.01 | 92.9 | 12.9 | | | |
| 4.6 | 5.6 | 14003 | 0.95 | 316.30 | 94.4 | 13.5 | | | |
| 4.7 | 5.6 | 13889 | 0.95 | 313.70 | 94.7 | 13.6 | | | |
| 5.2 | 6.3 | 12454 | 1.05 | 282.46 | 98.2 | 15.0 | | | |
| 5.4 | 6.5 | 11985 | 1.10 | 272.37 | 99.2 | 15.5 | | | |
| 6.3 | 7.6 | 10155 | 1.30 | 232.69 | 102.8 | 17.3 | | | |
| 7.1 | 8.6 | 10115 | 1.30 | 206.88 | 102.9 | 17.4 | CG143-11P-L132M-04F CF143-11P-L132M-04F | 468 486 | 162 |
| 8.1 | 9.8 | 8819 | 1.50 | 180.38 | 105.0 | 18.7 | | | |
| 8.4 | 10 | 8504 | 1.55 | 173.94 | 105.4 | 19.0 | | | |
| 9.4 | 11 | 7596 | 1.75 | 155.38 | 106.7 | 19.9 | | | |
| 11 | 13 | 6541 | 2.00 | 133.80 | 107.9 | 20.9 | | | |
| 13 | 15 | 5714 | 2.30 | 116.88 | 108.7 | 21.8 | | | |
| 15 | 18 | 4828 | 2.70 | 98.76 | 109.5 | 22.7 | | | |
| 6.2 | 7.5 | 10514 | 0.80 | 236.02 | 51.7 | 17.5 | CG134-11P-L132M-04F CF134-11P-L132M-04F | 345 347 | 160 |
| 7.2 | 8.6 | 10017 | 0.80 | 204.88 | 54.3 | 18.1 | CG133-11P-L132M-04F CF133-11P-L132M-04F | 321 323 | 158 |
| 8.1 | 9.8 | 8847 | 0.95 | 180.95 | 59.6 | 19.4 | | | |
| 9.3 | 11 | 7680 | 1.05 | 157.08 | 63.8 | 20.7 | | | |
| 9.7 | 12 | 7405 | 1.10 | 151.47 | 64.7 | 21.0 | | | |
| 11 | 13 | 6635 | 1.25 | 135.71 | 66.9 | 21.9 | | | |
| 13 | 15 | 5678 | 1.45 | 116.14 | 69.3 | 23.0 | | | |
| 14 | 17 | 4980 | 1.65 | 101.85 | 70.7 | 23.8 | | | |
| 15 | 18 | 4904 | 1.65 | 100.31 | 70.9 | 23.9 | | | |
| 16 | 20 | 4398 | 1.85 | 89.96 | 71.8 | 24.5 | | | |
| 19 | 23 | 3818 | 2.10 | 78.09 | 72.7 | 25.1 | | | |
| 19 | 24 | 3682 | 2.20 | 75.30 | 72.9 | 25.3 | | | |
| 22 | 26 | 3299 | 2.45 | 67.47 | 73.4 | 25.7 | | | |
| 25 | 31 | 2823 | 2.85 | 57.74 | 73.9 | 26.3 | | | |
| 49 | 59 | 1460 | 2.50 | 29.86 | 75.0 | 27.8 | CG132-11P-L132M-04F CF132-11P-L132M-04F | 312 314 | 158 |
| 86 | 104 | 831 | 2.50 | 17.00 | 75.2 | 28.3 | | | |
| 12 | 15 | 5965 | 0.80 | 122.02 | 25.4 | 19.6 | CG103-11P-L132M-04F CF103-11P-L132M-04F | 218 222 | 154 |
| 14 | 17 | 5043 | 0.90 | 103.15 | 32.5 | 20.8 | | | |
| 15 | 18 | 4891 | 0.95 | 100.05 | 33.4 | 21.0 | | | |
| 16 | 20 | 4366 | 1.05 | 89.30 | 36.2 | 21.6 | | | |
| 17 | 21 | 4220 | 1.10 | 86.31 | 36.9 | 21.8 | | | |
| 19 | 22 | 3867 | 1.20 | 79.08 | 38.4 | 22.3 | | | |
| 21 | 26 | 3345 | 1.35 | 68.41 | 40.3 | 22.9 | | | |
| 22 | 27 | 3225 | 1.40 | 65.97 | 40.7 | 23.1 | | | |
| 25 | 30 | 2846 | 1.60 | 58.21 | 40.3 | 23.6 | | | |
| 30 | 36 | 2422 | 1.90 | 49.54 | 37.6 | 24.1 | | | |
| 34 | 41 | 2089 | 2.20 | 42.74 | 35.7 | 24.5 | | | |
| 44 | 54 | 1614 | 2.30 | 33.01 | 32.3 | 25.1 | | | |
| 60 | 73 | 1193 | 2.50 | 24.40 | 28.7 | 25.7 | | | |
| 76 | 92 | 937 | 2.30 | 19.17 | 26.5 | 25.6 | | | |
| 103 | 125 | 693 | 2.50 | 14.17 | 23.7 | 26.0 | | | |

Legend see page 29

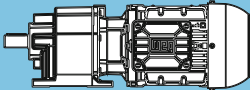
| P _N = 7.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | 60 Hz | M ₂ Nm | f _B | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 7.5 kW | 9.0 kW | | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 18 | 22 | 3895 | 0.80 | 79.66 | 13.7 | 24.2 | CG093-11P-L132M-04F CF093-11P-L132M-04F | 176 174 | 150 |
| 20 | 24 | 3555 | 0.85 | 72.72 | 18.0 | 24.7 | | | |
| 21 | 26 | 3348 | 0.90 | 68.48 | 20.1 | 25.1 | | | |
| 24 | 29 | 2996 | 1.05 | 61.28 | 22.9 | 25.6 | | | |
| 25 | 30 | 2923 | 1.05 | 59.78 | 23.4 | 25.7 | | | |
| 29 | 35 | 2504 | 1.20 | 51.22 | 25.9 | 26.3 | | | |
| 30 | 36 | 2415 | 1.25 | 49.39 | 26.4 | 26.4 | | | |
| 34 | 41 | 2131 | 1.35 | 43.59 | 27.7 | 26.9 | | | |
| 40 | 48 | 1788 | 1.50 | 36.57 | 29.0 | 27.4 | | | |
| 48 | 57 | 1507 | 1.70 | 30.81 | 28.2 | 27.8 | | | |
| 37 | 45 | 1936 | 1.55 | 39.60 | 28.5 | 27.1 | CG092-11P-L132M-04F CF092-11P-L132M-04F | 174 172 | 150 |
| 44 | 53 | 1637 | 1.85 | 33.48 | 29.2 | 27.6 | | | |
| 51 | 61 | 1417 | 2.15 | 28.98 | 27.6 | 27.9 | | | |
| 57 | 69 | 1255 | 2.40 | 25.67 | 26.4 | 28.1 | | | |
| 65 | 78 | 1104 | 1.55 | 22.58 | 25.3 | 27.8 | | | |
| 66 | 80 | 1086 | 2.80 | 22.20 | 24.9 | 28.4 | | | |
| 68 | 83 | 1047 | 2.50 | 21.41 | 24.6 | 28.5 | | | |
| 77 | 93 | 933 | 1.85 | 19.09 | 23.7 | 28.1 | | | |
| 89 | 107 | 808 | 2.15 | 16.53 | 22.4 | 28.4 | | | |
| 100 | 121 | 716 | 2.55 | 14.64 | 21.4 | 28.6 | | | |
| 116 | 140 | 619 | 2.95 | 12.66 | 20.3 | 28.8 | | | |
| 120 | 145 | 597 | 2.50 | 12.21 | 20.0 | 28.8 | | | |
| 39 | 47 | 1830 | 0.85 | 37.44 | 18.4 | 18.8 | CG082-11P-L132M-04F CF082-11P-L132M-04F | 122 126 | 148 |
| 44 | 53 | 1618 | 1.00 | 33.09 | 19.9 | 19.2 | | | |
| 52 | 63 | 1368 | 1.15 | 27.98 | 21.3 | 19.7 | | | |
| 59 | 72 | 1209 | 0.95 | 24.72 | 21.9 | 19.5 | | | |
| 61 | 74 | 1176 | 1.30 | 24.05 | 21.4 | 20.1 | | | |
| 68 | 82 | 1055 | 1.25 | 21.58 | 20.7 | 19.9 | | | |
| 70 | 84 | 1027 | 1.40 | 21.00 | 20.2 | 20.4 | | | |
| 77 | 93 | 933 | 1.45 | 19.08 | 19.7 | 20.2 | | | |
| 81 | 98 | 880 | 1.55 | 17.99 | 19.1 | 20.7 | | | |
| 84 | 102 | 848 | 1.60 | 17.35 | 18.8 | 20.8 | | | |
| 91 | 110 | 789 | 1.65 | 16.13 | 18.4 | 20.5 | | | |
| 96 | 116 | 749 | 1.75 | 15.31 | 17.9 | 21.0 | | | |
| 106 | 128 | 678 | 1.85 | 13.87 | 17.3 | 20.8 | | | |
| 114 | 138 | 628 | 1.95 | 12.84 | 16.7 | 21.2 | | | |
| 121 | 146 | 592 | 2.00 | 12.10 | 16.5 | 21.0 | | | |
| 135 | 164 | 529 | 2.20 | 10.82 | 15.7 | 21.4 | | | |
| 141 | 171 | 507 | 2.25 | 10.37 | 15.5 | 21.2 | | | |
| 147 | 177 | 489 | 2.30 | 10.00 | 15.3 | 21.3 | | | |
| 166 | 201 | 432 | 2.45 | 8.83 | 14.6 | 21.4 | | | |
| 198 | 239 | 362 | 2.80 | 7.40 | 13.7 | 21.6 | | | |
| 75 | 91 | 953 | 0.80 | 19.50 | 5.5 | 12.8 | CG072-11P-L132M-04F CF072-11P-L132M-04F | 98 102 | 146 |
| 83 | 100 | 867 | 0.85 | 17.74 | 6.0 | 12.7 | | | |
| 88 | 107 | 811 | 0.90 | 16.59 | 6.6 | 13.2 | | | |
| 90 | 109 | 792 | 0.85 | 16.20 | 5.4 | 12.0 | | | |
| 97 | 117 | 738 | 0.95 | 15.09 | 7.0 | 13.1 | | | |
| 102 | 123 | 703 | 1.00 | 14.38 | 7.4 | 13.5 | | | |
| 112 | 135 | 639 | 1.05 | 13.08 | 7.7 | 13.4 | | | |
| 117 | 142 | 611 | 1.05 | 12.51 | 6.9 | 12.8 | | | |
| 121 | 146 | 593 | 1.15 | 12.14 | 8.0 | 13.8 | | | |
| 125 | 151 | 572 | 1.15 | 11.71 | 8.2 | 13.8 | | | |
| 133 | 160 | 540 | 1.20 | 11.04 | 8.2 | 13.7 | | | |
| 138 | 166 | 521 | 1.25 | 10.65 | 8.3 | 13.8 | | | |
| 142 | 171 | 506 | 1.20 | 10.34 | 7.6 | 13.3 | | | |
| 147 | 177 | 489 | 1.30 | 10.00 | 8.5 | 14.0 | | | |
| 161 | 195 | 445 | 1.35 | 9.10 | 8.7 | 14.0 | | | |
| 167 | 201 | 430 | 1.30 | 8.80 | 8.0 | 13.6 | | | |
| 192 | 232 | 373 | 1.45 | 7.63 | 8.3 | 13.8 | | | |
| 228 | 275 | 315 | 1.60 | 6.44 | 8.5 | 14.1 | | | |
| 236 | 285 | 304 | 1.65 | 6.21 | 8.5 | 14.1 | | | |
| 276 | 334 | 259 | 1.85 | 5.30 | 8.5 | 14.3 | | | |



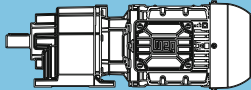
Legend see page 29

| P _N = 7.5 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|----------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | |  | m kg | Dimension sheet see page |
| 7.5 kW | 9.0 kW | | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | | | |
| 100 | 120 | 719 | 0.85 | 14.72 | 6.6 | 6.0 | CG062-11P-L132M-04F CF062-11P-L132M-04F | 82 87 | 144 |
| 109 | 131 | 660 | 0.95 | 13.49 | 6.7 | 6.2 | | | |
| 121 | 147 | 590 | 1.05 | 12.07 | 6.7 | 6.4 | | | |
| 132 | 160 | 541 | 1.15 | 11.07 | 6.6 | 6.5 | | | |
| 143 | 173 | 501 | 1.20 | 10.26 | 6.5 | 6.6 | | | |
| 147 | 178 | 486 | 0.80 | 9.94 | 6.3 | 6.1 | | | |
| 156 | 188 | 460 | 1.30 | 9.40 | 6.4 | 6.8 | | | |
| 174 | 210 | 412 | 1.35 | 8.43 | 6.3 | 6.9 | | | |
| 179 | 216 | 401 | 0.95 | 8.20 | 6.1 | 6.4 | | | |
| 180 | 218 | 398 | 1.35 | 8.13 | 6.2 | 6.9 | | | |
| 189 | 229 | 378 | 1.40 | 7.73 | 6.2 | 7.0 | | | |
| 196 | 237 | 365 | 1.40 | 7.46 | 6.1 | 7.0 | | | |
| 218 | 263 | 329 | 1.15 | 6.73 | 5.9 | 6.7 | | | |
| 219 | 265 | 327 | 1.45 | 6.69 | 6.0 | 7.2 | | | |
| 239 | 289 | 300 | 1.50 | 6.13 | 5.9 | 7.2 | | | |
| 256 | 310 | 279 | 1.35 | 5.71 | 5.7 | 6.9 | | | |
| 312 | 377 | 230 | 1.45 | 4.70 | 5.5 | 7.1 | | | |
| 323 | 391 | 222 | 1.45 | 4.53 | 5.4 | 7.2 | | | |
| 393 | 475 | 182 | 1.55 | 3.73 | 5.2 | 7.3 | | | |
| 140 | 170 | 510 | 0.80 | 10.43 | 1.6 | 5.7 | CG052-11P-L132M-04F CF052-11P-L132M-04F | 77 82 | 142 |
| 157 | 190 | 455 | 0.85 | 9.31 | 3.8 | 6.0 | | | |
| 173 | 209 | 414 | 0.90 | 8.46 | 4.3 | 6.2 | | | |
| 188 | 227 | 381 | 0.95 | 7.79 | 4.3 | 6.4 | | | |
| 207 | 250 | 346 | 0.95 | 7.08 | 4.3 | 6.5 | | | |
| 211 | 254 | 340 | 0.80 | 6.96 | 4.2 | 6.1 | | | |
| 232 | 280 | 309 | 1.00 | 6.31 | 4.3 | 6.7 | | | |
| 241 | 291 | 298 | 1.05 | 6.09 | 4.2 | 6.7 | | | |
| 255 | 308 | 281 | 1.05 | 5.74 | 4.2 | 6.8 | | | |
| 260 | 314 | 276 | 0.95 | 5.64 | 4.1 | 6.5 | | | |
| 265 | 320 | 271 | 1.05 | 5.54 | 4.2 | 6.9 | | | |
| 310 | 375 | 231 | 1.00 | 4.72 | 4.0 | 6.8 | | | |
| 383 | 462 | 187 | 1.10 | 3.83 | 3.8 | 7.0 | | | |
| 397 | 480 | 180 | 1.10 | 3.69 | 3.8 | 7.1 | | | |

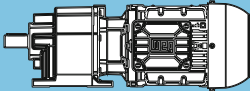
Legend see page 29

| P _N = 9.2 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 9.2 kW | | 11 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 3.4 | 4.1 | 23443 | 0.80 | 427.56 | 93.9 | 19.2 | CG164-11P-L132M-04G CF164-11P-L132M-04G | 748 771 | 168 |
| 3.5 | 4.2 | 22936 | 0.80 | 418.32 | 96.1 | 19.7 | | | |
| 3.9 | 4.8 | 20194 | 0.90 | 369.82 | 106.5 | 22.2 | | | |
| 4.1 | 4.9 | 19634 | 0.95 | 360.30 | 108.3 | 22.7 | | | |
| 4.7 | 5.7 | 16878 | 1.10 | 311.64 | 116.3 | 25.2 | | | |
| 4.7 | 5.6 | 17200 | 0.80 | 313.70 | 84.4 | 10.3 | CG144-11P-L132M-04G CF144-11P-L132M-04G | 497 515 | 164 |
| 5.2 | 6.2 | 15456 | 0.85 | 282.46 | 90.3 | 12.0 | | | |
| 5.4 | 6.5 | 14873 | 0.90 | 272.37 | 92.0 | 12.6 | | | |
| 6.3 | 7.6 | 12628 | 1.05 | 232.69 | 97.8 | 14.8 | | | |
| 7.1 | 8.5 | 12450 | 1.05 | 206.88 | 98.2 | 15.0 | CG143-11P-L132M-04G CF143-11P-L132M-04G | 473 491 | 162 |
| 8.1 | 9.8 | 10855 | 1.20 | 180.38 | 101.5 | 16.6 | | | |
| 8.4 | 10 | 10467 | 1.25 | 173.94 | 102.2 | 17.0 | | | |
| 9.4 | 11 | 9350 | 1.40 | 155.38 | 104.2 | 18.1 | | | |
| 11 | 13 | 8052 | 1.65 | 133.80 | 106.1 | 19.4 | | | |
| 12 | 15 | 7033 | 1.85 | 116.88 | 107.4 | 20.5 | | | |
| 13 | 16 | 6816 | 1.95 | 113.27 | 107.6 | 20.7 | | | |
| 15 | 18 | 5943 | 2.20 | 98.76 | 108.5 | 21.5 | | | |
| 17 | 21 | 5119 | 2.55 | 85.07 | 109.3 | 22.4 | | | |
| 20 | 24 | 4408 | 2.95 | 73.25 | 109.8 | 23.1 | | | |
| 9.3 | 11 | 9453 | 0.85 | 157.08 | 57.0 | 18.7 | CG133-11P-L132M-04G CF133-11P-L132M-04G | 326 328 | 158 |
| 9.6 | 12 | 9115 | 0.90 | 151.47 | 58.5 | 19.1 | | | |
| 11 | 13 | 8167 | 1.00 | 135.71 | 62.2 | 20.2 | | | |
| 13 | 15 | 6989 | 1.15 | 116.14 | 66.0 | 21.5 | | | |
| 14 | 17 | 6129 | 1.35 | 101.85 | 68.2 | 22.5 | | | |
| 15 | 18 | 6036 | 1.35 | 100.31 | 68.5 | 22.6 | | | |
| 16 | 20 | 5414 | 1.50 | 89.96 | 69.9 | 23.3 | | | |
| 19 | 23 | 4699 | 1.75 | 78.09 | 71.3 | 24.1 | | | |
| 22 | 26 | 4060 | 2.00 | 67.47 | 72.3 | 24.9 | | | |
| 25 | 31 | 3475 | 2.35 | 57.74 | 73.2 | 25.5 | | | |
| 29 | 35 | 3001 | 2.70 | 49.87 | 73.7 | 26.1 | | | |
| 41 | 50 | 2137 | 2.50 | 35.51 | 74.5 | 27.1 | CG132-11P-L132M-04G CF132-11P-L132M-04G | 317 319 | 154 |
| 49 | 59 | 1797 | 2.00 | 29.86 | 74.8 | 27.4 | | | |
| 72 | 87 | 1217 | 2.50 | 20.22 | 75.1 | 27.8 | | | |
| 86 | 104 | 1023 | 2.00 | 17.00 | 75.2 | 28.1 | | | |
| 16 | 20 | 5374 | 0.85 | 89.30 | 30.3 | 20.4 | CG103-11P-L132M-04G CF103-11P-L132M-04G | 223 227 | 154 |
| 17 | 20 | 5194 | 0.90 | 86.31 | 31.5 | 20.6 | | | |
| 18 | 22 | 4759 | 0.95 | 79.08 | 34.1 | 21.1 | | | |
| 21 | 26 | 4117 | 1.10 | 68.41 | 37.3 | 22.0 | | | |
| 22 | 27 | 3970 | 1.15 | 65.97 | 38.0 | 22.2 | | | |
| 25 | 30 | 3503 | 1.30 | 58.21 | 39.8 | 22.7 | | | |
| 29 | 36 | 2981 | 1.55 | 49.54 | 38.8 | 23.4 | | | |
| 34 | 41 | 2572 | 1.75 | 42.74 | 36.4 | 23.9 | | | |
| 44 | 53 | 1986 | 1.90 | 33.01 | 32.8 | 24.7 | CG102-11P-L132M-04G CF102-11P-L132M-04G | 218 222 | 154 |
| 50 | 61 | 1755 | 2.60 | 29.16 | 31.3 | 25.0 | | | |
| 58 | 70 | 1523 | 3.00 | 25.31 | 29.5 | 25.3 | | | |
| 60 | 72 | 1469 | 2.00 | 24.40 | 29.1 | 25.3 | | | |
| 76 | 92 | 1153 | 1.90 | 19.17 | 26.8 | 25.2 | | | |
| 86 | 104 | 1019 | 2.65 | 16.93 | 25.6 | 25.4 | | | |
| 103 | 125 | 853 | 2.00 | 14.17 | 23.9 | 25.7 | CG093-11P-L132M-04G CF093-11P-L132M-04G | 181 179 | 150 |
| 24 | 29 | 3688 | 0.85 | 61.28 | 16.5 | 24.6 | | | |
| 29 | 34 | 3082 | 1.00 | 51.22 | 22.3 | 25.4 | | | |
| 30 | 36 | 2972 | 1.05 | 49.39 | 23.1 | 25.6 | | | |
| 33 | 40 | 2623 | 1.10 | 43.59 | 25.3 | 26.1 | | | |
| 40 | 48 | 2200 | 1.25 | 36.57 | 27.4 | 26.7 | | | |
| 47 | 57 | 1854 | 1.40 | 30.81 | 28.8 | 27.3 | | | |

Legend see page 29

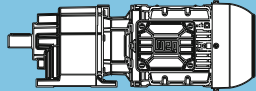
| P _N = 9.2 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|------------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 9.2 kW | | 11 kW | | | F _{rN} kN | F _{rIN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 37 | 45 | 2383 | 1.25 | 39.60 | 26.6 | 26.5 | CG092-11P-L132M-04G CF092-11P-L132M-04G | 179 177 | 150 |
| 44 | 53 | 2015 | 1.50 | 33.48 | 28.2 | 27.0 | | | |
| 50 | 61 | 1744 | 1.75 | 28.98 | 28.3 | 27.4 | | | |
| 57 | 69 | 1545 | 1.95 | 25.67 | 26.9 | 27.7 | | | |
| 65 | 78 | 1359 | 1.25 | 22.58 | 25.8 | 27.3 | | | |
| 66 | 79 | 1336 | 2.25 | 22.20 | 25.3 | 28.0 | | | |
| 68 | 82 | 1288 | 2.00 | 21.41 | 25.0 | 28.1 | | | |
| 76 | 92 | 1149 | 1.50 | 19.09 | 24.2 | 27.7 | | | |
| 77 | 93 | 1137 | 2.65 | 18.89 | 23.8 | 28.3 | | | |
| 88 | 107 | 995 | 1.75 | 16.53 | 22.8 | 28.0 | | | |
| 100 | 121 | 881 | 2.10 | 14.64 | 21.7 | 28.2 | | | |
| 115 | 139 | 762 | 2.40 | 12.66 | 20.6 | 28.5 | | | |
| 120 | 145 | 735 | 2.00 | 12.21 | 20.3 | 28.5 | | | |
| 136 | 164 | 648 | 2.85 | 10.77 | 19.3 | 28.7 | | | |
| 44 | 53 | 1991 | 0.80 | 33.09 | 17.0 | 18.4 | CG082-11P-L132M-04G CF082-11P-L132M-04G | 127 131 | 148 |
| 52 | 63 | 1684 | 0.95 | 27.98 | 19.5 | 19.1 | | | |
| 59 | 71 | 1488 | 0.80 | 24.72 | 20.7 | 18.8 | | | |
| 61 | 73 | 1447 | 1.05 | 24.05 | 20.9 | 19.5 | | | |
| 68 | 82 | 1299 | 1.05 | 21.58 | 21.2 | 19.3 | | | |
| 70 | 84 | 1264 | 1.15 | 21.00 | 20.7 | 19.9 | | | |
| 77 | 93 | 1148 | 1.15 | 19.08 | 20.1 | 19.7 | | | |
| 81 | 98 | 1083 | 1.25 | 17.99 | 19.5 | 20.3 | | | |
| 84 | 102 | 1044 | 1.30 | 17.35 | 19.2 | 20.4 | | | |
| 91 | 109 | 971 | 1.35 | 16.13 | 18.8 | 20.1 | | | |
| 95 | 115 | 921 | 1.40 | 15.31 | 18.3 | 20.6 | | | |
| 105 | 127 | 834 | 1.50 | 13.87 | 17.7 | 20.4 | | | |
| 114 | 137 | 773 | 1.60 | 12.84 | 17.0 | 20.9 | | | |
| 121 | 146 | 728 | 1.65 | 12.10 | 16.8 | 20.7 | | | |
| 135 | 163 | 651 | 1.80 | 10.82 | 15.9 | 21.2 | | | |
| 141 | 170 | 624 | 1.80 | 10.37 | 15.8 | 21.0 | | | |
| 146 | 177 | 602 | 1.85 | 10.00 | 15.6 | 21.0 | | | |
| 165 | 200 | 531 | 2.00 | 8.83 | 14.8 | 21.2 | | | |
| 197 | 238 | 446 | 2.25 | 7.40 | 13.9 | 21.4 | | | |
| 234 | 283 | 375 | 2.55 | 6.24 | 13.0 | 21.6 | | | |
| 97 | 117 | 908 | 0.80 | 15.09 | 4.4 | 12.6 | CG072-11P-L132M-04G CF072-11P-L132M-04G | 103 107 | 146 |
| 102 | 123 | 865 | 0.80 | 14.38 | 4.9 | 13.0 | | | |
| 112 | 135 | 787 | 0.90 | 13.08 | 5.4 | 13.0 | | | |
| 117 | 141 | 753 | 0.85 | 12.51 | 4.5 | 12.2 | | | |
| 120 | 145 | 730 | 0.90 | 12.14 | 6.0 | 13.4 | | | |
| 125 | 151 | 704 | 0.95 | 11.71 | 6.2 | 13.5 | | | |
| 132 | 160 | 665 | 1.00 | 11.04 | 6.3 | 13.4 | | | |
| 137 | 166 | 641 | 1.00 | 10.65 | 6.5 | 13.4 | | | |
| 141 | 171 | 622 | 0.95 | 10.34 | 5.7 | 12.8 | | | |
| 146 | 177 | 602 | 1.05 | 10.00 | 6.9 | 13.7 | | | |
| 160 | 194 | 547 | 1.10 | 9.10 | 7.1 | 13.7 | | | |
| 166 | 201 | 529 | 1.05 | 8.80 | 6.4 | 13.2 | | | |
| 191 | 231 | 459 | 1.20 | 7.63 | 6.9 | 13.5 | | | |
| 227 | 274 | 387 | 1.30 | 6.44 | 7.2 | 13.8 | | | |
| 235 | 284 | 374 | 1.35 | 6.21 | 7.3 | 13.8 | | | |
| 275 | 333 | 319 | 1.50 | 5.30 | 7.5 | 14.0 | | | |

Legend see page 29

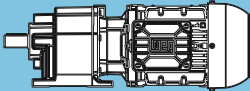
| P_N = 9.2 kW | | | | | | | IE3 | | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 9.2 kW | | 11 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 121 | 146 | 726 | 0.85 | 12.07 | 6.2 | 6.0 | CG062-11P-L132M-04G CF062-11P-L132M-04G | 87 92 | 144 |
| 132 | 159 | 666 | 0.95 | 11.07 | 6.1 | 6.1 | | | |
| 142 | 172 | 617 | 1.00 | 10.26 | 6.1 | 6.3 | | | |
| 155 | 188 | 566 | 1.05 | 9.40 | 6.0 | 6.4 | | | |
| 173 | 209 | 507 | 1.10 | 8.43 | 6.0 | 6.6 | | | |
| 178 | 215 | 493 | 0.80 | 8.20 | 5.8 | 6.0 | | | |
| 180 | 217 | 489 | 1.10 | 8.13 | 5.9 | 6.7 | | | |
| 189 | 228 | 465 | 1.15 | 7.73 | 5.9 | 6.7 | | | |
| 196 | 237 | 449 | 1.15 | 7.46 | 5.8 | 6.8 | | | |
| 217 | 262 | 405 | 0.95 | 6.73 | 5.6 | 6.4 | | | |
| 218 | 264 | 403 | 1.20 | 6.69 | 5.8 | 6.9 | | | |
| 238 | 288 | 369 | 1.25 | 6.13 | 5.6 | 7.0 | | | |
| 255 | 309 | 344 | 1.10 | 5.71 | 5.5 | 6.7 | | | |
| 311 | 376 | 283 | 1.15 | 4.70 | 5.3 | 6.9 | | | |
| 322 | 390 | 273 | 1.20 | 4.53 | 5.2 | 7.0 | | | |
| 392 | 474 | 224 | 1.25 | 3.73 | 5.0 | 7.2 | | | |



Legend see page 29

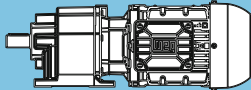
| P _N = 11 kW | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|------------------------|--|------------|--------------------------------|--|------------|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page | | | |
| 11 kW | | 13 kW | | | F _{rN} kN | F _{rΔN} kN | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | | | | |
| 4.1 | 4.9 | 23459 | 0.80 | 360.30 | 93.8 | 19.2 | CG164-22P-160M-04E CF164-22P-160M-04E | 810 833 | 168 | | | |
| 4.3 | 5.2 | 22286 | 0.85 | 342.97 | 98.8 | 20.3 | | | | | | |
| 4.7 | 5.7 | 20208 | 0.90 | 311.64 | 106.4 | 22.1 | | | | | | |
| 5.0 | 6.0 | 19116 | 0.95 | 295.40 | 110.0 | 23.1 | | | | | | |
| 5.8 | 6.9 | 16433 | 1.10 | 255.51 | 117.5 | 25.6 | | | | | | |
| 6.3 | 7.6 | 16770 | 1.10 | 234.67 | 116.6 | 25.3 | CG163-22P-160M-04E CF163-22P-160M-04E | 764 787 | 166 | | | |
| 7.3 | 8.8 | 14444 | 1.25 | 202.12 | 122.0 | 27.4 | | | | | | |
| 8.4 | 10 | 12493 | 1.45 | 174.82 | 125.8 | 29.1 | | | | | | |
| 9.5 | 12 | 11020 | 1.65 | 154.21 | 128.2 | 30.5 | | | | | | |
| 11 | 13 | 9465 | 1.95 | 132.44 | 130.4 | 31.9 | | | | | | |
| 13 | 16 | 8034 | 2.25 | 112.42 | 132.1 | 33.2 | | | | | | |
| 15 | 18 | 6949 | 2.60 | 97.24 | 133.2 | 34.2 | | | | | | |
| 16 | 19 | 6534 | 2.80 | 91.43 | 133.6 | 34.6 | | | | | | |
| 17 | 21 | 6130 | 2.95 | 85.78 | 134.0 | 34.9 | | | | | | |
| 6.3 | 7.6 | 15089 | 0.90 | 232.69 | 91.4 | 12.4 | CG144-22P-160M-04E CF144-22P-160M-04E | 559 577 | 164 | | | |
| 7.1 | 8.6 | 14784 | 0.90 | 206.88 | 92.2 | 12.7 | CG143-22P-160M-04E CF143-22P-160M-04E | 535 553 | 162 | | | |
| 8.1 | 9.8 | 12890 | 1.05 | 180.38 | 97.2 | 14.6 | | | | | | |
| 9.5 | 11 | 11103 | 1.20 | 155.38 | 101.0 | 16.4 | | | | | | |
| 11 | 13 | 9562 | 1.40 | 133.80 | 103.8 | 17.9 | | | | | | |
| 13 | 15 | 8352 | 1.60 | 116.88 | 105.7 | 19.1 | | | | | | |
| 15 | 18 | 7215 | 1.85 | 100.96 | 107.1 | 20.3 | | | | | | |
| 17 | 21 | 6079 | 2.15 | 85.07 | 108.4 | 21.4 | | | | | | |
| 18 | 21 | 5966 | 2.20 | 83.49 | 108.5 | 21.5 | | | | | | |
| 20 | 24 | 5235 | 2.50 | 73.25 | 109.2 | 22.3 | | | | | | |
| 21 | 26 | 4910 | 2.65 | 68.70 | 109.4 | 22.6 | | | | | | |
| 23 | 28 | 4573 | 2.85 | 63.99 | 109.7 | 22.9 | | | | | | |
| 39 | 47 | 2679 | 2.70 | 37.48 | 110.8 | 24.8 | CG142-22P-160M-04E CF142-22P-160M-04E | 521 539 | 162 | | | |
| 69 | 83 | 1527 | 2.70 | 21.37 | 111.2 | 25.6 | | | | | | |
| 11 | 13 | 9698 | 0.85 | 135.71 | 55.9 | 18.4 | CG133-22P-160M-04E CF133-22P-160M-04E | 388 390 | 158 | | | |
| 13 | 15 | 8300 | 1.00 | 116.14 | 61.7 | 20.0 | | | | | | |
| 15 | 18 | 7168 | 1.15 | 100.31 | 65.4 | 21.3 | | | | | | |
| 16 | 20 | 6429 | 1.25 | 89.96 | 67.5 | 22.2 | | | | | | |
| 17 | 21 | 6062 | 1.35 | 84.82 | 68.4 | 22.6 | | | | | | |
| 19 | 23 | 5580 | 1.45 | 78.09 | 69.5 | 23.1 | | | | | | |
| 21 | 26 | 4946 | 1.65 | 69.21 | 70.8 | 23.8 | | | | | | |
| 22 | 26 | 4822 | 1.70 | 67.47 | 71.0 | 24.0 | | | | | | |
| 25 | 31 | 4126 | 1.95 | 57.74 | 72.2 | 24.8 | | | | | | |
| 26 | 32 | 4013 | 2.00 | 56.16 | 72.4 | 24.9 | | | | | | |
| 29 | 36 | 3564 | 2.25 | 49.87 | 73.0 | 25.4 | | | | | | |
| 35 | 42 | 3013 | 2.70 | 42.17 | 73.7 | 26.1 | | | | | | |
| 41 | 50 | 2538 | 2.10 | 35.51 | 74.2 | 26.6 | | | | CG132-22P-160M-04E CF132-22P-160M-04E | 379 381 | 158 |
| 47 | 57 | 2213 | 2.70 | 30.96 | 74.5 | 27.0 | | | | | | |
| 73 | 88 | 1445 | 2.10 | 20.22 | 75.0 | 27.5 | | | | | | |
| 83 | 101 | 1260 | 2.70 | 17.63 | 75.1 | 27.7 | | | | | | |
| 19 | 22 | 5652 | 0.80 | 79.08 | 28.2 | 20.0 | CG103-22P-160M-04E CF103-22P-160M-04E | 285 289 | 154 | | | |
| 20 | 25 | 5174 | 0.90 | 72.40 | 31.6 | 20.6 | | | | | | |
| 21 | 26 | 4889 | 0.95 | 68.41 | 33.4 | 21.0 | | | | | | |
| 25 | 30 | 4207 | 1.10 | 58.87 | 36.9 | 21.9 | | | | | | |
| 30 | 36 | 3540 | 1.30 | 49.54 | 39.2 | 22.7 | | | | | | |
| 32 | 39 | 3289 | 1.40 | 46.03 | 38.1 | 23.0 | | | | | | |
| 34 | 42 | 3054 | 1.50 | 42.74 | 37.1 | 23.3 | | | | | | |
| 41 | 50 | 2562 | 1.80 | 35.85 | 34.4 | 23.9 | | | | | | |
| 50 | 61 | 2083 | 2.20 | 29.15 | 31.7 | 24.6 | | | | | | |
| 65 | 78 | 1629 | 2.80 | 22.79 | 28.7 | 25.1 | | | | | | |
| 50 | 61 | 2084 | 2.20 | 29.16 | 31.7 | 24.6 | CG102-22P-160M-04E CF102-22P-160M-04E | 280 284 | 154 | | | |
| 58 | 70 | 1809 | 2.50 | 25.31 | 29.9 | 24.9 | | | | | | |
| 67 | 81 | 1563 | 2.90 | 21.87 | 28.3 | 25.2 | | | | | | |
| 87 | 105 | 1210 | 2.25 | 16.93 | 25.8 | 25.1 | | | | | | |
| 100 | 121 | 1050 | 2.60 | 14.69 | 24.5 | 25.4 | | | | | | |
| 116 | 140 | 907 | 3.00 | 12.70 | 23.2 | 25.6 | | | | | | |

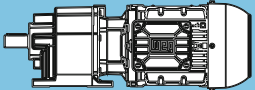
Legend see page 29

| P _N = 11 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 11 kW | | 13 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 29 | 35 | 3660 | 0.85 | 51.22 | 16.8 | 24.6 | CG093-22P-160M-04E CF093-22P-160M-04E | 243 241 | 150 |
| 34 | 41 | 3115 | 0.95 | 43.59 | 22.0 | 25.4 | | | |
| 40 | 49 | 2613 | 1.05 | 36.57 | 25.3 | 26.1 | | | |
| 48 | 58 | 2202 | 1.15 | 30.81 | 27.4 | 26.7 | | | |
| 58 | 70 | 1805 | 1.30 | 25.26 | 27.2 | 27.3 | | | |
| 57 | 69 | 1834 | 1.65 | 25.67 | 27.4 | 27.3 | CG092-22P-160M-04E CF092-22P-160M-04E | 241 239 | 150 |
| 66 | 80 | 1587 | 1.90 | 22.20 | 25.8 | 27.7 | | | |
| 78 | 94 | 1350 | 2.25 | 18.89 | 24.1 | 28.0 | | | |
| 91 | 110 | 1149 | 2.65 | 16.08 | 22.7 | 28.3 | | | |
| 100 | 121 | 1046 | 1.75 | 14.64 | 22.1 | 27.9 | | | |
| 116 | 140 | 905 | 2.05 | 12.66 | 20.8 | 28.2 | | | |
| 136 | 165 | 770 | 2.40 | 10.77 | 19.6 | 28.5 | | | |
| 160 | 194 | 655 | 2.80 | 9.17 | 18.4 | 28.7 | | | |
| 70 | 85 | 1501 | 0.95 | 21.00 | 20.6 | 19.4 | CG082-22P-160M-04E CF082-22P-160M-04E | 189 193 | 148 |
| 82 | 99 | 1286 | 1.10 | 17.99 | 19.8 | 19.9 | | | |
| 96 | 116 | 1094 | 1.20 | 15.31 | 18.5 | 20.3 | | | |
| 114 | 138 | 918 | 1.35 | 12.84 | 17.3 | 20.6 | | | |
| 121 | 147 | 865 | 1.40 | 12.10 | 17.0 | 20.4 | | | |
| 136 | 164 | 773 | 1.50 | 10.82 | 16.1 | 20.9 | | | |
| 142 | 171 | 741 | 1.55 | 10.37 | 16.0 | 20.7 | | | |
| 166 | 200 | 634 | 1.75 | 8.87 | 14.9 | 21.2 | | | |
| 167 | 201 | 631 | 1.70 | 8.83 | 15.0 | 20.9 | | | |
| 199 | 240 | 529 | 1.90 | 7.40 | 14.0 | 21.2 | | | |
| 236 | 284 | 446 | 2.15 | 6.24 | 13.1 | 21.4 | | | |
| 287 | 347 | 366 | 2.45 | 5.12 | 12.2 | 21.6 | | | |
| 121 | 146 | 867 | 0.80 | 12.14 | 3.9 | 13.0 | CG072-22P-160M-04E CF072-22P-160M-04E | 165 169 | 146 |
| 133 | 161 | 789 | 0.85 | 11.04 | 4.4 | 13.0 | | | |
| 147 | 178 | 715 | 0.90 | 10.00 | 5.1 | 13.4 | | | |
| 162 | 195 | 650 | 0.95 | 9.10 | 5.5 | 13.4 | | | |
| 193 | 233 | 545 | 1.00 | 7.63 | 5.4 | 13.1 | | | |
| 228 | 276 | 460 | 1.10 | 6.44 | 6.0 | 13.4 | | | |
| 277 | 335 | 379 | 1.25 | 5.30 | 6.5 | 13.8 | | | |



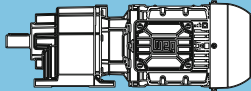
Legend see page 29

| P _N = 15 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 15 kW | 18 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 5.7 | 6.9 | 22764 | 0.80 | 255.51 | 96.8 | 19.8 | CG164-22P-160L-04F CF164-22P-160L-04F | 833 856 | 168 |
| 6.2 | 7.6 | 22946 | 0.80 | 234.67 | 96.0 | 19.7 | CG163-22P-160L-04F CF163-22P-160L-04F | 787 810 | 166 |
| 7.2 | 8.8 | 19763 | 0.95 | 202.12 | 107.9 | 22.5 | | | |
| 8.4 | 10 | 17094 | 1.10 | 174.82 | 115.8 | 25.0 | | | |
| 9.5 | 12 | 15079 | 1.20 | 154.21 | 120.7 | 26.8 | | | |
| 11 | 13 | 12950 | 1.40 | 132.44 | 125.0 | 28.7 | | | |
| 13 | 16 | 10775 | 1.70 | 110.19 | 128.6 | 30.7 | | | |
| 13 | 16 | 10993 | 1.65 | 112.42 | 128.3 | 30.5 | | | |
| 15 | 18 | 9509 | 1.90 | 97.24 | 130.4 | 31.9 | | | |
| 16 | 19 | 8940 | 2.05 | 91.43 | 131.1 | 32.4 | | | |
| 17 | 21 | 8387 | 2.15 | 85.78 | 131.8 | 32.9 | | | |
| 20 | 24 | 7203 | 2.50 | 73.67 | 133.0 | 34.0 | | | |
| 9.4 | 11 | 15193 | 0.90 | 155.38 | 91.0 | 12.3 | CG143-22P-160L-04F CF143-22P-160L-04F | 558 576 | 162 |
| 11 | 13 | 13083 | 1.00 | 133.80 | 96.7 | 14.4 | | | |
| 13 | 15 | 11428 | 1.15 | 116.88 | 100.4 | 16.0 | | | |
| 15 | 18 | 9872 | 1.35 | 100.96 | 103.3 | 17.6 | | | |
| 17 | 21 | 8318 | 1.60 | 85.07 | 105.7 | 19.2 | | | |
| 18 | 21 | 8164 | 1.60 | 83.49 | 105.9 | 19.3 | | | |
| 20 | 24 | 7163 | 1.85 | 73.25 | 107.2 | 20.3 | | | |
| 21 | 26 | 6718 | 1.95 | 68.70 | 107.7 | 20.8 | | | |
| 23 | 28 | 6257 | 2.10 | 63.99 | 108.2 | 21.2 | | | |
| 27 | 32 | 5405 | 2.45 | 55.27 | 109.0 | 22.1 | | | |
| 32 | 39 | 4470 | 2.95 | 45.71 | 109.8 | 23.0 | | | |
| 39 | 47 | 3665 | 1.95 | 37.48 | 110.3 | 23.8 | CG142-22P-160L-04F CF142-22P-160L-04F | 544 562 | 162 |
| 45 | 55 | 3157 | 3.00 | 32.28 | 110.6 | 24.3 | | | |
| 69 | 83 | 2090 | 1.95 | 21.37 | 111.0 | 24.9 | | | |
| 80 | 96 | 1800 | 3.00 | 18.41 | 111.1 | 25.3 | | | |
| 15 | 18 | 9809 | 0.85 | 100.31 | 55.3 | 18.3 | CG133-22P-160L-04F CF133-22P-160L-04F | 411 413 | 158 |
| 16 | 20 | 8796 | 0.95 | 89.96 | 59.8 | 19.5 | | | |
| 17 | 21 | 8294 | 1.00 | 84.82 | 61.7 | 20.0 | | | |
| 19 | 23 | 7636 | 1.05 | 78.09 | 64.0 | 20.8 | | | |
| 21 | 26 | 6768 | 1.20 | 69.21 | 66.6 | 21.8 | | | |
| 22 | 26 | 6597 | 1.25 | 67.47 | 67.0 | 22.0 | | | |
| 25 | 31 | 5646 | 1.45 | 57.74 | 69.4 | 23.1 | | | |
| 26 | 32 | 5491 | 1.50 | 56.16 | 69.7 | 23.2 | | | |
| 29 | 36 | 4876 | 1.65 | 49.87 | 70.9 | 23.9 | | | |
| 35 | 42 | 4123 | 1.95 | 42.17 | 72.2 | 24.8 | | | |
| 43 | 52 | 3365 | 2.40 | 34.41 | 73.3 | 25.7 | | | |
| 52 | 64 | 2730 | 2.95 | 27.92 | 74.0 | 26.4 | | | |
| 41 | 50 | 3472 | 1.55 | 35.51 | 73.2 | 25.5 | CG132-22P-160L-04F CF132-22P-160L-04F | 402 404 | 158 |
| 47 | 57 | 3028 | 1.95 | 30.96 | 73.7 | 26.0 | | | |
| 55 | 67 | 2608 | 3.00 | 26.67 | 74.1 | 26.5 | | | |
| 72 | 88 | 1977 | 1.55 | 20.22 | 74.7 | 26.7 | | | |
| 83 | 101 | 1724 | 1.95 | 17.63 | 74.8 | 27.1 | | | |
| 96 | 117 | 1485 | 3.00 | 15.19 | 75.0 | 27.4 | | | |
| 25 | 30 | 5756 | 0.80 | 58.87 | 27.3 | 19.9 | CG103-22P-160L-04F CF103-22P-160L-04F | 308 312 | 154 |
| 30 | 36 | 4844 | 0.95 | 49.54 | 33.7 | 21.0 | | | |
| 32 | 39 | 4501 | 1.00 | 46.03 | 35.5 | 21.5 | | | |
| 34 | 42 | 4179 | 1.10 | 42.74 | 37.1 | 21.9 | | | |
| 41 | 50 | 3505 | 1.30 | 35.85 | 35.8 | 22.7 | | | |
| 50 | 61 | 2850 | 1.60 | 29.15 | 32.9 | 23.6 | | | |
| 64 | 78 | 2228 | 2.05 | 22.79 | 29.7 | 24.4 | | | |
| 50 | 61 | 2851 | 1.60 | 29.16 | 32.9 | 23.6 | CG102-22P-160L-04F CF102-22P-160L-04F | 303 307 | 154 |
| 58 | 70 | 2475 | 1.85 | 25.31 | 30.9 | 24.1 | | | |
| 67 | 81 | 2138 | 2.15 | 21.87 | 29.1 | 24.5 | | | |
| 78 | 95 | 1830 | 2.50 | 18.71 | 27.4 | 24.9 | | | |
| 87 | 105 | 1655 | 1.65 | 16.93 | 26.6 | 24.3 | | | |
| 91 | 110 | 1580 | 2.85 | 16.16 | 25.8 | 25.2 | | | |
| 100 | 121 | 1437 | 1.90 | 14.69 | 25.1 | 24.7 | | | |
| 115 | 140 | 1241 | 2.20 | 12.70 | 23.8 | 25.0 | | | |
| 135 | 163 | 1062 | 2.55 | 10.86 | 22.3 | 25.3 | | | |
| 156 | 189 | 918 | 2.95 | 9.38 | 21.1 | 25.6 | | | |

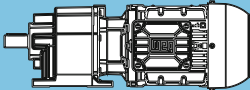
| P _N = 15 kW | | | | | | | | IE3 | |
|--|--|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 15 kW n ₅₀ min ⁻¹ | 60 Hz 18 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 48 | 58 | 3013 | 0.85 | 30.81 | 22.8 | 25.5 | CG093-22P-160L-04F CF093-22P-160L-04F | 266 | 150 |
| 58 | 70 | 2470 | 0.95 | 25.26 | 26.1 | 26.4 | | 264 | |
| 57 | 69 | 2510 | 1.20 | 25.67 | 25.9 | 26.3 | CG092-22P-160L-04F CF092-22P-160L-04F | 264 262 | 150 |
| 66 | 80 | 2171 | 1.40 | 22.20 | 26.8 | 26.8 | | | |
| 78 | 94 | 1847 | 1.65 | 18.89 | 25.0 | 27.3 | | | |
| 91 | 110 | 1572 | 1.95 | 16.08 | 23.4 | 27.7 | | | |
| 100 | 121 | 1431 | 1.30 | 14.64 | 22.8 | 27.1 | | | |
| 106 | 128 | 1356 | 2.25 | 13.87 | 22.0 | 28.0 | | | |
| 116 | 140 | 1238 | 1.50 | 12.66 | 21.5 | 27.5 | | | |
| 126 | 153 | 1138 | 2.65 | 11.63 | 20.5 | 28.3 | | | |
| 136 | 165 | 1053 | 1.75 | 10.77 | 20.1 | 27.9 | | | |
| 160 | 194 | 896 | 2.05 | 9.17 | 18.9 | 28.2 | | | |
| 185 | 224 | 773 | 2.40 | 7.91 | 17.8 | 28.4 | | | |
| 221 | 268 | 649 | 2.85 | 6.63 | 16.6 | 28.7 | | | |
| 81 | 99 | 1759 | 0.80 | 17.99 | 18.9 | 18.9 | CG082-22P-160L-04F CF082-22P-160L-04F | 212 216 | 148 |
| 96 | 116 | 1497 | 0.90 | 15.31 | 19.3 | 19.4 | | | |
| 114 | 138 | 1256 | 1.00 | 12.84 | 17.9 | 19.9 | | | |
| 121 | 147 | 1184 | 1.00 | 12.10 | 17.7 | 19.6 | | | |
| 135 | 164 | 1058 | 1.10 | 10.82 | 16.7 | 20.3 | | | |
| 141 | 171 | 1014 | 1.15 | 10.37 | 16.6 | 20.0 | | | |
| 165 | 200 | 868 | 1.30 | 8.87 | 15.4 | 20.7 | | | |
| 166 | 201 | 863 | 1.25 | 8.83 | 15.5 | 20.4 | | | |
| 198 | 240 | 724 | 1.40 | 7.40 | 14.4 | 20.7 | | | |
| 235 | 284 | 610 | 1.55 | 6.24 | 13.5 | 21.0 | | | |
| 286 | 347 | 500 | 1.80 | 5.12 | 12.5 | 21.3 | | | |
| 228 | 276 | 630 | 0.80 | 6.44 | 3.1 | 12.7 | CG072-22P-160L-04F CF072-22P-160L-04F | 188 | 146 |
| 276 | 335 | 519 | 0.95 | 5.30 | 4.2 | 13.2 | | 192 | |



Legend see page 29

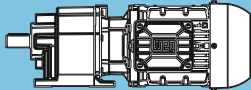
| P _N = 18.5 kW | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|--|------------|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page | | | |
| 18.5 kW | | 22 kW | | | F _{rN} kN | F _{aN} kN | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | | | | |
| 8.4 | 10 | 21011 | 0.90 | 174.82 | 103.6 | 21.4 | CG163-22P-180M-04E CF163-22P-180M-04E | 801 824 | 166 | | | |
| 9.5 | 12 | 18534 | 1.00 | 154.21 | 111.7 | 23.7 | | | | | | |
| 11 | 13 | 15918 | 1.15 | 132.44 | 118.7 | 26.0 | | | | | | |
| 13 | 16 | 13244 | 1.40 | 110.19 | 124.4 | 28.5 | | | | | | |
| 15 | 18 | 11687 | 1.55 | 97.24 | 127.2 | 29.9 | | | | | | |
| 16 | 19 | 10989 | 1.65 | 91.43 | 128.3 | 30.5 | | | | | | |
| 17 | 21 | 10309 | 1.75 | 85.78 | 129.3 | 31.1 | | | | | | |
| 19 | 23 | 9164 | 2.00 | 76.25 | 130.8 | 32.2 | | | | | | |
| 20 | 24 | 8854 | 2.05 | 73.67 | 131.2 | 32.5 | | | | | | |
| 22 | 27 | 7877 | 2.30 | 65.54 | 132.3 | 33.3 | | | | | | |
| 24 | 29 | 7367 | 2.45 | 61.29 | 132.8 | 33.8 | CG143-22P-180M-04E CF143-22P-180M-04E | 572 590 | 162 | | | |
| 29 | 35 | 6112 | 2.95 | 50.86 | 134.0 | 34.9 | | | | | | |
| 11 | 13 | 16081 | 0.85 | 133.80 | 88.3 | 11.4 | | | | | | |
| 13 | 15 | 14047 | 0.95 | 116.88 | 94.3 | 13.4 | | | | | | |
| 15 | 18 | 12134 | 1.10 | 100.96 | 98.9 | 15.3 | | | | | | |
| 17 | 21 | 10224 | 1.30 | 85.07 | 102.7 | 17.3 | | | | | | |
| 18 | 21 | 10034 | 1.30 | 83.49 | 103.0 | 17.4 | | | | | | |
| 20 | 24 | 8804 | 1.50 | 73.25 | 105.0 | 18.7 | | | | | | |
| 21 | 26 | 8257 | 1.60 | 68.70 | 105.8 | 19.2 | | | | | | |
| 23 | 28 | 7691 | 1.70 | 63.99 | 106.5 | 19.8 | | | | | | |
| 26 | 31 | 6787 | 1.95 | 56.47 | 107.6 | 20.7 | CG142-22P-180M-04E CF142-22P-180M-04E | 558 576 | 162 | | | |
| 27 | 32 | 6643 | 2.00 | 55.27 | 107.8 | 20.8 | | | | | | |
| 31 | 37 | 5763 | 2.30 | 47.95 | 108.7 | 21.7 | | | | | | |
| 32 | 39 | 5494 | 2.40 | 45.71 | 108.9 | 22.0 | | | | | | |
| 39 | 47 | 4521 | 2.90 | 37.61 | 109.7 | 23.0 | | | | | | |
| 39 | 47 | 4505 | 1.60 | 37.48 | 109.7 | 23.0 | | | | | | |
| 46 | 55 | 3880 | 2.45 | 32.28 | 110.2 | 23.6 | | | | | | |
| 69 | 83 | 2569 | 1.60 | 21.37 | 110.9 | 24.3 | | | | | | |
| 80 | 96 | 2213 | 2.45 | 18.41 | 111.0 | 24.8 | | | | | | |
| 17 | 21 | 10194 | 0.80 | 84.82 | 53.4 | 17.9 | | | | CG133-22P-180M-04E CF133-22P-180M-04E | 425 427 | 158 |
| 19 | 23 | 9385 | 0.90 | 78.09 | 57.3 | 18.8 | | | | | | |
| 21 | 26 | 8319 | 1.00 | 69.21 | 61.6 | 20.0 | | | | | | |
| 22 | 26 | 8109 | 1.00 | 67.47 | 62.4 | 20.2 | | | | | | |
| 25 | 31 | 6939 | 1.20 | 57.74 | 66.1 | 21.6 | | | | | | |
| 26 | 32 | 6749 | 1.20 | 56.16 | 66.6 | 21.8 | | | | | | |
| 29 | 36 | 5994 | 1.35 | 49.87 | 68.6 | 22.7 | | | | | | |
| 33 | 40 | 5388 | 1.50 | 44.83 | 69.9 | 23.3 | | | | | | |
| 35 | 42 | 5068 | 1.60 | 42.17 | 70.6 | 23.7 | | | | | | |
| 43 | 52 | 4136 | 1.95 | 34.41 | 72.2 | 24.8 | | | | | | |
| 53 | 64 | 3355 | 2.40 | 27.92 | 73.3 | 25.7 | CG132-22P-180M-04E CF132-22P-180M-04E | 416 418 | 158 | | | |
| 66 | 80 | 2679 | 3.00 | 22.29 | 74.1 | 26.4 | | | | | | |
| 47 | 57 | 3721 | 1.60 | 30.96 | 72.8 | 25.2 | | | | | | |
| 55 | 67 | 3205 | 2.45 | 26.67 | 73.5 | 25.8 | | | | | | |
| 64 | 77 | 2760 | 2.90 | 22.97 | 74.0 | 26.3 | | | | | | |
| 83 | 101 | 2119 | 1.60 | 17.63 | 74.5 | 26.5 | | | | | | |
| 97 | 117 | 1825 | 2.45 | 15.19 | 74.8 | 26.9 | | | | | | |
| 58 | 70 | 3042 | 1.50 | 25.31 | 31.8 | 23.3 | | | | CG102-22P-180M-04E CF102-22P-180M-04E | 317 321 | 154 |
| 67 | 81 | 2628 | 1.75 | 21.87 | 29.9 | 23.9 | | | | | | |
| 79 | 95 | 2249 | 2.05 | 18.71 | 27.9 | 24.3 | | | | | | |
| 91 | 110 | 1943 | 2.35 | 16.16 | 26.3 | 24.7 | | | | | | |
| 100 | 121 | 1766 | 1.55 | 14.69 | 25.7 | 24.1 | | | | | | |
| 108 | 130 | 1643 | 2.75 | 13.67 | 24.6 | 25.1 | | | | | | |
| 116 | 140 | 1526 | 1.80 | 12.70 | 24.2 | 24.5 | | | | | | |
| 135 | 163 | 1306 | 2.10 | 10.86 | 22.7 | 24.9 | | | | | | |
| 157 | 189 | 1128 | 2.40 | 9.38 | 21.4 | 25.2 | | | | | | |
| 185 | 224 | 954 | 2.85 | 7.93 | 20.1 | 25.5 | | | | | | |

Legend see page 29

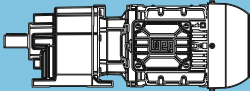
| P _N = 18.5 kW | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 18.5 kW | | 22 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 66 | 80 | 2669 | 1.15 | 22.20 | 25.0 | 26.1 | CG092-22P-180M-04E CF092-22P-180M-04E | 278 276 | 150 |
| 78 | 94 | 2270 | 1.35 | 18.89 | 25.7 | 26.6 | | | |
| 91 | 110 | 1932 | 1.60 | 16.08 | 24.0 | 27.1 | | | |
| 106 | 128 | 1667 | 1.80 | 13.87 | 22.6 | 27.5 | | | |
| 116 | 140 | 1522 | 1.20 | 12.66 | 22.0 | 26.9 | | | |
| 126 | 153 | 1398 | 2.15 | 11.63 | 21.0 | 27.9 | | | |
| 136 | 165 | 1295 | 1.45 | 10.77 | 20.6 | 27.4 | | | |
| 155 | 188 | 1137 | 2.50 | 9.46 | 19.3 | 28.3 | | | |
| 160 | 194 | 1102 | 1.70 | 9.17 | 19.3 | 27.8 | | | |
| 186 | 224 | 951 | 1.95 | 7.91 | 18.1 | 28.1 | | | |
| 199 | 240 | 889 | 2.95 | 7.40 | 17.5 | 28.7 | | | |
| 222 | 268 | 797 | 2.30 | 6.63 | 16.9 | 28.4 | | | |
| 272 | 329 | 648 | 2.85 | 5.39 | 15.6 | 28.7 | | | |
| 114 | 138 | 1544 | 0.80 | 12.84 | 18.5 | 19.3 | CG082-22P-180M-04E CF082-22P-180M-04E | 226 230 | 148 |
| 136 | 164 | 1301 | 0.90 | 10.82 | 17.1 | 19.8 | | | |
| 142 | 171 | 1246 | 0.90 | 10.37 | 17.1 | 19.4 | | | |
| 166 | 200 | 1066 | 1.05 | 8.87 | 15.7 | 20.3 | | | |
| 167 | 201 | 1061 | 1.00 | 8.83 | 15.9 | 19.9 | | | |
| 199 | 240 | 890 | 1.15 | 7.40 | 14.8 | 20.3 | | | |
| 236 | 284 | 750 | 1.30 | 6.24 | 13.8 | 20.6 | | | |
| 287 | 347 | 615 | 1.45 | 5.12 | 12.7 | 21.0 | | | |



Legend see page 29

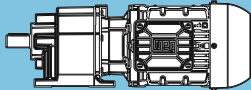
| P _N = 22 kW | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|------------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 22 kW | | 26 kW | | | F _{rN} kN | F _{r2N} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 9.5 | 12 | 22040 | 0.85 | 154.21 | 99.8 | 20.5 | CG163-22P-180L-04F CF163-22P-180L-04F | 822 845 | 166 |
| 11 | 13 | 18929 | 1.00 | 132.44 | 110.6 | 23.3 | | | |
| 13 | 16 | 16068 | 1.15 | 112.42 | 118.4 | 25.9 | | | |
| 15 | 18 | 13898 | 1.30 | 97.24 | 123.2 | 27.9 | | | |
| 16 | 19 | 13068 | 1.40 | 91.43 | 124.8 | 28.6 | | | |
| 17 | 21 | 12260 | 1.50 | 85.78 | 126.2 | 29.4 | | | |
| 19 | 23 | 10898 | 1.70 | 76.25 | 128.4 | 30.6 | | | |
| 20 | 24 | 10529 | 1.75 | 73.67 | 129.0 | 30.9 | | | |
| 22 | 27 | 9367 | 1.95 | 65.54 | 130.6 | 32.0 | | | |
| 24 | 29 | 8760 | 2.10 | 61.29 | 131.3 | 32.5 | | | |
| 29 | 35 | 7269 | 2.50 | 50.86 | 132.9 | 33.9 | | | |
| 35 | 42 | 6062 | 3.00 | 42.41 | 134.0 | 35.0 | | | |
| 45 | 54 | 4717 | 3.00 | 33.00 | 135 | 36.2 | | | |
| 83 | 100 | 2529 | 3.00 | 17.70 | 136 | 37.9 | | | |
| 13 | 15 | 16704 | 0.80 | 116.88 | 86.2 | 10.8 | CG143-22P-180L-04F CF143-22P-180L-04F | 593 611 | 162 |
| 15 | 18 | 14429 | 0.95 | 100.96 | 93.2 | 13.0 | | | |
| 17 | 21 | 12158 | 1.10 | 85.07 | 98.8 | 15.3 | | | |
| 18 | 21 | 11933 | 1.10 | 83.49 | 99.3 | 15.5 | | | |
| 20 | 24 | 10470 | 1.25 | 73.25 | 102.2 | 17.0 | | | |
| 21 | 26 | 9819 | 1.35 | 68.70 | 103.4 | 17.7 | | | |
| 23 | 28 | 9146 | 1.45 | 63.99 | 104.5 | 18.3 | | | |
| 26 | 31 | 8071 | 1.65 | 56.47 | 106.0 | 19.4 | | | |
| 27 | 32 | 7900 | 1.65 | 55.27 | 106.3 | 19.6 | | | |
| 31 | 37 | 6853 | 1.90 | 47.95 | 107.6 | 20.6 | | | |
| 32 | 39 | 6533 | 2.00 | 45.71 | 107.9 | 21.0 | | | |
| 39 | 47 | 5376 | 2.45 | 37.61 | 109.0 | 22.1 | | | |
| 48 | 57 | 4419 | 2.90 | 30.92 | 109.8 | 23.1 | | | |
| 39 | 47 | 5357 | 1.35 | 37.48 | 109.1 | 22.1 | CG142-22P-180L-04F CF142-22P-180L-04F | 579 597 | 162 |
| 46 | 55 | 4614 | 2.05 | 32.28 | 109.7 | 22.9 | | | |
| 53 | 64 | 3991 | 2.95 | 27.92 | 110.1 | 23.5 | | | |
| 69 | 83 | 3055 | 1.35 | 21.37 | 110.6 | 23.7 | | | |
| 80 | 96 | 2631 | 2.05 | 18.41 | 110.8 | 24.3 | | | |
| 92 | 111 | 2276 | 2.95 | 15.92 | 111.0 | 24.7 | | | |
| 21 | 26 | 9892 | 0.85 | 69.21 | 54.9 | 18.2 | CG133-22P-180L-04F CF133-22P-180L-04F | 446 448 | 158 |
| 22 | 26 | 9643 | 0.85 | 67.47 | 56.1 | 18.5 | | | |
| 25 | 31 | 8252 | 1.00 | 57.74 | 61.9 | 20.1 | | | |
| 26 | 32 | 8026 | 1.00 | 56.16 | 62.7 | 20.3 | | | |
| 29 | 36 | 7127 | 1.15 | 49.87 | 65.6 | 21.4 | | | |
| 33 | 40 | 6408 | 1.25 | 44.83 | 67.5 | 22.2 | | | |
| 35 | 42 | 6027 | 1.35 | 42.17 | 68.5 | 22.6 | | | |
| 43 | 52 | 4918 | 1.65 | 34.41 | 70.9 | 23.9 | | | |
| 53 | 64 | 3990 | 2.05 | 27.92 | 72.4 | 24.9 | | | |
| 66 | 80 | 3186 | 2.55 | 22.29 | 73.5 | 25.9 | | | |
| 47 | 57 | 4425 | 1.35 | 30.96 | 71.7 | 24.4 | CG132-22P-180L-04F CF132-22P-180L-04F | 437 439 | 158 |
| 55 | 67 | 3812 | 2.05 | 26.67 | 72.7 | 25.1 | | | |
| 64 | 77 | 3283 | 2.45 | 22.97 | 73.4 | 25.8 | | | |
| 73 | 88 | 2867 | 2.80 | 20.06 | 73.9 | 26.2 | | | |
| 83 | 101 | 2520 | 1.35 | 17.63 | 74.2 | 26.0 | | | |
| 97 | 117 | 2170 | 2.05 | 15.19 | 74.5 | 26.5 | | | |
| 112 | 136 | 1869 | 2.65 | 13.08 | 74.5 | 26.9 | | | |
| 58 | 70 | 3617 | 1.25 | 25.31 | 32.6 | 22.6 | CG102-22P-180L-04F CF102-22P-180L-04F | 338 342 | 154 |
| 67 | 81 | 3125 | 1.45 | 21.87 | 30.6 | 23.2 | | | |
| 79 | 95 | 2675 | 1.70 | 18.71 | 28.5 | 23.8 | | | |
| 91 | 110 | 2310 | 1.95 | 16.16 | 26.9 | 24.3 | | | |
| 100 | 121 | 2100 | 1.30 | 14.69 | 26.2 | 23.5 | | | |
| 108 | 130 | 1953 | 2.35 | 13.67 | 25.1 | 24.7 | | | |
| 116 | 140 | 1815 | 1.50 | 12.70 | 24.6 | 24.0 | | | |
| 132 | 159 | 1594 | 2.85 | 11.15 | 23.1 | 25.2 | | | |
| 135 | 163 | 1553 | 1.75 | 10.86 | 23.1 | 24.5 | | | |
| 157 | 189 | 1341 | 2.05 | 9.38 | 21.8 | 24.9 | | | |
| 185 | 224 | 1134 | 2.40 | 7.93 | 20.4 | 25.2 | | | |
| 227 | 274 | 925 | 2.95 | 6.47 | 18.8 | 25.6 | | | |

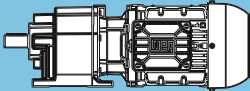
Legend see page 29

| P _N = 22 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 22 kW | | 26 kW | | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | |
| 66 | 80 | 3173 | 0.95 | 22.20 | 21.6 | 25.3 | CG092-22P-180L-04F CF092-22P-180L-04F | 299 297 | 150 |
| 78 | 94 | 2700 | 1.15 | 18.89 | 24.8 | 26.0 | | | |
| 91 | 110 | 2298 | 1.35 | 16.08 | 24.7 | 26.6 | | | |
| 106 | 128 | 1982 | 1.55 | 13.87 | 23.1 | 27.1 | | | |
| 116 | 140 | 1810 | 1.05 | 12.66 | 22.6 | 26.4 | | | |
| 126 | 153 | 1663 | 1.80 | 11.63 | 21.5 | 27.5 | | | |
| 136 | 165 | 1540 | 1.20 | 10.77 | 21.1 | 26.9 | | | |
| 155 | 188 | 1352 | 2.10 | 9.46 | 19.7 | 28.0 | | | |
| 160 | 194 | 1310 | 1.40 | 9.17 | 19.7 | 27.4 | | | |
| 186 | 224 | 1130 | 1.65 | 7.91 | 18.5 | 27.7 | | | |
| 199 | 240 | 1057 | 2.50 | 7.40 | 17.8 | 28.4 | | | |
| 222 | 268 | 948 | 1.95 | 6.63 | 17.2 | 28.1 | | | |
| 272 | 329 | 771 | 2.40 | 5.39 | 15.8 | 28.4 | | | |
| 142 | 171 | 1482 | 0.80 | 10.37 | 17.5 | 18.8 | CG082-22P-180L-04F CF082-22P-180L-04F | 247 251 | 148 |
| 166 | 200 | 1268 | 0.90 | 8.87 | 16.1 | 19.9 | | | |
| 167 | 201 | 1261 | 0.85 | 8.83 | 16.3 | 19.4 | | | |
| 199 | 240 | 1058 | 0.95 | 7.40 | 15.1 | 19.9 | | | |
| 236 | 284 | 892 | 1.10 | 6.24 | 14.1 | 20.3 | | | |
| 287 | 347 | 731 | 1.25 | 5.12 | 13.0 | 20.7 | | | |



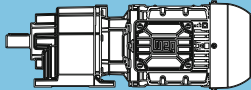
Legend see page 29

| P _N = 30 kW | | | | | | | | IE3 | |
|--|--|----------------------|----------------|--------|-----------------------|-----------------------|--|------------|--------------------------------|
| 50 Hz 30 kW n ₅₀ min ⁻¹ | 60 Hz 36 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| | | | | | F _{rN} kN | F _{aN} kN | | | |
| 13 | 16 | 21331 | 0.85 | 110.19 | 102.5 | 21.1 | CG163-22P-200L-04E CF163-22P-200L-04E | 880 903 | 166 |
| 15 | 18 | 18824 | 1.00 | 97.24 | 110.9 | 23.4 | | | |
| 16 | 19 | 17699 | 1.05 | 91.43 | 114.1 | 24.4 | | | |
| 17 | 21 | 16605 | 1.10 | 85.78 | 117.0 | 25.4 | | | |
| 19 | 23 | 14760 | 1.25 | 76.25 | 121.4 | 27.1 | | | |
| 20 | 24 | 14261 | 1.30 | 73.67 | 122.4 | 27.5 | | | |
| 23 | 27 | 12687 | 1.45 | 65.54 | 125.5 | 29.0 | | | |
| 24 | 29 | 11865 | 1.55 | 61.29 | 126.9 | 29.7 | | | |
| 26 | 31 | 10979 | 1.65 | 56.72 | 128.3 | 30.5 | | | |
| 29 | 35 | 9845 | 1.85 | 50.86 | 129.9 | 31.6 | | | |
| 35 | 42 | 8210 | 2.20 | 42.41 | 132.0 | 33.0 | | | |
| 41 | 49 | 7057 | 2.60 | 36.45 | 133.1 | 34.1 | | | |
| 47 | 56 | 6107 | 2.90 | 31.55 | 134.0 | 35.0 | | | |
| 45 | 54 | 6388 | 2.20 | 33.00 | 133.7 | 34.7 | CG162-22P-200L-04E CF162-22P-200L-04E | 855 878 | 166 |
| 84 | 101 | 3426 | 2.20 | 17.70 | 135.7 | 37.0 | | | |
| 18 | 21 | 16162 | 0.85 | 83.49 | 88.0 | 11.3 | CG143-22P-200L-04E CF143-22P-200L-04E | 651 669 | 162 |
| 20 | 24 | 14181 | 0.95 | 73.25 | 93.9 | 13.3 | | | |
| 22 | 26 | 13300 | 1.00 | 68.70 | 96.2 | 14.2 | | | |
| 23 | 28 | 12387 | 1.05 | 63.99 | 98.3 | 15.1 | | | |
| 26 | 32 | 10932 | 1.20 | 56.47 | 101.4 | 16.5 | | | |
| 27 | 32 | 10700 | 1.25 | 55.27 | 101.8 | 16.8 | | | |
| 31 | 37 | 9282 | 1.45 | 47.95 | 104.3 | 18.2 | | | |
| 32 | 39 | 8849 | 1.50 | 45.71 | 104.9 | 18.6 | | | |
| 36 | 43 | 7923 | 1.65 | 40.93 | 106.2 | 19.6 | | | |
| 39 | 47 | 7282 | 1.80 | 37.61 | 107.1 | 20.2 | | | |
| 48 | 58 | 5985 | 2.15 | 30.92 | 108.5 | 21.5 | | | |
| 56 | 68 | 5082 | 2.40 | 26.25 | 109.3 | 22.4 | | | |
| 66 | 79 | 4338 | 2.70 | 22.41 | 109.9 | 23.2 | | | |
| 53 | 64 | 5405 | 2.20 | 27.92 | 109.0 | 22.1 | CG142-22P-200L-04E CF142-22P-200L-04E | 637 655 | 162 |
| 60 | 72 | 4768 | 2.75 | 24.63 | 109.5 | 22.7 | | | |
| 93 | 112 | 3082 | 2.20 | 15.92 | 110.6 | 23.7 | | | |
| 105 | 127 | 2719 | 3.00 | 14.05 | 110.8 | 24.2 | | | |
| 30 | 36 | 9654 | 0.85 | 49.87 | 56.1 | 18.5 | CG133-22P-200L-04E CF133-22P-200L-04E | 504 506 | 158 |
| 33 | 40 | 8679 | 0.95 | 44.83 | 60.2 | 19.6 | | | |
| 35 | 42 | 8163 | 1.00 | 42.17 | 62.2 | 20.2 | | | |
| 43 | 52 | 6661 | 1.25 | 34.41 | 66.9 | 21.9 | | | |
| 53 | 64 | 5404 | 1.50 | 27.92 | 69.9 | 23.3 | | | |
| 66 | 80 | 4315 | 1.90 | 22.29 | 71.9 | 24.6 | | | |
| 64 | 78 | 4446 | 1.80 | 22.97 | 71.7 | 24.4 | CG132-22P-200L-04E CF132-22P-200L-04E | 495 497 | 158 |
| 74 | 89 | 3884 | 2.10 | 20.06 | 72.6 | 25.1 | | | |
| 85 | 103 | 3355 | 2.40 | 17.33 | 73.3 | 25.7 | | | |
| 103 | 124 | 2774 | 2.90 | 14.33 | 72.1 | 26.3 | | | |
| 113 | 136 | 2531 | 1.95 | 13.08 | 69.3 | 25.9 | | | |
| 130 | 156 | 2211 | 2.25 | 11.42 | 68.1 | 26.4 | | | |
| 150 | 180 | 1910 | 2.60 | 9.87 | 66.8 | 26.8 | | | |
| 79 | 95 | 3622 | 1.25 | 18.71 | 29.9 | 22.6 | CG102-22P-200L-04E CF102-22P-200L-04E | 396 400 | 154 |
| 92 | 110 | 3129 | 1.45 | 16.16 | 28.0 | 23.2 | | | |
| 108 | 130 | 2646 | 1.75 | 13.67 | 26.1 | 23.8 | | | |
| 133 | 160 | 2159 | 2.10 | 11.15 | 23.9 | 24.5 | | | |
| 136 | 164 | 2103 | 1.30 | 10.86 | 24.0 | 23.5 | | | |
| 158 | 190 | 1817 | 1.50 | 9.38 | 22.5 | 24.0 | | | |
| 164 | 197 | 1752 | 2.60 | 9.05 | 21.9 | 25.0 | | | |
| 187 | 224 | 1536 | 1.80 | 7.93 | 21.0 | 24.5 | | | |
| 229 | 275 | 1253 | 2.20 | 6.47 | 19.3 | 25.0 | | | |
| 282 | 339 | 1017 | 2.70 | 5.25 | 17.8 | 25.4 | | | |
| 92 | 111 | 3112 | 1.00 | 16.08 | 22.1 | 25.4 | CG092-22P-200L-04E CF092-22P-200L-04E | 357 355 | 150 |
| 107 | 128 | 2685 | 1.15 | 13.87 | 24.3 | 26.0 | | | |
| 127 | 153 | 2252 | 1.35 | 11.63 | 22.4 | 26.7 | | | |
| 156 | 188 | 1831 | 1.55 | 9.46 | 20.5 | 27.3 | | | |
| 161 | 194 | 1775 | 1.05 | 9.17 | 20.5 | 26.4 | | | |
| 187 | 225 | 1531 | 1.20 | 7.91 | 19.2 | 26.9 | | | |
| 200 | 241 | 1432 | 1.85 | 7.40 | 18.4 | 27.9 | | | |
| 223 | 268 | 1284 | 1.45 | 6.63 | 17.8 | 27.4 | | | |
| 274 | 330 | 1044 | 1.75 | 5.39 | 16.3 | 27.9 | | | |
| 351 | 422 | 816 | 2.25 | 4.22 | 14.8 | 28.4 | | | |

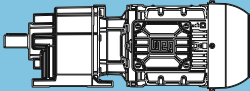
| P _N = 37 kW | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|------------|--------------------------------|--|------------|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page | | | |
| 37 kW | | 44 kW | | | F _{rN} kN | F _{aN} kN | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | | | | | | | |
| 15 | 18 | 23217 | 0.80 | 97.24 | 94.9 | 19.4 | CG163-22P-200L-04F CF163-22P-200L-04F | 907 930 | 166 | | | |
| 16 | 19 | 21829 | 0.85 | 91.43 | 100.6 | 20.7 | | | | | | |
| 17 | 21 | 20479 | 0.90 | 85.78 | 105.5 | 21.9 | | | | | | |
| 19 | 23 | 18204 | 1.00 | 76.25 | 112.7 | 24.0 | | | | | | |
| 20 | 24 | 17588 | 1.05 | 73.67 | 114.4 | 24.5 | | | | | | |
| 23 | 27 | 15647 | 1.20 | 65.54 | 119.4 | 26.3 | | | | | | |
| 24 | 29 | 14634 | 1.25 | 61.29 | 121.6 | 27.2 | | | | | | |
| 26 | 31 | 13541 | 1.35 | 56.72 | 123.9 | 28.2 | | | | | | |
| 29 | 35 | 12142 | 1.50 | 50.86 | 126.4 | 29.5 | | | | | | |
| 35 | 42 | 10126 | 1.80 | 42.41 | 129.6 | 31.3 | | | | | | |
| 41 | 49 | 8703 | 2.10 | 36.45 | 131.4 | 32.6 | CG162-22P-200L-04F CF162-22P-200L-04F | 882 905 | 166 | | | |
| 47 | 56 | 7532 | 2.35 | 31.55 | 132.7 | 33.7 | | | | | | |
| 45 | 54 | 7879 | 1.80 | 33.00 | 132.3 | 33.3 | | | | | | |
| 59 | 71 | 6005 | 3.00 | 25.15 | 134.1 | 35.0 | | | | | | |
| 84 | 101 | 4225 | 1.80 | 17.70 | 135.3 | 36.1 | | | | | | |
| 22 | 26 | 16403 | 0.80 | 68.70 | 87.2 | 11.1 | | | | CG143-22P-200L-04F CF143-22P-200L-04F | 678 696 | 162 |
| 23 | 28 | 15278 | 0.90 | 63.99 | 90.8 | 12.2 | | | | | | |
| 26 | 32 | 13483 | 1.00 | 56.47 | 95.7 | 14.0 | | | | | | |
| 27 | 32 | 13197 | 1.00 | 55.27 | 96.4 | 14.3 | | | | | | |
| 31 | 37 | 11447 | 1.15 | 47.95 | 100.3 | 16.0 | | | | | | |
| 32 | 39 | 10914 | 1.20 | 45.71 | 101.4 | 16.6 | | | | | | |
| 36 | 44 | 9771 | 1.35 | 40.93 | 103.5 | 17.7 | | | | | | |
| 39 | 47 | 8981 | 1.45 | 37.61 | 104.7 | 18.5 | | | | | | |
| 48 | 58 | 7382 | 1.75 | 30.92 | 106.9 | 20.1 | | | | | | |
| 56 | 68 | 6268 | 1.95 | 26.25 | 108.2 | 21.2 | | | | | | |
| 66 | 80 | 5350 | 2.20 | 22.41 | 109.1 | 22.1 | CG142-22P-200L-04F CF142-22P-200L-04F | 664 682 | 162 | | | |
| 53 | 64 | 6667 | 1.80 | 27.92 | 107.8 | 20.8 | | | | | | |
| 60 | 72 | 5881 | 2.25 | 24.63 | 108.6 | 21.6 | | | | | | |
| 70 | 84 | 5050 | 2.60 | 21.15 | 109.3 | 22.4 | | | | | | |
| 93 | 112 | 3802 | 1.80 | 15.92 | 110.2 | 22.8 | | | | | | |
| 105 | 127 | 3353 | 2.45 | 14.05 | 108.7 | 23.4 | | | | | | |
| 123 | 148 | 2880 | 2.80 | 12.06 | 105.7 | 24.0 | | | | | | |
| 35 | 42 | 10068 | 0.80 | 42.17 | 54.1 | 18.0 | | | | CG133-22P-200L-04F CF133-22P-200L-04F | 531 533 | 158 |
| 43 | 52 | 8215 | 1.00 | 34.41 | 62.0 | 20.1 | | | | | | |
| 53 | 64 | 6666 | 1.25 | 27.92 | 66.2 | 21.9 | | | | | | |
| 66 | 80 | 5321 | 1.55 | 22.29 | 68.1 | 23.4 | | | | | | |
| 64 | 78 | 5483 | 1.50 | 22.97 | 68.0 | 23.2 | CG132-22P-200L-04F CF132-22P-200L-04F | 522 524 | 158 | | | |
| 74 | 89 | 4790 | 1.70 | 20.06 | 68.2 | 24.0 | | | | | | |
| 85 | 103 | 4137 | 1.95 | 17.33 | 68.4 | 24.8 | | | | | | |
| 103 | 124 | 3422 | 2.35 | 14.33 | 67.8 | 25.6 | | | | | | |
| 113 | 136 | 3122 | 1.60 | 13.08 | 65.0 | 25.1 | | | | | | |
| 125 | 151 | 2816 | 2.85 | 11.79 | 66.8 | 26.3 | | | | | | |
| 130 | 156 | 2727 | 1.85 | 11.42 | 64.3 | 25.7 | | | | | | |
| 150 | 181 | 2356 | 2.10 | 9.87 | 63.5 | 26.2 | | | | | | |
| 181 | 218 | 1948 | 2.55 | 8.16 | 62.1 | 26.8 | | | | | | |
| 79 | 95 | 4468 | 1.05 | 18.71 | 31.2 | 21.5 | CG102-22P-200L-04F CF102-22P-200L-04F | 423 427 | 154 | | | |
| 92 | 110 | 3859 | 1.20 | 16.16 | 29.1 | 22.3 | | | | | | |
| 108 | 130 | 3263 | 1.40 | 13.67 | 27.0 | 23.1 | | | | | | |
| 133 | 160 | 2663 | 1.70 | 11.15 | 24.6 | 23.8 | | | | | | |
| 136 | 164 | 2594 | 1.05 | 10.86 | 24.8 | 22.7 | | | | | | |
| 158 | 190 | 2240 | 1.25 | 9.38 | 23.2 | 23.3 | | | | | | |
| 164 | 197 | 2160 | 2.10 | 9.05 | 22.5 | 24.5 | | | | | | |
| 187 | 225 | 1894 | 1.45 | 7.93 | 21.6 | 23.9 | | | | | | |
| 205 | 247 | 1725 | 2.65 | 7.22 | 20.4 | 25.0 | | | | | | |
| 229 | 275 | 1546 | 1.75 | 6.47 | 19.8 | 24.5 | | | | | | |
| 282 | 339 | 1254 | 2.20 | 5.25 | 18.2 | 25.0 | | | | | | |
| 353 | 425 | 1001 | 2.70 | 4.19 | 16.6 | 25.5 | | | | | | |



Legend see page 29

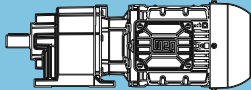
| P _N = 45 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|--|--------------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 45 kW | 55 kW | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | |
| 19 | 23 | 22140 | 0.85 | 76.25 | 99.4 | 20.4 | CG163-22P-225S/M-04F CF163-22P-225S/M-04F | 1044 1067 | 166 |
| 20 | 24 | 21391 | 0.85 | 73.67 | 102.2 | 21.1 | | | |
| 23 | 27 | 19030 | 0.95 | 65.54 | 110.3 | 23.2 | | | |
| 24 | 29 | 17798 | 1.05 | 61.29 | 113.9 | 24.3 | | | |
| 26 | 31 | 16469 | 1.10 | 56.72 | 117.4 | 25.5 | | | |
| 29 | 35 | 14767 | 1.25 | 50.86 | 121.3 | 27.1 | | | |
| 35 | 42 | 12315 | 1.50 | 42.41 | 126.1 | 29.3 | | | |
| 41 | 49 | 10585 | 1.75 | 36.45 | 128.9 | 30.9 | | | |
| 47 | 56 | 9161 | 1.95 | 31.55 | 130.8 | 32.2 | | | |
| 45 | 54 | 9582 | 1.50 | 33.00 | 130.3 | 31.8 | CG162-22P-225S/M-04F CF162-22P-225S/M-04F | 1019 1042 | 166 |
| 59 | 71 | 7304 | 2.50 | 25.15 | 132.9 | 33.9 | | | |
| 70 | 84 | 6133 | 2.95 | 21.12 | 134.0 | 34.9 | | | |
| 84 | 101 | 5138 | 1.50 | 17.70 | 134.7 | 35.2 | | | |
| 110 | 132 | 3917 | 2.60 | 13.49 | 135.4 | 36.5 | | | |
| 26 | 32 | 16398 | 0.80 | 56.47 | 87.2 | 11.1 | CG143-22P-225S/M-04F CF143-22P-225S/M-04F | 815 833 | 162 |
| 27 | 32 | 16050 | 0.85 | 55.27 | 88.4 | 11.4 | | | |
| 31 | 37 | 13923 | 0.95 | 47.95 | 94.6 | 13.5 | | | |
| 32 | 39 | 13273 | 1.00 | 45.71 | 96.3 | 14.2 | | | |
| 36 | 44 | 11884 | 1.10 | 40.93 | 99.4 | 15.6 | | | |
| 39 | 47 | 10922 | 1.20 | 37.61 | 101.4 | 16.6 | | | |
| 48 | 58 | 8978 | 1.45 | 30.92 | 104.7 | 18.5 | | | |
| 56 | 68 | 7623 | 1.60 | 26.25 | 106.6 | 19.9 | | | |
| 66 | 80 | 6506 | 1.80 | 22.41 | 107.9 | 21.0 | | | |
| 53 | 64 | 8108 | 1.50 | 27.92 | 106.0 | 19.4 | | | |
| 60 | 72 | 7152 | 1.85 | 24.63 | 107.2 | 20.3 | | | |
| 70 | 84 | 6142 | 2.15 | 21.15 | 108.3 | 21.3 | | | |
| 84 | 101 | 5111 | 2.55 | 17.60 | 109.3 | 22.4 | | | |
| 93 | 112 | 4624 | 1.50 | 15.92 | 105.4 | 21.8 | | | |
| 105 | 127 | 4078 | 2.00 | 14.05 | 104.1 | 22.5 | | | |
| 123 | 148 | 3503 | 2.30 | 12.06 | 101.7 | 23.2 | | | |
| 43 | 52 | 9992 | 0.85 | 34.41 | 51.2 | 18.1 | CG133-22P-225S/M-04F CF133-22P-225S/M-04F | 668 670 | 158 |
| 53 | 64 | 8107 | 1.00 | 27.92 | 56.6 | 20.2 | | | |
| 66 | 80 | 6472 | 1.25 | 22.29 | 60.5 | 22.1 | | | |
| 64 | 78 | 6669 | 1.20 | 22.97 | 60.1 | 21.9 | CG132-22P-225S/M-04F CF132-22P-225S/M-04F | 659 661 | 158 |
| 74 | 89 | 5825 | 1.40 | 20.06 | 61.3 | 22.8 | | | |
| 85 | 103 | 5032 | 1.60 | 17.33 | 62.5 | 23.8 | | | |
| 103 | 124 | 4161 | 1.95 | 14.33 | 62.9 | 24.7 | | | |
| 113 | 136 | 3797 | 1.30 | 13.08 | 59.9 | 24.2 | | | |
| 125 | 151 | 3424 | 2.35 | 11.79 | 62.7 | 25.6 | | | |
| 130 | 156 | 3317 | 1.50 | 11.42 | 59.9 | 24.8 | | | |
| 150 | 181 | 2865 | 1.75 | 9.87 | 59.7 | 25.5 | | | |
| 153 | 184 | 2815 | 2.85 | 9.69 | 61.7 | 26.3 | | | |
| 180 | 217 | 2390 | 3.35 | 8.23 | 60.7 | 26.8 | | | |
| 181 | 218 | 2369 | 2.10 | 8.16 | 58.9 | 26.2 | | | |
| 211 | 254 | 2040 | 3.95 | 7.03 | 59.5 | 27.2 | | | |
| 220 | 265 | 1950 | 2.55 | 6.71 | 57.7 | 26.8 | | | |
| 268 | 323 | 1603 | 3.10 | 5.52 | 56.1 | 27.3 | | | |
| 316 | 380 | 1361 | 3.65 | 4.69 | 54.6 | 27.6 | | | |
| 370 | 446 | 1161 | 4.30 | 4.00 | 53.1 | 27.9 | | | |

Legend see page 29

| P_N = 55 kW | | | | | | | | IE3 | |
|--|--|----------------------------|----------------------|----------|-----------------------------|-----------------------------|--|----------------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | |  | m kg | Dimension sheet see page |
| 55 kW | | 66 kW | | | F_{rN} kN | F_{aN} kN | | | |
| n₅₀ min ⁻¹ | n₆₀ min ⁻¹ | M₂ Nm | f_B | | | | | | |
| 23 | 27 | 23259 | 0.80 | 65.54 | 94.7 | 19.4 | CG163-22P-225S/M-04G CF163-22P-225S/M-04G | 1092 1115 | 166 |
| 24 | 29 | 21753 | 0.85 | 61.29 | 100.9 | 20.7 | | | |
| 26 | 31 | 20128 | 0.90 | 56.72 | 106.7 | 22.2 | | | |
| 29 | 35 | 18049 | 1.00 | 50.86 | 113.2 | 24.1 | | | |
| 35 | 42 | 15052 | 1.20 | 42.41 | 120.7 | 26.8 | | | |
| 41 | 49 | 12938 | 1.40 | 36.45 | 125.0 | 28.7 | | | |
| 47 | 57 | 11196 | 1.60 | 31.55 | 128.0 | 30.3 | | | |
| 59 | 71 | 8927 | 2.05 | 25.15 | 131.1 | 32.4 | CG162-22P-225S/M-04G CF162-22P-225S/M-04G | 1067 1090 | 166 |
| 70 | 85 | 7495 | 2.45 | 21.12 | 132.7 | 33.7 | | | |
| 85 | 103 | 6168 | 2.95 | 17.38 | 133.9 | 34.9 | | | |
| 110 | 132 | 4787 | 2.10 | 13.49 | 134.9 | 35.6 | | | |
| 131 | 158 | 4019 | 2.85 | 11.33 | 135.4 | 36.4 | | | |
| 31 | 37 | 17017 | 0.80 | 47.95 | 85.1 | 10.4 | CG143-22P-225S/M-04G CF143-22P-225S/M-04G | 863 881 | 162 |
| 32 | 39 | 16223 | 0.85 | 45.71 | 87.8 | 11.2 | | | |
| 36 | 44 | 14525 | 0.90 | 40.93 | 93.0 | 12.9 | | | |
| 39 | 47 | 13349 | 1.00 | 37.61 | 96.1 | 14.1 | | | |
| 48 | 58 | 10973 | 1.20 | 30.92 | 101.3 | 16.5 | | | |
| 56 | 68 | 9317 | 1.30 | 26.25 | 103.5 | 18.2 | | | |
| 66 | 80 | 7952 | 1.50 | 22.41 | 103.8 | 19.5 | | | |
| 60 | 72 | 8741 | 1.50 | 24.63 | 103.6 | 18.7 | CG142-22P-225S/M-04G CF142-22P-225S/M-04G | 849 867 | 162 |
| 70 | 84 | 7507 | 1.75 | 21.15 | 103.7 | 20.0 | | | |
| 84 | 101 | 6246 | 2.10 | 17.60 | 103.2 | 21.2 | | | |
| 101 | 122 | 5183 | 2.55 | 14.60 | 101.9 | 22.3 | | | |
| 105 | 127 | 4985 | 1.65 | 14.05 | 98.2 | 21.4 | | | |
| 123 | 148 | 4281 | 1.90 | 12.06 | 96.7 | 22.2 | | | |
| 147 | 178 | 3562 | 2.60 | 10.04 | 94.9 | 23.1 | | | |
| 53 | 64 | 9908 | 0.85 | 27.92 | 44.6 | 18.2 | CG133-22P-225S/M-04G CF133-22P-225S/M-04G | 716 718 | 158 |
| 66 | 80 | 7910 | 1.05 | 22.29 | 50.9 | 20.5 | | | |
| 74 | 89 | 7120 | 1.15 | 20.06 | 52.6 | 21.4 | CG132-22P-225S/M-04G CF132-22P-225S/M-04G | 707 709 | 158 |
| 85 | 103 | 6150 | 1.35 | 17.33 | 55.0 | 22.5 | | | |
| 103 | 125 | 5086 | 1.60 | 14.33 | 56.7 | 23.7 | | | |
| 125 | 151 | 4185 | 1.95 | 11.79 | 57.6 | 24.7 | | | |
| 130 | 156 | 4054 | 1.25 | 11.42 | 54.4 | 23.8 | | | |
| 150 | 181 | 3502 | 1.45 | 9.87 | 55.0 | 24.6 | | | |
| 153 | 184 | 3440 | 2.35 | 9.69 | 57.6 | 25.6 | | | |
| 180 | 217 | 2921 | 2.75 | 8.23 | 57.2 | 26.2 | | | |
| 181 | 219 | 2896 | 1.75 | 8.16 | 55.0 | 25.4 | | | |
| 211 | 254 | 2493 | 3.25 | 7.03 | 56.5 | 26.7 | | | |
| 220 | 266 | 2383 | 2.10 | 6.71 | 54.5 | 26.2 | | | |
| 268 | 323 | 1959 | 2.55 | 5.52 | 53.5 | 26.8 | | | |
| 316 | 381 | 1663 | 3.00 | 4.69 | 52.4 | 27.2 | | | |
| 370 | 446 | 1420 | 3.50 | 4.00 | 51.2 | 27.5 | | | |



Legend see page 29

| P _N = 75 kW | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------|----------------|-------|-----------------|-----------------|--|--------------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | |  | m kg | Dimension sheet see page |
| 75 kW | 90 kW | M ₂ | f _B | i | F _{rN} | F _{aN} | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | Nm | | | kN | kN | | | |
| 35 | 42 | 20525 | 0.90 | 42.41 | 105.4 | 21.9 | CG163-22P-250S/M-04F CF163-22P-250S/M-04F | 1196 | 166 |
| 41 | 49 | 17642 | 1.05 | 36.45 | 114.3 | 24.5 | | 1219 | |
| 47 | 56 | 15268 | 1.15 | 31.55 | 120.2 | 26.6 | | | |
| 59 | 71 | 12173 | 1.50 | 25.15 | 126.4 | 29.4 | CG162-22P-250S/M-04F CF162-22P-250S/M-04F | 1171 1194 | 166 |
| 70 | 84 | 10221 | 1.80 | 21.12 | 129.4 | 31.2 | | | |
| 85 | 102 | 8411 | 2.15 | 17.38 | 131.7 | 32.9 | | | |
| 100 | 120 | 7156 | 2.55 | 14.79 | 133.0 | 34.0 | | | |
| 110 | 132 | 6528 | 1.55 | 13.49 | 130.7 | 33.8 | | | |
| 116 | 139 | 6182 | 2.95 | 12.77 | 133.9 | 34.9 | | | |
| 131 | 157 | 5481 | 2.10 | 11.33 | 128.9 | 34.8 | | | |
| 159 | 191 | 4510 | 2.50 | 9.32 | 126.1 | 35.8 | | | |
| 187 | 225 | 3837 | 2.95 | 7.93 | 123.2 | 36.5 | | | |

Legend see page 29

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|-----|-----|-----|---|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | - | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | - | - | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | - | - | - | - | - | - | - | - | | |
| C032 | 42.88 | 184 | 33 | 2573/60 | 6000 | | | | | | | | | | | | |
| | 38.95 | 168 | 36 | 5063/130 | 6000 | | | | | | | | | | | | |
| | 34.88 | 200 | 40 | 279/8 | 6000 | | | | | | | | | | | | |
| | 31.67 | 200 | 44 | 1647/52 | 6000 | | | | | | | | | | | | |
| | 27.71 | 200 | 51 | 1829/66 | 6000 | | | | | | | | | | | | |
| | 25.17 | 200 | 56 | 3599/143 | 6000 | | | | | | | | | | | | |
| | 24.03 | 103 | 58 | 913/38 | 6000 | | | | | | | | | | | | |
| | 21.40 | 200 | 65 | 899/42 | 6000 | | | | | | | | | | | | |
| | 19.54 | 128 | 72 | 1485/76 | 6000 | | | | | | | | | | | | |
| | 19.44 | 200 | 72 | 1769/91 | 6000 | | | | | | | | | | | | |
| | 17.09 | 200 | 82 | 1333/78 | 6000 | | | | | | | | | | | | |
| | 15.53 | 130 | 90 | 295/19 | 6000 | | | | | | | | | | | | |
| | 15.52 | 200 | 90 | 2623/169 | 6000 | | | | | | | | | | | | |
| | 12.92 | 194 | 108 | 155/12 | 6000 | | | | | | | | | | | | |
| | 11.99 | 130 | 117 | 1595/133 | 6000 | | | | | | | | | | | | |
| | 11.73 | 198 | 119 | 305/26 | 6000 | | | | | | | | | | | | |
| | 9.82 | 180 | 143 | 589/60 | 6000 | | | | | | | | | | | | |
| | 9.57 | 130 | 146 | 2365/247 | 6000 | | | | | | | | | | | | |
| | 8.92 | 183 | 157 | 1159/130 | 6000 | | | | | | | | | | | | |
| | 7.64 | 169 | 183 | 527/69 | 6000 | | | | | | | | | | | | |
| | 7.24 | 130 | 193 | 275/38 | 6000 | | | | | | | | | | | | |
| 6.94 | 171 | 202 | 2074/299 | 6000 | | | | | | | | | | | | | |
| 5.96 | 158 | 235 | 155/26 | 6000 | | | | | | | | | | | | | |
| 5.50 | 130 | 255 | 11/2 | 6000 | | | | | | | | | | | | | |
| 5.41 | 159 | 259 | 915/169 | 6000 | | | | | | | | | | | | | |
| 4.28 | 130 | 327 | 1870/437 | 6000 | | | | | | | | | | | | | |
| 3.34 | 130 | 419 | 825/247 | 6000 | | | | | | | | | | | | | |
| C033 | 286.32 | 200 | 4.9 | 20615/72 | 6000 | | | | | | | | | | | | |
| | 260.03 | 200 | 5.4 | 40565/156 | 6000 | | | | | | | | | | | | |
| | 223.03 | 200 | 6.3 | 8029/36 | 6000 | | | | | | | | | | | | |
| | 202.55 | 200 | 6.9 | 15799/78 | 6000 | | | | | | | | | | | | |
| | 180.83 | 200 | 7.7 | 1085/6 | 6000 | | | | | | | | | | | | |
| | 164.23 | 200 | 8.5 | 2135/13 | 6000 | | | | | | | | | | | | |
| | 142.47 | 200 | 9.8 | 14105/99 | 6000 | | | | | | | | | | | | |
| | 129.39 | 200 | 11 | 4270/33 | 6000 | | | | | | | | | | | | |
| | 109.79 | 200 | 13 | 2635/24 | 6000 | | | | | | | | | | | | |
| | 99.71 | 200 | 14 | 5185/52 | 6000 | | | | | | | | | | | | |
| | 85.78 | 200 | 16 | 40145/468 | 6000 | | | | | | | | | | | | |
| | 77.90 | 200 | 18 | 78995/1014 | 6000 | | | | | | | | | | | | |
| | 64.05 | 200 | 22 | 18445/288 | 6000 | | | | | | | | | | | | |
| | 58.17 | 200 | 24 | 36295/624 | 6000 | | | | | | | | | | | | |
| | 55.25 | 200 | 25 | 11935/216 | 6000 | | | | | | | | | | | | |
| | 50.18 | 200 | 28 | 23485/468 | 6000 | | | | | | | | | | | | |
| | 48.22 | 200 | 29 | 434/9 | 6000 | | | | | | | | | | | | |
| | 43.79 | 200 | 32 | 1708/39 | 6000 | | | | | | | | | | | | |
| | 35.38 | 200 | 40 | 3255/92 | 6000 | | | | | | | | | | | | |
| | 32.13 | 200 | 44 | 19215/598 | 6000 | | | | | | | | | | | | |

Legend see page 99

| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C032 | 42.88 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 38.95 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 34.88 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 31.67 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 27.71 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 25.17 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 24.03 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 21.40 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 19.54 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 19.44 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 17.09 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 15.53 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 15.52 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 12.92 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 11.99 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 11.73 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 9.82 | 4200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 9.57 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 8.92 | 4200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 7.64 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 7.24 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 6.94 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 5.96 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 5.50 | 4200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 5.41 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 4.28 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 3.34 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| C033 | 286.32 | 5000 | | | | | | | | | | | | | - | | | | | | | | | | |
| | 260.03 | 5000 | | | | | | | | | | | | | - | | | | | | | | | | |
| | 223.03 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 202.55 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 180.83 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 164.23 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 142.47 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 129.39 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 109.79 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 99.71 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 85.78 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 77.90 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 64.05 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 58.17 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 55.25 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 50.18 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 48.22 | 4200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 43.79 | 4200 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 35.38 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 32.13 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | |

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C

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|------|------|-----|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | - | - | - | - | - | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | - | - | - | - | - | - | - | | |
| C052 | 58.85 | 250 | 24 | 1177/20 | 6000 | | | | | | | | | | | | | |
| | 53.50 | 227 | 26 | 107/2 | 6000 | | | | | | | | | | | | | |
| | 48.13 | 337 | 29 | 385/8 | 6000 | | | | | | | | | | | | | |
| | 43.75 | 307 | 32 | 175/4 | 6000 | | | | | | | | | | | | | |
| | 38.00 | 400 | 37 | 38/1 | 6000 | | | | | | | | | | | | | |
| | 35.67 | 151 | 39 | 107/3 | 6000 | | | | | | | | | | | | | |
| | 34.55 | 400 | 41 | 380/11 | 6000 | | | | | | | | | | | | | |
| | 29.46 | 400 | 48 | 825/28 | 6000 | | | | | | | | | | | | | |
| | 29.17 | 204 | 48 | 175/6 | 6000 | | | | | | | | | | | | | |
| | 26.79 | 400 | 52 | 375/14 | 6000 | | | | | | | | | | | | | |
| | 24.12 | 400 | 58 | 627/26 | 6000 | | | | | | | | | | | | | |
| | 23.03 | 267 | 61 | 760/33 | 6000 | | | | | | | | | | | | | |
| | 21.92 | 400 | 64 | 285/13 | 6000 | | | | | | | | | | | | | |
| | 18.56 | 400 | 75 | 297/16 | 6000 | | | | | | | | | | | | | |
| | 17.86 | 267 | 78 | 125/7 | 6000 | | | | | | | | | | | | | |
| | 16.88 | 400 | 83 | 135/8 | 6000 | | | | | | | | | | | | | |
| | 14.62 | 267 | 96 | 190/13 | 6000 | | | | | | | | | | | | | |
| | 14.03 | 400 | 100 | 561/40 | 6000 | | | | | | | | | | | | | |
| | 12.75 | 400 | 110 | 51/4 | 6000 | | | | | | | | | | | | | |
| | 11.48 | 400 | 122 | 264/23 | 6000 | | | | | | | | | | | | | |
| | 11.25 | 267 | 124 | 45/4 | 6000 | | | | | | | | | | | | | |
| | 10.43 | 400 | 134 | 240/23 | 6000 | | | | | | | | | | | | | |
| | 9.31 | 386 | 150 | 121/13 | 6000 | | | | | | | | | | | | | |
| | 8.50 | 267 | 165 | 17/2 | 6000 | | | | | | | | | | | | | |
| | 8.46 | 365 | 165 | 110/13 | 6000 | | | | | | | | | | | | | |
| | 7.79 | 347 | 180 | 187/24 | 5600 | | | | | | | | | | | | | |
| | 7.08 | 328 | 198 | 85/12 | 5600 | | | | | | | | | | | | | |
| | 6.96 | 267 | 201 | 160/23 | 6000 | | | | | | | | | | | | | |
| | 6.31 | 306 | 222 | 341/54 | 5000 | | | | | | | | | | | | | |
| | 6.09 | 299 | 230 | 341/56 | 4800 | | | | | | | | | | | | | |
| | 5.74 | 289 | 244 | 155/27 | 5000 | | | | | | | | | | | | | |
| | 5.64 | 259 | 248 | 220/39 | 6000 | | | | | | | | | | | | | |
| | 5.54 | 283 | 253 | 155/28 | 4800 | | | | | | | | | | | | | |
| 4.72 | 230 | 296 | 85/18 | 5600 | | | | | | | | | | | | | | |
| 3.83 | 200 | 366 | 310/81 | 5000 | | | | | | | | | | | | | | |
| 3.69 | 195 | 379 | 155/42 | 4800 | | | | | | | | | | | | | | |
| C053 | 328.43 | 400 | 4.3 | 2299/7 | 6000 | | | | | | | | | | | | | |
| | 298.57 | 400 | 4.7 | 2090/7 | 6000 | | | | | | | | | | | | | |
| | 267.93 | 400 | 5.2 | 3751/14 | 6000 | | | | | | | | | | | | | |
| | 243.57 | 400 | 5.7 | 1705/7 | 6000 | | | | | | | | | | | | | |
| | 213.71 | 400 | 6.6 | 1496/7 | 6000 | | | | | | | | | | | | | |
| | 194.29 | 400 | 7.2 | 1360/7 | 6000 | | | | | | | | | | | | | |
| | 165.45 | 400 | 8.5 | 8107/49 | 6000 | | | | | | | | | | | | | |
| | 150.41 | 400 | 9.3 | 7370/49 | 6000 | | | | | | | | | | | | | |
| | 132.97 | 400 | 11 | 12100/91 | 6000 | | | | | | | | | | | | | |
| | 120.88 | 400 | 12 | 11000/91 | 6000 | | | | | | | | | | | | | |
| | 101.55 | 400 | 14 | 5687/56 | 6000 | | | | | | | | | | | | | |
| | 92.32 | 400 | 15 | 2585/28 | 6000 | | | | | | | | | | | | | |
| | 77.79 | 400 | 18 | 1089/14 | 6000 | | | | | | | | | | | | | |
| | 70.71 | 400 | 20 | 495/7 | 6000 | | | | | | | | | | | | | |
| | 61.63 | 400 | 23 | 9922/161 | 6000 | | | | | | | | | | | | | |
| | 56.02 | 400 | 25 | 9020/161 | 6000 | | | | | | | | | | | | | |
| | 49.20 | 400 | 28 | 4477/91 | 6000 | | | | | | | | | | | | | |
| 44.73 | 400 | 31 | 4070/91 | 6000 | | | | | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|------|------|-----|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | - | - | - | - | - | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | - | - | - | - | - | - | - | | |
| C062 | 60.00 | 420 | 23 | 60/1 | 6000 | | | | | | | | | | | | | |
| | 55.02 | 385 | 25 | 3081/56 | 6000 | | | | | | | | | | | | | |
| | 47.55 | 600 | 29 | 6800/143 | 6000 | | | | | | | | | | | | | |
| | 43.60 | 563 | 32 | 6715/154 | 6000 | | | | | | | | | | | | | |
| | 36.92 | 600 | 38 | 480/13 | 6000 | | | | | | | | | | | | | |
| | 33.86 | 600 | 41 | 237/7 | 6000 | | | | | | | | | | | | | |
| | 33.43 | 234 | 42 | 234/7 | 6000 | | | | | | | | | | | | | |
| | 30.30 | 600 | 46 | 5120/169 | 6000 | | | | | | | | | | | | | |
| | 27.78 | 600 | 50 | 2528/91 | 6000 | | | | | | | | | | | | | |
| | 26.49 | 342 | 53 | 2040/77 | 6000 | | | | | | | | | | | | | |
| | 23.46 | 600 | 60 | 305/13 | 6000 | | | | | | | | | | | | | |
| | 21.51 | 600 | 65 | 4819/224 | 6000 | | | | | | | | | | | | | |
| | 20.57 | 377 | 68 | 144/7 | 6000 | | | | | | | | | | | | | |
| | 17.85 | 600 | 78 | 232/13 | 6000 | | | | | | | | | | | | | |
| | 16.88 | 377 | 83 | 1536/91 | 6000 | | | | | | | | | | | | | |
| | 16.36 | 600 | 86 | 2291/140 | 6000 | | | | | | | | | | | | | |
| | 14.72 | 600 | 95 | 4400/299 | 6000 | | | | | | | | | | | | | |
| | 13.49 | 600 | 104 | 4345/322 | 6000 | | | | | | | | | | | | | |
| | 13.07 | 377 | 107 | 183/14 | 6000 | | | | | | | | | | | | | |
| | 12.07 | 600 | 116 | 2040/169 | 6000 | | | | | | | | | | | | | |
| | 11.07 | 600 | 126 | 4029/364 | 6000 | | | | | | | | | | | | | |
| | 10.26 | 600 | 137 | 400/39 | 5600 | | | | | | | | | | | | | |
| | 9.94 | 377 | 141 | 348/35 | 6000 | | | | | | | | | | | | | |
| | 9.40 | 589 | 149 | 395/42 | 5600 | | | | | | | | | | | | | |
| | 8.43 | 547 | 166 | 2960/351 | 5000 | | | | | | | | | | | | | |
| | 8.20 | 377 | 171 | 1320/161 | 6000 | | | | | | | | | | | | | |
| | 8.13 | 534 | 172 | 740/91 | 4800 | | | | | | | | | | | | | |
| | 7.73 | 517 | 181 | 2923/378 | 5000 | | | | | | | | | | | | | |
| | 7.46 | 504 | 188 | 2923/392 | 4800 | | | | | | | | | | | | | |
| | 6.73 | 377 | 208 | 612/91 | 6000 | | | | | | | | | | | | | |
| | 6.69 | 469 | 209 | 2000/299 | 4400 | | | | | | | | | | | | | |
| | 6.13 | 443 | 228 | 1975/322 | 4400 | | | | | | | | | | | | | |
| | 5.71 | 371 | 245 | 40/7 | 5600 | | | | | | | | | | | | | |
| 4.70 | 325 | 298 | 296/63 | 5000 | | | | | | | | | | | | | | |
| 4.53 | 318 | 309 | 222/49 | 4800 | | | | | | | | | | | | | | |
| 3.73 | 279 | 376 | 600/161 | 4400 | | | | | | | | | | | | | | |
| C063 | 375.71 | 600 | 3.7 | 83032/221 | 6000 | | | | | | | | | | | | | |
| | 344.51 | 600 | 4.1 | 819941/2380 | 6000 | | | | | | | | | | | | | |
| | 307.24 | 600 | 4.6 | 67900/221 | 6000 | | | | | | | | | | | | | |
| | 281.73 | 600 | 5.0 | 38315/136 | 6000 | | | | | | | | | | | | | |
| | 242.60 | 600 | 5.8 | 589760/2431 | 6000 | | | | | | | | | | | | | |
| | 222.46 | 600 | 6.3 | 291194/1309 | 6000 | | | | | | | | | | | | | |
| | 188.11 | 600 | 7.4 | 291000/1547 | 6000 | | | | | | | | | | | | | |
| | 172.49 | 600 | 8.1 | 574725/3332 | 6000 | | | | | | | | | | | | | |
| | 153.96 | 600 | 9.1 | 442320/2873 | 6000 | | | | | | | | | | | | | |
| | 141.17 | 600 | 9.9 | 436791/3094 | 6000 | | | | | | | | | | | | | |
| | 118.51 | 600 | 12 | 26190/221 | 6000 | | | | | | | | | | | | | |
| | 108.67 | 600 | 13 | 206901/1904 | 6000 | | | | | | | | | | | | | |
| | 89.54 | 600 | 16 | 1164/13 | 6000 | | | | | | | | | | | | | |
| | 82.10 | 600 | 17 | 22989/280 | 6000 | | | | | | | | | | | | | |
| | 73.28 | 600 | 19 | 372480/5083 | 6000 | | | | | | | | | | | | | |
| | 67.19 | 600 | 21 | 183912/2737 | 6000 | | | | | | | | | | | | | |
| | 59.42 | 600 | 24 | 170720/2873 | 6000 | | | | | | | | | | | | | |
| | 54.49 | 600 | 26 | 84293/1547 | 6000 | | | | | | | | | | | | | |
| 49.74 | 600 | 28 | 1940/39 | 5600 | | | | | | | | | | | | | | |
| 45.61 | 600 | 31 | 7663/168 | 5600 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | | |
| C062 | 60.00 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 55.02 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 47.55 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 43.60 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 36.92 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 33.86 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 33.43 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 30.30 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 27.78 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 26.49 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 23.46 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 21.51 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 20.57 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 17.85 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 16.88 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 16.36 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 14.72 | 4500 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 13.49 | 4500 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 13.07 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 12.07 | 3900 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 11.07 | 3900 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 10.26 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 9.94 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 9.40 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 8.43 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 8.20 | 4500 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 8.13 | 3100 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 7.73 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 7.46 | 3100 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 6.73 | 3900 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 6.69 | 2800 | | | | | | | | | | | | | 2800 | | | | | | | | | | | |
| | 6.13 | 2800 | | | | | | | | | | | | | 2800 | | | | | | | | | | | |
| | 5.71 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 4.70 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 4.53 | 3100 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 3.73 | 2800 | | | | | | | | | | | | | 2800 | | | | | | | | | | | |
| C063 | 375.71 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 344.51 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 307.24 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 281.73 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 242.60 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 222.46 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 188.11 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 172.49 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 153.96 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 141.17 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 118.51 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 108.67 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 89.54 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 82.10 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 73.28 | 4500 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 67.19 | 4500 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 59.42 | 3900 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 54.49 | 3900 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 49.74 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 45.61 | 3600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |

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C

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|------|------|-----|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | I63 | I71 | I80 | I90 | I100 | I112 | I132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| C072 | 38.92 | 820 | 36 | 506/13 | 6000 | | | | | | | | | | | | | |
| | 35.41 | 820 | 40 | 5984/169 | 6000 | | | | | | | | | | | | | |
| | 30.55 | 820 | 46 | 1955/64 | 6000 | | | | | | | | | | | | | |
| | 27.79 | 820 | 50 | 1445/52 | 6000 | | | | | | | | | | | | | |
| | 23.58 | 802 | 59 | 943/40 | 6000 | | | | | | | | | | | | | |
| | 21.45 | 780 | 65 | 1394/65 | 6000 | | | | | | | | | | | | | |
| | 20.65 | 686 | 68 | 1342/65 | 6000 | | | | | | | | | | | | | |
| | 19.50 | 757 | 72 | 39/2 | 6000 | | | | | | | | | | | | | |
| | 17.74 | 736 | 79 | 408/23 | 6000 | | | | | | | | | | | | | |
| | 16.59 | 720 | 84 | 1725/104 | 6000 | | | | | | | | | | | | | |
| | 16.20 | 671 | 86 | 1037/64 | 6000 | | | | | | | | | | | | | |
| | 15.09 | 700 | 93 | 2550/169 | 6000 | | | | | | | | | | | | | |
| | 14.38 | 689 | 97 | 115/8 | 5600 | | | | | | | | | | | | | |
| | 13.08 | 670 | 107 | 170/13 | 5600 | | | | | | | | | | | | | |
| | 12.51 | 618 | 112 | 2501/200 | 6000 | | | | | | | | | | | | | |
| | 12.14 | 654 | 115 | 437/36 | 5000 | | | | | | | | | | | | | |
| | 11.71 | 647 | 120 | 1311/112 | 4800 | | | | | | | | | | | | | |
| | 11.04 | 637 | 127 | 1292/117 | 5000 | | | | | | | | | | | | | |
| | 10.65 | 630 | 131 | 969/91 | 4800 | | | | | | | | | | | | | |
| | 10.34 | 582 | 135 | 2379/230 | 6000 | | | | | | | | | | | | | |
| | 10.00 | 617 | 140 | 10/1 | 4400 | | | | | | | | | | | | | |
| 9.10 | 600 | 154 | 2720/299 | 4400 | | | | | | | | | | | | | | |
| 8.80 | 552 | 159 | 915/104 | 6000 | | | | | | | | | | | | | | |
| 7.63 | 528 | 184 | 61/8 | 5600 | | | | | | | | | | | | | | |
| 6.44 | 500 | 217 | 1159/180 | 5000 | | | | | | | | | | | | | | |
| 6.21 | 494 | 225 | 3477/560 | 4800 | | | | | | | | | | | | | | |
| 5.30 | 470 | 264 | 122/23 | 4400 | | | | | | | | | | | | | | |
| C073 | 351.33 | 820 | 4.0 | 14053/40 | 6000 | | | | | | | | | | | | | |
| | 319.60 | 820 | 4.4 | 1598/5 | 6000 | | | | | | | | | | | | | |
| | 278.44 | 820 | 5.0 | 18377/66 | 6000 | | | | | | | | | | | | | |
| | 253.30 | 820 | 5.5 | 108664/429 | 6000 | | | | | | | | | | | | | |
| | 216.20 | 820 | 6.5 | 1081/5 | 6000 | | | | | | | | | | | | | |
| | 196.68 | 820 | 7.1 | 12784/65 | 6000 | | | | | | | | | | | | | |
| | 177.39 | 820 | 7.9 | 34592/195 | 6000 | | | | | | | | | | | | | |
| | 161.38 | 820 | 8.7 | 409088/2535 | 6000 | | | | | | | | | | | | | |
| | 137.38 | 820 | 10 | 65941/480 | 6000 | | | | | | | | | | | | | |
| | 124.97 | 820 | 11 | 48739/390 | 6000 | | | | | | | | | | | | | |
| | 104.50 | 820 | 13 | 31349/300 | 6000 | | | | | | | | | | | | | |
| | 95.06 | 820 | 15 | 92684/975 | 6000 | | | | | | | | | | | | | |
| | 86.17 | 820 | 16 | 517/6 | 6000 | | | | | | | | | | | | | |
| | 78.39 | 820 | 18 | 70312/897 | 6000 | | | | | | | | | | | | | |
| | 70.68 | 820 | 20 | 18377/260 | 6000 | | | | | | | | | | | | | |
| | 64.30 | 820 | 22 | 54332/845 | 6000 | | | | | | | | | | | | | |
| | 60.06 | 820 | 23 | 1081/18 | 5600 | | | | | | | | | | | | | |
| | 54.63 | 820 | 26 | 6392/117 | 5600 | | | | | | | | | | | | | |
| | 49.38 | 820 | 28 | 39997/810 | 5000 | | | | | | | | | | | | | |
| | 47.62 | 819 | 29 | 39997/840 | 4800 | | | | | | | | | | | | | |
| | 44.92 | 794 | 31 | 236504/5265 | 5000 | | | | | | | | | | | | | |
| 43.32 | 782 | 32 | 59126/1365 | 4800 | | | | | | | | | | | | | | |
| 39.17 | 765 | 36 | 235/6 | 4400 | | | | | | | | | | | | | | |
| 35.63 | 726 | 39 | 31960/897 | 4400 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C072 | 38.92 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 35.41 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 30.55 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.79 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 23.58 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 21.45 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.65 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 19.50 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.74 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.59 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.20 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.09 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.38 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.08 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.51 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.14 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.71 | 3200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.04 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.65 | 3200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.34 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.00 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.10 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 8.80 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.63 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 6.44 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 6.21 | 3200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 5.30 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| C073 | 351.33 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 319.60 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 278.44 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 253.30 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 216.20 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 196.68 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 177.39 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 161.38 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 137.38 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 124.97 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 104.50 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 95.06 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 86.17 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 78.39 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 70.68 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 64.30 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 60.06 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 54.63 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 49.38 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 47.62 | 3200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 44.92 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 43.32 | 3200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 39.17 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 35.63 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|------|------|-----|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| C082 | 54.18 | 1550 | 26 | 4930/91 | 6000 | | | | | | | | | | | | | |
| | 42.88 | 1550 | 33 | 9605/224 | 6000 | | | | | | | | | | | | | |
| | 37.44 | 1550 | 37 | 3145/84 | 6000 | | | | | | | | | | | | | |
| | 33.09 | 1550 | 42 | 1853/56 | 6000 | | | | | | | | | | | | | |
| | 31.23 | 1117 | 45 | 406/13 | 6000 | | | | | | | | | | | | | |
| | 27.98 | 1549 | 50 | 4505/161 | 6000 | | | | | | | | | | | | | |
| | 24.72 | 1120 | 57 | 791/32 | 6000 | | | | | | | | | | | | | |
| | 24.05 | 1479 | 58 | 8755/364 | 6000 | | | | | | | | | | | | | |
| | 21.58 | 1316 | 65 | 259/12 | 6000 | | | | | | | | | | | | | |
| | 21.00 | 1418 | 67 | 7055/336 | 5600 | | | | | | | | | | | | | |
| | 19.08 | 1306 | 73 | 763/40 | 6000 | | | | | | | | | | | | | |
| | 17.99 | 1353 | 78 | 3400/189 | 5000 | | | | | | | | | | | | | |
| | 17.35 | 1338 | 81 | 850/49 | 4800 | | | | | | | | | | | | | |
| | 16.13 | 1298 | 87 | 371/23 | 6000 | | | | | | | | | | | | | |
| | 15.31 | 1288 | 91 | 2465/161 | 4400 | | | | | | | | | | | | | |
| | 13.87 | 1233 | 101 | 721/52 | 6000 | | | | | | | | | | | | | |
| | 12.84 | 1220 | 109 | 4675/364 | 3900 | | | | | | | | | | | | | |
| | 12.10 | 1177 | 116 | 581/48 | 5600 | | | | | | | | | | | | | |
| | 10.82 | 1158 | 129 | 3485/322 | 3500 | | | | | | | | | | | | | |
| | 10.37 | 1117 | 135 | 280/27 | 5000 | | | | | | | | | | | | | |
| | 10.00 | 1103 | 140 | 10/1 | 4800 | | | | | | | | | | | | | |
| | 8.87 | 1090 | 158 | 1615/182 | 3100 | | | | | | | | | | | | | |
| | 8.83 | 1057 | 159 | 203/23 | 4400 | | | | | | | | | | | | | |
| 7.40 | 996 | 189 | 385/52 | 3900 | | | | | | | | | | | | | | |
| 6.24 | 939 | 224 | 287/46 | 3500 | | | | | | | | | | | | | | |
| 5.12 | 878 | 274 | 133/26 | 3100 | | | | | | | | | | | | | | |
| C083 | 368.94 | 1550 | 3.8 | 909075/2464 | 6000 | | | | | | | | | | | | | |
| | 284.84 | 1550 | 4.9 | 893265/3136 | 6000 | | | | | | | | | | | | | |
| | 238.89 | 1550 | 5.9 | 86955/364 | 6000 | | | | | | | | | | | | | |
| | 187.48 | 1550 | 7.5 | 671925/3584 | 6000 | | | | | | | | | | | | | |
| | 144.69 | 1550 | 9.7 | 64821/448 | 6000 | | | | | | | | | | | | | |
| | 119.68 | 1550 | 12 | 308295/2576 | 6000 | | | | | | | | | | | | | |
| | 101.80 | 1550 | 14 | 592875/5824 | 6000 | | | | | | | | | | | | | |
| | 88.23 | 1550 | 16 | 39525/448 | 5600 | | | | | | | | | | | | | |
| | 74.50 | 1550 | 19 | 50065/672 | 5000 | | | | | | | | | | | | | |
| | 71.84 | 1550 | 19 | 450585/6272 | 4800 | | | | | | | | | | | | | |
| | 61.37 | 1550 | 23 | 39525/644 | 4400 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C082 | 54.18 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 42.88 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 37.44 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 33.09 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 31.23 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.98 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 24.72 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 24.05 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 21.58 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 21.00 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 19.08 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.99 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.35 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.13 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.31 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.87 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.84 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.10 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.82 | 2600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.37 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.00 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 8.87 | - | | | | | | | | | | | | | 2300 | | | | | | | | | | |
| | 8.83 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.40 | 2900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 6.24 | 2600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 5.12 | - | | | | | | | | | | | | | 2300 | | | | | | | | | | |
| C083 | 368.94 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 284.84 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 238.89 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 187.48 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 144.69 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 119.68 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 101.80 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 88.23 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 74.50 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 71.84 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 61.37 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|-------------|------------|------------|----------------------|-------------|----------------------|----------------------|----------|------|------|----------|----------|----------|------|------|-----|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | - | - | - | - |
| | | | | | | NEMA adapter | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | - | - | - | - | | |
| C092 | 39.60 | 2970 | 35 | 198/5 | 6000 | | | | | | | | | | | | | |
| | 33.48 | 2992 | 42 | 770/23 | 6000 | | | | | | | | | | | | | |
| | 28.98 | 2981 | 48 | 1507/52 | 6000 | | | | | | | | | | | | | |
| | 25.67 | 3000 | 55 | 77/3 | 5600 | | | | | | | | | | | | | |
| | 22.58 | 1694 | 62 | 1242/55 | 6000 | | | | | | | | | | | | | |
| | 22.20 | 3000 | 63 | 1199/54 | 5000 | | | | | | | | | | | | | |
| | 21.41 | 2569 | 65 | 1199/56 | 4800 | | | | | | | | | | | | | |
| | 19.09 | 1706 | 73 | 210/11 | 6000 | | | | | | | | | | | | | |
| | 18.89 | 3000 | 74 | 869/46 | 4400 | | | | | | | | | | | | | |
| | 16.53 | 1700 | 85 | 9453/572 | 6000 | | | | | | | | | | | | | |
| | 16.08 | 3000 | 87 | 209/13 | 3900 | | | | | | | | | | | | | |
| | 14.64 | 1819 | 96 | 161/11 | 5600 | | | | | | | | | | | | | |
| | 13.87 | 3000 | 101 | 319/23 | 3500 | | | | | | | | | | | | | |
| | 12.66 | 1819 | 111 | 2507/198 | 5000 | | | | | | | | | | | | | |
| | 12.21 | 1465 | 115 | 7521/616 | 4800 | | | | | | | | | | | | | |
| | 11.63 | 2990 | 120 | 605/52 | 3100 | | | | | | | | | | | | | |
| | 10.77 | 1819 | 130 | 237/22 | 4400 | | | | | | | | | | | | | |
| | 9.46 | 2805 | 148 | 473/50 | 2700 | | | | | | | | | | | | | |
| | 9.17 | 1819 | 153 | 1311/143 | 3900 | | | | | | | | | | | | | |
| | 7.91 | 1819 | 177 | 87/11 | 3500 | | | | | | | | | | | | | |
| 7.40 | 2600 | 189 | 429/58 | 2300 | | | | | | | | | | | | | | |
| 6.63 | 1819 | 211 | 345/52 | 3100 | | | | | | | | | | | | | | |
| 5.39 | 1819 | 260 | 2967/550 | 2700 | | | | | | | | | | | | | | |
| 4.22 | 1819 | 332 | 2691/638 | 2300 | | | | | | | | | | | | | | |
| C093 | 306.73 | 3000 | 4.6 | 7975/26 | 6000 | | | | | | | | | | | | | |
| | 242.77 | 3000 | 5.8 | 31075/128 | 6000 | | | | | | | | | | | | | |
| | 211.98 | 3000 | 6.6 | 10175/48 | 6000 | | | | | | | | | | | | | |
| | 187.34 | 3000 | 7.5 | 5995/32 | 6000 | | | | | | | | | | | | | |
| | 158.42 | 3000 | 8.8 | 14575/92 | 6000 | | | | | | | | | | | | | |
| | 154.24 | 3000 | 9.1 | 14036/91 | 6000 | | | | | | | | | | | | | |
| | 136.18 | 3000 | 10 | 28325/208 | 6000 | | | | | | | | | | | | | |
| | 122.08 | 3000 | 11 | 13673/112 | 6000 | | | | | | | | | | | | | |
| | 118.88 | 3000 | 12 | 22825/192 | 5600 | | | | | | | | | | | | | |
| | 106.60 | 3000 | 13 | 4477/42 | 6000 | | | | | | | | | | | | | |
| | 101.85 | 3000 | 14 | 2750/27 | 5000 | | | | | | | | | | | | | |
| | 98.21 | 3000 | 14 | 1375/14 | 4800 | | | | | | | | | | | | | |
| | 94.21 | 3000 | 15 | 13189/140 | 6000 | | | | | | | | | | | | | |
| | 86.68 | 3000 | 16 | 7975/92 | 4400 | | | | | | | | | | | | | |
| | 79.66 | 3000 | 18 | 12826/161 | 6000 | | | | | | | | | | | | | |
| | 72.72 | 3000 | 19 | 15125/208 | 3900 | | | | | | | | | | | | | |
| | 68.48 | 3000 | 20 | 12463/182 | 6000 | | | | | | | | | | | | | |
| | 61.28 | 3000 | 23 | 11275/184 | 3500 | | | | | | | | | | | | | |
| | 59.78 | 3000 | 23 | 10043/168 | 5600 | | | | | | | | | | | | | |
| | 51.22 | 3000 | 27 | 9680/189 | 5000 | | | | | | | | | | | | | |
| 50.24 | 2923 | 28 | 5225/104 | 3100 | | | | | | | | | | | | | | |
| 49.39 | 2995 | 28 | 2420/49 | 4800 | | | | | | | | | | | | | | |
| 43.59 | 2859 | 32 | 7018/161 | 4400 | | | | | | | | | | | | | | |
| 36.57 | 2677 | 38 | 6655/182 | 3900 | | | | | | | | | | | | | | |
| 30.81 | 2510 | 45 | 4961/161 | 3500 | | | | | | | | | | | | | | |
| 25.26 | 2331 | 55 | 2299/91 | 3100 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C092 | 39.60 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 33.48 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 28.98 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.67 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 22.58 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 22.20 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 21.41 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 19.09 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.89 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.53 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.08 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.64 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.87 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.66 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.21 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.63 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.77 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.46 | - | | | | | | | | | | | | | 2200 | | | | | | | | | | |
| | 9.17 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.91 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.40 | - | | | | | | | | | | | | | 1900 | | | | | | | | | | |
| | 6.63 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 5.39 | - | | | | | | | | | | | | | 2200 | | | | | | | | | | |
| | 4.22 | - | | | | | | | | | | | | | 1900 | | | | | | | | | | |
| C093 | 306.73 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 242.77 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 211.98 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 187.34 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 158.42 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 154.24 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 136.18 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 122.08 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 118.88 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 106.60 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 101.85 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 98.21 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 94.21 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 86.68 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 79.66 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 72.72 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 68.48 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 61.28 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 59.78 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 51.22 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 50.24 | 0 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 49.39 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 43.59 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 36.57 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 30.81 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.26 | 0 | | | | | | | | | | | | | 2500 | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| C094 | 3282.02 | 3000 | 0.43 | 170665/52 | 6000 | | | | | | | | | | | | | |
| | 2683.89 | 3000 | 0.52 | 279125/104 | 6000 | | | | | | | | | | | | | |
| | 2597.68 | 3000 | 0.54 | 665005/256 | 6000 | | | | | | | | | | | | | |
| | 2268.18 | 3000 | 0.62 | 217745/96 | 6000 | | | | | | | | | | | | | |
| | 2124.27 | 3000 | 0.66 | 1087625/512 | 6000 | | | | | | | | | | | | | |
| | 2119.23 | 3000 | 0.66 | 27550/13 | 6000 | | | | | | | | | | | | | |
| | 1854.82 | 3000 | 0.75 | 356125/192 | 6000 | | | | | | | | | | | | | |
| | 1677.34 | 3000 | 0.83 | 53675/32 | 6000 | | | | | | | | | | | | | |
| | 1643.20 | 3000 | 0.85 | 598125/364 | 6000 | | | | | | | | | | | | | |
| | 1464.58 | 3000 | 0.96 | 17575/12 | 6000 | | | | | | | | | | | | | |
| | 1344.90 | 3000 | 1.0 | 454575/338 | 6000 | | | | | | | | | | | | | |
| | 1300.57 | 3000 | 1.1 | 2330625/1792 | 6000 | | | | | | | | | | | | | |
| | 1135.60 | 3000 | 1.2 | 254375/224 | 6000 | | | | | | | | | | | | | |
| | 1064.47 | 3000 | 1.3 | 1771275/1664 | 6000 | | | | | | | | | | | | | |
| | 1035.22 | 3000 | 1.4 | 215325/208 | 6000 | | | | | | | | | | | | | |
| | 929.45 | 3000 | 1.5 | 193325/208 | 6000 | | | | | | | | | | | | | |
| | 819.36 | 3000 | 1.7 | 839025/1024 | 6000 | | | | | | | | | | | | | |
| | 782.16 | 3000 | 1.8 | 81345/104 | 6000 | | | | | | | | | | | | | |
| | 715.43 | 3000 | 2.0 | 91575/128 | 6000 | | | | | | | | | | | | | |
| | 640.13 | 3000 | 2.2 | 191400/299 | 6000 | | | | | | | | | | | | | |
| | 619.07 | 3000 | 2.3 | 316965/512 | 6000 | | | | | | | | | | | | | |
| | 540.55 | 3000 | 2.6 | 34595/64 | 6000 | | | | | | | | | | | | | |
| | 519.08 | 3000 | 2.7 | 87725/169 | 6000 | | | | | | | | | | | | | |
| | 506.66 | 3000 | 2.8 | 93225/184 | 6000 | | | | | | | | | | | | | |
| | 442.39 | 3000 | 3.2 | 10175/23 | 6000 | | | | | | | | | | | | | |
| | 434.54 | 3000 | 3.2 | 135575/312 | 5600 | | | | | | | | | | | | | |
| | 410.85 | 3000 | 3.4 | 341825/832 | 6000 | | | | | | | | | | | | | |
| | 358.73 | 3000 | 3.9 | 111925/312 | 6000 | | | | | | | | | | | | | |
| | 352.17 | 3000 | 4.0 | 247225/702 | 5000 | | | | | | | | | | | | | |
| | 343.93 | 3000 | 4.1 | 528275/1536 | 5600 | | | | | | | | | | | | | |
| | 339.59 | 3000 | 4.1 | 247225/728 | 4800 | | | | | | | | | | | | | |
| | 300.30 | 3000 | 4.7 | 172975/576 | 5600 | | | | | | | | | | | | | |
| | 278.74 | 3000 | 5.0 | 963325/3456 | 5000 | | | | | | | | | | | | | |
| | 268.78 | 3000 | 5.2 | 963325/3584 | 4800 | | | | | | | | | | | | | |
| 243.38 | 3000 | 5.8 | 315425/1296 | 5000 | | | | | | | | | | | | | | |
| 234.69 | 3000 | 6.0 | 315425/1344 | 4800 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |
| C102 | 33.01 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 29.16 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 25.31 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 24.40 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 21.87 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 19.17 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 18.71 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 16.93 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 16.16 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 14.69 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 14.17 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 13.67 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 12.70 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 11.15 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 10.86 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 9.38 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 9.05 | - | | | | | | | | | | | | 2000 | | | | | | | | |
| | 7.93 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 7.22 | - | | | | | | | | | | | | 1800 | | | | | | | | |
| | 6.47 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 5.25 | - | | | | | | | | | | | | 2000 | | | | | | | | |
| | 4.19 | - | | | | | | | | | | | | 1800 | | | | | | | | |
| C103 | 246.43 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 208.33 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 180.35 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 159.72 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 138.17 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 133.24 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 122.02 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 117.56 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 103.15 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 100.05 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 89.30 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 86.31 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 79.08 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 72.40 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 68.41 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 65.97 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 58.87 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 58.21 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 49.54 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 46.03 | - | | | | | | | | | | | | 2000 | | | | | | | | |
| | 42.74 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 35.85 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 29.15 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 22.79 | - | | | | | | | | | | | | 2000 | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | |
|-----------------------------|------------|------------|----------------------|---------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | |
| C104 | 2636.78 | 4500 | 0.53 | 7580736/2875 | 6000 | | | | | | | | | | | |
| | 2229.16 | 4500 | 0.63 | 5896128/2645 | 6000 | | | | | | | | | | | |
| | 2156.24 | 4500 | 0.65 | 247968/115 | 6000 | | | | | | | | | | | |
| | 1822.91 | 4500 | 0.77 | 964320/529 | 6000 | | | | | | | | | | | |
| | 1702.59 | 4500 | 0.82 | 10768896/6325 | 6000 | | | | | | | | | | | |
| | 1439.39 | 4500 | 0.97 | 8375808/5819 | 6000 | | | | | | | | | | | |
| | 1320.15 | 4500 | 1.1 | 212544/161 | 6000 | | | | | | | | | | | |
| | 1116.07 | 4500 | 1.3 | 590400/529 | 6000 | | | | | | | | | | | |
| | 1080.49 | 4500 | 1.3 | 8076672/7475 | 6000 | | | | | | | | | | | |
| 4 stages | 913.46 | 4500 | 1.5 | 6281856/6877 | 6000 | | | | | | | | | | | |
| | 831.69 | 4500 | 1.7 | 478224/575 | 6000 | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | 703.12 | 4500 | 2.0 | 371952/529 | 6000 | | | | | | | | | | | |
| | 628.39 | 4500 | 2.2 | 1806624/2875 | 6000 | | | | | | | | | | | |
| | 531.25 | 4500 | 2.6 | 1405152/2645 | 6000 | | | | | | | | | | | |
| Maximum torque 4500 Nm | 514.28 | 4500 | 2.7 | 6801408/13225 | 6000 | | | | | | | | | | | |
| | 434.78 | 4500 | 3.2 | 5289984/12167 | 6000 | | | | | | | | | | | |
| | 417.03 | 4500 | 3.4 | 3117312/7475 | 6000 | | | | | | | | | | | |
| | 352.56 | 4500 | 4.0 | 2424576/6877 | 6000 | | | | | | | | | | | |
| | 349.11 | 4500 | 4.0 | 200736/575 | 5600 | | | | | | | | | | | |
| | 295.14 | 4500 | 4.7 | 156128/529 | 5600 | | | | | | | | | | | |
| | 282.94 | 4500 | 4.9 | 162688/575 | 5000 | | | | | | | | | | | |
| | 272.83 | 4500 | 5.1 | 1098144/4025 | 4800 | | | | | | | | | | | |
| | 239.20 | 4500 | 5.9 | 1138816/4761 | 5000 | | | | | | | | | | | |
| | 230.65 | 4500 | 6.1 | 122016/529 | 4800 | | | | | | | | | | | |

Legend see page 99

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|---|---|--|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | - | - | |
| | | | | | | IEC adapter | | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | - | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | | |
| C132 | 35.51 | 5325 | 39 | 2983/84 | 5600 | | | | | | | | | | | | | | |
| | 30.96 | 5885 | 45 | 836/27 | 5000 | | | | | | | | | | | | | | |
| | 29.86 | 3583 | 47 | 209/7 | 4800 | | | | | | | | | | | | | | |
| | 26.67 | 7730 | 52 | 4294/161 | 4400 | | | | | | | | | | | | | | |
| | 22.97 | 8000 | 61 | 2090/91 | 3900 | | | | | | | | | | | | | | |
| | 20.22 | 3032 | 69 | 2669/132 | 5600 | | | | | | | | | | | | | | |
| | 20.06 | 8000 | 70 | 3230/161 | 3500 | | | | | | | | | | | | | | |
| | 17.63 | 3351 | 79 | 476/27 | 5000 | | | | | | | | | | | | | | |
| | 17.33 | 8000 | 81 | 1577/91 | 3100 | | | | | | | | | | | | | | |
| | 17.00 | 2040 | 82 | 17/1 | 4800 | | | | | | | | | | | | | | |
| | 15.19 | 4401 | 92 | 3842/253 | 4400 | | | | | | | | | | | | | | |
| | 14.33 | 8000 | 98 | 2508/175 | 2700 | | | | | | | | | | | | | | |
| | 13.08 | 4884 | 107 | 170/13 | 3900 | | | | | | | | | | | | | | |
| | 11.79 | 8000 | 119 | 342/29 | 2300 | | | | | | | | | | | | | | |
| | 11.42 | 4945 | 123 | 2890/253 | 3500 | | | | | | | | | | | | | | |
| | 9.87 | 4945 | 142 | 1411/143 | 3100 | | | | | | | | | | | | | | |
| | 9.69 | 8000 | 144 | 475/49 | 2100 | | | | | | | | | | | | | | |
| | 8.23 | 8000 | 170 | 1786/217 | 1900 | | | | | | | | | | | | | | |
| | 8.16 | 4945 | 172 | 204/25 | 2700 | | | | | | | | | | | | | | |
| | 7.03 | 8000 | 199 | 836/119 | 1700 | | | | | | | | | | | | | | |
| 6.71 | 4945 | 208 | 2142/319 | 2300 | | | | | | | | | | | | | | | |
| 5.52 | 4945 | 254 | 425/77 | 2100 | | | | | | | | | | | | | | | |
| 4.69 | 4945 | 299 | 1598/341 | 1900 | | | | | | | | | | | | | | | |
| 4.00 | 4945 | 350 | 4/1 | 1700 | | | | | | | | | | | | | | | |
| C133 | 204.88 | 8000 | 6.8 | 74575/364 | 6000 | | | | | | | | | | | | | | |
| | 180.95 | 8000 | 7.7 | 3800/21 | 5600 | | | | | | | | | | | | | | |
| | 157.08 | 8000 | 8.9 | 59375/378 | 5000 | | | | | | | | | | | | | | |
| | 151.47 | 8000 | 9.2 | 59375/392 | 4800 | | | | | | | | | | | | | | |
| | 135.71 | 8000 | 10 | 950/7 | 4400 | | | | | | | | | | | | | | |
| | 116.14 | 8000 | 12 | 42275/364 | 3900 | | | | | | | | | | | | | | |
| | 101.85 | 8000 | 14 | 259521/2548 | 6000 | | | | | | | | | | | | | | |
| | 100.31 | 8000 | 14 | 16150/161 | 3500 | | | | | | | | | | | | | | |
| | 89.96 | 8000 | 16 | 4408/49 | 5600 | | | | | | | | | | | | | | |
| | 84.82 | 8000 | 17 | 2375/28 | 3100 | | | | | | | | | | | | | | |
| | 78.09 | 8000 | 18 | 68875/882 | 5000 | | | | | | | | | | | | | | |
| | 75.30 | 8000 | 19 | 206625/2744 | 4800 | | | | | | | | | | | | | | |
| | 69.21 | 8000 | 20 | 969/14 | 2700 | | | | | | | | | | | | | | |
| | 67.47 | 8000 | 21 | 3306/49 | 4400 | | | | | | | | | | | | | | |
| | 57.74 | 8000 | 24 | 147117/2548 | 3900 | | | | | | | | | | | | | | |
| | 56.16 | 8000 | 25 | 11400/203 | 2300 | | | | | | | | | | | | | | |
| | 49.87 | 8000 | 28 | 56202/1127 | 3500 | | | | | | | | | | | | | | |
| | 44.83 | 8000 | 31 | 17575/392 | 2100 | | | | | | | | | | | | | | |
| | 42.17 | 8000 | 33 | 8265/196 | 3100 | | | | | | | | | | | | | | |
| | 34.41 | 8000 | 41 | 84303/2450 | 2700 | | | | | | | | | | | | | | |
| 27.92 | 8000 | 50 | 1368/49 | 2300 | | | | | | | | | | | | | | | |
| 22.29 | 8000 | 63 | 61161/2744 | 2100 | | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | |
| C132 | 35.51 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 30.96 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 29.86 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 26.67 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 22.97 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.22 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.06 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 17.63 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.33 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 17.00 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.19 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.33 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 13.08 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.79 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 11.42 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 9.87 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 9.69 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 8.23 | - | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 8.16 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 7.03 | - | | | | | | | | | | | | 1500 | | | | | | | | | | |
| | 6.71 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 5.52 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 4.69 | - | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 4.00 | - | | | | | | | | | | | | 1500 | | | | | | | | | | |
| C133 | 204.88 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 180.95 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 157.08 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 151.47 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 135.71 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 116.14 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 101.85 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 100.31 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 89.96 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 84.82 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 78.09 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 75.30 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 69.21 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 67.47 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 57.74 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 56.16 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 49.87 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 44.83 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 42.17 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 34.41 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 27.92 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 22.29 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |

Legend see page 99

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|-----------------------------|------------|------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|------|------|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| C134 | 1891.77 | 8000 | 0.74 | 437000/231 | 6000 | | | | | | | | | | | | | |
| | 1642.17 | 8000 | 0.85 | 6828125/4158 | 6000 | | | | | | | | | | | | | |
| | 1460.54 | 8000 | 0.96 | 214700/147 | 6000 | | | | | | | | | | | | | |
| | 1418.83 | 8000 | 0.99 | 109250/77 | 6000 | | | | | | | | | | | | | |
| | 1267.83 | 8000 | 1.1 | 6709375/5292 | 6000 | | | | | | | | | | | | | |
| | 1224.91 | 8000 | 1.1 | 334400/273 | 6000 | | | | | | | | | | | | | |
| | 1095.41 | 8000 | 1.3 | 53675/49 | 6000 | | | | | | | | | | | | | |
| | 1063.29 | 8000 | 1.3 | 2612500/2457 | 6000 | | | | | | | | | | | | | |
| | 961.31 | 8000 | 1.5 | 40375/42 | 6000 | | | | | | | | | | | | | |
| | 918.68 | 8000 | 1.5 | 83600/91 | 6000 | | | | | | | | | | | | | |
| | 834.47 | 8000 | 1.7 | 5046875/6048 | 6000 | | | | | | | | | | | | | |
| | 741.90 | 8000 | 1.9 | 15580/21 | 6000 | | | | | | | | | | | | | |
| | 720.98 | 8000 | 1.9 | 40375/56 | 6000 | | | | | | | | | | | | | |
| | 644.01 | 8000 | 2.2 | 486875/756 | 6000 | | | | | | | | | | | | | |
| 4 stages | 613.66 | 8000 | 2.3 | 98800/161 | 6000 | | | | | | | | | | | | | |
| | 556.43 | 8000 | 2.5 | 3895/7 | 6000 | | | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | 532.69 | 8000 | 2.6 | 771875/1449 | 6000 | | | | | | | | | | | | | |
| | 521.98 | 8000 | 2.7 | 47500/91 | 6000 | | | | | | | | | | | | | |
| Maximum torque 8000 Nm | 460.25 | 8000 | 3.0 | 74100/161 | 6000 | | | | | | | | | | | | | |
| | 453.11 | 8000 | 3.1 | 1484375/3276 | 6000 | | | | | | | | | | | | | |
| | 452.38 | 8000 | 3.1 | 9500/21 | 5600 | | | | | | | | | | | | | |
| | 392.69 | 8000 | 3.6 | 296875/756 | 5600 | | | | | | | | | | | | | |
| | 391.48 | 8000 | 3.6 | 35625/91 | 6000 | | | | | | | | | | | | | |
| | 382.01 | 8000 | 3.7 | 72200/189 | 5000 | | | | | | | | | | | | | |
| | 368.37 | 8000 | 3.8 | 18050/49 | 4800 | | | | | | | | | | | | | |
| | 339.29 | 8000 | 4.1 | 2375/7 | 5600 | | | | | | | | | | | | | |
| | 331.61 | 8000 | 4.2 | 1128125/3402 | 5000 | | | | | | | | | | | | | |
| | 319.76 | 8000 | 4.4 | 1128125/3528 | 4800 | | | | | | | | | | | | | |
| | 314.70 | 8000 | 4.4 | 152000/483 | 4400 | | | | | | | | | | | | | |
| | 286.51 | 8000 | 4.9 | 18050/63 | 5000 | | | | | | | | | | | | | |
| | 276.28 | 8000 | 5.1 | 27075/98 | 4800 | | | | | | | | | | | | | |
| | 273.18 | 8000 | 5.1 | 1187500/4347 | 4400 | | | | | | | | | | | | | |
| | 236.02 | 8000 | 5.9 | 38000/161 | 4400 | | | | | | | | | | | | | |

C

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|----------------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|------|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | l250 | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | |
| C142 | 37.48 | 7123 | 37 | 1012/27 | 5000 | | | | | | | | | | | | | |
| | 32.28 | 9361 | 43 | 1485/46 | 4400 | | | | | | | | | | | | | |
| | 27.92 | 11759 | 50 | 363/13 | 3900 | | | | | | | | | | | | | |
| | 24.63 | 13000 | 57 | 1133/46 | 3500 | | | | | | | | | | | | | |
| | 21.37 | 4062 | 66 | 2116/99 | 5000 | | | | | | | | | | | | | |
| | 21.15 | 13000 | 66 | 275/13 | 3100 | | | | | | | | | | | | | |
| | 18.41 | 5338 | 76 | 405/22 | 4400 | | | | | | | | | | | | | |
| | 17.60 | 13000 | 80 | 88/5 | 2700 | | | | | | | | | | | | | |
| | 15.92 | 6706 | 88 | 207/13 | 3900 | | | | | | | | | | | | | |
| | 14.60 | 13000 | 96 | 847/58 | 2300 | | | | | | | | | | | | | |
| | 14.05 | 8155 | 100 | 309/22 | 3500 | | | | | | | | | | | | | |
| | 12.18 | 13000 | 115 | 341/28 | 2100 | | | | | | | | | | | | | |
| | 12.06 | 8032 | 116 | 1725/143 | 3100 | | | | | | | | | | | | | |
| | 10.47 | 13000 | 134 | 649/62 | 1900 | | | | | | | | | | | | | |
| | 10.04 | 9095 | 139 | 552/55 | 2700 | | | | | | | | | | | | | |
| | 9.06 | 13000 | 155 | 154/17 | 1700 | | | | | | | | | | | | | |
| | 8.33 | 9017 | 168 | 483/58 | 2300 | | | | | | | | | | | | | |
| | 6.94 | 9095 | 202 | 2139/308 | 2100 | | | | | | | | | | | | | |
| 5.97 | 9095 | 235 | 4071/682 | 1900 | | | | | | | | | | | | | | |
| 5.17 | 8816 | 271 | 966/187 | 1700 | | | | | | | | | | | | | | |
| C143 | 206.88 | 13000 | 6.8 | 39721/192 | 5600 | | | | | | | | | | | | | |
| | 180.38 | 13000 | 7.8 | 19481/108 | 5000 | | | | | | | | | | | | | |
| | 173.94 | 13000 | 8.0 | 2783/16 | 4800 | | | | | | | | | | | | | |
| | 155.38 | 13000 | 9.0 | 1243/8 | 4400 | | | | | | | | | | | | | |
| | 133.80 | 13000 | 10 | 13915/104 | 3900 | | | | | | | | | | | | | |
| | 116.88 | 13000 | 12 | 935/8 | 3500 | | | | | | | | | | | | | |
| | 113.27 | 13000 | 12 | 146795/1296 | 5600 | | | | | | | | | | | | | |
| | 100.96 | 13000 | 14 | 20999/208 | 3100 | | | | | | | | | | | | | |
| | 98.76 | 13000 | 14 | 71995/729 | 5000 | | | | | | | | | | | | | |
| | 95.23 | 11428 | 15 | 10285/108 | 4800 | | | | | | | | | | | | | |
| | 85.07 | 13000 | 16 | 105655/1242 | 4400 | | | | | | | | | | | | | |
| | 83.49 | 13000 | 17 | 8349/100 | 2700 | | | | | | | | | | | | | |
| | 73.25 | 13000 | 19 | 51425/702 | 3900 | | | | | | | | | | | | | |
| | 68.70 | 13000 | 20 | 15939/232 | 2300 | | | | | | | | | | | | | |
| | 63.99 | 13000 | 22 | 79475/1242 | 3500 | | | | | | | | | | | | | |
| | 56.47 | 13000 | 25 | 6325/112 | 2100 | | | | | | | | | | | | | |
| | 55.27 | 13000 | 25 | 77605/1404 | 3100 | | | | | | | | | | | | | |
| | 47.95 | 13000 | 29 | 11891/248 | 1900 | | | | | | | | | | | | | |
| | 45.71 | 13000 | 31 | 2057/45 | 2700 | | | | | | | | | | | | | |
| | 40.93 | 13000 | 34 | 2783/68 | 1700 | | | | | | | | | | | | | |
| 37.61 | 13000 | 37 | 6545/174 | 2300 | | | | | | | | | | | | | | |
| 30.92 | 12705 | 45 | 23375/756 | 2100 | | | | | | | | | | | | | | |
| 26.25 | 12096 | 53 | 43945/1674 | 1900 | | | | | | | | | | | | | | |
| 22.41 | 11535 | 62 | 605/27 | 1700 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C142 | 37.48 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 32.28 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.92 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 24.63 | 3400 | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 21.37 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 21.15 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 18.41 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.60 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 15.92 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.60 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 14.05 | 3400 | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 12.18 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 12.06 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 10.47 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 10.04 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 9.06 | - | | | | | | | | | | | | | 1600 | | | | | | | | | | |
| | 8.33 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 6.94 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 5.97 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 5.17 | - | | | | | | | | | | | | | 1600 | | | | | | | | | | |
| C143 | 206.88 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 180.38 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 173.94 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 155.38 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 133.80 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 116.88 | 3400 | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 113.27 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 100.96 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 98.76 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 95.23 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 85.07 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 83.49 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 73.25 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 68.70 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 63.99 | 3400 | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 56.47 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 55.27 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 47.95 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 45.71 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 40.93 | - | | | | | | | | | | | | | 1600 | | | | | | | | | | |
| | 37.61 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 30.92 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 26.25 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 22.41 | - | | | | | | | | | | | | | 1600 | | | | | | | | | | |

Legend see page 99

| Type | $i_{ges.}$ | M_{znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|-----------------------------|------------|-------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|------|------|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| C144 | 2162.84 | 13000 | 0.65 | 415265/192 | 6000 | | | | | | | | | | | | | |
| | 1885.79 | 13000 | 0.74 | 203665/108 | 6000 | | | | | | | | | | | | | |
| | 1669.82 | 13000 | 0.84 | 4488473/2688 | 6000 | | | | | | | | | | | | | |
| | 1624.38 | 13000 | 0.86 | 12995/8 | 6000 | | | | | | | | | | | | | |
| | 1455.92 | 13000 | 0.96 | 314479/216 | 6000 | | | | | | | | | | | | | |
| | 1400.42 | 13000 | 1.0 | 436931/312 | 6000 | | | | | | | | | | | | | |
| | 1398.80 | 13000 | 1.0 | 145475/104 | 6000 | | | | | | | | | | | | | |
| | 1254.10 | 13000 | 1.1 | 140459/112 | 6000 | | | | | | | | | | | | | |
| | 1221.03 | 13000 | 1.1 | 428582/351 | 6000 | | | | | | | | | | | | | |
| | 1099.05 | 13000 | 1.3 | 3376285/3072 | 6000 | | | | | | | | | | | | | |
| | 1079.94 | 13000 | 1.3 | 1572395/1456 | 6000 | | | | | | | | | | | | | |
| | 1051.77 | 13000 | 1.3 | 13673/13 | 6000 | | | | | | | | | | | | | |
| | 958.27 | 13000 | 1.5 | 1655885/1728 | 6000 | | | | | | | | | | | | | |
| | 905.71 | 13000 | 1.5 | 153065/169 | 6000 | | | | | | | | | | | | | |
| | 848.21 | 13000 | 1.7 | 1628561/1920 | 6000 | | | | | | | | | | | | | |
| | 825.43 | 13000 | 1.7 | 105655/128 | 6000 | | | | | | | | | | | | | |
| | 739.56 | 13000 | 1.9 | 798721/1080 | 6000 | | | | | | | | | | | | | |
| | 710.80 | 13000 | 2.0 | 1182775/1664 | 6000 | | | | | | | | | | | | | |
| | 701.59 | 13000 | 2.0 | 22451/32 | 6000 | | | | | | | | | | | | | |
| 4 stages | 637.04 | 13000 | 2.2 | 50963/80 | 6000 | | | | | | | | | | | | | |
| | 611.72 | 13000 | 2.3 | 11011/18 | 6000 | | | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | 596.77 | 13000 | 2.3 | 993025/1664 | 6000 | | | | | | | | | | | | | |
| | 548.57 | 13000 | 2.6 | 114103/208 | 6000 | | | | | | | | | | | | | |
| | 526.92 | 13000 | 2.7 | 48477/92 | 6000 | | | | | | | | | | | | | |
| Maximum torque 13000 Nm | 520.33 | 13000 | 2.7 | 487025/936 | 6000 | | | | | | | | | | | | | |
| | 517.20 | 13000 | 2.7 | 198605/384 | 5600 | | | | | | | | | | | | | |
| | 453.75 | 13000 | 3.1 | 1815/4 | 6000 | | | | | | | | | | | | | |
| | 450.95 | 13000 | 3.1 | 97405/216 | 5600 | | | | | | | | | | | | | |
| | 448.20 | 13000 | 3.1 | 93225/208 | 6000 | | | | | | | | | | | | | |
| | 436.75 | 13000 | 3.2 | 754699/1728 | 5000 | | | | | | | | | | | | | |
| | 421.15 | 13000 | 3.3 | 754699/1792 | 4800 | | | | | | | | | | | | | |
| | 388.44 | 13000 | 3.6 | 6215/16 | 5600 | | | | | | | | | | | | | |
| | 385.96 | 13000 | 3.6 | 1043625/2704 | 6000 | | | | | | | | | | | | | |
| | 380.80 | 13000 | 3.7 | 370139/972 | 5000 | | | | | | | | | | | | | |
| | 367.20 | 13000 | 3.8 | 52877/144 | 4800 | | | | | | | | | | | | | |
| | 359.79 | 13000 | 3.9 | 8635/24 | 4400 | | | | | | | | | | | | | |
| | 334.50 | 13000 | 4.2 | 69575/208 | 5600 | | | | | | | | | | | | | |
| | 328.01 | 13000 | 4.3 | 23617/72 | 5000 | | | | | | | | | | | | | |
| | 316.30 | 13000 | 4.4 | 70851/224 | 4800 | | | | | | | | | | | | | |
| | 313.70 | 13000 | 4.5 | 8470/27 | 4400 | | | | | | | | | | | | | |
| | 282.46 | 13000 | 5.0 | 264385/936 | 5000 | | | | | | | | | | | | | |
| | 272.37 | 13000 | 5.1 | 793155/2912 | 4800 | | | | | | | | | | | | | |
| | 270.22 | 13000 | 5.2 | 6215/23 | 4400 | | | | | | | | | | | | | |
| | 232.69 | 13000 | 6.0 | 3025/13 | 4400 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C144 | 2162.84 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1885.79 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1669.82 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1624.38 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1455.92 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1400.42 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1398.80 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1254.10 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1221.03 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1099.05 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1079.94 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1051.77 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 958.27 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 905.71 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 848.21 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 825.43 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 739.56 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 710.80 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 701.59 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 637.04 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 611.72 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 596.77 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 548.57 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 526.92 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 520.33 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 517.20 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 453.75 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 450.95 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 448.20 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 436.75 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 421.15 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 388.44 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 385.96 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 380.80 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 367.20 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 359.79 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 334.50 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 328.01 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 316.30 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 313.70 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 282.46 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 272.37 | 4600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 270.22 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 232.69 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|----------------------------|-----------------------------|------------|----------------------|-------------|----------------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|------|------|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | l250 | l280 |
| | | | | | | NEMA adapter | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | |
| C162 | 33.00 | 13926 | 42 | 33/1 | 3900 | | | | | | | | | | | | | |
| 2 stages | 25.15 | 18000 | 56 | 327/13 | 3100 | | | | | | | | | | | | | |
| | 21.12 | 18000 | 66 | 528/25 | 2700 | | | | | | | | | | | | | |
| | 17.70 | 7468 | 79 | 407/23 | 3900 | | | | | | | | | | | | | |
| | 17.38 | 18000 | 81 | 504/29 | 2300 | | | | | | | | | | | | | |
| | 14.79 | 18000 | 95 | 207/14 | 2100 | | | | | | | | | | | | | |
| | $n_1=1400 \text{ min}^{-1}$ | 13.49 | 10003 | 104 | 4033/299 | 3100 | | | | | | | | | | | | |
| | | 12.77 | 18000 | 110 | 396/31 | 1900 | | | | | | | | | | | | |
| | Maximum torque 18000 Nm | 11.33 | 11261 | 124 | 6512/575 | 2700 | | | | | | | | | | | | |
| | | 11.12 | 18000 | 126 | 189/17 | 1700 | | | | | | | | | | | | |
| | | 9.32 | 11197 | 150 | 6216/667 | 2300 | | | | | | | | | | | | |
| 7.93 | | 11261 | 177 | 111/14 | 2100 | | | | | | | | | | | | | |
| 6.85 | | 11261 | 204 | 4884/713 | 1900 | | | | | | | | | | | | | |
| 5.96 | 11261 | 235 | 2331/391 | 1700 | | | | | | | | | | | | | | |
| C163 | 234.67 | 18000 | 6.0 | 704/3 | 5000 | | | | | | | | | | | | | |
| 3 stages | 202.12 | 18000 | 6.9 | 106920/529 | 4400 | | | | | | | | | | | | | |
| | 174.82 | 18000 | 8.0 | 52272/299 | 3900 | | | | | | | | | | | | | |
| | 154.21 | 18000 | 9.1 | 81576/529 | 3500 | | | | | | | | | | | | | |
| | 132.44 | 18000 | 11 | 39600/299 | 3100 | | | | | | | | | | | | | |
| | 130.53 | 18000 | 11 | 15272/117 | 5000 | | | | | | | | | | | | | |
| | 112.42 | 18000 | 12 | 33615/299 | 4400 | | | | | | | | | | | | | |
| | 110.19 | 18000 | 13 | 12672/115 | 2700 | | | | | | | | | | | | | |
| | 97.24 | 18000 | 14 | 16434/169 | 3900 | | | | | | | | | | | | | |
| | 91.43 | 18000 | 15 | 60984/667 | 2300 | | | | | | | | | | | | | |
| | $n_1=1400 \text{ min}^{-1}$ | 85.78 | 18000 | 16 | 25647/299 | 3500 | | | | | | | | | | | | |
| 76.25 | | 18000 | 18 | 12276/161 | 2100 | | | | | | | | | | | | | |
| Maximum torque 18000 Nm | | 73.67 | 18000 | 19 | 12450/169 | 3100 | | | | | | | | | | | | |
| | | 65.54 | 18000 | 21 | 46728/713 | 1900 | | | | | | | | | | | | |
| | | 61.29 | 18000 | 23 | 3984/65 | 2700 | | | | | | | | | | | | |
| | | 56.72 | 18000 | 25 | 22176/391 | 1700 | | | | | | | | | | | | |
| | | 50.86 | 18000 | 28 | 19173/377 | 2300 | | | | | | | | | | | | |
| 42.41 | | 18000 | 33 | 7719/182 | 2100 | | | | | | | | | | | | | |
| 36.45 | | 18000 | 38 | 14691/403 | 1900 | | | | | | | | | | | | | |
| 31.55 | | 17437 | 44 | 6972/221 | 1700 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| C162 | 33.00 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.15 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 21.12 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 17.70 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.38 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 14.79 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 13.49 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 12.77 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 11.33 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 11.12 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 9.32 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 7.93 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 6.85 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 5.96 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |
| C163 | 234.67 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 202.12 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 174.82 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 154.21 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 132.44 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 130.53 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 112.42 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 110.19 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 97.24 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 91.43 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 85.78 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 76.25 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 73.67 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 65.54 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 61.29 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 56.72 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 50.86 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 42.41 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 36.45 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 31.55 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |



Legend see page 99

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|----------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | - | - | - | | |
| C164 | 2093.95 | 18000 | 0.67 | 81664/39 | 6000 | | | | | | | | | | | | | |
| | 1803.51 | 18000 | 0.78 | 12402720/6877 | 6000 | | | | | | | | | | | | | |
| | 1657.33 | 18000 | 0.84 | 4972/3 | 6000 | | | | | | | | | | | | | |
| | 1559.96 | 18000 | 0.9 | 6063552/3887 | 6000 | | | | | | | | | | | | | |
| | 1447.11 | 18000 | 0.97 | 13024/9 | 6000 | | | | | | | | | | | | | |
| | 1427.45 | 18000 | 0.98 | 1510245/1058 | 6000 | | | | | | | | | | | | | |
| | 1278.93 | 18000 | 1.1 | 19184/15 | 6000 | | | | | | | | | | | | | |
| | 1246.39 | 18000 | 1.1 | 659340/529 | 6000 | | | | | | | | | | | | | |
| | 1234.69 | 18000 | 1.1 | 369171/299 | 6000 | | | | | | | | | | | | | |
| | 1101.54 | 18000 | 1.3 | 582714/529 | 6000 | | | | | | | | | | | | | |
| | 1081.51 | 18000 | 1.3 | 74624/69 | 6000 | | | | | | | | | | | | | |
| | 1078.07 | 18000 | 1.3 | 322344/299 | 6000 | | | | | | | | | | | | | |
| | 952.78 | 18000 | 1.5 | 1424412/1495 | 6000 | | | | | | | | | | | | | |
| | 931.50 | 18000 | 1.5 | 11333520/12167 | 6000 | | | | | | | | | | | | | |
| | 929.64 | 18000 | 1.5 | 36256/39 | 6000 | | | | | | | | | | | | | |
| | 811.56 | 18000 | 1.7 | 7304/9 | 5600 | | | | | | | | | | | | | |
| | 805.70 | 18000 | 1.7 | 5540832/6877 | 6000 | | | | | | | | | | | | | |
| | 800.70 | 18000 | 1.7 | 5506380/6877 | 6000 | | | | | | | | | | | | | |
| | 698.99 | 18000 | 2.0 | 369765/529 | 5600 | | | | | | | | | | | | | |
| | 695.31 | 18000 | 2.0 | 56320/81 | 5000 | | | | | | | | | | | | | |
| | 692.57 | 18000 | 2.0 | 2692008/3887 | 6000 | | | | | | | | | | | | | |
| | 670.48 | 18000 | 2.1 | 14080/21 | 4800 | | | | | | | | | | | | | |
| | 604.60 | 18000 | 2.3 | 180774/299 | 5600 | | | | | | | | | | | | | |
| | 598.87 | 18000 | 2.3 | 316800/529 | 5000 | | | | | | | | | | | | | |
| | 591.77 | 18000 | 2.4 | 40832/69 | 4400 | | | | | | | | | | | | | |
| | 577.48 | 18000 | 2.4 | 2138400/3703 | 4800 | | | | | | | | | | | | | |
| | 517.99 | 18000 | 2.7 | 154880/299 | 5000 | | | | | | | | | | | | | |
| | 509.69 | 18000 | 2.7 | 6201360/12167 | 4400 | | | | | | | | | | | | | |
| | 499.49 | 18000 | 2.8 | 1045440/2093 | 4800 | | | | | | | | | | | | | |
| | 496.41 | 18000 | 2.8 | 19360/39 | 3900 | | | | | | | | | | | | | |
| | 440.86 | 18000 | 3.2 | 3031776/6877 | 4400 | | | | | | | | | | | | | |
| | 427.56 | 18000 | 3.3 | 2940300/6877 | 3900 | | | | | | | | | | | | | |
| | 418.32 | 18000 | 3.3 | 28864/69 | 3500 | | | | | | | | | | | | | |
| | 369.82 | 18000 | 3.8 | 1437480/3887 | 3900 | | | | | | | | | | | | | |
| 360.30 | 18000 | 3.9 | 4383720/12167 | 3500 | | | | | | | | | | | | | | |
| 342.97 | 18000 | 4.1 | 13376/39 | 3100 | | | | | | | | | | | | | | |
| 311.64 | 18000 | 4.5 | 2143152/6877 | 3500 | | | | | | | | | | | | | | |
| 295.40 | 18000 | 4.7 | 2031480/6877 | 3100 | | | | | | | | | | | | | | |
| 255.51 | 18000 | 5.5 | 993168/3887 | 3100 | | | | | | | | | | | | | | |

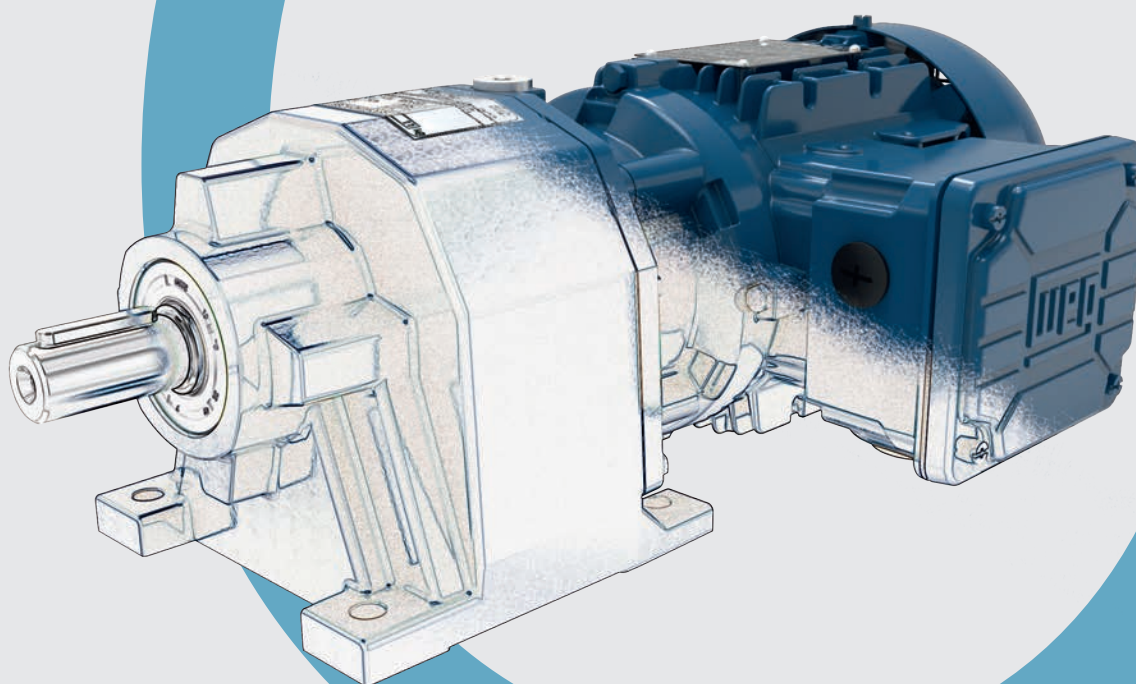
C

Legend see page 99

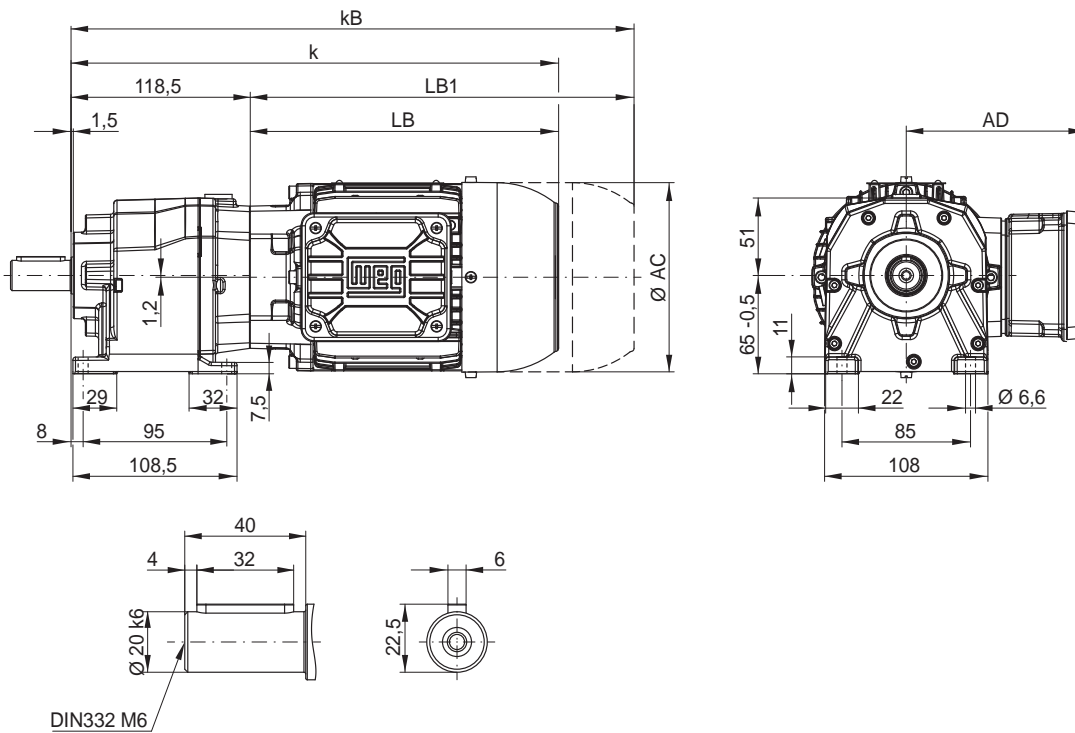
| Type | $i_{ges.}$ | M_{znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | |
|-----------------------------|------------|-------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | |
| C165 | 22405.25 | 18000 | 0.06 | 4369024/195 | 6000 | | | | | | | | | | | |
| | 18322.05 | 18000 | 0.08 | 714560/39 | 6000 | | | | | | | | | | | |
| | 15484.09 | 18000 | 0.09 | 696784/45 | 6000 | | | | | | | | | | | |
| | 14467.28 | 18000 | 0.10 | 564224/39 | 6000 | | | | | | | | | | | |
| | 12662.22 | 18000 | 0.11 | 113960/9 | 6000 | | | | | | | | | | | |
| | 11217.58 | 18000 | 0.12 | 1020800/91 | 6000 | | | | | | | | | | | |
| | 9998.22 | 18000 | 0.14 | 89984/9 | 6000 | | | | | | | | | | | |
| | 9181.16 | 18000 | 0.15 | 1551616/169 | 6000 | | | | | | | | | | | |
| | 7752.38 | 18000 | 0.18 | 162800/21 | 6000 | | | | | | | | | | | |
| 5 stages | 7067.08 | 18000 | 0.20 | 91872/13 | 6000 | | | | | | | | | | | |
| | 6345.03 | 18000 | 0.22 | 247456/39 | 6000 | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | 5339.57 | 18000 | 0.26 | 347072/65 | 6000 | | | | | | | | | | | |
| | 4884.00 | 18000 | 0.29 | 4884/1 | 6000 | | | | | | | | | | | |
| | 4369.98 | 18000 | 0.32 | 1306624/299 | 6000 | | | | | | | | | | | |
| Maximum torque 18000 Nm | 3690.13 | 18000 | 0.38 | 55352/15 | 6000 | | | | | | | | | | | |
| | 3543.61 | 18000 | 0.40 | 1796608/507 | 6000 | | | | | | | | | | | |
| | 3020.06 | 18000 | 0.46 | 208384/69 | 6000 | | | | | | | | | | | |
| | 2966.43 | 18000 | 0.47 | 347072/117 | 5600 | | | | | | | | | | | |
| | 2448.96 | 18000 | 0.57 | 286528/117 | 6000 | | | | | | | | | | | |
| | 2404.16 | 18000 | 0.58 | 2531584/1053 | 5000 | | | | | | | | | | | |
| | 2318.30 | 18000 | 0.60 | 632896/273 | 4800 | | | | | | | | | | | |
| | 2050.07 | 18000 | 0.68 | 55352/27 | 5600 | | | | | | | | | | | |
| | 1661.50 | 18000 | 0.84 | 403744/243 | 5000 | | | | | | | | | | | |
| | 1602.16 | 18000 | 0.87 | 100936/63 | 4800 | | | | | | | | | | | |

Legend see page 99

Dimension sheets Geared Motors

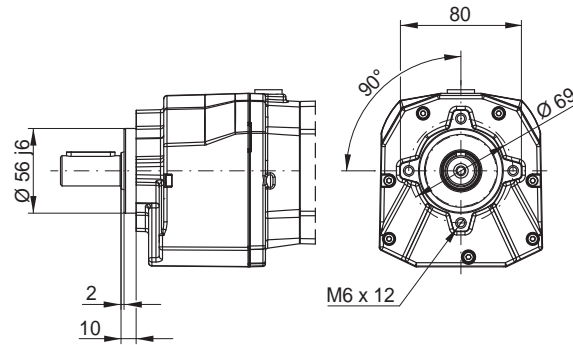
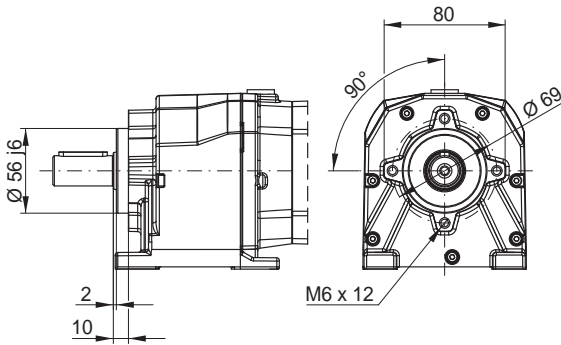


CG00 - Foot mounted



CW00 - Foot mounted with B14 flange execution + centring and threaded hole

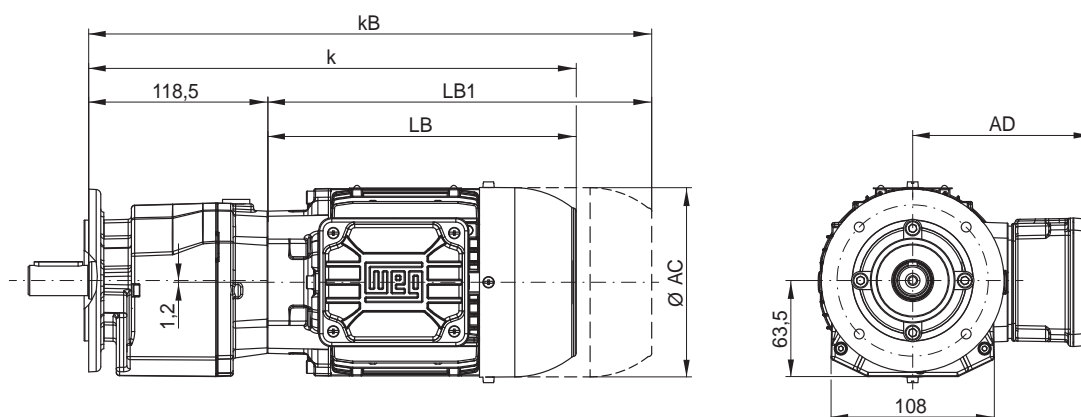
CC00 - B14 flange execution + centring and threaded hole



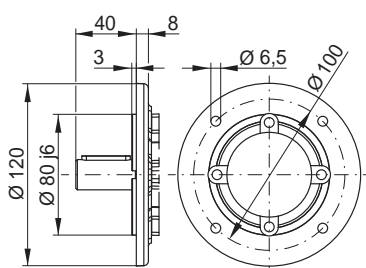
| Motor fr. | 63 | 71 | 80 | L80 |
|-----------|-----|-----|-----|-----|
| Dimension | | | | |
| AC | 126 | 141 | 159 | 159 |
| AD | 128 | 136 | 145 | 145 |
| k | 323 | 357 | 365 | 389 |
| kB | 367 | 406 | 423 | 447 |
| LB | 204 | 238 | 246 | 270 |
| LB1 | 248 | 287 | 304 | 328 |

Motor dimension sheets see page 496
 Description of motor lengths LB and LB1 see page 500

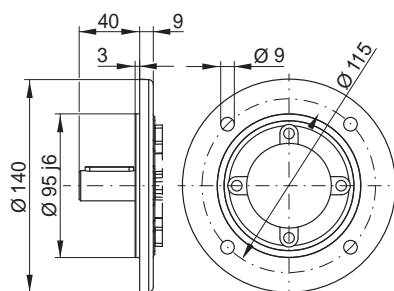
CF00 - Flange execution



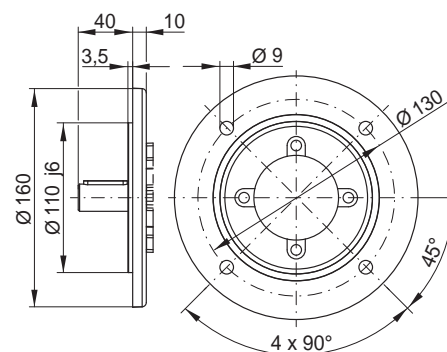
Flange $\varnothing 120$



Flange $\varnothing 140$

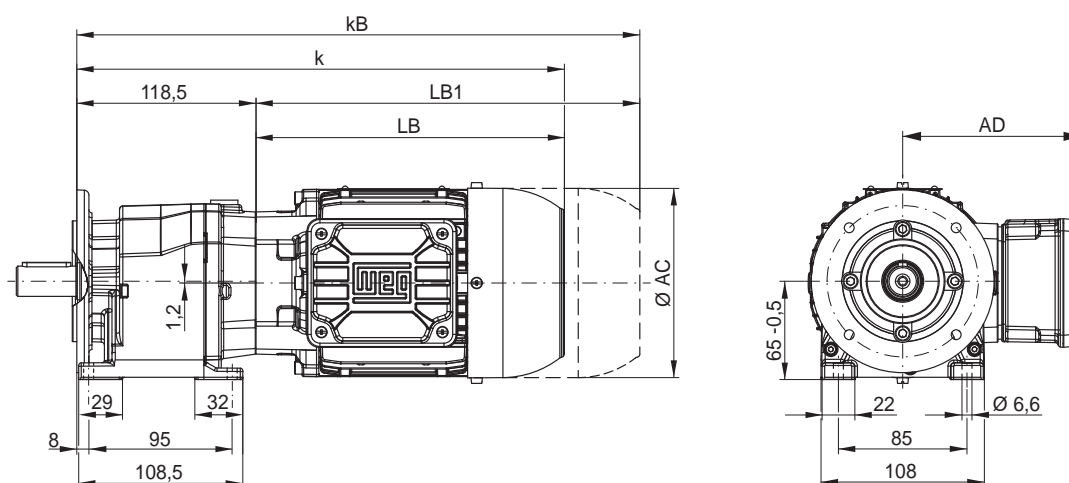


Flange $\varnothing 160$



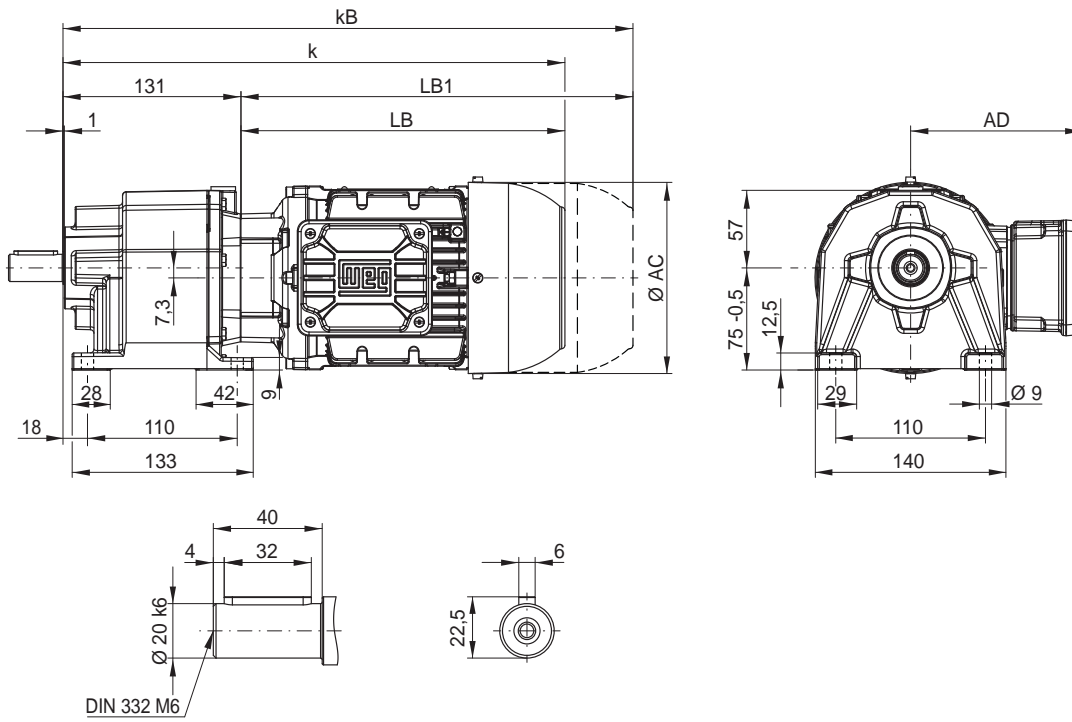
CA00 - Foot mounted and B5 flange execution

mountable flange sizes on the housing: $\varnothing 120$



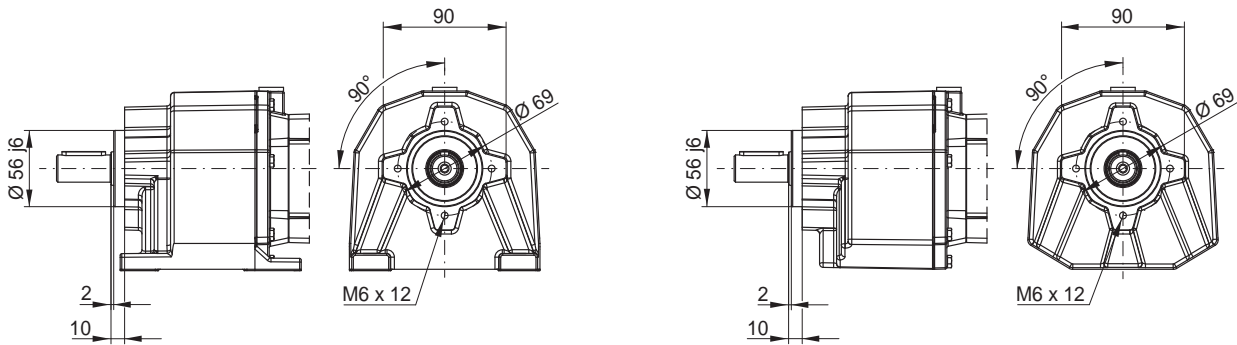
Dimensions in mm.

CG01 - Foot mounted



CW01 - Foot mounted with B14 flange execution + centring and threaded hole

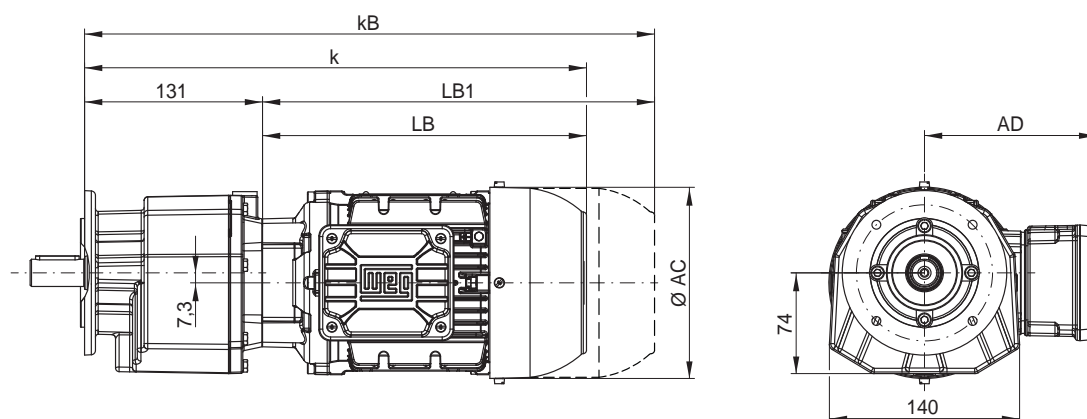
CC01 - B14 flange execution + centring and threaded hole



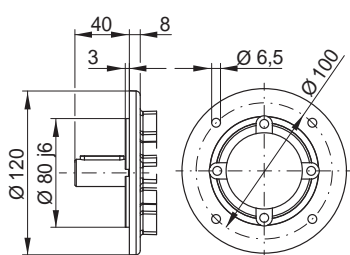
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L |
|-----------|-----|-----|-----|-----|-------|
| AC | 126 | 141 | 159 | 159 | 178 |
| AD | 128 | 136 | 145 | 145 | 155 |
| k | 335 | 369 | 377 | 401 | 419 |
| kB | 379 | 418 | 435 | 459 | 492 |
| LB | 204 | 238 | 246 | 270 | 288 |
| LB1 | 248 | 287 | 304 | 328 | 361 |

Motor dimension sheets see page 496
Description of motor lengths LB and LB1 see page 500

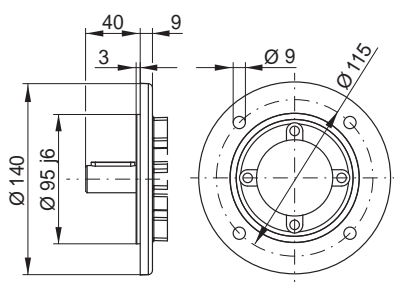
CF01 - Flange execution



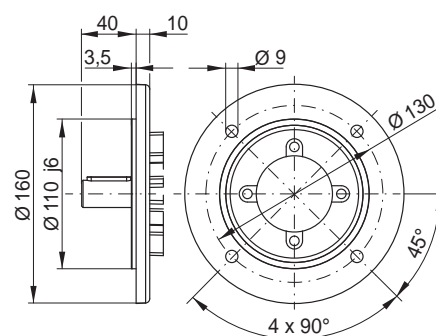
Flange $\varnothing 120$



Flange $\varnothing 140$

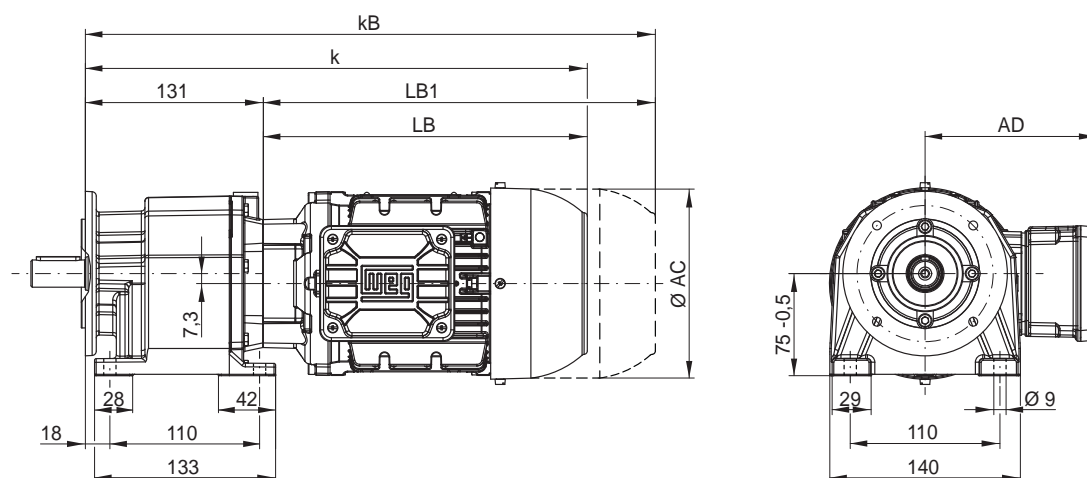


Flange $\varnothing 160$



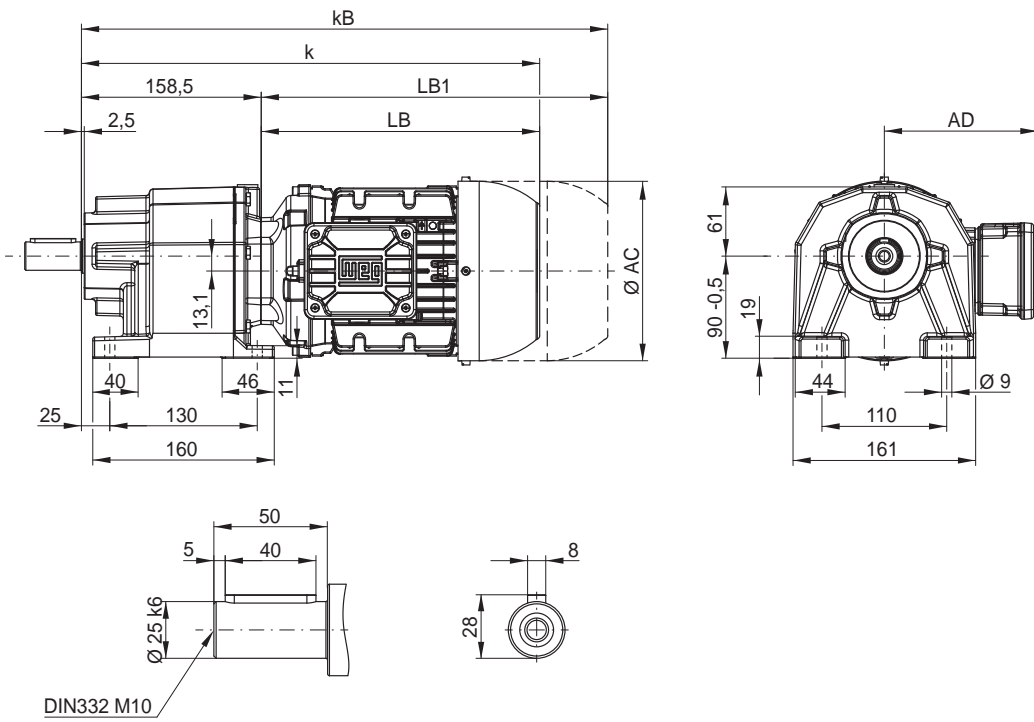
CA01 - Foot mounted and B5 flange execution

mountable flange sizes on the housing: $\varnothing 120$ and $\varnothing 140$



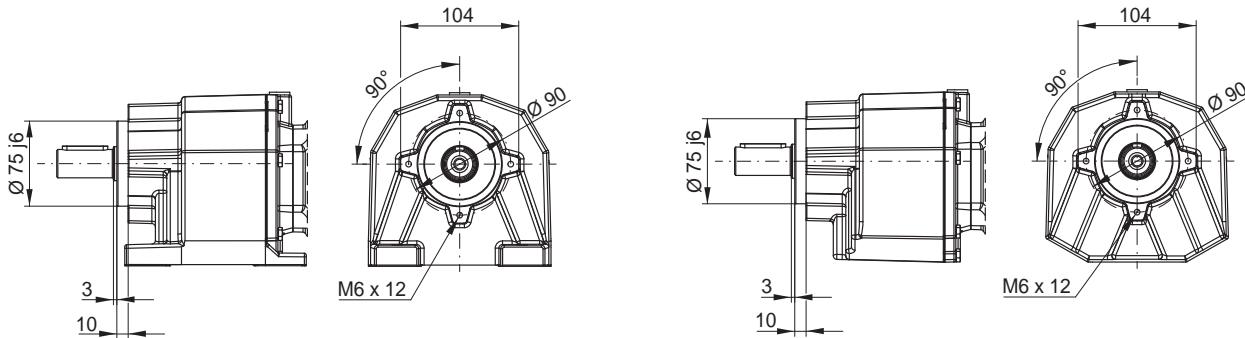
Dimensions in mm.

CG03 - Foot mounted



CW03 - Foot mounted with B14 flange execution + centring and threaded hole

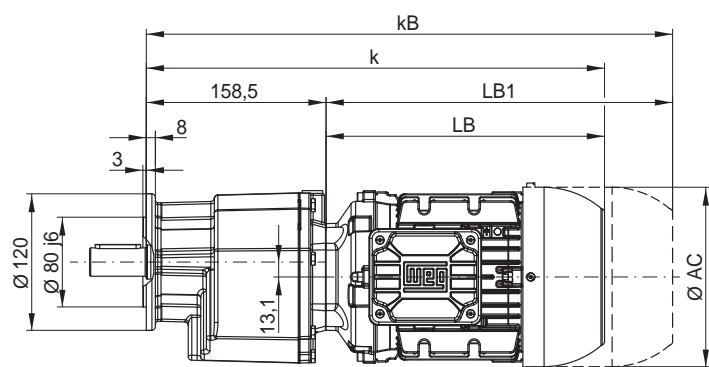
CC03 - B14 flange execution + centring and threaded hole



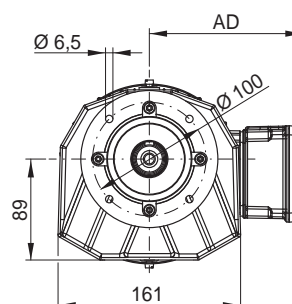
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L |
|-----------|-----|-----|-----|-----|-------|------|-------|
| Dimension | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 |
| k | 363 | 397 | 405 | 429 | 447 | 497 | 535 |
| kB | 407 | 446 | 463 | 487 | 520 | 581 | 619 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 |

Motor dimension sheets see page 496
Description of motor lengths LB and LB1 see page 500

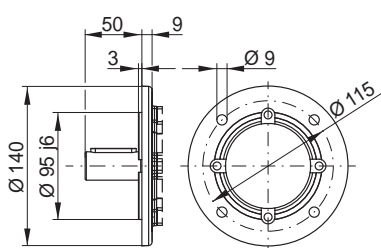
CF03 - Flange execution



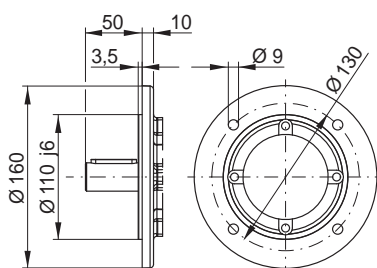
Flange Ø 120



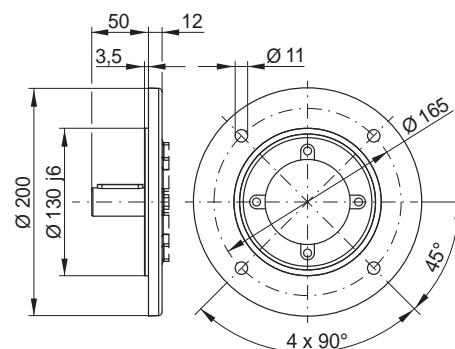
Flange Ø 140



Flange Ø 160

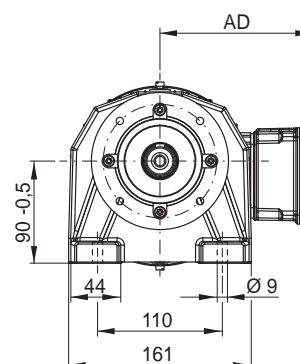
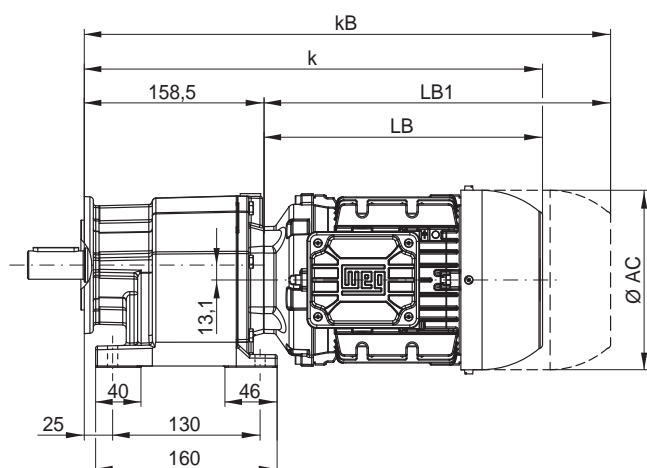


Flange Ø 200



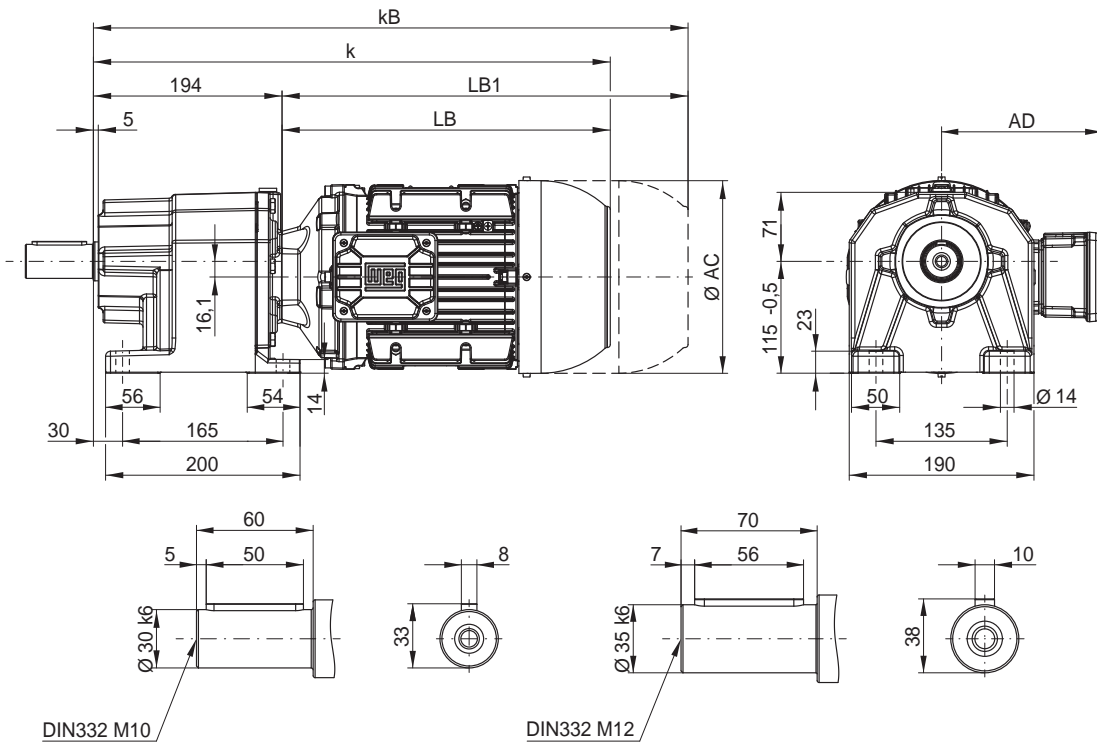
CA03 - Foot mounted and B5 flange execution

mountable flange sizes on the housing: Ø 120, Ø 140 and Ø 160



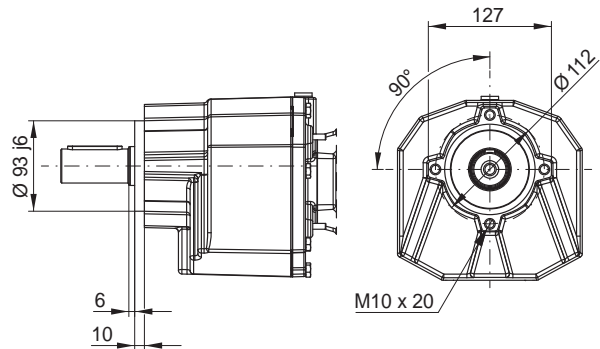
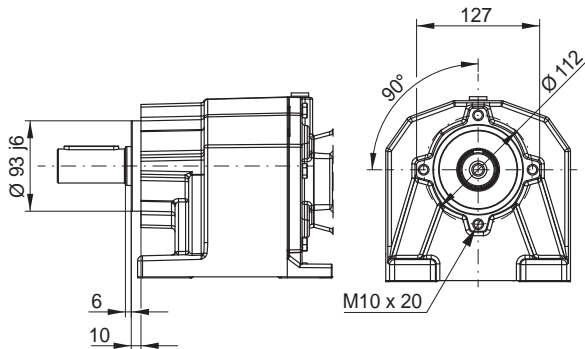
Dimensions in mm.

CG05 - Foot mounted



CW05 - Foot mounted with B14 flange execution + centring and threaded hole

CC05 - B14 flange execution + centring and threaded hole

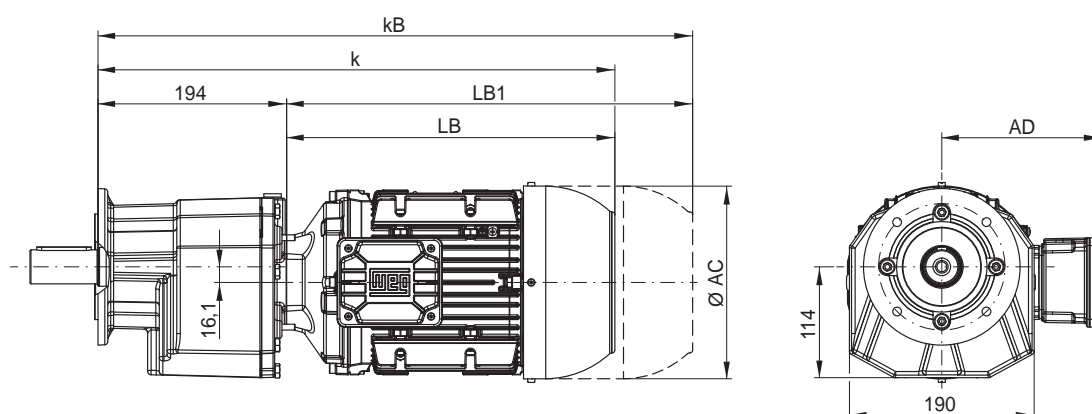


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 398 | 432 | 440 | 464 | 482 | 532 | 570 | 542 | 607 | 645 |
| kB | 442 | 481 | 498 | 522 | 555 | 616 | 654 | 629 | 725 | 763 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

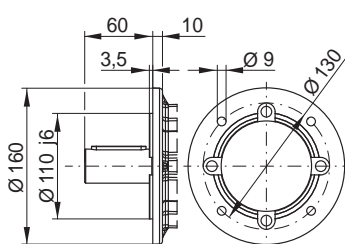
Motor dimension sheets see page 496

Description of motor lengths LB and LB1 see page 500

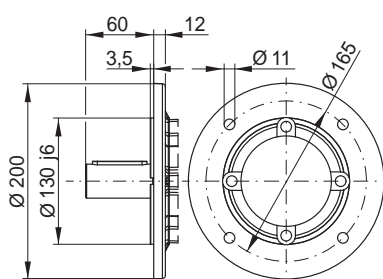
CF05 - Flange execution



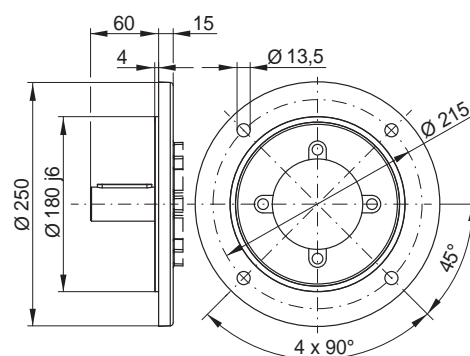
Flange Ø 160



Flange Ø 200

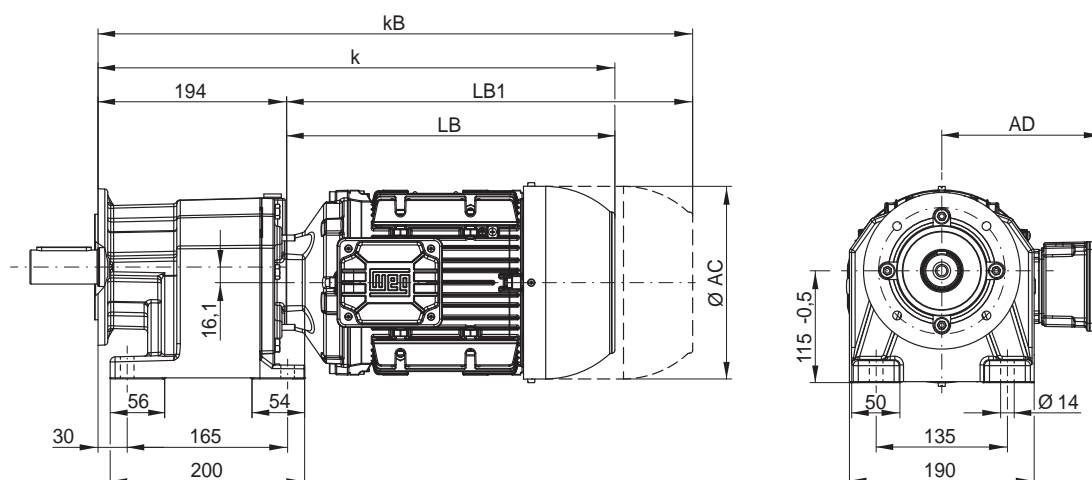


Flange Ø 250



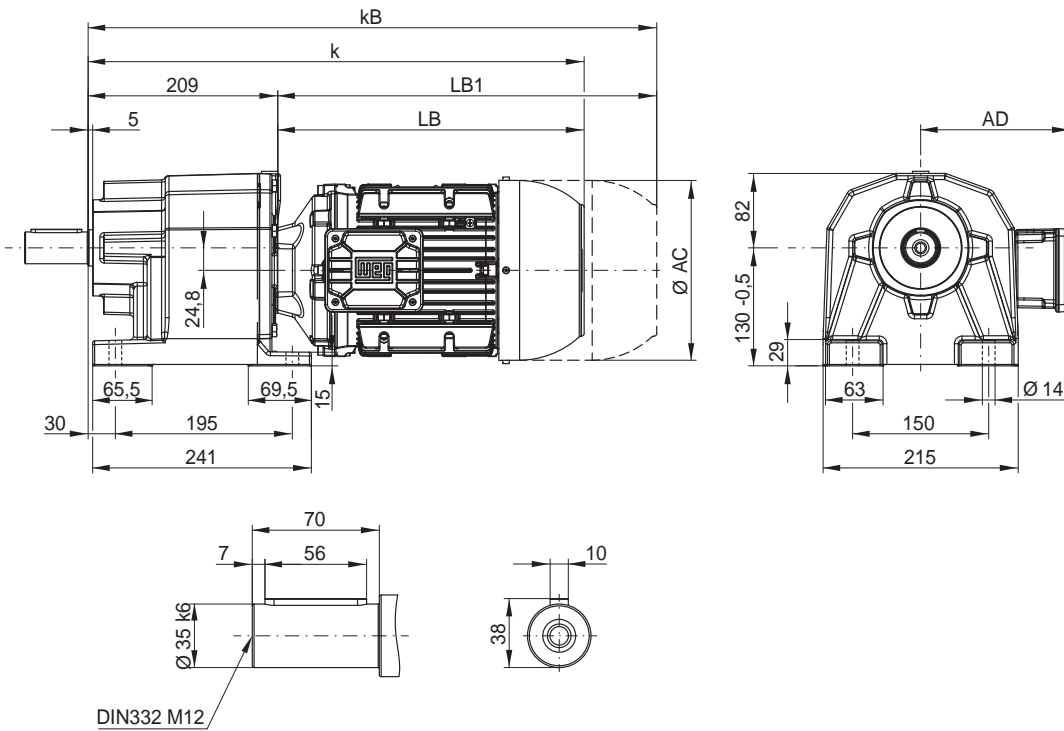
CA05 - Foot mounted and B5 flange execution

mountable flange sizes on the housing: Ø 160 and Ø 200



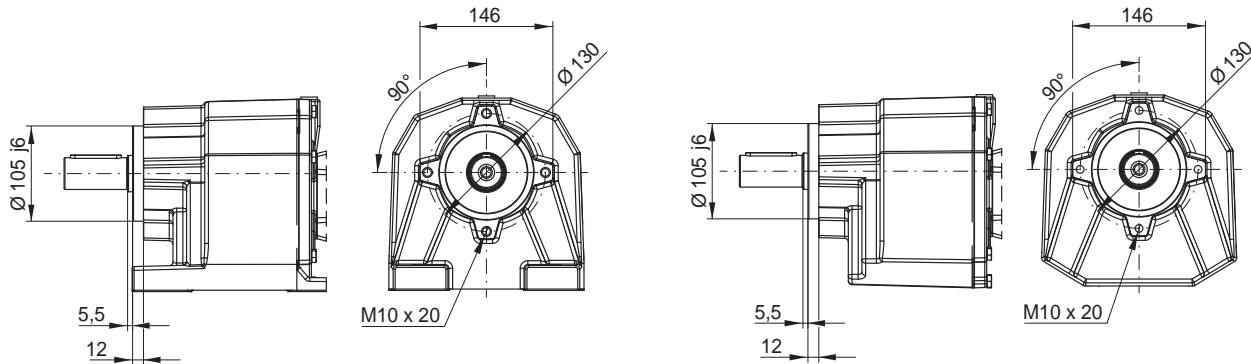
Dimensions in mm.

CG06 - Foot mounted



CW06 - Foot mounted with B14 flange execution + centring and threaded hole

CC06 - B14 flange execution + centring and threaded hole

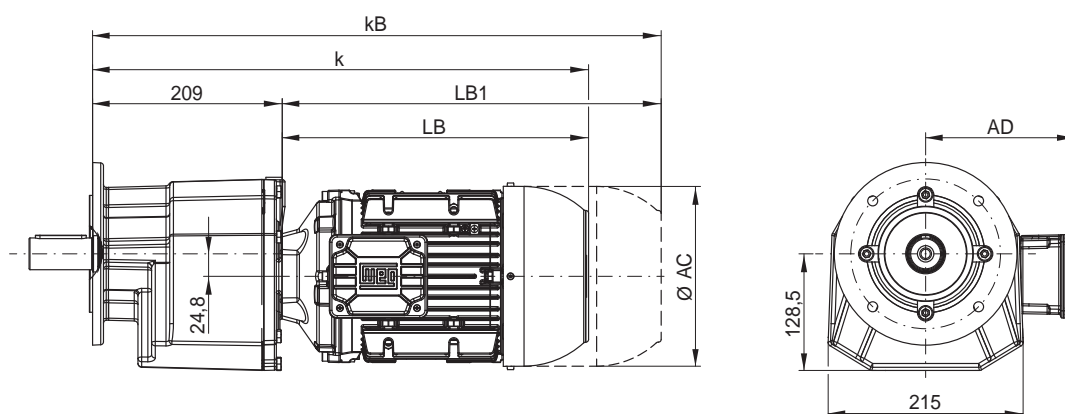


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 413 | 447 | 455 | 479 | 497 | 547 | 585 | 557 | 622 | 660 |
| kB | 457 | 496 | 513 | 537 | 570 | 631 | 669 | 644 | 740 | 778 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

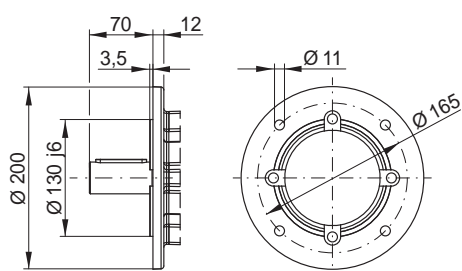
Motor dimension sheets see page 496

Description of motor lengths LB and LB1 see page 500

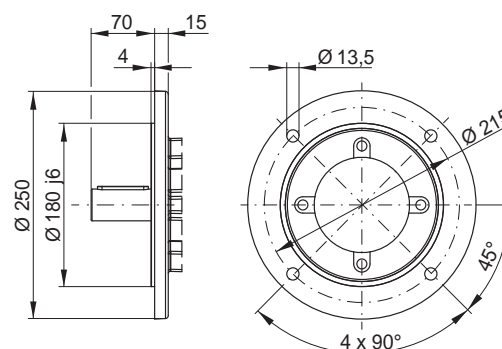
CF06 - Flange execution



Flange $\varnothing 200$

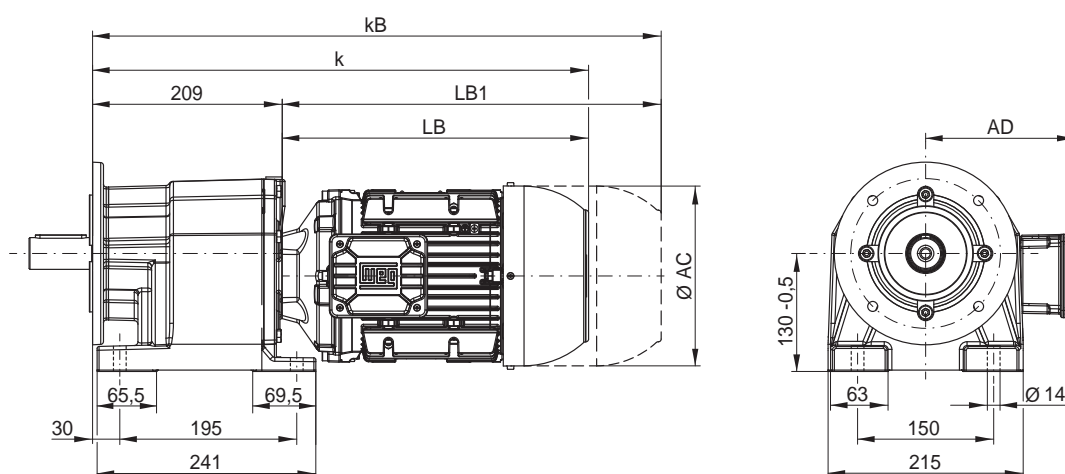


Flange $\varnothing 250$



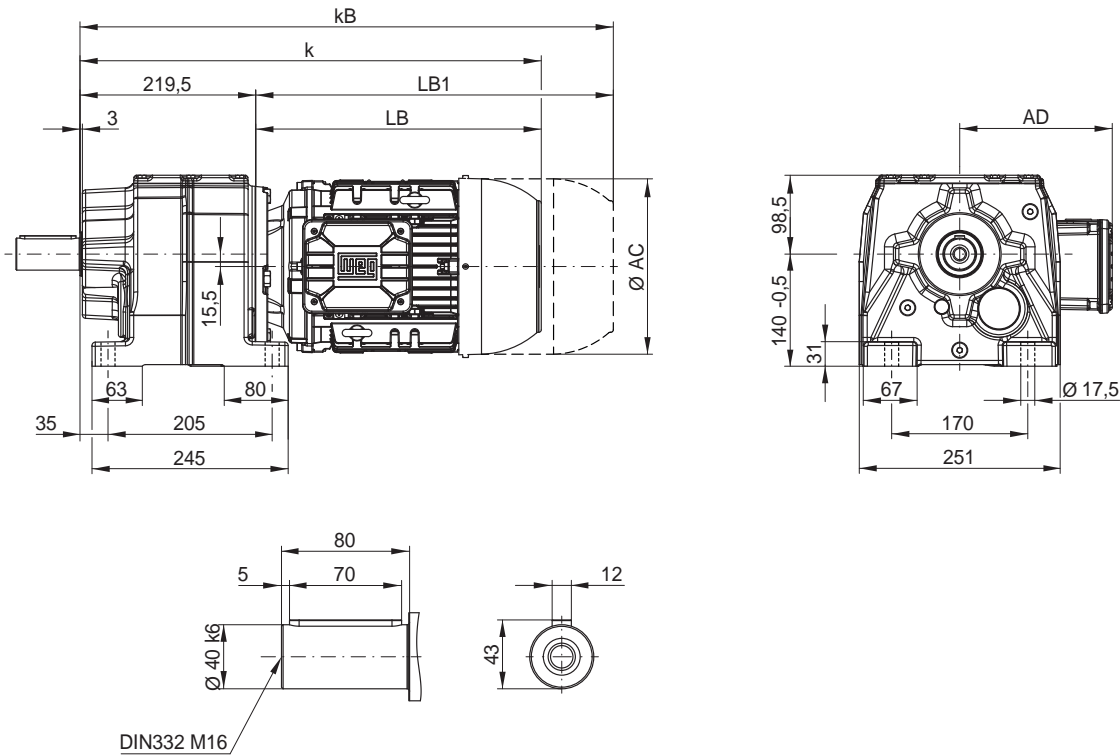
CA06 - Foot mounted and B5 flange execution

mountable flange sizes on the housing: $\varnothing 200$



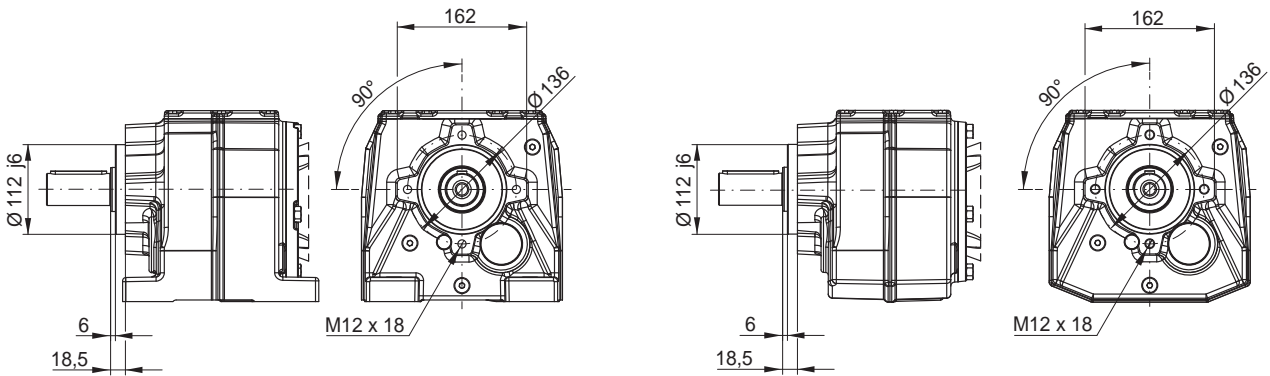
Dimensions in mm.

CG07 - Foot mounted



CW07 - Foot mounted with B14 flange execution + centring and threaded hole

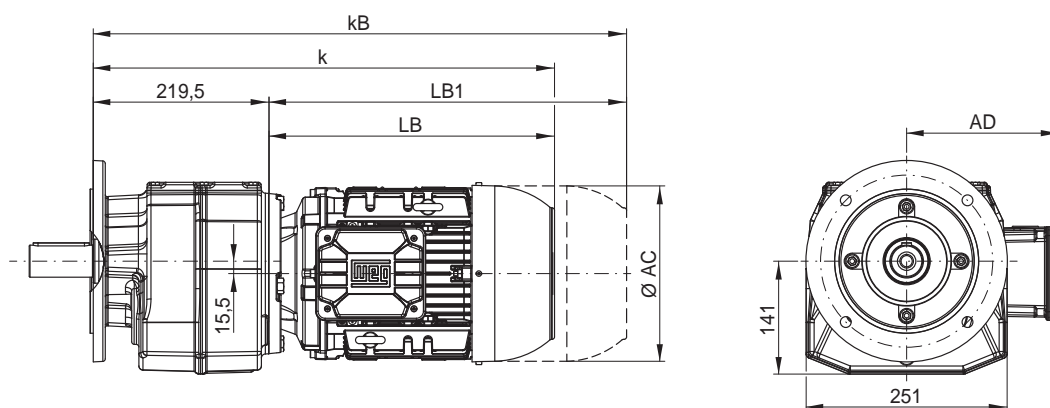
CC07 - B14 flange execution + centring and threaded hole



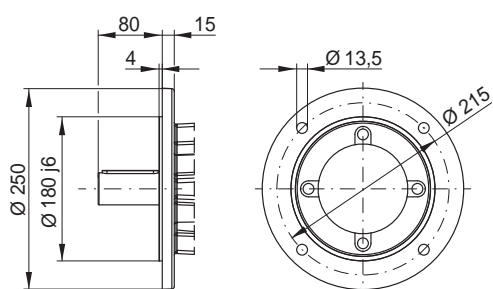
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 424 | 458 | 466 | 490 | 508 | 558 | 596 | 568 | 633 | 671 | 765 | 809 |
| kB | 468 | 507 | 524 | 548 | 581 | 642 | 680 | 655 | 751 | 789 | 889 | 933 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size C07 corresponds to motor flange FR-200.
Description of motor lengths LB and LB1 see page 500

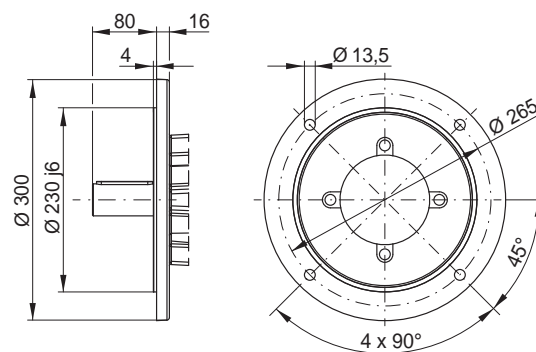
CF07 - Flange execution



Flange $\varnothing 250$

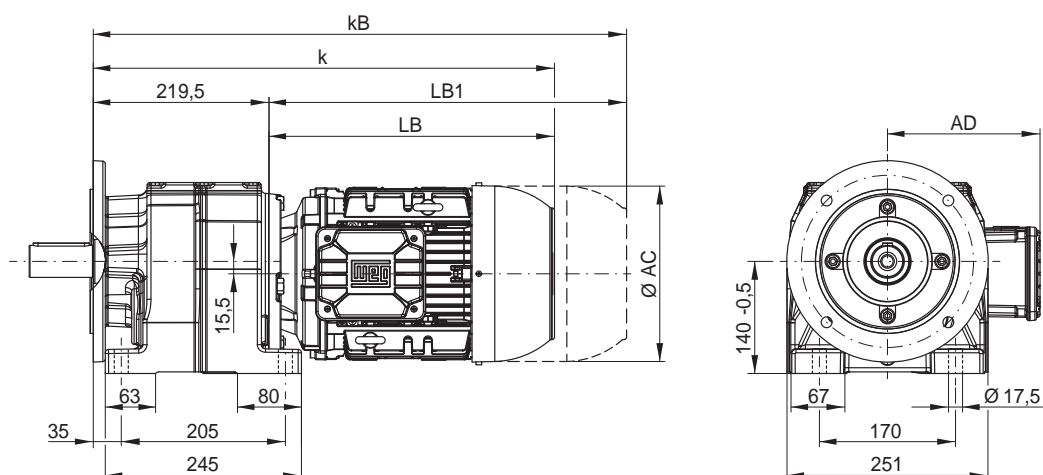


Flange $\varnothing 300$



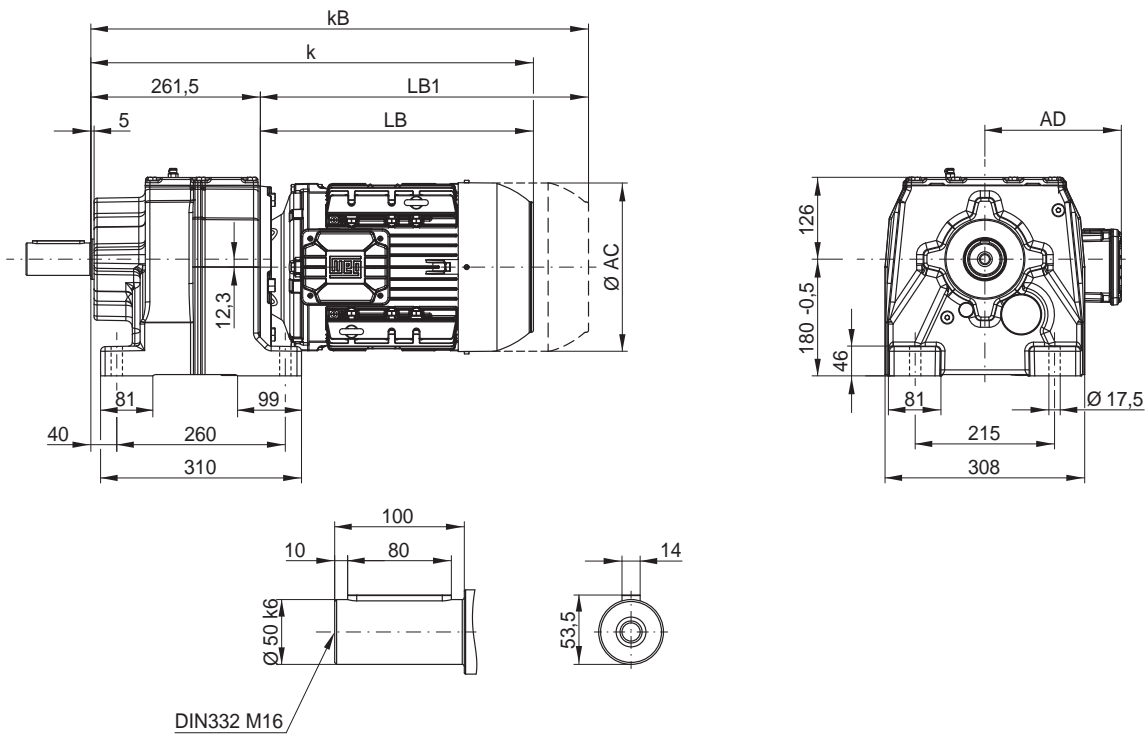
CA07 - Foot mounted and B5 flange execution

mountable flange sizes on the housing: $\varnothing 250$



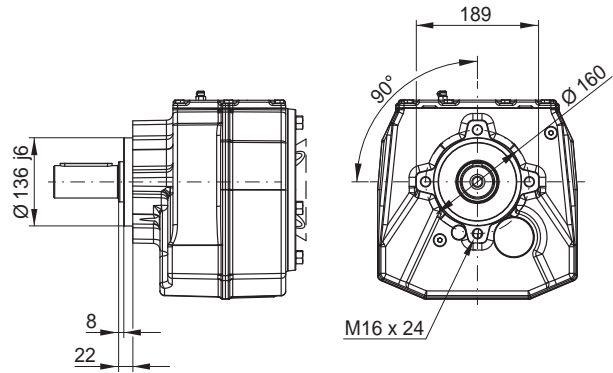
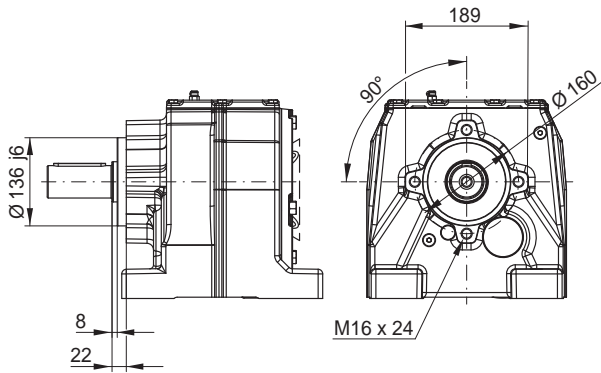
Dimensions in mm.

CG08 - Foot mounted



CW08 - Foot mounted with B14 flange execution + centring and threaded hole

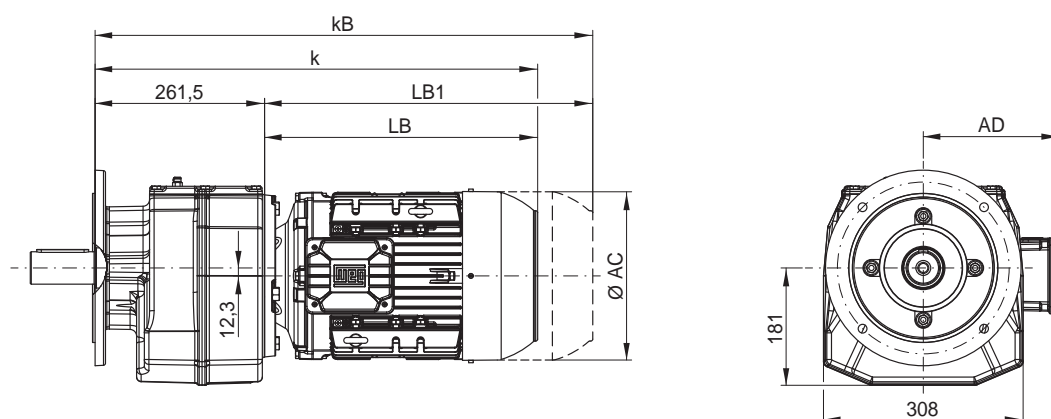
CC08 - B14 flange execution + centring and threaded hole



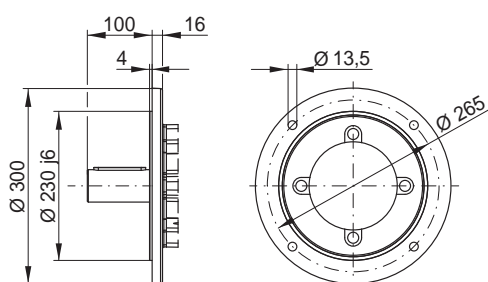
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 |
| k | 466 | 500 | 508 | 532 | 550 | 600 | 638 | 610 | 675 | 713 | 802 | 846 | 870 | 908 |
| kB | 510 | 549 | 566 | 590 | 623 | 684 | 722 | 697 | 793 | 831 | 926 | 970 | 988 | 1026 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 540 | 584 | 608 | 646 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 664 | 708 | 726 | 764 |

Motor dimension sheets see page 496; Gear unit size C08 corresponds to motor flange FR-250.
Description of motor lengths LB and LB1 see page 500

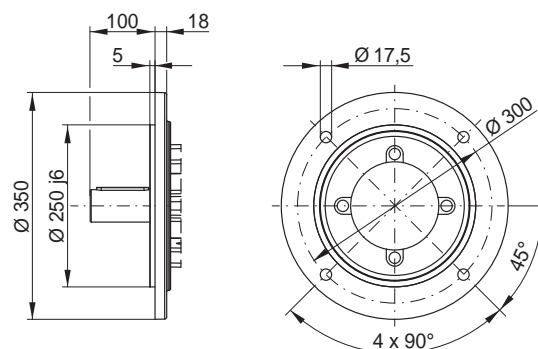
CF08 - Flange execution



Flange Ø 300

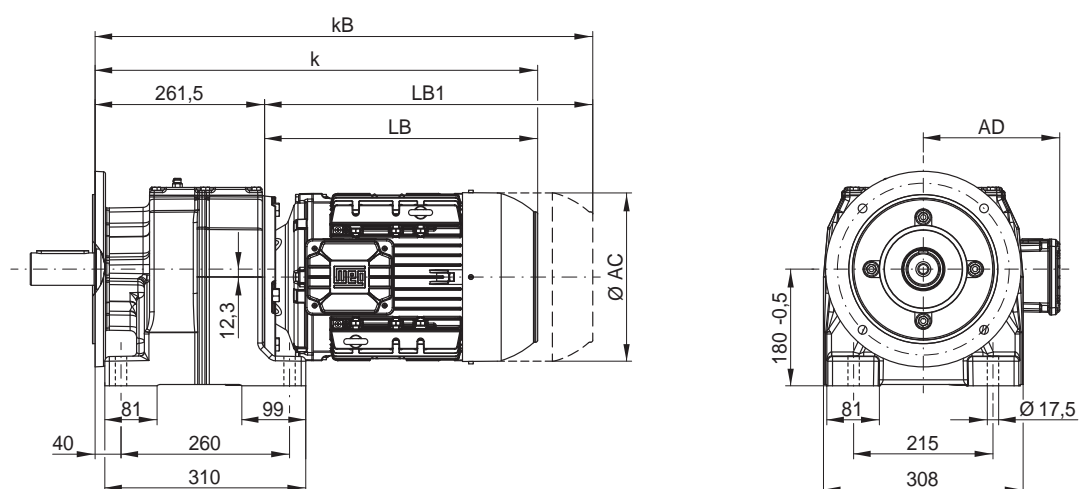


Flange Ø 350



CA08 - Foot mounted and B5 flange execution

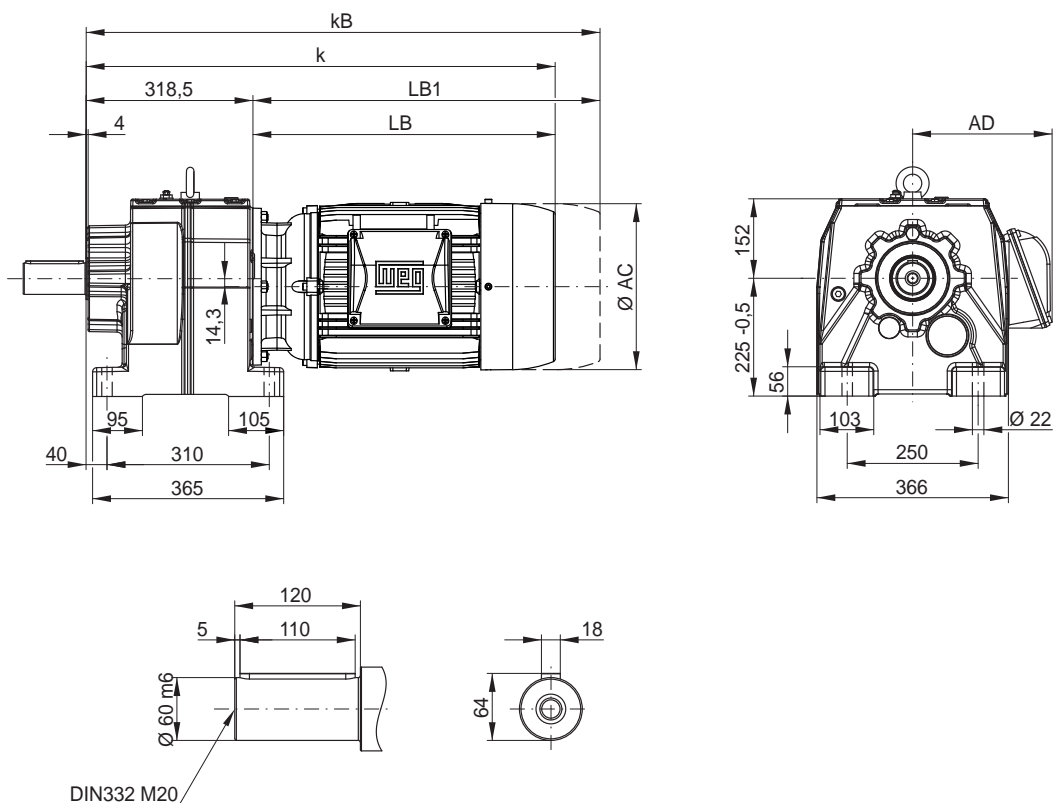
mountable flange sizes on the housing: Ø 300



Dimensions in mm.

CG092 / CG093 - Foot mounted

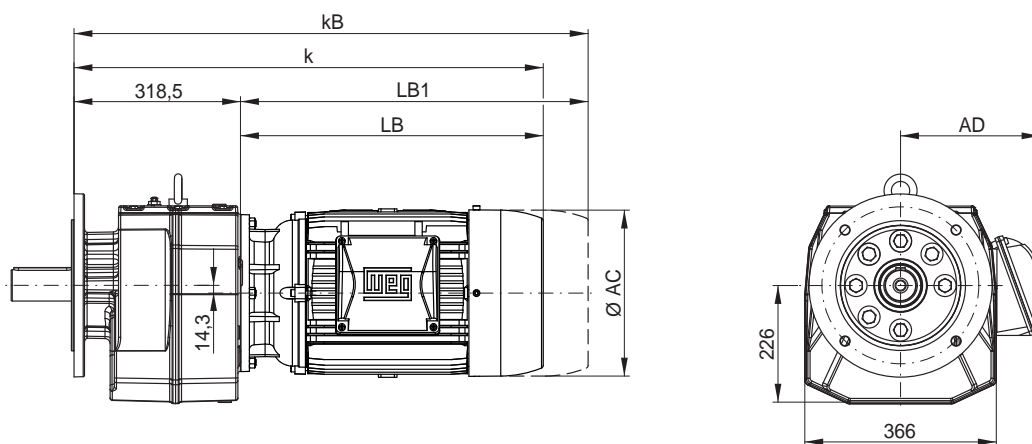
C



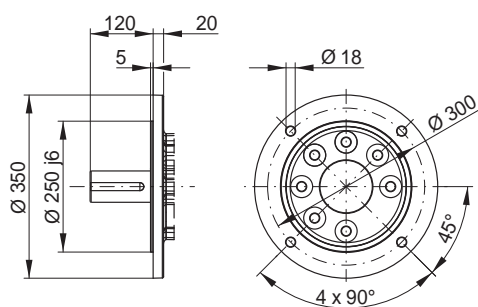
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 523 | 557 | 565 | 589 | 607 | 657 | 695 | 667 | 732 | 770 | 854 | 898 | 922 | 960 | 1052 |
| kB | 567 | 606 | 623 | 647 | 680 | 741 | 779 | 754 | 850 | 888 | 978 | 1022 | 1040 | 1078 | 1178 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496; Gear unit size C092/C093 corresponds to motor flange FR-300.
Description of motor lengths LB and LB1 see page 500

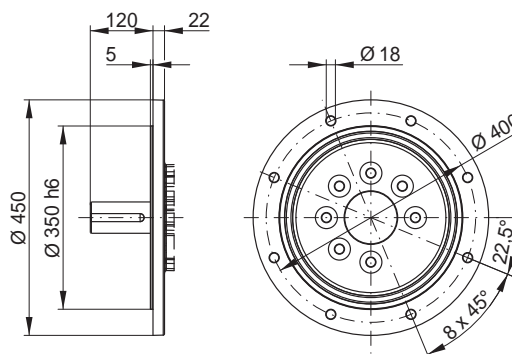
CF092 / CF093 - Flange execution



Flange Ø 350

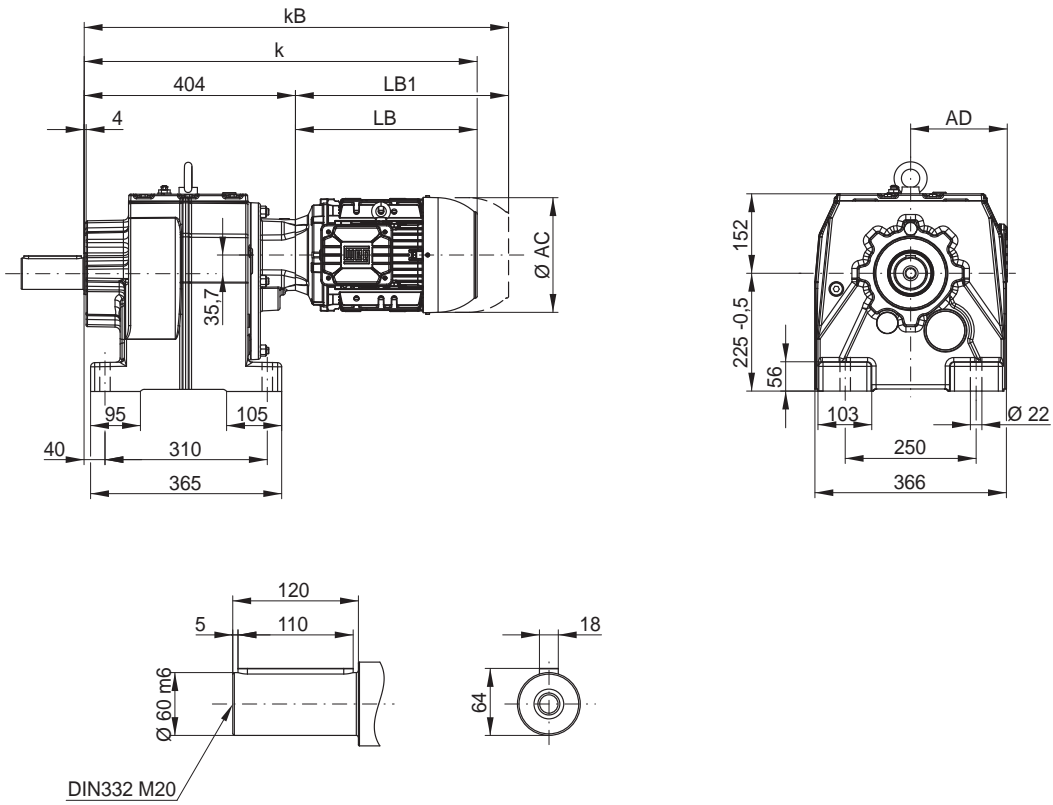


Flange Ø 450



Dimensions in mm.

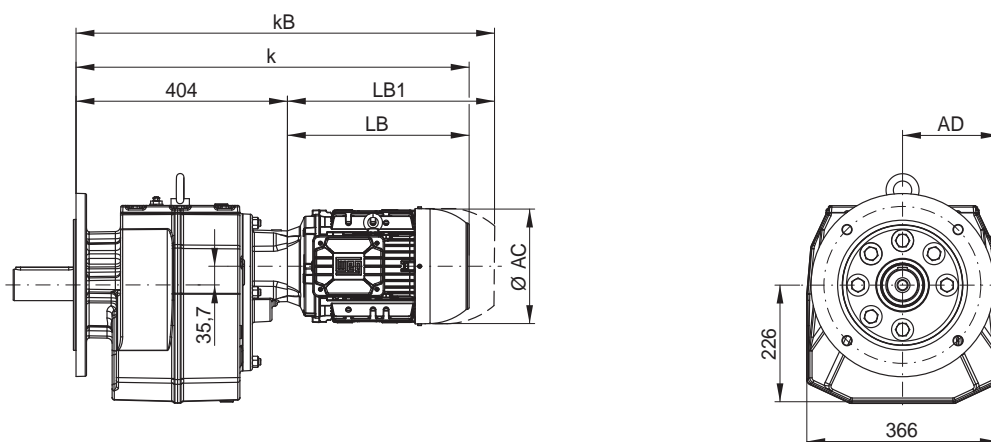
CG094 - Foot mounted



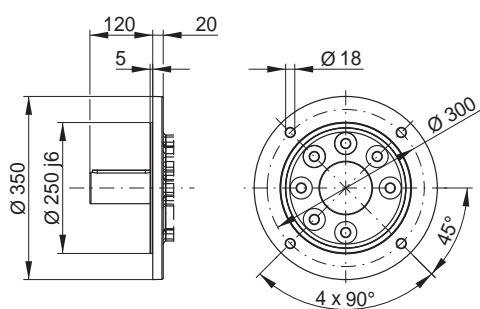
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 608 | 642 | 650 | 674 | 692 | 742 | 780 | 752 | 817 | 855 |
| kB | 652 | 691 | 708 | 732 | 765 | 826 | 864 | 839 | 935 | 973 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496; Gear unit size C094 corresponds to motor flange FR-300.
Description of motor lengths LB and LB1 see page 500

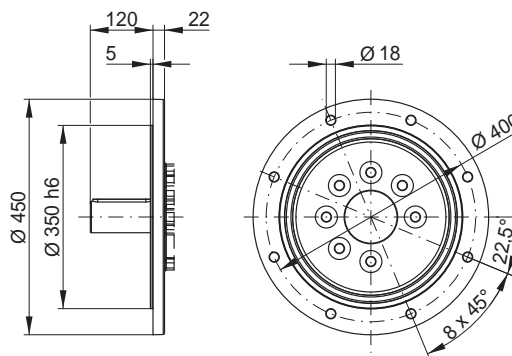
CF094 - Flange execution



Flange $\varnothing 350$



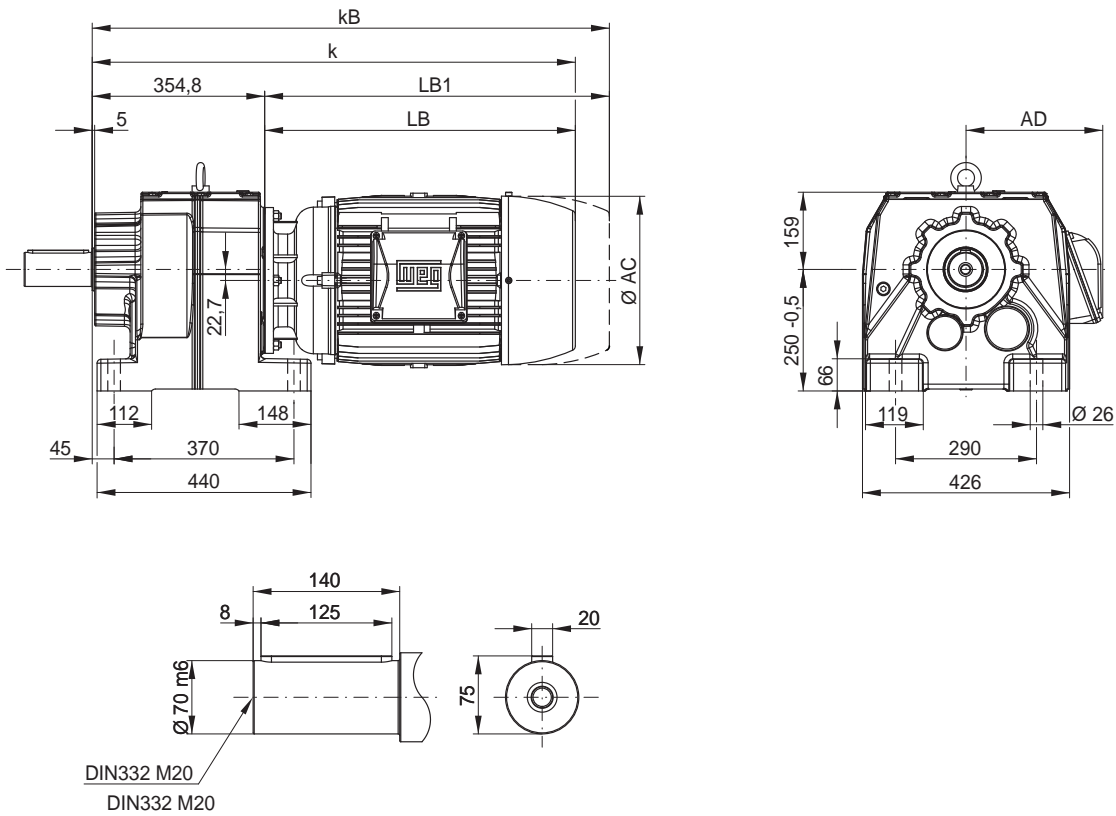
Flange $\varnothing 450$



Dimensions in mm.

CG102 / CG103 - Foot mounted

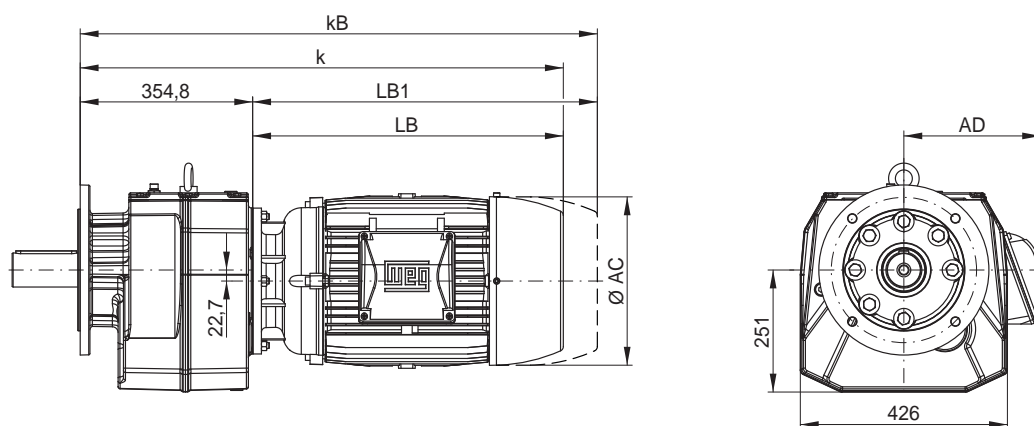
C



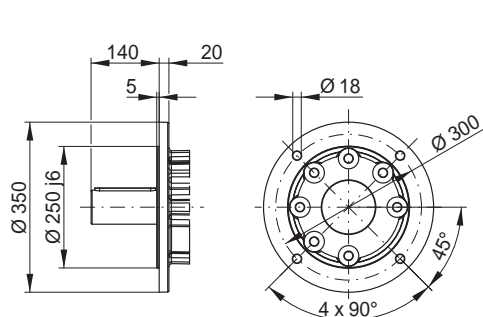
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 559 | 593 | 601 | 625 | 643 | 693 | 731 | 703 | 768 | 806 | 900 | 934 | 958 | 996 | 1088 |
| kB | 603 | 642 | 659 | 683 | 716 | 777 | 815 | 790 | 886 | 924 | 1014 | 1058 | 1076 | 1114 | 1214 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496; Gear unit size C102/C103 corresponds to motor flange FR-300.
Description of motor lengths LB and LB1 see page 500

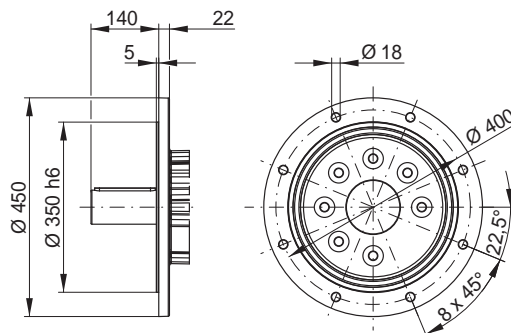
CF102 / CF103 - Flange execution



Flange Ø 350

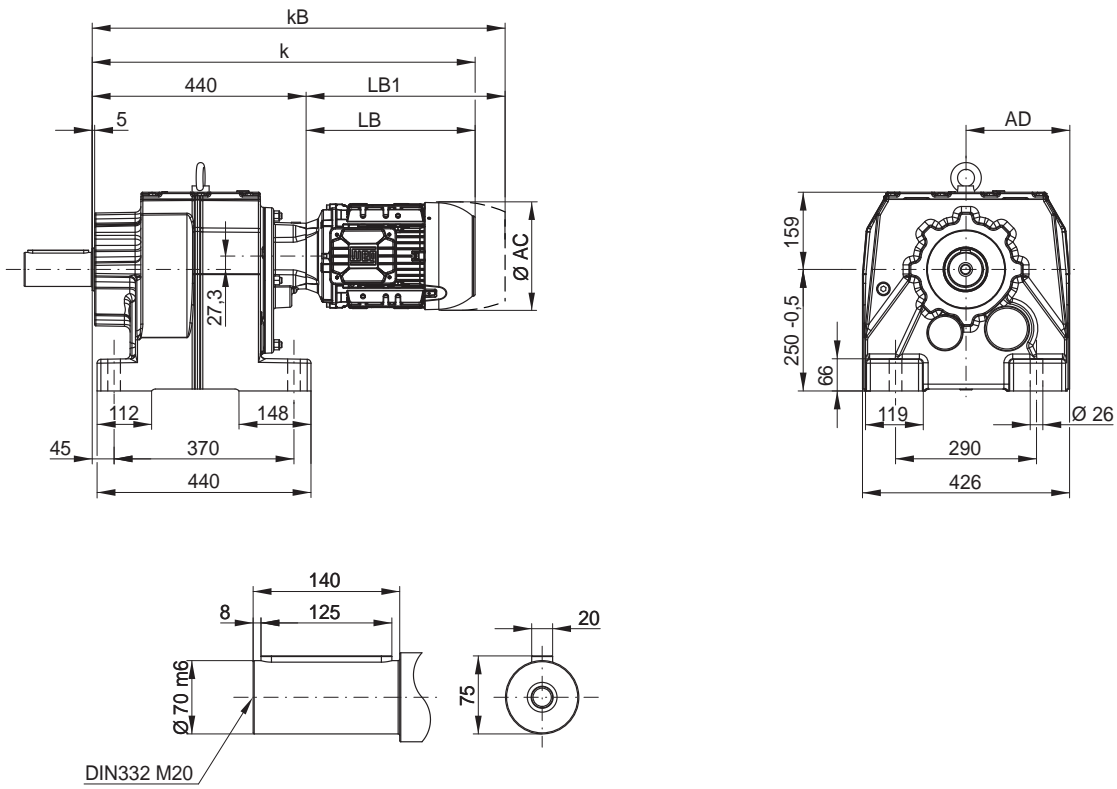


Flange Ø 450



Dimensions in mm.

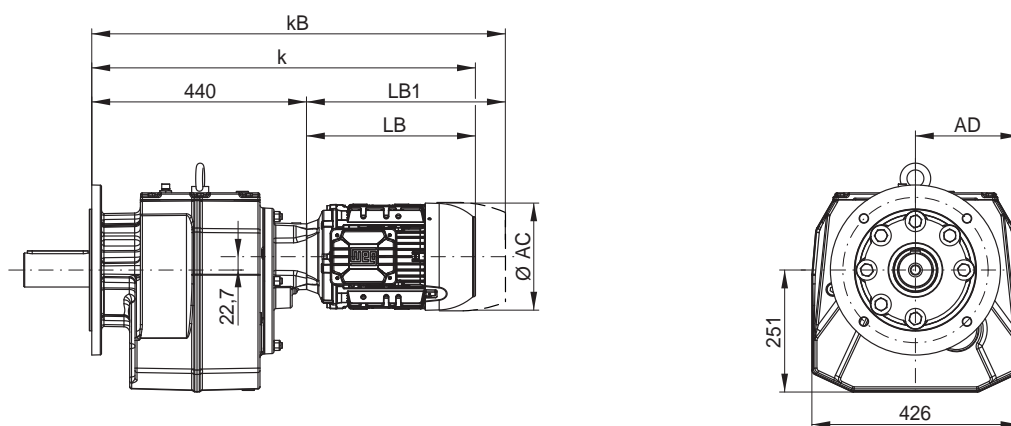
CG104 - Foot mounted



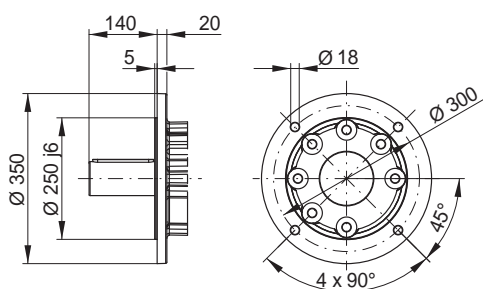
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 644 | 678 | 686 | 710 | 728 | 778 | 816 | 788 | 853 | 891 |
| kB | 688 | 727 | 744 | 768 | 801 | 862 | 900 | 875 | 971 | 1009 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496; Gear unit size C104 corresponds to motor flange FR-300.
Description of motor lengths LB and LB1 see page 500

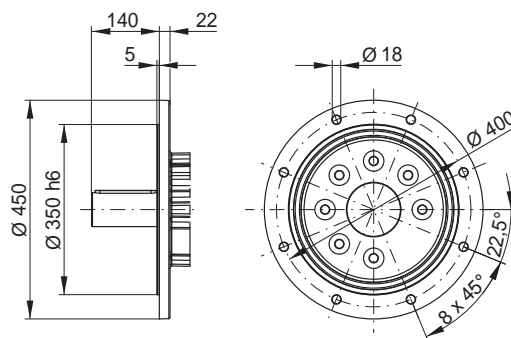
CF104 - Flange execution



Flange $\varnothing 350$



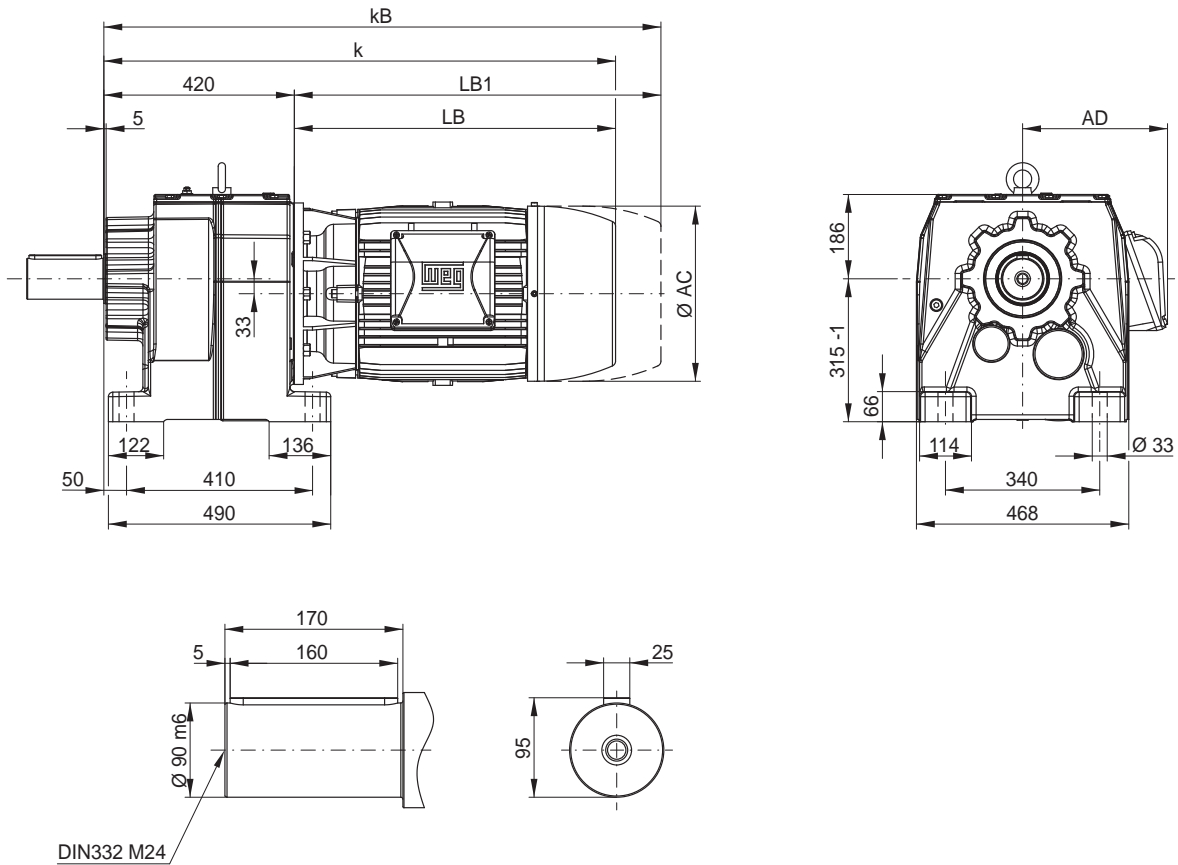
Flange $\varnothing 450$



Dimensions in mm.

CG132 / CG133 - Foot mounted

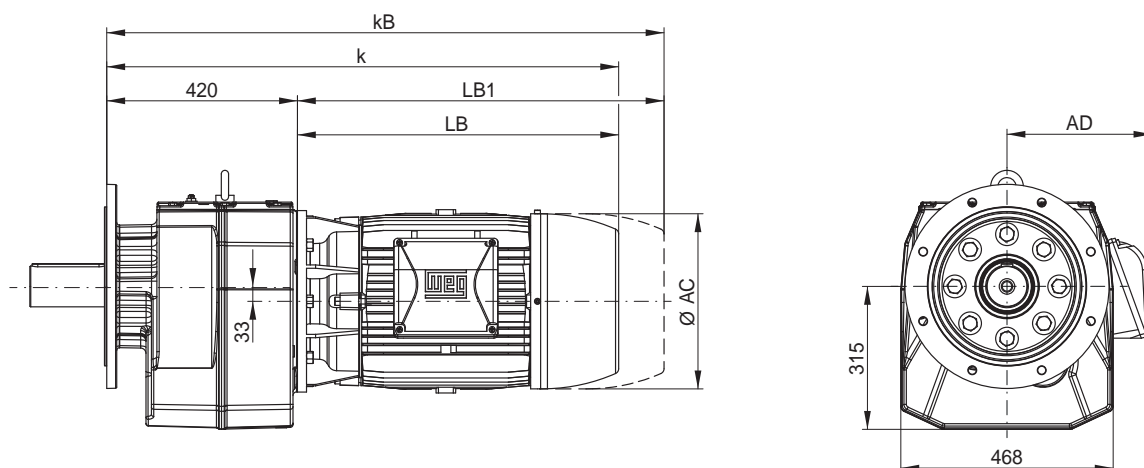
C



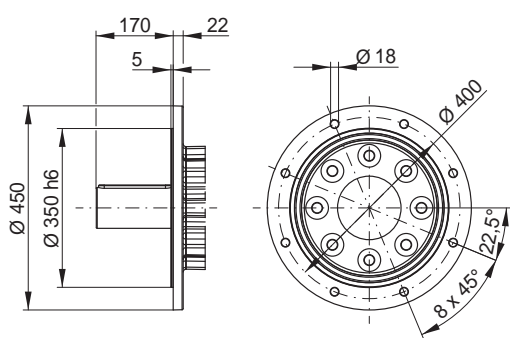
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|
| Dimension | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 | 453 |
| AD | - | - | - | - | - | - | - | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 | 385 |
| k | - | - | - | - | - | - | - | 768 | 833 | 871 | 942 | 986 | 1010 | 1048 | 1140 | 1248 |
| kB | - | - | - | - | - | - | - | 855 | 951 | 989 | 1066 | 1110 | 1128 | 1166 | 1266 | 1366 |
| LB | - | - | - | - | - | - | - | 348 | 413 | 451 | 522 | 566 | 590 | 628 | 720 | 828 |
| LB1 | - | - | - | - | - | - | - | 435 | 531 | 569 | 646 | 690 | 708 | 746 | 846 | 946 |

Motor dimension sheets see page 496; Gear unit size C132/C133 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500

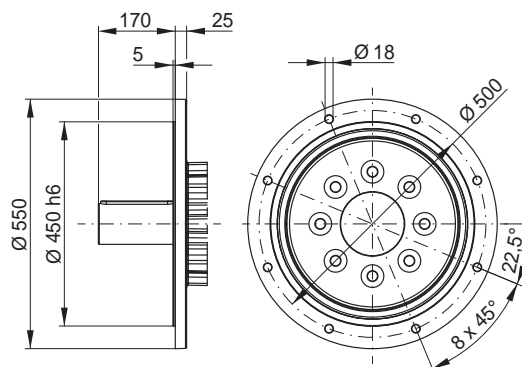
CF132 / CF133 - Flange execution



Flange Ø 450

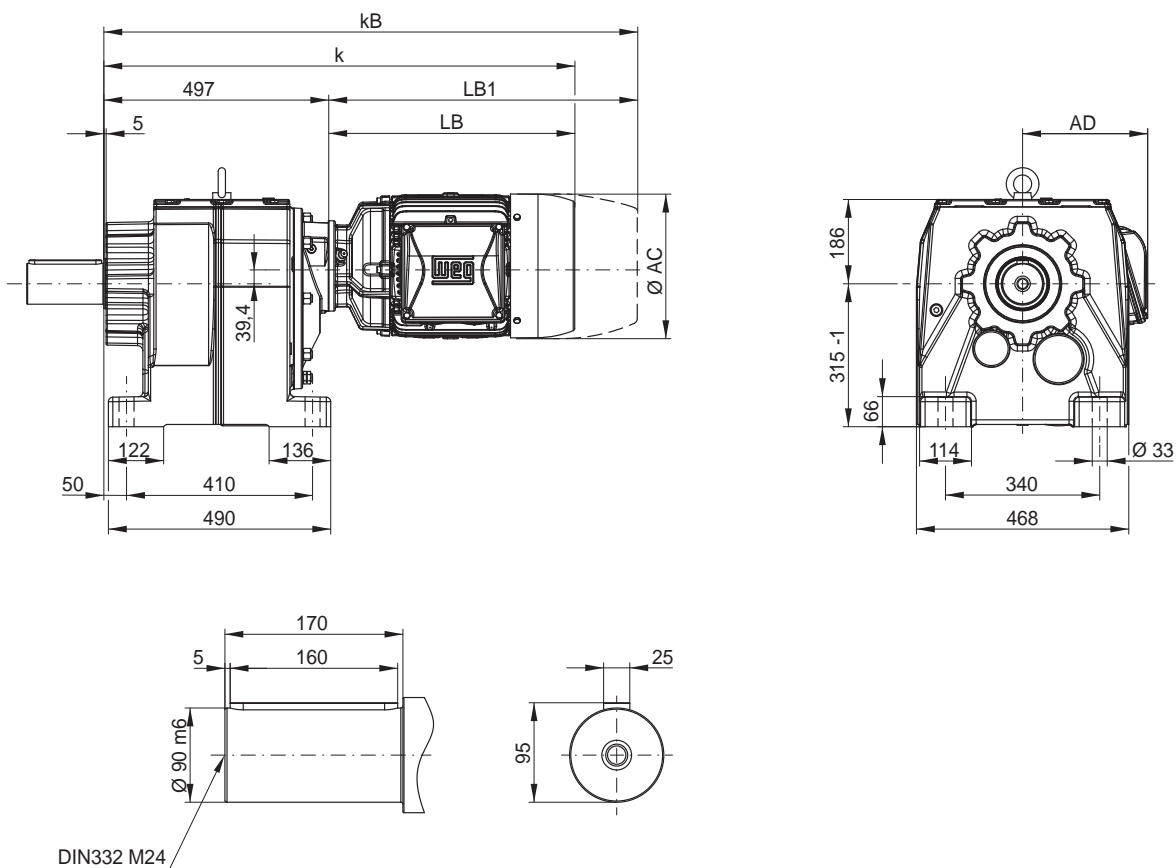


Flange Ø 550



Dimensions in mm.

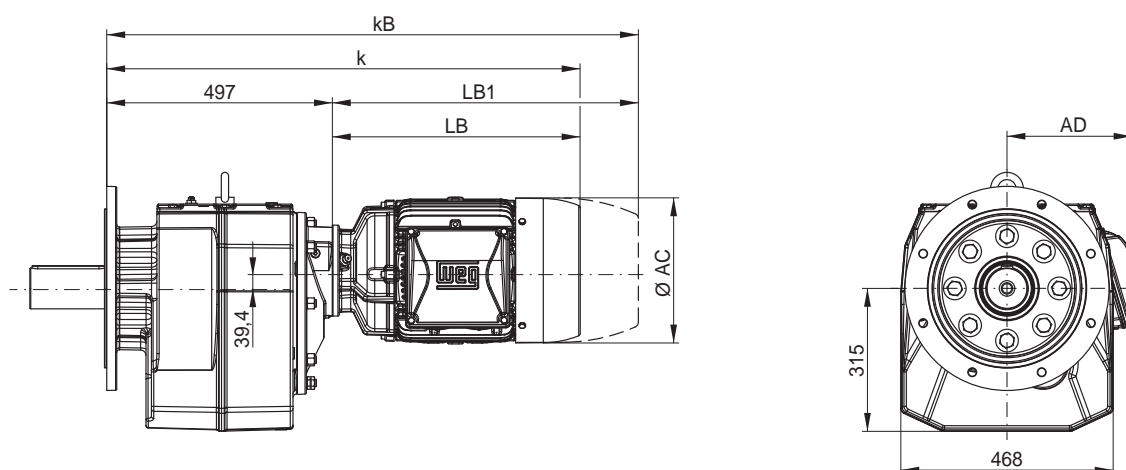
CG134 - Foot mounted



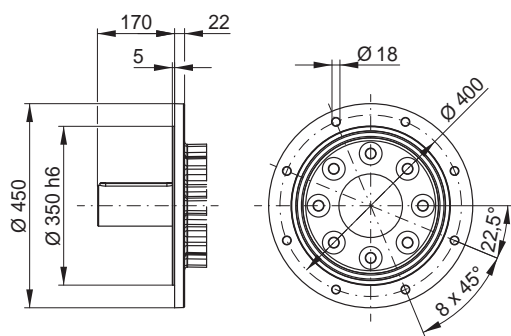
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 701 | 735 | 743 | 767 | 785 | 835 | 873 | 845 | 910 | 948 | 1042 | 1086 |
| kB | 745 | 784 | 801 | 825 | 858 | 919 | 957 | 932 | 1028 | 1066 | 1166 | 1210 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size C134 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500

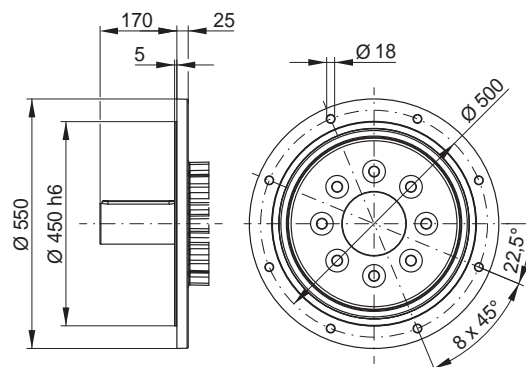
CF134 - Flange execution



Flange $\varnothing 450$



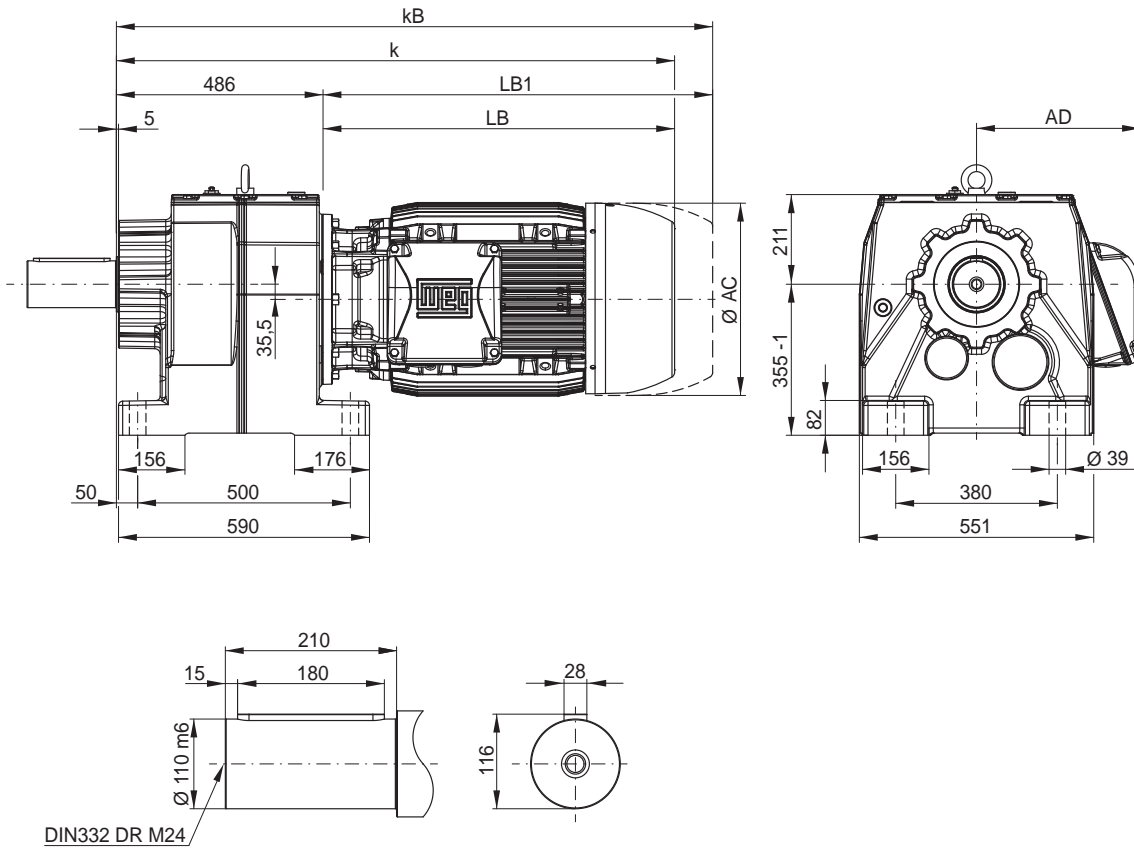
Flange $\varnothing 550$



Dimensions in mm.

CG142 / CG143 - Foot mounted

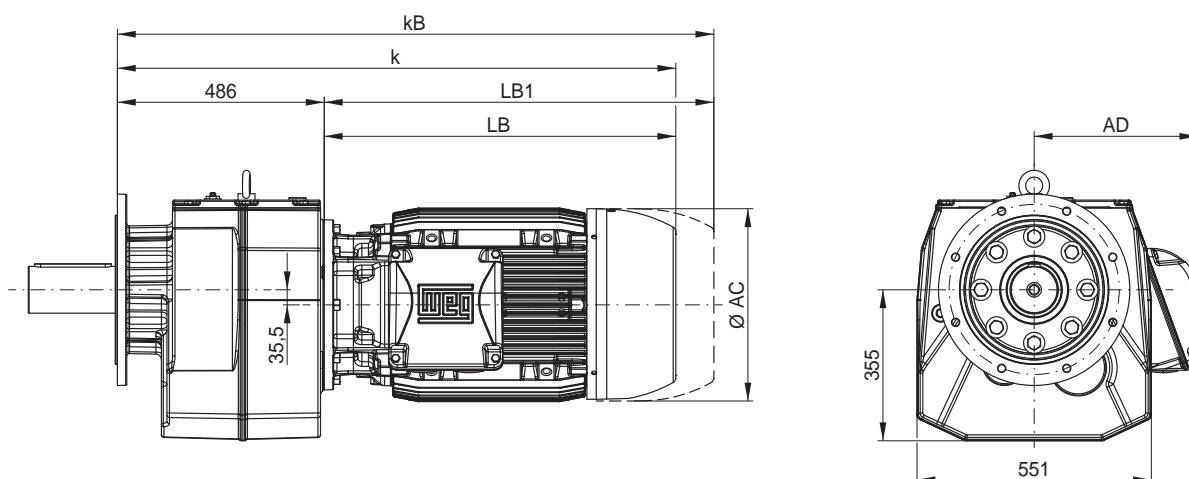
C



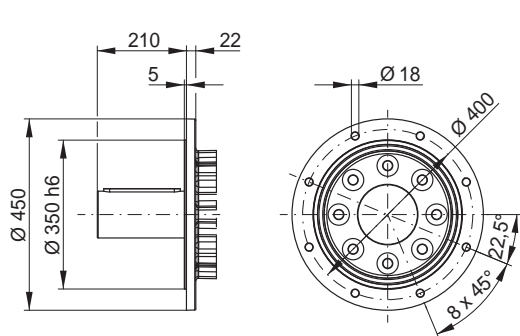
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|
| Dimension | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 | 453 |
| AD | - | - | - | - | - | - | - | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 | 385 |
| k | - | - | - | - | - | - | - | 834 | 899 | 937 | 1008 | 1052 | 1076 | 1114 | 1206 | 1314 |
| kB | - | - | - | - | - | - | - | 921 | 1017 | 1055 | 1132 | 1176 | 1194 | 1232 | 1332 | 1432 |
| LB | - | - | - | - | - | - | - | 348 | 413 | 451 | 522 | 566 | 590 | 628 | 720 | 828 |
| LB1 | - | - | - | - | - | - | - | 435 | 531 | 569 | 646 | 690 | 708 | 746 | 846 | 946 |

Motor dimension sheets see page 496; Gear unit size C142/143 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500

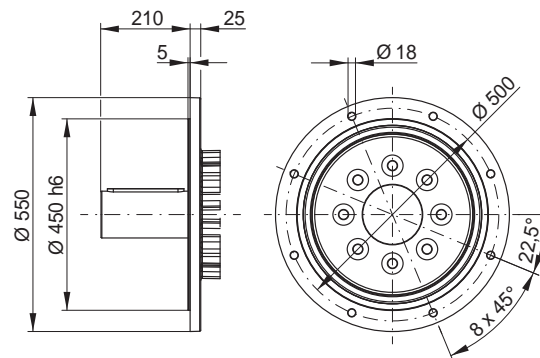
CF142 / CG143 - Flange execution



Flange Ø 450

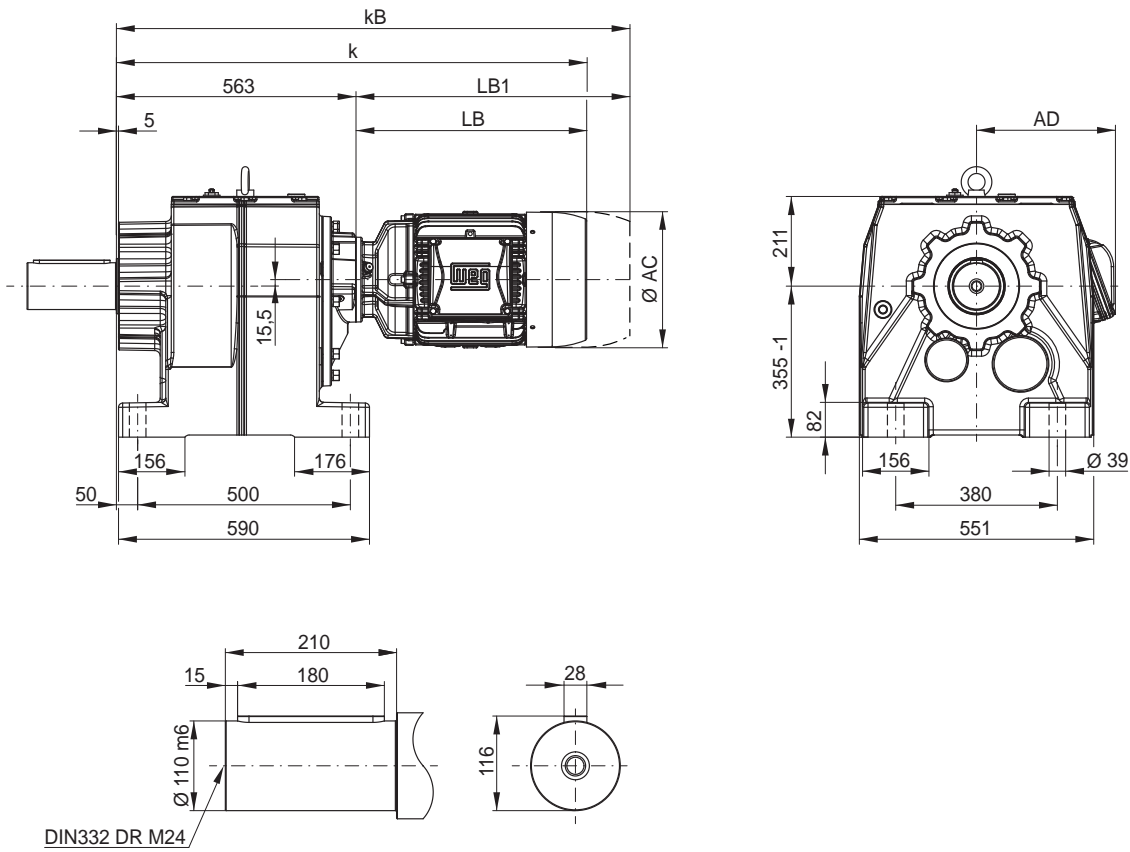


Flange Ø 550



Dimensions in mm.

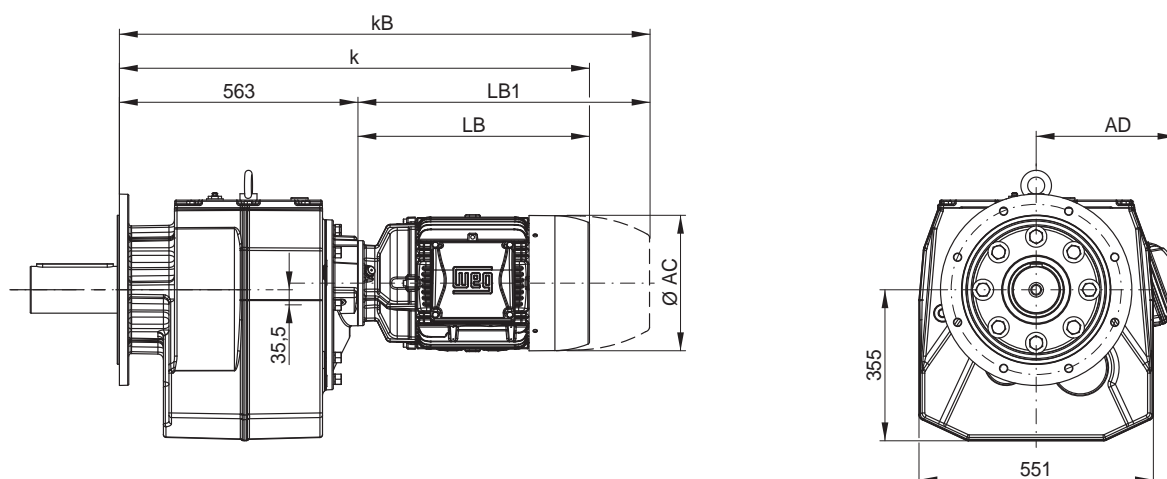
CG144 - Foot mounted



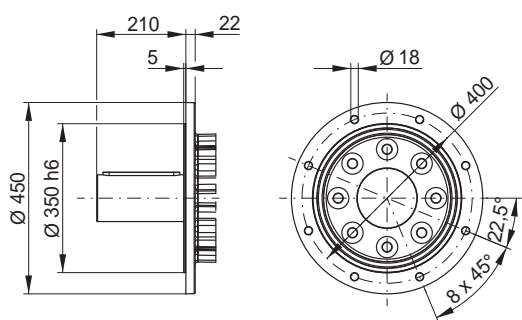
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 767 | 801 | 809 | 833 | 851 | 901 | 939 | 911 | 976 | 1014 | 1108 | 1152 |
| kB | 811 | 850 | 867 | 891 | 924 | 985 | 1023 | 998 | 1094 | 1132 | 1232 | 1276 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size C144 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500

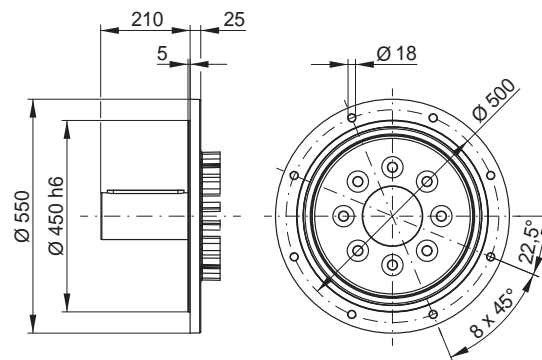
CF144 - Flange execution



Flange Ø 450

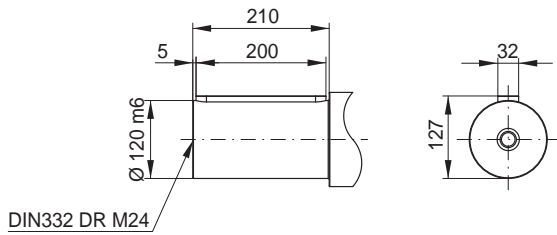
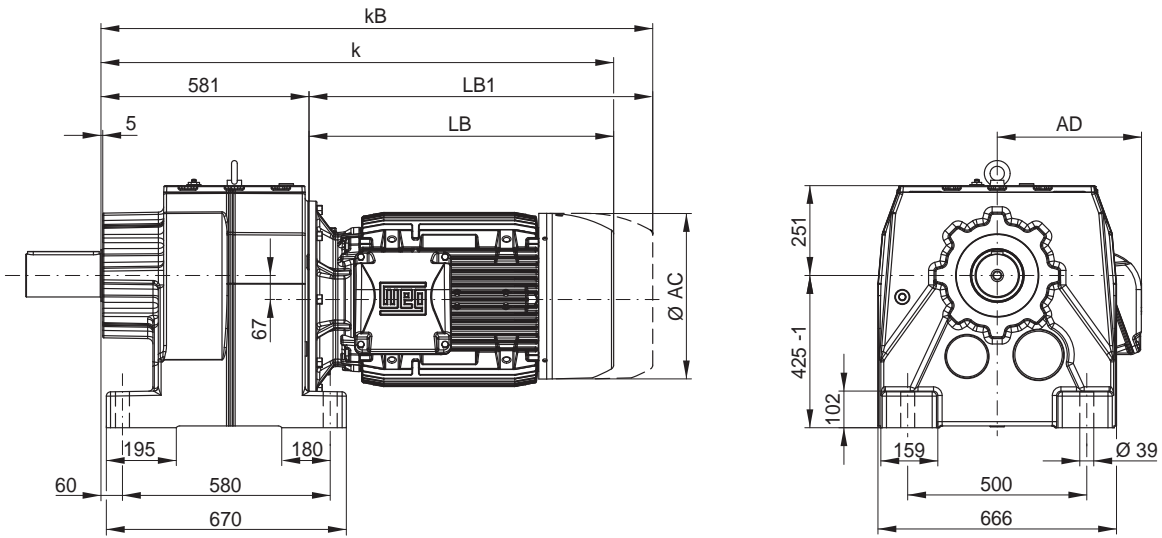


Flange Ø 550



Dimensions in mm.

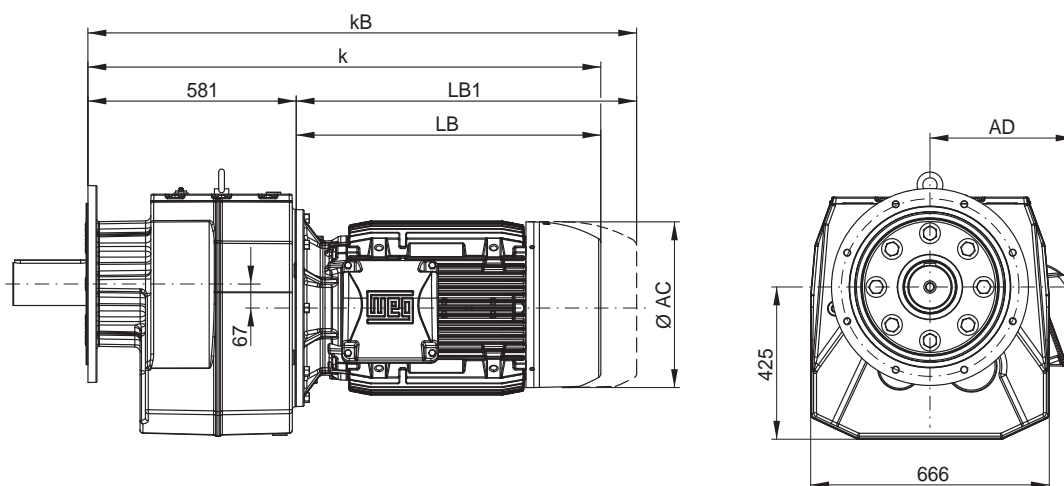
CG162 / CG163 - Foot mounted



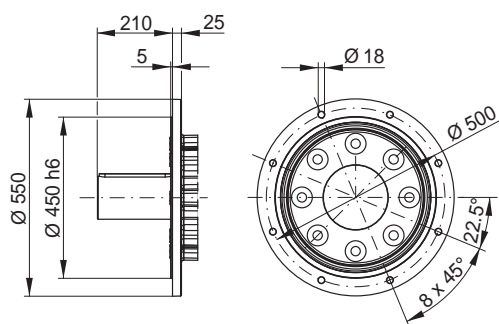
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M | 250S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|--------|
| Dimension | | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | - | - | - | 329 | 329 | 347 | 347 | 386 | 453 | 482 |
| AD | - | - | - | - | - | - | - | - | - | - | 266 | 266 | 281 | 281 | 317 | 385 | 403 |
| k | - | - | - | - | - | - | - | - | - | - | 1087 | 1131 | 1155 | 1193 | 1285 | 1393 | 1432 |
| kB | - | - | - | - | - | - | - | - | - | - | 1211 | 1255 | 1273 | 1311 | 1411 | 1511 | 1550 |
| LB | - | - | - | - | - | - | - | - | - | - | 506 | 550 | 574 | 612 | 704 | 812 | 851 |
| LB1 | - | - | - | - | - | - | - | - | - | - | 630 | 674 | 692 | 730 | 830 | 930 | 969 |

Motor dimension sheets see page 496; Gear unit size C162/C163 corresponds to motor flange FR-550.
Description of motor lengths LB and LB1 see page 500

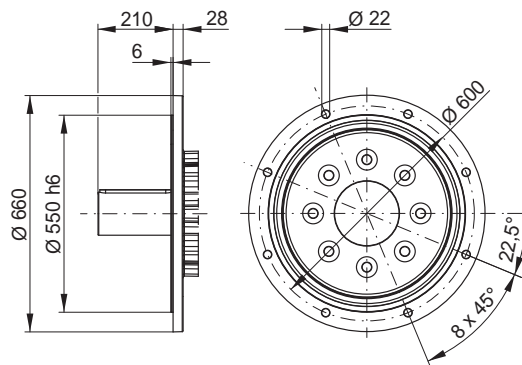
CF162 / CF163 - Flange execution



Flange $\varnothing 550$

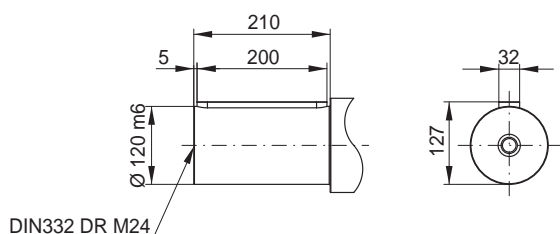
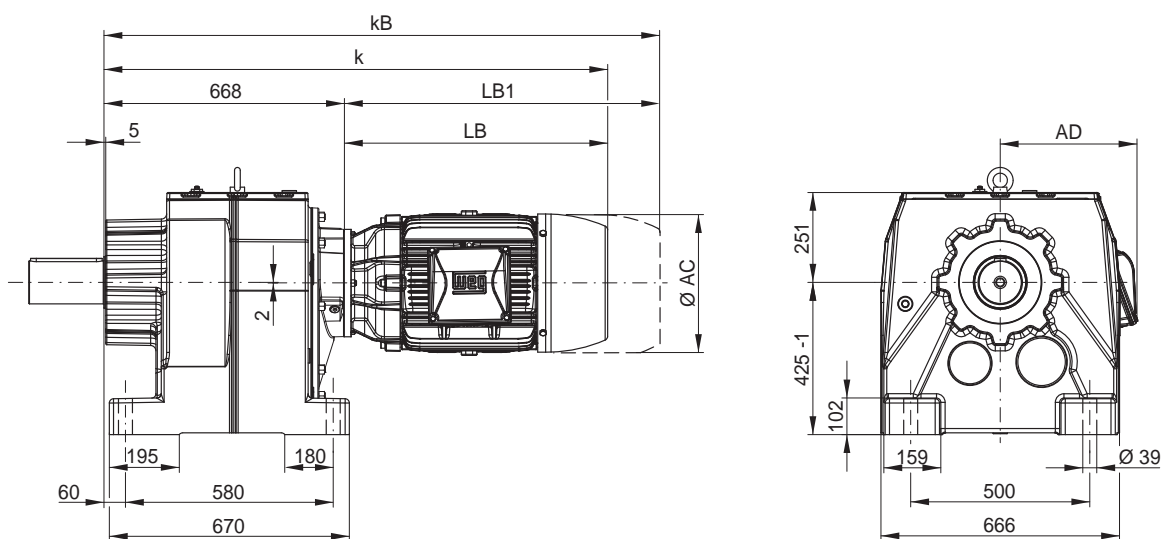


Flange $\varnothing 660$



Dimensions in mm.

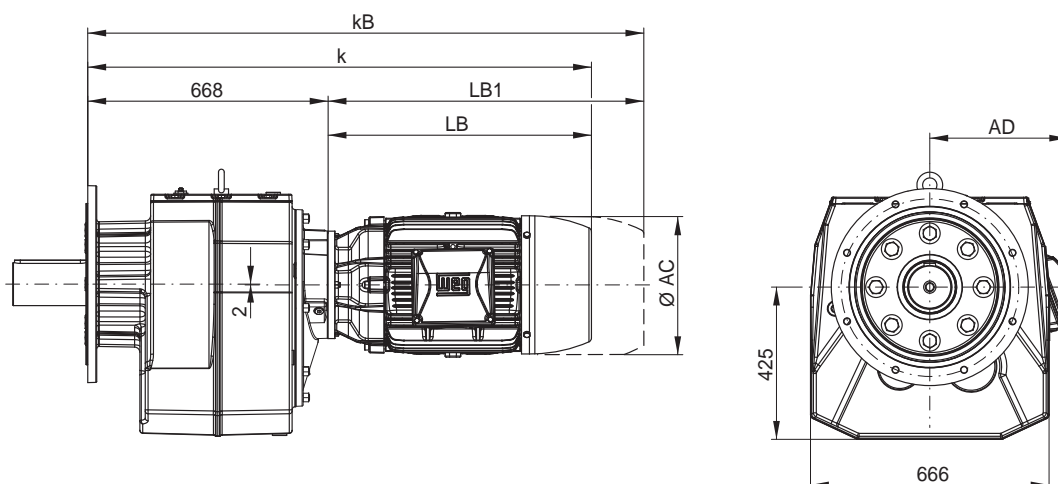
CG164 - Foot mounted



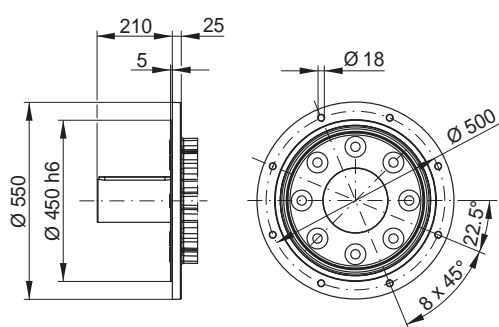
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| kB | 916 | 955 | 972 | 996 | 1029 | 1090 | 1128 | 1103 | 1199 | 1237 | 1327 | 1371 | 1389 | 1427 | 1527 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496; Gear unit size C164 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500

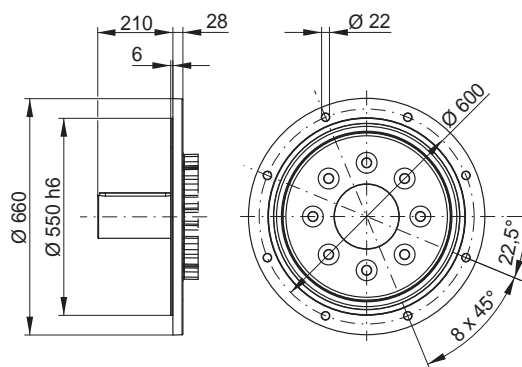
CF164 - Flange execution



Flange $\varnothing 550$



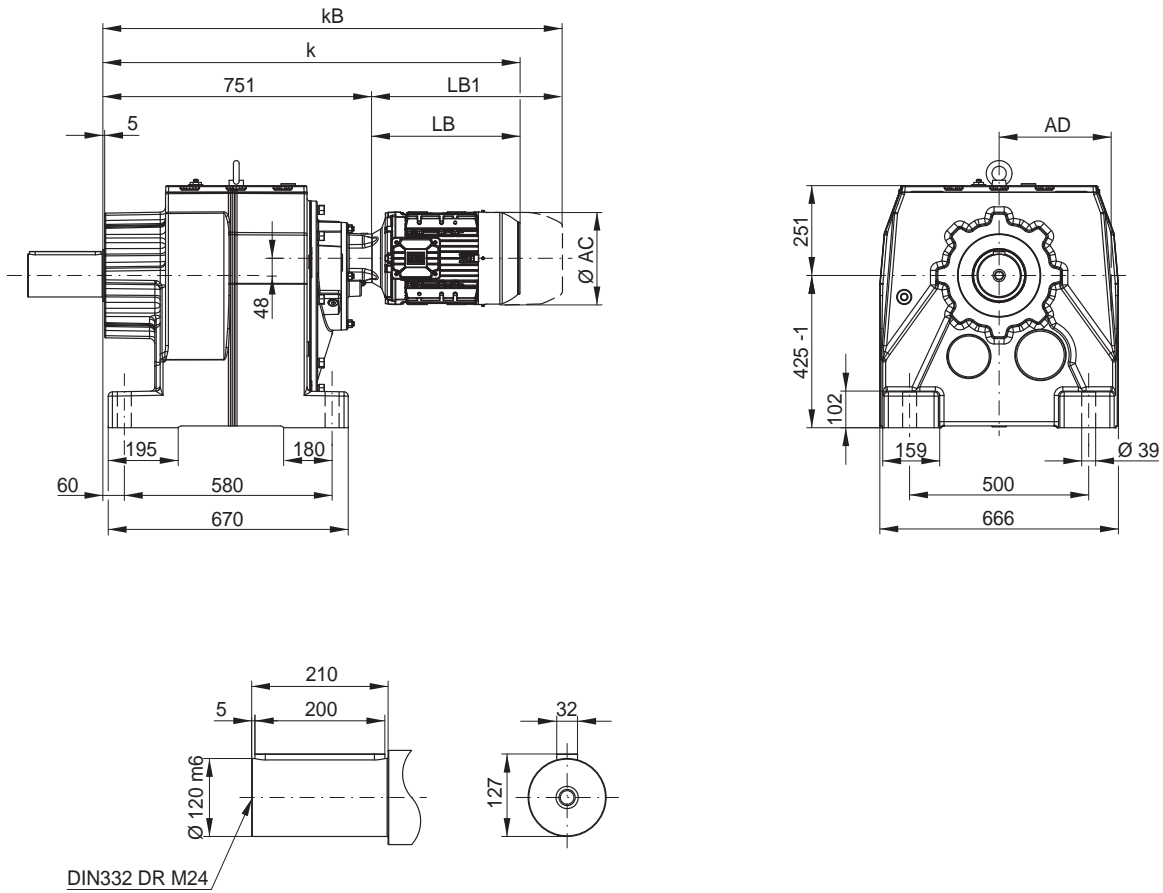
Flange $\varnothing 660$



Dimensions in mm.

CG165 - Foot mounted

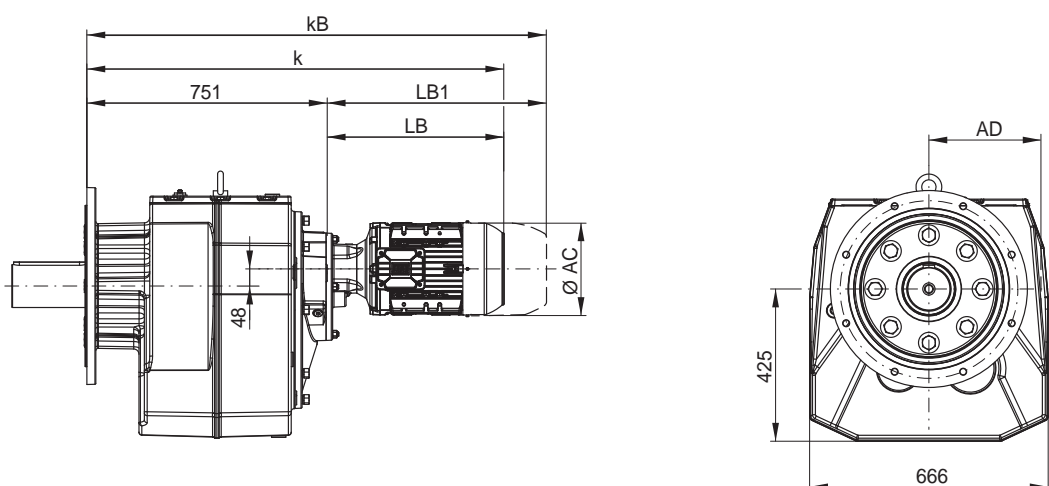
C



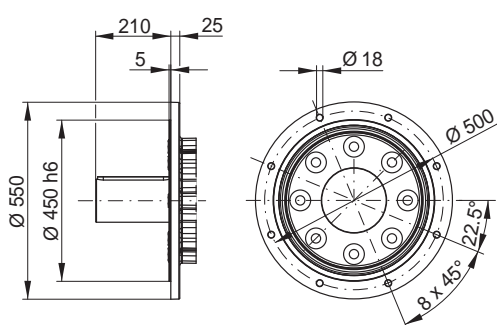
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|------|------|------|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 955 | 989 | 997 | 1021 | 1039 | 1089 | 1127 | 1099 | 1164 | 1202 |
| kB | 999 | 1038 | 1055 | 1079 | 1112 | 1173 | 1211 | 1186 | 1282 | 1320 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496; Gear unit size C165 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500

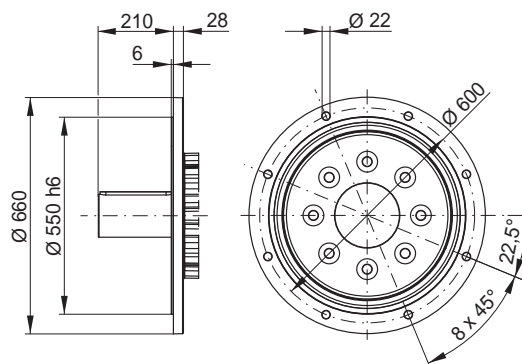
CF165 - Flange execution



Flange $\varnothing 550$

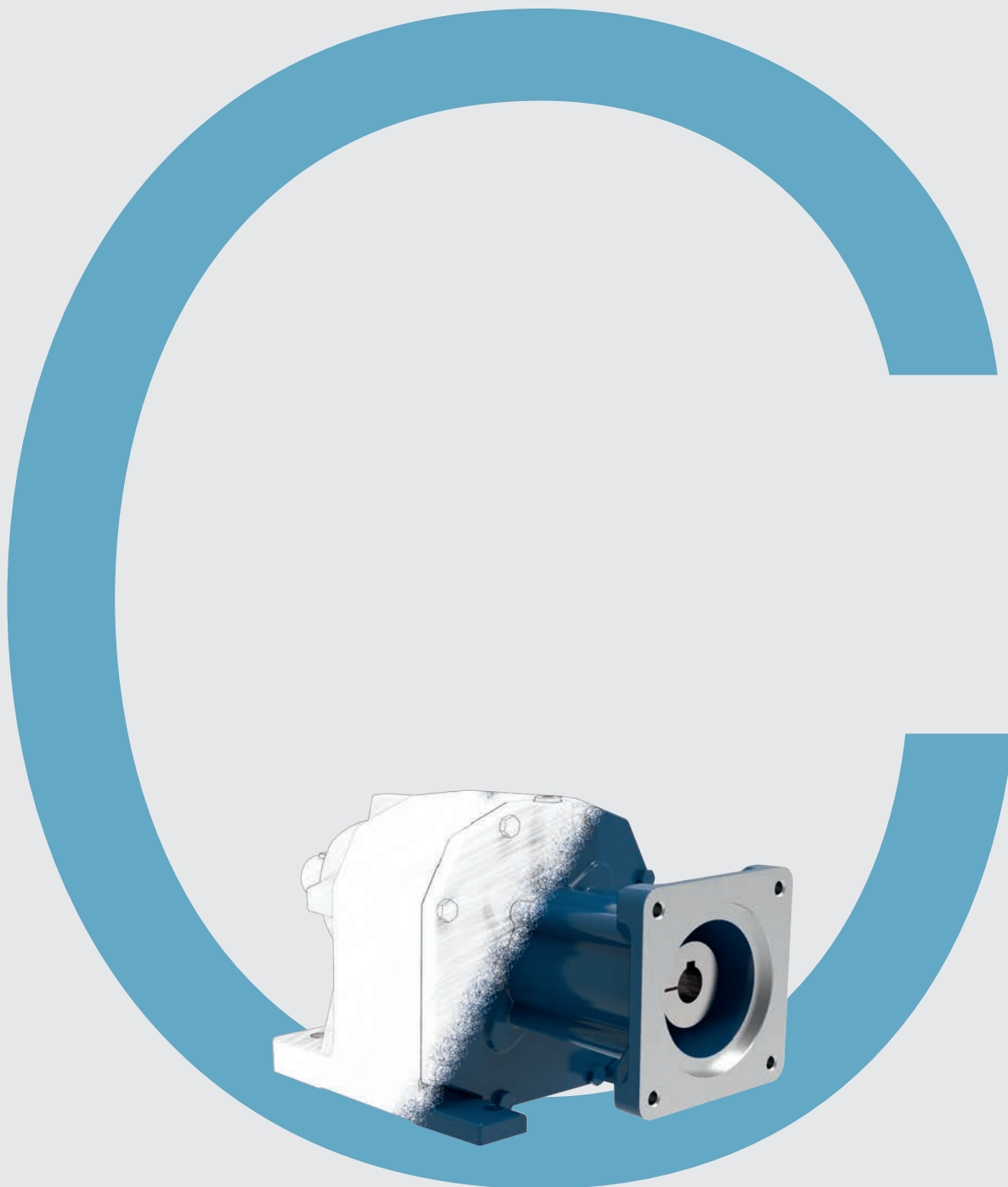


Flange $\varnothing 660$

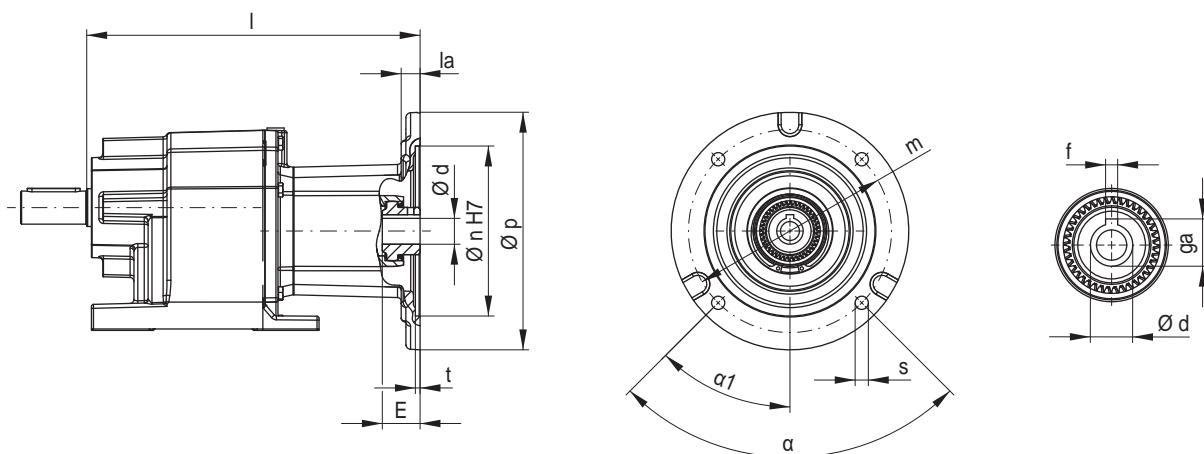


Dimensions in mm.

Dimension sheets Input types



IEC Adapter I63 to I280



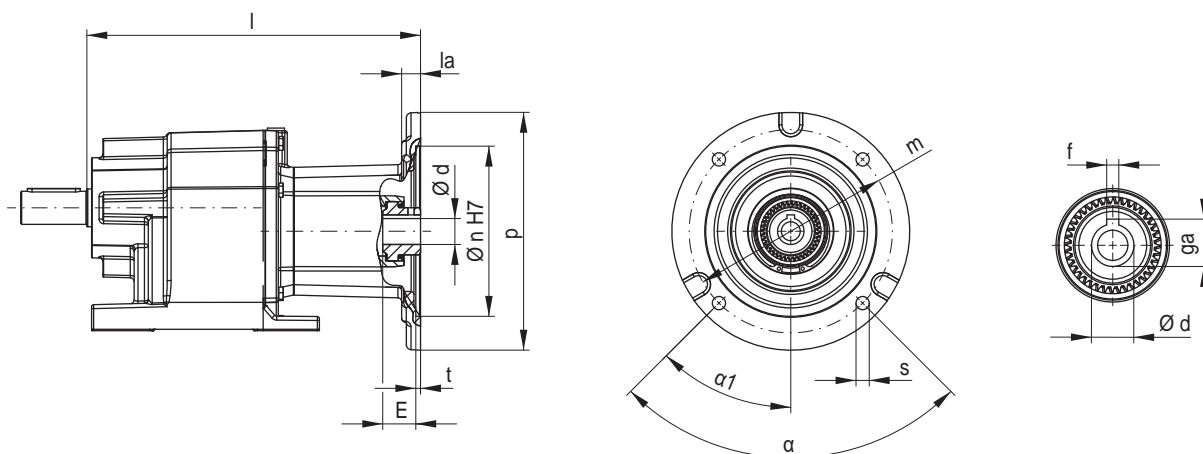
| Type | I63 | I71 | I80 | I90 | I100 | I112 | I132 | I160 | I180 | I200 | I225 | I250 | I280 |
|-----------------|-------|-------|------|------|------|------|------|-------|-------|-------|------|------|------|
| p | 154 | 154 | 200 | 200 | 250 | 250 | 300 | 350 | 350 | 400 | 450 | 550 | 550 |
| n | 95 | 110 | 130 | 130 | 180 | 180 | 230 | 250 | 250 | 300 | 350 | 450 | 450 |
| la | 22.5 | 10 | 13 | 13 | 15 | 20 | 15 | 35 | 35 | 20 | 20 | 20 | 20 |
| m | 115 | 130 | 165 | 165 | 215 | 215 | 265 | 300 | 300 | 350 | 400 | 500 | 500 |
| t | 4.5 | 4.5 | 4.5 | 4.5 | 5 | 5 | 5 | 5 | 5 | 5.5 | 5 | 5 | 5 |
| s | M8x16 | M8x10 | 11 | 11 | 13.5 | 13.5 | 13.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 |
| α | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 45 | 45 | 45 |
| α ₁ | 35 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| d | 11 | 14 | 19 | 24 | 28 | 28 | 38 | 42 | 48 | 55 | 60 | 65 | 75 |
| f | 4 | 5 | 6 | 8 | 8 | 8 | 10 | 12 | 14 | 16 | 18 | 18 | 20 |
| ga | 12.8 | 16.3 | 21.8 | 27.3 | 31.3 | 31.3 | 41.3 | 45.3 | 51.8 | 59.3 | 64.4 | 69.4 | 79.9 |
| E ¹⁾ | 25 | 32 | 43 | 47.5 | 63 | 100 | 85.5 | 111.5 | 111.5 | 114.5 | 140 | 146 | 146 |

¹⁾ Maximum motor shaft length for motors with key

| Gear unit size | I63 | I71 | I80 | I90 | I100 | I112 | I132 | I160 | I180 | I200 | I225 | I250 | I280 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| | | l | | | | | | | | | | | |
| C00 | 150.5 | 150.5 | 178.5 | - | - | - | - | - | - | - | - | - | - |
| C01 | 163 | 163 | 191 | 191 | - | - | - | - | - | - | - | - | - |
| C03 | 190.5 | 190.5 | 218.5 | 218.5 | 249.5 | - | - | - | - | - | - | - | - |
| C05 | 226 | 226 | 254 | 254 | 285 | 338 | 349 | - | - | - | - | - | - |
| C06 | 241 | 241 | 269 | 269 | 300 | 353 | 364 | - | - | - | - | - | - |
| C07 | 252.5 | 252.5 | 280.5 | 280.5 | 311.5 | 364.5 | 375.5 | 461.5 | - | - | - | - | - |
| C08 | 293.5 | 293.5 | 321.5 | 321.5 | 352.5 | 405.5 | 416.5 | 498.5 | 498.5 | - | - | - | - |
| C09 | 343 | 343 | 371 | 371 | 402 | 455 | 466 | 550.5 | 550.5 | 579 | - | - | - |
| C10 | 379 | 379 | 407 | 407 | 438 | 491 | 502 | 586.5 | 586.5 | 615 | - | - | - |
| C13 | - | - | - | - | - | 545.5 | 556.5 | 638.5 | 638.5 | 667 | 697 | - | - |
| C14 | - | - | - | - | - | 611.5 | 622.5 | 704.5 | 704.5 | 733 | 763 | 852 | - |
| C16 | - | - | - | - | - | - | - | 783.5 | 783.5 | 812 | 842 | 931 | 931 |

Dimensions in mm.

NEMA Adapter N56 to N364

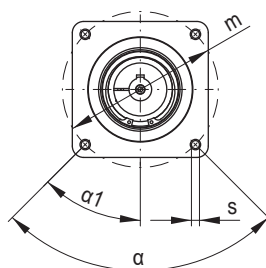
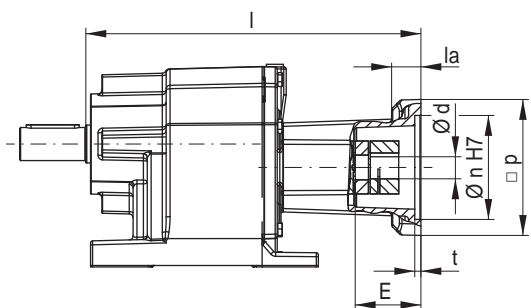


| Type | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 |
|-----------------|---------|----------|--------|--------|----------|----------|----------|----------|--------|
| p | 170 | 170 | 250 | 250 | 300 | 225 | 280 | 350 | 400 |
| n | 114.3 | 114.3 | 215.9 | 215.9 | 215.9 | 215.9 | 266.7 | 317.5 | 317.5 |
| la | 13 | 13 | 10 | 16.8 | 10 | 30 | 35 | 15 | 15 |
| m | 149.225 | 149.225 | 184.15 | 184.15 | 184.15 | 184.15 | 228.6 | 279.4 | 279.4 |
| t | 4.5 | 4.5 | 5 | 3.2 | 5 | 5 | 3 | 5 | 5 |
| s | 11 | 11 | 14 | 14 | 14 | 14 | 14 | 19 | 19 |
| α | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| α ₁ | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| d | 15.875 | 22.225 | 28.575 | 28.575 | 34.925 | 41.275 | 47.625 | 53.975 | 60.325 |
| f | 4.775 | 4.775 | 6.350 | 6.350 | 7.950 | 9.525 | 12.700 | 12.700 | 15.875 |
| ga | 18.008 | 24.486 | 31.521 | 31.521 | 38.557 | 45.618 | 53.238 | 59.690 | 67.335 |
| E ¹⁾ | 55 | 55 | 67.5 | 96.8 | 80.5 | 105.5 | 111.5 | 109.5 | 109.5 |

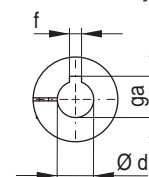
¹⁾ Maximum motor shaft length for motors with key

| Gear unit size | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 |
|----------------|-------|----------|-------|-------|----------|----------|----------|----------|-------|
| | l | | | | | | | | |
| C00 | 178.5 | 178.5 | - | - | - | - | - | - | - |
| C01 | 191 | 191 | - | - | - | - | - | - | - |
| C03 | 218.5 | 218.5 | 249.5 | - | - | - | - | - | - |
| C05 | 254 | 254 | 285 | 338 | 349 | - | - | - | - |
| C06 | 269 | 269 | 300 | 353 | 364 | - | - | - | - |
| C07 | 280.5 | 280.5 | 311.5 | 364.5 | 375.5 | 461.5 | - | - | - |
| C08 | 321.5 | 321.5 | 352.5 | 405.5 | 416.5 | 498.5 | 501.5 | - | - |
| C09 | 371 | 371 | 402 | 455 | 466 | 550.5 | 553.5 | 601 | - |
| C10 | 407 | 407 | 438 | 491 | 502 | 586.5 | 589.5 | 637 | - |
| C13 | - | - | - | 545.5 | 556.5 | 638.5 | 641.5 | 689 | 704.5 |
| C14 | - | - | - | 611.5 | 622.5 | 704.5 | 707.5 | 755 | 770.5 |
| C16 | - | - | - | - | - | 783.5 | 786.5 | 849.5 | 849.5 |

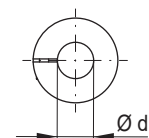
SERVO Adapter S92 to S190



Shaft with key



Smooth shaft



| Type | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| p | 101 | 144 | 144 | 144 | 144 | 144 | 144 | 197 | 197 | 197 | | | | | | | | | |
| n | 80 | 95 | 95 | 110 | 110 | 110 | 130 | 114.3 | 130 | 180 | | | | | | | | | |
| la | 17.5 | 31 | 31 | 31 | 31 | 31 | 31 | 35 | 32 | 38 | | | | | | | | | |
| m | 100 | 115 | 130 | 130 | 145 | 165 | 165 | 200 | 215 | 215 | | | | | | | | | |
| t | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | | | | | | | | |
| s | M6x12 | M8x16 | M8x16 | M8x16 | M8x16 | M8x16 | M8x16 | 13.5 | 15 | 15 | | | | | | | | | |
| α | 90° | 90° | 90° | 90° | 90° | 90° | 90° | 90° | 90° | 90° | | | | | | | | | |
| α ₁ | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° | | | | | | | | | |
| d ¹⁾ | 14 | 16 | 19 | 19 | 19 | 22 | 24 | 28 | 24 | 24 | 32 | 35 | 32 | 38 | 38 | | | | |
| f | 5 | 5 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | | | | |
| ga | 16.3 | 18.3 | 21.8 | 21.8 | 21.8 | 27.3 | 21.8 | 27.3 | 21.8 | 24.8 | 27.3 | 31.3 | 27.3 | 27.3 | 35.3 | 38.3 | 35.3 | 41.3 | 41.3 |
| E ²⁾ | 46 | 46 | 34 | 67 | 67 | 54 | 67 | 54 | 76 | 63 | 63 | 63 | 54 | 63 | 63 | 66 | 74 | 60 | 87 |
| E ³⁾ | 46 | 46 | 46 | 67 | 67 | 67 | 67 | 67 | 76 | 76 | 76 | 63 | 67 | 76 | 63 | 87 | 74 | 60 | 87 |

¹⁾ Other shaft diameters on request

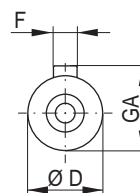
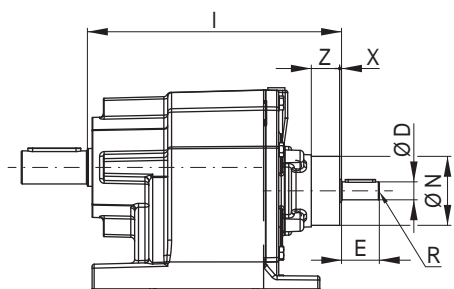
²⁾ Maximum motor shaft length for motors with key

³⁾ Maximum motor shaft length for motors with smooth shaft

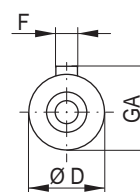
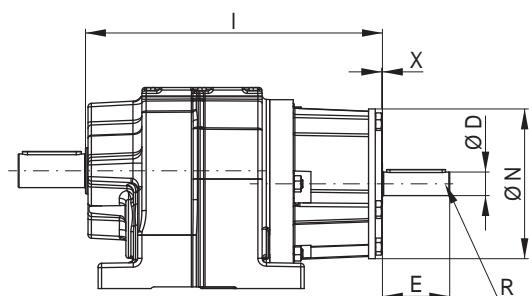
| Gear unit size | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | I | | | | | | | | | |
| C00 | 216 | 264 | 264 | 264 | 264 | 264 | 264 | - | - | - |
| C01 | 228.5 | 276.5 | 276.5 | 276.5 | 276.5 | 276.5 | 276.5 | - | - | - |
| C03 | 256 | 304 | 304 | 304 | 304 | 304 | 304 | - | - | - |
| C05 | 291.5 | 339.5 | 339.5 | 339.5 | 339.5 | 339.5 | 339.5 | 410 | 404 | 431 |
| C06 | 306.5 | 354.5 | 354.5 | 354.5 | 354.5 | 354.5 | 354.5 | 425 | 419 | 446 |
| C07 | 318 | 366 | 366 | 366 | 366 | 366 | 366 | 436.5 | 430.5 | 457.5 |
| C08 | 359 | 407 | 407 | 407 | 407 | 407 | 407 | 477.5 | 471.5 | 498.5 |
| C09 | 408.5 | 456.5 | 456.5 | 456.5 | 456.5 | 456.5 | 456.5 | 527 | 521 | 548 |
| C10 | 444.5 | 492.5 | 492.5 | 492.5 | 492.5 | 492.5 | 492.5 | 563 | 557 | 584 |
| C13 | - | - | - | - | - | - | - | 617.5 | 611.5 | 638.5 |
| C14 | - | - | - | - | - | - | - | 683.5 | 677.5 | 704.5 |
| C16 | - | - | - | - | - | - | - | - | - | - |

Dimensions in mm.

Input Unit U2, U3



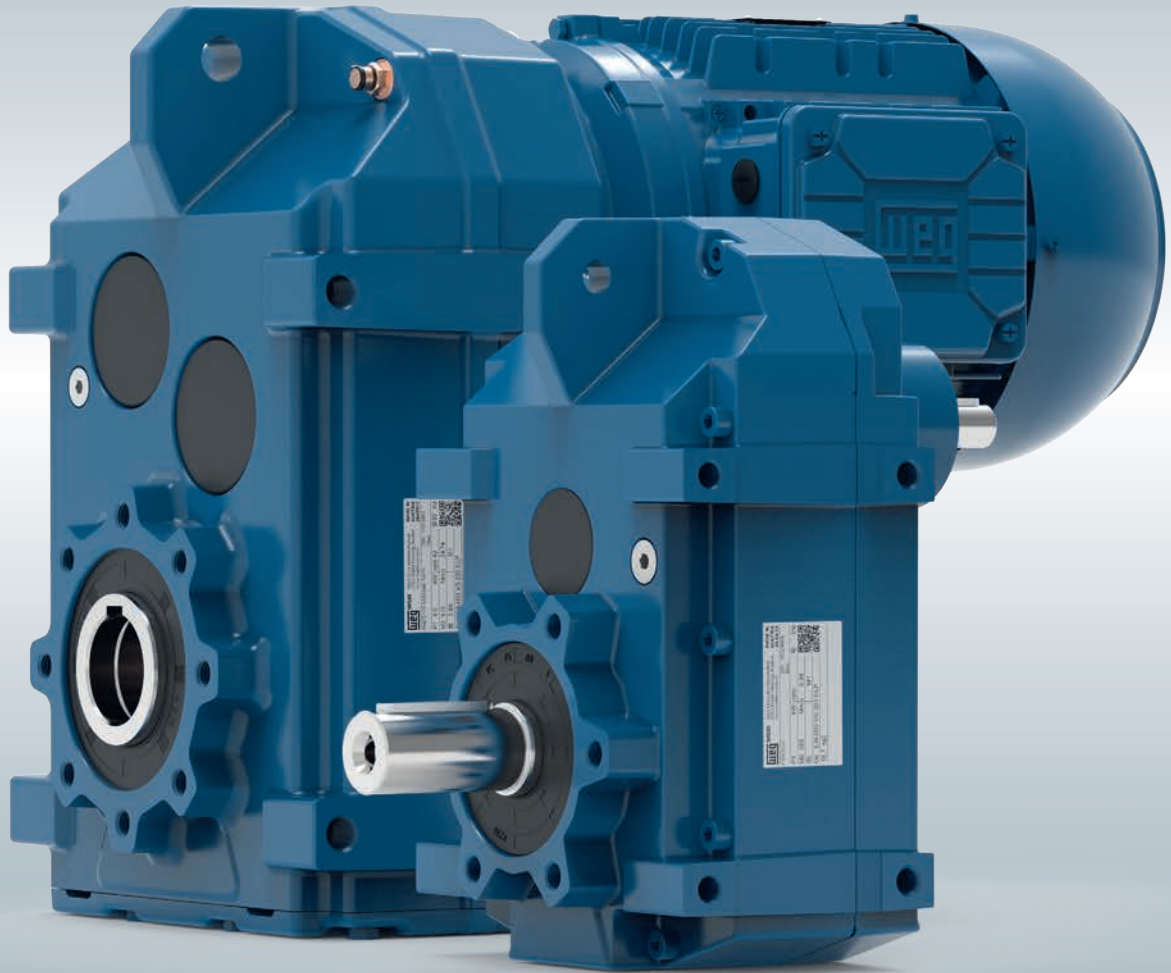
Input Unit U5, U6, U7



| Type | Input shaft [mm] | | | | | | |
|------|------------------|-------|-------|-------|--------|--------|--------|
| | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |
| | U2 | U3 | U5 | | | U6 | U7 |
| D | 19 | 24 | 28 | 38 | 42 | 48 | 55 |
| F | 6 | 8 | 8 | 10 | 12 | 14 | 16 |
| GA | 21.5 | 27 | 31 | 41 | 45 | 51.5 | 59 |
| E | 40 | 50 | 60 | 80 | 110 | 110 | 110 |
| N | 73 | 101 | 178 | | | 235 | 290 |
| X | 2 | 2.5 | 1.9 | | | 6.5 | 4 |
| Z | 3 | 35 | - | | | - | - |
| R | M6 | M10 | M10 | M12 | M16 | M16 | M20 |

| Tolerances | | |
|----------------|--------------------------------|----|
| Dimension name | ISO tolerance DIN EN ISO 286-2 | |
| D | < Ø 55 mm | k6 |
| | ≥ Ø 55 mm | m6 |

| Gear unit size | Input shaft [mm] | | | | |
|----------------|------------------|-------|--------------------------|--------|--------|
| | 19x40 | 24x50 | 28x60 38x80 42x110 | 48x110 | 55x110 |
| | U2 | U3 | U5 | U6 | U7 |
| | I | | | | |
| C00 | 178.5 | - | - | - | - |
| C01 | 191 | - | - | - | - |
| C03 | 218.5 | - | - | - | - |
| C05 | 254 | 286 | - | - | - |
| C06 | 269 | 301 | - | - | - |
| C07 | 280.5 | 312.5 | 355 | - | - |
| C08 | 321.5 | 353.5 | 392 | - | - |
| C09 | 371 | 403 | 444 | 466 | - |
| C10 | 407 | 439 | 480 | 502 | - |
| C13 | - | 493.5 | 532 | 554 | 623 |
| C14 | - | 559.5 | 598 | 620 | 689 |
| C16 | - | - | 677 | 699 | 768 |



Parallel shaft gear units and
Parallel shaft geared motors F

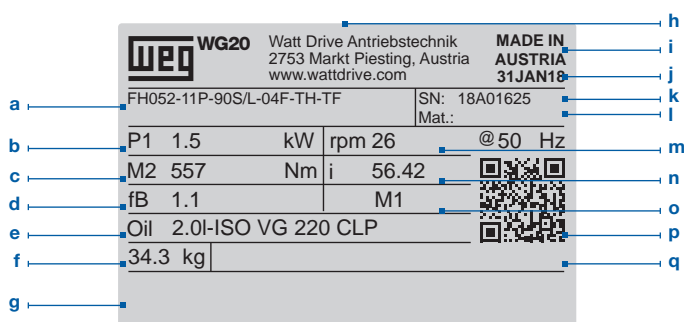


Technical Data

| Size | F02 | F03 | F04 | F05 | F06 | F07 | F08 | F09 | F10 | F12 | F15 |
|------------------|---|---|----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| Power [kW] | 0.12 - 1.5 | 0.12 - 3 | 0.12 - 3 | 0.12 - 9.2 | 0.12 - 15 | 0.12 - 15 | 0.12 - 22 | 0.12 - 37 | 0.12 - 55 | 0.12 - 55 | 0.12 - 75 |
| Torque [Nm] | 130 | 220 | 400 | 600 | 820 | 1500 | 3000 | 4500 | 8000 | 13000 | 18000 |
| Ratio | 3.93 | 3.85 | 4.26 | 4.98 | 4.41 | 4.29 | 4.09 | 4.16 | 4.38 | 4.64 | 5.84 |
| | 97.85 | 70.17 | 422.98 | 487.67 | 412.64 | 385.37 | 3836.13 | 3086.96 | 2276.77 | 2307.03 | 24805.81 |
| Number of stages | 2 | 2 | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 / 4 | 2 / 3 / 4 | 2 / 3 / 4 | 2 / 3 / 4 | 2 / 3 / 4 / 5 |
| Housing material | aluminium | | | | | cast iron | | | | | |
| Solid shaft | Type | with key acc. to DIN 6885.1 and threaded bore acc. to DIN 332 sheet 2 | | | | | | | | | |
| | Tolerance | < Ø 55: k6 / ≥ Ø 55: m6 | | | | | | | | | |
| | Material | standard: C45E (1.1191) / stainless steel on request | | | | | | | | | |
| Hollow shaft | Type | with key acc. to DIN 6885.1 | | | | | | | | | |
| | Tolerance | H7 | | | | | | | | | |
| | Material | standard: C45E (1.1191) / stainless steel on request | | | | | | | | | |
| Flanges | Tolerance | centring ≤ 250: j6 / > 250: h6 acc. to DIN EN 50347 | | | | | | | | | |
| | Material | cast iron | | | | | | | | | |
| Gear wheels | Type | honed - designed and produced according to DIN 3990/3991 - Q7 | | | | | | | | | |
| | Material | 16MnCr5 (1.7131) case hardened – minimum 58HRC | | | | | | | | | |
| Shaft seals | Type | type AS acc. to DIN 3760 | | | | | | | | | |
| | Material | standard NBR / special FKM | | | | | | | | | |
| Bearing | standard / reinforced | | | | | | | | | | |
| Lubricants | Type | standard CLP 220 / special CLP HC 220 | | | | | | | | | |
| | Quantity | depending on mounting position | | | | | | | | | |
| Axle height | acc. to DIN 747: ≤ 50: -0.4; > 50 to ≤ 250: -0.5; > 250: -1 | | | | | | | | | | |

General information

1. Nameplate



| | | | |
|---|-------------------------------------|---|---|
| a | Type code | j | Production date |
| b | Motor power | k | Serial number |
| c | Output torque | l | Material number |
| d | Service factor | m | Output speed and Frequency |
| e | Type and quantity of lubricant | n | Total gear ratio |
| f | Weight | o | Mounting position |
| g | Space for ATEX code (if applicable) | p | QR-Code linked online to additional information |
| h | Manufacturer address | q | Space for additional information |
| i | Country of origin | | |

2. Type code

FH073-EX-11P-90S/L-04F ...

1 2 3 4 5 6 7 8 9 10

FH073-EX-I112-HT

1 2 3 4 5 11 12

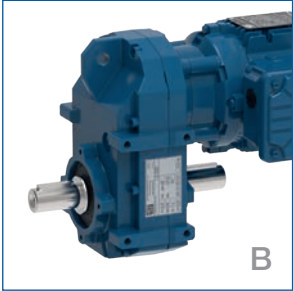
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---------------------------------|--|-------------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|--|--------------|-----|------|------|------|------|--|--|--|------|------|------|------|--|--|--|---------------|-----|------|------|------|------|--|--|--|------|------|------|------|------|--|--|------------|----|----|----|----|----|--|--|
| 1 | Type: | F = Parallel shaft gear unit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Design: | B = Output shaft on both sides D = Hollow shaft with shrink disc F = B5 flange execution with output shaft H = Hollow shaft O = B5 flange execution with hollow shaft P = B5 flange execution with hollow shaft and shrink disc S = Output shaft T = Hollow shaft with rubber buffer U = Hollow shaft with shrink disc and rubber buffer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Size: | 02 03 04 05 06 07 08 09 10 12 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Number of stages: | 2 = 2 gear stages 3 = 3 gear stages 4 = 4 gear stages 5 = 5 gear stages | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | ATEX execution: | when operated in explosive atmospheres, see page 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Motor type: | 14P = Integral motor aluminium IE3 11P = Integral motor aluminium IE3 22P = Integral motor cast iron IE3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Motor frame size: | 63 71 80 L80 90S/L 100L L100L 112M 132S 132M L132M 160M 160L 180M 180L 200L 225S/M 250S/M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Number of poles: | 04 = 4 poles 06 = 6 poles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Power indicator: | D E F G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Motor modules: | see from page 501 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Adapters, Input unit: | <table border="0"> <tr> <td>IEC adapter</td> <td>I63</td> <td>I71</td> <td>I80</td> <td>I90</td> <td>I100</td> <td>I112</td> <td>I132</td> </tr> <tr> <td></td> <td>I160</td> <td>I180</td> <td>I200</td> <td>I225</td> <td>I250</td> <td>I280</td> <td></td> </tr> <tr> <td>NEMA adapter</td> <td>N56</td> <td>N143</td> <td>N182</td> <td>N184</td> <td>N213</td> <td></td> <td></td> </tr> <tr> <td></td> <td>N254</td> <td>N284</td> <td>N324</td> <td>N364</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SERVO adapter</td> <td>S92</td> <td>S105</td> <td>S114</td> <td>S115</td> <td>S130</td> <td></td> <td></td> </tr> <tr> <td></td> <td>S141</td> <td>S142</td> <td>S180</td> <td>S189</td> <td>S190</td> <td></td> <td></td> </tr> <tr> <td>Input unit</td> <td>U2</td> <td>U3</td> <td>U5</td> <td>U6</td> <td>U7</td> <td></td> <td></td> </tr> </table> Direct mounting (IEC): IEC63 IEC71 IEC80 IEC90 IEC100 IEC112 IEC132 IEC160 IEC180 IEC200 IEC225 IEC250 | IEC adapter | I63 | I71 | I80 | I90 | I100 | I112 | I132 | | I160 | I180 | I200 | I225 | I250 | I280 | | NEMA adapter | N56 | N143 | N182 | N184 | N213 | | | | N254 | N284 | N324 | N364 | | | | SERVO adapter | S92 | S105 | S114 | S115 | S130 | | | | S141 | S142 | S180 | S189 | S190 | | | Input unit | U2 | U3 | U5 | U6 | U7 | | |
| IEC adapter | I63 | I71 | I80 | I90 | I100 | I112 | I132 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I160 | I180 | I200 | I225 | I250 | I280 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEMA adapter | N56 | N143 | N182 | N184 | N213 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N254 | N284 | N324 | N364 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SERVO adapter | S92 | S105 | S114 | S115 | S130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | S141 | S142 | S180 | S189 | S190 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input unit | U2 | U3 | U5 | U6 | U7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | High/Low temperature execution: | HT LT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Type code Motor see page 477

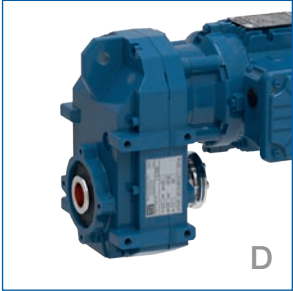
3. Range

| Size | F02 | F03 | F04 | F05 | F06 | F07 | F08 | F09 | F10 | F12 | F15 |
|------------------|-----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|
| Housing material | Aluminium | | | | | Cast iron | | | | | |

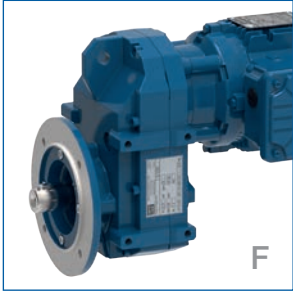
4. Design




B




D




F




H




O




P



S



T



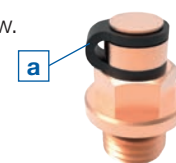
U

| | | | |
|----------|---------------------------------------|----------|---|
| B | Output shaft on both sides | P | B5 flange execution with hollow shaft and shrink disc |
| D | Hollow shaft with shrink disc | S | Output shaft |
| F | B5 flange execution with output shaft | T | Hollow shaft with rubber buffer |
| H | Hollow shaft | U | Hollow shaft with shrink disc and rubber buffer |
| O | B5 flange execution with hollow shaft | | |

5. Venting the gear unit





The parallel shaft gear unit sizes F02 to F05 are neither equipped with a venting nor an oil drain screw. They are supplied with lifetime-lubrication.

By default, the parallel shaft gear units from F06 are equipped with venting screws with a safety strap for transportation (see illustration). The rubber strap (a) of the venting screw must be removed entirely before the initial startup. The venting screw is placed accordingly to the mounting position (see chapter Mounting positions, page 185)



6. Overhung and axial loads

The overhung loads (F_{rN}) indicated in the respective selection tables apply to gear units with the force acting on the shaft center ($x=l/2$). The permissible overhung loads listed are based on the least favourable loading direction and calculated for standard shafts and standard bearings. Other load directions and action can be calculated with equations Q1 to Q3. If transmission elements are placed on the output shaft, an appropriate factor (f_z) has to be taken into consideration when determining the overhung load.

| Gear wheels | Sprockets | | V-belts | Flat belts |
|---|---|---------------------------|---|---|
|  |  | |  |  |
| $f_z=1.1$ ($z \leq 17$) | $f_z=1.2$ ($z \leq 13$) | $f_z=1.1$ ($z > 13$) | $f_z=1.8$ | $f_z=2.5$ |

Use the following equations Q1 and Q2 to calculate the permissible radial loads on the output shaft. Q3 is to calculate the real existing shaft loads for your application. The results are to be compared by using the equation Q4.

Q1 $F_{zL} = F_{rN} \cdot a_1$

Q2 $F_{zW} = F_W \cdot a_2$

Q3 $F_{Qvorh} = \frac{2 \cdot M_2}{d_0} \cdot f_z$

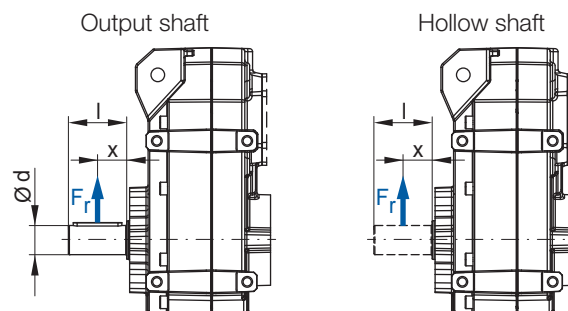
Q4 $F_{Qvorh} \leq F_{zL}$
 $F_{Qvorh} \leq F_{zW}$

| Variable | Unit | Description |
|----------|------|---|
| a1 | | Load action factor - output shaft bearing from Table 1 |
| a2 | | Load action factor - output shaft from Table 1 |
| d0 | [m] | Effective diameter of the transmission element |
| M2 | [Nm] | Geared motor output torque (from selection tables) or required calculated output torque |
| FzL | [N] | Permissible overhung load for output shaft bearings |
| FzW | [N] | Permissible overhung load for output shaft |
| FrN | [N] | Permissible overhung load from selection tables |
| FW | [N] | Permissible overhung load - Output shaft x=l/2 from Table 2 |
| FQvorh | [N] | Existing overhung load at gear shaft |
| fz | | Factor for transmission element |
| Mmax | [Nm] | Highest possible output torque for coupling operation (Table 2) |

Always use both equations Q1 and Q2 for your calculations.

| x / l | | | | | | |
|------------------|------|------|------|------|------|------|
| 0 | 0.25 | 0.5 | 0.75 | 1 | 1.5 | 2 |
| a1 → Equation Q1 | | | | | | |
| 1.39 | 1.18 | 1.00 | 0.85 | 0.73 | 0.52 | 0.38 |
| a2 → Equation Q2 | | | | | | |
| 2.00 | 2.00 | 1.00 | 0.55 | 0.38 | 0.23 | 0.17 |

Table 1: Load action factors a1, a2



Intermediate values can be interpolated linearly. Combined load ($F_r \neq 0$; $F_a = 0$) on request.

| Output shaft [mm] | | Mmax at Fr = 0 | Output torque M2 [Nm] | | | | | | | | | | | | | |
|-------------------|-----|----------------|------------------------------------|------|------|------|------|------|------|-------|-------|-------|-------|--|--|--|
| | | | 130 | 220 | 400 | 600 | 820 | 1500 | 3000 | 4500 | 8000 | 13000 | 18000 | | | |
| Ø d | l | | Fw [kN] at x/l = 0.5 → Equation Q2 | | | | | | | | | | | | | |
| 20 | 40 | 160 | 2.2 | | | | | | | | | | | | | |
| 25 | 50 | 300 | 5.5 | 4.5 | | | | | | | | | | | | |
| 30 | 60 | 500 | 7.5 | 7.0 | 5.0 | | | | | | | | | | | |
| 35 | 70 | 800 | | 11.0 | 10.0 | 8.3 | | | | | | | | | | |
| 40 | 80 | 1170 | | | 13.0 | 12.0 | 10.7 | | | | | | | | | |
| 50 | 100 | 2250 | | | 24.0 | 24.0 | 23.0 | 21.0 | | | | | | | | |
| 60 | 120 | 3740 | | | | | 31.0 | 30.0 | 23.0 | | | | | | | |
| 70 | 140 | 5850 | | | | | | 45.0 | 41.0 | 36.0 | | | | | | |
| 90 | 170 | 11700 | | | | | | | 72.0 | 70.0 | 61.0 | | | | | |
| 110 | 210 | 20800 | | | | | | | | 106.0 | 103.0 | 93.0 | | | | |
| 120 | 210 | 26700 | | | | | | | | | 129.0 | 121.0 | 109.0 | | | |

Table 2: Permissible overhung load - output shaft x = l/2

The axial loads (F_{aN}) for the respective execution (output shaft or hollow shaft), given in the following selection tables, are valid at radial force $F_{rN} = 0$. If there are axial loads or radial and axial components acting on the drive which are extraordinarily high, we recommend to contact the manufacturer.

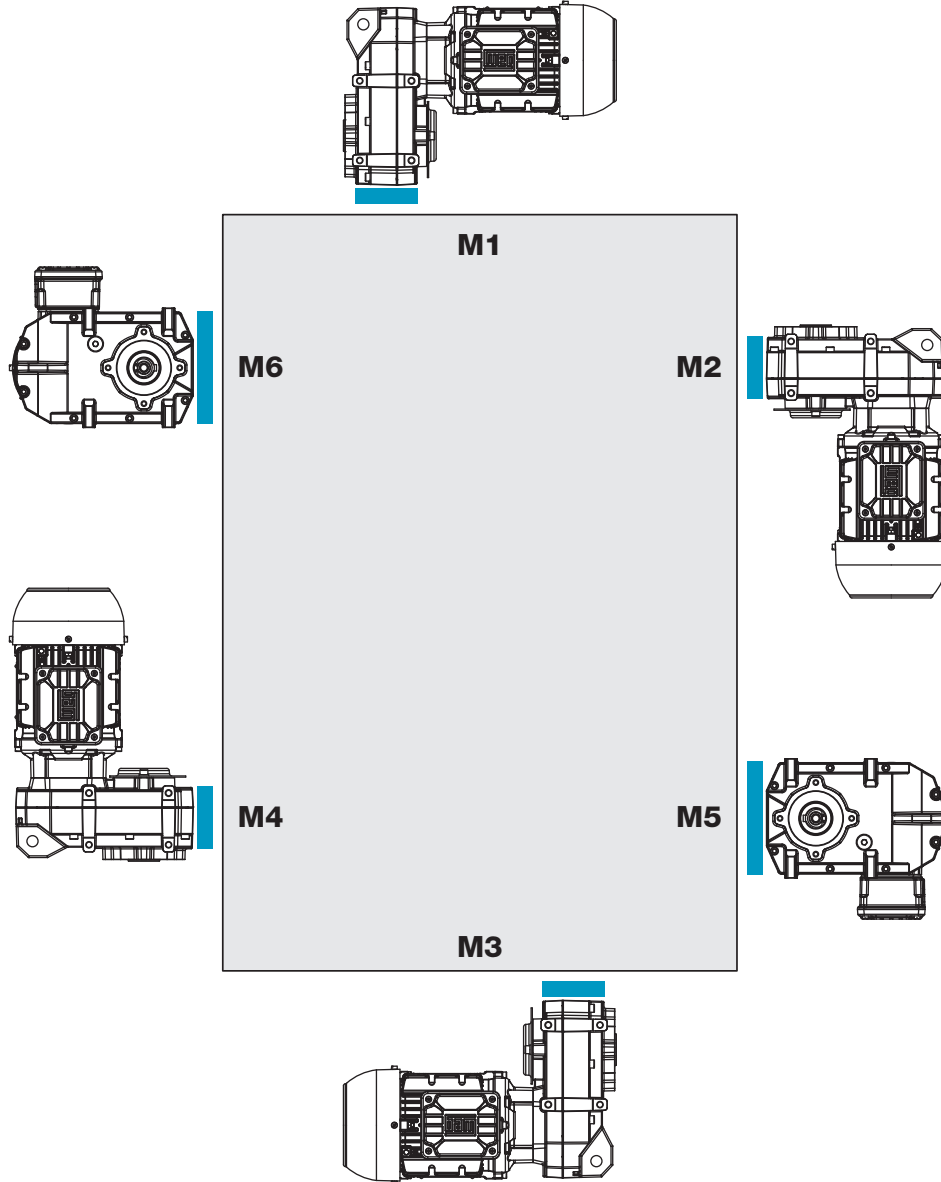
7. Mounting positions, Position of the terminal box and Cable entry

Mounting positions - Sizes F02 to F05

Gear units F02 to F05 are not ventilated and supplied with lifetime lubrication

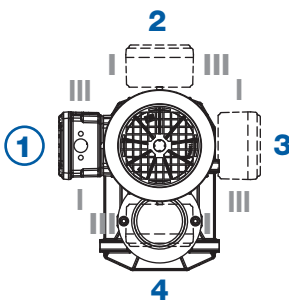
 Reference area

F



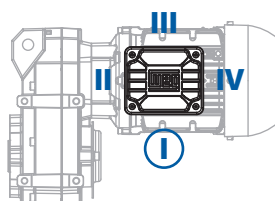
Position of the terminal box

Standard: Position 1

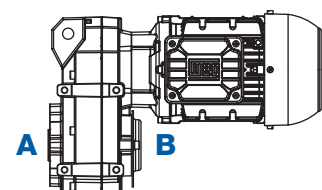


Cable entry

Standard: Position I



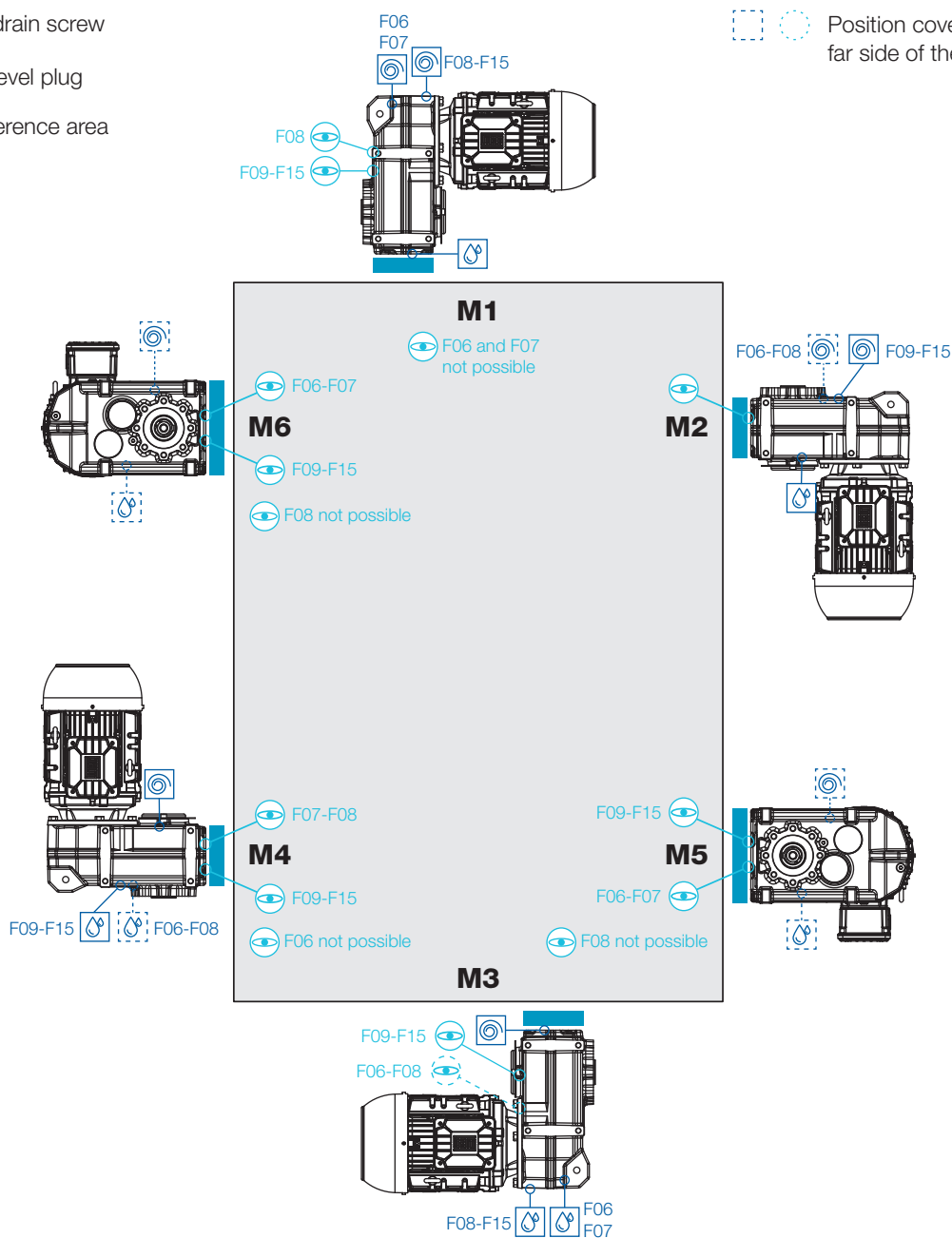
Side indication



Mounting positions - Sizes F06 to F15

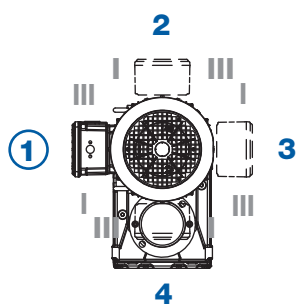
- Venting screw
- Oil drain screw
- Oil level plug
- Reference area

- Position visible on this side
- Position covered or on the far side of the gear unit



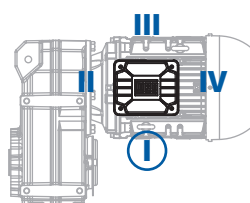
Position of the terminal box

Standard: Position 1

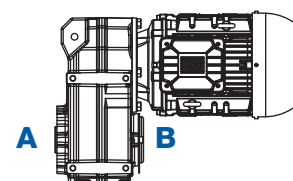


Cable entry

Standard: Position I



Side indication



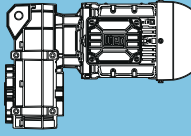
Selection tables - Geared motors

The technical data of the geared motors shown in the selection tables apply to an ambient temperature of +20°C.

The selection tables are calculated with following motor data:

| Power (IEC frame size) | Motor series (IE class) |
|--------------------------|-------------------------|
| up to 0.55 kW (63 - 80) | 14P (IE3) - aluminium |
| 0.75 - 9.2 kW (80 - 132) | 11P (IE3) - aluminium |
| 11 - 75 kW (160 - 250) | 22P (IE3) - cast iron |

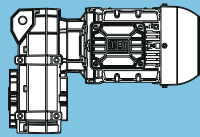
Structure of the selection tables

| 1 | | | | | | | | | | | 2 | | |
|--------------------------------------|--------------------------------------|-----------------------|-----------------------|----------------------|----------------|---|-----------------------|-----------------------|--------------|----|---|---------|-----------------------------|
| P _N = 0.12 kW | | | | | | | | | | | IE3 | | |
| 50 Hz | | 60 Hz | | M ₂ Nm | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.12 kW | | 0.14 kW | | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | F _{rN} kN | F _{aN} kN | | | | F _{rN} kN | F _{aN} kN | | | | | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |

- 1 Rated power of the motor
- 2 Given values are based on the respective efficiency class
- 3 Output speed at 50 Hz
- 4 Output speed at 60 Hz
- 5 Output torque
- 6 Service factor
- 7 Total ratio
- 8 Permissible radial load - Execution with output shaft at midpoint of the shaft (standard bearing) at axial load=0
- 9 Permissible axial load - Execution with output shaft (standard bearing) at axial load=0
- 10 Permissible radial load - Execution with hollow shaft at midpoint of x=l/2 (standard bearing) at axial load=0
- 11 Permissible axial load - Execution with hollow shaft (standard bearing) at axial load=0
- 12 Geared motor type
- 13 Weight
- 14 Page reference for dimension sheet

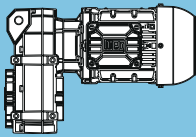
*) Increased rated power at 60 Hz can only be reached together with increased voltage within the wide range (for details see page 485).

| Increased rated power |
|-----------------------|
| 1.2 x P _N |

| P _N = 0.12 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|----------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz 0.12 kW | 60 Hz 0.14 kW | M ₂ Nm | f _b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | | | | | | | |
| 0.05 | 0.07 | 18714 | 1.00 | 17143.10 | 75.1 | 114.6 | 75.1 | 114.6 | FH155-14P-63-06F | 685 | 320 |
| 0.06 | 0.07 | 17440 | 1.05 | 16017.35 | 80.4 | 115.7 | 80.4 | 115.7 | | | |
| 0.07 | 0.08 | 15147 | 1.20 | 14018.89 | 88.3 | 117.6 | 88.3 | 117.6 | | | |
| 0.08 | 0.10 | 11746 | 1.55 | 11069.46 | 97.1 | 120.4 | 97.1 | 120.4 | | | |
| 0.09 | 0.11 | 10703 | 1.70 | 10164.86 | 99.2 | 121.2 | 99.2 | 121.2 | | | |
| 0.11 | 0.13 | 8875 | 2.05 | 8582.99 | 102.4 | 122.7 | 102.4 | 122.7 | | | |
| 0.12 | 0.15 | 8007 | 2.25 | 7824.26 | 103.7 | 123.4 | 103.7 | 123.4 | | | |
| 0.13 | 0.16 | 7078 | 2.55 | 7024.85 | 104.9 | 124.2 | 104.9 | 124.2 | | | |
| 0.06 | 0.07 | 17782 | 1.05 | 24805.81 | 79.0 | 115.4 | 79.0 | 115.4 | FH155-14P-63-04E | 685 | 320 |
| 0.07 | 0.08 | 14355 | 1.30 | 20285.13 | 90.6 | 118.2 | 90.6 | 118.2 | | | |
| 0.08 | 0.10 | 12008 | 1.50 | 17143.10 | 96.5 | 120.1 | 96.5 | 120.1 | | | |
| 0.09 | 0.11 | 11133 | 1.65 | 16017.35 | 98.4 | 120.9 | 98.4 | 120.9 | | | |
| 0.10 | 0.12 | 9619 | 1.90 | 14018.89 | 101.2 | 122.1 | 101.2 | 122.1 | | | |
| 0.11 | 0.14 | 8411 | 2.15 | 12419.47 | 103.1 | 123.1 | 103.1 | 123.1 | | | |
| 0.13 | 0.16 | 7381 | 2.45 | 11069.46 | 104.5 | 123.9 | 104.5 | 123.9 | | | |
| 0.14 | 0.17 | 6690 | 2.70 | 10164.86 | 105.3 | 124.5 | 105.3 | 124.5 | | | |
| 0.30 | 0.37 | 3407 | 1.35 | 3086.96 | 33.6 | 40.5 | 33.6 | 40.5 | FH094-14P-63-06F | 175 | 306 |
| 0.35 | 0.44 | 2851 | 1.60 | 2609.75 | 35.6 | 41.2 | 35.6 | 41.2 | | | |
| 0.37 | 0.45 | 2752 | 1.65 | 2524.38 | 35.9 | 41.4 | 35.9 | 41.4 | | | |
| 0.43 | 0.53 | 2293 | 2.00 | 2134.14 | 37.2 | 42.0 | 37.2 | 42.0 | | | |
| 0.46 | 0.57 | 2128 | 2.15 | 1993.28 | 37.6 | 42.2 | 37.6 | 42.2 | | | |
| 0.55 | 0.68 | 1770 | 2.55 | 1685.14 | 38.3 | 42.7 | 38.3 | 42.7 | | | |
| 0.60 | 0.74 | 1603 | 2.85 | 1545.54 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 0.46 | 0.56 | 2174 | 2.10 | 3086.96 | 37.5 | 42.1 | 37.5 | 42.1 | | | |
| 0.54 | 0.66 | 1808 | 2.50 | 2609.75 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 0.56 | 0.68 | 1742 | 2.60 | 2524.38 | 38.4 | 42.7 | 38.4 | 42.7 | | | |
| 0.29 | 0.36 | 3534 | 0.85 | 3137.02 | ** | ** | ** | ** | FH084-14P-63-06F | 121 | 302 |
| 0.30 | 0.38 | 3413 | 0.90 | 3036.24 | 15.2 | 25.1 | 15.2 | 7.2 | | | |
| 0.35 | 0.43 | 2962 | 1.05 | 2651.12 | 19.7 | 34.8 | 19.7 | 7.9 | | | |
| 0.37 | 0.46 | 2768 | 1.10 | 2482.91 | 21.2 | 38.1 | 21.2 | 8.2 | | | |
| 0.43 | 0.53 | 2402 | 1.25 | 2167.97 | 23.5 | 41.3 | 23.5 | 8.8 | | | |
| 0.47 | 0.58 | 2159 | 1.40 | 1960.53 | 24.7 | 41.7 | 24.7 | 9.2 | | | |
| 0.48 | 0.59 | 2111 | 1.45 | 1920.62 | 25.0 | 41.7 | 25.0 | 9.2 | | | |
| 0.54 | 0.67 | 1866 | 1.65 | 1711.85 | 26.0 | 42.1 | 26.0 | 9.6 | | | |
| 0.59 | 0.73 | 1703 | 1.80 | 1571.96 | 26.6 | 42.4 | 26.6 | 9.9 | | | |
| 0.61 | 0.75 | 1643 | 1.85 | 1520.15 | 26.8 | 42.5 | 26.8 | 10.0 | | | |
| 0.70 | 0.86 | 1417 | 2.15 | 1327.33 | 27.5 | 42.8 | 27.5 | 10.3 | | | |
| 0.74 | 0.92 | 1320 | 2.30 | 1244.18 | 27.8 | 43.0 | 27.8 | 10.5 | | | |
| 0.76 | 0.94 | 1281 | 2.35 | 1209.99 | 27.9 | 43.0 | 27.9 | 10.5 | | | |
| 0.85 | 1.0 | 1136 | 2.65 | 1086.37 | 28.2 | 43.2 | 28.2 | 10.7 | | | |
| 0.37 | 0.45 | 2816 | 1.10 | 3836.13 | 20.8 | 37.3 | 20.8 | 8.2 | | | |
| 0.45 | 0.55 | 2279 | 1.35 | 3137.02 | 24.1 | 41.5 | 24.1 | 9.0 | | | |
| 0.46 | 0.57 | 2202 | 1.40 | 3036.24 | 24.5 | 41.6 | 24.5 | 9.1 | | | |
| 0.53 | 0.65 | 1906 | 1.60 | 2651.12 | 25.9 | 42.1 | 25.9 | 9.6 | | | |
| 0.57 | 0.69 | 1778 | 1.70 | 2482.91 | 26.3 | 42.3 | 26.3 | 9.8 | | | |
| 0.65 | 0.79 | 1533 | 2.00 | 2167.97 | 27.2 | 42.6 | 27.2 | 10.1 | | | |
| 0.72 | 0.88 | 1375 | 2.20 | 1960.53 | 27.6 | 42.9 | 27.6 | 10.4 | | | |
| 0.73 | 0.90 | 1344 | 2.25 | 1920.62 | 27.7 | 42.9 | 27.7 | 10.4 | | | |
| 0.82 | 1.0 | 1183 | 2.55 | 1711.85 | 28.1 | 43.2 | 28.1 | 10.7 | | | |
| 0.89 | 1.1 | 1075 | 2.80 | 1571.96 | 28.3 | 43.3 | 28.3 | 10.8 | | | |
| 0.92 | 1.1 | 1036 | 2.90 | 1520.15 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 2.2 | 2.8 | 511 | 1.65 | 412.64 | 11.1 | 13.6 | 11.1 | 3.6 | FH063-14P-63-06F | 37 | 296 |
| 2.4 | 3.0 | 469 | 1.75 | 378.37 | 11.3 | 13.7 | 11.3 | 3.8 | | | |
| 2.7 | 3.4 | 418 | 2.00 | 337.44 | 11.6 | 13.9 | 11.6 | 3.9 | | | |
| 3.0 | 3.7 | 383 | 2.15 | 309.42 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 3.5 | 4.3 | 330 | 2.50 | 266.44 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 3.8 | 4.7 | 303 | 2.75 | 244.32 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 3.4 | 4.2 | 337 | 2.45 | 412.64 | 11.9 | 14.2 | 11.9 | 4.2 | FH063-14P-63-04E | 37 | 296 |
| 3.7 | 4.5 | 309 | 2.70 | 378.37 | 12.0 | 14.2 | 12.0 | 4.3 | | | |
| 4.2 | 5.1 | 275 | 3.00 | 337.44 | 12.1 | 14.4 | 12.1 | 4.4 | | | |

Legend see page 187

** ... on request

| P _N = 0.12 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----|--------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.12 kW | | 0.14 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | | | |
| 1.9 | 2.3 | 604 | 1.00 | 487.67 | 6.0 | 10.2 | 6.0 | 3.5 | FH053-14P-63-06F | 21 | 294 | |
| 2.1 | 2.6 | 552 | 1.10 | 445.56 | 6.8 | 10.3 | 6.8 | 3.6 | | | | |
| 2.4 | 3 | 471 | 1.30 | 379.87 | 7.7 | 10.6 | 7.7 | 3.9 | | | | |
| 2.7 | 3.3 | 430 | 1.40 | 347.07 | 8.1 | 10.7 | 8.1 | 4.0 | | | | |
| 3.0 | 3.7 | 382 | 1.60 | 308.00 | 8.5 | 10.8 | 8.5 | 4.1 | | | | |
| 3.3 | 4.1 | 349 | 1.75 | 281.41 | 8.7 | 10.9 | 8.7 | 4.2 | | | | |
| 3.8 | 4.7 | 301 | 2.00 | 242.67 | 9.0 | 11.1 | 9.0 | 4.4 | | | | |
| 4.2 | 5.1 | 275 | 2.20 | 221.71 | 9.1 | 11.2 | 9.1 | 4.5 | | | | |
| 4.9 | 6.1 | 232 | 2.60 | 187.00 | 9.3 | 11.3 | 9.3 | 4.6 | | | | |
| 5.4 | 6.7 | 212 | 2.85 | 170.85 | 9.4 | 11.3 | 9.4 | 4.6 | | | | |
| 2.9 | 3.5 | 398 | 1.55 | 487.67 | 8.3 | 10.8 | 8.3 | 4.1 | FH053-14P-63-04E | 21 | 294 | |
| 3.2 | 3.9 | 363 | 1.65 | 445.56 | 8.6 | 10.9 | 8.6 | 4.2 | | | | |
| 3.7 | 4.5 | 310 | 1.95 | 379.87 | 8.9 | 11.1 | 8.9 | 4.4 | | | | |
| 4.0 | 5.0 | 283 | 2.15 | 347.07 | 9.1 | 11.1 | 9.1 | 4.4 | | | | |
| 4.6 | 5.6 | 251 | 2.40 | 308.00 | 9.2 | 11.2 | 9.2 | 4.5 | | | | |
| 5.0 | 6.1 | 230 | 2.65 | 281.41 | 9.3 | 11.3 | 9.3 | 4.6 | | | | |
| 2.2 | 2.7 | 524 | 0.80 | 422.98 | ** | ** | ** | ** | FH043-14P-63-06F | 15 | 292 | |
| 2.4 | 3.0 | 478 | 0.85 | 385.85 | ** | ** | ** | ** | | | | |
| 2.8 | 3.5 | 408 | 1.00 | 329.48 | 3.6 | 5.7 | 3.6 | 2.4 | | | | |
| 3.1 | 3.8 | 372 | 1.10 | 300.55 | 4.4 | 7.5 | 4.4 | 2.6 | | | | |
| 3.5 | 4.3 | 331 | 1.25 | 267.14 | 5.1 | 8.3 | 5.1 | 2.7 | | | | |
| 3.8 | 4.7 | 302 | 1.35 | 243.69 | 5.4 | 8.4 | 5.4 | 2.8 | | | | |
| 4.4 | 5.4 | 261 | 1.55 | 210.48 | 5.9 | 8.6 | 5.9 | 3.0 | | | | |
| 4.8 | 5.9 | 238 | 1.70 | 192.00 | 6.1 | 8.7 | 6.1 | 3.1 | | | | |
| 5.7 | 7.0 | 201 | 2.00 | 162.19 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 6.3 | 7.7 | 183 | 2.20 | 147.96 | 6.5 | 8.9 | 6.5 | 3.3 | | | | |
| 7.3 | 9.0 | 157 | 2.55 | 126.72 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 8.0 | 9.9 | 143 | 2.80 | 115.60 | 6.7 | 9.0 | 6.7 | 3.4 | | | | |
| 3.3 | 4.1 | 345 | 1.20 | 422.98 | 4.8 | 8.3 | 4.8 | 2.7 | FH043-14P-63-04E | 15 | 292 | |
| 3.6 | 4.5 | 315 | 1.30 | 385.85 | 5.3 | 8.4 | 5.3 | 2.8 | | | | |
| 4.3 | 5.2 | 269 | 1.50 | 329.48 | 5.8 | 8.5 | 5.8 | 2.9 | | | | |
| 4.7 | 5.7 | 245 | 1.65 | 300.55 | 6.0 | 8.6 | 6.0 | 3.0 | | | | |
| 5.3 | 6.4 | 218 | 1.85 | 267.14 | 6.3 | 8.7 | 6.3 | 3.1 | | | | |
| 5.8 | 7.1 | 199 | 2.05 | 243.69 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 6.7 | 8.2 | 172 | 2.35 | 210.48 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 7.3 | 9.0 | 157 | 2.60 | 192.00 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 13 | 16 | 87 | 2.55 | 70.17 | 4.9 | 3.1 | 4.9 | 3.1 | FH032-14P-63-06F | 14 | 290 | |
| 15 | 18 | 79 | 2.80 | 63.63 | 5.0 | 3.3 | 5.0 | 3.3 | | | | |
| 9.5 | 12 | 121 | 1.10 | 97.85 | 4.8 | 2.0 | 4.8 | 2.0 | FH022-14P-63-06F | 11 | 288 | |
| 11 | 13 | 109 | 1.20 | 88.09 | 4.9 | 2.3 | 4.9 | 2.3 | | | | |
| 12 | 15 | 94 | 1.40 | 76.22 | 5.0 | 2.2 | 5.0 | 2.2 | | | | |
| 13 | 17 | 85 | 1.55 | 68.62 | 5.0 | 2.4 | 5.0 | 2.4 | | | | |
| 15 | 18 | 77 | 1.70 | 61.80 | 5.1 | 2.3 | 5.1 | 2.3 | | | | |
| 17 | 20 | 69 | 1.90 | 55.64 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 19 | 23 | 60 | 2.20 | 48.69 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 21 | 26 | 54 | 2.40 | 43.83 | 5.2 | 2.5 | 5.2 | 2.5 | | | | |
| 25 | 30 | 46 | 2.80 | 37.52 | 5.2 | 2.5 | 5.2 | 2.5 | | | | |
| 29 | 36 | 39 | 1.35 | 31.79 | 5.2 | 2.6 | 5.2 | 2.6 | | | | |
| 37 | 46 | 31 | 2.75 | 24.76 | 5.2 | 2.6 | 5.2 | 2.6 | | | | |

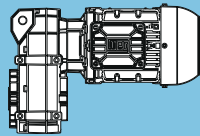
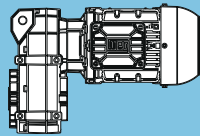
F

Legend see page 187

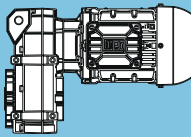
** ... on request

$P_N = 0.12 \text{ kW}$

IE3

| 50 Hz 0.12 kW | 60 Hz 0.14 kW | M_2 Nm | f_b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|------------------|------------------|-------------|-------|-------|----------------|-----------------|----------------|-----------------|---|---------|-----------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F_{rN} kN | F_{aIN} kN | F_{rN} kN | F_{aIN} kN | | | |
| 14 | 18 | 80 | 1.65 | 97.85 | 5.1 | 2.3 | 5.1 | 2.3 |  FH022-14P-63-04E | 11 | 288 |
| 16 | 20 | 72 | 1.85 | 88.09 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 18 | 23 | 62 | 2.10 | 76.22 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 20 | 25 | 56 | 2.35 | 68.62 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 23 | 28 | 50 | 2.60 | 61.80 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 25 | 31 | 45 | 2.90 | 55.64 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 29 | 35 | 40 | 3.30 | 48.69 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 32 | 39 | 36 | 3.65 | 43.83 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 37 | 46 | 31 | 4.25 | 37.52 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 42 | 51 | 28 | 4.75 | 33.78 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 44 | 54 | 26 | 2.05 | 31.79 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 48 | 59 | 24 | 5.45 | 29.32 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 53 | 65 | 22 | 6.05 | 26.39 | 5.2 | 2.7 | 5.2 | 2.7 | | | |
| 57 | 69 | 20 | 4.20 | 24.76 | 5.2 | 2.7 | 5.2 | 2.7 | | | |
| 64 | 79 | 18 | 7.30 | 21.89 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 70 | 86 | 16 | 5.15 | 20.08 | 5.3 | 2.7 | 5.3 | 2.7 | | | |
| 71 | 87 | 16 | 8.10 | 19.70 | 5.3 | 2.7 | 5.3 | 2.7 | | | |
| 85 | 104 | 13 | 9.70 | 16.48 | 5.2 | 2.7 | 5.2 | 2.7 | | | |
| 89 | 109 | 13 | 6.55 | 15.82 | 5.1 | 2.7 | 5.1 | 2.7 | | | |
| 95 | 116 | 12 | 10.75 | 14.84 | 5.0 | 2.7 | 5.0 | 2.7 | | | |
| 115 | 141 | 10 | 8.45 | 12.19 | 4.7 | 2.7 | 4.7 | 2.7 | | | |
| 116 | 142 | 10 | 13.20 | 12.09 | 4.7 | 2.7 | 4.7 | 2.7 | | | |
| 129 | 158 | 9 | 14.65 | 10.89 | 4.5 | 2.7 | 4.5 | 2.7 | | | |
| 148 | 181 | 8 | 10.85 | 9.52 | 4.3 | 2.7 | 4.3 | 2.7 | | | |
| 198 | 242 | 6 | 14.50 | 7.11 | 3.9 | 2.7 | 3.9 | 2.7 | | | |
| 263 | 321 | 4 | 19.25 | 5.35 | 3.5 | 2.7 | 3.5 | 2.7 | | | |
| 358 | 438 | 3 | 22.50 | 3.93 | 3.2 | 2.7 | 3.2 | 2.7 | | | |

Legend see page 187

| P _N = 0.18 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.18 kW | | 0.22 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.06 | 0.08 | 23835 | 0.80 | 14018.89 | ** | ** | ** | ** | FH155-14P-71-06E | 688 | 320 |
| 0.07 | 0.09 | 21008 | 0.90 | 12419.47 | 63.4 | 109.6 | 63.4 | 109.6 | | | |
| 0.08 | 0.10 | 18629 | 1.00 | 11069.46 | 75.5 | 114.7 | 75.5 | 114.7 | | | |
| 0.09 | 0.11 | 17019 | 1.10 | 10164.86 | 82.0 | 116.0 | 82.0 | 116.0 | | | |
| 0.10 | 0.13 | 14223 | 1.30 | 8582.99 | 91.0 | 118.3 | 91.0 | 118.3 | | | |
| 0.12 | 0.14 | 12899 | 1.40 | 7824.26 | 94.4 | 119.4 | 94.4 | 119.4 | | | |
| 0.13 | 0.16 | 11463 | 1.60 | 7024.85 | 97.7 | 120.6 | 97.7 | 120.6 | | | |
| 0.15 | 0.19 | 9498 | 1.90 | 5911.67 | 101.4 | 122.2 | 101.4 | 122.2 | | | |
| 0.17 | 0.21 | 8598 | 2.10 | 5407.29 | 102.8 | 122.9 | 102.8 | 122.9 | | | |
| 0.19 | 0.23 | 7574 | 2.40 | 4838.19 | 104.2 | 123.8 | 104.2 | 123.8 | | | |
| 0.22 | 0.27 | 6231 | 2.90 | 4085.50 | 105.8 | 124.9 | 105.8 | 124.9 | | | |
| 0.07 | 0.08 | 22436 | 0.85 | 20285.13 | ** | ** | ** | ** | FH155-14P-63-04F | 685 | 320 |
| 0.08 | 0.10 | 18815 | 1.00 | 17143.10 | 74.7 | 114.6 | 74.7 | 114.6 | | | |
| 0.09 | 0.11 | 17535 | 1.05 | 16017.35 | 80.0 | 115.6 | 80.0 | 115.6 | | | |
| 0.10 | 0.12 | 15229 | 1.20 | 14018.89 | 88.0 | 117.5 | 88.0 | 117.5 | | | |
| 0.11 | 0.14 | 13388 | 1.35 | 12419.47 | 93.2 | 119.0 | 93.2 | 119.0 | | | |
| 0.12 | 0.15 | 11810 | 1.55 | 11069.46 | 97.0 | 120.3 | 97.0 | 120.3 | | | |
| 0.14 | 0.17 | 10762 | 1.70 | 10164.86 | 99.1 | 121.2 | 99.1 | 121.2 | | | |
| 0.16 | 0.20 | 8924 | 2.05 | 8582.99 | 102.3 | 122.7 | 102.3 | 122.7 | | | |
| 0.18 | 0.22 | 8051 | 2.25 | 7824.26 | 103.6 | 123.4 | 103.6 | 123.4 | | | |
| 0.20 | 0.24 | 7116 | 2.55 | 7024.85 | 104.8 | 124.2 | 104.8 | 124.2 | | | |
| 0.40 | 0.49 | 3748 | 2.15 | 2276.77 | 58.8 | 65.0 | 58.8 | 65.0 | FH104-14P-71-06E | 283 | 310 |
| 0.46 | 0.56 | 3206 | 2.50 | 1976.36 | 59.6 | 65.6 | 59.6 | 65.6 | | | |
| 0.51 | 0.63 | 2810 | 2.85 | 1757.78 | 60.2 | 66.0 | 60.2 | 66.0 | | | |
| 0.53 | 0.65 | 2719 | 2.95 | 1707.58 | 60.3 | 66.1 | 60.3 | 66.1 | | | |
| 0.29 | 0.36 | 5361 | 0.85 | 3086.96 | ** | ** | ** | ** | FH094-14P-71-06E | 178 | 306 |
| 0.34 | 0.43 | 4505 | 1.00 | 2609.75 | 27.9 | 39.0 | 27.9 | 39.0 | | | |
| 0.36 | 0.44 | 4348 | 1.05 | 2524.38 | 28.9 | 39.2 | 28.9 | 39.2 | | | |
| 0.42 | 0.52 | 3646 | 1.25 | 2134.14 | 32.6 | 40.2 | 32.6 | 40.2 | | | |
| 0.45 | 0.56 | 3391 | 1.35 | 1993.28 | 33.6 | 40.5 | 33.6 | 40.5 | | | |
| 0.53 | 0.66 | 2838 | 1.60 | 1685.14 | 35.6 | 41.2 | 35.6 | 41.2 | | | |
| 0.58 | 0.72 | 2587 | 1.75 | 1545.54 | 36.4 | 41.6 | 36.4 | 41.6 | | | |
| 0.69 | 0.85 | 2155 | 2.10 | 1306.62 | 37.5 | 42.1 | 37.5 | 42.1 | | | |
| 0.71 | 0.88 | 2078 | 2.20 | 1264.97 | 37.7 | 42.2 | 37.7 | 42.2 | | | |
| 0.84 | 1.0 | 1724 | 2.65 | 1069.42 | 38.4 | 42.7 | 38.4 | 42.7 | | | |
| 0.92 | 1.1 | 1553 | 2.90 | 973.69 | 38.7 | 42.9 | 38.7 | 42.9 | | | |
| 0.45 | 0.55 | 3425 | 1.35 | 3086.96 | 33.5 | 40.5 | 33.5 | 40.5 | FH094-14P-63-04F | 175 | 306 |
| 0.53 | 0.65 | 2866 | 1.60 | 2609.75 | 35.6 | 41.2 | 35.6 | 41.2 | | | |
| 0.55 | 0.67 | 2767 | 1.65 | 2524.38 | 35.9 | 41.3 | 35.9 | 41.3 | | | |
| 0.65 | 0.80 | 2310 | 1.95 | 2134.14 | 37.1 | 41.9 | 37.1 | 41.9 | | | |
| 0.69 | 0.85 | 2144 | 2.10 | 1993.28 | 37.5 | 42.2 | 37.5 | 42.2 | | | |
| 0.82 | 1.0 | 1779 | 2.55 | 1685.14 | 38.3 | 42.6 | 38.3 | 42.6 | | | |
| 0.89 | 1.1 | 1615 | 2.80 | 1545.54 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 0.42 | 0.51 | 3773 | 0.80 | 2167.97 | ** | ** | ** | ** | FH084-14P-71-06E | 123 | 302 |
| 0.46 | 0.57 | 3398 | 0.90 | 1960.53 | 15.4 | 25.6 | 15.4 | 25.6 | | | |
| 0.47 | 0.58 | 3322 | 0.95 | 1920.62 | 16.3 | 27.5 | 16.3 | 27.5 | | | |
| 0.53 | 0.65 | 2949 | 1.05 | 1711.85 | 19.8 | 35.1 | 19.8 | 35.1 | | | |
| 0.57 | 0.71 | 2697 | 1.15 | 1571.96 | 21.7 | 39.2 | 21.7 | 39.2 | | | |
| 0.59 | 0.73 | 2602 | 1.20 | 1520.15 | 22.3 | 40.6 | 22.3 | 40.6 | | | |
| 0.68 | 0.84 | 2258 | 1.35 | 1327.33 | 24.3 | 41.5 | 24.3 | 41.5 | | | |
| 0.72 | 0.89 | 2108 | 1.45 | 1244.18 | 25.0 | 41.7 | 25.0 | 41.7 | | | |
| 0.74 | 0.92 | 2046 | 1.50 | 1209.99 | 25.3 | 41.8 | 25.3 | 41.8 | | | |
| 0.83 | 1.0 | 1826 | 1.65 | 1086.37 | 26.2 | 42.2 | 26.2 | 42.2 | | | |
| 0.94 | 1.2 | 1593 | 1.90 | 957.69 | 27.0 | 42.5 | 27.0 | 42.5 | | | |
| 0.98 | 1.2 | 1514 | 2.00 | 914.22 | 27.2 | 42.7 | 27.2 | 42.7 | | | |
| 1.1 | 1.3 | 1374 | 2.20 | 836.22 | 27.6 | 42.9 | 27.6 | 42.9 | | | |
| 1.2 | 1.5 | 1214 | 2.50 | 748.21 | 28.0 | 43.1 | 28.0 | 43.1 | | | |
| 1.4 | 1.8 | 1004 | 3.00 | 631.81 | 28.5 | 43.5 | 28.5 | 43.5 | | | |

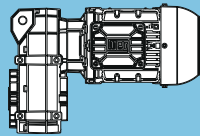
F

Legend see page 187

** ... on request

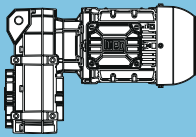
P_N = 0.18 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 0.18 kW | | 0.22 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.44 | 0.54 | 3553 | 0.85 | 3137.02 | ** | ** | ** | ** | FH084-14P-63-04F | 121 | 302 |
| 0.45 | 0.56 | 3432 | 0.90 | 3036.24 | 14.9 | 24.5 | 14.9 | 7.2 | | | |
| 0.52 | 0.64 | 2978 | 1.05 | 2651.12 | 19.6 | 34.6 | 19.6 | 7.9 | | | |
| 0.56 | 0.68 | 2784 | 1.10 | 2482.91 | 21.1 | 37.9 | 21.1 | 8.2 | | | |
| 0.64 | 0.78 | 2416 | 1.25 | 2167.97 | 23.4 | 41.3 | 23.4 | 8.8 | | | |
| 0.70 | 0.87 | 2171 | 1.40 | 1960.53 | 24.7 | 41.7 | 24.7 | 9.2 | | | |
| 0.72 | 0.89 | 2122 | 1.45 | 1920.62 | 24.9 | 41.7 | 24.9 | 9.2 | | | |
| 0.81 | 0.99 | 1880 | 1.60 | 1711.85 | 26.0 | 42.1 | 26.0 | 9.6 | | | |
| 0.88 | 1.1 | 1716 | 1.75 | 1571.96 | 26.6 | 42.4 | 26.6 | 9.9 | | | |
| 0.91 | 1.1 | 1652 | 1.85 | 1520.15 | 26.8 | 42.5 | 26.8 | 10.0 | | | |
| 1.0 | 1.3 | 1425 | 2.15 | 1327.33 | 27.5 | 42.8 | 27.5 | 10.3 | | | |
| 1.1 | 1.4 | 1327 | 2.30 | 1244.18 | 27.8 | 43.0 | 27.8 | 10.5 | | | |
| 1.3 | 1.6 | 1142 | 2.65 | 1086.37 | 28.2 | 43.2 | 28.2 | 10.7 | | | |
| 2.3 | 2.9 | 736 | 2.05 | 385.37 | 19.4 | 17.5 | 19.4 | 6.3 | FH073-14P-71-06E | 63 | 298 |
| 2.9 | 3.6 | 583 | 2.60 | 305.42 | 19.8 | 17.8 | 19.8 | 6.6 | | | |
| 2.2 | 2.7 | 788 | 1.05 | 412.64 | 8.9 | 12.7 | 8.9 | 2.8 | FH063-14P-71-06E | 40 | 296 |
| 2.4 | 2.9 | 723 | 1.15 | 378.37 | 9.6 | 12.9 | 9.6 | 2.9 | | | |
| 2.7 | 3.3 | 645 | 1.30 | 337.44 | 10.2 | 13.2 | 10.2 | 3.2 | | | |
| 2.9 | 3.6 | 591 | 1.40 | 309.42 | 10.6 | 13.3 | 10.6 | 3.4 | | | |
| 3.4 | 4.2 | 509 | 1.65 | 266.44 | 11.1 | 13.6 | 11.1 | 3.7 | | | |
| 3.7 | 4.5 | 467 | 1.80 | 244.32 | 11.4 | 13.7 | 11.4 | 3.8 | | | |
| 4.4 | 5.4 | 395 | 2.10 | 206.59 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 4.8 | 5.9 | 362 | 2.30 | 189.44 | 11.8 | 14.1 | 11.8 | 4.1 | | | |
| 5.3 | 6.6 | 323 | 2.55 | 169.09 | 11.9 | 14.2 | 11.9 | 4.3 | | | |
| 5.8 | 7.2 | 296 | 2.80 | 155.05 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 3.3 | 4.1 | 514 | 1.60 | 412.64 | 11.1 | 13.6 | 11.1 | 3.6 | FH063-14P-63-04F | 37 | 296 |
| 3.6 | 4.5 | 471 | 1.75 | 378.37 | 11.3 | 13.7 | 11.3 | 3.8 | | | |
| 4.1 | 5.0 | 420 | 2.00 | 337.44 | 11.6 | 13.9 | 11.6 | 3.9 | | | |
| 4.5 | 5.5 | 385 | 2.15 | 309.42 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 5.2 | 6.4 | 332 | 2.50 | 266.44 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 5.6 | 7.0 | 304 | 2.70 | 244.32 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 2.4 | 2.9 | 726 | 0.85 | 379.87 | ** | ** | ** | ** | FH053-14P-71-06E | 23 | 294 |
| 2.6 | 3.2 | 663 | 0.95 | 347.07 | 4.9 | 7.8 | 4.9 | 3.3 | | | |
| 2.9 | 3.6 | 588 | 1.05 | 308.00 | 6.3 | 10.2 | 6.3 | 3.5 | | | |
| 3.2 | 3.9 | 537 | 1.15 | 281.41 | 7.0 | 10.3 | 7.0 | 3.6 | | | |
| 3.7 | 4.6 | 463 | 1.30 | 242.67 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 4.1 | 5.0 | 423 | 1.45 | 221.71 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 4.8 | 5.9 | 357 | 1.70 | 187.00 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 5.3 | 6.5 | 326 | 1.85 | 170.85 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 6.2 | 7.6 | 279 | 2.20 | 146.10 | 9.1 | 11.1 | 9.1 | 4.4 | | | |
| 6.7 | 8.3 | 255 | 2.35 | 133.49 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 8.3 | 10 | 208 | 2.90 | 109.08 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 2.8 | 3.5 | 607 | 1.00 | 487.67 | 6.0 | 10.1 | 6.0 | 3.4 | FH053-14P-63-04F | 21 | 294 |
| 3.1 | 3.8 | 555 | 1.10 | 445.56 | 6.7 | 10.3 | 6.7 | 3.6 | | | |
| 3.6 | 4.5 | 473 | 1.30 | 379.87 | 7.7 | 10.6 | 7.7 | 3.9 | | | |
| 4.0 | 4.9 | 432 | 1.40 | 347.07 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 4.5 | 5.5 | 384 | 1.60 | 308.00 | 8.4 | 10.8 | 8.4 | 4.1 | | | |
| 4.9 | 6.0 | 351 | 1.75 | 281.41 | 8.7 | 10.9 | 8.7 | 4.2 | | | |
| 5.7 | 7.0 | 302 | 2.00 | 242.67 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 6.2 | 7.7 | 276 | 2.20 | 221.71 | 9.1 | 11.1 | 9.1 | 4.4 | | | |
| 7.4 | 9.1 | 233 | 2.60 | 187.00 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 8.1 | 10 | 213 | 2.85 | 170.85 | 9.4 | 11.3 | 9.4 | 4.6 | | | |
| 10 | 13 | 167 | 2.25 | 87.38 | 9.5 | 11.5 | 9.5 | 4.8 | | | |
| 11 | 14 | 152 | 2.25 | 79.84 | 9.6 | 11.5 | 9.6 | 4.8 | FH052-14P-71-06E | 23 | 294 |
| 19 | 23 | 92 | 2.25 | 48.15 | 9.7 | 11.6 | 9.7 | 4.9 | | | |

Legend see page 187

** ... on request

| P _N = 0.18 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|------------------|----|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page | | | |
| 0.18 kW | | 0.22 kW | | | Output shaft | | Hollow shaft | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 3.4 | 4.2 | 510 | 0.80 | 267.14 | ** | ** | ** | ** | FH043-14P-71-06E | 17 | 292 | | | |
| 3.7 | 4.6 | 465 | 0.90 | 243.69 | 1.5 | 1.4 | 1.5 | 1.4 | | | | | | |
| 4.3 | 5.3 | 402 | 1.00 | 210.48 | 3.8 | 6.2 | 3.8 | 2.5 | | | | | | |
| 4.7 | 5.8 | 367 | 1.10 | 192.00 | 4.5 | 7.7 | 4.5 | 2.6 | | | | | | |
| 5.5 | 6.8 | 310 | 1.30 | 162.19 | 5.3 | 8.4 | 5.3 | 2.8 | | | | | | |
| 6.1 | 7.5 | 283 | 1.45 | 147.96 | 5.7 | 8.5 | 5.7 | 2.9 | | | | | | |
| 7.1 | 8.8 | 242 | 1.70 | 126.72 | 6.1 | 8.6 | 6.1 | 3.0 | | | | | | |
| 7.8 | 9.6 | 221 | 1.85 | 115.60 | 6.2 | 8.7 | 6.2 | 3.1 | | | | | | |
| 9.5 | 12 | 181 | 2.25 | 94.61 | 6.5 | 8.9 | 6.5 | 3.3 | | | | | | |
| 10 | 13 | 165 | 2.45 | 86.31 | 6.6 | 8.9 | 6.6 | 3.3 | | | | | | |
| 13 | 16 | 136 | 2.95 | 71.24 | 6.7 | 9.0 | 6.7 | 3.4 | | | | | | |
| 3.3 | 4.0 | 527 | 0.80 | 422.98 | ** | ** | ** | ** | | | | FH043-14P-63-04F | 15 | 292 |
| 3.6 | 4.4 | 481 | 0.85 | 385.85 | ** | ** | ** | ** | | | | | | |
| 4.2 | 5.2 | 410 | 1.00 | 329.48 | 3.6 | 5.7 | 3.6 | 2.4 | | | | | | |
| 4.6 | 5.7 | 374 | 1.10 | 300.55 | 4.3 | 7.3 | 4.3 | 2.6 | | | | | | |
| 5.2 | 6.4 | 333 | 1.25 | 267.14 | 5.0 | 8.3 | 5.0 | 2.7 | | | | | | |
| 5.7 | 7.0 | 304 | 1.35 | 243.69 | 5.4 | 8.4 | 5.4 | 2.8 | | | | | | |
| 6.6 | 8.1 | 262 | 1.55 | 210.48 | 5.9 | 8.6 | 5.9 | 3.0 | | | | | | |
| 7.2 | 8.9 | 239 | 1.70 | 192.00 | 6.1 | 8.7 | 6.1 | 3.1 | | | | | | |
| 8.5 | 10 | 202 | 2.00 | 162.19 | 6.4 | 8.8 | 6.4 | 3.2 | | | | | | |
| 9.3 | 11 | 184 | 2.20 | 147.96 | 6.5 | 8.9 | 6.5 | 3.3 | | | | | | |
| 11 | 13 | 158 | 2.55 | 126.72 | 6.6 | 8.9 | 6.6 | 3.3 | | | | | | |
| 12 | 15 | 144 | 2.80 | 115.60 | 6.7 | 9.0 | 6.7 | 3.4 | | | | | | |
| 12 | 15 | 145 | 2.25 | 75.79 | 6.7 | 9.0 | 6.7 | 3.4 | FH042-14P-71-06E | 17 | 292 | | | |
| 13 | 16 | 132 | 2.25 | 69.14 | 6.8 | 9.0 | 6.8 | 3.4 | | | | | | |
| 22 | 27 | 79 | 2.25 | 41.20 | 6.9 | 9.1 | 6.9 | 3.5 | | | | | | |
| 13 | 16 | 134 | 1.65 | 70.17 | 4.6 | 2.8 | 4.6 | 2.8 | FH032-14P-71-06E | 16 | 290 | | | |
| 14 | 17 | 122 | 1.85 | 63.63 | 4.7 | 3.1 | 4.7 | 3.1 | | | | | | |
| 16 | 19 | 109 | 2.05 | 57.07 | 4.8 | 3.0 | 4.8 | 3.0 | | | | | | |
| 17 | 21 | 99 | 2.25 | 51.75 | 4.8 | 3.2 | 4.8 | 3.2 | | | | | | |
| 20 | 24 | 87 | 2.55 | 45.35 | 4.9 | 3.1 | 4.9 | 3.1 | | | | | | |
| 22 | 27 | 79 | 2.85 | 41.12 | 5.0 | 3.3 | 5.0 | 3.3 | | | | | | |
| 33 | 40 | 53 | 2.30 | 27.67 | 5.1 | 3.4 | 5.1 | 3.4 | | | | | | |
| 20 | 24 | 87 | 2.55 | 70.17 | 4.9 | 3.1 | 4.9 | 3.1 | FH032-14P-63-04F | 14 | 290 | | | |
| 22 | 27 | 79 | 2.80 | 63.63 | 5.0 | 3.3 | 5.0 | 3.3 | | | | | | |
| 10 | 13 | 168 | 0.80 | 88.09 | ** | ** | ** | ** | FH022-14P-71-06E | 14 | 288 | | | |
| 12 | 15 | 146 | 0.90 | 76.22 | 4.6 | 1.9 | 4.6 | 1.9 | | | | | | |
| 13 | 16 | 131 | 1.00 | 68.62 | 4.7 | 2.2 | 4.7 | 2.2 | | | | | | |
| 15 | 18 | 118 | 1.15 | 61.80 | 4.8 | 2.0 | 4.8 | 2.0 | | | | | | |
| 16 | 20 | 106 | 1.25 | 55.64 | 4.9 | 2.3 | 4.9 | 2.3 | | | | | | |
| 18 | 23 | 93 | 1.40 | 48.69 | 5.0 | 2.2 | 5.0 | 2.2 | | | | | | |
| 21 | 25 | 84 | 1.60 | 43.83 | 5.0 | 2.4 | 5.0 | 2.4 | | | | | | |
| 24 | 30 | 72 | 1.85 | 37.52 | 5.1 | 2.3 | 5.1 | 2.3 | | | | | | |
| 27 | 33 | 65 | 2.05 | 33.78 | 5.1 | 2.5 | 5.1 | 2.5 | | | | | | |
| 28 | 35 | 61 | 0.90 | 31.79 | 5.1 | 2.5 | 5.1 | 2.5 | | | | | | |
| 31 | 38 | 56 | 2.35 | 29.32 | 5.2 | 2.4 | 5.2 | 2.4 | | | | | | |
| 34 | 42 | 50 | 2.60 | 26.39 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | | |
| 36 | 45 | 47 | 1.80 | 24.76 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | | |
| 45 | 55 | 38 | 2.20 | 20.08 | 5.2 | 2.6 | 5.2 | 2.6 | | | | | | |
| 57 | 70 | 30 | 2.80 | 15.82 | 5.2 | 2.6 | 5.2 | 2.6 | | | | | | |

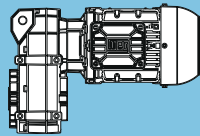
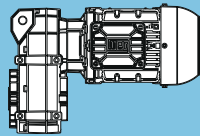
F

Legend see page 187

** ... on request

$P_N = 0.18 \text{ kW}$

IE3

| 50 Hz 0.18 kW | 60 Hz 0.22 kW | M_2 Nm | f_b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|------------------|------------------|-------------|-------|-------|----------------|-----------------|----------------|-----------------|--|---------|--------------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F_{rN} kN | F_{aIN} kN | F_{rN} kN | F_{aIN} kN | | | |
| 14 | 17 | 122 | 1.10 | 97.85 | 4.8 | 2.0 | 4.8 | 2.0 |  | 11 | 288 |
| 16 | 19 | 110 | 1.20 | 88.09 | 4.9 | 2.3 | 4.9 | 2.3 | | | |
| 18 | 22 | 95 | 1.40 | 76.22 | 5.0 | 2.2 | 5.0 | 2.2 | | | |
| 20 | 25 | 85 | 1.55 | 68.62 | 5.0 | 2.4 | 5.0 | 2.4 | | | |
| 22 | 28 | 77 | 1.70 | 61.80 | 5.1 | 2.3 | 5.1 | 2.3 | | | |
| 25 | 31 | 69 | 1.90 | 55.64 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 28 | 35 | 61 | 2.15 | 48.69 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 31 | 39 | 55 | 2.40 | 43.83 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 37 | 45 | 47 | 2.80 | 37.52 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 41 | 50 | 42 | 3.10 | 33.78 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 43 | 53 | 40 | 1.35 | 31.79 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 47 | 58 | 37 | 3.60 | 29.32 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 52 | 64 | 33 | 4.00 | 26.39 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 56 | 69 | 31 | 2.75 | 24.76 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 63 | 78 | 27 | 4.80 | 21.89 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 69 | 85 | 25 | 3.40 | 20.08 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 70 | 86 | 25 | 5.30 | 19.70 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 84 | 103 | 21 | 6.35 | 16.48 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 87 | 107 | 20 | 4.30 | 15.82 | 5.2 | 2.7 | 5.2 | 2.7 | | | |
| 93 | 115 | 18 | 7.05 | 14.84 | 5.1 | 2.7 | 5.1 | 2.7 | | | |
| 113 | 139 | 15 | 5.55 | 12.19 | 4.7 | 2.7 | 4.7 | 2.7 | | | |
| 114 | 141 | 15 | 8.65 | 12.09 | 4.7 | 2.7 | 4.7 | 2.7 | | | |
| 127 | 156 | 14 | 9.60 | 10.89 | 4.6 | 2.7 | 4.6 | 2.7 | | | |
| 145 | 179 | 12 | 7.10 | 9.52 | 4.3 | 2.7 | 4.3 | 2.7 | | | |
| 194 | 239 | 9 | 9.50 | 7.11 | 3.9 | 2.7 | 3.9 | 2.7 | | | |
| 258 | 318 | 7 | 12.65 | 5.35 | 3.6 | 2.7 | 3.6 | 2.7 | | | |
| 351 | 433 | 5 | 14.75 | 3.93 | 3.2 | 2.7 | 3.2 | 2.7 | | | |

FH022-14P-63-04F

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Legend see page 187

| P _N = 0.25 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | | | m kg | Dimension sheet see page |
| 0.25 kW | | 0.30 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.09 | 0.12 | 22621 | 0.80 | 10164.86 | ** | ** | ** | ** | FH155-14P-80-06D | 688 | 320 |
| 0.11 | 0.14 | 18955 | 0.95 | 8582.99 | 74 | 114.4 | 74.0 | 114.4 | | | |
| 0.12 | 0.15 | 17191 | 1.05 | 7824.26 | 81.3 | 115.9 | 81.3 | 115.9 | | | |
| 0.14 | 0.17 | 15316 | 1.20 | 7024.85 | 87.8 | 117.4 | 87.8 | 117.4 | | | |
| 0.16 | 0.20 | 12724 | 1.45 | 5911.67 | 94.9 | 119.6 | 94.9 | 119.6 | | | |
| 0.18 | 0.22 | 11549 | 1.60 | 5407.29 | 97.5 | 120.5 | 97.5 | 120.5 | | | |
| 0.20 | 0.25 | 10227 | 1.80 | 4838.19 | 100.1 | 121.6 | 100.1 | 121.6 | | | |
| 0.23 | 0.29 | 8481 | 2.15 | 4085.5 | 103 | 123.0 | 103.0 | 123.0 | | | |
| 0.24 | 0.30 | 8102 | 2.25 | 3923.28 | 103.5 | 123.4 | 103.5 | 123.4 | | | |
| 0.29 | 0.35 | 6745 | 2.70 | 3343.64 | 105.2 | 124.5 | 105.2 | 124.5 | | | |
| 0.10 | 0.12 | 21535 | 0.85 | 14018.89 | ** | ** | ** | ** | FH155-14P-71-04E | 686 | 320 |
| 0.11 | 0.14 | 18980 | 0.95 | 12419.47 | 73.9 | 114.4 | 73.9 | 114.4 | | | |
| 0.12 | 0.15 | 16787 | 1.10 | 11069.46 | 82.8 | 116.2 | 82.8 | 116.2 | | | |
| 0.14 | 0.17 | 15337 | 1.20 | 10164.86 | 87.7 | 117.4 | 87.7 | 117.4 | | | |
| 0.16 | 0.20 | 12784 | 1.45 | 8582.99 | 94.7 | 119.5 | 94.7 | 119.5 | | | |
| 0.18 | 0.22 | 11564 | 1.60 | 7824.26 | 97.5 | 120.5 | 97.5 | 120.5 | | | |
| 0.20 | 0.24 | 10303 | 1.75 | 7024.85 | 100.0 | 121.5 | 100.0 | 121.5 | | | |
| 0.23 | 0.29 | 8492 | 2.15 | 5911.67 | 103.0 | 123.0 | 103.0 | 123.0 | | | |
| 0.26 | 0.31 | 7688 | 2.35 | 5407.29 | 104.1 | 123.7 | 104.1 | 123.7 | | | |
| 0.29 | 0.35 | 6754 | 2.70 | 4838.19 | 105.2 | 124.5 | 105.2 | 124.5 | | | |
| 0.41 | 0.51 | 4858 | 2.70 | 2307.03 | 86.9 | 92.8 | 86.9 | 92.8 | FH124-14P-80-06D | 423 | 314 |
| 0.42 | 0.52 | 5018 | 1.60 | 2276.77 | 56.1 | 63.6 | 56.1 | 63.6 | FH104-14P-80-06D | 283 | 310 |
| 0.48 | 0.60 | 4302 | 1.90 | 1976.36 | 57.7 | 64.4 | 57.7 | 64.4 | | | |
| 0.54 | 0.67 | 3787 | 2.15 | 1757.78 | 58.7 | 65.0 | 58.7 | 65.0 | | | |
| 0.56 | 0.69 | 3671 | 2.20 | 1707.58 | 58.9 | 65.1 | 58.9 | 65.1 | | | |
| 0.63 | 0.78 | 3240 | 2.50 | 1525.85 | 59.6 | 65.6 | 59.6 | 65.6 | | | |
| 0.65 | 0.80 | 3117 | 2.60 | 1474.19 | 59.8 | 65.7 | 59.8 | 65.7 | | | |
| 0.72 | 0.90 | 2747 | 2.95 | 1318.33 | 60.3 | 66.1 | 60.3 | 66.1 | | | |
| 0.61 | 0.75 | 3360 | 2.40 | 2276.77 | 59.4 | 65.4 | 59.4 | 65.4 | FH104-14P-71-04E | 281 | 310 |
| 0.70 | 0.86 | 2868 | 2.80 | 1976.36 | 60.1 | 66.0 | 60.1 | 66.0 | | | |
| 0.37 | 0.45 | 5945 | 0.80 | 2609.75 | ** | ** | ** | ** | FH094-14P-80-06D | 178 | 306 |
| 0.38 | 0.47 | 5750 | 0.80 | 2524.38 | ** | ** | ** | ** | | | |
| 0.45 | 0.56 | 4831 | 0.95 | 2134.14 | 25.6 | 38.6 | 25.6 | 38.6 | | | |
| 0.48 | 0.59 | 4503 | 1.00 | 1993.28 | 27.9 | 39.0 | 27.9 | 39.0 | | | |
| 0.57 | 0.7 | 3776 | 1.20 | 1685.14 | 32.0 | 40.0 | 32.0 | 40.0 | | | |
| 0.62 | 0.77 | 3442 | 1.35 | 1545.54 | 33.4 | 40.4 | 33.4 | 40.4 | | | |
| 0.73 | 0.91 | 2880 | 1.60 | 1306.62 | 35.5 | 41.2 | 35.5 | 41.2 | | | |
| 0.75 | 0.94 | 2782 | 1.65 | 1264.97 | 35.8 | 41.3 | 35.8 | 41.3 | | | |
| 0.89 | 1.1 | 2323 | 1.95 | 1069.42 | 37.1 | 41.9 | 37.1 | 41.9 | | | |
| 0.98 | 1.2 | 2098 | 2.15 | 973.69 | 37.6 | 42.2 | 37.6 | 42.2 | | | |
| 1.2 | 1.4 | 1741 | 2.60 | 823.17 | 38.4 | 42.7 | 38.4 | 42.7 | | | |
| 1.3 | 1.6 | 1533 | 2.95 | 735.68 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 0.45 | 0.55 | 4836 | 0.95 | 3086.96 | 25.6 | 38.6 | 25.6 | 38.6 | | | |
| 0.53 | 0.65 | 4055 | 1.15 | 2609.75 | 30.6 | 39.6 | 30.6 | 39.6 | | | |
| 0.55 | 0.67 | 3922 | 1.15 | 2524.38 | 31.2 | 39.8 | 31.2 | 39.8 | | | |
| 0.65 | 0.80 | 3282 | 1.40 | 2134.14 | 34.1 | 40.7 | 34.1 | 40.7 | | | |
| 0.69 | 0.85 | 3053 | 1.50 | 1993.28 | 34.9 | 41.0 | 34.9 | 41.0 | | | |
| 0.82 | 1.0 | 2549 | 1.80 | 1685.14 | 36.5 | 41.6 | 36.5 | 41.6 | | | |
| 0.89 | 1.1 | 2324 | 1.95 | 1545.54 | 37.1 | 41.9 | 37.1 | 41.9 | | | |
| 1.1 | 1.3 | 1932 | 2.35 | 1306.62 | 38.0 | 42.4 | 38.0 | 42.4 | | | |
| 1.3 | 1.6 | 1542 | 2.95 | 1069.42 | 38.7 | 43.0 | 38.7 | 43.0 | | | |

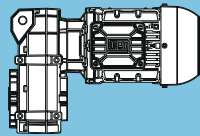
F

Legend see page 187

** ... on request

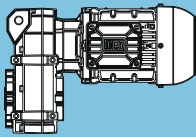
$P_N = 0.25 \text{ kW}$

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|-------------------------------|-------------------------------|-------------|-------|---------|----------------|-----------------|----------------|-----------------|--|---------|--------------------------------|
| 0.25 kW | | 0.30 kW | | | Output shaft | | Hollow shaft | | | | |
| n_{50} min ⁻¹ | n_{60} min ⁻¹ | M_2 Nm | f_b | | F_{rN} kN | F_{aIN} kN | F_{rN} kN | F_{aIN} kN | | | |
| 0.56 | 0.69 | 3899 | 0.80 | 1711.85 | ** | ** | ** | ** | FH084-14P-80-06D | 124 | 302 |
| 0.61 | 0.75 | 3573 | 0.85 | 1571.96 | ** | ** | ** | ** | | | |
| 0.63 | 0.78 | 3448 | 0.90 | 1520.15 | 14.7 | 24.1 | 14.7 | 7.2 | | | |
| 0.72 | 0.89 | 2993 | 1.05 | 1327.33 | 19.4 | 34.2 | 19.4 | 7.9 | | | |
| 0.77 | 0.95 | 2799 | 1.10 | 1244.18 | 20.9 | 37.5 | 20.9 | 8.2 | | | |
| 0.79 | 0.98 | 2717 | 1.15 | 1209.99 | 21.5 | 38.8 | 21.5 | 8.3 | | | |
| 0.88 | 1.1 | 2429 | 1.25 | 1086.37 | 23.3 | 41.3 | 23.3 | 8.8 | | | |
| 1.0 | 1.2 | 2124 | 1.45 | 957.69 | 24.9 | 41.7 | 24.9 | 9.2 | | | |
| 1.1 | 1.4 | 1839 | 1.65 | 836.22 | 26.1 | 42.2 | 26.1 | 9.7 | | | |
| 1.3 | 1.6 | 1632 | 1.85 | 748.21 | 26.9 | 42.5 | 26.9 | 10.0 | | | |
| 1.5 | 1.9 | 1356 | 2.25 | 631.81 | 27.7 | 42.9 | 27.7 | 10.4 | | | |
| 1.6 | 2.0 | 1296 | 2.35 | 606.72 | 27.8 | 43.0 | 27.8 | 10.5 | | | |
| 1.8 | 2.3 | 1084 | 2.80 | 517.08 | 28.3 | 43.3 | 28.3 | 10.8 | | | |
| 1.9 | 2.3 | 1063 | 2.85 | 507.90 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 0.56 | 0.68 | 3914 | 0.80 | 2482.91 | ** | ** | ** | ** | FH084-14P-71-04E | 121 | 302 |
| 0.64 | 0.78 | 3403 | 0.90 | 2167.97 | 15.3 | 25.4 | 15.3 | 7.3 | | | |
| 0.70 | 0.87 | 3065 | 1.00 | 1960.53 | 18.8 | 32.9 | 18.8 | 7.8 | | | |
| 0.72 | 0.89 | 3003 | 1.00 | 1920.62 | 19.3 | 34.0 | 19.3 | 7.9 | | | |
| 0.81 | 0.99 | 2660 | 1.15 | 1711.85 | 21.9 | 39.7 | 21.9 | 8.4 | | | |
| 0.88 | 1.1 | 2433 | 1.25 | 1571.96 | 23.3 | 41.2 | 23.3 | 8.7 | | | |
| 0.91 | 1.1 | 2348 | 1.30 | 1520.15 | 23.8 | 41.4 | 23.8 | 8.9 | | | |
| 1.0 | 1.3 | 2033 | 1.50 | 1327.33 | 25.3 | 41.9 | 25.3 | 9.4 | | | |
| 1.1 | 1.4 | 1898 | 1.60 | 1244.18 | 25.9 | 42.1 | 25.9 | 9.6 | | | |
| 1.3 | 1.6 | 1640 | 1.85 | 1086.37 | 26.8 | 42.5 | 26.8 | 10.0 | | | |
| 1.4 | 1.8 | 1431 | 2.10 | 957.69 | 27.5 | 42.8 | 27.5 | 10.3 | | | |
| 1.5 | 1.9 | 1357 | 2.25 | 914.22 | 27.7 | 42.9 | 27.7 | 10.4 | | | |
| 1.7 | 2.0 | 1231 | 2.45 | 836.22 | 28.0 | 43.1 | 28.0 | 10.6 | | | |
| 1.8 | 2.3 | 1086 | 2.80 | 748.21 | 28.3 | 43.3 | 28.3 | 10.8 | | | |
| 1.9 | 2.3 | 1046 | 2.90 | 723.59 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 2.5 | 3.1 | 963 | 1.60 | 385.37 | 18.6 | 17.0 | 18.6 | 5.8 | FH073-14P-80-06D | 63 | 298 |
| 3.1 | 3.9 | 764 | 2.00 | 305.42 | 19.3 | 17.4 | 19.3 | 6.2 | | | |
| 4.0 | 5.0 | 593 | 2.55 | 237.15 | 19.8 | 17.8 | 19.8 | 6.5 | | | |
| 3.6 | 4.4 | 667 | 2.25 | 385.37 | 19.6 | 17.6 | 19.6 | 6.4 | FH073-14P-71-04E | 61 | 298 |
| 4.5 | 5.6 | 528 | 2.85 | 305.42 | 19.9 | 17.9 | 19.9 | 6.7 | | | |
| 2.3 | 2.9 | 1032 | 0.80 | 412.64 | ** | ** | ** | ** | FH063-14P-80-06D | 40 | 296 |
| 2.5 | 3.1 | 946 | 0.90 | 378.37 | 6.8 | 10.5 | 6.8 | 2.2 | | | |
| 2.8 | 3.5 | 844 | 1.00 | 337.44 | 8.3 | 12.5 | 8.3 | 2.6 | | | |
| 3.1 | 3.8 | 774 | 1.10 | 309.42 | 9.1 | 12.7 | 9.1 | 2.8 | | | |
| 3.6 | 4.5 | 666 | 1.25 | 266.44 | 10.1 | 13.1 | 10.1 | 3.1 | | | |
| 3.9 | 4.9 | 611 | 1.35 | 244.32 | 10.5 | 13.2 | 10.5 | 3.3 | | | |
| 4.6 | 5.7 | 516 | 1.60 | 206.59 | 11.1 | 13.6 | 11.1 | 3.6 | | | |
| 5.0 | 6.3 | 474 | 1.75 | 189.44 | 11.3 | 13.7 | 11.3 | 3.7 | | | |
| 5.6 | 7.0 | 423 | 1.95 | 169.09 | 11.6 | 13.9 | 11.6 | 3.9 | | | |
| 6.2 | 7.6 | 388 | 2.15 | 155.05 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 7.3 | 9.1 | 325 | 2.55 | 130.15 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 8.0 | 9.9 | 298 | 2.75 | 119.35 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 3.3 | 4.1 | 714 | 1.15 | 412.64 | 9.6 | 12.9 | 9.6 | 3.0 | FH063-14P-71-04E | 38 | 296 |
| 3.6 | 4.5 | 655 | 1.30 | 378.37 | 10.1 | 13.1 | 10.1 | 3.2 | | | |
| 4.1 | 5.0 | 584 | 1.45 | 337.44 | 10.7 | 13.4 | 10.7 | 3.4 | | | |
| 4.5 | 5.5 | 535 | 1.55 | 309.42 | 11.0 | 13.5 | 11.0 | 3.5 | | | |
| 5.2 | 6.4 | 461 | 1.80 | 266.44 | 11.4 | 13.8 | 11.4 | 3.8 | | | |
| 5.6 | 7.0 | 423 | 1.95 | 244.32 | 11.6 | 13.9 | 11.6 | 3.9 | | | |
| 6.7 | 8.2 | 357 | 2.30 | 206.59 | 11.8 | 14.1 | 11.8 | 4.1 | | | |
| 7.3 | 9.0 | 328 | 2.55 | 189.44 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 8.2 | 10 | 293 | 2.85 | 169.09 | 12.0 | 14.3 | 12.0 | 4.4 | | | |

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** ... on request

| P _N = 0.25 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.25 kW | | 0.30 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.1 | 3.9 | 770 | 0.80 | 308.00 | ** | ** | ** | ** | FH053-14P-80-06D | 24 | 294 |
| 3.4 | 4.2 | 704 | 0.85 | 281.41 | ** | ** | ** | ** | | | |
| 3.9 | 4.9 | 607 | 1.00 | 242.67 | 6.0 | 10.1 | 6.0 | 3.4 | | | |
| 4.3 | 5.3 | 554 | 1.10 | 221.71 | 6.8 | 10.3 | 6.8 | 3.6 | | | |
| 5.1 | 6.3 | 468 | 1.30 | 187.00 | 7.7 | 10.6 | 7.7 | 3.9 | | | |
| 5.6 | 6.9 | 427 | 1.40 | 170.85 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 6.5 | 8.1 | 365 | 1.65 | 146.1 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 7.2 | 8.9 | 334 | 1.80 | 133.49 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 8.8 | 11 | 273 | 2.25 | 109.08 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 9.6 | 12 | 249 | 2.40 | 99.66 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 10 | 13 | 235 | 2.60 | 94.11 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 11 | 14 | 215 | 2.80 | 85.99 | 9.4 | 11.3 | 9.4 | 4.6 | | | |
| 12 | 14 | 205 | 2.95 | 82.13 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 3.1 | 3.8 | 771 | 0.80 | 445.56 | ** | ** | ** | ** | FH053-14P-71-04E | 22 | 294 |
| 3.6 | 4.5 | 657 | 0.95 | 379.87 | 5.1 | 8.2 | 5.1 | 3.3 | | | |
| 4.0 | 4.9 | 600 | 1.00 | 347.07 | 6.1 | 10.1 | 6.1 | 3.4 | | | |
| 4.5 | 5.5 | 533 | 1.15 | 308.00 | 7.0 | 10.4 | 7.0 | 3.7 | | | |
| 4.9 | 6.0 | 487 | 1.25 | 281.41 | 7.5 | 10.5 | 7.5 | 3.8 | | | |
| 5.7 | 7.0 | 420 | 1.45 | 242.67 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 6.2 | 7.7 | 384 | 1.60 | 221.71 | 8.4 | 10.8 | 8.4 | 4.1 | | | |
| 7.4 | 9.1 | 324 | 1.90 | 187.00 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 8.1 | 10 | 296 | 2.05 | 170.85 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 9.4 | 12 | 253 | 2.40 | 146.10 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 10 | 13 | 231 | 2.60 | 133.49 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 11 | 14 | 218 | 1.70 | 87.38 | 9.3 | 11.3 | 9.3 | 4.6 | FH052-14P-80-06D | 24 | 294 |
| 12 | 15 | 200 | 1.70 | 79.84 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 13 | 17 | 179 | 2.85 | 71.46 | 9.5 | 11.5 | 9.5 | 4.8 | | | |
| 15 | 18 | 163 | 2.80 | 65.29 | 9.5 | 11.5 | 9.5 | 4.8 | | | |
| 20 | 25 | 120 | 1.70 | 48.15 | 9.6 | 11.5 | 9.6 | 4.8 | | | |
| 24 | 30 | 98 | 2.85 | 39.38 | 9.7 | 11.6 | 9.7 | 4.9 | | | |
| 16 | 19 | 151 | 2.50 | 87.38 | 9.6 | 11.5 | 9.6 | 4.8 | FH052-14P-71-04E | 22 | 294 |
| 17 | 21 | 138 | 2.50 | 79.84 | 9.6 | 11.6 | 9.6 | 4.9 | | | |
| 29 | 35 | 83 | 2.45 | 48.15 | 9.7 | 11.6 | 9.7 | 4.9 | | | |
| 4.5 | 5.6 | 526 | 0.80 | 210.48 | ** | ** | ** | ** | FH043-14P-80-06D | 18 | 292 |
| 5.0 | 6.2 | 480 | 0.85 | 192.00 | ** | ** | ** | ** | | | |
| 5.9 | 7.3 | 405 | 1.00 | 162.19 | 3.7 | 6.0 | 3.7 | 2.5 | | | |
| 6.5 | 8.0 | 370 | 1.10 | 147.96 | 4.4 | 7.5 | 4.4 | 2.6 | | | |
| 7.5 | 9.4 | 317 | 1.30 | 126.72 | 5.2 | 8.4 | 5.2 | 2.8 | | | |
| 8.3 | 10 | 289 | 1.40 | 115.6 | 5.6 | 8.5 | 5.6 | 2.9 | | | |
| 10 | 13 | 237 | 1.70 | 94.61 | 6.1 | 8.7 | 6.1 | 3.1 | | | |
| 11 | 14 | 216 | 1.90 | 86.31 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 12 | 15 | 204 | 2.00 | 81.63 | 6.4 | 8.8 | 6.4 | 3.2 | | | |
| 13 | 16 | 186 | 2.15 | 74.46 | 6.5 | 8.8 | 6.5 | 3.2 | | | |
| 15 | 18 | 162 | 2.50 | 64.98 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 4.6 | 5.7 | 520 | 0.80 | 300.55 | ** | ** | ** | ** | FH043-14P-71-04E | 16 | 292 |
| 5.2 | 6.4 | 462 | 0.90 | 267.14 | 1.7 | 1.8 | 1.7 | 1.8 | | | |
| 5.7 | 7.0 | 422 | 0.95 | 243.69 | 3.3 | 5.1 | 3.3 | 2.4 | | | |
| 6.6 | 8.1 | 364 | 1.10 | 210.48 | 4.5 | 7.7 | 4.5 | 2.6 | | | |
| 7.2 | 8.9 | 332 | 1.25 | 192.00 | 5.0 | 8.3 | 5.0 | 2.7 | | | |
| 8.5 | 10 | 281 | 1.45 | 162.19 | 5.7 | 8.5 | 5.7 | 2.9 | | | |
| 9.3 | 11 | 256 | 1.60 | 147.96 | 5.9 | 8.6 | 5.9 | 3.0 | | | |
| 11 | 13 | 219 | 1.85 | 126.72 | 6.2 | 8.7 | 6.2 | 3.1 | | | |
| 12 | 15 | 200 | 2.05 | 115.60 | 6.4 | 8.8 | 6.4 | 3.2 | | | |
| 15 | 18 | 164 | 2.45 | 94.61 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 16 | 20 | 149 | 2.70 | 86.31 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 13 | 16 | 189 | 1.70 | 75.79 | 6.5 | 8.8 | 6.5 | 3.2 | FH042-14P-80-06D | 18 | 292 |
| 14 | 17 | 173 | 1.70 | 69.14 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 15 | 19 | 155 | 2.60 | 61.98 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 17 | 21 | 141 | 2.85 | 56.54 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 23 | 29 | 103 | 1.70 | 41.20 | 6.9 | 9.0 | 6.9 | 3.4 | | | |
| 28 | 35 | 84 | 2.85 | 33.69 | 6.9 | 9.1 | 6.9 | 3.5 | | | |

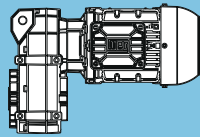
F

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** ... on request

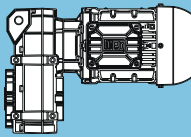
P_N = 0.25 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 0.25 kW | 0.30 kW | M ₂ Nm | f _b | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 18 | 22 | 131 | 2.50 | 75.79 | 6.8 | 9.0 | 6.8 | 3.4 | FH042-14P-71-04E | 16 | 292 |
| 20 | 25 | 120 | 2.45 | 69.14 | 6.8 | 9.1 | 6.8 | 3.5 | | | |
| 33 | 41 | 71 | 2.50 | 41.2 | 7.0 | 9.1 | 7.0 | 3.5 | | | |
| 14 | 17 | 175 | 1.30 | 70.17 | 4.1 | 2.6 | 4.1 | 2.6 | FH032-14P-80-06D | 17 | 290 |
| 15 | 19 | 159 | 1.40 | 63.63 | 4.3 | 2.9 | 4.3 | 2.9 | | | |
| 17 | 21 | 143 | 1.55 | 57.07 | 4.5 | 2.8 | 4.5 | 2.8 | | | |
| 18 | 23 | 129 | 1.75 | 51.75 | 4.6 | 3.1 | 4.6 | 3.1 | | | |
| 21 | 26 | 113 | 1.95 | 45.35 | 4.7 | 2.9 | 4.7 | 2.9 | | | |
| 23 | 29 | 103 | 2.15 | 41.12 | 4.8 | 3.2 | 4.8 | 3.2 | | | |
| 27 | 34 | 88 | 2.55 | 35.03 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 30 | 37 | 79 | 2.80 | 31.76 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 35 | 43 | 69 | 1.75 | 27.67 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 42 | 53 | 56 | 2.65 | 22.50 | 5.1 | 3.4 | 5.1 | 3.4 | | | |
| 20 | 24 | 121 | 1.85 | 70.17 | 4.7 | 2.9 | 4.7 | 2.9 | | | |
| 22 | 27 | 110 | 2.00 | 63.63 | 4.8 | 3.2 | 4.8 | 3.2 | | | |
| 24 | 30 | 99 | 2.25 | 57.07 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 27 | 33 | 90 | 2.50 | 51.75 | 4.9 | 3.3 | 4.9 | 3.3 | | | |
| 30 | 37 | 78 | 2.85 | 45.35 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 50 | 61 | 48 | 2.50 | 27.67 | 5.1 | 3.4 | 5.1 | 3.4 | | | |
| 14 | 17 | 172 | 0.80 | 68.62 | ** | ** | ** | ** | FH022-14P-80-06D | 14 | 288 |
| 15 | 19 | 155 | 0.85 | 61.80 | ** | ** | ** | ** | | | |
| 17 | 21 | 139 | 0.95 | 55.64 | 4.6 | 2.1 | 4.6 | 2.1 | | | |
| 20 | 24 | 122 | 1.10 | 48.69 | 4.8 | 2 | 4.8 | 2 | | | |
| 22 | 27 | 110 | 1.20 | 43.83 | 4.9 | 2.3 | 4.9 | 2.3 | | | |
| 25 | 32 | 94 | 1.40 | 37.52 | 5 | 2.2 | 5 | 2.2 | | | |
| 28 | 35 | 84 | 1.55 | 33.78 | 5 | 2.4 | 5 | 2.4 | | | |
| 33 | 40 | 73 | 1.80 | 29.32 | 5.1 | 2.3 | 5.1 | 2.3 | | | |
| 36 | 45 | 66 | 2.00 | 26.39 | 5.1 | 2.5 | 5.1 | 2.5 | | | |
| 39 | 48 | 62 | 1.40 | 24.76 | 5.1 | 2.5 | 5.1 | 2.5 | | | |
| 44 | 54 | 55 | 2.40 | 21.89 | 5.2 | 2.4 | 5.2 | 2.4 | | | |
| 48 | 59 | 50 | 1.70 | 20.08 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 51 | 63 | 47 | 2.80 | 18.88 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 60 | 75 | 40 | 2.15 | 15.82 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 78 | 97 | 30 | 2.80 | 12.19 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 14 | 17 | 169 | 0.80 | 97.85 | ** | ** | ** | ** | FH022-14P-71-04E | 12 | 288 |
| 16 | 19 | 152 | 0.90 | 88.09 | 4.5 | 2.1 | 4.5 | 2.1 | | | |
| 18 | 22 | 132 | 1.00 | 76.22 | 4.7 | 2.0 | 4.7 | 2.0 | | | |
| 20 | 25 | 119 | 1.10 | 68.62 | 4.8 | 2.2 | 4.8 | 2.2 | | | |
| 22 | 28 | 107 | 1.25 | 61.80 | 4.9 | 2.1 | 4.9 | 2.1 | | | |
| 25 | 31 | 96 | 1.40 | 55.64 | 5.0 | 2.3 | 5.0 | 2.3 | | | |
| 28 | 35 | 84 | 1.55 | 48.69 | 5.0 | 2.2 | 5.0 | 2.2 | | | |
| 31 | 39 | 76 | 1.75 | 43.83 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 37 | 45 | 65 | 2.05 | 37.52 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 41 | 50 | 58 | 2.25 | 33.78 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 43 | 53 | 55 | 1.00 | 31.79 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 47 | 58 | 51 | 2.60 | 29.32 | 5.2 | 2.4 | 5.2 | 2.4 | | | |
| 52 | 64 | 46 | 2.85 | 26.39 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 56 | 69 | 43 | 2.00 | 24.76 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 63 | 78 | 38 | 3.45 | 21.89 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 69 | 85 | 35 | 2.45 | 20.08 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 70 | 86 | 34 | 3.85 | 19.70 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 84 | 103 | 29 | 4.60 | 16.48 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 87 | 107 | 27 | 3.10 | 15.82 | 5.2 | 2.6 | 5.2 | 2.6 | | | |
| 93 | 115 | 26 | 5.10 | 14.84 | 5.1 | 2.6 | 5.1 | 2.6 | | | |
| 113 | 139 | 21 | 4.00 | 12.19 | 4.8 | 2.7 | 4.8 | 2.7 | | | |
| 114 | 141 | 21 | 6.25 | 12.09 | 4.8 | 2.6 | 4.8 | 2.6 | | | |
| 127 | 156 | 19 | 6.95 | 10.89 | 4.6 | 2.7 | 4.6 | 2.7 | | | |
| 145 | 179 | 16 | 5.15 | 9.52 | 4.4 | 2.7 | 4.4 | 2.7 | | | |
| 194 | 239 | 12 | 6.85 | 7.11 | 4.0 | 2.7 | 4.0 | 2.7 | | | |
| 258 | 318 | 9 | 9.10 | 5.35 | 3.6 | 2.7 | 3.6 | 2.7 | | | |
| 351 | 433 | 7 | 10.60 | 3.93 | 3.2 | 2.7 | 3.2 | 2.7 | | | |

Legend see page 187

** ... on request

| P _N = 0.37 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.13 | 0.16 | 23888 | 0.80 | 7024.85 | ** | ** | ** | ** | FH155-14P-80-06E | 690 | 320 |
| 0.16 | 0.19 | 19948 | 0.95 | 5911.67 | 69.2 | 113.6 | 69.2 | 113.6 | | | |
| 0.17 | 0.21 | 18200 | 1.00 | 5407.29 | 77.3 | 115.1 | 77.3 | 115.1 | | | |
| 0.19 | 0.24 | 16159 | 1.15 | 4838.19 | 85.0 | 116.7 | 85.0 | 116.7 | | | |
| 0.23 | 0.28 | 13506 | 1.35 | 4085.5 | 92.9 | 118.9 | 92.9 | 118.9 | | | |
| 0.24 | 0.29 | 12936 | 1.40 | 3923.28 | 94.4 | 119.4 | 94.4 | 119.4 | | | |
| 0.28 | 0.34 | 10856 | 1.70 | 3343.64 | 98.9 | 121.1 | 98.9 | 121.1 | | | |
| 0.34 | 0.42 | 8623 | 2.10 | 2711.35 | 102.8 | 122.9 | 102.8 | 122.9 | | | |
| 0.35 | 0.43 | 8443 | 2.15 | 2661.75 | 103.0 | 123.1 | 103.0 | 123.1 | | | |
| 0.41 | 0.50 | 7033 | 2.60 | 2269.72 | 104.9 | 124.2 | 104.9 | 124.2 | | | |
| 0.14 | 0.17 | 22919 | 0.80 | 10164.86 | ** | ** | ** | ** | FH155-14P-71-04F | 687 | 320 |
| 0.16 | 0.20 | 19205 | 0.95 | 8582.99 | 72.9 | 114.2 | 72.9 | 114.2 | | | |
| 0.18 | 0.22 | 17417 | 1.05 | 7824.26 | 80.5 | 115.7 | 80.5 | 115.7 | | | |
| 0.20 | 0.24 | 15518 | 1.20 | 7024.85 | 87.1 | 117.3 | 87.1 | 117.3 | | | |
| 0.24 | 0.29 | 12925 | 1.40 | 5911.67 | 94.4 | 119.4 | 94.4 | 119.4 | | | |
| 0.26 | 0.32 | 11731 | 1.55 | 5407.29 | 97.1 | 120.4 | 97.1 | 120.4 | | | |
| 0.29 | 0.35 | 10389 | 1.75 | 4838.19 | 99.8 | 121.5 | 99.8 | 121.5 | | | |
| 0.34 | 0.42 | 8615 | 2.10 | 4085.5 | 102.8 | 122.9 | 102.8 | 122.9 | | | |
| 0.42 | 0.51 | 6852 | 2.65 | 3343.64 | 105.1 | 124.4 | 105.1 | 124.4 | | | |
| 0.40 | 0.49 | 7553 | 2.40 | 2318.3 | 104.3 | 123.8 | 104.3 | 123.8 | | | |
| 0.46 | 0.57 | 6384 | 2.85 | 1996.74 | 105.6 | 124.8 | 105.6 | 124.8 | | | |
| 0.40 | 0.49 | 7738 | 1.70 | 2307.03 | 83.1 | 90.0 | 83.1 | 90.0 | | | |
| 0.46 | 0.57 | 6677 | 1.95 | 2011.51 | 84.8 | 91.1 | 84.8 | 91.1 | | | |
| 0.52 | 0.64 | 5839 | 2.25 | 1781.14 | 85.8 | 91.9 | 85.8 | 91.9 | | | |
| 0.53 | 0.66 | 5669 | 2.30 | 1732.67 | 86.1 | 92.0 | 86.1 | 92.0 | | | |
| 0.60 | 0.73 | 5018 | 2.60 | 1552.98 | 86.8 | 92.7 | 86.8 | 92.7 | | | |
| 0.62 | 0.76 | 4796 | 2.75 | 1493.78 | 87.0 | 92.9 | 87.0 | 92.9 | | | |
| 0.60 | 0.74 | 4932 | 2.65 | 2307.03 | 86.9 | 92.7 | 86.9 | 92.7 | | | |
| 0.41 | 0.50 | 7843 | 1.05 | 2276.77 | 46.5 | 60.4 | 46.5 | 60.4 | | | |
| 0.47 | 0.58 | 6767 | 1.20 | 1976.36 | 50.9 | 61.6 | 50.9 | 61.6 | | | |
| 0.53 | 0.65 | 5981 | 1.35 | 1757.78 | 53.5 | 62.5 | 53.5 | 62.5 | | | |
| 0.54 | 0.67 | 5799 | 1.40 | 1707.58 | 54.0 | 62.7 | 54.0 | 62.7 | | | |
| 0.61 | 0.75 | 5139 | 1.60 | 1525.85 | 55.8 | 63.4 | 55.8 | 63.4 | | | |
| 0.63 | 0.77 | 4955 | 1.65 | 1474.19 | 56.3 | 63.7 | 56.3 | 63.7 | | | |
| 0.70 | 0.86 | 4394 | 1.85 | 1318.33 | 57.5 | 64.3 | 57.5 | 64.3 | | | |
| 0.72 | 0.89 | 4257 | 1.90 | 1279.68 | 57.8 | 64.4 | 57.8 | 64.4 | | | |
| 0.80 | 0.99 | 3817 | 2.10 | 1156.94 | 58.6 | 64.9 | 58.6 | 64.9 | | | |
| 0.84 | 1.0 | 3625 | 2.25 | 1105.64 | 59.0 | 65.1 | 59.0 | 65.1 | | | |
| 0.92 | 1.1 | 3258 | 2.50 | 1004.29 | 59.6 | 65.5 | 59.6 | 65.5 | | | |
| 1.0 | 1.3 | 2861 | 2.80 | 892.89 | 60.1 | 66.0 | 60.1 | 66.0 | | | |
| 1.1 | 1.3 | 2769 | 2.90 | 867.71 | 60.2 | 66.1 | 60.2 | 66.1 | | | |
| 0.61 | 0.75 | 5084 | 1.60 | 2276.77 | 56.0 | 63.5 | 56.0 | 63.5 | | | |
| 0.71 | 0.87 | 4368 | 1.85 | 1976.36 | 57.6 | 64.3 | 57.6 | 64.3 | | | |
| 0.79 | 0.97 | 3845 | 2.10 | 1757.78 | 58.6 | 64.9 | 58.6 | 64.9 | | | |
| 0.82 | 1.0 | 3728 | 2.15 | 1707.58 | 58.8 | 65.0 | 58.8 | 65.0 | | | |
| 0.91 | 1.1 | 3290 | 2.45 | 1525.85 | 59.5 | 65.5 | 59.5 | 65.5 | | | |
| 0.95 | 1.2 | 3165 | 2.55 | 1474.19 | 59.7 | 65.6 | 59.7 | 65.6 | | | |
| 1.1 | 1.3 | 2789 | 2.90 | 1318.33 | 60.2 | 66.1 | 60.2 | 66.1 | | | |
| 0.55 | 0.68 | 5865 | 0.80 | 1685.14 | ** | ** | ** | ** | FH094-14P-80-06E | 180 | 306 |
| 0.60 | 0.74 | 5368 | 0.85 | 1545.54 | ** | ** | ** | ** | | | |
| 0.71 | 0.87 | 4511 | 1.00 | 1306.62 | 27.9 | 39.0 | 27.9 | 39.0 | | | |
| 0.73 | 0.90 | 4358 | 1.05 | 1264.97 | 28.8 | 39.2 | 28.8 | 39.2 | | | |
| 0.86 | 1.1 | 3654 | 1.25 | 1069.42 | 32.5 | 40.2 | 32.5 | 40.2 | | | |
| 0.95 | 1.2 | 3306 | 1.40 | 973.69 | 34.0 | 40.6 | 34.0 | 40.6 | | | |
| 1.1 | 1.4 | 2767 | 1.65 | 823.17 | 35.9 | 41.3 | 35.9 | 41.3 | | | |
| 1.3 | 1.5 | 2452 | 1.85 | 735.68 | 36.8 | 41.8 | 36.8 | 41.8 | | | |
| 1.5 | 1.8 | 2039 | 2.25 | 621.95 | 37.8 | 42.3 | 37.8 | 42.3 | | | |
| 1.8 | 2.2 | 1631 | 2.80 | 509.01 | 38.6 | 42.8 | 38.6 | 42.8 | | | |
| 1.9 | 2.3 | 1558 | 2.90 | 488.23 | 38.7 | 42.9 | 38.7 | 42.9 | | | |

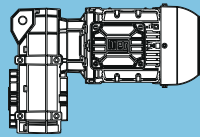
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** ... on request

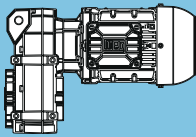
P_N = 0.37 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|
| 0.37 kW | | 0.44 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.55 | 0.68 | 5826 | 0.80 | 2524.38 | ** | ** | ** | ** | FH094-14P-71-04F | 177 | 306 |
| 0.65 | 0.80 | 4895 | 0.95 | 2134.14 | 25.1 | 38.5 | 25.1 | 38.5 | | | |
| 0.70 | 0.86 | 4563 | 1.00 | 1993.28 | 27.5 | 39.0 | 27.5 | 39.0 | | | |
| 0.83 | 1.0 | 3826 | 1.20 | 1685.14 | 31.7 | 39.9 | 31.7 | 39.9 | | | |
| 0.90 | 1.1 | 3494 | 1.30 | 1545.54 | 33.2 | 40.4 | 33.2 | 40.4 | | | |
| 1.1 | 1.3 | 2924 | 1.55 | 1306.62 | 35.4 | 41.1 | 35.4 | 41.1 | | | |
| 1.3 | 1.6 | 2354 | 1.95 | 1069.42 | 37.0 | 41.9 | 37.0 | 41.9 | | | |
| 1.4 | 1.8 | 2125 | 2.15 | 973.69 | 37.6 | 42.2 | 37.6 | 42.2 | | | |
| 1.7 | 2.1 | 1767 | 2.55 | 823.17 | 38.3 | 42.7 | 38.3 | 42.7 | | | |
| 1.9 | 2.3 | 1557 | 2.90 | 735.68 | 38.7 | 42.9 | 38.7 | 42.9 | | | |
| 0.85 | 1.0 | 3781 | 0.80 | 1086.37 | ** | ** | ** | ** | FH084-14P-80-06E | 126 | 302 |
| 0.97 | 1.2 | 3313 | 0.95 | 957.69 | 16.4 | 27.7 | 16.4 | 27.7 | | | |
| 1.0 | 1.2 | 3162 | 0.95 | 914.22 | 17.9 | 30.9 | 17.9 | 30.9 | | | |
| 1.1 | 1.4 | 2881 | 1.05 | 836.22 | 20.3 | 36.2 | 20.3 | 36.2 | | | |
| 1.2 | 1.5 | 2562 | 1.20 | 748.21 | 22.5 | 41.1 | 22.5 | 41.1 | | | |
| 1.3 | 1.6 | 2472 | 1.25 | 723.59 | 23.1 | 41.2 | 23.1 | 41.2 | | | |
| 1.5 | 1.8 | 2145 | 1.40 | 631.81 | 24.8 | 41.7 | 24.8 | 41.7 | | | |
| 1.6 | 1.9 | 2003 | 1.50 | 592.20 | 25.4 | 41.9 | 25.4 | 41.9 | | | |
| 1.8 | 2.2 | 1731 | 1.75 | 517.08 | 26.5 | 42.3 | 26.5 | 42.3 | | | |
| 1.9 | 2.4 | 1597 | 1.90 | 480.21 | 27.0 | 42.5 | 27.0 | 42.5 | | | |
| 2.2 | 2.7 | 1378 | 2.20 | 419.30 | 27.6 | 42.9 | 27.6 | 42.9 | | | |
| 2.3 | 2.8 | 1315 | 2.30 | 401.99 | 27.8 | 43.0 | 27.8 | 43.0 | | | |
| 2.6 | 3.2 | 1129 | 2.70 | 351.00 | 28.2 | 43.3 | 28.2 | 43.3 | | | |
| 2.8 | 3.5 | 1040 | 2.90 | 325.80 | 28.4 | 43.4 | 28.4 | 43.4 | | | |
| 0.81 | 1.0 | 3951 | 0.80 | 1711.85 | ** | ** | ** | ** | FH084-14P-71-04F | 122 | 302 |
| 0.89 | 1.1 | 3620 | 0.85 | 1571.96 | ** | ** | ** | ** | | | |
| 0.92 | 1.1 | 3494 | 0.90 | 1520.15 | 14.1 | 22.8 | 14.1 | 22.8 | | | |
| 1.1 | 1.3 | 3038 | 1.00 | 1327.33 | 19.0 | 33.3 | 19.0 | 33.3 | | | |
| 1.2 | 1.4 | 2758 | 1.10 | 1209.99 | 21.2 | 38.1 | 21.2 | 38.1 | | | |
| 1.3 | 1.6 | 2461 | 1.25 | 1086.37 | 23.1 | 41.2 | 23.1 | 41.2 | | | |
| 1.5 | 1.8 | 2156 | 1.40 | 957.69 | 24.8 | 41.7 | 24.8 | 41.7 | | | |
| 1.7 | 2.0 | 1864 | 1.65 | 836.22 | 26.0 | 42.1 | 26.0 | 42.1 | | | |
| 1.9 | 2.3 | 1654 | 1.85 | 748.21 | 26.8 | 42.5 | 26.8 | 42.5 | | | |
| 2.2 | 2.7 | 1376 | 2.20 | 631.81 | 27.6 | 42.9 | 27.6 | 42.9 | | | |
| 2.4 | 2.9 | 1282 | 2.35 | 592.20 | 27.9 | 43.0 | 27.9 | 43.0 | | | |
| 2.7 | 3.3 | 1101 | 2.75 | 517.08 | 28.3 | 43.3 | 28.3 | 43.3 | | | |
| 2.6 | 3.2 | 1370 | 2.20 | 358.52 | 27.6 | 42.9 | 27.6 | 42.9 | FH083-14P-80-06E | 113 | 300 |
| 3.3 | 4.0 | 1084 | 2.80 | 283.76 | 28.3 | 43.3 | 28.3 | 43.3 | | | |
| 2.4 | 3.0 | 1472 | 1.05 | 385.37 | 15.8 | 16.0 | 15.8 | 16.0 | FH073-14P-80-06E | 65 | 298 |
| 3.0 | 3.7 | 1167 | 1.30 | 305.42 | 17.7 | 16.6 | 17.7 | 16.6 | | | |
| 3.9 | 4.8 | 906 | 1.70 | 237.15 | 18.8 | 17.2 | 18.8 | 17.2 | | | |
| 4.8 | 5.9 | 743 | 2.05 | 194.58 | 19.4 | 17.5 | 19.4 | 17.5 | | | |
| 6.1 | 7.6 | 576 | 2.65 | 150.69 | 19.8 | 17.8 | 19.8 | 17.8 | | | |
| 3.6 | 4.4 | 976 | 1.55 | 385.37 | 18.5 | 17.0 | 18.5 | 17.0 | FH073-14P-71-04F | 62 | 298 |
| 4.6 | 5.6 | 774 | 1.95 | 305.42 | 19.3 | 17.4 | 19.3 | 17.4 | | | |
| 5.9 | 7.2 | 601 | 2.50 | 237.15 | 19.8 | 17.8 | 19.8 | 17.8 | | | |
| 3.5 | 4.3 | 1018 | 0.85 | 266.44 | ** | ** | ** | ** | FH063-14P-80-06E | 42 | 296 |
| 3.8 | 4.7 | 933 | 0.90 | 244.32 | 7.0 | 10.9 | 7.0 | 10.9 | | | |
| 4.5 | 5.5 | 789 | 1.05 | 206.59 | 8.9 | 12.7 | 8.9 | 12.7 | | | |
| 4.9 | 6.0 | 724 | 1.15 | 189.44 | 9.6 | 12.9 | 9.6 | 12.9 | | | |
| 5.5 | 6.7 | 646 | 1.30 | 169.09 | 10.2 | 13.2 | 10.2 | 13.2 | | | |
| 6.0 | 7.4 | 592 | 1.40 | 155.05 | 10.6 | 13.3 | 10.6 | 13.3 | | | |
| 7.1 | 8.8 | 497 | 1.65 | 130.15 | 11.2 | 13.6 | 11.2 | 13.6 | | | |
| 7.8 | 9.6 | 456 | 1.80 | 119.35 | 11.4 | 13.8 | 11.4 | 13.8 | | | |
| 9.4 | 12 | 376 | 2.20 | 98.34 | 11.8 | 14.0 | 11.8 | 14.0 | | | |
| 10 | 13 | 344 | 2.40 | 90.17 | 11.9 | 14.1 | 11.9 | 14.1 | | | |
| 11 | 14 | 307 | 2.70 | 80.48 | 12.0 | 14.3 | 12.0 | 14.3 | | | |
| 13 | 15 | 282 | 2.95 | 73.80 | 12.1 | 14.3 | 12.1 | 14.3 | | | |

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** ... on request

| P _N = 0.37 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.4 | 4.1 | 1045 | 0.80 | 412.64 | ** | ** | ** | ** | FH063-14P-71-04F | 39 | 296 |
| 3.7 | 4.5 | 958 | 0.90 | 378.37 | 6.5 | 9.9 | 6.5 | 2.2 | | | |
| 4.1 | 5.1 | 855 | 1.00 | 337.44 | 8.1 | 12.5 | 8.1 | 2.5 | | | |
| 4.5 | 5.5 | 784 | 1.05 | 309.42 | 9.0 | 12.7 | 9.0 | 2.7 | | | |
| 5.2 | 6.4 | 675 | 1.25 | 266.44 | 10.0 | 13.1 | 10.0 | 3.1 | | | |
| 5.7 | 7.0 | 619 | 1.35 | 244.32 | 10.4 | 13.2 | 10.4 | 3.3 | | | |
| 6.8 | 8.3 | 523 | 1.60 | 206.59 | 11.0 | 13.6 | 11.0 | 3.6 | | | |
| 7.4 | 9.0 | 480 | 1.75 | 189.44 | 11.3 | 13.7 | 11.3 | 3.7 | | | |
| 8.3 | 10 | 428 | 1.95 | 169.09 | 11.5 | 13.9 | 11.5 | 3.9 | | | |
| 9.0 | 11 | 393 | 2.10 | 155.05 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 11 | 13 | 330 | 2.50 | 130.15 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 12 | 14 | 302 | 2.75 | 119.35 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 4.9 | 6.1 | 714 | 0.85 | 187.00 | ** | ** | ** | ** | FH053-14P-80-06E | 26 | 294 |
| 5.4 | 6.7 | 653 | 0.95 | 170.85 | 5.2 | 8.4 | 5.2 | 3.3 | | | |
| 6.3 | 7.8 | 558 | 1.10 | 146.10 | 6.7 | 10.3 | 6.7 | 3.6 | | | |
| 6.9 | 8.5 | 510 | 1.20 | 133.49 | 7.3 | 10.4 | 7.3 | 3.7 | | | |
| 8.5 | 10 | 417 | 1.45 | 109.08 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 9.3 | 11 | 381 | 1.60 | 99.66 | 8.5 | 10.8 | 8.5 | 4.1 | | | |
| 9.8 | 12 | 360 | 1.70 | 94.11 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 11 | 13 | 328 | 1.85 | 85.99 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 12 | 15 | 287 | 2.10 | 75.04 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 15 | 19 | 230 | 2.65 | 60.26 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 17 | 21 | 210 | 2.85 | 55.06 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 4.5 | 5.6 | 780 | 0.80 | 308.00 | ** | ** | ** | ** | FH053-14P-71-04F | 23 | 294 |
| 5.0 | 6.1 | 713 | 0.85 | 281.41 | ** | ** | ** | ** | | | |
| 5.7 | 7.0 | 615 | 1.00 | 242.67 | 5.9 | 9.9 | 5.9 | 3.4 | | | |
| 6.3 | 7.7 | 562 | 1.10 | 221.71 | 6.7 | 10.3 | 6.7 | 3.6 | | | |
| 7.5 | 9.1 | 474 | 1.30 | 187.00 | 7.7 | 10.6 | 7.7 | 3.9 | | | |
| 8.2 | 10 | 433 | 1.40 | 170.85 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 9.5 | 12 | 370 | 1.65 | 146.10 | 8.5 | 10.9 | 8.5 | 4.2 | | | |
| 10 | 13 | 338 | 1.80 | 133.49 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 13 | 16 | 276 | 2.20 | 109.08 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 14 | 17 | 252 | 2.40 | 99.66 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 17 | 21 | 208 | 2.90 | 82.13 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 11 | 13 | 334 | 1.15 | 87.38 | 8.8 | 11.0 | 8.8 | 4.3 | FH052-14P-80-06E | 26 | 294 |
| 12 | 14 | 305 | 1.15 | 79.84 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 13 | 16 | 273 | 1.85 | 71.46 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 14 | 17 | 249 | 1.85 | 65.29 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 16 | 20 | 216 | 2.80 | 56.42 | 9.4 | 11.3 | 9.4 | 4.6 | | | |
| 19 | 24 | 184 | 1.15 | 48.15 | 9.5 | 11.2 | 9.5 | 4.5 | | | |
| 23 | 29 | 150 | 1.85 | 39.38 | 9.6 | 11.3 | 9.6 | 4.6 | | | |
| 16 | 20 | 221 | 1.70 | 87.38 | 9.3 | 11.3 | 9.3 | 4.6 | FH052-14P-71-04F | 22 | 294 |
| 17 | 21 | 202 | 1.70 | 79.84 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 20 | 24 | 181 | 2.80 | 71.46 | 9.5 | 11.4 | 9.5 | 4.7 | | | |
| 21 | 26 | 165 | 2.80 | 65.29 | 9.5 | 11.5 | 9.5 | 4.8 | | | |
| 29 | 36 | 122 | 1.70 | 48.15 | 9.6 | 11.5 | 9.6 | 4.8 | | | |
| 35 | 43 | 100 | 2.80 | 39.38 | 9.7 | 11.6 | 9.7 | 4.9 | | | |
| 7.3 | 9.0 | 484 | 0.85 | 126.72 | ** | ** | ** | ** | | | |
| 8.0 | 9.9 | 442 | 0.95 | 115.60 | 2.6 | 3.6 | 2.6 | 2.3 | | | |
| 9.8 | 12 | 361 | 1.15 | 94.61 | 4.6 | 7.9 | 4.6 | 2.6 | | | |
| 11 | 13 | 330 | 1.25 | 86.31 | 5.1 | 8.3 | 5.1 | 2.7 | | | |
| 12 | 15 | 284 | 1.45 | 74.46 | 5.6 | 8.5 | 5.6 | 2.9 | | | |
| 13 | 16 | 272 | 1.50 | 71.24 | 5.8 | 8.5 | 5.8 | 2.9 | | | |
| 14 | 18 | 248 | 1.65 | 64.98 | 6.0 | 8.6 | 6.0 | 3.0 | | | |
| 18 | 22 | 200 | 2.05 | 52.27 | 6.4 | 8.8 | 6.4 | 3.2 | | | |
| 19 | 24 | 182 | 2.20 | 47.68 | 6.5 | 8.9 | 6.5 | 3.3 | | | |

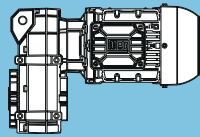
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** ... on request

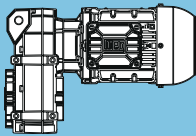
P_N = 0.37 kW

IE3

| 50 Hz 0.37 kW | | 60 Hz 0.44 kW | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | Output shaft | | Hollow shaft | | | | |
| | | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 6.6 | 8.1 | 533 | 0.80 | 210.48 | ** | ** | ** | ** | FH043-14P-71-04F | 17 | 292 |
| 7.3 | 8.9 | 486 | 0.85 | 192.00 | ** | ** | ** | ** | | | |
| 8.6 | 11 | 411 | 1.00 | 162.19 | 3.5 | 5.5 | 3.5 | 2.4 | | | |
| 9.4 | 12 | 375 | 1.10 | 147.96 | 4.3 | 7.3 | 4.3 | 2.6 | | | |
| 11 | 13 | 321 | 1.25 | 126.72 | 5.2 | 8.4 | 5.2 | 2.8 | | | |
| 12 | 15 | 293 | 1.40 | 115.60 | 5.5 | 8.5 | 5.5 | 2.9 | | | |
| 15 | 18 | 240 | 1.70 | 94.61 | 6.1 | 8.6 | 6.1 | 3.0 | | | |
| 16 | 20 | 219 | 1.85 | 86.31 | 6.2 | 8.7 | 6.2 | 3.1 | | | |
| 20 | 24 | 180 | 2.25 | 71.24 | 6.5 | 8.9 | 6.5 | 3.3 | | | |
| 21 | 26 | 165 | 2.45 | 64.98 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 12 | 15 | 290 | 1.15 | 75.79 | 5.6 | 8.5 | 5.6 | 2.9 | FH043-14P-80-06E | 20 | 292 |
| 13 | 16 | 264 | 1.15 | 69.14 | 5.9 | 8.6 | 5.9 | 3.0 | | | |
| 15 | 18 | 237 | 1.70 | 61.98 | 6.1 | 8.7 | 6.1 | 3.1 | | | |
| 16 | 20 | 216 | 1.85 | 56.54 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 19 | 23 | 187 | 2.15 | 48.94 | 6.5 | 8.8 | 6.5 | 3.2 | | | |
| 21 | 26 | 171 | 2.35 | 44.64 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 22 | 28 | 157 | 1.15 | 41.20 | 6.6 | 8.7 | 6.6 | 3.1 | | | |
| 24 | 30 | 145 | 2.80 | 37.95 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 27 | 34 | 129 | 1.85 | 33.69 | 6.8 | 8.8 | 6.8 | 3.2 | | | |
| 18 | 23 | 192 | 1.70 | 75.79 | 6.4 | 8.8 | 6.4 | 3.2 | | | |
| 20 | 25 | 175 | 1.70 | 69.14 | 6.5 | 8.9 | 6.5 | 3.3 | | | |
| 23 | 28 | 157 | 2.55 | 61.98 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 25 | 30 | 143 | 2.80 | 56.54 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 34 | 42 | 104 | 1.70 | 41.20 | 6.9 | 9.0 | 6.9 | 3.4 | | | |
| 41 | 51 | 85 | 2.80 | 33.69 | 6.9 | 9.1 | 6.9 | 3.5 | | | |
| 13 | 16 | 268 | 0.85 | 70.17 | ** | ** | ** | ** | FH032-14P-80-06E | 19 | 290 |
| 15 | 18 | 243 | 0.95 | 63.63 | 2.8 | 2.6 | 2.8 | 2.6 | | | |
| 16 | 20 | 218 | 1.05 | 57.07 | 3.4 | 2.3 | 3.4 | 2.3 | | | |
| 18 | 22 | 198 | 1.15 | 51.75 | 3.8 | 2.8 | 3.8 | 2.8 | | | |
| 20 | 25 | 173 | 1.30 | 45.35 | 4.1 | 2.6 | 4.1 | 2.6 | | | |
| 22 | 28 | 157 | 1.45 | 41.12 | 4.3 | 3.0 | 4.3 | 3.0 | | | |
| 26 | 33 | 134 | 1.65 | 35.03 | 4.6 | 2.8 | 4.6 | 2.8 | | | |
| 29 | 36 | 121 | 1.85 | 31.76 | 4.7 | 3.1 | 4.7 | 3.1 | | | |
| 33 | 41 | 107 | 2.10 | 27.97 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 36 | 45 | 97 | 2.30 | 25.36 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 41 | 51 | 86 | 1.75 | 22.50 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 44 | 54 | 81 | 2.75 | 21.14 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 52 | 64 | 68 | 2.20 | 17.88 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 67 | 83 | 53 | 2.85 | 13.81 | 5.1 | 3.4 | 5.1 | 3.4 | | | |
| 20 | 24 | 178 | 1.25 | 70.17 | 4.1 | 2.6 | 4.1 | 2.6 | FH032-14P-71-04F | 15 | 290 |
| 22 | 27 | 161 | 1.40 | 63.63 | 4.3 | 2.9 | 4.3 | 2.9 | | | |
| 24 | 30 | 145 | 1.55 | 57.07 | 4.5 | 2.8 | 4.5 | 2.8 | | | |
| 27 | 33 | 131 | 1.70 | 51.75 | 4.6 | 3.1 | 4.6 | 3.1 | | | |
| 31 | 38 | 115 | 1.95 | 45.35 | 4.7 | 2.9 | 4.7 | 2.9 | | | |
| 34 | 42 | 104 | 2.15 | 41.12 | 4.8 | 3.2 | 4.8 | 3.2 | | | |
| 40 | 49 | 89 | 2.50 | 35.03 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 44 | 54 | 80 | 2.75 | 31.76 | 4.9 | 3.3 | 4.9 | 3.3 | | | |
| 50 | 62 | 70 | 1.70 | 27.67 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 62 | 76 | 57 | 2.60 | 22.50 | 5.0 | 3.4 | 5.0 | 3.4 | | | |

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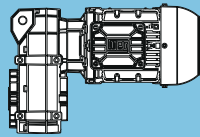
** ... on request

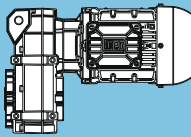
| P _N = 0.37 kW | | | | | | | | | | IE3 | | | |
|--------------------------|-------------------|-----------------|-----------------|----------------|----------------|-----|-----------------|-----------------|--------------|------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | M ₂ | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ | n ₆₀ | F _{rN} | F _{aN} | | | | F _{rN} | F _{aN} | | | | | |
| min ⁻¹ | min ⁻¹ | Nm | | kN | kN | kN | kN | | | | | | |
| 21 | 26 | 167 | 0.80 | 43.83 | ** | ** | ** | ** | | | | | |
| 25 | 30 | 143 | 0.95 | 37.52 | 4.6 | 1.9 | 4.6 | 1.9 | | | | | |
| 27 | 34 | 129 | 1.05 | 33.78 | 4.7 | 2.2 | 4.7 | 2.2 | | | | | |
| 32 | 39 | 112 | 1.20 | 29.32 | 4.9 | 2.1 | 4.9 | 2.1 | | | | | |
| 35 | 43 | 101 | 1.30 | 26.39 | 4.9 | 2.3 | 4.9 | 2.3 | | | | | |
| 37 | 46 | 95 | 0.90 | 24.76 | 5.0 | 2.3 | 5.0 | 2.3 | | | | | |
| 42 | 52 | 84 | 1.60 | 21.89 | 5.0 | 2.3 | 5.0 | 2.3 | | | | | |
| 46 | 57 | 77 | 1.10 | 20.08 | 5.1 | 2.4 | 5.1 | 2.4 | | | | | |
| 47 | 58 | 75 | 1.75 | 19.70 | 5.1 | 2.4 | 5.1 | 2.4 | | | | | |
| 49 | 60 | 72 | 1.85 | 18.88 | 5.1 | 2.3 | 5.1 | 2.3 | | | | | |
| 54 | 67 | 65 | 2.05 | 17.00 | 5.1 | 2.5 | 5.1 | 2.5 | | | | | |
| 56 | 69 | 63 | 2.10 | 16.48 | 5.1 | 2.4 | 5.1 | 2.4 | | | | | |
| 58 | 72 | 60 | 1.40 | 15.82 | 5.1 | 2.5 | 5.1 | 2.5 | | | | | |
| 62 | 77 | 57 | 2.30 | 14.84 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | |
| 76 | 94 | 47 | 1.85 | 12.19 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | |
| 77 | 94 | 46 | 2.85 | 12.09 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | |
| 97 | 120 | 36 | 2.35 | 9.52 | 5.1 | 2.6 | 5.1 | 2.6 | | | | | |
| 23 | 28 | 157 | 0.85 | 61.80 | ** | ** | ** | ** | | | | | |
| 25 | 31 | 141 | 0.95 | 55.64 | 4.6 | 2.1 | 4.6 | 2.1 | | | | | |
| 29 | 35 | 123 | 1.10 | 48.69 | 4.8 | 2.0 | 4.8 | 2.0 | | | | | |
| 32 | 39 | 111 | 1.20 | 43.83 | 4.9 | 2.3 | 4.9 | 2.3 | | | | | |
| 37 | 46 | 95 | 1.40 | 37.52 | 5.0 | 2.2 | 5.0 | 2.2 | | | | | |
| 41 | 51 | 86 | 1.55 | 33.78 | 5.0 | 2.4 | 5.0 | 2.4 | | | | | |
| 48 | 58 | 74 | 1.80 | 29.32 | 5.1 | 2.3 | 5.1 | 2.3 | | | | | |
| 53 | 65 | 67 | 1.95 | 26.39 | 5.1 | 2.5 | 5.1 | 2.5 | | | | | |
| 56 | 69 | 63 | 1.35 | 24.76 | 5.1 | 2.5 | 5.1 | 2.5 | | | | | |
| 64 | 78 | 55 | 2.35 | 21.89 | 5.2 | 2.4 | 5.2 | 2.4 | | | | | |
| 69 | 85 | 51 | 1.70 | 20.08 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | |
| 71 | 87 | 50 | 2.65 | 19.70 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | |
| 85 | 104 | 42 | 3.15 | 16.48 | 5.2 | 2.5 | 5.2 | 2.5 | | | | | |
| 88 | 108 | 40 | 2.10 | 15.82 | 5.2 | 2.6 | 5.2 | 2.6 | | | | | |
| 94 | 115 | 38 | 3.50 | 14.84 | 5.2 | 2.6 | 5.2 | 2.6 | | | | | |
| 114 | 140 | 31 | 2.75 | 12.19 | 4.8 | 2.6 | 4.8 | 2.6 | | | | | |
| 115 | 141 | 31 | 4.25 | 12.09 | 4.8 | 2.6 | 4.8 | 2.6 | | | | | |
| 128 | 157 | 28 | 4.75 | 10.89 | 4.6 | 2.6 | 4.6 | 2.6 | | | | | |
| 147 | 180 | 24 | 3.50 | 9.52 | 4.4 | 2.6 | 4.4 | 2.6 | | | | | |
| 196 | 241 | 18 | 4.70 | 7.11 | 4.0 | 2.7 | 4.0 | 2.7 | | | | | |
| 261 | 320 | 14 | 6.20 | 5.35 | 3.6 | 2.7 | 3.6 | 2.7 | | | | | |
| 355 | 435 | 10 | 7.25 | 3.93 | 3.2 | 2.7 | 3.2 | 2.7 | | | | | |
| | | | | | | | | | | FH022-14P-80-06E | | 16 | 288 |
| | | | | | | | | | | FH022-14P-71-04F | | 13 | 288 |

F

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** ... on request

| P _N = 0.55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.20 | 0.24 | 23938 | 0.80 | 4838.19 | ** | ** | ** | ** | FH155-14P-L80-06F | 691 | 320 |
| 0.23 | 0.28 | 20111 | 0.90 | 4085.50 | 68.4 | 113.5 | 68.4 | 113.5 | | | |
| 0.24 | 0.29 | 19263 | 0.95 | 3923.28 | 72.6 | 114.2 | 72.6 | 114.2 | | | |
| 0.28 | 0.35 | 16249 | 1.15 | 3343.64 | 84.7 | 116.7 | 84.7 | 116.7 | | | |
| 0.29 | 0.35 | 15961 | 1.15 | 3284.26 | 85.7 | 116.9 | 85.7 | 116.9 | | | |
| 0.35 | 0.43 | 13008 | 1.40 | 2711.35 | 94.2 | 119.3 | 94.2 | 119.3 | | | |
| 0.36 | 0.43 | 12737 | 1.45 | 2661.75 | 94.8 | 119.5 | 94.8 | 119.5 | | | |
| 0.42 | 0.51 | 10722 | 1.70 | 2269.72 | 99.2 | 121.2 | 99.2 | 121.2 | | | |
| 0.51 | 0.63 | 8490 | 2.15 | 1839.52 | 103.0 | 123.0 | 103.0 | 123.0 | | | |
| 0.20 | 0.24 | 23131 | 0.80 | 7024.85 | ** | ** | ** | ** | FH155-14P-80-04E | 689 | 320 |
| 0.24 | 0.29 | 19316 | 0.95 | 5911.67 | 72.3 | 114.1 | 72.3 | 114.1 | | | |
| 0.26 | 0.32 | 17578 | 1.05 | 5407.29 | 79.9 | 115.6 | 79.9 | 115.6 | | | |
| 0.29 | 0.36 | 15607 | 1.20 | 4838.19 | 86.9 | 117.2 | 86.9 | 117.2 | | | |
| 0.35 | 0.42 | 13044 | 1.40 | 4085.5 | 94.1 | 119.3 | 94.1 | 119.3 | | | |
| 0.36 | 0.44 | 12494 | 1.45 | 3923.28 | 95.4 | 119.7 | 95.4 | 119.7 | | | |
| 0.42 | 0.51 | 10485 | 1.75 | 3343.64 | 99.6 | 121.4 | 99.6 | 121.4 | | | |
| 0.43 | 0.52 | 10298 | 1.75 | 3284.26 | 100 | 121.5 | 100 | 121.5 | | | |
| 0.52 | 0.63 | 8306 | 2.20 | 2711.35 | 103.2 | 123.2 | 103.2 | 123.2 | | | |
| 0.53 | 0.65 | 8133 | 2.25 | 2661.75 | 103.5 | 123.3 | 103.5 | 123.3 | | | |
| 0.63 | 0.76 | 6775 | 2.70 | 2269.72 | 105.2 | 124.4 | 105.2 | 124.4 | | | |
| 0.41 | 0.50 | 11361 | 1.60 | 2318.30 | 97.9 | 120.7 | 97.9 | 120.7 | FH154-14P-L80-06F | 678 | 318 |
| 0.47 | 0.58 | 9664 | 1.90 | 1996.74 | 101.1 | 122.1 | 101.1 | 122.1 | | | |
| 0.52 | 0.63 | 8826 | 2.05 | 1834.90 | 102.5 | 122.8 | 102.5 | 122.8 | | | |
| 0.55 | 0.67 | 8256 | 2.20 | 1727.10 | 103.3 | 123.2 | 103.3 | 123.2 | | | |
| 0.59 | 0.72 | 7595 | 2.40 | 1602.16 | 104.2 | 123.8 | 104.2 | 123.8 | | | |
| 0.60 | 0.73 | 7476 | 2.45 | 1580.39 | 104.4 | 123.9 | 104.4 | 123.9 | | | |
| 0.67 | 0.82 | 6615 | 2.75 | 1415.96 | 105.4 | 124.6 | 105.4 | 124.6 | | | |
| 0.68 | 0.84 | 6433 | 2.80 | 1379.93 | 105.6 | 124.7 | 105.6 | 124.7 | | | |
| 0.69 | 0.84 | 6360 | 2.85 | 1366.97 | 105.7 | 124.8 | 105.7 | 124.8 | | | |
| 0.61 | 0.74 | 7283 | 2.50 | 2318.3 | 104.6 | 124 | 104.6 | 124 | FH154-14P-80-04E | 676 | 318 |
| 0.71 | 0.86 | 6156 | 2.95 | 1996.74 | 105.9 | 124.9 | 105.9 | 124.9 | | | |
| 0.41 | 0.50 | 11517 | 1.15 | 2307.03 | 74.9 | 86.4 | 74.9 | 86.4 | FH124-14P-L80-06F | 426 | 314 |
| 0.47 | 0.57 | 9959 | 1.35 | 2011.51 | 78.8 | 87.9 | 78.8 | 87.9 | | | |
| 0.53 | 0.65 | 8764 | 1.50 | 1781.14 | 81.3 | 89.1 | 81.3 | 89.1 | | | |
| 0.55 | 0.67 | 8508 | 1.55 | 1732.67 | 81.8 | 89.3 | 81.8 | 89.3 | | | |
| 0.61 | 0.74 | 7563 | 1.75 | 1552.98 | 83.4 | 90.2 | 83.4 | 90.2 | | | |
| 0.63 | 0.77 | 7260 | 1.80 | 1493.78 | 83.9 | 90.5 | 83.9 | 90.5 | | | |
| 0.71 | 0.86 | 6434 | 2.05 | 1337.70 | 85.1 | 91.3 | 85.1 | 91.3 | | | |
| 0.73 | 0.89 | 6252 | 2.10 | 1302.43 | 85.3 | 91.5 | 85.3 | 91.5 | | | |
| 0.81 | 0.99 | 5569 | 2.35 | 1172.32 | 86.2 | 92.1 | 86.2 | 92.1 | | | |
| 0.82 | 1.0 | 5461 | 2.40 | 1151.94 | 86.3 | 92.2 | 86.3 | 92.2 | | | |
| 0.84 | 1.0 | 5307 | 2.45 | 1121.89 | 86.5 | 92.4 | 86.5 | 92.4 | | | |
| 0.92 | 1.1 | 4775 | 2.75 | 1022.15 | 87.0 | 92.9 | 87.0 | 92.9 | | | |
| 0.98 | 1.2 | 4485 | 2.90 | 966.09 | 87.3 | 93.2 | 87.3 | 93.2 | | | |
| 0.62 | 0.75 | 7477 | 1.75 | 2307.03 | 83.6 | 90.3 | 83.6 | 90.3 | FH124-14P-80-04E | 424 | 314 |
| 0.71 | 0.86 | 6439 | 2.05 | 2011.51 | 85.1 | 91.3 | 85.1 | 91.3 | | | |
| 0.80 | 0.97 | 5631 | 2.35 | 1781.14 | 86.1 | 92.1 | 86.1 | 92.1 | | | |
| 0.82 | 0.99 | 5466 | 2.40 | 1732.67 | 86.3 | 92.2 | 86.3 | 92.2 | | | |
| 0.91 | 1.1 | 4838 | 2.70 | 1552.98 | 87.0 | 92.8 | 87.0 | 92.8 | | | |
| 0.95 | 1.2 | 4625 | 2.85 | 1493.78 | 87.2 | 93.0 | 87.2 | 93.0 | | | |
| 0.48 | 0.58 | 10009 | 0.80 | 1976.36 | ** | ** | ** | ** | FH104-14P-L80-06F | 286 | 310 |
| 0.54 | 0.66 | 8847 | 0.95 | 1757.78 | 41.3 | 59.3 | 41.3 | 59.3 | | | |
| 0.55 | 0.68 | 8595 | 0.95 | 1707.58 | 42.7 | 59.6 | 42.7 | 59.6 | | | |
| 0.62 | 0.76 | 7648 | 1.05 | 1525.85 | 47.4 | 60.7 | 47.4 | 60.7 | | | |
| 0.64 | 0.78 | 7374 | 1.10 | 1474.19 | 48.5 | 61.0 | 48.5 | 61.0 | | | |
| 0.72 | 0.88 | 6554 | 1.25 | 1318.33 | 51.6 | 61.9 | 51.6 | 61.9 | | | |
| 0.74 | 0.90 | 6349 | 1.30 | 1279.68 | 52.3 | 62.1 | 52.3 | 62.1 | | | |
| 0.82 | 1.0 | 5716 | 1.40 | 1156.94 | 54.3 | 62.8 | 54.3 | 62.8 | | | |
| 0.85 | 1.0 | 5440 | 1.50 | 1105.64 | 55.1 | 63.1 | 55.1 | 63.1 | | | |
| 0.94 | 1.2 | 4911 | 1.65 | 1004.29 | 56.4 | 63.7 | 56.4 | 63.7 | | | |
| 1.1 | 1.3 | 4331 | 1.85 | 892.89 | 57.7 | 64.3 | 57.7 | 64.3 | | | |
| 1.2 | 1.5 | 3705 | 2.20 | 775.08 | 58.8 | 65.0 | 58.8 | 65.0 | | | |
| 1.3 | 1.6 | 3516 | 2.30 | 738.55 | 59.2 | 65.3 | 59.2 | 65.3 | | | |
| 1.4 | 1.7 | 3155 | 2.55 | 669.67 | 59.7 | 65.7 | 59.7 | 65.7 | | | |
| 1.5 | 1.8 | 3001 | 2.70 | 641.10 | 59.9 | 65.8 | 59.9 | 65.8 | | | |

| P _N = 0.55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------|----------------|----------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.55 kW | 0.66 kW | M ₂ | f _B | i | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | Nm | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.62 | 0.76 | 7579 | 1.10 | 2276.77 | 47.7 | 60.7 | 47.7 | 60.7 | FH104-14P-80-04E | 284 | 310 |
| 0.72 | 0.87 | 6539 | 1.25 | 1976.36 | 51.7 | 61.9 | 51.7 | 61.9 | | | |
| 0.81 | 0.98 | 5780 | 1.40 | 1757.78 | 54.1 | 62.7 | 54.1 | 62.7 | | | |
| 0.83 | 1.0 | 5603 | 1.45 | 1707.58 | 54.6 | 62.9 | 54.6 | 62.9 | | | |
| 0.93 | 1.1 | 4966 | 1.65 | 1525.85 | 56.3 | 63.6 | 56.3 | 63.6 | | | |
| 0.96 | 1.2 | 4788 | 1.70 | 1474.19 | 56.7 | 63.8 | 56.7 | 63.8 | | | |
| 1.1 | 1.3 | 4246 | 1.90 | 1318.33 | 57.8 | 64.4 | 57.8 | 64.4 | | | |
| 1.2 | 1.5 | 3680 | 2.20 | 1156.94 | 58.9 | 65.1 | 58.9 | 65.1 | | | |
| 1.3 | 1.6 | 3503 | 2.30 | 1105.64 | 59.2 | 65.3 | 59.2 | 65.3 | | | |
| 1.4 | 1.7 | 3149 | 2.55 | 1004.29 | 59.7 | 65.7 | 59.7 | 65.7 | | | |
| 1.6 | 1.9 | 2759 | 2.90 | 892.89 | 60.2 | 66.1 | 60.2 | 66.1 | | | |
| 0.88 | 1.1 | 5405 | 0.85 | 1069.42 | ** | ** | ** | ** | FH094-14P-L80-06F | 181 | 306 |
| 0.97 | 1.2 | 4901 | 0.95 | 973.69 | 25.1 | 38.5 | 25.1 | 38.5 | | | |
| 1.1 | 1.4 | 4118 | 1.10 | 823.17 | 30.2 | 39.5 | 30.2 | 39.5 | | | |
| 1.3 | 1.6 | 3657 | 1.25 | 735.68 | 32.5 | 40.2 | 32.5 | 40.2 | | | |
| 1.5 | 1.9 | 3060 | 1.50 | 621.95 | 34.9 | 40.9 | 34.9 | 40.9 | | | |
| 1.6 | 1.9 | 2957 | 1.55 | 602.09 | 35.3 | 41.1 | 35.3 | 41.1 | | | |
| 1.9 | 2.3 | 2469 | 1.85 | 509.01 | 36.7 | 41.7 | 36.7 | 41.7 | | | |
| 2.3 | 2.8 | 1965 | 2.30 | 412.76 | 37.9 | 42.4 | 37.9 | 42.4 | | | |
| 2.7 | 3.3 | 1611 | 2.80 | 345.53 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 2.9 | 3.5 | 1535 | 2.95 | 331.24 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 0.84 | 1.0 | 5679 | 0.80 | 1685.14 | ** | ** | ** | ** | FH094-14P-80-04E | 179 | 306 |
| 0.92 | 1.1 | 5187 | 0.90 | 1545.54 | 22.7 | 38.1 | 22.7 | 38.1 | | | |
| 1.1 | 1.3 | 4359 | 1.05 | 1306.62 | 28.8 | 39.2 | 28.8 | 39.2 | | | |
| 1.3 | 1.6 | 3531 | 1.30 | 1069.42 | 33.1 | 40.3 | 33.1 | 40.3 | | | |
| 1.5 | 1.8 | 3195 | 1.45 | 973.69 | 34.4 | 40.8 | 34.4 | 40.8 | | | |
| 1.7 | 2.1 | 2673 | 1.70 | 823.17 | 36.2 | 41.5 | 36.2 | 41.5 | | | |
| 1.9 | 2.3 | 2370 | 1.90 | 735.68 | 37.0 | 41.9 | 37.0 | 41.9 | | | |
| 2.3 | 2.8 | 1970 | 2.30 | 621.95 | 37.9 | 42.4 | 37.9 | 42.4 | | | |
| 2.4 | 2.9 | 1899 | 2.40 | 602.09 | 38.1 | 42.5 | 38.1 | 42.5 | | | |
| 2.8 | 3.4 | 1573 | 2.90 | 509.01 | 38.7 | 42.9 | 38.7 | 42.9 | | | |
| 2.9 | 3.5 | 1502 | 3.00 | 488.23 | 38.8 | 43.0 | 38.8 | 43.0 | | | |
| 3.3 | 4.0 | 1604 | 2.85 | 288.50 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 1.3 | 1.5 | 3789 | 0.80 | 748.21 | ** | ** | ** | ** | FH084-14P-L80-06F | 127 | 302 |
| 1.5 | 1.8 | 3180 | 0.95 | 631.81 | 17.7 | 30.5 | 17.7 | 7.6 | | | |
| 1.6 | 1.9 | 3047 | 1.00 | 606.72 | 19.0 | 33.3 | 19.0 | 7.8 | | | |
| 1.8 | 2.2 | 2576 | 1.20 | 517.08 | 22.5 | 41.0 | 22.5 | 8.5 | | | |
| 1.9 | 2.3 | 2530 | 1.20 | 507.90 | 22.7 | 41.1 | 22.7 | 8.6 | | | |
| 2.0 | 2.4 | 2382 | 1.30 | 480.21 | 23.6 | 41.3 | 23.6 | 8.8 | | | |
| 2.3 | 2.8 | 2063 | 1.50 | 419.30 | 25.2 | 41.8 | 25.2 | 9.3 | | | |
| 2.4 | 2.9 | 1974 | 1.55 | 401.99 | 25.6 | 42.0 | 25.6 | 9.5 | | | |
| 2.7 | 3.3 | 1706 | 1.80 | 351.00 | 26.6 | 42.4 | 26.6 | 9.9 | | | |
| 2.9 | 3.5 | 1574 | 1.95 | 325.80 | 27.0 | 42.6 | 27.0 | 10.1 | | | |
| 3.3 | 4.1 | 1357 | 2.25 | 284.47 | 27.7 | 42.9 | 27.7 | 10.4 | | | |
| 1.3 | 1.6 | 3654 | 0.85 | 1086.37 | ** | ** | ** | ** | FH084-14P-80-04E | 125 | 302 |
| 1.5 | 1.8 | 3208 | 0.95 | 957.69 | 17.5 | 30.1 | 17.5 | 7.6 | | | |
| 1.6 | 1.9 | 3056 | 1.00 | 914.22 | 18.9 | 33.1 | 18.9 | 7.8 | | | |
| 1.7 | 2.1 | 2784 | 1.10 | 836.22 | 21.1 | 37.9 | 21.1 | 8.2 | | | |
| 1.9 | 2.3 | 2475 | 1.25 | 748.21 | 23.1 | 41.2 | 23.1 | 8.7 | | | |
| 2.0 | 2.4 | 2389 | 1.30 | 723.59 | 23.6 | 41.3 | 23.6 | 8.8 | | | |
| 2.2 | 2.7 | 2073 | 1.45 | 631.81 | 25.1 | 41.8 | 25.1 | 9.3 | | | |
| 2.3 | 2.8 | 1983 | 1.55 | 606.72 | 25.5 | 41.9 | 25.5 | 9.4 | | | |
| 2.4 | 2.9 | 1931 | 1.60 | 592.20 | 25.7 | 42.0 | 25.7 | 9.5 | | | |
| 2.7 | 3.3 | 1672 | 1.80 | 517.08 | 26.7 | 42.4 | 26.7 | 9.9 | | | |
| 2.8 | 3.4 | 1639 | 1.85 | 507.90 | 26.8 | 42.5 | 26.8 | 10.0 | | | |
| 3.0 | 3.6 | 1544 | 1.95 | 480.21 | 27.1 | 42.6 | 27.1 | 10.1 | | | |
| 3.4 | 4.1 | 1328 | 2.30 | 419.30 | 27.8 | 43.0 | 27.8 | 10.5 | | | |
| 3.5 | 4.3 | 1268 | 2.40 | 401.99 | 27.9 | 43.0 | 27.9 | 10.5 | | | |
| 4.0 | 4.9 | 1091 | 2.75 | 351.00 | 28.3 | 43.3 | 28.3 | 10.8 | | | |
| 4.4 | 5.3 | 1002 | 3.00 | 325.80 | 28.5 | 43.5 | 28.5 | 11.0 | | | |

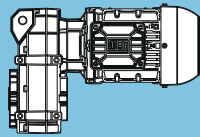
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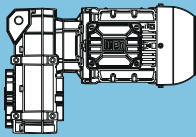
** ... on request

P_N = 0.55 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 0.55 kW | 0.66 kW | M ₂ Nm | f _b | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 2.6 | 3.2 | 1993 | 1.55 | 358.52 | 25.5 | 41.9 | 25.5 | 9.4 | FH083-14P-L80-06F | 114 | 300 |
| 3.3 | 4.1 | 1577 | 1.95 | 283.76 | 27.0 | 42.6 | 27.0 | 10.1 | | | |
| 3.8 | 4.7 | 1377 | 2.20 | 247.77 | 27.6 | 42.9 | 27.6 | 10.4 | | | |
| 4.3 | 5.3 | 1217 | 2.50 | 218.97 | 28.0 | 43.1 | 28.0 | 10.6 | | | |
| 5.1 | 6.2 | 1029 | 2.95 | 185.17 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 5.2 | 6.4 | 1002 | 3.00 | 180.28 | 28.5 | 43.5 | 28.5 | 11.0 | | | |
| 4.0 | 4.8 | 1326 | 2.30 | 358.52 | 27.8 | 43.0 | 27.8 | 10.5 | FH083-14P-80-04E | 112 | 300 |
| 5.0 | 6.1 | 1050 | 2.90 | 283.76 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 3.1 | 3.8 | 1698 | 0.90 | 305.42 | 13.9 | 15.5 | 13.9 | 4.3 | FH073-14P-L80-06F | 66 | 298 |
| 4.0 | 4.9 | 1318 | 1.15 | 237.15 | 16.8 | 16.3 | 16.8 | 5.1 | | | |
| 4.9 | 5.9 | 1082 | 1.40 | 194.58 | 18.1 | 16.8 | 18.1 | 5.5 | | | |
| 6.3 | 7.7 | 838 | 1.80 | 150.69 | 19.1 | 17.3 | 19.1 | 6.0 | | | |
| 8.2 | 10 | 637 | 2.40 | 114.62 | 19.7 | 17.7 | 19.7 | 6.5 | | | |
| 10 | 12 | 525 | 2.90 | 94.52 | 19.9 | 17.9 | 18.6 | 6.7 | | | |
| 3.7 | 4.5 | 1425 | 1.10 | 385.37 | 16.1 | 16.1 | 16.1 | 4.8 | FH073-14P-80-04E | 64 | 298 |
| 4.6 | 5.6 | 1130 | 1.35 | 305.42 | 17.9 | 16.7 | 17.9 | 5.4 | | | |
| 6.0 | 7.3 | 877 | 1.75 | 237.15 | 18.9 | 17.2 | 18.9 | 6.0 | | | |
| 7.3 | 8.8 | 720 | 2.10 | 194.58 | 19.4 | 17.5 | 19.4 | 6.3 | | | |
| 9.4 | 11 | 557 | 2.70 | 150.69 | 19.9 | 17.9 | 19.0 | 6.6 | | | |
| 5.0 | 6.1 | 1053 | 0.80 | 189.44 | ** | ** | ** | ** | | | |
| 5.6 | 6.8 | 940 | 0.90 | 169.09 | 6.9 | 10.8 | 6.9 | 2.3 | | | |
| 6.1 | 7.4 | 862 | 1.00 | 155.05 | 8.0 | 12.4 | 8.0 | 2.5 | | | |
| 7.3 | 8.9 | 723 | 1.15 | 130.15 | 9.6 | 12.9 | 9.6 | 3.0 | | | |
| 7.9 | 9.7 | 663 | 1.25 | 119.35 | 10.1 | 13.1 | 10.1 | 3.1 | | | |
| 9.6 | 12 | 547 | 1.55 | 98.34 | 10.9 | 13.5 | 10.9 | 3.5 | | | |
| 10 | 13 | 501 | 1.65 | 90.17 | 11.2 | 13.6 | 11.2 | 3.7 | | | |
| 12 | 14 | 447 | 1.85 | 80.48 | 11.4 | 13.8 | 11.4 | 3.9 | | | |
| 13 | 16 | 410 | 2.00 | 73.80 | 11.6 | 13.9 | 11.6 | 4.0 | | | |
| 14 | 18 | 363 | 2.30 | 65.26 | 11.8 | 14.1 | 11.8 | 4.1 | | | |
| 16 | 19 | 333 | 2.50 | 59.84 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 17 | 21 | 304 | 2.75 | 54.63 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 19 | 23 | 278 | 2.95 | 50.10 | 12.1 | 14.3 | 12.1 | 4.4 | | | |
| 5.3 | 6.5 | 986 | 0.85 | 266.44 | ** | ** | ** | ** | FH063-14P-80-04E | 41 | 296 |
| 5.8 | 7.0 | 904 | 0.95 | 244.32 | 7.4 | 11.8 | 7.4 | 2.3 | | | |
| 6.9 | 8.3 | 764 | 1.10 | 206.59 | 9.2 | 12.8 | 9.2 | 2.8 | | | |
| 7.5 | 9.1 | 701 | 1.20 | 189.44 | 9.8 | 13.0 | 9.8 | 3.0 | | | |
| 8.4 | 10 | 625 | 1.35 | 169.09 | 10.4 | 13.2 | 10.4 | 3.3 | | | |
| 9.2 | 11 | 574 | 1.45 | 155.05 | 10.7 | 13.4 | 10.7 | 3.4 | | | |
| 11 | 13 | 481 | 1.75 | 130.15 | 11.3 | 13.7 | 11.3 | 3.7 | | | |
| 12 | 14 | 441 | 1.90 | 119.35 | 11.5 | 13.8 | 11.5 | 3.9 | | | |
| 14 | 17 | 364 | 2.30 | 98.34 | 11.8 | 14.1 | 11.8 | 4.1 | | | |
| 16 | 19 | 334 | 2.50 | 90.17 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 18 | 21 | 298 | 2.80 | 80.48 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 19 | 23 | 276 | 3.00 | 49.67 | 12.1 | 14.4 | 12.1 | 4.4 | FH062-14P-L80-06F | 42 | 296 |
| 7.1 | 8.7 | 742 | 0.85 | 133.49 | ** | ** | ** | ** | FH053-14P-L80-06F | 27 | 294 |
| 8.7 | 11 | 606 | 1.00 | 109.08 | 6.0 | 10.1 | 6.0 | 3.4 | | | |
| 9.5 | 12 | 554 | 1.10 | 99.66 | 6.8 | 10.3 | 6.8 | 3.6 | | | |
| 10 | 12 | 523 | 1.15 | 94.11 | 7.1 | 10.4 | 7.1 | 3.7 | | | |
| 11 | 13 | 478 | 1.25 | 85.99 | 7.6 | 10.5 | 7.6 | 3.8 | | | |
| 12 | 14 | 456 | 1.35 | 82.13 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 13 | 15 | 417 | 1.45 | 75.04 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 16 | 19 | 335 | 1.80 | 60.26 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 17 | 21 | 306 | 2.00 | 55.06 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 7.6 | 9.2 | 692 | 0.90 | 187.00 | 4.3 | 6.5 | 4.3 | 3.2 | FH053-14P-80-04E | 25 | 294 |
| 8.3 | 10 | 632 | 0.95 | 170.85 | 5.6 | 9.2 | 5.6 | 3.3 | | | |
| 9.7 | 12 | 540 | 1.15 | 146.10 | 6.9 | 10.3 | 6.9 | 3.6 | | | |
| 11 | 13 | 494 | 1.25 | 133.49 | 7.5 | 10.5 | 7.5 | 3.8 | | | |
| 13 | 16 | 403 | 1.50 | 109.08 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 14 | 17 | 369 | 1.65 | 99.66 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 15 | 18 | 348 | 1.75 | 94.11 | 8.7 | 10.9 | 8.7 | 4.2 | | | |
| 17 | 20 | 318 | 1.90 | 85.99 | 8.9 | 11.0 | 8.9 | 4.3 | | | |
| 19 | 23 | 278 | 2.20 | 75.04 | 9.1 | 11.1 | 9.1 | 4.4 | | | |
| 24 | 29 | 223 | 2.70 | 60.26 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 26 | 31 | 204 | 2.95 | 55.06 | 9.4 | 11.4 | 9.4 | 4.7 | | | |

F

| P _N = 0.55 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|--|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page | |
| 0.55 kW | | 0.66 kW | | Output shaft | | Hollow shaft | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 11 | 13 | 486 | 0.80 | 87.38 | ** | ** | ** | ** | FH052-14P-L80-06F | 27 | 294 | |
| 12 | 14 | 444 | 0.80 | 79.84 | ** | ** | ** | ** | | | | |
| 13 | 16 | 397 | 1.30 | 71.46 | 8.3 | 10.8 | 8.3 | 4.1 | | | | |
| 14 | 18 | 363 | 1.30 | 65.29 | 8.6 | 10.9 | 8.6 | 4.2 | | | | |
| 17 | 20 | 314 | 1.95 | 56.42 | 8.9 | 11 | 8.9 | 4.3 | | | | |
| 18 | 22 | 287 | 2.10 | 51.55 | 9.0 | 11.1 | 9.0 | 4.4 | | | | |
| 20 | 24 | 268 | 0.80 | 48.15 | ** | ** | ** | ** | | | | |
| 22 | 26 | 243 | 2.50 | 43.75 | 9.2 | 11.3 | 9.2 | 4.6 | | | | |
| 24 | 29 | 222 | 2.70 | 39.97 | 9.3 | 11.3 | 9.3 | 4.6 | | | | |
| 30 | 37 | 173 | 2.10 | 31.09 | 9.5 | 11.3 | 9.5 | 4.6 | | | | |
| 39 | 48 | 134 | 2.70 | 24.11 | 9.6 | 11.4 | 9.6 | 4.7 | | | | |
| 16 | 20 | 323 | 1.15 | 87.38 | 8.8 | 11.0 | 8.8 | 4.3 | FH052-14P-80-04E | 25 | 294 | |
| 18 | 22 | 295 | 1.15 | 79.84 | 9.0 | 11.1 | 9.0 | 4.4 | | | | |
| 20 | 24 | 264 | 1.90 | 71.46 | 9.2 | 11.2 | 9.2 | 4.5 | | | | |
| 22 | 26 | 242 | 1.90 | 65.29 | 9.3 | 11.3 | 9.3 | 4.6 | | | | |
| 25 | 30 | 209 | 2.90 | 56.42 | 9.4 | 11.4 | 9.4 | 4.7 | | | | |
| 29 | 36 | 178 | 1.15 | 48.15 | 9.5 | 11.2 | 9.5 | 4.5 | | | | |
| 36 | 44 | 146 | 1.90 | 39.38 | 9.6 | 11.4 | 9.6 | 4.7 | | | | |
| 10 | 12 | 526 | 0.80 | 94.61 | ** | ** | ** | ** | FH043-14P-L80-06F | 21 | 292 | |
| 11 | 13 | 480 | 0.85 | 86.31 | ** | ** | ** | ** | | | | |
| 12 | 14 | 454 | 0.90 | 81.63 | 2.1 | 2.6 | 2.1 | 2.3 | | | | |
| 13 | 16 | 396 | 1.05 | 71.24 | 3.9 | 6.4 | 3.9 | 2.5 | | | | |
| 13 | 16 | 414 | 1.00 | 74.46 | 3.5 | 5.5 | 3.5 | 2.4 | | | | |
| 15 | 18 | 361 | 1.15 | 64.98 | 4.6 | 7.9 | 4.6 | 2.6 | | | | |
| 18 | 22 | 291 | 1.40 | 52.27 | 5.6 | 8.5 | 5.6 | 2.9 | | | | |
| 20 | 24 | 265 | 1.55 | 47.68 | 5.8 | 8.6 | 5.8 | 3.0 | | | | |
| 11 | 14 | 469 | 0.90 | 126.72 | 1.2 | 0.7 | 1.2 | 0.7 | FH043-14P-80-04E | 19 | 292 | |
| 12 | 15 | 428 | 0.95 | 115.6 | 3.1 | 4.7 | 3.1 | 2.4 | | | | |
| 15 | 18 | 350 | 1.15 | 94.61 | 4.8 | 8.3 | 4.8 | 2.7 | | | | |
| 16 | 20 | 319 | 1.30 | 86.31 | 5.2 | 8.4 | 5.2 | 2.8 | | | | |
| 17 | 21 | 302 | 1.35 | 81.63 | 5.4 | 8.4 | 5.4 | 2.8 | | | | |
| 19 | 23 | 275 | 1.50 | 74.46 | 5.7 | 8.5 | 5.7 | 2.9 | | | | |
| 20 | 24 | 264 | 1.55 | 71.24 | 5.9 | 8.6 | 5.9 | 3.0 | | | | |
| 22 | 26 | 240 | 1.70 | 64.98 | 6.1 | 8.7 | 6.1 | 3.1 | | | | |
| 27 | 33 | 193 | 2.10 | 52.27 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 30 | 36 | 176 | 2.30 | 47.68 | 6.5 | 8.9 | 6.5 | 3.3 | | | | |
| 12 | 15 | 421 | 0.80 | 75.79 | ** | ** | ** | ** | FH042-14P-L80-06F | 21 | 292 | |
| 14 | 17 | 384 | 0.80 | 69.14 | ** | ** | ** | ** | | | | |
| 15 | 19 | 344 | 1.20 | 61.98 | 4.9 | 8.3 | 4.9 | 2.7 | | | | |
| 17 | 20 | 314 | 1.30 | 56.54 | 5.3 | 8.4 | 5.3 | 2.8 | | | | |
| 19 | 24 | 272 | 1.50 | 48.94 | 5.8 | 8.5 | 5.8 | 2.9 | | | | |
| 21 | 26 | 248 | 1.65 | 44.64 | 6.0 | 8.6 | 6.0 | 3.0 | | | | |
| 23 | 28 | 229 | 0.80 | 41.20 | ** | ** | ** | ** | | | | |
| 25 | 30 | 211 | 1.90 | 37.95 | 6.3 | 8.7 | 6.3 | 3.1 | | | | |
| 27 | 33 | 192 | 2.10 | 34.62 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 28 | 34 | 187 | 1.30 | 33.69 | 6.5 | 8.6 | 6.5 | 3.0 | | | | |
| 30 | 37 | 173 | 2.35 | 31.06 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 33 | 41 | 157 | 2.55 | 28.33 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 36 | 43 | 148 | 2.10 | 26.60 | 6.7 | 8.8 | 6.7 | 3.2 | | | | |
| 46 | 56 | 115 | 2.70 | 20.63 | 6.8 | 8.9 | 6.8 | 3.3 | | | | |
| 19 | 23 | 280 | 1.15 | 75.79 | 5.7 | 8.5 | 5.7 | 2.9 | FH042-14P-80-04E | 19 | 292 | |
| 21 | 25 | 256 | 1.15 | 69.14 | 5.9 | 8.6 | 5.9 | 3.0 | | | | |
| 23 | 28 | 229 | 1.75 | 61.98 | 6.2 | 8.7 | 6.2 | 3.1 | | | | |
| 25 | 30 | 209 | 1.90 | 56.54 | 6.3 | 8.8 | 6.3 | 3.2 | | | | |
| 29 | 35 | 181 | 2.25 | 48.94 | 6.5 | 8.9 | 6.5 | 3.3 | | | | |
| 32 | 39 | 165 | 2.45 | 44.64 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 34 | 42 | 152 | 1.15 | 41.20 | 6.7 | 8.7 | 6.7 | 3.1 | | | | |
| 37 | 45 | 140 | 2.85 | 37.95 | 6.7 | 9.0 | 6.7 | 3.4 | | | | |
| 42 | 51 | 125 | 1.90 | 33.69 | 6.8 | 8.9 | 6.8 | 3.3 | | | | |

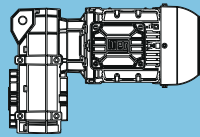
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** ... on request

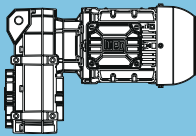
P_N = 0.55 kW

IE3

| 50 Hz 0.55 kW n ₅₀ min ⁻¹ | 60 Hz 0.66 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--|--|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 18 | 22 | 288 | 0.80 | 51.75 | ** | ** | ** | ** | FH032-14P-L80-06F | 20 | 290 |
| 21 | 25 | 252 | 0.90 | 45.35 | 2.6 | 2.1 | 2.6 | 2.1 | | | |
| 23 | 28 | 229 | 1.00 | 41.12 | 3.2 | 2.6 | 3.2 | 2.6 | | | |
| 27 | 33 | 195 | 1.15 | 35.03 | 3.8 | 2.4 | 3.8 | 2.4 | | | |
| 30 | 36 | 177 | 1.25 | 31.76 | 4.1 | 2.9 | 4.1 | 2.9 | | | |
| 34 | 41 | 155 | 1.45 | 27.97 | 4.3 | 2.7 | 4.3 | 2.7 | | | |
| 37 | 46 | 141 | 1.60 | 25.36 | 4.5 | 3.0 | 4.5 | 3.0 | | | |
| 42 | 51 | 125 | 1.20 | 22.50 | 4.6 | 3.0 | 4.6 | 3.0 | | | |
| 45 | 55 | 118 | 1.90 | 21.14 | 4.7 | 2.9 | 4.7 | 2.9 | | | |
| 49 | 60 | 107 | 2.10 | 19.17 | 4.8 | 3.2 | 4.8 | 3.2 | | | |
| 53 | 65 | 99 | 1.55 | 17.88 | 4.8 | 3.1 | 4.8 | 3.1 | | | |
| 59 | 72 | 89 | 2.50 | 16.06 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 65 | 79 | 81 | 2.75 | 14.57 | 4.9 | 3.3 | 4.9 | 3.3 | | | |
| 68 | 84 | 77 | 2.00 | 13.81 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 86 | 105 | 61 | 2.45 | 11.03 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 20 | 25 | 260 | 0.85 | 70.17 | ** | ** | ** | ** | FH032-14P-80-04E | 18 | 290 |
| 22 | 27 | 235 | 0.95 | 63.63 | 3.0 | 2.6 | 3.0 | 2.6 | | | |
| 25 | 30 | 211 | 1.05 | 57.07 | 3.5 | 2.3 | 3.5 | 2.3 | | | |
| 27 | 33 | 191 | 1.15 | 51.75 | 3.9 | 2.8 | 3.9 | 2.8 | | | |
| 31 | 38 | 168 | 1.35 | 45.35 | 4.2 | 2.6 | 4.2 | 2.6 | | | |
| 35 | 42 | 152 | 1.45 | 41.12 | 4.4 | 3.0 | 4.4 | 3.0 | | | |
| 41 | 49 | 130 | 1.70 | 35.03 | 4.6 | 2.8 | 4.6 | 2.8 | | | |
| 45 | 54 | 117 | 1.90 | 31.76 | 4.7 | 3.1 | 4.7 | 3.1 | | | |
| 51 | 61 | 103 | 2.15 | 27.97 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 56 | 68 | 94 | 2.35 | 25.36 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 63 | 76 | 83 | 1.80 | 22.50 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 67 | 81 | 78 | 2.85 | 21.14 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 79 | 96 | 66 | 2.30 | 17.88 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 103 | 125 | 51 | 2.95 | 13.81 | 5.1 | 3.4 | 5.1 | 3.4 | | | |
| 32 | 39 | 163 | 0.80 | 29.32 | ** | ** | ** | ** | FH022-14P-L80-06F | 17 | 288 |
| 36 | 44 | 147 | 0.90 | 26.39 | 4.6 | 2.1 | 4.6 | 2.1 | | | |
| 43 | 53 | 122 | 1.10 | 21.89 | 4.8 | 2.0 | 4.8 | 2.0 | | | |
| 47 | 58 | 112 | 0.80 | 20.08 | ** | ** | ** | ** | | | |
| 48 | 59 | 109 | 1.20 | 19.70 | 4.9 | 2.3 | 4.9 | 2.3 | | | |
| 50 | 61 | 105 | 1.25 | 18.88 | 4.9 | 2.1 | 4.9 | 2.1 | | | |
| 56 | 68 | 94 | 1.40 | 17.00 | 5.0 | 2.3 | 5.0 | 2.3 | | | |
| 57 | 70 | 92 | 1.45 | 16.48 | 5.0 | 2.2 | 5.0 | 2.2 | | | |
| 60 | 73 | 88 | 1.00 | 15.82 | 5.0 | 2.4 | 5.0 | 2.4 | | | |
| 64 | 78 | 82 | 1.60 | 14.84 | 5.1 | 2.4 | 5.1 | 2.4 | | | |
| 78 | 95 | 68 | 1.25 | 12.19 | 5.1 | 2.5 | 5.1 | 2.5 | | | |
| 87 | 106 | 61 | 2.15 | 10.89 | 5.1 | 2.5 | 5.1 | 2.5 | | | |
| 99 | 121 | 53 | 1.60 | 9.52 | 5.2 | 2.5 | 5.2 | 2.5 | | | |
| 133 | 162 | 40 | 2.15 | 7.11 | 4.6 | 2.6 | 4.6 | 2.6 | | | |
| 154 | 188 | 34 | 2.50 | 6.13 | 4.4 | 2.6 | 4.4 | 2.6 | | | |
| 177 | 216 | 30 | 2.85 | 5.35 | 4.2 | 2.6 | 4.2 | 2.6 | | | |

Legend see page 187

** ... on request

| P _N = 0.55 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-----|-----------------------|-----------------------|-----------------------|--|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 32 | 39 | 162 | 0.85 | 43.83 | ** | ** | ** | ** | | | | |
| 38 | 46 | 139 | 0.95 | 37.52 | 4.6 | 1.9 | 4.6 | 1.9 | | | | |
| 42 | 51 | 125 | 1.05 | 33.78 | 4.8 | 2.2 | 4.8 | 2.2 | | | | |
| 48 | 59 | 108 | 1.20 | 29.32 | 4.9 | 2.1 | 4.9 | 2.1 | | | | |
| 54 | 65 | 98 | 1.35 | 26.39 | 5.0 | 2.3 | 5.0 | 2.3 | | | | |
| 57 | 69 | 92 | 0.95 | 24.76 | 5.0 | 2.4 | 5.0 | 2.4 | | | | |
| 65 | 79 | 81 | 1.65 | 21.89 | 5.1 | 2.3 | 5.1 | 2.3 | | | | |
| 71 | 86 | 74 | 1.15 | 20.08 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 72 | 87 | 73 | 1.80 | 19.70 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 75 | 91 | 70 | 1.90 | 18.88 | 5.1 | 2.3 | 5.1 | 2.3 | | | | |
| 84 | 101 | 63 | 2.10 | 17.00 | 5.1 | 2.5 | 5.1 | 2.5 | | | | |
| 86 | 104 | 61 | 2.15 | 16.48 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 90 | 109 | 59 | 1.45 | 15.82 | 5.2 | 2.5 | 5.2 | 2.5 | | | | |
| 96 | 116 | 55 | 2.40 | 14.84 | 5.2 | 2.5 | 5.2 | 2.5 | | | | |
| 116 | 141 | 45 | 1.90 | 12.19 | 4.9 | 2.6 | 4.9 | 2.6 | | | | |
| 117 | 142 | 45 | 2.95 | 12.09 | 4.9 | 2.5 | 4.9 | 2.5 | | | | |
| 130 | 158 | 40 | 3.25 | 10.89 | 4.7 | 2.6 | 4.7 | 2.6 | | | | |
| 149 | 181 | 35 | 2.40 | 9.52 | 4.5 | 2.6 | 4.5 | 2.6 | | | | |
| 200 | 242 | 26 | 3.20 | 7.11 | 4.0 | 2.6 | 4.0 | 2.6 | | | | |
| 232 | 281 | 23 | 3.75 | 6.13 | 3.8 | 2.7 | 3.8 | 2.7 | | | | |
| 265 | 321 | 20 | 4.25 | 5.35 | 3.6 | 2.7 | 3.6 | 2.7 | | | | |
| 361 | 438 | 15 | 5.00 | 3.93 | 3.2 | 2.7 | 3.2 | 2.7 | | | | |

FH022-14P-80-04E

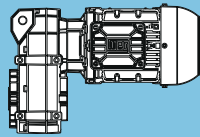
15

288

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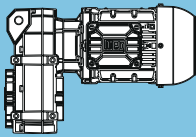
Legend see page 187

** ... on request

| P _N = 0.75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.28 | 0.34 | 22679 | 0.80 | 3343.64 | ** | ** | ** | ** | FH155-11P-90S/L-06E | 697 | 320 |
| 0.29 | 0.35 | 22220 | 0.85 | 3284.26 | ** | ** | ** | ** | | | |
| 0.35 | 0.42 | 18203 | 1.00 | 2711.35 | 77.3 | 115.1 | 77.3 | 115.1 | | | |
| 0.41 | 0.50 | 15082 | 1.20 | 2269.72 | 88.5 | 117.6 | 88.5 | 117.6 | | | |
| 0.51 | 0.62 | 12036 | 1.50 | 1839.52 | 96.5 | 120.1 | 96.5 | 120.1 | | | |
| 0.30 | 0.36 | 21517 | 0.85 | 4838.19 | ** | ** | ** | ** | FH155-11P-80-04F | 691 | 320 |
| 0.35 | 0.43 | 18030 | 1.00 | 4085.50 | 78.0 | 115.2 | 78.0 | 115.2 | | | |
| 0.36 | 0.44 | 17270 | 1.05 | 3923.28 | 81.0 | 115.8 | 81.0 | 115.8 | | | |
| 0.43 | 0.52 | 14568 | 1.25 | 3343.64 | 90.0 | 118.0 | 90.0 | 118.0 | | | |
| 0.44 | 0.53 | 14272 | 1.30 | 3284.26 | 90.9 | 118.3 | 90.9 | 118.3 | | | |
| 0.53 | 0.64 | 11632 | 1.55 | 2711.35 | 97.3 | 120.5 | 97.3 | 120.5 | | | |
| 0.54 | 0.65 | 11390 | 1.60 | 2661.75 | 97.8 | 120.7 | 97.8 | 120.7 | | | |
| 0.63 | 0.77 | 9563 | 1.90 | 2269.72 | 101.3 | 122.2 | 101.3 | 122.2 | | | |
| 0.78 | 0.95 | 7552 | 2.40 | 1839.52 | 104.3 | 123.8 | 104.3 | 123.8 | | | |
| 0.41 | 0.49 | 15865 | 1.15 | 2318.30 | 86.0 | 117.0 | 86.0 | 117.0 | FH154-11P-90S/L-06E | 684 | 318 |
| 0.47 | 0.57 | 13553 | 1.35 | 1996.74 | 92.8 | 118.9 | 92.8 | 118.9 | | | |
| 0.51 | 0.62 | 12378 | 1.50 | 1834.90 | 95.7 | 119.8 | 95.7 | 119.8 | | | |
| 0.54 | 0.66 | 11626 | 1.55 | 1727.10 | 97.3 | 120.5 | 97.3 | 120.5 | | | |
| 0.59 | 0.71 | 10719 | 1.70 | 1602.16 | 99.2 | 121.2 | 99.2 | 121.2 | | | |
| 0.66 | 0.81 | 9376 | 1.95 | 1415.96 | 101.6 | 122.3 | 101.6 | 122.3 | | | |
| 0.68 | 0.83 | 9118 | 2.00 | 1379.93 | 102.0 | 122.5 | 102.0 | 122.5 | | | |
| 0.69 | 0.84 | 9032 | 2.00 | 1366.97 | 102.1 | 122.6 | 102.1 | 122.6 | | | |
| 0.77 | 0.94 | 7959 | 2.30 | 1219.56 | 103.7 | 123.5 | 103.7 | 123.5 | | | |
| 0.79 | 0.96 | 7798 | 2.35 | 1197.38 | 103.9 | 123.6 | 103.9 | 123.6 | | | |
| 0.89 | 1.1 | 6770 | 2.70 | 1054.87 | 105.2 | 124.4 | 105.2 | 124.4 | | | |
| 0.91 | 1.1 | 6605 | 2.75 | 1031.30 | 105.4 | 124.6 | 105.4 | 124.6 | | | |
| 0.62 | 0.75 | 10153 | 1.80 | 2318.30 | 100.2 | 121.7 | 100.2 | 121.7 | FH154-11P-80-04F | 678 | 318 |
| 0.72 | 0.87 | 8637 | 2.10 | 1996.74 | 102.7 | 122.9 | 102.7 | 122.9 | | | |
| 0.78 | 0.95 | 7871 | 2.30 | 1834.90 | 103.8 | 123.5 | 103.8 | 123.5 | | | |
| 0.83 | 1.0 | 7363 | 2.45 | 1727.10 | 104.5 | 124.0 | 104.5 | 124.0 | | | |
| 0.89 | 1.1 | 6759 | 2.70 | 1602.16 | 105.2 | 124.5 | 105.2 | 124.5 | | | |
| 0.90 | 1.1 | 6667 | 2.70 | 1580.39 | 105.3 | 124.5 | 105.3 | 124.5 | | | |
| 0.41 | 0.5 | 15984 | 0.85 | 2307.03 | ** | ** | ** | ** | FH124-11P-90S/L-06E | 432 | 314 |
| 0.47 | 0.57 | 13879 | 0.95 | 2011.51 | 67.4 | 84.1 | 67.4 | 84.1 | | | |
| 0.53 | 0.64 | 12214 | 1.10 | 1781.14 | 72.9 | 85.7 | 72.9 | 85.7 | | | |
| 0.54 | 0.66 | 11882 | 1.10 | 1732.67 | 73.9 | 86.1 | 73.9 | 86.1 | | | |
| 0.61 | 0.74 | 10584 | 1.25 | 1552.98 | 77.3 | 87.3 | 77.3 | 87.3 | | | |
| 0.63 | 0.77 | 10160 | 1.30 | 1493.78 | 78.3 | 87.7 | 78.3 | 87.7 | | | |
| 0.70 | 0.86 | 9042 | 1.45 | 1337.70 | 80.7 | 88.8 | 80.7 | 88.8 | | | |
| 0.72 | 0.88 | 8786 | 1.50 | 1302.43 | 81.3 | 89.0 | 81.3 | 89.0 | | | |
| 0.80 | 0.98 | 7843 | 1.70 | 1172.32 | 83.0 | 89.9 | 83.0 | 89.9 | | | |
| 0.82 | 0.99 | 7707 | 1.70 | 1151.94 | 83.2 | 90.1 | 83.2 | 90.1 | | | |
| 0.84 | 1.0 | 7490 | 1.75 | 1121.89 | 83.5 | 90.3 | 83.5 | 90.3 | | | |
| 0.92 | 1.1 | 6768 | 1.95 | 1022.15 | 84.6 | 91.0 | 84.6 | 91.0 | | | |
| 0.97 | 1.2 | 6370 | 2.05 | 966.09 | 85.2 | 91.4 | 85.2 | 91.4 | | | |
| 1.0 | 1.3 | 5929 | 2.20 | 904.76 | 85.7 | 91.8 | 85.7 | 91.8 | | | |
| 1.1 | 1.3 | 5746 | 2.30 | 880.46 | 86.0 | 92.0 | 86.0 | 92.0 | | | |
| 1.2 | 1.5 | 5084 | 2.60 | 788.86 | 86.7 | 92.6 | 86.7 | 92.6 | | | |
| 1.3 | 1.5 | 4793 | 2.75 | 748.37 | 87.0 | 92.9 | 87.0 | 92.9 | | | |
| 0.62 | 0.75 | 10314 | 1.30 | 2307.03 | 78.0 | 87.6 | 78.0 | 87.6 | FH124-11P-80-04F | 426 | 314 |
| 0.71 | 0.87 | 8919 | 1.50 | 2011.51 | 81.0 | 88.9 | 81.0 | 88.9 | | | |
| 0.80 | 0.98 | 7833 | 1.70 | 1781.14 | 83.0 | 90.0 | 83.0 | 90.0 | | | |
| 0.83 | 1.0 | 7604 | 1.75 | 1732.67 | 83.3 | 90.2 | 83.3 | 90.2 | | | |
| 0.92 | 1.1 | 6759 | 1.95 | 1552.98 | 84.6 | 91.0 | 84.6 | 91.0 | | | |
| 0.96 | 1.2 | 6475 | 2.05 | 1493.78 | 85.0 | 91.3 | 85.0 | 91.3 | | | |
| 1.1 | 1.3 | 5738 | 2.30 | 1337.70 | 86.0 | 92.0 | 86.0 | 92.0 | | | |
| 1.2 | 1.5 | 4956 | 2.65 | 1172.32 | 86.8 | 92.7 | 86.8 | 92.7 | | | |
| 1.3 | 1.6 | 4713 | 2.80 | 1121.89 | 87.1 | 93.0 | 87.1 | 93.0 | | | |

Legend see page 187

** ... on request

| P _N = 0.75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.62 | 0.75 | 10593 | 0.80 | 1525.85 | ** | ** | ** | ** | FH104-11P-90S/L-06E | 292 | 310 |
| 0.64 | 0.78 | 10235 | 0.80 | 1474.19 | ** | ** | ** | ** | | | |
| 0.71 | 0.87 | 9115 | 0.90 | 1318.33 | 39.7 | 59.0 | 39.7 | 59.0 | | | |
| 0.73 | 0.89 | 8830 | 0.95 | 1279.68 | 41.4 | 59.3 | 41.4 | 59.3 | | | |
| 0.81 | 0.99 | 7950 | 1.05 | 1156.94 | 46.0 | 60.3 | 46.0 | 60.3 | | | |
| 0.85 | 1.0 | 7582 | 1.10 | 1105.64 | 47.7 | 60.7 | 47.7 | 60.7 | | | |
| 0.94 | 1.1 | 6859 | 1.20 | 1004.29 | 50.6 | 61.5 | 50.6 | 61.5 | | | |
| 1.1 | 1.3 | 6060 | 1.35 | 892.89 | 53.3 | 62.4 | 53.3 | 62.4 | | | |
| 1.2 | 1.5 | 5218 | 1.55 | 775.08 | 55.6 | 63.4 | 55.6 | 63.4 | | | |
| 1.3 | 1.6 | 4951 | 1.65 | 738.55 | 56.3 | 63.7 | 56.3 | 63.7 | | | |
| 1.4 | 1.7 | 4462 | 1.80 | 669.67 | 57.4 | 64.2 | 57.4 | 64.2 | | | |
| 1.5 | 1.8 | 4254 | 1.90 | 641.10 | 57.8 | 64.4 | 57.8 | 64.4 | | | |
| 1.7 | 2.1 | 3622 | 2.25 | 553.91 | 59.0 | 65.1 | 59.0 | 65.1 | | | |
| 2.0 | 2.4 | 3040 | 2.65 | 472.61 | 59.9 | 65.8 | 59.9 | 65.8 | | | |
| 0.63 | 0.76 | 10390 | 0.80 | 2276.77 | ** | ** | ** | ** | FH104-11P-80-04F | 286 | 310 |
| 0.72 | 0.88 | 8982 | 0.90 | 1976.36 | 40.5 | 59.2 | 40.5 | 59.2 | | | |
| 0.81 | 0.99 | 7940 | 1.05 | 1757.78 | 46.1 | 60.3 | 46.1 | 60.3 | | | |
| 0.84 | 1.0 | 7713 | 1.05 | 1707.58 | 47.1 | 60.6 | 47.1 | 60.6 | | | |
| 0.94 | 1.1 | 6850 | 1.20 | 1525.85 | 50.6 | 61.5 | 50.6 | 61.5 | | | |
| 0.97 | 1.2 | 6605 | 1.25 | 1474.19 | 51.5 | 61.8 | 51.5 | 61.8 | | | |
| 1.1 | 1.3 | 5870 | 1.40 | 1318.33 | 53.8 | 62.6 | 53.8 | 62.6 | | | |
| 1.2 | 1.5 | 5109 | 1.60 | 1156.94 | 55.9 | 63.5 | 55.9 | 63.5 | | | |
| 1.3 | 1.6 | 4872 | 1.65 | 1105.64 | 56.5 | 63.7 | 56.5 | 63.7 | | | |
| 1.4 | 1.7 | 4389 | 1.85 | 1004.29 | 57.5 | 64.3 | 57.5 | 64.3 | | | |
| 1.6 | 1.9 | 3862 | 2.10 | 892.89 | 58.6 | 64.9 | 58.6 | 64.9 | | | |
| 1.8 | 2.2 | 3304 | 2.45 | 775.08 | 59.5 | 65.5 | 59.5 | 65.5 | | | |
| 1.9 | 2.4 | 3129 | 2.60 | 738.55 | 59.7 | 65.7 | 59.7 | 65.7 | | | |
| 2.1 | 2.6 | 2808 | 2.85 | 669.67 | 60.2 | 66.0 | 60.2 | 66.0 | | | |
| 2.2 | 2.7 | 2671 | 3.00 | 641.10 | 60.3 | 66.2 | 60.3 | 66.2 | | | |
| 1.1 | 1.4 | 5715 | 0.80 | 823.17 | ** | ** | ** | ** | FH094-11P-90S/L-06E | 187 | 306 |
| 1.3 | 1.6 | 5087 | 0.90 | 735.68 | 23.6 | 38.3 | 23.6 | 38.3 | | | |
| 1.5 | 1.8 | 4265 | 1.10 | 621.95 | 29.4 | 39.3 | 29.4 | 39.3 | | | |
| 1.6 | 1.9 | 4129 | 1.10 | 602.09 | 30.2 | 39.5 | 30.2 | 39.5 | | | |
| 1.8 | 2.2 | 3462 | 1.30 | 509.01 | 33.4 | 40.4 | 33.4 | 40.4 | | | |
| 1.9 | 2.3 | 3307 | 1.40 | 488.23 | 34.0 | 40.6 | 34.0 | 40.6 | | | |
| 2.3 | 2.8 | 2767 | 1.65 | 412.76 | 35.9 | 41.3 | 35.9 | 41.3 | | | |
| 2.7 | 3.3 | 2283 | 2.00 | 345.53 | 37.2 | 42.0 | 37.2 | 42.0 | | | |
| 2.8 | 3.5 | 2180 | 2.10 | 331.24 | 37.5 | 42.1 | 37.5 | 42.1 | | | |
| 3.4 | 4.1 | 1812 | 2.50 | 280.04 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 1.1 | 1.3 | 5963 | 0.80 | 1306.62 | ** | ** | ** | ** | FH094-11P-80-04F | 181 | 306 |
| 1.3 | 1.6 | 4850 | 0.95 | 1069.42 | 25.5 | 38.6 | 25.5 | 38.6 | | | |
| 1.5 | 1.8 | 4398 | 1.05 | 973.69 | 28.6 | 39.2 | 28.6 | 39.2 | | | |
| 1.7 | 2.1 | 3688 | 1.25 | 823.17 | 32.4 | 40.1 | 32.4 | 40.1 | | | |
| 1.9 | 2.4 | 3276 | 1.40 | 735.68 | 34.1 | 40.7 | 34.1 | 40.7 | | | |
| 2.3 | 2.8 | 2741 | 1.65 | 621.95 | 35.9 | 41.4 | 35.9 | 41.4 | | | |
| 2.4 | 2.9 | 2648 | 1.70 | 602.09 | 36.2 | 41.5 | 36.2 | 41.5 | | | |
| 2.8 | 3.4 | 2206 | 2.05 | 509.01 | 37.4 | 42.1 | 37.4 | 42.1 | | | |
| 2.9 | 3.6 | 2107 | 2.15 | 488.23 | 37.6 | 42.2 | 37.6 | 42.2 | | | |
| 3.5 | 4.2 | 1749 | 2.60 | 412.76 | 38.4 | 42.7 | 38.4 | 42.7 | | | |
| 3.3 | 4.0 | 2198 | 2.05 | 288.50 | 37.4 | 42.1 | 37.4 | 42.1 | FH093-11P-90S/L-06E | 174 | 304 |
| 3.9 | 4.7 | 1858 | 2.45 | 243.90 | 38.1 | 42.5 | 38.1 | 42.5 | | | |
| 4.5 | 5.4 | 1609 | 2.80 | 211.14 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 1.8 | 2.2 | 3582 | 0.85 | 517.08 | ** | ** | ** | ** | FH084-11P-90S/L-06E | 132 | 302 |
| 1.9 | 2.3 | 3512 | 0.90 | 507.90 | 13.9 | 22.4 | 13.9 | 22.4 | | | |
| 2.0 | 2.4 | 3313 | 0.95 | 480.21 | 16.3 | 27.5 | 16.3 | 27.5 | | | |
| 2.2 | 2.7 | 2881 | 1.05 | 419.30 | 20.3 | 36.2 | 20.3 | 36.2 | | | |
| 2.3 | 2.8 | 2823 | 1.10 | 411.63 | 20.8 | 37.2 | 20.8 | 37.2 | | | |
| 2.7 | 3.3 | 2387 | 1.30 | 351.00 | 23.6 | 41.3 | 23.6 | 41.3 | | | |
| 2.9 | 3.5 | 2207 | 1.40 | 325.80 | 24.5 | 41.6 | 24.5 | 41.6 | | | |
| 3.3 | 4.0 | 1911 | 1.60 | 284.47 | 25.8 | 42.1 | 25.8 | 42.1 | | | |

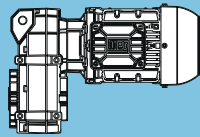
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Legend see page 187

** ... on request

P_N = 0.75 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 0.75 kW | | 0.90 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 1.7 | 2.1 | 3816 | 0.80 | 836.22 | ** | ** | ** | ** | FH084-11P-80-04F | 126 | 302 |
| 1.9 | 2.3 | 3401 | 0.90 | 748.21 | 15.3 | 25.4 | 15.3 | 7.3 | | | |
| 2.0 | 2.4 | 3282 | 0.95 | 723.59 | 16.7 | 28.3 | 16.7 | 7.4 | | | |
| 2.3 | 2.8 | 2848 | 1.10 | 631.81 | 20.6 | 36.8 | 20.6 | 8.1 | | | |
| 2.4 | 2.9 | 2735 | 1.10 | 606.72 | 21.4 | 38.6 | 21.4 | 8.3 | | | |
| 2.8 | 3.4 | 2312 | 1.30 | 517.08 | 24.0 | 41.4 | 24.0 | 8.9 | | | |
| 3.0 | 3.6 | 2134 | 1.45 | 480.21 | 24.9 | 41.7 | 24.9 | 9.2 | | | |
| 3.4 | 4.1 | 1848 | 1.65 | 419.30 | 26.1 | 42.2 | 26.1 | 9.7 | | | |
| 3.5 | 4.2 | 1810 | 1.70 | 411.63 | 26.2 | 42.2 | 26.2 | 9.7 | | | |
| 3.6 | 4.3 | 1768 | 1.70 | 401.99 | 26.4 | 42.3 | 26.4 | 9.8 | | | |
| 4.1 | 5.0 | 1525 | 2.00 | 351.00 | 27.2 | 42.6 | 27.2 | 10.1 | | | |
| 4.4 | 5.3 | 1406 | 2.15 | 325.80 | 27.5 | 42.8 | 27.5 | 10.3 | | | |
| 5.0 | 6.1 | 1210 | 2.50 | 284.47 | 28.0 | 43.1 | 28.0 | 10.6 | | | |
| 2.6 | 3.2 | 2732 | 1.10 | 358.52 | 21.4 | 38.6 | 21.4 | 8.3 | FH083-11P-90S/L-06E | 119 | 300 |
| 3.3 | 4.0 | 2162 | 1.40 | 283.76 | 24.7 | 41.7 | 24.7 | 9.2 | | | |
| 3.8 | 4.6 | 1888 | 1.60 | 247.77 | 25.9 | 42.1 | 25.9 | 9.6 | | | |
| 4.3 | 5.2 | 1668 | 1.80 | 218.97 | 26.7 | 42.4 | 26.7 | 9.9 | | | |
| 5.1 | 6.2 | 1411 | 2.15 | 185.17 | 27.5 | 42.8 | 27.5 | 10.3 | | | |
| 5.2 | 6.4 | 1374 | 2.20 | 180.28 | 27.6 | 42.9 | 27.6 | 10.4 | | | |
| 5.9 | 7.2 | 1213 | 2.50 | 159.17 | 28.0 | 43.1 | 28.0 | 10.6 | | | |
| 6.6 | 8.0 | 1087 | 2.80 | 142.69 | 28.3 | 43.3 | 28.3 | 10.8 | | | |
| 6.8 | 8.2 | 1059 | 2.85 | 138.95 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 4.0 | 4.9 | 1796 | 1.70 | 358.52 | 26.3 | 42.2 | 26.3 | 9.7 | FH083-11P-80-04F | 113 | 300 |
| 5.0 | 6.1 | 1421 | 2.15 | 283.76 | 27.5 | 42.8 | 27.5 | 10.3 | | | |
| 5.8 | 7.0 | 1241 | 2.45 | 247.77 | 28.0 | 43.1 | 28.0 | 10.6 | | | |
| 6.5 | 7.9 | 1097 | 2.75 | 218.97 | 28.3 | 43.3 | 28.3 | 10.8 | | | |
| 4.0 | 4.8 | 1807 | 0.85 | 237.15 | ** | ** | ** | ** | FH073-11P-90S/L-06E | 72 | 298 |
| 4.8 | 5.9 | 1483 | 1.05 | 194.58 | 15.7 | 16.0 | 15.7 | 4.7 | | | |
| 6.2 | 7.6 | 1148 | 1.35 | 150.69 | 17.8 | 16.7 | 17.8 | 5.4 | | | |
| 8.2 | 10 | 873 | 1.75 | 114.62 | 18.9 | 17.2 | 18.9 | 6.0 | | | |
| 9.9 | 12 | 720 | 2.10 | 94.52 | 19.4 | 17.5 | 19.3 | 6.3 | | | |
| 12 | 15 | 591 | 2.55 | 77.53 | 19.8 | 17.8 | 17.8 | 6.5 | | | |
| 14 | 17 | 502 | 3.00 | 65.88 | 20.0 | 18.0 | 16.7 | 6.7 | | | |
| 3.7 | 4.5 | 1930 | 0.80 | 385.37 | ** | ** | ** | ** | FH073-11P-80-04F | 66 | 298 |
| 4.7 | 5.7 | 1530 | 1.00 | 305.42 | 15.3 | 15.9 | 15.3 | 4.6 | | | |
| 6.0 | 7.3 | 1188 | 1.30 | 237.15 | 17.6 | 16.6 | 17.6 | 5.3 | | | |
| 7.3 | 8.9 | 975 | 1.55 | 194.58 | 18.6 | 17.0 | 18.6 | 5.8 | | | |
| 9.5 | 12 | 755 | 2.00 | 150.69 | 19.3 | 17.5 | 19.3 | 6.2 | | | |
| 12 | 15 | 574 | 2.65 | 114.62 | 19.8 | 17.8 | 17.7 | 6.6 | | | |
| 7.2 | 8.8 | 992 | 0.85 | 130.15 | ** | ** | ** | ** | FH063-11P-90S/L-06E | 49 | 296 |
| 7.9 | 9.6 | 909 | 0.95 | 119.35 | 7.3 | 11.6 | 7.3 | 2.3 | | | |
| 9.6 | 12 | 749 | 1.10 | 98.34 | 9.3 | 12.8 | 9.3 | 2.9 | | | |
| 10 | 13 | 687 | 1.20 | 90.17 | 9.9 | 13.0 | 9.9 | 3.0 | | | |
| 12 | 14 | 613 | 1.35 | 80.48 | 10.5 | 13.3 | 10.5 | 3.3 | | | |
| 13 | 16 | 562 | 1.50 | 73.80 | 10.8 | 13.4 | 10.8 | 3.5 | | | |
| 14 | 18 | 497 | 1.65 | 65.26 | 11.2 | 13.6 | 11.2 | 3.7 | | | |
| 16 | 19 | 456 | 1.80 | 59.84 | 11.4 | 13.8 | 11.4 | 3.8 | | | |
| 17 | 21 | 416 | 2.00 | 54.63 | 11.6 | 13.9 | 11.6 | 4.0 | | | |
| 19 | 23 | 382 | 2.15 | 50.10 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 6.9 | 8.4 | 1035 | 0.80 | 206.59 | ** | ** | ** | ** | FH063-11P-80-04F | 43 | 296 |
| 7.5 | 9.2 | 949 | 0.90 | 189.44 | 6.7 | 10.3 | 6.7 | 2.2 | | | |
| 8.5 | 10 | 847 | 1.00 | 169.09 | 8.2 | 12.5 | 8.2 | 2.6 | | | |
| 9.2 | 11 | 777 | 1.10 | 155.05 | 9.0 | 12.7 | 9.0 | 2.8 | | | |
| 11 | 13 | 652 | 1.30 | 130.15 | 10.2 | 13.1 | 10.2 | 3.2 | | | |
| 12 | 15 | 598 | 1.40 | 119.35 | 10.6 | 13.3 | 10.6 | 3.3 | | | |
| 15 | 18 | 493 | 1.70 | 98.34 | 11.2 | 13.7 | 11.2 | 3.7 | | | |
| 16 | 19 | 452 | 1.85 | 90.17 | 11.4 | 13.8 | 11.4 | 3.8 | | | |
| 18 | 22 | 403 | 2.05 | 80.48 | 11.6 | 13.9 | 11.6 | 4.0 | | | |
| 19 | 24 | 370 | 2.25 | 73.80 | 11.8 | 14.0 | 11.8 | 4.1 | | | |
| 22 | 27 | 327 | 2.55 | 65.26 | 11.9 | 14.2 | 11.9 | 4.2 | | | |
| 24 | 29 | 300 | 2.75 | 59.84 | 12.0 | 14.3 | 11.7 | 4.3 | | | |
| 26 | 32 | 274 | 3.00 | 54.63 | 12.1 | 14.4 | 11.3 | 4.4 | | | |

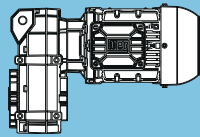
Legend see page 187

** ... on request

| P _N = 0.75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | | | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 19 | 23 | 378 | 2.20 | 49.67 | 11.7 | 14.0 | 11.7 | 4.1 | FH062-11P-90S/L-06E | 48 | 296 |
| 21 | 25 | 347 | 2.40 | 45.55 | 11.9 | 14.1 | 11.9 | 4.2 | | | |
| 23 | 27 | 317 | 2.60 | 41.66 | 12.0 | 14.2 | 11.9 | 4.3 | | | |
| 25 | 30 | 291 | 2.85 | 38.2 | 12.0 | 14.3 | 11.5 | 4.3 | | | |
| 46 | 56 | 156 | 2.75 | 20.49 | 12.4 | 14.6 | 9.2 | 4.6 | | | |
| 9.4 | 11 | 759 | 0.80 | 99.66 | ** | ** | ** | ** | FH053-11P-90S/L-06E | 33 | 294 |
| 10 | 12 | 717 | 0.85 | 94.11 | ** | ** | ** | ** | | | |
| 11 | 13 | 655 | 0.95 | 85.99 | 5.1 | 8.2 | 5.1 | 3.3 | | | |
| 11 | 14 | 626 | 1.00 | 82.13 | 5.7 | 9.5 | 5.7 | 3.4 | | | |
| 13 | 15 | 572 | 1.05 | 75.04 | 6.5 | 10.2 | 6.5 | 3.5 | | | |
| 16 | 19 | 459 | 1.35 | 60.26 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 17 | 21 | 420 | 1.45 | 55.06 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 9.8 | 12 | 732 | 0.85 | 146.10 | ** | ** | ** | ** | FH053-11P-80-04F | 26 | 294 |
| 11 | 13 | 669 | 0.90 | 133.49 | 4.8 | 7.5 | 4.8 | 3.2 | | | |
| 13 | 16 | 546 | 1.10 | 109.08 | 6.9 | 10.3 | 6.9 | 3.6 | | | |
| 14 | 17 | 499 | 1.20 | 99.66 | 7.4 | 10.5 | 7.4 | 3.8 | | | |
| 15 | 18 | 471 | 1.30 | 94.11 | 7.7 | 10.6 | 7.7 | 3.9 | | | |
| 17 | 20 | 431 | 1.40 | 85.99 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 19 | 23 | 376 | 1.60 | 75.04 | 8.5 | 10.8 | 8.5 | 4.1 | | | |
| 24 | 29 | 302 | 2.00 | 60.26 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 26 | 32 | 276 | 2.20 | 55.06 | 9.1 | 11.1 | 9.1 | 4.4 | | | |
| 13 | 16 | 545 | 0.95 | 71.46 | 6.9 | 10.3 | 6.9 | 3.6 | FH052-11P-90S/L-06E | 32 | 294 |
| 14 | 18 | 497 | 0.95 | 65.29 | 7.4 | 10.5 | 7.4 | 3.8 | | | |
| 17 | 20 | 430 | 1.40 | 56.42 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 18 | 22 | 393 | 1.55 | 51.55 | 8.4 | 10.8 | 8.4 | 4.1 | | | |
| 21 | 26 | 333 | 1.80 | 43.75 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 24 | 29 | 305 | 2.00 | 39.97 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 26 | 32 | 273 | 2.20 | 35.81 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 29 | 35 | 249 | 2.40 | 32.72 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 30 | 37 | 237 | 1.55 | 31.09 | 9.3 | 11.0 | 9.3 | 4.3 | | | |
| 34 | 42 | 210 | 2.90 | 27.56 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 39 | 47 | 184 | 2.00 | 24.11 | 9.5 | 11.2 | 9.5 | 4.5 | | | |
| 48 | 58 | 150 | 2.40 | 19.73 | 9.6 | 11.3 | 9.6 | 4.6 | | | |
| 16 | 20 | 438 | 0.85 | 87.38 | ** | ** | ** | ** | FH052-11P-80-04F | 26 | 294 |
| 18 | 22 | 400 | 0.85 | 79.84 | ** | ** | ** | ** | | | |
| 20 | 24 | 358 | 1.40 | 71.46 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 22 | 27 | 327 | 1.40 | 65.29 | 8.8 | 11 | 8.8 | 4.3 | | | |
| 25 | 31 | 283 | 2.15 | 56.42 | 9.1 | 11.1 | 9.1 | 4.4 | | | |
| 28 | 34 | 258 | 2.35 | 51.55 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 30 | 36 | 241 | 0.85 | 48.15 | ** | ** | ** | ** | | | |
| 33 | 40 | 219 | 2.75 | 43.75 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 36 | 44 | 200 | 3.00 | 39.97 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 46 | 56 | 156 | 2.35 | 31.09 | 9.5 | 11.3 | 9.5 | 4.6 | | | |
| 59 | 72 | 121 | 3.00 | 24.11 | 9.6 | 11.5 | 9.6 | 4.8 | | | |
| 14 | 18 | 495 | 0.85 | 64.98 | ** | ** | ** | ** | FH043-11P-90S/L-06E | 27 | 292 |
| 18 | 22 | 398 | 1.05 | 52.27 | 3.8 | 6.2 | 3.8 | 2.5 | | | |
| 20 | 24 | 363 | 1.15 | 47.68 | 4.5 | 7.7 | 4.5 | 2.6 | | | |
| 15 | 18 | 474 | 0.85 | 94.61 | ** | ** | ** | ** | FH043-11P-80-04F | 21 | 292 |
| 17 | 20 | 432 | 0.95 | 86.31 | 2.9 | 4.3 | 2.9 | 2.4 | | | |
| 18 | 21 | 409 | 1.00 | 81.63 | 3.6 | 5.7 | 3.6 | 2.4 | | | |
| 19 | 23 | 373 | 1.10 | 74.46 | 4.4 | 7.5 | 4.4 | 2.6 | | | |
| 20 | 24 | 357 | 1.15 | 71.24 | 4.7 | 8.1 | 4.7 | 2.6 | | | |
| 22 | 27 | 325 | 1.25 | 64.98 | 5.1 | 8.4 | 5.1 | 2.8 | | | |
| 27 | 33 | 262 | 1.55 | 52.27 | 5.9 | 8.6 | 5.9 | 3.0 | | | |
| 30 | 36 | 239 | 1.70 | 47.68 | 6.1 | 8.7 | 6.1 | 3.1 | | | |

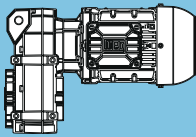
P_N = 0.75 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 0.75 kW | | 0.90 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 15 | 18 | 472 | 0.85 | 61.98 | ** | ** | ** | ** | FH042-11P-90S/L-06E | 27 | 292 |
| 17 | 20 | 431 | 0.95 | 56.54 | 3.0 | 4.5 | 3.0 | 2.4 | | | |
| 19 | 23 | 373 | 1.10 | 48.94 | 4.4 | 7.5 | 4.4 | 2.6 | | | |
| 21 | 26 | 340 | 1.20 | 44.64 | 4.9 | 8.3 | 4.9 | 2.7 | | | |
| 25 | 30 | 289 | 1.40 | 37.95 | 5.6 | 8.5 | 5.6 | 2.9 | | | |
| 27 | 33 | 264 | 1.55 | 34.62 | 5.9 | 8.6 | 5.9 | 3.0 | | | |
| 28 | 34 | 257 | 0.95 | 33.69 | 5.9 | 8.2 | 5.9 | 2.6 | | | |
| 30 | 37 | 237 | 1.70 | 31.06 | 6.1 | 8.7 | 6.1 | 3.1 | | | |
| 33 | 40 | 216 | 1.90 | 28.33 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 35 | 43 | 203 | 1.55 | 26.60 | 6.4 | 8.5 | 6.4 | 2.9 | | | |
| 39 | 48 | 182 | 2.20 | 23.91 | 6.5 | 8.8 | 6.5 | 3.2 | | | |
| 43 | 52 | 166 | 2.45 | 21.81 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 46 | 56 | 157 | 2.00 | 20.63 | 6.6 | 8.7 | 6.6 | 3.1 | | | |
| 52 | 63 | 138 | 2.95 | 18.06 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 56 | 68 | 129 | 2.40 | 16.88 | 6.8 | 8.8 | 6.8 | 3.2 | | | |
| 19 | 23 | 380 | 0.85 | 75.79 | ** | ** | ** | ** | FH042-11P-80-04F | 20 | 292 |
| 21 | 25 | 346 | 0.85 | 69.14 | ** | ** | ** | ** | | | |
| 23 | 28 | 310 | 1.30 | 61.98 | 5.3 | 8.4 | 5.3 | 2.8 | | | |
| 25 | 31 | 283 | 1.40 | 56.54 | 5.7 | 8.5 | 5.7 | 2.9 | | | |
| 29 | 36 | 245 | 1.65 | 48.94 | 6.0 | 8.6 | 6.0 | 3.0 | | | |
| 32 | 39 | 224 | 1.80 | 44.64 | 6.2 | 8.7 | 6.2 | 3.1 | | | |
| 35 | 42 | 206 | 0.85 | 41.20 | ** | ** | ** | ** | | | |
| 38 | 46 | 190 | 2.15 | 37.95 | 6.4 | 8.8 | 6.4 | 3.2 | | | |
| 41 | 50 | 173 | 2.35 | 34.62 | 6.5 | 8.9 | 6.5 | 3.3 | | | |
| 42 | 52 | 169 | 1.40 | 33.69 | 6.6 | 8.6 | 6.6 | 3.0 | | | |
| 46 | 56 | 156 | 2.60 | 31.06 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 50 | 61 | 142 | 2.85 | 28.33 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 54 | 65 | 133 | 2.35 | 26.60 | 6.8 | 8.8 | 6.8 | 3.2 | | | |
| 69 | 84 | 103 | 3.00 | 20.63 | 6.9 | 9.0 | 6.9 | 3.4 | | | |
| 27 | 33 | 267 | 0.85 | 35.03 | ** | ** | ** | ** | FH032-11P-90S/L-06E | 25 | 290 |
| 30 | 36 | 242 | 0.95 | 31.76 | 2.8 | 2.6 | 2.8 | 2.6 | | | |
| 34 | 41 | 213 | 1.05 | 27.97 | 3.5 | 2.3 | 3.5 | 2.3 | | | |
| 37 | 45 | 193 | 1.15 | 25.36 | 3.8 | 2.8 | 3.8 | 2.8 | | | |
| 42 | 51 | 171 | 0.90 | 22.50 | 4.2 | 2.8 | 4.2 | 2.8 | | | |
| 44 | 54 | 161 | 1.40 | 21.14 | 4.3 | 2.7 | 4.3 | 2.7 | | | |
| 49 | 60 | 146 | 1.55 | 19.17 | 4.4 | 3.0 | 4.4 | 3.0 | | | |
| 53 | 64 | 136 | 1.15 | 17.88 | 4.5 | 3.0 | 4.5 | 3.0 | | | |
| 59 | 71 | 122 | 1.80 | 16.06 | 4.7 | 2.9 | 4.7 | 2.9 | | | |
| 65 | 79 | 111 | 2.00 | 14.57 | 4.8 | 3.2 | 4.8 | 3.2 | | | |
| 68 | 83 | 105 | 1.45 | 13.81 | 4.8 | 3.1 | 4.8 | 3.1 | | | |
| 75 | 92 | 95 | 2.35 | 12.50 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 83 | 101 | 86 | 2.55 | 11.33 | 4.9 | 3.3 | 4.9 | 3.3 | | | |
| 85 | 104 | 84 | 1.80 | 11.03 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 96 | 117 | 74 | 2.90 | 9.76 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 106 | 129 | 67 | 3.00 | 8.85 | 5.0 | 3.4 | 5.0 | 3.4 | | | |
| 113 | 137 | 63 | 2.40 | 8.33 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 25 | 30 | 286 | 0.80 | 57.07 | ** | ** | ** | ** | FH032-11P-80-04F | 19 | 290 |
| 28 | 34 | 259 | 0.85 | 51.75 | ** | ** | ** | ** | | | |
| 32 | 38 | 227 | 1.00 | 45.35 | 3.2 | 2.2 | 3.2 | 2.2 | | | |
| 35 | 42 | 206 | 1.10 | 41.12 | 3.6 | 2.7 | 3.6 | 2.7 | | | |
| 41 | 50 | 175 | 1.30 | 35.03 | 4.1 | 2.6 | 4.1 | 2.6 | | | |
| 45 | 55 | 159 | 1.40 | 31.76 | 4.3 | 2.9 | 4.3 | 2.9 | | | |
| 51 | 62 | 140 | 1.60 | 27.97 | 4.5 | 2.8 | 4.5 | 2.8 | | | |
| 52 | 63 | 139 | 0.90 | 27.67 | 4.5 | 2.9 | 4.5 | 2.9 | | | |
| 56 | 69 | 127 | 1.75 | 25.36 | 4.6 | 3.1 | 4.6 | 3.1 | | | |
| 64 | 77 | 113 | 1.35 | 22.50 | 4.7 | 3.1 | 4.7 | 3.1 | | | |
| 68 | 82 | 106 | 2.10 | 21.14 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 75 | 91 | 96 | 2.30 | 19.17 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 80 | 97 | 90 | 1.70 | 17.88 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 89 | 108 | 80 | 2.75 | 16.06 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 104 | 126 | 69 | 2.20 | 13.81 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 130 | 158 | 55 | 2.75 | 11.03 | 5.1 | 3.4 | 5.1 | 3.4 | | | |

Legend see page 187

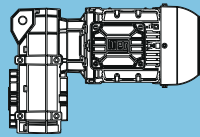
** ... on request

| P _N = 0.75 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 43 | 52 | 167 | 0.80 | 21.89 | ** | ** | ** | ** | FH022-11P-90S/L-06E | 23 | 288 | |
| 48 | 58 | 150 | 0.90 | 19.70 | 4.5 | 2.1 | 4.5 | 2.1 | | | | |
| 50 | 61 | 144 | 0.95 | 18.88 | 4.6 | 1.9 | 4.6 | 1.9 | | | | |
| 55 | 67 | 130 | 1.05 | 17.00 | 4.7 | 2.2 | 4.7 | 2.2 | | | | |
| 57 | 69 | 126 | 1.05 | 16.48 | 4.8 | 2.0 | 4.8 | 2.0 | | | | |
| 63 | 77 | 113 | 1.15 | 14.84 | 4.9 | 2.3 | 4.9 | 2.3 | | | | |
| 77 | 94 | 93 | 0.95 | 12.19 | 5.0 | 2.3 | 5.0 | 2.3 | | | | |
| 78 | 95 | 92 | 1.45 | 12.09 | 5.0 | 2.2 | 5.0 | 2.2 | | | | |
| 86 | 105 | 83 | 1.60 | 10.89 | 5.0 | 2.4 | 5.0 | 2.4 | | | | |
| 99 | 120 | 73 | 1.20 | 9.52 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 132 | 161 | 54 | 1.60 | 7.11 | 4.8 | 2.5 | 4.8 | 2.5 | | | | |
| 153 | 187 | 47 | 1.80 | 6.13 | 4.5 | 2.5 | 4.5 | 2.5 | | | | |
| 176 | 214 | 41 | 2.10 | 5.35 | 4.3 | 2.6 | 4.3 | 2.6 | | | | |
| 239 | 291 | 30 | 2.45 | 3.93 | 3.8 | 2.6 | 3.8 | 2.6 | | | | |
| 42 | 52 | 169 | 0.80 | 33.78 | ** | ** | ** | ** | FH022-11P-80-04F | 17 | 288 | |
| 49 | 59 | 147 | 0.90 | 29.32 | 4.6 | 1.9 | 4.6 | 1.9 | | | | |
| 54 | 66 | 132 | 1.00 | 26.39 | 4.7 | 2.2 | 4.7 | 2.2 | | | | |
| 65 | 79 | 110 | 1.20 | 21.89 | 4.9 | 2.1 | 4.9 | 2.1 | | | | |
| 71 | 87 | 101 | 0.85 | 20.08 | ** | ** | ** | ** | | | | |
| 73 | 88 | 99 | 1.35 | 19.70 | 5.0 | 2.3 | 5.0 | 2.3 | | | | |
| 76 | 92 | 95 | 1.40 | 18.88 | 5.0 | 2.2 | 5.0 | 2.2 | | | | |
| 84 | 102 | 85 | 1.55 | 17.00 | 5.0 | 2.4 | 5.0 | 2.4 | | | | |
| 87 | 106 | 83 | 1.60 | 16.48 | 5.1 | 2.3 | 5.1 | 2.3 | | | | |
| 90 | 110 | 79 | 1.10 | 15.82 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 96 | 117 | 74 | 1.75 | 14.84 | 5.1 | 2.4 | 5.1 | 2.4 | | | | |
| 117 | 143 | 61 | 1.40 | 12.19 | 5.0 | 2.5 | 5.0 | 2.5 | | | | |
| 118 | 144 | 61 | 2.15 | 12.09 | 5.0 | 2.4 | 5.0 | 2.4 | | | | |
| 131 | 160 | 55 | 2.40 | 10.89 | 4.8 | 2.5 | 4.8 | 2.5 | | | | |
| 150 | 183 | 48 | 1.80 | 9.52 | 4.5 | 2.5 | 4.5 | 2.5 | | | | |
| 201 | 245 | 36 | 2.40 | 7.11 | 4.1 | 2.6 | 4.1 | 2.6 | | | | |
| 233 | 284 | 31 | 2.75 | 6.13 | 3.8 | 2.6 | 3.8 | 2.6 | | | | |
| 267 | 325 | 27 | 3.15 | 5.35 | 3.7 | 2.6 | 3.7 | 2.6 | | | | |
| 364 | 443 | 20 | 3.70 | 3.93 | 3.3 | 2.7 | 3.3 | 2.7 | | | | |

F

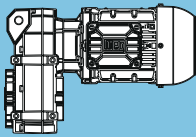
Legend see page 187

** ... on request

| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz 1.1 kW | 60 Hz 1.3 kW | M ₂ Nm | f _b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| | | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.44 | 0.53 | 21435 | 0.85 | 3343.64 | ** | ** | ** | ** | FH155-11P-90S/L-04E | 695 | 320 |
| 0.54 | 0.65 | 17204 | 1.05 | 2711.35 | 81.3 | 115.9 | 81.3 | 115.9 | | | |
| 0.55 | 0.66 | 16846 | 1.10 | 2661.75 | 82.6 | 116.2 | 82.6 | 116.2 | | | |
| 0.64 | 0.78 | 14218 | 1.30 | 2269.72 | 91.0 | 118.3 | 91.0 | 118.3 | | | |
| 0.79 | 0.96 | 11346 | 1.60 | 1839.52 | 97.9 | 120.7 | 97.9 | 120.7 | | | |
| 0.42 | 0.51 | 22053 | 0.85 | 2269.72 | ** | ** | ** | ** | FH155-11P-100L-06D | 701 | 320 |
| 0.52 | 0.63 | 17690 | 1.05 | 1839.52 | 79.4 | 115.5 | 79.4 | 115.5 | | | |
| 0.63 | 0.76 | 15002 | 1.20 | 2318.30 | 88.7 | 117.7 | 88.7 | 117.7 | FH154-11P-90S/L-04E | 682 | 318 |
| 0.73 | 0.88 | 12789 | 1.45 | 1996.74 | 94.7 | 119.5 | 94.7 | 119.5 | | | |
| 0.79 | 0.96 | 11704 | 1.55 | 1834.90 | 97.2 | 120.4 | 97.2 | 120.4 | | | |
| 0.84 | 1.0 | 10971 | 1.65 | 1727.10 | 98.7 | 121.0 | 98.7 | 121.0 | | | |
| 0.91 | 1.1 | 10115 | 1.80 | 1602.16 | 100.3 | 121.7 | 100.3 | 121.7 | | | |
| 0.92 | 1.1 | 9956 | 1.85 | 1580.39 | 100.6 | 121.8 | 100.6 | 121.8 | | | |
| 1.0 | 1.2 | 8847 | 2.05 | 1415.96 | 102.4 | 122.7 | 102.4 | 122.7 | | | |
| 1.1 | 1.3 | 8604 | 2.10 | 1379.93 | 102.8 | 122.9 | 102.8 | 122.9 | | | |
| 1.2 | 1.4 | 7510 | 2.40 | 1219.56 | 104.3 | 123.8 | 104.3 | 123.8 | | | |
| 1.4 | 1.7 | 6375 | 2.85 | 1054.87 | 105.7 | 124.8 | 105.7 | 124.8 | | | |
| 0.41 | 0.5 | 23114 | 0.80 | 2318.30 | ** | ** | ** | ** | FH154-11P-100L-06D | 688 | 318 |
| 0.48 | 0.58 | 19786 | 0.95 | 1996.74 | 70.0 | 113.8 | 70.0 | 113.8 | | | |
| 0.52 | 0.63 | 18145 | 1.00 | 1834.90 | 77.6 | 115.1 | 77.6 | 115.1 | | | |
| 0.56 | 0.67 | 17009 | 1.10 | 1727.10 | 82.0 | 116.0 | 82.0 | 116.0 | | | |
| 0.60 | 0.73 | 15746 | 1.15 | 1602.16 | 86.4 | 117.1 | 86.4 | 117.1 | | | |
| 0.61 | 0.74 | 15500 | 1.20 | 1580.39 | 87.2 | 117.3 | 87.2 | 117.3 | | | |
| 0.68 | 0.82 | 13802 | 1.35 | 1415.96 | 92.1 | 118.7 | 92.1 | 118.7 | | | |
| 0.70 | 0.84 | 13451 | 1.35 | 1379.93 | 93.1 | 119.0 | 93.1 | 119.0 | | | |
| 0.79 | 0.96 | 11790 | 1.55 | 1219.56 | 97.0 | 120.3 | 97.0 | 120.3 | | | |
| 0.80 | 0.97 | 11552 | 1.60 | 1197.38 | 97.5 | 120.5 | 97.5 | 120.5 | | | |
| 0.91 | 1.1 | 10093 | 1.80 | 1054.87 | 100.4 | 121.7 | 100.4 | 121.7 | | | |
| 0.93 | 1.1 | 9828 | 1.85 | 1029.25 | 100.8 | 121.9 | 100.8 | 121.9 | | | |
| 1.1 | 1.3 | 8473 | 2.15 | 898.51 | 103.0 | 123.0 | 103.0 | 123.0 | | | |
| 1.2 | 1.5 | 7178 | 2.55 | 773.88 | 104.7 | 124.1 | 104.7 | 124.1 | | | |
| 1.3 | 1.5 | 7112 | 2.55 | 766.77 | 104.8 | 124.2 | 104.8 | 124.2 | | | |
| 1.4 | 1.7 | 6105 | 2.95 | 669.37 | 105.9 | 125.0 | 105.9 | 125.0 | | | |
| 0.63 | 0.76 | 15114 | 0.90 | 2307.03 | 62.5 | 82.9 | 62.5 | 82.9 | FH124-11P-90S/L-04E | 430 | 314 |
| 0.72 | 0.87 | 13124 | 1.00 | 2011.51 | 70.0 | 84.9 | 70.0 | 84.9 | | | |
| 0.82 | 0.99 | 11550 | 1.15 | 1781.14 | 74.8 | 86.4 | 74.8 | 86.4 | | | |
| 0.84 | 1.0 | 11212 | 1.20 | 1732.67 | 75.7 | 86.7 | 75.7 | 86.7 | | | |
| 0.94 | 1.1 | 10008 | 1.30 | 1552.98 | 78.7 | 87.9 | 78.7 | 87.9 | | | |
| 0.97 | 1.2 | 9587 | 1.40 | 1493.78 | 79.6 | 88.3 | 79.6 | 88.3 | | | |
| 0.98 | 1.2 | 9576 | 1.40 | 1492.05 | 79.6 | 88.3 | 79.6 | 88.3 | | | |
| 1.1 | 1.3 | 8533 | 1.55 | 1337.70 | 81.7 | 89.3 | 81.7 | 89.3 | | | |
| 1.2 | 1.5 | 7401 | 1.80 | 1172.32 | 83.7 | 90.4 | 83.7 | 90.4 | | | |
| 1.3 | 1.5 | 7272 | 1.80 | 1151.94 | 83.9 | 90.5 | 83.9 | 90.5 | | | |
| 1.4 | 1.7 | 6386 | 2.05 | 1022.15 | 85.2 | 91.3 | 85.2 | 91.3 | | | |
| 1.5 | 1.8 | 5999 | 2.20 | 966.09 | 85.7 | 91.7 | 85.7 | 91.7 | | | |
| 1.6 | 1.9 | 5583 | 2.35 | 904.76 | 86.2 | 92.1 | 86.2 | 92.1 | | | |
| 1.7 | 2.0 | 5422 | 2.40 | 880.46 | 86.3 | 92.3 | 86.3 | 92.3 | | | |
| 1.8 | 2.2 | 4787 | 2.75 | 788.86 | 87.0 | 92.9 | 87.0 | 92.9 | | | |
| 1.9 | 2.3 | 4582 | 2.85 | 758.19 | 87.2 | 93.1 | 87.2 | 93.1 | | | |

Legend see page 187

** ... on request

| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.55 | 0.67 | 17275 | 0.80 | 1732.67 | ** | ** | ** | ** | FH124-11P-100L-06D | 436 | 314 |
| 0.62 | 0.75 | 15452 | 0.85 | 1552.98 | ** | ** | ** | ** | | | |
| 0.64 | 0.78 | 14832 | 0.90 | 1493.78 | 63.7 | 83.2 | 63.7 | 83.2 | | | |
| 0.72 | 0.87 | 13228 | 1.00 | 1337.70 | 69.7 | 84.8 | 69.7 | 84.8 | | | |
| 0.74 | 0.89 | 12853 | 1.05 | 1302.43 | 70.9 | 85.1 | 70.9 | 85.1 | | | |
| 0.82 | 0.99 | 11522 | 1.15 | 1172.32 | 74.9 | 86.4 | 74.9 | 86.4 | | | |
| 0.83 | 1.0 | 11321 | 1.15 | 1151.94 | 75.4 | 86.6 | 75.4 | 86.6 | | | |
| 0.86 | 1.0 | 11003 | 1.20 | 1121.89 | 76.3 | 86.9 | 76.3 | 86.9 | | | |
| 0.94 | 1.1 | 9963 | 1.35 | 1022.15 | 78.8 | 87.9 | 78.8 | 87.9 | | | |
| 0.99 | 1.2 | 9398 | 1.40 | 966.09 | 80.0 | 88.4 | 80.0 | 88.4 | | | |
| 1.1 | 1.3 | 8765 | 1.50 | 904.76 | 81.3 | 89.1 | 81.3 | 89.1 | | | |
| 1.2 | 1.5 | 7564 | 1.75 | 788.86 | 83.4 | 90.2 | 83.4 | 90.2 | | | |
| 1.3 | 1.5 | 7255 | 1.80 | 758.19 | 83.9 | 90.5 | 83.9 | 90.5 | | | |
| 1.4 | 1.7 | 6435 | 2.05 | 679.51 | 85.1 | 91.3 | 85.1 | 91.3 | | | |
| 1.5 | 1.8 | 6153 | 2.15 | 652.50 | 85.5 | 91.6 | 85.5 | 91.6 | | | |
| 1.6 | 2.0 | 5461 | 2.40 | 585.14 | 86.3 | 92.2 | 86.3 | 92.2 | | | |
| 1.7 | 2.1 | 5224 | 2.50 | 562.05 | 86.6 | 92.5 | 86.6 | 92.5 | | | |
| 2.0 | 2.4 | 4415 | 2.95 | 484.00 | 87.4 | 93.2 | 87.4 | 93.2 | | | |
| 0.95 | 1.2 | 10037 | 0.80 | 1525.85 | ** | ** | ** | ** | FH104-11P-90S/L-04E | 290 | 310 |
| 0.99 | 1.2 | 9678 | 0.85 | 1474.19 | ** | ** | ** | ** | | | |
| 1.1 | 1.3 | 8619 | 0.95 | 1318.33 | 42.6 | 59.6 | 42.6 | 59.6 | | | |
| 1.3 | 1.6 | 7170 | 1.15 | 1105.64 | 49.4 | 61.2 | 49.4 | 61.2 | | | |
| 1.4 | 1.8 | 6486 | 1.25 | 1004.29 | 51.9 | 62.0 | 51.9 | 62.0 | | | |
| 1.6 | 2.0 | 5731 | 1.40 | 892.89 | 54.2 | 62.8 | 54.2 | 62.8 | | | |
| 1.7 | 2.0 | 5558 | 1.45 | 867.71 | 54.7 | 63.0 | 54.7 | 63.0 | | | |
| 1.9 | 2.3 | 4924 | 1.65 | 775.08 | 56.4 | 63.7 | 56.4 | 63.7 | | | |
| 2.0 | 2.4 | 4672 | 1.75 | 738.55 | 56.9 | 64.0 | 56.9 | 64.0 | | | |
| 2.2 | 2.6 | 4201 | 1.95 | 669.67 | 57.9 | 64.5 | 57.9 | 64.5 | | | |
| 2.3 | 2.7 | 4014 | 2.00 | 641.10 | 58.3 | 64.7 | 58.3 | 64.7 | | | |
| 2.6 | 3.2 | 3418 | 2.35 | 553.91 | 59.3 | 65.4 | 59.3 | 65.4 | | | |
| 2.7 | 3.2 | 3358 | 2.40 | 545.32 | 59.4 | 65.4 | 59.4 | 65.4 | | | |
| 3.1 | 3.7 | 2862 | 2.80 | 472.61 | 60.1 | 66.0 | 60.1 | 66.0 | | | |
| 3.2 | 3.8 | 2773 | 2.90 | 459.75 | 60.2 | 66.1 | 60.2 | 66.1 | | | |
| 0.96 | 1.2 | 10013 | 0.80 | 1004.29 | ** | ** | ** | ** | FH104-11P-100L-06D | 296 | 310 |
| 1.1 | 1.3 | 8848 | 0.95 | 892.89 | 41.3 | 59.3 | 41.3 | 59.3 | | | |
| 1.2 | 1.5 | 7649 | 1.05 | 775.08 | 47.4 | 60.7 | 47.4 | 60.7 | | | |
| 1.3 | 1.6 | 7273 | 1.10 | 738.55 | 49.0 | 61.1 | 49.0 | 61.1 | | | |
| 1.4 | 1.7 | 6555 | 1.25 | 669.67 | 51.6 | 61.9 | 51.6 | 61.9 | | | |
| 1.5 | 1.8 | 6262 | 1.30 | 641.10 | 52.6 | 62.2 | 52.6 | 62.2 | | | |
| 1.7 | 2.1 | 5366 | 1.50 | 553.91 | 55.3 | 63.2 | 55.3 | 63.2 | | | |
| 1.8 | 2.1 | 5272 | 1.55 | 545.32 | 55.5 | 63.3 | 55.5 | 63.3 | | | |
| 2.0 | 2.5 | 4522 | 1.80 | 472.61 | 57.3 | 64.1 | 57.3 | 64.1 | | | |
| 2.1 | 2.5 | 4390 | 1.85 | 459.75 | 57.5 | 64.3 | 57.5 | 64.3 | | | |
| 2.4 | 2.9 | 3859 | 2.10 | 408.33 | 58.6 | 64.9 | 58.6 | 64.9 | | | |
| 2.5 | 3.1 | 3557 | 2.25 | 378.74 | 59.1 | 65.2 | 59.1 | 65.2 | | | |
| 2.8 | 3.4 | 3205 | 2.50 | 344.81 | 59.6 | 65.6 | 59.6 | 65.6 | | | |
| 2.9 | 3.5 | 3037 | 2.65 | 328.77 | 59.9 | 65.8 | 59.9 | 65.8 | | | |
| 1.8 | 2.1 | 5404 | 0.85 | 823.17 | ** | ** | ** | ** | FH094-11P-90S/L-04E | 185 | 306 |
| 2.0 | 2.4 | 4810 | 0.95 | 735.68 | 25.8 | 38.6 | 25.8 | 38.6 | | | |
| 2.3 | 2.8 | 4033 | 1.15 | 621.95 | 30.7 | 39.7 | 30.7 | 39.7 | | | |
| 2.4 | 2.9 | 3896 | 1.20 | 602.09 | 31.4 | 39.8 | 31.4 | 39.8 | | | |
| 2.9 | 3.5 | 3267 | 1.40 | 509.01 | 34.1 | 40.7 | 34.1 | 40.7 | | | |
| 3.0 | 3.6 | 3127 | 1.45 | 488.23 | 34.7 | 40.9 | 34.7 | 40.9 | | | |
| 3.5 | 4.3 | 2611 | 1.75 | 412.76 | 36.3 | 41.5 | 36.3 | 41.5 | | | |
| 3.6 | 4.3 | 2586 | 1.75 | 408.71 | 36.4 | 41.6 | 36.4 | 41.6 | | | |
| 4.2 | 5.1 | 2154 | 2.10 | 345.53 | 37.5 | 42.1 | 37.5 | 42.1 | | | |
| 4.4 | 5.3 | 2057 | 2.20 | 331.24 | 37.7 | 42.3 | 37.7 | 42.3 | | | |
| 5.2 | 6.3 | 1707 | 2.65 | 280.04 | 38.4 | 42.7 | 38.4 | 42.7 | | | |

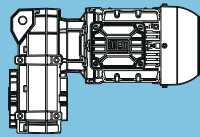


Legend see page 187

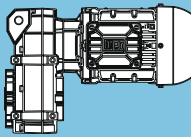
** ... on request

P_N = 1.1 kW

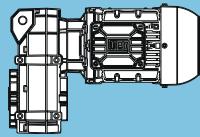
IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|---------------------|-----|-----|
| 1.1 kW | | 1.3 kW | | | Output shaft | | Hollow shaft | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 1.9 | 2.3 | 5054 | 0.90 | 509.01 | 23.8 | 38.3 | 23.8 | 38.3 | FH094-11P-100L-06D | 191 | 306 | | | |
| 2.0 | 2.4 | 4838 | 0.95 | 488.23 | 25.6 | 38.6 | 25.6 | 38.6 | | | | | | |
| 2.3 | 2.8 | 4057 | 1.15 | 412.76 | 30.6 | 39.6 | 30.6 | 39.6 | | | | | | |
| 2.8 | 3.4 | 3368 | 1.35 | 345.53 | 33.7 | 40.5 | 33.7 | 40.5 | | | | | | |
| 2.9 | 3.5 | 3222 | 1.40 | 331.24 | 34.3 | 40.7 | 34.3 | 40.7 | | | | | | |
| 3.4 | 4.2 | 2691 | 1.70 | 280.04 | 36.1 | 41.4 | 36.1 | 41.4 | | | | | | |
| 5.0 | 6.1 | 2083 | 2.20 | 288.50 | 37.7 | 42.2 | 37.7 | 42.2 | FH093-11P-90S/L-04E | 172 | 304 | | | |
| 6.0 | 7.2 | 1761 | 2.60 | 243.90 | 38.3 | 42.7 | 38.3 | 42.7 | | | | | | |
| 6.9 | 8.3 | 1524 | 3.00 | 211.14 | 38.7 | 43.0 | 38.7 | 43.0 | | | | | | |
| 3.3 | 4.0 | 3157 | 1.45 | 288.50 | 34.6 | 40.8 | 34.6 | 40.8 | FH093-11P-100L-06D | 178 | 304 | | | |
| 3.9 | 4.8 | 2669 | 1.70 | 243.90 | 36.2 | 41.5 | 36.2 | 41.5 | | | | | | |
| 4.5 | 5.5 | 2310 | 1.95 | 211.14 | 37.1 | 41.9 | 37.1 | 41.9 | | | | | | |
| 5.1 | 6.2 | 2046 | 2.20 | 186.99 | 37.8 | 42.3 | 37.8 | 42.3 | | | | | | |
| 5.9 | 7.2 | 1770 | 2.55 | 161.76 | 38.3 | 42.7 | 38.3 | 42.7 | | | | | | |
| 6.7 | 8.2 | 1563 | 2.90 | 142.85 | 38.7 | 42.9 | 38.7 | 42.9 | | | | | | |
| 7.0 | 8.5 | 1506 | 3.00 | 137.63 | 38.8 | 43.0 | 38.8 | 43.0 | | | | | | |
| 2.4 | 2.9 | 3991 | 0.80 | 606.72 | ** | ** | ** | ** | | | | FH084-11P-90S/L-04E | 130 | 302 |
| 2.5 | 3.0 | 3896 | 0.80 | 592.20 | ** | ** | ** | ** | | | | | | |
| 2.8 | 3.4 | 3388 | 0.90 | 517.08 | 15.5 | 25.8 | 15.5 | 25.8 | | | | | | |
| 2.9 | 3.5 | 3321 | 0.95 | 507.90 | 16.3 | 27.5 | 16.3 | 27.5 | | | | | | |
| 3.0 | 3.7 | 3133 | 1.00 | 480.21 | 18.2 | 31.6 | 18.2 | 31.6 | | | | | | |
| 3.5 | 4.2 | 2719 | 1.15 | 419.30 | 21.5 | 38.8 | 21.5 | 38.8 | | | | | | |
| 3.6 | 4.4 | 2601 | 1.20 | 401.99 | 22.3 | 40.6 | 22.3 | 40.6 | | | | | | |
| 4.1 | 5.0 | 2257 | 1.35 | 351.00 | 24.3 | 41.5 | 24.3 | 41.5 | | | | | | |
| 4.5 | 5.4 | 2087 | 1.45 | 325.80 | 25.1 | 41.8 | 25.1 | 41.8 | | | | | | |
| 5.1 | 6.2 | 1803 | 1.70 | 284.47 | 26.3 | 42.2 | 26.3 | 42.2 | | | | | | |
| 2.7 | 3.3 | 3485 | 0.90 | 351.00 | 14.3 | 23.2 | 14.3 | 23.2 | FH084-11P-100L-06D | 136 | 302 | | | |
| 2.9 | 3.6 | 3228 | 0.95 | 325.80 | 17.2 | 29.4 | 17.2 | 29.4 | | | | | | |
| 3.4 | 4.1 | 2802 | 1.10 | 284.47 | 20.9 | 37.5 | 20.9 | 37.5 | | | | | | |
| 4.1 | 4.9 | 2588 | 1.20 | 358.52 | 22.4 | 40.8 | 22.4 | 40.8 | FH083-11P-90S/L-04E | 117 | 300 | | | |
| 5.1 | 6.2 | 2049 | 1.50 | 283.76 | 25.2 | 41.8 | 25.2 | 41.8 | | | | | | |
| 5.9 | 7.1 | 1789 | 1.70 | 247.77 | 26.3 | 42.2 | 26.3 | 42.2 | | | | | | |
| 6.6 | 8.0 | 1581 | 1.90 | 218.97 | 27.0 | 42.6 | 27.0 | 42.6 | | | | | | |
| 7.9 | 9.5 | 1337 | 2.25 | 185.17 | 27.7 | 42.9 | 27.7 | 42.9 | | | | | | |
| 8.1 | 9.8 | 1302 | 2.35 | 180.28 | 27.8 | 43.0 | 27.8 | 43.0 | | | | | | |
| 9.1 | 11 | 1149 | 2.65 | 159.17 | 28.2 | 43.2 | 28.2 | 43.2 | | | | | | |
| 10 | 12 | 1030 | 2.95 | 142.69 | 28.4 | 43.4 | 28.4 | 43.4 | | | | | | |
| 2.7 | 3.2 | 3923 | 0.80 | 358.52 | ** | ** | ** | ** | | | | FH083-11P-100L-06D | 123 | 300 |
| 3.4 | 4.1 | 3105 | 1.00 | 283.76 | 18.4 | 32.0 | 18.4 | 32.0 | | | | | | |
| 3.9 | 4.7 | 2711 | 1.15 | 247.77 | 21.6 | 39.0 | 21.6 | 39.0 | | | | | | |
| 4.4 | 5.3 | 2396 | 1.30 | 218.97 | 23.5 | 41.3 | 23.5 | 41.3 | | | | | | |
| 5.2 | 6.3 | 2026 | 1.50 | 185.17 | 25.3 | 41.9 | 25.3 | 41.9 | | | | | | |
| 5.3 | 6.5 | 1973 | 1.55 | 180.28 | 25.6 | 42.0 | 25.6 | 42.0 | | | | | | |
| 6.0 | 7.3 | 1742 | 1.75 | 159.17 | 26.5 | 42.3 | 26.5 | 42.3 | | | | | | |
| 6.7 | 8.2 | 1561 | 1.95 | 142.69 | 27.1 | 42.6 | 27.1 | 42.6 | | | | | | |
| 6.9 | 8.4 | 1520 | 2.00 | 138.95 | 27.2 | 42.7 | 27.2 | 42.7 | | | | | | |
| 7.7 | 9.4 | 1363 | 2.25 | 124.59 | 27.7 | 42.9 | 27.7 | 42.9 | | | | | | |
| 8.1 | 9.8 | 1303 | 2.35 | 119.05 | 27.8 | 43.0 | 27.8 | 43.0 | | | | | | |
| 8.7 | 11 | 1205 | 2.50 | 110.11 | 28.1 | 43.1 | 28.1 | 43.1 | | | | | | |
| 9.5 | 11 | 1109 | 2.75 | 101.32 | 28.3 | 43.3 | 28.3 | 43.3 | | | | | | |
| 10 | 13 | 1019 | 2.95 | 93.11 | 28.5 | 43.4 | 28.5 | 43.4 | | | | | | |
| 6.1 | 7.4 | 1712 | 0.90 | 237.15 | 13.7 | 15.5 | 13.7 | 15.5 | FH073-11P-90S/L-04E | 70 | 298 | | | |
| 7.5 | 9.0 | 1405 | 1.10 | 194.58 | 16.2 | 16.1 | 16.2 | 16.1 | | | | | | |
| 9.7 | 12 | 1088 | 1.40 | 150.69 | 18.1 | 16.8 | 18.1 | 16.8 | | | | | | |
| 13 | 15 | 828 | 1.85 | 114.62 | 19.1 | 17.3 | 19.1 | 17.3 | | | | | | |
| 15 | 19 | 682 | 2.20 | 94.52 | 19.6 | 17.6 | 19.6 | 17.6 | | | | | | |
| 19 | 23 | 560 | 2.70 | 77.53 | 19.9 | 17.9 | 19.9 | 17.9 | | | | | | |
| 6.4 | 7.7 | 1649 | 0.95 | 150.69 | 14.3 | 15.6 | 14.3 | 15.6 | FH073-11P-100L-06D | 76 | 298 | | | |
| 8.4 | 10 | 1254 | 1.20 | 114.62 | 17.2 | 16.4 | 17.2 | 16.4 | | | | | | |
| 10 | 12 | 1034 | 1.50 | 94.52 | 18.3 | 16.9 | 18.3 | 16.9 | | | | | | |
| 12 | 15 | 848 | 1.80 | 77.53 | 19.0 | 17.3 | 19.0 | 17.3 | | | | | | |
| 15 | 18 | 721 | 2.10 | 65.88 | 19.4 | 17.5 | 19.4 | 17.5 | | | | | | |
| 18 | 22 | 593 | 2.55 | 54.16 | 19.8 | 17.8 | 19.8 | 17.8 | | | | | | |

F

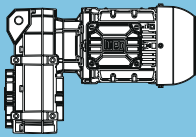
| P _N = 1.1 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|---------------------|----|-----|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page | | | |
| 1.1 kW | | 1.3 kW | | Output shaft | | Hollow shaft | | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 11 | 14 | 940 | 0.90 | 130.15 | 6.9 | 10.8 | 6.9 | 2.3 | FH063-11P-90S/L-04E | 47 | 296 | | | |
| 12 | 15 | 862 | 1.00 | 119.35 | 8.0 | 12.4 | 8.0 | 2.5 | | | | | | |
| 15 | 18 | 710 | 1.20 | 98.34 | 9.7 | 13.0 | 9.7 | 3.0 | | | | | | |
| 16 | 20 | 651 | 1.30 | 90.17 | 10.2 | 13.1 | 10.2 | 3.2 | | | | | | |
| 18 | 22 | 581 | 1.45 | 80.48 | 10.7 | 13.4 | 10.7 | 3.4 | | | | | | |
| 20 | 24 | 533 | 1.55 | 73.80 | 11.0 | 13.5 | 11.0 | 3.6 | | | | | | |
| 22 | 27 | 471 | 1.75 | 65.26 | 11.3 | 13.7 | 11.3 | 3.8 | | | | | | |
| 24 | 29 | 432 | 1.90 | 59.84 | 11.5 | 13.8 | 11.5 | 3.9 | | | | | | |
| 27 | 32 | 394 | 2.10 | 54.63 | 11.7 | 14.0 | 11.7 | 4.0 | | | | | | |
| 29 | 35 | 362 | 2.30 | 50.10 | 11.8 | 14.1 | 11.4 | 4.1 | | | | | | |
| 9.8 | 12 | 1076 | 0.80 | 98.34 | ** | ** | ** | ** | FH063-11P-100L-06D | 53 | 296 | | | |
| 11 | 13 | 987 | 0.85 | 90.17 | ** | ** | ** | ** | | | | | | |
| 12 | 14 | 881 | 0.95 | 80.48 | 7.8 | 12.4 | 7.8 | 2.5 | | | | | | |
| 13 | 16 | 808 | 1.05 | 73.80 | 8.7 | 12.6 | 8.7 | 2.7 | | | | | | |
| 15 | 18 | 714 | 1.15 | 65.26 | 9.6 | 12.9 | 9.6 | 3.0 | | | | | | |
| 16 | 19 | 655 | 1.30 | 59.84 | 10.1 | 13.1 | 10.1 | 3.2 | | | | | | |
| 18 | 21 | 598 | 1.40 | 54.63 | 10.6 | 13.3 | 10.6 | 3.4 | | | | | | |
| 19 | 23 | 548 | 1.50 | 50.10 | 10.9 | 13.5 | 10.9 | 3.5 | | | | | | |
| 29 | 35 | 359 | 2.30 | 49.67 | 11.8 | 14.1 | 11.3 | 4.1 | | | | | | |
| 32 | 39 | 329 | 2.50 | 45.55 | 11.9 | 14.2 | 10.9 | 4.2 | | | | | | |
| 35 | 42 | 301 | 2.75 | 41.66 | 12.0 | 14.3 | 10.5 | 4.3 | | | | | | |
| 38 | 46 | 276 | 3.00 | 38.20 | 12.1 | 14.3 | 10.1 | 4.4 | | | | | | |
| 71 | 86 | 148 | 2.90 | 20.49 | 12.4 | 14.6 | 8.0 | 4.6 | | | | | | |
| 19 | 23 | 544 | 1.55 | 49.67 | 10.9 | 13.5 | 10.9 | 3.5 | FH062-11P-100L-06D | 52 | 296 | | | |
| 21 | 26 | 498 | 1.65 | 45.55 | 11.2 | 13.6 | 11.2 | 3.7 | | | | | | |
| 23 | 28 | 456 | 1.80 | 41.66 | 11.4 | 13.8 | 11.4 | 3.8 | | | | | | |
| 25 | 30 | 418 | 2.00 | 38.20 | 11.6 | 13.9 | 11.6 | 3.9 | | | | | | |
| 29 | 36 | 358 | 2.30 | 32.69 | 11.8 | 14.1 | 11.3 | 4.1 | | | | | | |
| 32 | 39 | 328 | 2.50 | 29.98 | 11.9 | 14.2 | 10.9 | 4.2 | | | | | | |
| 38 | 46 | 276 | 3.00 | 25.23 | 12.1 | 14.4 | 10.1 | 4.4 | | | | | | |
| 47 | 57 | 224 | 1.90 | 20.49 | 12.2 | 14.3 | 9.5 | 4.3 | | | | | | |
| 13 | 16 | 788 | 0.80 | 109.08 | ** | ** | ** | ** | | | | FH053-11P-90S/L-04E | 31 | 294 |
| 15 | 18 | 720 | 0.85 | 99.66 | ** | ** | ** | ** | | | | | | |
| 17 | 20 | 621 | 1.00 | 85.99 | 5.8 | 9.7 | 5.8 | 3.4 | | | | | | |
| 18 | 21 | 593 | 1.05 | 82.13 | 6.2 | 10.2 | 6.2 | 3.5 | | | | | | |
| 19 | 23 | 542 | 1.15 | 75.04 | 6.9 | 10.3 | 6.9 | 3.6 | | | | | | |
| 24 | 29 | 435 | 1.40 | 60.26 | 8.0 | 10.7 | 8.0 | 4.0 | | | | | | |
| 26 | 32 | 398 | 1.55 | 55.06 | 8.3 | 10.8 | 8.3 | 4.1 | | | | | | |
| 20 | 25 | 516 | 1.00 | 71.46 | 7.2 | 10.4 | 7.2 | 3.7 | FH052-11P-90S/L-04E | 30 | 294 | | | |
| 22 | 27 | 471 | 1.00 | 65.29 | 7.7 | 10.5 | 7.7 | 3.8 | | | | | | |
| 26 | 31 | 407 | 1.50 | 56.42 | 8.3 | 10.8 | 8.3 | 4.1 | | | | | | |
| 28 | 34 | 372 | 1.65 | 51.55 | 8.5 | 10.8 | 8.5 | 4.1 | | | | | | |
| 33 | 40 | 316 | 1.90 | 43.75 | 8.9 | 11.0 | 8.9 | 4.3 | | | | | | |
| 36 | 44 | 289 | 2.10 | 39.97 | 9.0 | 11.1 | 9.0 | 4.4 | | | | | | |
| 37 | 45 | 284 | 1.00 | 39.38 | 9.1 | 10.8 | 9.1 | 4.1 | | | | | | |
| 41 | 49 | 259 | 2.35 | 35.81 | 9.2 | 11.2 | 9.2 | 4.5 | | | | | | |
| 44 | 54 | 236 | 2.55 | 32.72 | 9.3 | 11.3 | 9.3 | 4.6 | | | | | | |
| 47 | 57 | 224 | 1.65 | 31.09 | 9.3 | 11.0 | 9.3 | 4.3 | | | | | | |
| 60 | 73 | 174 | 2.10 | 24.11 | 9.5 | 11.2 | 9.5 | 4.5 | | | | | | |
| 74 | 89 | 142 | 2.55 | 19.73 | 9.6 | 11.4 | 9.6 | 4.7 | | | | | | |
| 17 | 21 | 617 | 1.00 | 56.42 | 5.8 | 9.7 | 5.8 | 3.4 | | | | FH052-11P-100L-06D | 36 | 294 |
| 19 | 23 | 564 | 1.10 | 51.55 | 6.6 | 10.3 | 6.6 | 3.6 | | | | | | |
| 22 | 27 | 479 | 1.30 | 43.75 | 7.6 | 10.5 | 7.6 | 3.8 | | | | | | |
| 24 | 29 | 437 | 1.40 | 39.97 | 8.0 | 10.6 | 8.0 | 3.9 | | | | | | |
| 27 | 33 | 392 | 1.55 | 35.81 | 8.4 | 10.8 | 8.4 | 4.1 | | | | | | |
| 29 | 36 | 358 | 1.70 | 32.72 | 8.6 | 10.9 | 8.6 | 4.2 | | | | | | |
| 31 | 37 | 340 | 1.10 | 31.09 | 8.7 | 10.5 | 8.7 | 3.8 | | | | | | |
| 35 | 42 | 302 | 2.00 | 27.56 | 9.0 | 11.1 | 9.0 | 4.4 | | | | | | |
| 38 | 46 | 276 | 2.20 | 25.18 | 9.1 | 11.1 | 9.1 | 4.4 | | | | | | |
| 40 | 48 | 264 | 1.40 | 24.11 | 9.2 | 10.9 | 9.2 | 4.2 | | | | | | |
| 46 | 56 | 228 | 2.65 | 20.83 | 9.3 | 11.3 | 9.3 | 4.6 | | | | | | |
| 49 | 59 | 216 | 1.70 | 19.73 | 9.4 | 11.1 | 9.4 | 4.4 | | | | | | |
| 50 | 61 | 208 | 2.90 | 19.03 | 9.4 | 11.4 | 9.4 | 4.7 | | | | | | |
| 63 | 77 | 166 | 2.20 | 15.19 | 9.5 | 11.3 | 9.5 | 4.6 | | | | | | |
| 84 | 101 | 126 | 2.90 | 11.48 | 9.6 | 11.5 | 9.1 | 4.8 | | | | | | |

F

| P _N = 1.1 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----|--------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | | | |
| 20 | 25 | 514 | 0.80 | 71.24 | ** | ** | ** | ** | FH043-11P-90S/L-04E | 25 | 292 | |
| 22 | 27 | 469 | 0.90 | 64.98 | 1.2 | 0.7 | 1.2 | 0.7 | | | | |
| 28 | 34 | 377 | 1.10 | 52.27 | 4.3 | 7.3 | 4.3 | 2.6 | | | | |
| 31 | 37 | 344 | 1.20 | 47.68 | 4.9 | 8.3 | 4.9 | 2.7 | | | | |
| 23 | 28 | 447 | 0.90 | 61.98 | 2.4 | 3.2 | 2.4 | 2.3 | FH042-11P-90S/L-04E | 25 | 292 | |
| 26 | 31 | 408 | 1.00 | 56.54 | 3.6 | 5.8 | 3.6 | 2.5 | | | | |
| 30 | 36 | 353 | 1.15 | 48.94 | 4.7 | 8.1 | 4.7 | 2.6 | | | | |
| 33 | 39 | 322 | 1.25 | 44.64 | 5.2 | 8.4 | 5.2 | 2.8 | | | | |
| 38 | 46 | 274 | 1.50 | 37.95 | 5.8 | 8.5 | 5.8 | 2.9 | | | | |
| 42 | 51 | 250 | 1.65 | 34.62 | 6.0 | 8.6 | 6.0 | 3.0 | | | | |
| 43 | 52 | 243 | 1.00 | 33.69 | 6.0 | 8.3 | 6.0 | 2.7 | | | | |
| 47 | 57 | 224 | 1.80 | 31.06 | 6.2 | 8.7 | 6.2 | 3.1 | | | | |
| 51 | 62 | 205 | 2.00 | 28.33 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 55 | 66 | 192 | 1.65 | 26.60 | 6.4 | 8.5 | 6.4 | 2.9 | | | | |
| 61 | 74 | 173 | 2.35 | 23.91 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 67 | 81 | 157 | 2.55 | 21.81 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 71 | 85 | 149 | 2.10 | 20.63 | 6.7 | 8.7 | 6.7 | 3.1 | | | | |
| 86 | 104 | 122 | 2.55 | 16.88 | 6.8 | 8.9 | 6.8 | 3.3 | | | | |
| 22 | 26 | 488 | 0.85 | 44.64 | ** | ** | ** | ** | FH042-11P-100L-06D | 30 | 292 | |
| 25 | 31 | 415 | 1.00 | 37.95 | 3.4 | 5.3 | 3.4 | 2.4 | | | | |
| 28 | 34 | 379 | 1.10 | 34.62 | 4.3 | 7.3 | 4.3 | 2.6 | | | | |
| 31 | 38 | 340 | 1.20 | 31.06 | 4.9 | 8.3 | 4.9 | 2.7 | | | | |
| 34 | 41 | 310 | 1.30 | 28.33 | 5.3 | 8.4 | 5.3 | 2.8 | | | | |
| 36 | 44 | 291 | 1.10 | 26.60 | 5.6 | 8.0 | 5.6 | 2.4 | | | | |
| 40 | 49 | 262 | 1.55 | 23.91 | 5.9 | 8.6 | 5.9 | 3.0 | | | | |
| 44 | 53 | 239 | 1.70 | 21.81 | 6.1 | 8.7 | 6.1 | 3.1 | | | | |
| 47 | 56 | 226 | 1.40 | 20.63 | 6.2 | 8.4 | 6.2 | 2.8 | | | | |
| 53 | 65 | 198 | 2.05 | 18.06 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 57 | 69 | 185 | 1.70 | 16.88 | 6.5 | 8.6 | 6.5 | 3.0 | | | | |
| 58 | 71 | 180 | 2.25 | 16.48 | 6.5 | 8.9 | 6.5 | 3.3 | | | | |
| 65 | 79 | 162 | 2.50 | 14.78 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 71 | 86 | 148 | 2.75 | 13.48 | 6.7 | 9.0 | 6.7 | 3.4 | | | | |
| 74 | 90 | 142 | 2.20 | 12.99 | 6.7 | 8.8 | 6.7 | 3.2 | | | | |
| 80 | 97 | 131 | 2.95 | 11.99 | 6.8 | 9.0 | 6.8 | 3.4 | | | | |
| 98 | 119 | 107 | 2.90 | 9.82 | 6.9 | 9.0 | 6.9 | 3.4 | | | | |
| 42 | 50 | 253 | 0.90 | 35.03 | 2.5 | 2.1 | 2.5 | 2.1 | FH032-11P-90S/L-04E | 23 | 290 | |
| 46 | 55 | 229 | 1.00 | 31.76 | 3.2 | 2.6 | 3.2 | 2.6 | | | | |
| 52 | 63 | 202 | 1.10 | 27.97 | 3.7 | 2.4 | 3.7 | 2.4 | | | | |
| 57 | 69 | 183 | 1.25 | 25.36 | 4.0 | 2.8 | 4.0 | 2.8 | | | | |
| 65 | 78 | 162 | 0.95 | 22.50 | 4.3 | 2.8 | 4.3 | 2.8 | | | | |
| 69 | 83 | 153 | 1.45 | 21.14 | 4.4 | 2.7 | 4.4 | 2.7 | | | | |
| 76 | 92 | 138 | 1.60 | 19.17 | 4.5 | 3.0 | 4.5 | 3.0 | | | | |
| 81 | 98 | 129 | 1.20 | 17.88 | 4.6 | 3.0 | 4.6 | 3.0 | | | | |
| 91 | 110 | 116 | 1.90 | 16.06 | 4.7 | 2.9 | 4.7 | 2.9 | | | | |
| 100 | 121 | 105 | 2.10 | 14.57 | 4.8 | 3.2 | 4.8 | 3.2 | | | | |
| 105 | 127 | 100 | 1.55 | 13.81 | 4.8 | 3.1 | 4.8 | 3.1 | | | | |
| 116 | 141 | 90 | 2.45 | 12.50 | 4.9 | 3.1 | 4.9 | 3.1 | | | | |
| 128 | 155 | 82 | 2.70 | 11.33 | 4.9 | 3.3 | 4.9 | 3.3 | | | | |
| 132 | 160 | 80 | 1.90 | 11.03 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 175 | 211 | 60 | 2.50 | 8.33 | 5.0 | 3.3 | 5.0 | 3.3 | | | | |

Legend see page 187

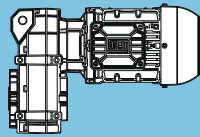
** ... on request

| P _N = 1.1 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|------|----------------|-----|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 38 | 46 | 278 | 0.80 | 25.36 | ** | ** | ** | ** | FH032-11P-100L-06D | 29 | 290 | |
| 45 | 55 | 231 | 1.00 | 21.14 | 3.1 | 2.2 | 3.1 | 2.2 | | | | |
| 50 | 61 | 210 | 1.05 | 19.17 | 3.6 | 2.7 | 3.6 | 2.7 | | | | |
| 54 | 65 | 196 | 0.80 | 17.88 | ** | ** | ** | ** | | | | |
| 60 | 73 | 176 | 1.30 | 16.06 | 4.1 | 2.6 | 4.1 | 2.6 | | | | |
| 66 | 80 | 159 | 1.40 | 14.57 | 4.3 | 2.9 | 4.3 | 2.9 | | | | |
| 70 | 84 | 151 | 1.00 | 13.81 | 4.4 | 2.9 | 4.4 | 2.9 | | | | |
| 77 | 93 | 137 | 1.65 | 12.50 | 4.5 | 2.8 | 4.5 | 2.8 | | | | |
| 85 | 103 | 124 | 1.80 | 11.33 | 4.7 | 3.1 | 4.7 | 3.1 | | | | |
| 87 | 106 | 121 | 1.25 | 11.03 | 4.7 | 3 | 4.7 | 3.0 | | | | |
| 98 | 119 | 107 | 2.00 | 9.76 | 4.8 | 3 | 4.8 | 3.0 | | | | |
| 108 | 132 | 97 | 2.10 | 8.85 | 4.9 | 3.2 | 4.9 | 3.2 | | | | |
| 115 | 140 | 91 | 1.65 | 8.33 | 4.9 | 3.2 | 4.9 | 3.2 | | | | |
| 152 | 184 | 69 | 2.10 | 6.33 | 5.0 | 3.3 | 5.0 | 3.3 | | | | |
| 195 | 236 | 54 | 2.40 | 4.93 | 5.1 | 3.4 | 5.1 | 3.4 | | | | |
| 249 | 303 | 42 | 2.65 | 3.85 | 4.9 | 3.4 | 4.9 | 3.4 | | | | |
| 66 | 80 | 158 | 0.85 | 21.89 | ** | ** | ** | ** | | | | FH022-11P-90S/L-04E |
| 74 | 89 | 142 | 0.95 | 19.70 | 4.6 | 2.1 | 4.6 | 2.1 | | | | |
| 77 | 93 | 136 | 1.00 | 18.88 | 4.7 | 1.9 | 4.7 | 1.9 | | | | |
| 86 | 104 | 123 | 1.10 | 17.00 | 4.8 | 2.2 | 4.8 | 2.2 | | | | |
| 88 | 107 | 119 | 1.10 | 16.48 | 4.8 | 2.0 | 4.8 | 2.0 | | | | |
| 98 | 119 | 107 | 1.25 | 14.84 | 4.9 | 2.3 | 4.9 | 2.3 | | | | |
| 119 | 144 | 88 | 1.00 | 12.19 | 5.0 | 2.4 | 5.0 | 2.4 | | | | |
| 120 | 146 | 87 | 1.50 | 12.09 | 5.0 | 2.2 | 5.0 | 2.2 | | | | |
| 134 | 162 | 79 | 1.70 | 10.89 | 4.9 | 2.4 | 4.9 | 2.4 | | | | |
| 153 | 185 | 69 | 1.25 | 9.52 | 4.6 | 2.5 | 4.6 | 2.5 | | | | |
| 205 | 248 | 51 | 1.65 | 7.11 | 4.1 | 2.5 | 4.1 | 2.5 | | | | |
| 237 | 287 | 44 | 1.90 | 6.13 | 3.9 | 2.6 | 3.9 | 2.6 | | | | |
| 272 | 329 | 39 | 2.20 | 5.35 | 3.7 | 2.6 | 3.7 | 2.6 | | | | |
| 370 | 448 | 28 | 2.55 | 3.93 | 3.3 | 2.6 | 3.3 | 2.6 | | | | |



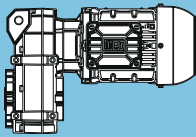
Legend see page 187

** ... on request

| P _N = 1.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 1.5 kW | | 1.8 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.53 | 0.65 | 23844 | 0.80 | 2711.35 | ** | ** | ** | ** | FH155-11P-90S/L-04F | 696 | 320 |
| 0.54 | 0.66 | 23408 | 0.80 | 2661.75 | ** | ** | ** | ** | | | |
| 0.64 | 0.77 | 19808 | 0.95 | 2269.72 | 69.9 | 113.7 | 69.9 | 113.7 | | | |
| 0.79 | 0.95 | 15890 | 1.15 | 1839.52 | 85.9 | 117.0 | 85.9 | 117.0 | | | |
| 0.63 | 0.76 | 20782 | 0.90 | 2318.30 | 64.7 | 112.3 | 64.7 | 112.3 | FH154-11P-90S/L-04F | 683 | 318 |
| 0.73 | 0.88 | 17790 | 1.05 | 1996.74 | 79.0 | 115.4 | 79.0 | 115.4 | | | |
| 0.79 | 0.96 | 16281 | 1.15 | 1834.90 | 84.6 | 116.6 | 84.6 | 116.6 | | | |
| 0.84 | 1.0 | 15293 | 1.20 | 1727.10 | 87.8 | 117.4 | 87.8 | 117.4 | | | |
| 0.91 | 1.1 | 14129 | 1.30 | 1602.16 | 91.3 | 118.4 | 91.3 | 118.4 | | | |
| 0.92 | 1.1 | 13937 | 1.30 | 1580.39 | 91.8 | 118.6 | 91.8 | 118.6 | | | |
| 1.0 | 1.2 | 12384 | 1.50 | 1415.96 | 95.7 | 119.8 | 95.7 | 119.8 | | | |
| 1.1 | 1.3 | 12069 | 1.50 | 1379.93 | 96.4 | 120.1 | 96.4 | 120.1 | | | |
| 1.2 | 1.4 | 10557 | 1.75 | 1219.56 | 99.5 | 121.3 | 99.5 | 121.3 | | | |
| 1.4 | 1.7 | 9037 | 2.00 | 1054.87 | 102.1 | 122.6 | 102.1 | 122.6 | | | |
| 1.6 | 2.0 | 7571 | 2.40 | 898.51 | 104.2 | 123.8 | 104.2 | 123.8 | | | |
| 1.9 | 2.3 | 6399 | 2.85 | 773.88 | 105.6 | 124.7 | 105.6 | 124.7 | | | |
| 0.81 | 0.99 | 16000 | 0.85 | 1781.14 | ** | ** | ** | ** | FH124-11P-90S/L-04F | 431 | 314 |
| 0.84 | 1.0 | 15564 | 0.85 | 1732.67 | ** | ** | ** | ** | | | |
| 0.93 | 1.1 | 13893 | 0.95 | 1552.98 | 67.3 | 84.1 | 67.3 | 84.1 | | | |
| 0.97 | 1.2 | 13336 | 1.00 | 1493.78 | 69.3 | 84.6 | 69.3 | 84.6 | | | |
| 1.1 | 1.3 | 11894 | 1.10 | 1337.70 | 73.9 | 86.0 | 73.9 | 86.0 | | | |
| 1.2 | 1.5 | 10338 | 1.30 | 1172.32 | 77.9 | 87.5 | 77.9 | 87.5 | | | |
| 1.3 | 1.5 | 10158 | 1.30 | 1151.94 | 78.3 | 87.7 | 78.3 | 87.7 | | | |
| 1.4 | 1.7 | 8940 | 1.50 | 1022.15 | 80.9 | 88.9 | 80.9 | 88.9 | | | |
| 1.5 | 1.8 | 8432 | 1.55 | 966.09 | 81.9 | 89.4 | 81.9 | 89.4 | | | |
| 1.6 | 1.9 | 7848 | 1.70 | 904.76 | 82.9 | 89.9 | 82.9 | 89.9 | | | |
| 1.8 | 2.2 | 6772 | 1.95 | 788.86 | 84.6 | 91.0 | 84.6 | 91.0 | | | |
| 1.9 | 2.3 | 6482 | 2.05 | 758.19 | 85.0 | 91.3 | 85.0 | 91.3 | | | |
| 2.1 | 2.6 | 5749 | 2.30 | 679.51 | 86.0 | 92.0 | 86.0 | 92.0 | | | |
| 2.2 | 2.7 | 5498 | 2.40 | 652.50 | 86.2 | 92.2 | 86.2 | 92.2 | | | |
| 2.3 | 2.8 | 5352 | 2.45 | 636.55 | 86.4 | 92.3 | 86.4 | 92.3 | | | |
| 2.5 | 3.0 | 4869 | 2.70 | 585.14 | 86.9 | 92.8 | 86.9 | 92.8 | | | |
| 2.6 | 3.1 | 4657 | 2.80 | 562.05 | 87.1 | 93.0 | 87.1 | 93.0 | | | |
| 1.3 | 1.5 | 10414 | 0.80 | 1156.94 | ** | ** | ** | ** | FH104-11P-90S/L-04F | 291 | 310 |
| 1.4 | 1.7 | 9003 | 0.90 | 1004.29 | 40.4 | 59.1 | 40.4 | 59.1 | | | |
| 1.6 | 2.0 | 7955 | 1.05 | 892.89 | 46.0 | 60.3 | 46.0 | 60.3 | | | |
| 1.7 | 2.0 | 7731 | 1.05 | 867.71 | 47.0 | 60.6 | 47.0 | 60.6 | | | |
| 1.9 | 2.3 | 6863 | 1.20 | 775.08 | 50.5 | 61.5 | 50.5 | 61.5 | | | |
| 2.0 | 2.4 | 6526 | 1.25 | 738.55 | 51.7 | 61.9 | 51.7 | 61.9 | | | |
| 2.2 | 2.6 | 5881 | 1.40 | 669.67 | 53.8 | 62.6 | 53.8 | 62.6 | | | |
| 2.3 | 2.7 | 5619 | 1.45 | 641.10 | 54.6 | 62.9 | 54.6 | 62.9 | | | |
| 2.6 | 3.2 | 4805 | 1.70 | 553.91 | 56.6 | 63.8 | 56.6 | 63.8 | | | |
| 2.7 | 3.2 | 4730 | 1.70 | 545.32 | 56.8 | 63.9 | 56.8 | 63.9 | | | |
| 3.1 | 3.7 | 4049 | 2.00 | 472.61 | 58.2 | 64.7 | 58.2 | 64.7 | | | |
| 3.2 | 3.8 | 3931 | 2.05 | 459.75 | 58.4 | 64.8 | 58.4 | 64.8 | | | |
| 3.6 | 4.3 | 3448 | 2.35 | 408.33 | 59.3 | 65.3 | 59.3 | 65.3 | | | |
| 3.8 | 4.6 | 3171 | 2.55 | 378.74 | 59.7 | 65.6 | 59.7 | 65.6 | | | |
| 4.2 | 5.1 | 2857 | 2.80 | 344.81 | 60.1 | 66 | 60.1 | 66.0 | | | |
| 4.4 | 5.3 | 2702 | 3.00 | 328.77 | 60.3 | 66.2 | 60.3 | 66.2 | | | |
| 2.3 | 2.8 | 5587 | 0.85 | 621.95 | ** | ** | ** | ** | FH094-11P-90S/L-04F | 186 | 306 |
| 2.4 | 2.9 | 5409 | 0.85 | 602.09 | ** | ** | ** | ** | | | |
| 2.8 | 3.4 | 4544 | 1.00 | 509.01 | 27.7 | 39.0 | 27.7 | 39.0 | | | |
| 3.0 | 3.6 | 4350 | 1.05 | 488.23 | 28.9 | 39.2 | 28.9 | 39.2 | | | |
| 3.5 | 4.3 | 3647 | 1.25 | 412.76 | 32.6 | 40.2 | 32.6 | 40.2 | | | |
| 4.2 | 5.1 | 3022 | 1.50 | 345.53 | 35.0 | 41.0 | 35.0 | 41.0 | | | |
| 4.4 | 5.3 | 2885 | 1.60 | 331.24 | 35.5 | 41.2 | 35.5 | 41.2 | | | |
| 5.2 | 6.3 | 2409 | 1.90 | 280.04 | 36.9 | 41.8 | 36.9 | 41.8 | | | |
| 5.0 | 6.1 | 2850 | 1.60 | 288.50 | 35.6 | 41.2 | 35.6 | 41.2 | FH093-11P-90S/L-04F | 173 | 304 |
| 5.9 | 7.2 | 2410 | 1.90 | 243.90 | 36.9 | 41.8 | 36.9 | 41.8 | | | |
| 6.9 | 8.3 | 2086 | 2.20 | 211.14 | 37.7 | 42.2 | 37.7 | 42.2 | | | |
| 7.8 | 9.4 | 1847 | 2.45 | 186.99 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 9.0 | 11 | 1598 | 2.85 | 161.76 | 38.6 | 42.9 | 38.6 | 42.9 | | | |

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** ... on request

| P _N = 1.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.5 kW | | 1.8 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.5 | 4.3 | 3698 | 0.85 | 411.63 | ** | ** | ** | ** | FH084-11P-90S/L-04F | 132 | 302 |
| 3.6 | 4.4 | 3611 | 0.85 | 401.99 | ** | ** | ** | ** | | | |
| 4.1 | 5.0 | 3134 | 1.00 | 351.00 | 18.2 | 31.6 | 18.2 | 7.7 | | | |
| 4.5 | 5.4 | 2903 | 1.05 | 325.80 | 20.2 | 35.9 | 20.2 | 8.0 | | | |
| 5.1 | 6.2 | 2519 | 1.20 | 284.47 | 22.8 | 41.1 | 22.8 | 8.6 | | | |
| 4.0 | 4.9 | 3542 | 0.85 | 358.52 | ** | ** | ** | ** | FH083-11P-90S/L-04F | 119 | 300 |
| 5.1 | 6.2 | 2803 | 1.10 | 283.76 | 20.9 | 37.5 | 20.9 | 8.2 | | | |
| 5.9 | 7.1 | 2448 | 1.25 | 247.77 | 23.2 | 41.2 | 23.2 | 8.7 | | | |
| 6.6 | 8.0 | 2163 | 1.40 | 218.97 | 24.7 | 41.7 | 24.7 | 9.2 | | | |
| 7.8 | 9.5 | 1829 | 1.65 | 185.17 | 26.2 | 42.2 | 26.2 | 9.7 | | | |
| 8.0 | 9.7 | 1781 | 1.70 | 180.28 | 26.3 | 42.3 | 26.3 | 9.8 | | | |
| 9.1 | 11 | 1572 | 1.95 | 159.17 | 27.0 | 42.6 | 27.0 | 10.1 | | | |
| 10 | 13 | 1373 | 2.20 | 138.95 | 27.6 | 42.9 | 27.6 | 10.4 | | | |
| 12 | 14 | 1231 | 2.45 | 124.59 | 28.0 | 43.1 | 26.6 | 10.6 | | | |
| 13 | 16 | 1088 | 2.80 | 110.11 | 28.3 | 43.3 | 25.6 | 10.8 | | | |
| 14 | 17 | 1001 | 3.00 | 101.32 | 28.5 | 43.5 | 24.8 | 11.0 | | | |
| 7.5 | 9 | 1922 | 0.80 | 194.58 | ** | ** | ** | ** | FH073-11P-90S/L-04F | 71 | 298 |
| 9.6 | 12 | 1489 | 1.05 | 150.69 | 15.6 | 16.0 | 15.6 | 4.7 | | | |
| 13 | 15 | 1132 | 1.35 | 114.62 | 17.8 | 16.7 | 17.8 | 5.4 | | | |
| 15 | 19 | 934 | 1.65 | 94.52 | 18.7 | 17.1 | 17.8 | 5.8 | | | |
| 19 | 23 | 766 | 2.00 | 77.53 | 19.3 | 17.4 | 16.1 | 6.2 | | | |
| 22 | 27 | 651 | 2.35 | 65.88 | 19.6 | 17.7 | 15.1 | 6.4 | | | |
| 27 | 32 | 535 | 2.85 | 54.16 | 19.9 | 17.9 | 13.9 | 6.7 | | | |
| 15 | 18 | 972 | 0.85 | 98.34 | ** | ** | ** | ** | FH063-11P-90S/L-04F | 48 | 296 |
| 16 | 19 | 891 | 0.95 | 90.17 | 7.6 | 12.3 | 7.6 | 2.4 | | | |
| 18 | 22 | 795 | 1.05 | 80.48 | 8.8 | 12.7 | 8.8 | 2.7 | | | |
| 20 | 24 | 729 | 1.15 | 73.80 | 9.5 | 12.9 | 9.5 | 2.9 | | | |
| 22 | 27 | 645 | 1.30 | 65.26 | 10.2 | 13.2 | 10.2 | 3.2 | | | |
| 24 | 29 | 591 | 1.40 | 59.84 | 10.6 | 13.3 | 10.6 | 3.4 | | | |
| 27 | 32 | 540 | 1.55 | 54.63 | 10.9 | 13.5 | 10.9 | 3.6 | | | |
| 29 | 35 | 495 | 1.70 | 50.10 | 11.2 | 13.6 | 11.2 | 3.7 | | | |
| 29 | 35 | 491 | 1.70 | 49.67 | 11.2 | 13.7 | 11.2 | 3.7 | FH062-11P-90S/L-04F | 47 | 296 |
| 32 | 39 | 450 | 1.85 | 45.55 | 11.4 | 13.8 | 11.4 | 3.8 | | | |
| 35 | 42 | 412 | 2.00 | 41.66 | 11.6 | 13.9 | 11.0 | 4.0 | | | |
| 38 | 46 | 377 | 2.20 | 38.20 | 11.8 | 14.0 | 10.6 | 4.1 | | | |
| 44 | 54 | 323 | 2.55 | 32.69 | 11.9 | 14.2 | 9.9 | 4.3 | | | |
| 48 | 59 | 296 | 2.80 | 29.98 | 12.0 | 14.3 | 9.6 | 4.3 | | | |
| 71 | 86 | 202 | 2.10 | 20.49 | 12.3 | 14.4 | 8.3 | 4.4 | | | |
| 19 | 23 | 741 | 0.85 | 75.04 | ** | ** | ** | ** | FH053-11P-90S/L-04F | 32 | 294 |
| 24 | 29 | 595 | 1.05 | 60.26 | 6.2 | 10.2 | 6.2 | 3.5 | | | |
| 26 | 32 | 544 | 1.10 | 55.06 | 6.9 | 10.3 | 6.9 | 3.6 | | | |
| 26 | 31 | 557 | 1.10 | 56.42 | 6.7 | 10.3 | 6.7 | 3.6 | FH052-11P-90S/L-04F | 32 | 294 |
| 28 | 34 | 509 | 1.20 | 51.55 | 7.3 | 10.4 | 7.3 | 3.7 | | | |
| 33 | 40 | 432 | 1.40 | 43.75 | 8.1 | 10.7 | 8.1 | 4.0 | | | |
| 36 | 44 | 395 | 1.55 | 39.97 | 8.4 | 10.8 | 8.4 | 4.1 | | | |
| 40 | 49 | 354 | 1.70 | 35.81 | 8.7 | 10.9 | 8.7 | 4.2 | | | |
| 44 | 54 | 323 | 1.85 | 32.72 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 47 | 56 | 307 | 1.20 | 31.09 | 8.9 | 10.7 | 8.9 | 4.0 | | | |
| 53 | 64 | 272 | 2.25 | 27.56 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 58 | 70 | 249 | 2.40 | 25.18 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 60 | 73 | 238 | 1.55 | 24.11 | 9.3 | 11.0 | 9.3 | 4.3 | | | |
| 70 | 84 | 206 | 2.95 | 20.83 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 73 | 89 | 195 | 1.85 | 19.73 | 9.4 | 11.2 | 9.4 | 4.5 | | | |
| 95 | 116 | 150 | 2.40 | 15.19 | 9.6 | 11.4 | 8.9 | 4.7 | | | |
| 28 | 34 | 516 | 0.80 | 52.27 | ** | ** | ** | ** | FH043-11P-90S/L-04F | 26 | 292 |
| 30 | 37 | 471 | 0.85 | 47.68 | ** | ** | ** | ** | | | |

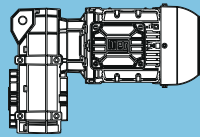
F

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** ... on request

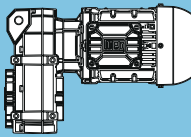
P_N = 1.5 kW

IE3

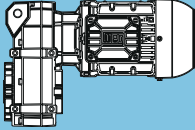
| 50 Hz 1.5 kW n ₅₀ min ⁻¹ | 60 Hz 1.8 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|---|---|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 30 | 36 | 483 | 0.85 | 48.94 | ** | ** | ** | ** | FH042-11P-90S/L-04F | 26 | 292 |
| 32 | 39 | 441 | 0.95 | 44.64 | 2.6 | 3.6 | 2.6 | 2.3 | | | |
| 38 | 46 | 375 | 1.10 | 37.95 | 4.3 | 7.3 | 4.3 | 2.6 | | | |
| 42 | 51 | 342 | 1.20 | 34.62 | 4.9 | 8.3 | 4.9 | 2.7 | | | |
| 47 | 57 | 307 | 1.35 | 31.06 | 5.4 | 8.4 | 5.4 | 2.8 | | | |
| 51 | 62 | 280 | 1.45 | 28.33 | 5.7 | 8.5 | 5.7 | 2.9 | | | |
| 55 | 66 | 263 | 1.20 | 26.60 | 5.9 | 8.2 | 5.9 | 2.6 | | | |
| 61 | 73 | 236 | 1.70 | 23.91 | 6.1 | 8.7 | 6.1 | 3.1 | | | |
| 66 | 80 | 215 | 1.90 | 21.81 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 70 | 85 | 204 | 1.55 | 20.63 | 6.4 | 8.5 | 6.4 | 2.9 | | | |
| 80 | 97 | 178 | 2.25 | 18.06 | 6.5 | 8.9 | 6.5 | 3.3 | | | |
| 86 | 104 | 167 | 1.85 | 16.88 | 6.6 | 8.7 | 6.6 | 3.1 | | | |
| 88 | 106 | 163 | 2.50 | 16.48 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 98 | 119 | 146 | 2.75 | 14.78 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 112 | 135 | 128 | 2.45 | 12.99 | 6.8 | 8.9 | 6.8 | 3.3 | | | |
| 52 | 63 | 276 | 0.80 | 27.97 | ** | ** | ** | ** | FH032-11P-90S/L-04F | 25 | 290 |
| 57 | 69 | 251 | 0.90 | 25.36 | 2.6 | 2.5 | 2.6 | 2.5 | | | |
| 69 | 83 | 209 | 1.10 | 21.14 | 3.6 | 2.4 | 3.6 | 2.4 | | | |
| 76 | 92 | 189 | 1.20 | 19.17 | 3.9 | 2.8 | 3.9 | 2.8 | | | |
| 81 | 98 | 177 | 0.85 | 17.88 | ** | ** | ** | ** | | | |
| 90 | 109 | 159 | 1.40 | 16.06 | 4.3 | 2.7 | 4.3 | 2.7 | | | |
| 100 | 120 | 144 | 1.55 | 14.57 | 4.5 | 3.0 | 4.5 | 3.0 | | | |
| 105 | 127 | 136 | 1.10 | 13.81 | 4.5 | 3.0 | 4.5 | 3.0 | | | |
| 116 | 140 | 123 | 1.80 | 12.50 | 4.7 | 2.9 | 4.7 | 2.9 | | | |
| 128 | 155 | 112 | 2.00 | 11.33 | 4.7 | 3.2 | 4.7 | 3.2 | | | |
| 131 | 159 | 109 | 1.40 | 11.03 | 4.8 | 3.1 | 4.8 | 3.1 | | | |
| 149 | 180 | 96 | 2.20 | 9.76 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 164 | 198 | 87 | 2.35 | 8.85 | 4.9 | 3.3 | 4.9 | 3.3 | | | |
| 174 | 211 | 82 | 1.85 | 8.33 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 229 | 277 | 63 | 2.35 | 6.33 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 294 | 356 | 49 | 2.65 | 4.93 | 4.7 | 3.4 | 4.7 | 3.4 | | | |
| 377 | 456 | 38 | 2.95 | 3.85 | 4.3 | 3.5 | 4.3 | 3.5 | | | |
| 85 | 103 | 168 | 0.80 | 17.00 | ** | ** | ** | ** | FH022-11P-90S/L-04F | 22 | 288 |
| 88 | 106 | 163 | 0.80 | 16.48 | ** | ** | ** | ** | | | |
| 98 | 118 | 147 | 0.90 | 14.84 | 4.6 | 2.1 | 4.6 | 2.1 | | | |
| 120 | 145 | 119 | 1.10 | 12.09 | 4.8 | 2.0 | 4.8 | 2.0 | | | |
| 133 | 161 | 108 | 1.25 | 10.89 | 4.9 | 2.3 | 4.9 | 2.3 | | | |
| 152 | 184 | 94 | 0.90 | 9.52 | 4.8 | 2.3 | 4.8 | 2.3 | | | |
| 204 | 247 | 70 | 1.20 | 7.11 | 4.3 | 2.4 | 4.3 | 2.4 | | | |
| 237 | 286 | 61 | 1.40 | 6.13 | 4.0 | 2.5 | 4.0 | 2.5 | | | |
| 271 | 328 | 53 | 1.60 | 5.35 | 3.8 | 2.5 | 3.8 | 2.5 | | | |
| 369 | 447 | 39 | 1.90 | 3.93 | 3.4 | 2.6 | 3.4 | 2.6 | | | |

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** ... on request

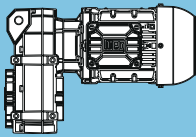
| P _N = 2.2 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.81 | 0.98 | 23118 | 0.80 | 1773.82 | ** | ** | ** | ** | FH155-11P-100L-04E | 706 | 320 |
| 0.83 | 1.0 | 23039 | 0.80 | 1727.10 | ** | ** | ** | ** | FH154-11P-100L-04E | 693 | 318 |
| 0.90 | 1.1 | 21329 | 0.85 | 1602.16 | ** | ** | ** | ** | | | |
| 0.91 | 1.1 | 20996 | 0.90 | 1580.39 | 63.4 | 109.6 | 63.4 | 109.6 | | | |
| 1.0 | 1.2 | 18735 | 1.00 | 1415.96 | 75.0 | 114.6 | 75.0 | 114.6 | | | |
| 1.2 | 1.4 | 16037 | 1.15 | 1219.56 | 85.4 | 116.8 | 85.4 | 116.8 | | | |
| 1.4 | 1.7 | 13758 | 1.35 | 1054.87 | 92.3 | 118.7 | 92.3 | 118.7 | | | |
| 1.6 | 1.9 | 11622 | 1.55 | 898.51 | 97.4 | 120.5 | 97.4 | 120.5 | | | |
| 1.9 | 2.3 | 9887 | 1.85 | 773.88 | 100.7 | 121.9 | 100.7 | 121.9 | | | |
| 2.1 | 2.6 | 8446 | 2.15 | 669.37 | 103.0 | 123.1 | 103.0 | 123.1 | | | |
| 2.2 | 2.6 | 8349 | 2.20 | 663.03 | 103.2 | 123.1 | 103.2 | 123.1 | | | |
| 2.5 | 3.0 | 7117 | 2.55 | 573.49 | 104.8 | 124.2 | 104.8 | 124.2 | | | |
| 2.6 | 3.2 | 6834 | 2.65 | 553.01 | 105.1 | 124.4 | 105.1 | 124.4 | | | |
| 1.2 | 1.5 | 15607 | 0.85 | 1172.32 | ** | ** | ** | ** | FH124-11P-100L-04E | 441 | 314 |
| 1.3 | 1.6 | 14905 | 0.90 | 1121.89 | 63.4 | 83.1 | 63.4 | 83.1 | | | |
| 1.4 | 1.7 | 13524 | 1.00 | 1022.15 | 68.7 | 84.5 | 68.7 | 84.5 | | | |
| 1.5 | 1.8 | 12756 | 1.05 | 966.09 | 71.2 | 85.2 | 71.2 | 85.2 | | | |
| 1.6 | 1.9 | 11922 | 1.10 | 904.76 | 73.8 | 86.0 | 73.8 | 86.0 | | | |
| 1.8 | 2.2 | 10310 | 1.30 | 788.86 | 78.0 | 87.6 | 78.0 | 87.6 | | | |
| 1.9 | 2.3 | 9888 | 1.35 | 758.19 | 79.0 | 88.0 | 79.0 | 88.0 | | | |
| 2.1 | 2.6 | 8808 | 1.50 | 679.51 | 81.2 | 89.0 | 81.2 | 89.0 | | | |
| 2.2 | 2.7 | 8440 | 1.55 | 652.50 | 81.9 | 89.4 | 81.9 | 89.4 | | | |
| 2.3 | 2.7 | 8217 | 1.60 | 636.55 | 82.3 | 89.6 | 82.3 | 89.6 | | | |
| 2.5 | 3.0 | 7507 | 1.75 | 585.14 | 83.5 | 90.3 | 83.5 | 90.3 | | | |
| 2.6 | 3.1 | 7181 | 1.85 | 562.05 | 84.0 | 90.6 | 84.0 | 90.6 | | | |
| 3.0 | 3.6 | 6107 | 2.15 | 484.00 | 85.5 | 91.6 | 85.5 | 91.6 | | | |
| 3.1 | 3.7 | 5854 | 2.25 | 465.86 | 85.8 | 91.9 | 85.8 | 91.9 | | | |
| 3.2 | 3.9 | 5621 | 2.35 | 449.23 | 86.1 | 92.1 | 86.1 | 92.1 | | | |
| 3.5 | 4.2 | 5142 | 2.55 | 414.33 | 86.6 | 92.5 | 86.6 | 92.5 | | | |
| 3.7 | 4.5 | 4830 | 2.70 | 391.68 | 87.0 | 92.8 | 87.0 | 92.8 | | | |
| 4.0 | 4.9 | 4345 | 3.00 | 356.79 | 87.4 | 93.3 | 87.4 | 93.3 | | | |
| 1.9 | 2.3 | 10339 | 0.80 | 775.08 | ** | ** | ** | ** | FH104-11P-100L-04E | 301 | 310 |
| 2.1 | 2.6 | 8897 | 0.90 | 669.67 | 41.0 | 59.3 | 41.0 | 59.3 | | | |
| 2.2 | 2.7 | 8500 | 0.95 | 641.1 | 43.2 | 59.7 | 43.2 | 59.7 | | | |
| 2.3 | 2.8 | 8312 | 1.00 | 628.21 | 44.2 | 59.9 | 44.2 | 59.9 | | | |
| 2.6 | 3.2 | 7299 | 1.10 | 553.91 | 48.9 | 61.0 | 48.9 | 61.0 | | | |
| 3.0 | 3.7 | 6176 | 1.30 | 472.61 | 52.9 | 62.3 | 52.9 | 62.3 | | | |
| 3.1 | 3.8 | 5996 | 1.35 | 459.75 | 53.5 | 62.5 | 53.5 | 62.5 | | | |
| 3.2 | 3.9 | 5770 | 1.40 | 443.33 | 54.1 | 62.7 | 54.1 | 62.7 | | | |
| 3.5 | 4.3 | 5282 | 1.55 | 408.33 | 55.5 | 63.3 | 55.5 | 63.3 | | | |
| 3.6 | 4.4 | 5162 | 1.55 | 399.09 | 55.8 | 63.4 | 55.8 | 63.4 | | | |
| 3.7 | 4.5 | 4957 | 1.65 | 384.84 | 56.3 | 63.7 | 56.3 | 63.7 | | | |
| 3.8 | 4.6 | 4879 | 1.65 | 378.74 | 56.5 | 63.7 | 56.5 | 63.7 | | | |
| 4.2 | 5.1 | 4405 | 1.85 | 344.81 | 57.5 | 64.3 | 57.5 | 64.3 | | | |
| 4.3 | 5.2 | 4239 | 1.90 | 332.5 | 57.9 | 64.5 | 57.9 | 64.5 | | | |
| 4.4 | 5.3 | 4183 | 1.95 | 328.77 | 58.0 | 64.5 | 58.0 | 64.5 | | | |
| 5.1 | 6.1 | 3569 | 2.25 | 284.06 | 59.1 | 65.2 | 59.1 | 65.2 | | | |
| 3.5 | 4.2 | 5495 | 0.85 | 412.76 | ** | ** | ** | ** | FH094-11P-100L-04E | 196 | 306 |
| 4.2 | 5.1 | 4572 | 1.00 | 345.53 | 27.5 | 38.9 | 27.5 | 38.9 | | | |
| 4.3 | 5.3 | 4374 | 1.05 | 331.24 | 28.7 | 39.2 | 28.7 | 39.2 | | | |
| 4.5 | 5.5 | 4209 | 1.10 | 319.41 | 29.7 | 39.4 | 29.7 | 39.4 | | | |
| 5.1 | 6.2 | 3667 | 1.25 | 280.04 | 32.5 | 40.1 | 32.5 | 40.1 | | | |
| 5.3 | 6.5 | 3529 | 1.30 | 270.03 | 33.1 | 40.3 | 33.1 | 40.3 | | | |
| 5.0 | 6.0 | 4224 | 1.10 | 288.50 | 29.6 | 39.4 | 29.6 | 39.4 | FH093-11P-100L-04E | 183 | 304 |
| 5.9 | 7.2 | 3571 | 1.30 | 243.90 | 32.9 | 40.3 | 32.9 | 40.3 | | | |
| 6.8 | 8.3 | 3091 | 1.50 | 211.14 | 34.8 | 40.9 | 34.8 | 40.9 | | | |
| 7.7 | 9.3 | 2738 | 1.65 | 186.99 | 36.0 | 41.4 | 36.0 | 41.4 | | | |
| 8.9 | 11 | 2368 | 1.95 | 161.76 | 37.0 | 41.9 | 37.0 | 41.9 | | | |
| 9.2 | 11 | 2284 | 2.00 | 155.99 | 37.2 | 42.0 | 37.2 | 42.0 | | | |
| 10 | 12 | 2091 | 2.20 | 142.85 | 37.7 | 42.2 | 37.7 | 42.2 | | | |
| 12 | 14 | 1768 | 2.55 | 120.77 | 38.3 | 42.7 | 38.3 | 42.7 | | | |
| 14 | 17 | 1531 | 2.95 | 104.54 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 5.0 | 6.1 | 3795 | 0.80 | 284.47 | ** | ** | ** | ** | FH084-11P-100L-04E | 142 | 302 |
| 5.2 | 6.4 | 3652 | 0.85 | 274.31 | ** | ** | ** | ** | | | |

F

| P _N = 2.2 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 5.8 | 7.0 | 3628 | 0.85 | 247.77 | ** | ** | ** | ** | FH083-11P-100L-04E | 129 | 300 |
| 6.6 | 8.0 | 3206 | 0.95 | 218.97 | 17.5 | 30.1 | 17.5 | 7.6 | | | |
| 7.7 | 9.4 | 2711 | 1.15 | 185.17 | 21.6 | 39.0 | 21.6 | 8.3 | | | |
| 8 | 9.7 | 2640 | 1.15 | 180.28 | 22.1 | 40.1 | 22.1 | 8.4 | | | |
| 9 | 11 | 2330 | 1.30 | 159.17 | 23.9 | 41.4 | 23.9 | 8.9 | | | |
| 10 | 12 | 2089 | 1.45 | 142.69 | 25.1 | 41.8 | 25.1 | 9.3 | | | |
| 12 | 14 | 1824 | 1.65 | 124.59 | 26.2 | 42.2 | 26.2 | 9.7 | | | |
| 13 | 15 | 1681 | 1.80 | 114.80 | 26.7 | 42.4 | 26.7 | 9.9 | | | |
| 14 | 17 | 1483 | 2.05 | 101.32 | 27.3 | 42.7 | 26.3 | 10.2 | | | |
| 15 | 19 | 1363 | 2.25 | 93.11 | 27.7 | 42.9 | 25.4 | 10.4 | | | |
| 17 | 21 | 1244 | 2.45 | 84.99 | 28 | 43.1 | 24.2 | 10.6 | | | |
| 18 | 22 | 1172 | 2.60 | 80.04 | 28.1 | 43.2 | 23.6 | 10.7 | | | |
| 20 | 24 | 1049 | 2.85 | 71.62 | 28.4 | 43.4 | 22.5 | 10.9 | | | |
| 21 | 25 | 1023 | 2.85 | 69.87 | 28.5 | 43.4 | 22.1 | 10.9 | | | |
| 13 | 15 | 1678 | 0.90 | 114.62 | 14.1 | 15.6 | 14.1 | 4.3 | FH073-11P-100L-04E | 81 | 298 |
| 15 | 18 | 1384 | 1.10 | 94.52 | 16.4 | 16.2 | 16.4 | 4.9 | | | |
| 19 | 23 | 1135 | 1.35 | 77.53 | 17.8 | 16.7 | 17.4 | 5.4 | | | |
| 22 | 26 | 965 | 1.60 | 65.88 | 18.6 | 17.0 | 16.2 | 5.8 | | | |
| 26 | 32 | 793 | 1.90 | 54.16 | 19.2 | 17.4 | 14.9 | 6.1 | | | |
| 27 | 33 | 765 | 2.00 | 52.23 | 19.3 | 17.4 | 14.6 | 6.2 | | | |
| 32 | 39 | 659 | 2.30 | 45.02 | 19.6 | 17.7 | 13.6 | 6.4 | FH072-11P-100L-04E | 80 | 298 |
| 37 | 44 | 576 | 2.65 | 39.31 | 19.8 | 17.8 | 12.8 | 6.6 | | | |
| 41 | 50 | 509 | 2.95 | 34.74 | 20.0 | 18.0 | 12.2 | 6.7 | | | |
| 22 | 27 | 955 | 0.90 | 65.26 | 6.6 | 10.1 | 6.6 | 2.2 | FH063-11P-100L-04E | 58 | 296 |
| 24 | 29 | 876 | 0.95 | 59.84 | 7.8 | 12.4 | 7.8 | 2.4 | | | |
| 26 | 32 | 800 | 1.05 | 54.63 | 8.8 | 12.7 | 8.8 | 2.7 | | | |
| 29 | 35 | 734 | 1.15 | 50.1 | 9.5 | 12.8 | 9.5 | 2.9 | | | |
| 29 | 35 | 727 | 1.15 | 49.67 | 9.5 | 12.9 | 9.5 | 2.9 | FH062-11P-100L-04E | 57 | 296 |
| 32 | 38 | 667 | 1.25 | 45.55 | 10.0 | 13.1 | 10.0 | 3.1 | | | |
| 34 | 42 | 610 | 1.35 | 41.66 | 10.5 | 13.3 | 10.5 | 3.3 | | | |
| 38 | 46 | 559 | 1.50 | 38.20 | 10.8 | 13.4 | 10.8 | 3.5 | | | |
| 44 | 53 | 479 | 1.75 | 32.69 | 11.3 | 13.7 | 10.6 | 3.8 | | | |
| 48 | 58 | 439 | 1.90 | 29.98 | 11.5 | 13.8 | 10.2 | 3.9 | | | |
| 57 | 69 | 369 | 2.25 | 25.23 | 11.8 | 14.1 | 9.4 | 4.1 | | | |
| 62 | 75 | 339 | 2.45 | 23.14 | 11.9 | 14.1 | 9.1 | 4.2 | | | |
| 69 | 84 | 306 | 2.70 | 20.87 | 12.0 | 14.3 | 8.6 | 4.3 | | | |
| 70 | 85 | 300 | 1.45 | 20.49 | 12.0 | 13.9 | 8.9 | 4.0 | | | |
| 75 | 91 | 280 | 2.95 | 19.14 | 12.1 | 14.3 | 8.3 | 4.4 | | | |
| 84 | 102 | 252 | 2.30 | 17.18 | 12.2 | 14.1 | 8.2 | 4.2 | | | |
| 106 | 129 | 198 | 2.90 | 13.49 | 12.3 | 14.4 | 7.4 | 4.4 | | | |
| 33 | 40 | 641 | 0.95 | 43.75 | 5.4 | 8.8 | 5.4 | 3.3 | FH052-11P-100L-04E | 42 | 294 |
| 36 | 44 | 585 | 1.05 | 39.97 | 6.3 | 10.2 | 6.3 | 3.5 | | | |
| 40 | 49 | 524 | 1.15 | 35.81 | 7.1 | 10.4 | 7.1 | 3.7 | | | |
| 44 | 53 | 479 | 1.25 | 32.72 | 7.6 | 10.5 | 7.6 | 3.8 | | | |
| 52 | 63 | 404 | 1.50 | 27.56 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 57 | 69 | 369 | 1.65 | 25.18 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 60 | 72 | 353 | 1.05 | 24.11 | 8.7 | 10.5 | 8.7 | 3.8 | | | |
| 69 | 84 | 305 | 2.00 | 20.83 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 73 | 88 | 289 | 1.25 | 19.73 | 9.0 | 10.7 | 9.0 | 4.0 | | | |
| 75 | 92 | 279 | 2.15 | 19.03 | 9.1 | 11.1 | 9.1 | 4.4 | | | |
| 84 | 102 | 249 | 2.45 | 17.04 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 92 | 112 | 228 | 2.65 | 15.57 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 94 | 115 | 222 | 1.65 | 15.19 | 9.3 | 11.0 | 9.3 | 4.3 | | | |
| 104 | 126 | 202 | 3.00 | 13.82 | 9.4 | 11.4 | 8.9 | 4.7 | | | |
| 125 | 152 | 168 | 2.15 | 11.48 | 9.5 | 11.3 | 8.3 | 4.6 | | | |
| 153 | 186 | 137 | 2.65 | 9.39 | 9.6 | 11.4 | 7.7 | 4.7 | | | |

Legend see page 187

** ... on request

| P _N = 2.2 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 41 | 50 | 507 | 0.80 | 34.62 | ** | ** | ** | ** | | | | |
| 46 | 56 | 455 | 0.90 | 31.06 | 2.1 | 2.6 | 2.1 | 2.3 | | | | |
| 51 | 62 | 415 | 1.00 | 28.33 | 3.4 | 5.3 | 3.4 | 2.4 | | | | |
| 60 | 73 | 350 | 1.15 | 23.91 | 4.8 | 8.3 | 4.8 | 2.7 | | | | |
| 66 | 80 | 319 | 1.30 | 21.81 | 5.2 | 8.4 | 5.2 | 2.8 | | | | |
| 70 | 85 | 302 | 1.05 | 20.63 | 5.4 | 8.0 | 5.4 | 2.4 | | | | |
| 79 | 97 | 264 | 1.55 | 18.06 | 5.8 | 8.6 | 5.8 | 3.0 | | | | |
| 85 | 103 | 247 | 1.25 | 16.88 | 6.0 | 8.2 | 6.0 | 2.6 | | | | |
| 87 | 106 | 241 | 1.70 | 16.48 | 6.1 | 8.6 | 6.1 | 3.0 | | | | |
| 97 | 118 | 216 | 1.85 | 14.78 | 6.3 | 8.7 | 6.3 | 3.1 | | | | |
| 106 | 129 | 197 | 2.05 | 13.48 | 6.4 | 8.8 | 6.4 | 3.2 | | | | |
| 110 | 134 | 190 | 1.65 | 12.99 | 6.4 | 8.5 | 6.4 | 2.9 | | | | |
| 120 | 146 | 176 | 2.20 | 11.99 | 6.5 | 8.9 | 6.5 | 3.3 | | | | |
| 131 | 160 | 160 | 2.30 | 10.93 | 6.6 | 8.9 | 6.6 | 3.3 | | | | |
| 143 | 174 | 147 | 2.40 | 10.03 | 6.7 | 9.0 | 6.5 | 3.4 | | | | |
| 146 | 178 | 144 | 2.15 | 9.82 | 6.7 | 8.8 | 6.5 | 3.2 | | | | |
| 157 | 191 | 134 | 2.45 | 9.15 | 6.7 | 9.0 | 6.3 | 3.4 | | | | |
| 177 | 215 | 119 | 2.65 | 8.13 | 6.8 | 9.1 | 6.0 | 3.5 | | | | |
| 179 | 217 | 118 | 2.40 | 8.03 | 6.8 | 8.9 | 6.0 | 3.3 | | | | |
| 183 | 223 | 115 | 2.65 | 7.84 | 6.8 | 9.1 | 5.9 | 3.5 | | | | |
| 193 | 235 | 109 | 2.70 | 7.42 | 6.8 | 9.1 | 5.7 | 3.5 | | | | |
| 201 | 244 | 105 | 2.75 | 7.15 | 6.9 | 9.1 | 5.7 | 3.5 | | | | |
| 220 | 268 | 95 | 2.60 | 6.52 | 6.9 | 9.0 | 5.5 | 3.4 | | | | |
| 263 | 320 | 80 | 2.80 | 5.45 | 6.9 | 9.1 | 5.1 | 3.5 | | | | |
| 75 | 91 | 281 | 0.80 | 19.17 | ** | ** | ** | ** | | | | |
| 89 | 109 | 235 | 0.95 | 16.06 | 3.0 | 2.2 | 3.0 | 2.2 | | | | |
| 98 | 120 | 213 | 1.05 | 14.57 | 3.5 | 2.7 | 3.5 | 2.7 | | | | |
| 115 | 140 | 183 | 1.25 | 12.5 | 4.0 | 2.5 | 4.0 | 2.5 | | | | |
| 127 | 154 | 166 | 1.35 | 11.33 | 4.2 | 2.9 | 4.2 | 2.9 | | | | |
| 130 | 158 | 161 | 0.95 | 11.03 | 4.3 | 2.8 | 4.3 | 2.8 | | | | |
| 147 | 179 | 143 | 1.50 | 9.76 | 4.5 | 2.8 | 4.5 | 2.8 | | | | |
| 162 | 197 | 130 | 1.60 | 8.85 | 4.6 | 3.1 | 4.6 | 3.1 | | | | |
| 172 | 209 | 122 | 1.25 | 8.33 | 4.7 | 3.0 | 4.7 | 3.0 | | | | |
| 227 | 276 | 93 | 1.60 | 6.33 | 4.9 | 3.2 | 4.9 | 3.2 | | | | |
| 291 | 354 | 72 | 1.80 | 4.93 | 4.8 | 3.3 | 4.8 | 3.3 | | | | |
| 373 | 453 | 56 | 2.00 | 3.85 | 4.4 | 3.4 | 4.4 | 3.4 | | | | |

FH042-11P-100L-04E

36

292

FH032-11P-100L-04E

35

290

F

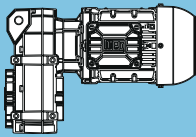
Legend see page 187

** ... on request

| P _N = 3.0 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | | | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 1.2 | 1.4 | 22062 | 0.85 | 1219.56 | ** | ** | ** | ** | FH154-11P-L100L-04F | 700 | 318 |
| 1.4 | 1.6 | 19005 | 0.95 | 1054.87 | 73.8 | 114.4 | 73.8 | 114.4 | | | |
| 1.6 | 1.9 | 16056 | 1.15 | 898.51 | 85.4 | 116.8 | 85.4 | 116.8 | | | |
| 1.9 | 2.2 | 13715 | 1.35 | 773.88 | 92.4 | 118.7 | 92.4 | 118.7 | | | |
| 2.2 | 2.6 | 11766 | 1.55 | 669.37 | 97.0 | 120.3 | 97.0 | 120.3 | | | |
| 2.3 | 2.7 | 11192 | 1.65 | 639.35 | 98.3 | 120.8 | 98.3 | 120.8 | | | |
| 2.5 | 3.0 | 9956 | 1.85 | 573.49 | 100.6 | 121.8 | 100.6 | 121.8 | | | |
| 2.6 | 3.1 | 9797 | 1.85 | 564.30 | 100.9 | 122.0 | 100.9 | 122.0 | | | |
| 3.0 | 3.6 | 8352 | 2.20 | 488.09 | 103.2 | 123.1 | 103.2 | 123.1 | | | |
| 3.1 | 3.8 | 7892 | 2.30 | 463.14 | 103.8 | 123.5 | 103.8 | 123.5 | | | |
| 3.5 | 4.2 | 6876 | 2.65 | 409.44 | 105.1 | 124.4 | 105.1 | 124.4 | | | |
| 3.6 | 4.4 | 6685 | 2.70 | 398.90 | 105.3 | 124.5 | 105.3 | 124.5 | | | |
| 1.6 | 1.9 | 16401 | 0.80 | 904.76 | ** | ** | ** | ** | FH124-11P-L100L-04F | 448 | 314 |
| 1.8 | 2.2 | 14213 | 0.95 | 788.86 | 66.2 | 83.8 | 66.2 | 83.8 | | | |
| 1.9 | 2.3 | 13632 | 1.00 | 758.19 | 68.3 | 84.4 | 68.3 | 84.4 | | | |
| 2.1 | 2.6 | 12167 | 1.10 | 679.51 | 73.1 | 85.8 | 73.1 | 85.8 | | | |
| 2.2 | 2.7 | 11660 | 1.15 | 652.5 | 74.5 | 86.3 | 74.5 | 86.3 | | | |
| 2.3 | 2.7 | 11375 | 1.15 | 636.55 | 75.3 | 86.5 | 75.3 | 86.5 | | | |
| 2.5 | 3.0 | 10413 | 1.25 | 585.14 | 77.7 | 87.5 | 77.7 | 87.5 | | | |
| 2.6 | 3.1 | 9961 | 1.35 | 562.05 | 78.8 | 87.9 | 78.8 | 87.9 | | | |
| 3.0 | 3.6 | 8507 | 1.55 | 484.00 | 81.8 | 89.3 | 81.8 | 89.3 | | | |
| 3.1 | 3.7 | 8172 | 1.60 | 465.86 | 82.4 | 89.6 | 82.4 | 89.6 | | | |
| 3.2 | 3.9 | 7848 | 1.70 | 449.23 | 82.9 | 89.9 | 82.9 | 89.9 | | | |
| 3.5 | 4.2 | 7193 | 1.85 | 414.33 | 84.0 | 90.6 | 84.0 | 90.6 | | | |
| 3.7 | 4.4 | 6772 | 1.95 | 391.68 | 84.6 | 91.0 | 84.6 | 91.0 | | | |
| 3.8 | 4.5 | 6621 | 2.00 | 383.78 | 84.8 | 91.1 | 84.8 | 91.1 | | | |
| 4.0 | 4.9 | 6118 | 2.15 | 356.79 | 85.5 | 91.6 | 85.5 | 91.6 | | | |
| 4.1 | 5.0 | 5987 | 2.20 | 349.88 | 85.7 | 91.7 | 85.7 | 91.7 | | | |
| 4.3 | 5.2 | 5749 | 2.30 | 337.39 | 86.0 | 92.0 | 86.0 | 92.0 | | | |
| 4.8 | 5.8 | 5070 | 2.60 | 301.29 | 86.7 | 92.6 | 86.7 | 92.6 | | | |
| 5.0 | 6.0 | 4869 | 2.70 | 290.53 | 86.9 | 92.8 | 86.9 | 92.8 | | | |
| 2.6 | 3.1 | 10041 | 0.80 | 553.91 | ** | ** | ** | ** | FH104-11P-L100L-04F | 308 | 310 |
| 3.0 | 3.7 | 8515 | 0.95 | 472.61 | 43.2 | 59.7 | 43.2 | 59.7 | | | |
| 3.1 | 3.7 | 8488 | 0.95 | 471.15 | 43.3 | 59.7 | 43.3 | 59.7 | | | |
| 3.2 | 3.9 | 7955 | 1.05 | 443.33 | 46.0 | 60.3 | 46.0 | 60.3 | | | |
| 3.5 | 4.3 | 7312 | 1.10 | 408.33 | 48.8 | 61.0 | 48.8 | 61.0 | | | |
| 3.6 | 4.4 | 7131 | 1.15 | 399.09 | 49.5 | 61.2 | 49.5 | 61.2 | | | |
| 3.7 | 4.5 | 6863 | 1.20 | 384.84 | 50.5 | 61.5 | 50.5 | 61.5 | | | |
| 3.8 | 4.6 | 6754 | 1.20 | 378.74 | 50.9 | 61.7 | 50.9 | 61.7 | | | |
| 4.2 | 5.0 | 6111 | 1.35 | 344.81 | 53.1 | 62.4 | 53.1 | 62.4 | | | |
| 4.3 | 5.2 | 5881 | 1.40 | 332.50 | 53.8 | 62.6 | 53.8 | 62.6 | | | |
| 4.4 | 5.3 | 5815 | 1.40 | 328.77 | 54.0 | 62.7 | 54.0 | 62.7 | | | |
| 5.1 | 6.1 | 4972 | 1.65 | 284.06 | 56.2 | 63.6 | 56.2 | 63.6 | | | |
| 4.5 | 5.4 | 5790 | 0.80 | 319.41 | ** | ** | ** | ** | FH094-11P-L100L-04F | 203 | 306 |
| 5.1 | 6.2 | 5056 | 0.90 | 280.04 | 23.8 | 38.3 | 23.8 | 38.3 | | | |
| 5.3 | 6.4 | 4865 | 0.95 | 270.03 | 25.4 | 38.6 | 25.4 | 38.6 | | | |
| 5.0 | 6.0 | 5740 | 0.80 | 288.50 | ** | ** | ** | ** | FH093-11P-L100L-04F | 190 | 304 |
| 5.9 | 7.1 | 4853 | 0.95 | 243.90 | 25.5 | 38.6 | 25.5 | 38.6 | | | |
| 6.8 | 8.2 | 4201 | 1.10 | 211.14 | 29.8 | 39.4 | 29.8 | 39.4 | | | |
| 7.7 | 9.3 | 3720 | 1.25 | 186.99 | 32.2 | 40.1 | 32.2 | 40.1 | | | |
| 8.9 | 11 | 3218 | 1.40 | 161.76 | 34.3 | 40.7 | 34.3 | 40.7 | | | |
| 9.2 | 11 | 3104 | 1.45 | 155.99 | 34.7 | 40.9 | 34.7 | 40.9 | | | |
| 10 | 12 | 2842 | 1.60 | 142.85 | 35.6 | 41.2 | 35.6 | 41.2 | | | |
| 12 | 14 | 2403 | 1.90 | 120.77 | 36.9 | 41.8 | 36.9 | 41.8 | | | |
| 14 | 17 | 2080 | 2.20 | 104.54 | 37.7 | 42.2 | 37.7 | 42.2 | | | |
| 16 | 19 | 1842 | 2.45 | 92.59 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 18 | 22 | 1593 | 2.85 | 80.09 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 19 | 23 | 1537 | 2.95 | 77.23 | 38.7 | 43.0 | 38.7 | 43.0 | | | |

Legend see page 187

** ... on request

| P _N = 3.0 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 7.8 | 9.4 | 3684 | 0.85 | 185.17 | ** | ** | ** | ** | FH083-11P-L100L-04F | 135 | 300 |
| 8 | 9.7 | 3587 | 0.85 | 180.28 | ** | ** | ** | ** | | | |
| 9 | 11 | 3167 | 0.95 | 159.17 | 17.9 | 30.9 | 17.9 | 7.6 | | | |
| 10 | 12 | 2839 | 1.10 | 142.69 | 20.7 | 37.0 | 20.7 | 8.1 | | | |
| 12 | 14 | 2479 | 1.25 | 124.59 | 23.0 | 41.2 | 23.0 | 8.7 | | | |
| 13 | 15 | 2284 | 1.35 | 114.80 | 24.1 | 41.5 | 24.1 | 9.0 | | | |
| 14 | 17 | 2016 | 1.50 | 101.32 | 25.4 | 41.9 | 25.4 | 9.4 | | | |
| 15 | 19 | 1853 | 1.65 | 93.11 | 26.1 | 42.1 | 26.1 | 9.6 | | | |
| 17 | 20 | 1691 | 1.80 | 84.99 | 26.7 | 42.4 | 25.5 | 9.9 | | | |
| 18 | 22 | 1592 | 1.90 | 80.04 | 27.0 | 42.5 | 24.8 | 10.0 | | | |
| 20 | 24 | 1425 | 2.10 | 71.62 | 27.5 | 42.8 | 23.6 | 10.3 | | | |
| 21 | 25 | 1390 | 2.10 | 69.87 | 27.6 | 42.9 | 23.2 | 10.4 | | | |
| 24 | 29 | 1191 | 2.35 | 59.86 | 28.1 | 43.2 | 21.8 | 10.7 | | | |
| 25 | 30 | 1149 | 2.40 | 57.73 | 28.2 | 43.2 | 21.4 | 10.7 | | | |
| 28 | 34 | 1014 | 2.65 | 50.95 | 28.5 | 43.4 | 20.3 | 10.9 | | | |
| 34 | 41 | 850 | 2.95 | 42.74 | 28.8 | 43.7 | 18.8 | 11.2 | | | |
| 15 | 18 | 1881 | 0.80 | 94.52 | ** | ** | ** | ** | FH073-11P-L100L-04F | 88 | 298 |
| 19 | 22 | 1543 | 1.00 | 77.53 | 15.2 | 15.9 | 15.2 | 4.6 | | | |
| 22 | 26 | 1311 | 1.15 | 65.88 | 16.8 | 16.3 | 16.8 | 5.1 | | | |
| 27 | 32 | 1078 | 1.40 | 54.16 | 18.1 | 16.8 | 15.7 | 5.6 | | | |
| 28 | 33 | 1039 | 1.45 | 52.23 | 18.3 | 16.9 | 15.4 | 5.6 | | | |
| 32 | 39 | 896 | 1.70 | 45.02 | 18.9 | 17.2 | 14.4 | 5.9 | FH072-11P-L100L-04F | 87 | 298 |
| 37 | 44 | 782 | 1.95 | 39.31 | 19.3 | 17.4 | 13.5 | 6.2 | | | |
| 41 | 50 | 691 | 2.20 | 34.74 | 19.5 | 17.6 | 12.8 | 6.3 | | | |
| 49 | 59 | 585 | 2.60 | 29.38 | 19.8 | 17.8 | 11.9 | 6.6 | | | |
| 57 | 69 | 502 | 3.00 | 25.25 | 20.0 | 18.0 | 11.1 | 6.7 | | | |
| 69 | 84 | 412 | 2.30 | 20.72 | 20.1 | 17.8 | 10.4 | 6.5 | | | |
| 26 | 32 | 1087 | 0.80 | 54.63 | ** | ** | ** | ** | FH063-11P-L100L-04F | 65 | 296 |
| 29 | 35 | 997 | 0.85 | 50.10 | ** | ** | ** | ** | | | |
| 29 | 35 | 988 | 0.85 | 49.67 | ** | ** | ** | ** | FH062-11P-L100L-04F | 64 | 296 |
| 32 | 38 | 906 | 0.95 | 45.55 | 7.4 | 11.8 | 7.4 | 2.3 | | | |
| 35 | 42 | 829 | 1.00 | 41.66 | 8.4 | 12.6 | 8.4 | 2.6 | | | |
| 38 | 46 | 760 | 1.10 | 38.20 | 9.2 | 12.8 | 9.2 | 2.8 | | | |
| 44 | 53 | 650 | 1.30 | 32.69 | 10.2 | 13.1 | 10.2 | 3.2 | | | |
| 48 | 58 | 596 | 1.40 | 29.98 | 10.6 | 13.3 | 10.6 | 3.3 | | | |
| 57 | 69 | 502 | 1.65 | 25.23 | 11.2 | 13.6 | 10.0 | 3.7 | | | |
| 62 | 75 | 460 | 1.80 | 23.14 | 11.4 | 13.7 | 9.6 | 3.8 | | | |
| 69 | 83 | 415 | 2.00 | 20.87 | 11.6 | 13.9 | 9.1 | 4.0 | | | |
| 70 | 85 | 408 | 1.05 | 20.49 | 11.6 | 13.4 | 9.4 | 3.5 | | | |
| 75 | 91 | 381 | 2.20 | 19.14 | 11.7 | 14.0 | 8.8 | 4.1 | | | |
| 81 | 98 | 353 | 2.35 | 17.75 | 11.8 | 14.1 | 8.5 | 4.2 | | | |
| 84 | 101 | 342 | 1.70 | 17.18 | 11.9 | 13.7 | 8.6 | 3.8 | | | |
| 88 | 107 | 324 | 2.55 | 16.28 | 11.9 | 14.2 | 8.2 | 4.2 | | | |
| 94 | 113 | 306 | 2.70 | 15.38 | 12.0 | 14.3 | 7.9 | 4.3 | | | |
| 102 | 123 | 281 | 2.95 | 14.11 | 12.1 | 14.3 | 7.7 | 4.4 | | | |
| 107 | 129 | 268 | 2.15 | 13.49 | 12.1 | 14.1 | 7.7 | 4.1 | | | |
| 138 | 167 | 207 | 2.80 | 10.41 | 12.3 | 14.3 | 6.9 | 4.4 | | | |

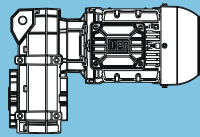


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** ... on request

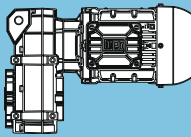
P_N = 3.0 kW

IE3

| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 3.0 kW | | 3.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 36 | 44 | 795 | 0.80 | 39.97 | ** | ** | ** | ** | FH052-11P-L100L-04F | 48 | 294 |
| 40 | 49 | 712 | 0.85 | 35.81 | ** | ** | ** | ** | | | |
| 44 | 53 | 651 | 0.95 | 32.72 | 5.2 | 8.4 | 5.2 | 3.3 | | | |
| 52 | 63 | 548 | 1.10 | 27.56 | 6.8 | 10.3 | 6.8 | 3.6 | | | |
| 57 | 69 | 501 | 1.20 | 25.18 | 7.4 | 10.5 | 7.4 | 3.8 | | | |
| 60 | 72 | 480 | 0.80 | 24.11 | ** | ** | ** | ** | | | |
| 69 | 84 | 414 | 1.45 | 20.83 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 73 | 88 | 393 | 0.95 | 19.73 | 8.4 | 10.3 | 8.4 | 3.6 | | | |
| 76 | 91 | 379 | 1.60 | 19.03 | 8.5 | 10.8 | 8.5 | 4.1 | | | |
| 85 | 102 | 339 | 1.80 | 17.04 | 8.7 | 11.0 | 8.7 | 4.3 | | | |
| 92 | 112 | 310 | 1.95 | 15.57 | 8.9 | 11.0 | 8.9 | 4.3 | | | |
| 95 | 115 | 302 | 1.20 | 15.19 | 9.0 | 10.7 | 9.0 | 4.0 | | | |
| 104 | 126 | 275 | 2.20 | 13.82 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 114 | 138 | 251 | 2.40 | 12.63 | 9.2 | 11.2 | 8.9 | 4.5 | | | |
| 124 | 150 | 230 | 2.65 | 11.57 | 9.3 | 11.3 | 8.6 | 4.6 | | | |
| 125 | 152 | 228 | 1.60 | 11.48 | 9.3 | 11.0 | 8.7 | 4.3 | | | |
| 136 | 165 | 210 | 2.80 | 10.57 | 9.4 | 11.4 | 8.3 | 4.7 | | | |
| 153 | 185 | 187 | 1.95 | 9.39 | 9.5 | 11.2 | 7.9 | 4.5 | | | |
| 189 | 228 | 152 | 2.40 | 7.62 | 9.6 | 11.3 | 7.3 | 4.6 | | | |
| 226 | 273 | 127 | 2.85 | 6.38 | 9.4 | 11.5 | 6.8 | 4.8 | | | |
| 60 | 73 | 476 | 0.85 | 23.91 | ** | ** | ** | ** | FH042-11P-L100L-04F | 42 | 292 |
| 66 | 80 | 434 | 0.95 | 21.81 | 2.9 | 4.3 | 2.9 | 2.4 | | | |
| 70 | 84 | 410 | 0.80 | 20.63 | ** | ** | ** | ** | | | |
| 80 | 96 | 359 | 1.15 | 18.06 | 4.6 | 7.9 | 4.6 | 2.6 | | | |
| 85 | 103 | 336 | 0.95 | 16.88 | 5.0 | 7.8 | 5.0 | 2.2 | | | |
| 87 | 106 | 328 | 1.25 | 16.48 | 5.1 | 8.3 | 5.1 | 2.7 | | | |
| 97 | 118 | 294 | 1.40 | 14.78 | 5.5 | 8.5 | 5.5 | 2.9 | | | |
| 107 | 129 | 268 | 1.50 | 13.48 | 5.8 | 8.6 | 5.8 | 3.0 | | | |
| 111 | 134 | 258 | 1.20 | 12.99 | 5.9 | 8.2 | 5.9 | 2.6 | | | |
| 120 | 145 | 239 | 1.65 | 11.99 | 6.1 | 8.6 | 6.1 | 3.0 | | | |
| 132 | 159 | 217 | 1.70 | 10.93 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 144 | 173 | 200 | 1.75 | 10.03 | 6.4 | 8.8 | 6.4 | 3.2 | | | |
| 147 | 177 | 195 | 1.60 | 9.82 | 6.4 | 8.5 | 6.4 | 2.9 | | | |
| 157 | 190 | 182 | 1.80 | 9.15 | 6.5 | 8.9 | 6.5 | 3.3 | | | |
| 177 | 214 | 162 | 1.95 | 8.13 | 6.6 | 8.9 | 6.2 | 3.3 | | | |
| 179 | 217 | 160 | 1.80 | 8.03 | 6.6 | 8.7 | 6.3 | 3.1 | | | |
| 184 | 222 | 156 | 1.95 | 7.84 | 6.6 | 8.9 | 6.1 | 3.3 | | | |
| 194 | 235 | 148 | 2.00 | 7.42 | 6.7 | 9.0 | 6.0 | 3.4 | | | |
| 201 | 243 | 142 | 2.05 | 7.15 | 6.7 | 9.0 | 5.9 | 3.4 | | | |
| 221 | 267 | 130 | 1.95 | 6.52 | 6.8 | 8.8 | 5.7 | 3.2 | | | |
| 264 | 319 | 108 | 2.05 | 5.45 | 6.8 | 9.0 | 5.3 | 3.4 | | | |
| 326 | 394 | 88 | 2.25 | 4.42 | 6.6 | 9.1 | 4.9 | 3.5 | | | |
| 338 | 408 | 85 | 2.30 | 4.26 | 6.6 | 9.1 | 4.8 | 3.5 | | | |
| 99 | 119 | 290 | 0.80 | 14.57 | ** | ** | ** | ** | FH032-11P-L100L-04F | 41 | 290 |
| 115 | 139 | 249 | 0.90 | 12.50 | 2.7 | 2.1 | 2.7 | 2.1 | | | |
| 127 | 154 | 225 | 1.00 | 11.33 | 3.2 | 2.6 | 3.2 | 2.6 | | | |
| 148 | 178 | 194 | 1.10 | 9.76 | 3.8 | 2.5 | 3.8 | 2.5 | | | |
| 163 | 197 | 176 | 1.15 | 8.85 | 4.1 | 2.9 | 4.1 | 2.9 | | | |
| 173 | 209 | 166 | 0.95 | 8.33 | 4.2 | 2.8 | 4.2 | 2.8 | | | |
| 227 | 275 | 126 | 1.20 | 6.33 | 4.6 | 3.0 | 4.6 | 3.0 | | | |
| 292 | 353 | 98 | 1.30 | 4.93 | 4.8 | 3.2 | 4.8 | 3.2 | | | |
| 374 | 452 | 77 | 1.45 | 3.85 | 4.5 | 3.3 | 4.5 | 3.3 | | | |

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** ... on request

| P _N = 4.0 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|--------------------|-----|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page | | | |
| 4.0 kW | | 4.8 kW | | | Output shaft | | Hollow shaft | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 1.6 | 2.0 | 21523 | 0.85 | 898.51 | ** | ** | ** | ** | FH154-11P-112M-04E | 701 | 318 | | | |
| 1.9 | 2.3 | 18424 | 1.00 | 773.88 | 76.4 | 114.9 | 76.4 | 114.9 | | | | | | |
| 2.0 | 2.4 | 17636 | 1.05 | 742.31 | 79.6 | 115.5 | 79.6 | 115.5 | | | | | | |
| 2.2 | 2.6 | 15838 | 1.15 | 669.37 | 86.1 | 117.0 | 86.1 | 117.0 | | | | | | |
| 2.3 | 2.7 | 15097 | 1.20 | 639.35 | 88.4 | 117.6 | 88.4 | 117.6 | | | | | | |
| 2.5 | 3.1 | 13458 | 1.35 | 573.49 | 93.0 | 119.0 | 93.0 | 119.0 | | | | | | |
| 2.6 | 3.1 | 13215 | 1.40 | 564.30 | 93.7 | 119.2 | 93.7 | 119.2 | | | | | | |
| 3.0 | 3.6 | 11337 | 1.60 | 488.09 | 98.0 | 120.7 | 98.0 | 120.7 | | | | | | |
| 3.1 | 3.7 | 10972 | 1.65 | 473.37 | 98.7 | 121.0 | 98.7 | 121.0 | | | | | | |
| 3.5 | 4.3 | 9373 | 1.95 | 409.44 | 101.6 | 122.3 | 101.6 | 122.3 | | | | | | |
| 3.6 | 4.4 | 9113 | 2.00 | 398.90 | 102.0 | 122.5 | 102.0 | 122.5 | | | | | | |
| 4.2 | 5.1 | 7769 | 2.35 | 345.03 | 104.0 | 123.6 | 104.0 | 123.6 | | | | | | |
| 2.1 | 2.6 | 16311 | 0.80 | 679.51 | ** | ** | ** | ** | | | | FH124-11P-112M-04E | 449 | 314 |
| 2.2 | 2.7 | 15630 | 0.85 | 652.50 | ** | ** | ** | ** | | | | | | |
| 2.3 | 2.8 | 15217 | 0.90 | 636.55 | 62.0 | 82.8 | 62.0 | 82.8 | | | | | | |
| 2.5 | 3.0 | 13959 | 0.95 | 585.14 | 67.1 | 84.0 | 67.1 | 84.0 | | | | | | |
| 2.6 | 3.1 | 13381 | 1.00 | 562.05 | 69.2 | 84.6 | 69.2 | 84.6 | | | | | | |
| 3.0 | 3.6 | 11452 | 1.15 | 484.00 | 75.1 | 86.5 | 75.1 | 86.5 | | | | | | |
| 3.1 | 3.8 | 11000 | 1.20 | 465.86 | 76.3 | 86.9 | 76.3 | 86.9 | | | | | | |
| 3.2 | 3.9 | 10586 | 1.25 | 449.23 | 77.3 | 87.3 | 77.3 | 87.3 | | | | | | |
| 3.5 | 4.2 | 9723 | 1.35 | 414.33 | 79.3 | 88.1 | 79.3 | 88.1 | | | | | | |
| 3.6 | 4.3 | 9513 | 1.40 | 406.19 | 79.8 | 88.3 | 79.8 | 88.3 | | | | | | |
| 3.7 | 4.5 | 9154 | 1.45 | 391.68 | 80.5 | 88.7 | 80.5 | 88.7 | | | | | | |
| 3.8 | 4.6 | 8969 | 1.45 | 383.78 | 80.9 | 88.9 | 80.9 | 88.9 | | | | | | |
| 4.1 | 4.9 | 8287 | 1.60 | 356.79 | 82.2 | 89.5 | 82.2 | 89.5 | | | | | | |
| 4.3 | 5.2 | 7804 | 1.70 | 337.39 | 83.0 | 90.0 | 83.0 | 90.0 | | | | | | |
| 4.8 | 5.8 | 6912 | 1.90 | 301.29 | 84.4 | 90.8 | 84.4 | 90.8 | | | | | | |
| 5.0 | 6.0 | 6637 | 2.00 | 290.53 | 84.8 | 91.1 | 84.8 | 91.1 | | | | | | |
| 5.8 | 7.1 | 5589 | 2.35 | 248.21 | 86.1 | 92.1 | 86.1 | 92.1 | | | | | | |
| 6.6 | 8 | 5814 | 2.25 | 220.67 | 85.9 | 91.9 | 85.9 | 91.9 | FH123-11P-112M-04E | 425 | 312 | | | |
| 7.5 | 9.1 | 5069 | 2.60 | 192.40 | 86.7 | 92.6 | 86.7 | 92.6 | | | | | | |
| 7.8 | 9.5 | 4888 | 2.70 | 185.53 | 86.9 | 92.8 | 86.9 | 92.8 | | | | | | |
| 8.7 | 11 | 4366 | 3.00 | 165.73 | 87.4 | 93.3 | 87.4 | 93.3 | | | | | | |
| 3.3 | 4 | 10641 | 0.80 | 443.33 | ** | ** | ** | ** | FH104-11P-112M-04E | 309 | 310 | | | |
| 3.6 | 4.3 | 9781 | 0.85 | 408.33 | ** | ** | ** | ** | | | | | | |
| 3.8 | 4.6 | 9200 | 0.90 | 384.84 | 39.2 | 58.9 | 39.2 | 58.9 | | | | | | |
| 4.2 | 5.1 | 8209 | 1.00 | 344.81 | 44.7 | 60.0 | 44.7 | 60.0 | | | | | | |
| 4.4 | 5.3 | 7900 | 1.05 | 332.50 | 46.2 | 60.4 | 46.2 | 60.4 | | | | | | |
| 5.1 | 6.2 | 6707 | 1.20 | 284.06 | 51.1 | 61.7 | 51.1 | 61.7 | | | | | | |
| 5.9 | 7.1 | 6496 | 1.25 | 246.57 | 51.8 | 61.9 | 51.8 | 61.9 | FH103-11P-112M-04E | 285 | 308 | | | |
| 6.7 | 8.1 | 5737 | 1.40 | 217.78 | 54.2 | 62.8 | 54.2 | 62.8 | | | | | | |
| 7.7 | 9.3 | 4980 | 1.65 | 189.04 | 56.2 | 63.6 | 56.2 | 63.6 | | | | | | |
| 8.0 | 9.6 | 4802 | 1.70 | 182.29 | 56.6 | 63.8 | 56.6 | 63.8 | | | | | | |
| 8.9 | 11 | 4303 | 1.90 | 163.33 | 57.7 | 64.4 | 57.7 | 64.4 | | | | | | |
| 10 | 13 | 3682 | 2.20 | 139.78 | 58.9 | 65.1 | 58.9 | 65.1 | | | | | | |
| 12 | 14 | 3229 | 2.50 | 122.58 | 59.6 | 65.6 | 59.6 | 65.6 | | | | | | |
| 13 | 16 | 2852 | 2.85 | 108.27 | 60.1 | 66.0 | 60.1 | 66.0 | | | | | | |
| 6.9 | 8.3 | 5562 | 0.85 | 211.14 | ** | ** | ** | ** | FH093-11P-112M-04E | 191 | 304 | | | |
| 7.8 | 9.4 | 4926 | 0.95 | 186.99 | 24.9 | 38.5 | 24.9 | 38.5 | | | | | | |
| 9.0 | 11 | 4262 | 1.10 | 161.76 | 29.4 | 39.4 | 29.4 | 39.4 | | | | | | |
| 9.3 | 11 | 4110 | 1.10 | 155.99 | 30.3 | 39.6 | 30.3 | 39.6 | | | | | | |
| 10 | 12 | 3763 | 1.20 | 142.85 | 32.0 | 40.0 | 32.0 | 40.0 | | | | | | |
| 11 | 13 | 3626 | 1.25 | 137.63 | 32.7 | 40.2 | 32.7 | 40.2 | | | | | | |
| 12 | 15 | 3182 | 1.45 | 120.77 | 34.5 | 40.8 | 34.5 | 40.8 | | | | | | |
| 14 | 17 | 2754 | 1.65 | 104.54 | 35.9 | 41.4 | 35.9 | 41.4 | | | | | | |
| 16 | 19 | 2439 | 1.85 | 92.59 | 36.8 | 41.8 | 36.8 | 41.8 | | | | | | |
| 18 | 22 | 2110 | 2.15 | 80.09 | 37.6 | 42.2 | 37.6 | 42.2 | | | | | | |
| 19 | 23 | 2035 | 2.25 | 77.23 | 37.8 | 42.3 | 37.8 | 42.3 | | | | | | |
| 21 | 26 | 1795 | 2.55 | 68.15 | 38.3 | 42.6 | 38.3 | 42.6 | | | | | | |
| 25 | 30 | 1528 | 2.95 | 57.99 | 38.7 | 43.0 | 38.7 | 43.0 | | | | | | |

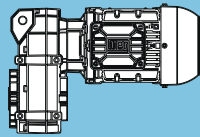
F

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** ... on request

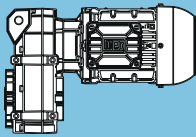
P_N = 4.0 kW

IE3

| 50 Hz 4.0 kW n ₅₀ min ⁻¹ | 60 Hz 4.8 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|---|---|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 10 | 12 | 3759 | 0.80 | 142.69 | ** | ** | ** | ** | FH083-11P-112M-04E | 136 | 300 |
| 12 | 14 | 3282 | 0.95 | 124.59 | 16.7 | 28.3 | 16.7 | 7.4 | | | |
| 13 | 15 | 3024 | 1.00 | 114.80 | 19.2 | 33.7 | 19.2 | 7.8 | | | |
| 14 | 17 | 2669 | 1.15 | 101.32 | 21.9 | 39.7 | 21.9 | 8.4 | | | |
| 16 | 19 | 2453 | 1.25 | 93.11 | 23.2 | 41.2 | 23.2 | 8.7 | | | |
| 17 | 21 | 2239 | 1.35 | 84.99 | 24.4 | 41.5 | 24.4 | 9.0 | | | |
| 18 | 22 | 2109 | 1.45 | 80.04 | 25.0 | 41.7 | 25.0 | 9.2 | | | |
| 20 | 25 | 1887 | 1.60 | 71.62 | 25.9 | 42.1 | 25.0 | 9.6 | | | |
| 21 | 25 | 1841 | 1.60 | 69.87 | 26.1 | 42.2 | 24.6 | 9.7 | | | |
| 24 | 29 | 1577 | 1.80 | 59.86 | 27.0 | 42.6 | 23.0 | 10.1 | | | |
| 25 | 30 | 1521 | 1.85 | 57.73 | 27.2 | 42.7 | 22.6 | 10.2 | | | |
| 28 | 34 | 1342 | 2.00 | 50.95 | 27.7 | 42.9 | 21.3 | 10.4 | | | |
| 34 | 41 | 1126 | 2.25 | 42.74 | 28.2 | 43.3 | 19.6 | 10.8 | | | |
| 40 | 49 | 949 | 2.55 | 36.02 | 28.6 | 43.5 | 18.2 | 11.0 | | | |
| 22 | 27 | 1736 | 0.90 | 65.88 | 13.5 | 15.5 | 13.5 | 4.2 | FH073-11P-112M-04E | 89 | 298 |
| 27 | 32 | 1427 | 1.10 | 54.16 | 16.1 | 16.1 | 16.1 | 4.8 | | | |
| 28 | 34 | 1376 | 1.10 | 52.23 | 16.4 | 16.2 | 16.4 | 4.9 | | | |
| 32 | 39 | 1186 | 1.30 | 45.02 | 17.6 | 16.6 | 15.4 | 5.3 | FH072-11P-112M-04E | 88 | 298 |
| 37 | 45 | 1036 | 1.45 | 39.31 | 18.3 | 16.9 | 14.3 | 5.6 | | | |
| 42 | 51 | 915 | 1.65 | 34.74 | 18.8 | 17.1 | 13.5 | 5.9 | | | |
| 49 | 60 | 774 | 1.95 | 29.38 | 19.3 | 17.4 | 12.5 | 6.2 | | | |
| 57 | 70 | 665 | 2.30 | 25.25 | 19.6 | 17.6 | 11.6 | 6.4 | | | |
| 66 | 80 | 581 | 2.60 | 22.05 | 19.8 | 17.8 | 10.9 | 6.6 | | | |
| 70 | 85 | 546 | 1.75 | 20.72 | 19.9 | 17.4 | 10.9 | 6.1 | | | |
| 80 | 97 | 477 | 2.35 | 18.09 | 20.0 | 17.6 | 10.2 | 6.3 | | | |
| 91 | 110 | 421 | 2.60 | 15.99 | 20.1 | 17.8 | 9.7 | 6.5 | | | |
| 38 | 46 | 1006 | 0.85 | 38.20 | ** | ** | ** | ** | FH062-11P-112M-04E | 65 | 296 |
| 44 | 54 | 861 | 1.00 | 32.69 | 8.0 | 12.5 | 8.0 | 2.5 | | | |
| 48 | 59 | 790 | 1.05 | 29.98 | 8.9 | 12.7 | 8.9 | 2.7 | | | |
| 57 | 70 | 665 | 1.25 | 25.23 | 10.1 | 13.1 | 10.1 | 3.2 | | | |
| 63 | 76 | 610 | 1.35 | 23.14 | 10.5 | 13.3 | 10.2 | 3.3 | | | |
| 69 | 84 | 550 | 1.50 | 20.87 | 10.9 | 13.5 | 9.7 | 3.5 | | | |
| 71 | 86 | 540 | 0.80 | 20.49 | ** | ** | ** | ** | | | |
| 76 | 92 | 504 | 1.65 | 19.14 | 11.2 | 13.6 | 9.3 | 3.6 | | | |
| 82 | 99 | 468 | 1.80 | 17.75 | 11.3 | 13.7 | 8.9 | 3.8 | | | |
| 84 | 102 | 453 | 1.30 | 17.18 | 11.4 | 13.2 | 9.2 | 3.3 | | | |
| 89 | 108 | 429 | 1.95 | 16.28 | 11.5 | 13.8 | 8.6 | 3.9 | | | |
| 94 | 114 | 405 | 2.05 | 15.38 | 11.6 | 13.9 | 8.4 | 4.0 | | | |
| 103 | 124 | 372 | 2.25 | 14.11 | 11.8 | 14.0 | 8.0 | 4.1 | | | |
| 107 | 130 | 355 | 1.65 | 13.49 | 11.8 | 13.7 | 8.2 | 3.7 | | | |
| 112 | 135 | 342 | 2.40 | 12.99 | 11.9 | 14.1 | 7.7 | 4.2 | | | |
| 116 | 140 | 330 | 2.50 | 12.53 | 11.9 | 14.2 | 7.6 | 4.2 | | | |
| 122 | 147 | 314 | 2.65 | 11.91 | 12.0 | 14.2 | 7.4 | 4.3 | | | |
| 126 | 153 | 303 | 2.75 | 11.49 | 12.0 | 14.3 | 7.3 | 4.3 | | | |
| 136 | 164 | 282 | 2.95 | 10.70 | 12.1 | 14.3 | 7.1 | 4.4 | | | |
| 139 | 169 | 274 | 2.10 | 10.41 | 12.1 | 14.0 | 7.2 | 4.1 | | | |
| 168 | 204 | 227 | 2.55 | 8.61 | 12.2 | 14.2 | 6.6 | 4.3 | | | |
| 198 | 240 | 193 | 3.00 | 7.32 | 12.3 | 14.4 | 6.2 | 4.4 | | | |

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** ... on request

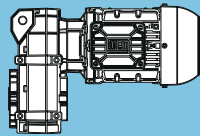
| P _N = 4.0 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|------|----------------|-----|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 4.0 kW | | 4.8 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 53 | 64 | 726 | 0.85 | 27.56 | ** | ** | ** | ** | | | | |
| 58 | 70 | 663 | 0.90 | 25.18 | 4.9 | 7.7 | 4.9 | 3.2 | | | | |
| 70 | 84 | 549 | 1.10 | 20.83 | 6.8 | 10.3 | 6.8 | 3.6 | | | | |
| 76 | 92 | 501 | 1.20 | 19.03 | 7.4 | 10.5 | 7.4 | 3.8 | | | | |
| 85 | 103 | 449 | 1.35 | 17.04 | 7.9 | 10.6 | 7.9 | 3.9 | | | | |
| 93 | 113 | 410 | 1.50 | 15.57 | 8.2 | 10.7 | 8.2 | 4.0 | | | | |
| 95 | 116 | 400 | 0.90 | 15.19 | 8.3 | 10.3 | 8.3 | 3.6 | | | | |
| 105 | 127 | 364 | 1.65 | 13.82 | 8.6 | 10.9 | 8.6 | 4.2 | | | | |
| 115 | 139 | 333 | 1.80 | 12.63 | 8.8 | 11.0 | 8.8 | 4.3 | | | | |
| 125 | 152 | 305 | 2.00 | 11.57 | 8.9 | 11.1 | 8.9 | 4.4 | | | | |
| 126 | 153 | 302 | 1.20 | 11.48 | 9.0 | 10.7 | 9.0 | 4.0 | | | | |
| 137 | 166 | 278 | 2.10 | 10.57 | 9.1 | 11.1 | 8.6 | 4.4 | | | | |
| 154 | 187 | 247 | 1.50 | 9.39 | 9.2 | 10.9 | 8.3 | 4.2 | | | | |
| 155 | 187 | 247 | 2.30 | 9.38 | 9.2 | 11.2 | 8.2 | 4.5 | | | | |
| 160 | 194 | 238 | 2.35 | 9.04 | 9.3 | 11.3 | 8.0 | 4.6 | | | | |
| 169 | 205 | 226 | 2.45 | 8.57 | 9.3 | 11.3 | 7.9 | 4.6 | | | | |
| 176 | 212 | 218 | 2.50 | 8.26 | 9.3 | 11.3 | 7.7 | 4.6 | | | | |
| 190 | 230 | 201 | 1.80 | 7.62 | 9.4 | 11.1 | 7.5 | 4.4 | | | | |
| 227 | 275 | 168 | 2.15 | 6.38 | 9.5 | 11.3 | 7.0 | 4.6 | | | | |
| 280 | 339 | 136 | 2.65 | 5.17 | 8.8 | 11.4 | 6.4 | 4.7 | | | | |
| 291 | 352 | 131 | 2.75 | 4.98 | 8.7 | 11.4 | 6.3 | 4.7 | | | | |

FH052-11P-112M-04E

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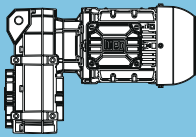
294

F

| P _N = 5.5 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | Output shaft | | Hollow shaft | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 2.2 | 2.6 | 21821 | 0.85 | 669.37 | ** | ** | ** | ** | FH154-11P-132S-04E | 719 | 318 | |
| 2.3 | 2.8 | 20800 | 0.90 | 639.35 | 64.6 | 112.1 | 64.6 | 112.1 | | | | |
| 2.6 | 3.1 | 18581 | 1.00 | 573.49 | 75.7 | 114.8 | 75.7 | 114.8 | | | | |
| 2.7 | 3.2 | 17771 | 1.05 | 549.60 | 79.1 | 115.4 | 79.1 | 115.4 | | | | |
| 3.0 | 3.6 | 15717 | 1.15 | 488.09 | 86.5 | 117.1 | 86.5 | 117.1 | | | | |
| 3.1 | 3.7 | 15212 | 1.20 | 473.37 | 88.1 | 117.5 | 88.1 | 117.5 | | | | |
| 3.2 | 3.8 | 14852 | 1.25 | 463.14 | 89.2 | 117.8 | 89.2 | 117.8 | | | | |
| 3.6 | 4.3 | 13050 | 1.40 | 409.44 | 94.1 | 119.3 | 94.1 | 119.3 | | | | |
| 3.7 | 4.4 | 12687 | 1.45 | 398.90 | 95.0 | 119.6 | 95.0 | 119.6 | | | | |
| 4.2 | 5.1 | 10861 | 1.70 | 345.03 | 98.9 | 121.1 | 98.9 | 121.1 | | | | |
| 3.0 | 3.6 | 15778 | 0.85 | 484.00 | ** | ** | ** | ** | FH124-11P-132S-04E | 467 | 314 | |
| 3.1 | 3.7 | 15585 | 0.85 | 478.08 | ** | ** | ** | ** | | | | |
| 3.3 | 3.9 | 14615 | 0.90 | 449.23 | 64.6 | 83.4 | 64.6 | 83.4 | | | | |
| 3.5 | 4.3 | 13424 | 1.00 | 414.33 | 69.0 | 84.6 | 69.0 | 84.6 | | | | |
| 3.6 | 4.3 | 13339 | 1.00 | 411.69 | 69.3 | 84.6 | 69.3 | 84.6 | | | | |
| 3.7 | 4.5 | 12664 | 1.05 | 391.68 | 71.5 | 85.3 | 71.5 | 85.3 | | | | |
| 3.8 | 4.6 | 12409 | 1.05 | 383.78 | 72.3 | 85.5 | 72.3 | 85.5 | | | | |
| 4.1 | 4.9 | 11489 | 1.15 | 356.79 | 75.0 | 86.4 | 75.0 | 86.4 | | | | |
| 4.2 | 5.0 | 11243 | 1.20 | 349.88 | 75.7 | 86.7 | 75.7 | 86.7 | | | | |
| 4.3 | 5.2 | 10842 | 1.20 | 337.39 | 76.7 | 87.1 | 76.7 | 87.1 | | | | |
| 4.4 | 5.3 | 10731 | 1.25 | 334.62 | 77.0 | 87.2 | 77.0 | 87.2 | | | | |
| 4.9 | 5.9 | 9603 | 1.40 | 301.29 | 79.6 | 88.2 | 79.6 | 88.2 | | | | |
| 5.0 | 6.1 | 9241 | 1.45 | 290.53 | 80.3 | 88.6 | 80.3 | 88.6 | | | | |
| 5.1 | 6.1 | 9167 | 1.45 | 288.23 | 80.5 | 88.7 | 80.5 | 88.7 | | | | |
| 5.9 | 7.1 | 7814 | 1.70 | 248.21 | 83.0 | 90.0 | 83.0 | 90.0 | | | | |
| 6.6 | 8.0 | 7912 | 1.65 | 220.67 | 82.8 | 89.9 | 82.8 | 89.9 | FH123-11P-132S-04E | 443 | 312 | |
| 7.6 | 9.2 | 6898 | 1.90 | 192.4 | 84.4 | 90.9 | 84.4 | 90.9 | | | | |
| 7.9 | 9.5 | 6652 | 2.00 | 185.53 | 84.8 | 91.1 | 84.8 | 91.1 | | | | |
| 8.8 | 11 | 5942 | 2.20 | 165.73 | 85.7 | 91.8 | 85.7 | 91.8 | | | | |
| 10 | 12 | 5117 | 2.55 | 142.72 | 86.7 | 92.6 | 86.7 | 92.6 | | | | |
| 12 | 14 | 4470 | 2.95 | 124.67 | 87.3 | 93.2 | 87.3 | 93.2 | | | | |
| 5.2 | 6.2 | 9241 | 0.90 | 284.06 | 38.9 | 58.9 | 38.9 | 58.9 | FH104-11P-132S-04E | 327 | 310 | |
| 5.9 | 7.2 | 8840 | 0.95 | 246.57 | 41.3 | 59.3 | 41.3 | 59.3 | FH103-11P-132S-04E | 303 | 308 | |
| 6.7 | 8.1 | 7808 | 1.05 | 217.78 | 46.7 | 60.5 | 46.7 | 60.5 | | | | |
| 7.7 | 9.3 | 6778 | 1.20 | 189.04 | 50.9 | 61.6 | 50.9 | 61.6 | | | | |
| 8.0 | 9.7 | 6536 | 1.25 | 182.29 | 51.7 | 61.9 | 51.7 | 61.9 | | | | |
| 9.0 | 11 | 5856 | 1.40 | 163.33 | 53.9 | 62.7 | 53.9 | 62.7 | | | | |
| 10 | 13 | 5012 | 1.60 | 139.78 | 56.1 | 63.6 | 56.1 | 63.6 | | | | |
| 12 | 14 | 4395 | 1.85 | 122.58 | 57.5 | 64.3 | 57.5 | 64.3 | | | | |
| 14 | 16 | 3882 | 2.10 | 108.27 | 58.5 | 64.8 | 58.5 | 64.8 | | | | |
| 16 | 19 | 3369 | 2.40 | 93.98 | 59.4 | 65.4 | 59.4 | 65.4 | | | | |
| 18 | 22 | 2911 | 2.75 | 81.20 | 60.0 | 65.9 | 60.0 | 65.9 | | | | |
| 9.1 | 11 | 5800 | 0.80 | 161.76 | ** | ** | ** | ** | FH093-11P-132S-04E | 209 | 304 | |
| 9.4 | 11 | 5593 | 0.85 | 155.99 | ** | ** | ** | ** | | | | |
| 10 | 12 | 5122 | 0.90 | 142.85 | 23.3 | 38.2 | 23.3 | 38.2 | | | | |
| 11 | 13 | 4934 | 0.95 | 137.63 | 24.8 | 38.5 | 24.8 | 38.5 | | | | |
| 12 | 15 | 4330 | 1.05 | 120.77 | 29.0 | 39.3 | 29.0 | 39.3 | | | | |
| 13 | 15 | 4199 | 1.10 | 117.13 | 29.8 | 39.4 | 29.8 | 39.4 | | | | |
| 14 | 17 | 3748 | 1.25 | 104.54 | 32.1 | 40.0 | 32.1 | 40.0 | | | | |
| 16 | 19 | 3320 | 1.40 | 92.59 | 33.9 | 40.6 | 33.9 | 40.6 | | | | |
| 18 | 22 | 2871 | 1.60 | 80.09 | 35.5 | 41.2 | 35.5 | 41.2 | | | | |
| 19 | 23 | 2769 | 1.65 | 77.23 | 35.9 | 41.3 | 35.9 | 41.3 | | | | |
| 21 | 26 | 2443 | 1.85 | 68.15 | 36.8 | 41.8 | 36.8 | 41.8 | | | | |
| 25 | 30 | 2079 | 2.20 | 57.99 | 37.7 | 42.2 | 37.7 | 42.2 | | | | |
| 29 | 35 | 1794 | 2.55 | 50.03 | 38.3 | 42.6 | 38.3 | 42.6 | | | | |

Legend see page 187

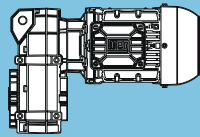
** ... on request

| P _N = 5.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 13 | 16 | 3948 | 0.80 | 110.11 | ** | ** | ** | ** | FH083-11P-132S-04E | 155 | 300 |
| 14 | 17 | 3633 | 0.85 | 101.32 | ** | ** | ** | ** | | | |
| 16 | 19 | 3338 | 0.90 | 93.11 | 16.1 | 27.1 | 16.1 | 7.4 | | | |
| 17 | 21 | 3047 | 1.00 | 84.99 | 19.0 | 33.3 | 19.0 | 7.8 | | | |
| 18 | 22 | 2870 | 1.05 | 80.04 | 20.4 | 36.4 | 20.4 | 8.1 | | | |
| 20 | 25 | 2568 | 1.15 | 71.62 | 22.5 | 41.0 | 22.5 | 8.5 | | | |
| 21 | 25 | 2505 | 1.20 | 69.87 | 22.9 | 41.1 | 22.9 | 8.6 | | | |
| 24 | 29 | 2146 | 1.30 | 59.86 | 24.8 | 41.7 | 24.7 | 9.2 | | | |
| 25 | 31 | 2070 | 1.35 | 57.73 | 25.2 | 41.8 | 24.2 | 9.3 | | | |
| 29 | 35 | 1827 | 1.45 | 50.95 | 26.2 | 42.2 | 22.6 | 9.7 | | | |
| 34 | 41 | 1532 | 1.65 | 42.74 | 27.2 | 42.6 | 20.8 | 10.1 | | | |
| 41 | 49 | 1291 | 1.85 | 36.02 | 27.9 | 43.0 | 19.1 | 10.5 | | | |
| 43 | 52 | 1214 | 2.30 | 33.87 | 28.0 | 43.1 | 18.7 | 10.6 | FH082-11P-132S-04E | 146 | 300 |
| 49 | 59 | 1076 | 2.80 | 30.00 | 28.3 | 43.3 | 17.6 | 10.8 | | | |
| 27 | 33 | 1942 | 0.80 | 54.16 | ** | ** | ** | ** | FH073-11P-132S-04E | 107 | 298 |
| 28 | 34 | 1873 | 0.85 | 52.23 | ** | ** | ** | ** | | | |
| 33 | 39 | 1614 | 0.95 | 45.02 | 14.6 | 15.7 | 14.6 | 4.5 | FH072-11P-132S-04E | 106 | 298 |
| 37 | 45 | 1409 | 1.10 | 39.31 | 16.2 | 16.1 | 15.6 | 4.9 | | | |
| 42 | 51 | 1246 | 1.25 | 34.74 | 17.2 | 16.5 | 14.6 | 5.2 | | | |
| 50 | 60 | 1053 | 1.45 | 29.38 | 18.2 | 16.9 | 13.4 | 5.6 | | | |
| 58 | 70 | 905 | 1.70 | 25.25 | 18.8 | 17.2 | 12.4 | 5.9 | | | |
| 66 | 80 | 791 | 1.90 | 22.05 | 19.2 | 17.4 | 11.6 | 6.1 | | | |
| 71 | 85 | 743 | 1.30 | 20.72 | 19.4 | 16.8 | 11.6 | 5.6 | | | |
| 78 | 93 | 677 | 2.25 | 18.89 | 19.6 | 17.6 | 10.7 | 6.4 | | | |
| 80 | 97 | 653 | 2.30 | 18.21 | 19.6 | 17.7 | 10.6 | 6.4 | | | |
| 81 | 98 | 649 | 1.75 | 18.09 | 19.6 | 17.1 | 10.9 | 5.8 | | | |
| 91 | 110 | 577 | 2.65 | 16.08 | 19.8 | 17.8 | 10.0 | 6.6 | | | |
| 92 | 110 | 573 | 1.95 | 15.99 | 19.8 | 17.3 | 10.2 | 6.1 | | | |
| 108 | 131 | 485 | 2.30 | 13.52 | 20.0 | 17.6 | 9.5 | 6.3 | | | |
| 126 | 152 | 417 | 2.65 | 11.62 | 20.1 | 17.8 | 8.8 | 6.5 | | | |
| 49 | 59 | 1075 | 0.80 | 29.98 | ** | ** | ** | ** | FH062-11P-132S-04E | 83 | 296 |
| 58 | 70 | 905 | 0.95 | 25.23 | 7.4 | 11.9 | 7.4 | 2.4 | | | |
| 63 | 76 | 830 | 1.00 | 23.14 | 8.4 | 12.5 | 8.4 | 2.6 | | | |
| 70 | 85 | 748 | 1.10 | 20.87 | 9.3 | 12.8 | 9.3 | 2.9 | | | |
| 77 | 92 | 686 | 1.20 | 19.14 | 9.9 | 13.0 | 9.9 | 3.1 | | | |
| 83 | 99 | 636 | 1.30 | 17.75 | 10.3 | 13.2 | 9.7 | 3.2 | | | |
| 85 | 103 | 616 | 0.95 | 17.18 | 10.4 | 12.5 | 10.1 | 2.6 | | | |
| 90 | 108 | 584 | 1.45 | 16.28 | 10.7 | 13.3 | 9.3 | 3.4 | | | |
| 95 | 115 | 551 | 1.50 | 15.38 | 10.9 | 13.5 | 9.0 | 3.5 | | | |
| 104 | 125 | 506 | 1.65 | 14.11 | 11.1 | 13.6 | 8.6 | 3.6 | | | |
| 109 | 131 | 484 | 1.20 | 13.49 | 11.3 | 13.1 | 8.8 | 3.2 | | | |
| 113 | 136 | 466 | 1.80 | 12.99 | 11.4 | 13.7 | 8.2 | 3.8 | | | |
| 117 | 141 | 449 | 1.85 | 12.53 | 11.4 | 13.8 | 8.1 | 3.8 | | | |
| 123 | 148 | 427 | 1.95 | 11.91 | 11.5 | 13.9 | 7.9 | 3.9 | | | |
| 128 | 154 | 412 | 2.00 | 11.49 | 11.6 | 13.9 | 7.8 | 4.0 | | | |
| 137 | 165 | 384 | 2.15 | 10.70 | 11.7 | 14.0 | 7.5 | 4.1 | | | |
| 141 | 170 | 373 | 1.55 | 10.41 | 11.8 | 13.6 | 7.7 | 3.6 | | | |
| 149 | 180 | 352 | 2.35 | 9.81 | 11.8 | 14.1 | 7.2 | 4.1 | | | |
| 170 | 205 | 309 | 1.85 | 8.61 | 12.0 | 13.9 | 7.0 | 3.9 | | | |
| 200 | 241 | 262 | 2.20 | 7.32 | 12.1 | 14.1 | 6.5 | 4.1 | | | |
| 231 | 278 | 228 | 2.55 | 6.35 | 12.2 | 14.2 | 6.1 | 4.3 | | | |
| 273 | 329 | 192 | 3.00 | 5.36 | 12.3 | 14.4 | 5.6 | 4.4 | | | |
| 162 | 195 | 324 | 1.75 | 9.04 | 8.8 | 11 | 8.5 | 4.3 | | | |
| 171 | 206 | 307 | 1.80 | 8.57 | 8.9 | 11.1 | 8.3 | 4.4 | | | |
| 177 | 214 | 296 | 1.85 | 8.26 | 9 | 11.1 | 8.1 | 4.4 | | | |
| 192 | 232 | 273 | 1.35 | 7.62 | 9.1 | 10.8 | 7.9 | 4.1 | | | |
| 230 | 277 | 229 | 1.60 | 6.38 | 9.3 | 11 | 7.3 | 4.3 | | | |
| 283 | 341 | 185 | 1.95 | 5.17 | 9.1 | 11.2 | 6.7 | 4.5 | | | |
| 294 | 354 | 179 | 2.05 | 4.98 | 8.9 | 11.2 | 6.5 | 4.5 | | | |



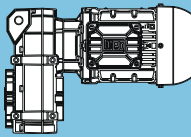
Legend see page 187

** ... on request

| P _N = 5.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 5.5 kW | 6.6 kW | M ₂ Nm | f _B | i | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 70 | 85 | 747 | 0.85 | 20.83 | ** | ** | ** | ** | FH052-11P-132S-04E | 68 | 294 |
| 77 | 93 | 682 | 0.90 | 19.03 | 4.5 | 6.9 | 4.5 | 3.2 | | | |
| 86 | 104 | 611 | 1.00 | 17.04 | 5.9 | 9.9 | 5.9 | 3.4 | | | |
| 94 | 113 | 558 | 1.10 | 15.57 | 6.7 | 10.3 | 6.7 | 3.6 | | | |
| 106 | 128 | 495 | 1.25 | 13.82 | 7.5 | 10.5 | 7.5 | 3.8 | | | |
| 116 | 140 | 453 | 1.35 | 12.63 | 7.9 | 10.6 | 7.9 | 3.9 | | | |
| 127 | 153 | 415 | 1.45 | 11.57 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 128 | 154 | 412 | 0.90 | 11.48 | 8.2 | 10.2 | 8.2 | 3.5 | | | |
| 139 | 167 | 379 | 1.55 | 10.57 | 8.5 | 10.8 | 8.5 | 4.1 | | | |
| 156 | 188 | 336 | 1.70 | 9.38 | 8.8 | 11.0 | 8.6 | 4.3 | | | |
| 156 | 188 | 337 | 1.10 | 9.39 | 8.8 | 10.5 | 8.7 | 3.8 | | | |
| 162 | 195 | 324 | 1.75 | 9.04 | 8.8 | 11.0 | 8.5 | 4.3 | | | |
| 171 | 206 | 307 | 1.80 | 8.57 | 8.9 | 11.1 | 8.3 | 4.4 | | | |
| 177 | 214 | 296 | 1.85 | 8.26 | 9.0 | 11.1 | 8.1 | 4.4 | | | |
| 192 | 232 | 273 | 1.35 | 7.62 | 9.1 | 10.8 | 7.9 | 4.1 | | | |
| 230 | 277 | 229 | 1.60 | 6.38 | 9.3 | 11.0 | 7.3 | 4.3 | | | |
| 283 | 341 | 185 | 1.95 | 5.17 | 9.1 | 11.2 | 6.7 | 4.5 | | | |
| 294 | 354 | 179 | 2.05 | 4.98 | 8.9 | 11.2 | 6.5 | 4.5 | | | |

Legend see page 187

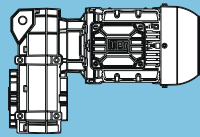
** ... on request

| P _N = 7.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 7.5 kW | | 9.0 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.0 | 3.6 | 21698 | 0.85 | 488.09 | ** | ** | ** | ** | FH154-11P-L132M-04F | 733 | 318 |
| 3.1 | 3.7 | 21000 | 0.90 | 473.37 | 63.4 | 109.6 | 63.4 | 109.6 | | | |
| 3.2 | 3.8 | 20547 | 0.90 | 463.14 | 66.0 | 113.1 | 66.0 | 113.1 | | | |
| 3.6 | 4.3 | 18090 | 1.00 | 409.44 | 77.8 | 115.2 | 77.8 | 115.2 | | | |
| 3.7 | 4.4 | 17588 | 1.05 | 398.90 | 79.8 | 115.6 | 79.8 | 115.6 | | | |
| 4.2 | 5.1 | 15119 | 1.20 | 345.03 | 88.4 | 117.6 | 88.4 | 117.6 | | | |
| 3.8 | 4.6 | 17096 | 0.80 | 383.78 | ** | ** | ** | ** | FH124-11P-L132M-04F | 481 | 314 |
| 4.1 | 5.0 | 15861 | 0.85 | 356.79 | ** | ** | ** | ** | | | |
| 4.2 | 5.1 | 15554 | 0.85 | 349.88 | ** | ** | ** | ** | | | |
| 4.3 | 5.2 | 14968 | 0.90 | 337.39 | 63.1 | 83.1 | 63.1 | 83.1 | | | |
| 4.4 | 5.3 | 14845 | 0.90 | 334.62 | 63.6 | 83.2 | 63.6 | 83.2 | | | |
| 4.9 | 5.9 | 13312 | 1.00 | 301.29 | 69.4 | 84.7 | 69.4 | 84.7 | | | |
| 5.0 | 6.1 | 12810 | 1.05 | 290.53 | 71.1 | 85.2 | 71.1 | 85.2 | | | |
| 5.1 | 6.1 | 12708 | 1.05 | 288.23 | 71.4 | 85.3 | 71.4 | 85.3 | | | |
| 5.9 | 7.1 | 10877 | 1.20 | 248.21 | 76.6 | 87.0 | 76.6 | 87.0 | | | |
| 6.6 | 8.0 | 10789 | 1.25 | 220.67 | 76.8 | 87.1 | 76.8 | 87.1 | | | |
| 7.6 | 9.2 | 9407 | 1.40 | 192.40 | 80.0 | 88.4 | 80.0 | 88.4 | | | |
| 7.9 | 9.5 | 9071 | 1.45 | 185.53 | 80.7 | 88.8 | 80.7 | 88.8 | | | |
| 8.8 | 11 | 8103 | 1.65 | 165.73 | 82.5 | 89.7 | 82.5 | 89.7 | | | |
| 10 | 12 | 6978 | 1.90 | 142.72 | 84.3 | 90.8 | 84.3 | 90.8 | | | |
| 12 | 14 | 6095 | 2.15 | 124.67 | 85.5 | 91.6 | 85.5 | 91.6 | | | |
| 14 | 17 | 5150 | 2.55 | 105.34 | 86.6 | 92.5 | 86.6 | 92.5 | | | |
| 16 | 20 | 4436 | 2.95 | 90.74 | 87.3 | 93.2 | 87.3 | 93.2 | | | |
| 6.7 | 8.1 | 10647 | 0.80 | 217.78 | ** | ** | ** | ** | FH103-11P-L132M-04F | 317 | 308 |
| 7.7 | 9.4 | 9242 | 0.90 | 189.04 | 38.9 | 58.9 | 38.9 | 58.9 | | | |
| 8.0 | 9.7 | 8912 | 0.90 | 182.29 | 40.9 | 59.3 | 40.9 | 59.3 | | | |
| 9.0 | 11 | 7985 | 1.05 | 163.33 | 45.8 | 60.3 | 45.8 | 60.3 | | | |
| 10 | 13 | 6834 | 1.20 | 139.78 | 50.6 | 61.6 | 50.6 | 61.6 | | | |
| 12 | 14 | 5993 | 1.35 | 122.58 | 53.5 | 62.5 | 53.5 | 62.5 | | | |
| 12 | 15 | 5902 | 1.40 | 120.72 | 53.7 | 62.6 | 53.7 | 62.6 | | | |
| 14 | 16 | 5293 | 1.55 | 108.27 | 55.4 | 63.3 | 55.4 | 63.3 | | | |
| 16 | 19 | 4595 | 1.75 | 93.98 | 57.1 | 64.1 | 57.1 | 64.1 | | | |
| 16 | 20 | 4431 | 1.85 | 90.63 | 57.5 | 64.2 | 57.5 | 64.2 | | | |
| 18 | 22 | 3970 | 2.05 | 81.20 | 58.4 | 64.7 | 58.4 | 64.7 | | | |
| 21 | 25 | 3397 | 2.40 | 69.49 | 59.3 | 65.4 | 59.3 | 65.4 | | | |
| 24 | 29 | 2934 | 2.75 | 60.02 | 60.0 | 65.9 | 60.0 | 65.9 | | | |
| 41 | 49 | 1757 | 2.50 | 35.93 | 61.3 | 67.2 | 61.3 | 67.2 | | | |
| 79 | 95 | 910 | 2.50 | 18.62 | 51.4 | 68 | 51.4 | 68.0 | | | |
| 12 | 15 | 5905 | 0.80 | 120.77 | ** | ** | ** | ** | FH093-11P-L132M-04F | 223 | 304 |
| 13 | 15 | 5727 | 0.80 | 117.13 | ** | ** | ** | ** | | | |
| 14 | 17 | 5111 | 0.90 | 104.54 | 23.4 | 38.2 | 23.4 | 38.2 | | | |
| 16 | 19 | 4527 | 1.00 | 92.59 | 27.8 | 39.0 | 27.8 | 39.0 | | | |
| 18 | 22 | 3916 | 1.15 | 80.09 | 31.3 | 39.8 | 31.3 | 39.8 | | | |
| 19 | 23 | 3776 | 1.20 | 77.23 | 32.0 | 40.0 | 32.0 | 40.0 | | | |
| 21 | 26 | 3332 | 1.40 | 68.15 | 33.9 | 40.6 | 33.9 | 40.6 | | | |
| 25 | 31 | 2835 | 1.60 | 57.99 | 35.7 | 41.2 | 35.7 | 41.2 | | | |
| 29 | 35 | 2446 | 1.85 | 50.03 | 36.8 | 41.8 | 36.8 | 41.8 | | | |
| 38 | 46 | 1890 | 2.30 | 38.65 | 38.1 | 42.5 | 38.1 | 42.5 | | | |
| 43 | 52 | 1669 | 2.70 | 34.13 | 38.5 | 42.8 | 38.5 | 42.8 | | | |
| 51 | 62 | 1397 | 2.50 | 28.57 | 38.9 | 43.1 | 38.9 | 43.1 | | | |
| 77 | 93 | 929 | 2.30 | 19.01 | 39.5 | 43.6 | 39.5 | 43.6 | | | |
| 104 | 126 | 687 | 2.50 | 14.05 | 37.6 | 44.0 | 37.6 | 44.0 | | | |
| 18 | 22 | 3913 | 0.80 | 80.04 | ** | ** | ** | ** | FH083-11P-L132M-04F | 169 | 300 |
| 20 | 25 | 3502 | 0.85 | 71.62 | ** | ** | ** | ** | | | |
| 21 | 25 | 3416 | 0.85 | 69.87 | ** | ** | ** | ** | | | |
| 24 | 30 | 2927 | 0.95 | 59.86 | 20.0 | 35.5 | 20.0 | 35.5 | | | |
| 25 | 31 | 2822 | 1.00 | 57.73 | 20.8 | 37.2 | 20.8 | 37.2 | | | |
| 29 | 35 | 2491 | 1.10 | 50.95 | 23.0 | 41.2 | 23.0 | 41.2 | | | |
| 34 | 41 | 2090 | 1.20 | 42.74 | 25.1 | 41.8 | 25.1 | 41.8 | | | |
| 41 | 49 | 1761 | 1.40 | 36.02 | 26.4 | 42.3 | 26.4 | 42.3 | | | |

F

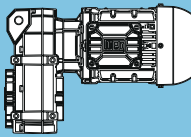
Legend see page 187

** ... on request

| P _N = 7.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 7.5 kW | | 9.0 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 43 | 52 | 1656 | 1.70 | 33.87 | 26.8 | 42.4 | 20.0 | 9.9 | FH082-11P-L132M-04F | 160 | 300 |
| 49 | 59 | 1467 | 2.05 | 30.00 | 27.4 | 42.7 | 18.8 | 10.2 | | | |
| 56 | 68 | 1269 | 2.40 | 25.95 | 27.9 | 43.0 | 17.6 | 10.5 | | | |
| 66 | 80 | 1080 | 2.80 | 22.08 | 28.3 | 43.3 | 16.3 | 10.8 | | | |
| 103 | 125 | 693 | 2.55 | 14.18 | 29.0 | 43.8 | 13.6 | 11.3 | | | |
| 119 | 144 | 600 | 2.95 | 12.27 | 29.1 | 43.9 | 12.7 | 11.4 | | | |
| 37 | 45 | 1922 | 0.80 | 39.31 | ** | ** | ** | ** | FH072-11P-L132M-04F | 120 | 298 |
| 42 | 51 | 1698 | 0.90 | 34.74 | 13.9 | 15.5 | 13.9 | 4.3 | | | |
| 50 | 60 | 1436 | 1.05 | 29.38 | 16.0 | 16.1 | 14.6 | 4.8 | | | |
| 58 | 70 | 1234 | 1.25 | 25.25 | 17.3 | 16.5 | 13.5 | 5.2 | | | |
| 66 | 80 | 1078 | 1.40 | 22.05 | 18.1 | 16.8 | 12.6 | 5.6 | | | |
| 71 | 85 | 1013 | 0.95 | 20.72 | 18.4 | 16.0 | 12.7 | 4.8 | | | |
| 78 | 94 | 924 | 1.65 | 18.89 | 18.8 | 17.1 | 11.6 | 5.9 | | | |
| 80 | 97 | 890 | 1.70 | 18.21 | 18.9 | 17.2 | 11.4 | 5.9 | | | |
| 81 | 98 | 884 | 1.25 | 18.09 | 18.9 | 16.4 | 11.8 | 5.1 | | | |
| 91 | 110 | 786 | 1.95 | 16.08 | 19.2 | 17.4 | 10.7 | 6.1 | | | |
| 92 | 111 | 782 | 1.40 | 15.99 | 19.3 | 16.7 | 11.0 | 5.5 | | | |
| 108 | 131 | 661 | 1.70 | 13.52 | 19.6 | 17.1 | 10.2 | 5.8 | | | |
| 109 | 131 | 660 | 2.30 | 13.49 | 19.6 | 17.7 | 9.8 | 6.4 | | | |
| 126 | 152 | 568 | 1.95 | 11.62 | 19.8 | 17.3 | 9.4 | 6.1 | | | |
| 129 | 156 | 555 | 2.75 | 11.36 | 19.9 | 17.9 | 9.0 | 6.6 | | | |
| 144 | 175 | 496 | 2.25 | 10.14 | 20.0 | 17.5 | 8.8 | 6.3 | | | |
| 169 | 204 | 425 | 2.65 | 8.69 | 20.1 | 17.8 | 8.2 | 6.5 | | | |
| 175 | 211 | 410 | 2.50 | 8.38 | 20.1 | 17.8 | 8.1 | 6.5 | | | |
| 70 | 85 | 1020 | 0.85 | 20.87 | ** | ** | ** | ** | FH062-11P-L132M-04F | 97 | 296 |
| 77 | 92 | 936 | 0.90 | 19.14 | 6.9 | 10.7 | 6.9 | 2.2 | | | |
| 83 | 100 | 868 | 0.95 | 17.75 | 7.9 | 12.4 | 7.9 | 2.5 | | | |
| 90 | 109 | 796 | 1.05 | 16.28 | 8.8 | 12.6 | 8.8 | 2.7 | | | |
| 95 | 115 | 752 | 1.10 | 15.38 | 9.3 | 12.8 | 9.3 | 2.9 | | | |
| 104 | 125 | 690 | 1.20 | 14.11 | 9.9 | 13.0 | 9.4 | 3.0 | | | |
| 109 | 131 | 660 | 0.90 | 13.49 | 10.1 | 12.3 | 9.2 | 2.4 | | | |
| 113 | 136 | 635 | 1.30 | 12.99 | 10.3 | 13.2 | 9.0 | 3.2 | | | |
| 117 | 141 | 613 | 1.35 | 12.53 | 10.5 | 13.3 | 8.8 | 3.3 | | | |
| 123 | 149 | 582 | 1.45 | 11.91 | 10.7 | 13.3 | 8.6 | 3.4 | | | |
| 128 | 154 | 562 | 1.50 | 11.49 | 10.8 | 13.4 | 8.4 | 3.5 | | | |
| 137 | 165 | 523 | 1.60 | 10.70 | 11.0 | 13.6 | 8.1 | 3.6 | | | |
| 141 | 170 | 509 | 1.15 | 10.41 | 11.1 | 13.0 | 8.4 | 3.0 | | | |
| 149 | 180 | 480 | 1.75 | 9.81 | 11.3 | 13.7 | 7.8 | 3.7 | | | |
| 170 | 206 | 421 | 1.40 | 8.61 | 11.6 | 13.4 | 7.6 | 3.4 | | | |
| 200 | 242 | 358 | 1.60 | 7.32 | 11.8 | 13.7 | 7.0 | 3.7 | | | |
| 231 | 279 | 310 | 1.85 | 6.35 | 12.0 | 13.9 | 6.5 | 3.9 | | | |
| 273 | 330 | 262 | 2.20 | 5.36 | 12.1 | 14.1 | 6.0 | 4.1 | | | |
| 283 | 342 | 253 | 2.30 | 5.17 | 12.2 | 14.1 | 5.9 | 4.2 | | | |
| 332 | 401 | 216 | 2.65 | 4.41 | 12.2 | 14.3 | 5.5 | 4.3 | | | |
| 94 | 114 | 761 | 0.80 | 15.57 | ** | ** | ** | ** | FH052-11P-L132M-04F | 82 | 294 |
| 106 | 128 | 676 | 0.90 | 13.82 | 4.7 | 7.3 | 4.7 | 3.2 | | | |
| 116 | 140 | 617 | 1.00 | 12.63 | 5.8 | 9.7 | 5.8 | 3.4 | | | |
| 127 | 153 | 566 | 1.10 | 11.57 | 6.6 | 10.3 | 6.6 | 3.6 | | | |
| 139 | 167 | 517 | 1.15 | 10.57 | 7.2 | 10.4 | 7.2 | 3.7 | | | |
| 156 | 189 | 459 | 1.25 | 9.38 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 162 | 196 | 442 | 1.30 | 9.04 | 8.0 | 10.6 | 8.0 | 3.9 | | | |
| 171 | 207 | 419 | 1.35 | 8.57 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 177 | 214 | 404 | 1.35 | 8.26 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 192 | 232 | 373 | 1.00 | 7.62 | 8.5 | 10.4 | 8.5 | 3.7 | | | |
| 230 | 277 | 312 | 1.20 | 6.38 | 8.9 | 10.6 | 7.8 | 3.9 | | | |
| 283 | 342 | 253 | 1.45 | 5.17 | 9.2 | 10.9 | 7.0 | 4.2 | | | |
| 294 | 355 | 243 | 1.50 | 4.98 | 9.2 | 10.9 | 6.9 | 4.2 | | | |

Legend see page 187

** ... on request

| P _N = 9.2 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 9.2 kW | | 11 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.6 | 4.3 | 22404 | 0.85 | 409.44 | ** | ** | ** | ** | FH154-11P-L132M-04G | 738 | 318 | |
| 3.7 | 4.4 | 21827 | 0.85 | 398.90 | ** | ** | ** | ** | | | | |
| 4.2 | 5.1 | 18763 | 1.00 | 345.03 | 74.9 | 114.6 | 74.9 | 114.6 | | | | |
| 4.8 | 5.9 | 16520 | 0.80 | 301.29 | ** | ** | ** | ** | FH124-11P-L132M-04G | 486 | 314 | |
| 5.0 | 6.1 | 15897 | 0.85 | 290.53 | ** | ** | ** | ** | | | | |
| 5.1 | 6.1 | 15771 | 0.85 | 288.23 | ** | ** | ** | ** | | | | |
| 5.9 | 7.1 | 13498 | 1.00 | 248.21 | 68.8 | 84.5 | 68.8 | 84.5 | | | | |
| 6.6 | 8.0 | 13279 | 1.00 | 220.67 | 69.5 | 84.7 | 69.5 | 84.7 | FH123-11P-L132M-04G | 462 | 312 | |
| 7.6 | 9.2 | 11578 | 1.15 | 192.40 | 74.7 | 86.3 | 74.7 | 86.3 | | | | |
| 7.9 | 9.5 | 11165 | 1.20 | 185.53 | 75.9 | 86.7 | 75.9 | 86.7 | | | | |
| 8.8 | 11 | 9973 | 1.35 | 165.73 | 78.8 | 87.9 | 78.8 | 87.9 | | | | |
| 10 | 12 | 8589 | 1.55 | 142.72 | 81.6 | 89.2 | 81.6 | 89.2 | | | | |
| 12 | 14 | 7502 | 1.75 | 124.67 | 83.5 | 90.3 | 83.5 | 90.3 | | | | |
| 12 | 15 | 7271 | 1.80 | 120.82 | 83.9 | 90.5 | 83.9 | 90.5 | | | | |
| 14 | 17 | 6113 | 2.00 | 101.58 | 85.5 | 91.6 | 85.5 | 91.6 | | | | |
| 14 | 17 | 6339 | 2.10 | 105.34 | 85.2 | 91.4 | 85.2 | 91.4 | | | | |
| 16 | 19 | 5461 | 2.40 | 90.74 | 86.3 | 92.2 | 86.3 | 92.2 | | | | |
| 19 | 23 | 4702 | 2.80 | 78.14 | 87.1 | 93.0 | 87.1 | 93.0 | | | | |
| 8.9 | 11 | 9829 | 0.85 | 163.33 | ** | ** | ** | ** | FH103-11P-L132M-04G | 322 | 308 | |
| 10 | 13 | 8412 | 1.00 | 139.78 | 43.7 | 59.8 | 43.7 | 59.8 | | | | |
| 12 | 14 | 7377 | 1.10 | 122.58 | 48.5 | 61.0 | 48.5 | 61.0 | | | | |
| 13 | 16 | 6515 | 1.25 | 108.27 | 51.8 | 61.9 | 51.8 | 61.9 | | | | |
| 16 | 19 | 5656 | 1.45 | 93.98 | 54.5 | 62.9 | 54.5 | 62.9 | | | | |
| 18 | 22 | 4886 | 1.65 | 81.20 | 56.4 | 63.7 | 56.4 | 63.7 | | | | |
| 21 | 25 | 4182 | 1.95 | 69.49 | 58.0 | 64.5 | 58.0 | 64.5 | | | | |
| 24 | 29 | 3612 | 2.25 | 60.02 | 59.0 | 65.1 | 59.0 | 65.1 | | | | |
| 34 | 41 | 2572 | 2.50 | 42.74 | 60.5 | 66.3 | 60.5 | 66.3 | FH102-11P-L132M-04G | 296 | 308 | |
| 41 | 49 | 2162 | 2.00 | 35.93 | 60.9 | 66.8 | 60.9 | 66.8 | | | | |
| 66 | 80 | 1332 | 2.50 | 22.14 | 55.1 | 67.5 | 55.1 | 67.5 | | | | |
| 78 | 95 | 1121 | 2.00 | 18.62 | 52.1 | 67.8 | 52.1 | 67.8 | | | | |
| 16 | 19 | 5572 | 0.85 | 92.59 | ** | ** | ** | ** | FH093-11P-L132M-04G | 228 | 304 | |
| 18 | 22 | 4820 | 0.95 | 80.09 | 25.7 | 38.6 | 25.7 | 38.6 | | | | |
| 19 | 23 | 4648 | 1.00 | 77.23 | 27.0 | 38.8 | 27.0 | 38.8 | | | | |
| 21 | 26 | 4101 | 1.10 | 68.15 | 30.3 | 39.6 | 30.3 | 39.6 | | | | |
| 25 | 30 | 3490 | 1.30 | 57.99 | 33.2 | 40.4 | 33.2 | 40.4 | | | | |
| 29 | 35 | 3011 | 1.50 | 50.03 | 35.1 | 41.0 | 35.1 | 41.0 | | | | |
| 38 | 46 | 2326 | 1.90 | 38.65 | 37.1 | 41.9 | 37.1 | 41.9 | FH092-11P-L132M-04G | 214 | 304 | |
| 43 | 52 | 2054 | 2.20 | 34.13 | 37.7 | 42.3 | 37.7 | 42.3 | | | | |
| 49 | 60 | 1783 | 2.55 | 29.63 | 38.3 | 42.6 | 38.3 | 42.6 | | | | |
| 51 | 62 | 1719 | 2.00 | 28.57 | 38.4 | 42.7 | 38.4 | 42.7 | | | | |
| 57 | 69 | 1541 | 2.95 | 25.60 | 38.7 | 43.0 | 38.7 | 43.0 | | | | |
| 77 | 93 | 1144 | 1.90 | 19.01 | 39.3 | 43.3 | 39.3 | 43.3 | | | | |
| 87 | 105 | 1010 | 2.65 | 16.79 | 39.4 | 43.5 | 39.4 | 43.5 | | | | |
| 104 | 126 | 846 | 2.00 | 14.05 | 38.2 | 43.7 | 38.2 | 43.7 | | | | |
| 24 | 29 | 3602 | 0.80 | 59.86 | ** | ** | ** | ** | FH083-11P-L132M-04G | 174 | 300 | |
| 25 | 31 | 3474 | 0.80 | 57.73 | ** | ** | ** | ** | | | | |
| 29 | 35 | 3066 | 0.90 | 50.95 | 18.8 | 32.9 | 18.8 | 7.8 | | | | |
| 34 | 41 | 2572 | 1.00 | 42.74 | 22.5 | 41.0 | 22.5 | 8.5 | | | | |
| 41 | 49 | 2168 | 1.10 | 36.02 | 24.7 | 41.7 | 21.8 | 9.2 | | | | |
| 43 | 52 | 2038 | 1.40 | 33.87 | 25.3 | 41.9 | 21.2 | 9.4 | FH082-11P-L132M-04G | 165 | 300 | |
| 49 | 59 | 1805 | 1.70 | 30.00 | 26.2 | 42.2 | 19.8 | 9.7 | | | | |
| 56 | 68 | 1562 | 1.95 | 25.95 | 27.1 | 42.6 | 18.5 | 10.1 | | | | |
| 66 | 80 | 1329 | 2.30 | 22.08 | 27.8 | 43.0 | 17.0 | 10.5 | | | | |
| 78 | 94 | 1131 | 2.70 | 18.79 | 28.2 | 43.3 | 15.7 | 10.8 | | | | |
| 103 | 124 | 853 | 2.10 | 14.18 | 28.8 | 43.5 | 14.1 | 11.0 | | | | |
| 119 | 144 | 738 | 2.40 | 12.27 | 28.9 | 43.7 | 13.2 | 11.2 | | | | |
| 140 | 169 | 628 | 2.85 | 10.44 | 29.1 | 43.9 | 12.3 | 11.4 | | | | |

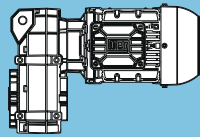
F

Legend see page 187

** ... on request

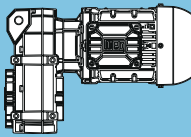
P_N = 9.2 kW

IE3

| 50 Hz 9.2 kW n ₅₀ min ⁻¹ | 60 Hz 11 kW n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|---|--|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 50 | 60 | 1768 | 0.85 | 29.38 | ** | ** | ** | ** | FH072-11P-L132M-04G | 125 | 298 |
| 58 | 70 | 1519 | 1.00 | 25.25 | 15.4 | 15.9 | 13.3 | 4.7 | | | |
| 66 | 80 | 1327 | 1.15 | 22.05 | 16.8 | 16.3 | 13.3 | 5.0 | | | |
| 70 | 85 | 1247 | 0.80 | 20.72 | ** | ** | ** | ** | | | |
| 77 | 93 | 1137 | 1.35 | 18.89 | 17.8 | 16.7 | 12.3 | 5.4 | | | |
| 80 | 97 | 1096 | 1.40 | 18.21 | 18.0 | 16.8 | 12.1 | 5.5 | | | |
| 81 | 98 | 1089 | 1.05 | 18.09 | 18.1 | 15.8 | 12.4 | 4.5 | | | |
| 91 | 110 | 968 | 1.60 | 16.08 | 18.6 | 17.0 | 11.3 | 5.8 | | | |
| 108 | 131 | 814 | 1.40 | 13.52 | 19.2 | 16.6 | 10.7 | 5.4 | | | |
| 126 | 152 | 699 | 1.60 | 11.62 | 19.5 | 16.9 | 9.9 | 5.7 | | | |
| 129 | 155 | 684 | 2.20 | 11.36 | 19.6 | 17.6 | 9.5 | 6.4 | | | |
| 144 | 174 | 610 | 1.85 | 10.14 | 19.7 | 17.2 | 9.3 | 6.0 | | | |
| 168 | 203 | 523 | 2.15 | 8.69 | 19.9 | 17.5 | 8.6 | 6.2 | | | |
| 174 | 211 | 504 | 2.00 | 8.38 | 20.0 | 17.5 | 8.4 | 6.3 | | | |
| 197 | 239 | 445 | 2.55 | 7.40 | 20.1 | 17.7 | 7.9 | 6.4 | | | |
| 235 | 284 | 374 | 3.00 | 6.21 | 20.2 | 17.9 | 7.3 | 6.7 | | | |
| 82 | 99 | 1068 | 0.80 | 17.75 | ** | ** | ** | ** | FH062-11P-L132M-04G | 102 | 296 |
| 90 | 108 | 980 | 0.85 | 16.28 | ** | ** | ** | ** | | | |
| 95 | 115 | 926 | 0.90 | 15.38 | 7.1 | 11.2 | 7.1 | 2.3 | | | |
| 103 | 125 | 849 | 1.00 | 14.11 | 8.2 | 12.5 | 8.2 | 2.5 | | | |
| 112 | 136 | 782 | 1.05 | 12.99 | 9.0 | 12.7 | 9.0 | 2.8 | | | |
| 117 | 141 | 754 | 1.10 | 12.53 | 9.3 | 12.8 | 9.1 | 2.9 | | | |
| 123 | 148 | 717 | 1.15 | 11.91 | 9.6 | 12.9 | 9.0 | 3.0 | | | |
| 127 | 154 | 691 | 1.20 | 11.49 | 9.8 | 13.0 | 9.0 | 3.0 | | | |
| 136 | 165 | 644 | 1.30 | 10.70 | 10.2 | 13.2 | 8.7 | 3.2 | | | |
| 140 | 170 | 626 | 0.95 | 10.41 | 10.4 | 12.5 | 8.4 | 2.5 | | | |
| 149 | 180 | 590 | 1.40 | 9.81 | 10.6 | 13.3 | 8.3 | 3.4 | | | |
| 170 | 205 | 518 | 1.15 | 8.61 | 11.1 | 13.0 | 8.1 | 3.0 | | | |
| 199 | 241 | 441 | 1.30 | 7.32 | 11.5 | 13.3 | 7.5 | 3.3 | | | |
| 230 | 278 | 382 | 1.50 | 6.35 | 11.7 | 13.6 | 6.9 | 3.6 | | | |
| 272 | 329 | 323 | 1.80 | 5.36 | 12.0 | 13.8 | 6.3 | 3.9 | | | |
| 282 | 341 | 311 | 1.85 | 5.17 | 12.0 | 13.9 | 6.2 | 3.9 | | | |
| 331 | 400 | 265 | 2.20 | 4.41 | 12.1 | 14.1 | 5.7 | 4.1 | | | |
| 116 | 140 | 760 | 0.80 | 12.63 | ** | ** | ** | ** | FH052-11P-L132M-04G | 87 | 294 |
| 126 | 153 | 696 | 0.90 | 11.57 | 4.1 | 6.1 | 4.1 | 3.2 | | | |
| 138 | 167 | 636 | 0.95 | 10.57 | 5.5 | 9.0 | 5.5 | 3.3 | | | |
| 156 | 188 | 564 | 1.00 | 9.38 | 6.6 | 10.3 | 6.6 | 3.6 | | | |
| 162 | 195 | 544 | 1.05 | 9.04 | 6.9 | 10.3 | 6.9 | 3.6 | | | |
| 170 | 206 | 516 | 1.10 | 8.57 | 7.2 | 10.4 | 7.2 | 3.7 | | | |
| 177 | 214 | 497 | 1.10 | 8.26 | 7.4 | 10.5 | 7.4 | 3.8 | | | |
| 192 | 232 | 459 | 0.80 | 7.62 | ** | ** | ** | ** | | | |
| 229 | 277 | 384 | 0.95 | 6.38 | 8.4 | 10.3 | 8.2 | 3.6 | | | |
| 282 | 341 | 311 | 1.20 | 5.17 | 8.9 | 10.7 | 7.4 | 4.0 | | | |
| 293 | 354 | 300 | 1.25 | 4.98 | 9.0 | 10.7 | 7.2 | 4.0 | | | |

Legend see page 187

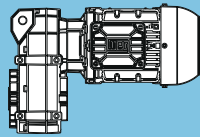
** ... on request

| P _N = 11 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 11 kW | | 13 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 4.3 | 5.1 | 22419 | 0.85 | 345.03 | ** | ** | ** | ** | FH154-22P-160M-04E | 800 | 318 |
| 4.5 | 5.4 | 21251 | 0.85 | 327.05 | ** | ** | ** | ** | | | |
| 5.2 | 6.3 | 18269 | 1.00 | 282.89 | 77 | 115 | 77 | 115 | | | |
| 5.7 | 6.8 | 18567 | 1.00 | 259.81 | 75.8 | 114.8 | 75.8 | 114.8 | FH153-22P-160M-04E | 754 | 316 |
| 6.6 | 7.9 | 15991 | 1.15 | 223.77 | 85.6 | 116.9 | 85.6 | 116.9 | | | |
| 7.6 | 9.2 | 13832 | 1.35 | 193.55 | 92.1 | 118.6 | 92.1 | 118.6 | | | |
| 8.6 | 10 | 12201 | 1.50 | 170.73 | 96.1 | 120.0 | 96.1 | 120.0 | | | |
| 10 | 12 | 10479 | 1.75 | 146.63 | 99.6 | 121.4 | 99.6 | 121.4 | | | |
| 12 | 14 | 8895 | 2.05 | 124.47 | 102.4 | 122.7 | 102.4 | 122.7 | | | |
| 14 | 16 | 7694 | 2.35 | 107.66 | 104.1 | 123.7 | 104.1 | 123.7 | | | |
| 15 | 18 | 7234 | 2.50 | 101.23 | 104.7 | 124.1 | 104.7 | 124.1 | | | |
| 5.9 | 7.2 | 16128 | 0.85 | 248.21 | ** | ** | ** | ** | FH124-22P-160M-04E | 548 | 314 |
| 6.7 | 8 | 15770 | 0.85 | 220.67 | ** | ** | ** | ** | FH123-22P-160M-04E | 524 | 312 |
| 7.6 | 9.2 | 13749 | 0.95 | 192.40 | 67.9 | 84.3 | 67.9 | 84.3 | | | |
| 8.9 | 11 | 11843 | 1.10 | 165.73 | 74.0 | 86.1 | 74.0 | 86.1 | | | |
| 10 | 12 | 10199 | 1.30 | 142.72 | 78.2 | 87.7 | 78.2 | 87.7 | | | |
| 12 | 14 | 8909 | 1.50 | 124.67 | 81.0 | 88.9 | 81.0 | 88.9 | | | |
| 14 | 16 | 7696 | 1.70 | 107.69 | 83.2 | 90.1 | 83.2 | 90.1 | | | |
| 16 | 20 | 6485 | 2.05 | 90.74 | 85.0 | 91.3 | 85.0 | 91.3 | | | |
| 17 | 20 | 6364 | 2.05 | 89.06 | 85.2 | 91.4 | 85.2 | 91.4 | | | |
| 19 | 23 | 5584 | 2.35 | 78.14 | 86.2 | 92.1 | 86.2 | 92.1 | | | |
| 20 | 24 | 5237 | 2.50 | 73.28 | 86.5 | 92.5 | 86.5 | 92.5 | | | |
| 22 | 26 | 4878 | 2.70 | 68.26 | 86.9 | 92.8 | 86.9 | 92.8 | | | |
| 37 | 44 | 2857 | 2.70 | 39.98 | 88.5 | 94.7 | 88.5 | 94.7 | FH122-22P-160M-04E | 483 | 312 |
| 77 | 93 | 1371 | 2.70 | 19.18 | 77.8 | 96.0 | 77.8 | 96.0 | | | |
| 11 | 13 | 9989 | 0.85 | 139.78 | ** | ** | ** | ** | FH103-22P-160M-04E | 384 | 308 |
| 12 | 15 | 8627 | 0.95 | 120.72 | 42.6 | 59.6 | 42.6 | 59.6 | | | |
| 14 | 16 | 7737 | 1.05 | 108.27 | 47.0 | 60.6 | 47.0 | 60.6 | | | |
| 16 | 19 | 6716 | 1.20 | 93.98 | 51.1 | 61.7 | 51.1 | 61.7 | | | |
| 18 | 21 | 5953 | 1.35 | 83.30 | 53.6 | 62.5 | 53.6 | 62.5 | | | |
| 21 | 26 | 4966 | 1.65 | 69.49 | 56.3 | 63.6 | 56.3 | 63.6 | | | |
| 22 | 26 | 4830 | 1.70 | 67.59 | 56.6 | 63.8 | 56.6 | 63.8 | | | |
| 24 | 30 | 4289 | 1.90 | 60.02 | 57.8 | 64.4 | 57.8 | 64.4 | | | |
| 29 | 35 | 3627 | 2.25 | 50.75 | 59.0 | 65.1 | 59.0 | 65.1 | | | |
| 35 | 43 | 2959 | 2.75 | 41.41 | 60.0 | 65.9 | 60.0 | 65.9 | | | |
| 34 | 42 | 3054 | 2.10 | 42.74 | 59.9 | 65.8 | 59.9 | 65.8 | FH102-22P-160M-04E | 358 | 308 |
| 39 | 48 | 2663 | 2.70 | 37.26 | 60.4 | 66.2 | 60.4 | 66.2 | | | |
| 66 | 80 | 1582 | 2.10 | 22.14 | 55.8 | 67.2 | 55.8 | 67.2 | | | |
| 76 | 92 | 1379 | 2.70 | 19.30 | 53.1 | 67.5 | 53.1 | 67.5 | | | |
| 18 | 22 | 5723 | 0.80 | 80.09 | ** | ** | ** | ** | FH093-22P-160M-04E | 290 | 304 |
| 21 | 26 | 4925 | 0.95 | 68.92 | 24.9 | 38.5 | 24.9 | 38.5 | | | |
| 22 | 26 | 4870 | 0.95 | 68.15 | 25.3 | 38.5 | 25.3 | 38.5 | | | |
| 25 | 31 | 4144 | 1.10 | 57.99 | 30.1 | 39.5 | 30.1 | 39.5 | | | |
| 27 | 33 | 3851 | 1.20 | 53.89 | 31.6 | 39.9 | 31.6 | 39.9 | | | |
| 29 | 35 | 3575 | 1.30 | 50.03 | 32.9 | 40.3 | 32.9 | 40.3 | | | |
| 35 | 42 | 2999 | 1.50 | 41.97 | 35.1 | 41.0 | 35.1 | 41.0 | | | |
| 43 | 52 | 2438 | 1.75 | 34.12 | 36.8 | 41.8 | 36.8 | 41.8 | | | |
| 55 | 67 | 1907 | 2.05 | 26.68 | 38.1 | 42.5 | 38.1 | 42.5 | | | |
| 43 | 52 | 2439 | 1.85 | 34.13 | 36.8 | 41.8 | 36.8 | 41.8 | FH092-22P-160M-04E | 276 | 304 |
| 50 | 60 | 2117 | 2.15 | 29.63 | 37.6 | 42.2 | 37.6 | 42.2 | | | |
| 57 | 69 | 1829 | 2.50 | 25.60 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 67 | 81 | 1566 | 2.90 | 21.91 | 38.7 | 42.9 | 38.7 | 42.9 | | | |
| 88 | 106 | 1200 | 2.25 | 16.79 | 39.2 | 43.2 | 39.2 | 43.2 | | | |
| 101 | 122 | 1041 | 2.60 | 14.57 | 39.1 | 43.4 | 39.1 | 43.4 | | | |
| 117 | 141 | 900 | 3.00 | 12.59 | 37.1 | 43.7 | 37.1 | 43.7 | | | |
| 34 | 42 | 3054 | 0.85 | 42.74 | ** | ** | ** | ** | FH083-22P-160M-04E | 236 | 300 |
| 41 | 49 | 2574 | 0.95 | 36.02 | 22.5 | 41 | 22.5 | 41 | | | |
| 50 | 60 | 2110 | 1.10 | 29.53 | 25 | 41.7 | 20.7 | 42.5 | | | |

F

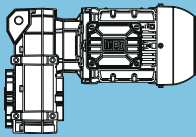
Legend see page 187

** ... on request

| P _N = 11 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 11 kW | | 13 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 49 | 59 | 2144 | 1.40 | 30.00 | 24.8 | 41.7 | 20.8 | 9.2 | FH082-22P-160M-04E | 227 | 300 |
| 57 | 68 | 1854 | 1.65 | 25.95 | 26.1 | 42.1 | 19.3 | 9.6 | | | |
| 67 | 80 | 1578 | 1.95 | 22.08 | 27.0 | 42.6 | 17.7 | 10.1 | | | |
| 78 | 94 | 1343 | 2.25 | 18.79 | 27.7 | 42.9 | 16.4 | 10.4 | | | |
| 91 | 110 | 1158 | 2.60 | 16.21 | 28.2 | 43.2 | 15.2 | 10.7 | | | |
| 104 | 125 | 1013 | 1.75 | 14.18 | 28.5 | 43.2 | 14.7 | 10.7 | | | |
| 120 | 145 | 877 | 2.05 | 12.27 | 28.7 | 43.5 | 13.7 | 11.0 | | | |
| 141 | 170 | 746 | 2.40 | 10.44 | 28.9 | 43.7 | 12.7 | 11.2 | | | |
| 166 | 200 | 635 | 2.80 | 8.88 | 29.1 | 43.9 | 11.7 | 11.4 | | | |
| 67 | 80 | 1576 | 1.00 | 22.05 | 15.0 | 15.8 | 12.1 | 4.5 | FH072-22P-160M-04E | 187 | 298 |
| 78 | 94 | 1350 | 1.15 | 18.89 | 16.6 | 16.2 | 12.2 | 5.0 | | | |
| 91 | 110 | 1149 | 1.35 | 16.08 | 17.8 | 16.7 | 11.9 | 5.4 | | | |
| 109 | 132 | 964 | 1.60 | 13.49 | 18.6 | 17.0 | 10.8 | 5.8 | | | |
| 129 | 156 | 812 | 1.85 | 11.36 | 19.2 | 17.3 | 9.9 | 6.1 | | | |
| 145 | 175 | 725 | 1.55 | 10.14 | 19.4 | 16.9 | 9.7 | 5.6 | | | |
| 158 | 190 | 666 | 2.30 | 9.32 | 19.6 | 17.6 | 8.9 | 6.4 | | | |
| 169 | 204 | 621 | 1.80 | 8.69 | 19.7 | 17.2 | 8.9 | 5.9 | | | |
| 199 | 240 | 529 | 2.15 | 7.40 | 19.9 | 17.4 | 8.2 | 6.2 | | | |
| 237 | 286 | 444 | 2.55 | 6.21 | 20.1 | 17.7 | 7.6 | 6.4 | | | |
| 281 | 339 | 374 | 3.00 | 5.23 | 19.2 | 17.9 | 7.0 | 6.7 | | | |
| 104 | 126 | 1008 | 0.85 | 14.11 | ** | ** | ** | ** | FH062-22P-160M-04E | 164 | 296 |
| 113 | 137 | 928 | 0.90 | 12.99 | 7.1 | 11.2 | 7.1 | 2.3 | | | |
| 123 | 149 | 851 | 1.00 | 11.91 | 8.2 | 12.5 | 8.2 | 2.5 | | | |
| 137 | 166 | 765 | 1.10 | 10.7 | 9.2 | 12.8 | 8.4 | 2.8 | | | |
| 150 | 181 | 701 | 1.20 | 9.81 | 9.8 | 13.0 | 8.3 | 3.0 | | | |
| 231 | 280 | 454 | 1.30 | 6.35 | 11.4 | 13.2 | 7.3 | 3.3 | | | |
| 274 | 331 | 383 | 1.50 | 5.36 | 11.7 | 13.6 | 6.6 | 3.6 | | | |
| 333 | 402 | 315 | 1.85 | 4.41 | 12.0 | 13.9 | 6.0 | 3.9 | | | |

Legend see page 187

** ... on request

| P _N = 15 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 15 kW | | 18 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 6.5 | 7.9 | 21881 | 0.85 | 223.77 | ** | ** | ** | ** | FH153-22P-160L-04F | 777 | 316 |
| 7.6 | 9.2 | 18926 | 1.00 | 193.55 | 74.2 | 114.5 | 74.2 | 114.5 | | | |
| 8.6 | 10 | 16694 | 1.10 | 170.73 | 83.2 | 116.3 | 83.2 | 116.3 | | | |
| 10 | 12 | 14338 | 1.30 | 146.63 | 90.7 | 118.2 | 90.7 | 118.2 | | | |
| 12 | 14 | 12171 | 1.50 | 124.47 | 96.2 | 120.0 | 96.2 | 120.0 | | | |
| 14 | 16 | 10527 | 1.75 | 107.66 | 99.6 | 121.4 | 99.6 | 121.4 | | | |
| 15 | 19 | 9286 | 1.95 | 94.97 | 101.7 | 122.4 | 101.7 | 122.4 | | | |
| 18 | 22 | 7975 | 2.30 | 81.56 | 103.7 | 123.5 | 103.7 | 123.5 | | | |
| 22 | 26 | 6635 | 2.75 | 67.86 | 105.4 | 124.6 | 105.4 | 124.6 | | | |
| 8.8 | 11 | 16205 | 0.85 | 165.73 | ** | ** | ** | ** | FH123-22P-160L-04F | 547 | 312 |
| 10 | 12 | 13955 | 0.95 | 142.72 | 67.1 | 84.1 | 67.1 | 84.1 | | | |
| 12 | 14 | 12190 | 1.10 | 124.67 | 73.0 | 85.8 | 73.0 | 85.8 | | | |
| 14 | 16 | 10530 | 1.25 | 107.69 | 77.5 | 87.4 | 77.5 | 87.4 | | | |
| 16 | 20 | 8873 | 1.50 | 90.74 | 81.1 | 88.9 | 81.1 | 88.9 | | | |
| 19 | 23 | 7641 | 1.75 | 78.14 | 83.3 | 90.1 | 83.3 | 90.1 | | | |
| 20 | 24 | 7165 | 1.85 | 73.28 | 84.0 | 90.6 | 84.0 | 90.6 | | | |
| 21 | 26 | 6675 | 1.95 | 68.26 | 84.8 | 91.1 | 84.8 | 91.1 | | | |
| 25 | 30 | 5765 | 2.25 | 58.96 | 85.9 | 91.9 | 85.9 | 91.9 | | | |
| 30 | 36 | 4768 | 2.60 | 48.76 | 87.0 | 92.9 | 87.0 | 92.9 | | | |
| 37 | 44 | 3923 | 2.95 | 40.12 | 87.8 | 93.7 | 87.8 | 93.7 | | | |
| 37 | 44 | 3909 | 1.95 | 39.98 | 87.8 | 93.7 | 87.8 | 93.7 | FH122-22P-160L-04F | 506 | 312 |
| 43 | 52 | 3367 | 3.00 | 34.43 | 88.2 | 94.3 | 88.2 | 94.3 | | | |
| 76 | 93 | 1875 | 1.95 | 19.18 | 79.2 | 95.4 | 79.2 | 95.4 | | | |
| 89 | 107 | 1615 | 3.00 | 16.52 | 75.2 | 95.7 | 75.2 | 95.7 | | | |
| 14 | 16 | 10587 | 0.80 | 108.27 | ** | ** | ** | ** | FH103-22P-160L-04F | 407 | 308 |
| 16 | 19 | 9190 | 0.90 | 93.98 | 39.2 | 58.9 | 39.2 | 58.9 | | | |
| 18 | 21 | 8145 | 1.00 | 83.30 | 45.1 | 60.1 | 45.1 | 60.1 | | | |
| 21 | 26 | 6795 | 1.20 | 69.49 | 50.8 | 61.6 | 50.8 | 61.6 | | | |
| 22 | 26 | 6609 | 1.25 | 67.59 | 51.5 | 61.8 | 51.5 | 61.8 | | | |
| 24 | 30 | 5869 | 1.40 | 60.02 | 53.8 | 62.6 | 53.8 | 62.6 | | | |
| 29 | 35 | 4962 | 1.65 | 50.75 | 56.3 | 63.6 | 56.3 | 63.6 | | | |
| 35 | 43 | 4049 | 2.00 | 41.41 | 58.2 | 64.7 | 58.2 | 64.7 | | | |
| 44 | 53 | 3285 | 2.40 | 33.60 | 59.5 | 65.5 | 59.5 | 65.5 | | | |
| 34 | 42 | 4179 | 1.55 | 42.74 | 58.0 | 64.5 | 58.0 | 64.5 | FH102-22P-160L-04F | 381 | 308 |
| 39 | 48 | 3643 | 1.95 | 37.26 | 58.9 | 65.1 | 58.9 | 65.1 | | | |
| 46 | 55 | 3139 | 2.55 | 32.10 | 59.7 | 65.7 | 59.7 | 65.7 | | | |
| 53 | 64 | 2703 | 3.00 | 27.64 | 60.3 | 66.2 | 60.3 | 66.2 | | | |
| 66 | 80 | 2165 | 1.55 | 22.14 | 57.2 | 66.5 | 57.2 | 66.5 | | | |
| 76 | 92 | 1887 | 1.95 | 19.30 | 54.4 | 66.8 | 54.4 | 66.8 | | | |
| 88 | 107 | 1626 | 3.00 | 16.63 | 51.6 | 67.2 | 51.6 | 67.2 | | | |
| 25 | 31 | 5670 | 0.80 | 57.99 | ** | ** | ** | ** | FH093-22P-160L-04F | 313 | 304 |
| 27 | 33 | 5269 | 0.90 | 53.89 | 21.9 | 36.8 | 21.9 | 36.8 | | | |
| 29 | 35 | 4892 | 0.95 | 50.03 | 25.2 | 38.5 | 25.2 | 38.5 | | | |
| 35 | 42 | 4104 | 1.10 | 41.97 | 30.3 | 39.6 | 30.3 | 39.6 | | | |
| 43 | 52 | 3336 | 1.30 | 34.12 | 33.9 | 40.6 | 33.9 | 40.6 | | | |
| 55 | 67 | 2609 | 1.50 | 26.68 | 36.3 | 41.5 | 36.3 | 41.5 | | | |
| 43 | 52 | 3337 | 1.35 | 34.13 | 33.9 | 40.6 | 33.9 | 40.6 | FH092-22P-160L-04F | 299 | 304 |
| 49 | 60 | 2897 | 1.60 | 29.63 | 35.5 | 41.2 | 35.5 | 41.2 | | | |
| 57 | 69 | 2503 | 1.80 | 25.60 | 36.6 | 41.7 | 36.6 | 41.7 | | | |
| 67 | 81 | 2142 | 2.15 | 21.91 | 37.5 | 42.2 | 37.5 | 42.2 | | | |
| 77 | 94 | 1850 | 2.45 | 18.92 | 38.2 | 42.5 | 38.2 | 42.5 | | | |
| 87 | 106 | 1642 | 1.65 | 16.79 | 38.5 | 42.5 | 38.5 | 42.5 | | | |
| 92 | 111 | 1565 | 2.90 | 16.00 | 38.7 | 42.9 | 38.7 | 42.9 | | | |
| 101 | 122 | 1425 | 1.90 | 14.57 | 38.9 | 42.9 | 38.9 | 42.9 | | | |
| 116 | 141 | 1231 | 2.20 | 12.59 | 38.3 | 43.2 | 38.3 | 43.2 | | | |
| 136 | 165 | 1054 | 2.55 | 10.78 | 36.1 | 43.4 | 36.1 | 43.4 | | | |
| 157 | 191 | 910 | 2.95 | 9.31 | 34.3 | 43.6 | 34.3 | 43.6 | | | |
| 50 | 60 | 2887 | 0.80 | 29.53 | ** | ** | ** | ** | FH083-22P-160L-04F | 259 | 300 |

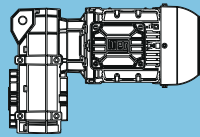
F

Legend see page 187

** ... on request

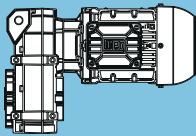
$P_N = 15 \text{ kW}$

IE3

| 50 Hz 15 kW n_{50} min ⁻¹ | 60 Hz 18 kW n_{60} min ⁻¹ | M_2 Nm | f_b | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|---|---|-------------|-------|-------|----------------|-----------------|----------------|-----------------|--|---------|--------------------------------|
| | | | | | Output shaft | | Hollow shaft | | | | |
| | | | | | F_{rN} kN | F_{aIN} kN | F_{rN} kN | F_{aIN} kN | | | |
| 49 | 59 | 2933 | 1.05 | 30.00 | 19.9 | 35.3 | 19.9 | 8.0 | FH082-22P-160L-04F | 250 | 300 |
| 56 | 68 | 2537 | 1.20 | 25.95 | 22.7 | 41.1 | 21.4 | 8.6 | | | |
| 66 | 80 | 2159 | 1.40 | 22.08 | 24.7 | 41.7 | 19.5 | 9.2 | | | |
| 78 | 94 | 1837 | 1.65 | 18.79 | 26.1 | 42.2 | 17.9 | 9.7 | | | |
| 90 | 110 | 1585 | 1.90 | 16.21 | 27.0 | 42.6 | 16.5 | 10.1 | | | |
| 103 | 125 | 1387 | 1.30 | 14.18 | 27.6 | 42.6 | 16.0 | 10.1 | | | |
| 108 | 131 | 1330 | 2.30 | 13.6 | 27.8 | 43.0 | 15.1 | 10.5 | | | |
| 119 | 145 | 1200 | 1.50 | 12.27 | 28.1 | 42.9 | 14.8 | 10.4 | | | |
| 132 | 160 | 1081 | 2.80 | 11.06 | 28.3 | 43.3 | 13.6 | 10.8 | | | |
| 140 | 170 | 1021 | 1.75 | 10.44 | 28.5 | 43.2 | 13.6 | 10.7 | | | |
| 165 | 200 | 868 | 2.05 | 8.88 | 28.7 | 43.5 | 12.6 | 11.0 | | | |
| 191 | 232 | 749 | 2.40 | 7.66 | 28.9 | 43.7 | 11.7 | 11.2 | | | |
| 228 | 276 | 629 | 2.85 | 6.43 | 29.1 | 43.9 | 10.8 | 11.4 | | | |
| 78 | 94 | 1847 | 0.85 | 18.89 | ** | ** | ** | ** | FH072-22P-160L-04F | 210 | 298 |
| 91 | 110 | 1572 | 1.00 | 16.08 | 15.0 | 15.8 | 10.3 | 4.5 | | | |
| 109 | 132 | 1319 | 1.15 | 13.49 | 16.8 | 16.3 | 10.4 | 5.1 | | | |
| 129 | 156 | 1111 | 1.40 | 11.36 | 17.9 | 16.7 | 10.4 | 5.5 | | | |
| 144 | 175 | 992 | 1.15 | 10.14 | 18.5 | 16.1 | 9.8 | 4.8 | | | |
| 157 | 190 | 911 | 1.65 | 9.32 | 18.8 | 17.1 | 9.8 | 5.9 | | | |
| 169 | 204 | 850 | 1.35 | 8.69 | 19.0 | 16.5 | 9.7 | 5.3 | | | |
| 198 | 240 | 724 | 1.55 | 7.40 | 19.4 | 16.9 | 9.0 | 5.6 | | | |
| 236 | 286 | 607 | 1.85 | 6.21 | 19.7 | 17.2 | 8.2 | 6.0 | | | |
| 280 | 339 | 511 | 2.20 | 5.23 | 19.8 | 17.5 | 7.5 | 6.2 | | | |
| 341 | 414 | 419 | 2.60 | 4.29 | 18.4 | 17.8 | 6.8 | 6.5 | | | |
| 137 | 166 | 1046 | 0.80 | 10.7 | ** | ** | ** | ** | FH062-22P-160L-04F | 187 | 296 |
| 149 | 181 | 959 | 0.90 | 9.81 | 6.5 | 9.9 | 6.5 | 2.2 | | | |
| 231 | 280 | 621 | 0.95 | 6.35 | 10.4 | 12.5 | 6.5 | 2.6 | | | |
| 273 | 331 | 524 | 1.10 | 5.36 | 11.0 | 12.9 | 6.6 | 3.0 | | | |
| 332 | 402 | 431 | 1.35 | 4.41 | 11.5 | 13.3 | 6.5 | 3.4 | | | |

Legend see page 187

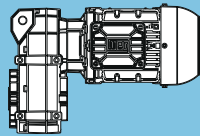
** ... on request

| P _N = 18.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 18.5 kW | | 22 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 7.6 | 9.2 | 23262 | 0.80 | 193.55 | ** | ** | ** | ** | FH153-22P-180M-04E | 791 | 316 |
| 8.6 | 10 | 20520 | 0.90 | 170.73 | 66.2 | 113.2 | 66.2 | 113.2 | | | |
| 10 | 12 | 17623 | 1.05 | 146.63 | 79.7 | 115.5 | 79.7 | 115.5 | | | |
| 12 | 14 | 14960 | 1.25 | 124.47 | 88.9 | 117.7 | 88.9 | 117.7 | | | |
| 14 | 16 | 12939 | 1.40 | 107.66 | 94.3 | 119.4 | 94.3 | 119.4 | | | |
| 15 | 18 | 12167 | 1.50 | 101.23 | 96.2 | 120.0 | 96.2 | 120.0 | | | |
| 17 | 21 | 10146 | 1.80 | 84.42 | 100.3 | 121.7 | 100.3 | 121.7 | | | |
| 18 | 22 | 9802 | 1.85 | 81.56 | 100.9 | 122.0 | 100.9 | 122.0 | | | |
| 20 | 24 | 8721 | 2.10 | 72.56 | 102.6 | 122.8 | 102.6 | 122.8 | | | |
| 22 | 26 | 8156 | 2.25 | 67.86 | 103.4 | 123.3 | 103.4 | 123.3 | | | |
| 26 | 32 | 6768 | 2.70 | 56.31 | 105.2 | 124.4 | 105.2 | 124.4 | | | |
| 10 | 12 | 17153 | 0.80 | 142.72 | ** | ** | ** | ** | FH123-22P-180M-04E | 561 | 312 |
| 12 | 14 | 14984 | 0.90 | 124.67 | 63.0 | 83.1 | 63.0 | 83.1 | | | |
| 14 | 16 | 12943 | 1.05 | 107.69 | 70.6 | 85.0 | 70.6 | 85.0 | | | |
| 16 | 20 | 10906 | 1.20 | 90.74 | 76.5 | 87.0 | 76.5 | 87.0 | | | |
| 17 | 20 | 10704 | 1.25 | 89.06 | 77.0 | 87.2 | 77.0 | 87.2 | | | |
| 19 | 23 | 9391 | 1.40 | 78.14 | 80.0 | 88.5 | 80.0 | 88.5 | | | |
| 20 | 24 | 8807 | 1.50 | 73.28 | 81.2 | 89.0 | 81.2 | 89.0 | | | |
| 22 | 26 | 8204 | 1.60 | 68.26 | 82.3 | 89.6 | 82.3 | 89.6 | | | |
| 24 | 29 | 7240 | 1.80 | 60.24 | 83.9 | 90.5 | 83.9 | 90.5 | | | |
| 25 | 30 | 7086 | 1.85 | 58.96 | 84.2 | 90.7 | 84.2 | 90.7 | | | |
| 29 | 35 | 6146 | 2.10 | 51.14 | 85.5 | 91.6 | 85.5 | 91.6 | | | |
| 30 | 36 | 5860 | 2.10 | 48.76 | 85.8 | 91.9 | 85.8 | 91.9 | | | |
| 37 | 44 | 4822 | 2.40 | 40.12 | 87.0 | 92.9 | 87.0 | 92.9 | | | |
| 45 | 54 | 3964 | 2.75 | 32.98 | 87.7 | 93.7 | 87.7 | 93.7 | | | |
| 37 | 44 | 4805 | 1.60 | 39.98 | 87.0 | 92.9 | 87.0 | 92.9 | FH122-22P-180M-04E | 520 | 312 |
| 43 | 52 | 4138 | 2.45 | 34.43 | 87.6 | 93.5 | 87.6 | 93.5 | | | |
| 77 | 93 | 2305 | 1.60 | 19.18 | 79.9 | 94.9 | 79.9 | 94.9 | | | |
| 89 | 107 | 1985 | 2.45 | 16.52 | 76.0 | 95.3 | 76.0 | 95.3 | | | |
| 18 | 21 | 10012 | 0.80 | 83.30 | ** | ** | ** | ** | FH103-22P-180M-04E | 421 | 308 |
| 21 | 26 | 8352 | 1.00 | 69.49 | 44.0 | 59.9 | 44.0 | 59.9 | | | |
| 22 | 26 | 8123 | 1.00 | 67.59 | 45.2 | 60.1 | 45.2 | 60.1 | | | |
| 24 | 30 | 7214 | 1.15 | 60.02 | 49.2 | 61.1 | 49.2 | 61.1 | | | |
| 27 | 33 | 6485 | 1.25 | 53.96 | 51.9 | 62.0 | 51.9 | 62.0 | | | |
| 29 | 35 | 6099 | 1.35 | 50.75 | 53.1 | 62.4 | 53.1 | 62.4 | | | |
| 35 | 43 | 4977 | 1.65 | 41.41 | 56.2 | 63.6 | 56.2 | 63.6 | | | |
| 44 | 53 | 4038 | 2.00 | 33.60 | 58.2 | 64.7 | 58.2 | 64.7 | | | |
| 55 | 66 | 3225 | 2.30 | 26.83 | 59.6 | 65.6 | 59.6 | 65.6 | | | |
| 39 | 48 | 4478 | 1.60 | 37.26 | 57.4 | 64.2 | 57.4 | 64.2 | FH102-22P-180M-04E | 395 | 308 |
| 46 | 55 | 3858 | 2.10 | 32.10 | 58.6 | 64.9 | 58.6 | 64.9 | | | |
| 53 | 64 | 3322 | 2.45 | 27.64 | 59.5 | 65.5 | 59.5 | 65.5 | | | |
| 61 | 74 | 2901 | 2.80 | 24.14 | 59.5 | 65.9 | 59.5 | 65.9 | | | |
| 76 | 92 | 2320 | 1.60 | 19.30 | 55.4 | 66.3 | 55.4 | 66.3 | | | |
| 88 | 107 | 1999 | 2.45 | 16.63 | 52.5 | 66.7 | 52.5 | 66.7 | | | |
| 50 | 60 | 3561 | 1.30 | 29.63 | 32.9 | 40.3 | 32.9 | 40.3 | FH092-22P-180M-04E | 313 | 304 |
| 57 | 69 | 3077 | 1.50 | 25.60 | 34.8 | 40.9 | 34.8 | 40.9 | | | |
| 67 | 81 | 2633 | 1.75 | 21.91 | 36.3 | 41.5 | 36.3 | 41.5 | | | |
| 78 | 94 | 2274 | 2.00 | 18.92 | 37.2 | 42.0 | 37.2 | 42.0 | | | |
| 92 | 111 | 1923 | 2.35 | 16.00 | 38.0 | 42.5 | 38.0 | 42.5 | | | |
| 101 | 122 | 1751 | 1.55 | 14.57 | 38.3 | 42.4 | 38.3 | 42.4 | | | |
| 113 | 136 | 1570 | 2.90 | 13.06 | 38.7 | 42.9 | 38.7 | 42.9 | | | |
| 117 | 141 | 1513 | 1.80 | 12.59 | 38.8 | 42.7 | 38.8 | 42.7 | | | |
| 136 | 165 | 1296 | 2.10 | 10.78 | 37.0 | 43.1 | 37.0 | 43.1 | | | |
| 158 | 191 | 1119 | 2.40 | 9.31 | 34.9 | 43.3 | 34.9 | 43.3 | | | |
| 187 | 226 | 946 | 2.85 | 7.87 | 32.8 | 43.6 | 32.8 | 43.6 | | | |

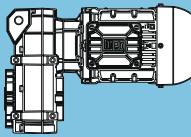
F

Legend see page 187

** ... on request

| P _N = 18.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 18.5 kW | | 22 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 57 | 68 | 3119 | 1.00 | 25.95 | 18.3 | 31.8 | 18.3 | 7.7 | FH082-22P-180M-04E | 264 | 300 |
| 67 | 80 | 2654 | 1.15 | 22.08 | 22.0 | 39.9 | 19.3 | 8.4 | | | |
| 78 | 94 | 2258 | 1.35 | 18.79 | 24.3 | 41.5 | 19.1 | 9.0 | | | |
| 91 | 110 | 1948 | 1.55 | 16.21 | 25.7 | 42.0 | 17.6 | 9.5 | | | |
| 108 | 131 | 1635 | 1.85 | 13.60 | 26.8 | 42.5 | 16.0 | 10.0 | | | |
| 120 | 145 | 1475 | 1.20 | 12.27 | 27.3 | 42.4 | 15.7 | 9.9 | | | |
| 133 | 160 | 1329 | 2.30 | 11.06 | 27.8 | 43.0 | 14.3 | 10.5 | | | |
| 141 | 170 | 1255 | 1.45 | 10.44 | 27.9 | 42.8 | 14.4 | 10.3 | | | |
| 166 | 200 | 1067 | 1.70 | 8.88 | 28.4 | 43.1 | 13.2 | 10.6 | | | |
| 170 | 205 | 1040 | 2.90 | 8.65 | 28.4 | 43.4 | 12.6 | 10.9 | | | |
| 192 | 232 | 921 | 1.95 | 7.66 | 28.6 | 43.4 | 12.3 | 10.9 | | | |
| 229 | 276 | 773 | 2.30 | 6.43 | 28.9 | 43.6 | 11.2 | 11.1 | | | |
| 281 | 339 | 629 | 2.85 | 5.23 | 27.8 | 43.9 | 10.2 | 11.4 | | | |

Legend see page 187

| P _N = 22 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 22 kW | | 26 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 10 | 12 | 20957 | 0.90 | 146.63 | 63.7 | 110.2 | 63.7 | 110.2 | FH153-22P-180L-04F | 812 | 316 |
| 12 | 14 | 17790 | 1.05 | 124.47 | 79.0 | 115.4 | 79.0 | 115.4 | | | |
| 14 | 16 | 15387 | 1.20 | 107.66 | 87.5 | 117.4 | 87.5 | 117.4 | | | |
| 15 | 18 | 14468 | 1.25 | 101.23 | 90.3 | 118.1 | 90.3 | 118.1 | | | |
| 17 | 21 | 12066 | 1.50 | 84.42 | 96.4 | 120.1 | 96.4 | 120.1 | | | |
| 18 | 22 | 11657 | 1.55 | 81.56 | 97.3 | 120.4 | 97.3 | 120.4 | | | |
| 20 | 24 | 10371 | 1.75 | 72.56 | 99.8 | 121.5 | 99.8 | 121.5 | | | |
| 22 | 26 | 9699 | 1.90 | 67.86 | 101.0 | 122.0 | 101.0 | 122.0 | | | |
| 26 | 32 | 8048 | 2.25 | 56.31 | 103.6 | 123.4 | 103.6 | 123.4 | | | |
| 31 | 38 | 6712 | 2.70 | 46.96 | 105.3 | 124.5 | 105.3 | 124.5 | | | |
| 40 | 49 | 5222 | 3.00 | 36.54 | 106.8 | 125.7 | 106.8 | 125.7 | FH152-22P-180L-04F | 774 | 316 |
| 85 | 102 | 2480 | 3.00 | 17.35 | 108.5 | 127.7 | 108.5 | 127.7 | | | |
| 14 | 16 | 15392 | 0.85 | 107.69 | ** | ** | ** | ** | FH123-22P-180L-04F | 582 | 312 |
| 16 | 20 | 12969 | 1.05 | 90.74 | 70.6 | 85.0 | 70.6 | 85.0 | | | |
| 17 | 20 | 12729 | 1.05 | 89.06 | 71.3 | 85.2 | 71.3 | 85.2 | | | |
| 19 | 23 | 11168 | 1.20 | 78.14 | 75.9 | 86.7 | 75.9 | 86.7 | | | |
| 20 | 24 | 10474 | 1.25 | 73.28 | 77.6 | 87.4 | 77.6 | 87.4 | | | |
| 22 | 26 | 9756 | 1.35 | 68.26 | 79.3 | 88.1 | 79.3 | 88.1 | | | |
| 24 | 29 | 8610 | 1.55 | 60.24 | 81.6 | 89.2 | 81.6 | 89.2 | | | |
| 25 | 30 | 8427 | 1.55 | 58.96 | 81.9 | 89.4 | 81.9 | 89.4 | | | |
| 29 | 35 | 7309 | 1.75 | 51.14 | 83.8 | 90.5 | 83.8 | 90.5 | | | |
| 30 | 36 | 6969 | 1.80 | 48.76 | 84.3 | 90.8 | 84.3 | 90.8 | | | |
| 37 | 44 | 5734 | 2.05 | 40.12 | 86.0 | 92.0 | 86.0 | 92.0 | FH122-22P-180L-04F | 541 | 312 |
| 45 | 54 | 4714 | 2.35 | 32.98 | 87.1 | 93.0 | 87.1 | 93.0 | | | |
| 53 | 63 | 4002 | 2.60 | 28.00 | 87.7 | 93.6 | 87.7 | 93.6 | | | |
| 37 | 44 | 5714 | 1.35 | 39.98 | 86.0 | 92.0 | 86.0 | 92.0 | | | |
| 43 | 52 | 4921 | 2.05 | 34.43 | 86.9 | 92.8 | 86.9 | 92.8 | | | |
| 49 | 60 | 4256 | 2.95 | 29.78 | 87.5 | 93.4 | 87.5 | 93.4 | | | |
| 77 | 93 | 2741 | 1.35 | 19.18 | 80.9 | 94.4 | 80.9 | 94.4 | FH103-22P-180L-04F | 442 | 308 |
| 89 | 107 | 2361 | 2.05 | 16.52 | 76.9 | 94.9 | 76.9 | 94.9 | | | |
| 103 | 124 | 2042 | 2.95 | 14.29 | 73.1 | 95.2 | 73.1 | 95.2 | | | |
| 21 | 26 | 9932 | 0.85 | 69.49 | ** | ** | ** | ** | FH102-22P-180L-04F | 416 | 308 |
| 22 | 26 | 9660 | 0.85 | 67.59 | ** | ** | ** | ** | | | |
| 24 | 30 | 8578 | 0.95 | 60.02 | 42.8 | 59.6 | 42.8 | 59.6 | | | |
| 27 | 33 | 7712 | 1.05 | 53.96 | 47.1 | 60.6 | 47.1 | 60.6 | | | |
| 29 | 35 | 7253 | 1.15 | 50.75 | 49.0 | 61.1 | 49.0 | 61.1 | | | |
| 35 | 43 | 5919 | 1.40 | 41.41 | 53.7 | 62.6 | 53.7 | 62.6 | | | |
| 44 | 53 | 4802 | 1.65 | 33.60 | 56.6 | 63.8 | 56.6 | 63.8 | FH092-22P-180L-04F | 334 | 304 |
| 55 | 66 | 3835 | 1.95 | 26.83 | 58.6 | 64.9 | 58.6 | 64.9 | | | |
| 39 | 48 | 5325 | 1.35 | 37.26 | 55.4 | 63.2 | 55.4 | 63.2 | | | |
| 46 | 55 | 4588 | 1.75 | 32.10 | 57.1 | 64.1 | 57.1 | 64.1 | | | |
| 53 | 64 | 3950 | 2.05 | 27.64 | 58.4 | 64.8 | 58.4 | 64.8 | | | |
| 61 | 74 | 3450 | 2.35 | 24.14 | 59.3 | 65.3 | 59.3 | 65.3 | | | |
| 70 | 85 | 2981 | 2.70 | 20.86 | 57.5 | 65.8 | 57.5 | 65.8 | | | |
| 76 | 92 | 2758 | 1.35 | 19.30 | 56.5 | 65.7 | 56.5 | 65.7 | FH092-22P-180L-04F | 334 | 304 |
| 88 | 107 | 2377 | 2.05 | 16.63 | 53.4 | 66.2 | 53.4 | 66.2 | | | |
| 103 | 124 | 2047 | 2.65 | 14.32 | 50.4 | 66.6 | 50.4 | 66.6 | | | |
| 50 | 60 | 4235 | 1.10 | 29.63 | 29.6 | 39.4 | 29.6 | 39.4 | | | |
| 57 | 69 | 3659 | 1.25 | 25.60 | 32.5 | 40.2 | 32.5 | 40.2 | | | |
| 67 | 81 | 3131 | 1.45 | 21.91 | 34.6 | 40.9 | 34.6 | 40.9 | | | |
| 78 | 94 | 2704 | 1.70 | 18.92 | 36.1 | 41.4 | 36.1 | 41.4 | | | |
| 92 | 111 | 2287 | 2.00 | 16.00 | 37.2 | 42.0 | 37.2 | 42.0 | | | |
| 101 | 122 | 2082 | 1.30 | 14.57 | 37.7 | 41.9 | 37.7 | 41.9 | | | |
| 113 | 136 | 1867 | 2.45 | 13.06 | 38.1 | 42.5 | 38.1 | 42.5 | | | |
| 117 | 141 | 1799 | 1.50 | 12.59 | 38.3 | 42.3 | 38.3 | 42.3 | | | |
| 136 | 165 | 1541 | 1.75 | 10.78 | 37.8 | 42.7 | 37.8 | 42.7 | | | |
| 139 | 168 | 1514 | 3.00 | 10.59 | 36.9 | 43.0 | 36.9 | 43.0 | | | |
| 158 | 191 | 1331 | 2.05 | 9.31 | 35.6 | 43.0 | 35.6 | 43.0 | | | |
| 187 | 226 | 1125 | 2.40 | 7.87 | 33.4 | 43.3 | 33.4 | 43.3 | | | |
| 229 | 276 | 918 | 2.95 | 6.42 | 31.0 | 43.6 | 31.0 | 43.6 | | | |



Legend see page 187

** ... on request

| P _N = 22 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|---------|--------------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | | | | | m kg | Dimension sheet see page |
| 22 kW | 26 kW | M ₂ Nm | f _B | i | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 57 | 68 | 3709 | 0.85 | 25.95 | ** | ** | ** | ** | FH082-22P-180L-04F | 285 | 300 |
| 67 | 80 | 3156 | 1.00 | 22.08 | 18.0 | 31.1 | 17.6 | 7.6 | | | |
| 78 | 94 | 2686 | 1.15 | 18.79 | 21.7 | 39.3 | 17.7 | 8.4 | | | |
| 91 | 110 | 2317 | 1.30 | 16.21 | 23.9 | 41.4 | 17.7 | 8.9 | | | |
| 108 | 131 | 1944 | 1.55 | 13.6 | 25.7 | 42.0 | 16.9 | 9.5 | | | |
| 120 | 145 | 1754 | 1.05 | 12.27 | 26.4 | 41.9 | 16.5 | 9.4 | | | |
| 133 | 160 | 1581 | 1.90 | 11.06 | 27.0 | 42.6 | 15.1 | 10.1 | | | |
| 141 | 170 | 1492 | 1.20 | 10.44 | 27.3 | 42.4 | 15.2 | 9.9 | | | |
| 166 | 200 | 1269 | 1.40 | 8.88 | 27.9 | 42.8 | 13.9 | 10.3 | | | |
| 170 | 205 | 1236 | 2.45 | 8.65 | 28.0 | 43.1 | 13.2 | 10.6 | | | |
| 192 | 232 | 1095 | 1.65 | 7.66 | 28.3 | 43.1 | 12.9 | 10.6 | | | |
| 229 | 276 | 919 | 1.95 | 6.43 | 28.6 | 43.4 | 11.8 | 10.9 | | | |
| 281 | 339 | 747 | 2.40 | 5.23 | 28.2 | 43.7 | 10.6 | 11.2 | | | |
| 359 | 434 | 585 | 2.70 | 4.09 | 25.8 | 44.0 | 9.4 | 11.5 | | | |

Legend see page 187

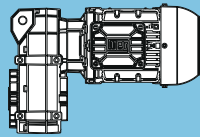
** ... on request

| P _N = 30 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | | | m kg | Dimension sheet see page |
| 30 kW | | 36 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 12 | 15 | 23617 | 0.80 | 122.00 | ** | ** | ** | ** | FH153-22P-200L-04E | 870 | 316 |
| 14 | 17 | 20841 | 0.90 | 107.66 | 64.4 | 111.7 | 64.4 | 111.7 | | | |
| 15 | 18 | 19596 | 0.95 | 101.23 | 71.0 | 113.9 | 71.0 | 113.9 | | | |
| 16 | 19 | 18384 | 1.00 | 94.97 | 76.5 | 114.9 | 76.5 | 114.9 | | | |
| 18 | 21 | 16342 | 1.15 | 84.42 | 84.4 | 116.6 | 84.4 | 116.6 | | | |
| 20 | 25 | 14046 | 1.30 | 72.56 | 91.5 | 118.5 | 91.5 | 118.5 | | | |
| 22 | 26 | 13136 | 1.40 | 67.86 | 93.9 | 119.2 | 93.9 | 119.2 | | | |
| 24 | 28 | 12155 | 1.50 | 62.79 | 96.2 | 120.0 | 96.2 | 120.0 | | | |
| 26 | 32 | 10901 | 1.70 | 56.31 | 98.8 | 121.1 | 98.8 | 121.1 | | | |
| 32 | 38 | 9091 | 2.00 | 46.96 | 102.0 | 122.5 | 102.0 | 122.5 | | | |
| 37 | 44 | 7813 | 2.35 | 40.36 | 103.9 | 123.6 | 103.9 | 123.6 | | | |
| 42 | 51 | 6762 | 2.70 | 34.93 | 105.2 | 124.5 | 105.2 | 124.5 | | | |
| 41 | 49 | 7073 | 2.20 | 36.54 | 104.9 | 124.2 | 104.9 | 124.2 | FH152-22P-200L-04E | 832 | 316 |
| 85 | 103 | 3359 | 2.20 | 17.35 | 108.1 | 126.9 | 108.1 | 126.9 | | | |
| 17 | 20 | 17240 | 0.80 | 89.06 | ** | ** | ** | ** | FH123-22P-200L-04E | 640 | 312 |
| 19 | 23 | 15126 | 0.90 | 78.14 | 62.4 | 82.9 | 62.4 | 82.9 | | | |
| 20 | 24 | 14186 | 0.95 | 73.28 | 66.3 | 83.8 | 66.3 | 83.8 | | | |
| 22 | 26 | 13214 | 1.00 | 68.26 | 69.7 | 84.8 | 69.7 | 84.8 | | | |
| 25 | 30 | 11661 | 1.15 | 60.24 | 74.5 | 86.3 | 74.5 | 86.3 | | | |
| 29 | 35 | 9900 | 1.30 | 51.14 | 78.9 | 88.0 | 78.9 | 88.0 | | | |
| 30 | 37 | 9439 | 1.30 | 48.76 | 79.9 | 88.4 | 79.9 | 88.4 | | | |
| 34 | 41 | 8450 | 1.45 | 43.65 | 81.9 | 89.4 | 81.9 | 89.4 | | | |
| 37 | 44 | 7766 | 1.50 | 40.12 | 83.1 | 90.0 | 83.1 | 90.0 | | | |
| 45 | 54 | 6384 | 1.75 | 32.98 | 85.2 | 91.3 | 85.2 | 91.3 | | | |
| 53 | 64 | 5420 | 1.95 | 28.00 | 86.3 | 92.3 | 86.3 | 92.3 | | | |
| 62 | 74 | 4627 | 2.15 | 23.90 | 87.2 | 93.0 | 87.2 | 93.0 | | | |
| 50 | 60 | 5765 | 2.20 | 29.78 | 85.9 | 91.9 | 85.9 | 91.9 | FH122-22P-200L-04E | 599 | 312 |
| 56 | 68 | 5085 | 2.60 | 26.27 | 86.7 | 92.6 | 86.7 | 92.6 | | | |
| 66 | 79 | 4367 | 3.00 | 22.56 | 86.8 | 93.3 | 86.8 | 93.3 | | | |
| 104 | 125 | 2766 | 2.20 | 14.29 | 74.5 | 94.4 | 74.5 | 94.4 | | | |
| 117 | 141 | 2441 | 3.00 | 12.61 | 71.4 | 94.8 | 71.4 | 94.8 | | | |
| 27 | 33 | 10446 | 0.80 | 53.96 | ** | ** | ** | ** | FH103-22P-200L-04E | 500 | 308 |
| 29 | 35 | 9824 | 0.85 | 50.75 | ** | ** | ** | ** | | | |
| 36 | 43 | 8016 | 1.00 | 41.41 | 45.7 | 60.2 | 45.7 | 60.2 | | | |
| 44 | 53 | 6504 | 1.25 | 33.60 | 51.8 | 61.9 | 51.8 | 61.9 | | | |
| 55 | 66 | 5194 | 1.45 | 26.83 | 55.7 | 63.4 | 55.7 | 63.4 | | | |
| 54 | 64 | 5351 | 1.50 | 27.64 | 55.3 | 63.2 | 55.3 | 63.2 | FH102-22P-200L-04E | 474 | 308 |
| 61 | 74 | 4673 | 1.75 | 24.14 | 56.9 | 64.0 | 56.9 | 64.0 | | | |
| 71 | 85 | 4038 | 2.00 | 20.86 | 58.2 | 64.7 | 58.2 | 64.7 | | | |
| 86 | 103 | 3339 | 2.40 | 17.25 | 55.3 | 65.5 | 55.3 | 65.5 | | | |
| 103 | 124 | 2772 | 1.95 | 14.32 | 52.2 | 65.7 | 52.2 | 65.7 | | | |
| 104 | 125 | 2747 | 2.95 | 14.19 | 51.3 | 66.1 | 51.3 | 66.1 | | | |
| 118 | 142 | 2422 | 2.25 | 12.51 | 49.5 | 66.2 | 49.5 | 66.2 | | | |
| 137 | 165 | 2091 | 2.60 | 10.80 | 46.8 | 66.6 | 46.8 | 66.6 | | | |
| 68 | 81 | 4241 | 1.10 | 21.91 | 29.5 | 39.4 | 29.5 | 39.4 | FH092-22P-200L-04E | 392 | 304 |
| 78 | 94 | 3663 | 1.25 | 18.92 | 32.5 | 40.1 | 32.5 | 40.1 | | | |
| 93 | 111 | 3097 | 1.50 | 16.00 | 34.8 | 40.9 | 34.8 | 40.9 | | | |
| 113 | 136 | 2528 | 1.80 | 13.06 | 36.6 | 41.7 | 36.6 | 41.7 | | | |
| 137 | 165 | 2087 | 1.30 | 10.78 | 37.7 | 41.9 | 37.7 | 41.9 | | | |
| 140 | 168 | 2050 | 2.20 | 10.59 | 37.7 | 42.3 | 37.7 | 42.3 | | | |
| 159 | 191 | 1802 | 1.50 | 9.31 | 37.2 | 42.3 | 37.2 | 42.3 | | | |
| 175 | 210 | 1638 | 2.45 | 8.46 | 35.1 | 42.8 | 35.1 | 42.8 | | | |
| 188 | 226 | 1523 | 1.80 | 7.87 | 34.7 | 42.7 | 34.7 | 42.7 | | | |
| 231 | 277 | 1243 | 2.20 | 6.42 | 32.0 | 43.1 | 32.0 | 43.1 | | | |
| 284 | 342 | 1009 | 2.60 | 5.21 | 29.5 | 43.5 | 29.5 | 43.5 | | | |
| 356 | 428 | 805 | 2.85 | 4.16 | 27.1 | 43.8 | 27.1 | 43.8 | | | |

F

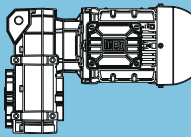
Legend see page 187

** ... on request

| P _N = 37 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 37 kW | | 44 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 16 | 19 | 22674 | 0.80 | 94.97 | ** | ** | ** | ** | FH153-22P-200L-04F | 897 | 316 |
| 18 | 21 | 20155 | 0.90 | 84.42 | 68.1 | 113.5 | 68.1 | 113.5 | | | |
| 20 | 25 | 17324 | 1.05 | 72.56 | 80.8 | 115.8 | 80.8 | 115.8 | | | |
| 22 | 26 | 16202 | 1.15 | 67.86 | 84.9 | 116.7 | 84.9 | 116.7 | | | |
| 24 | 28 | 14991 | 1.25 | 62.79 | 88.8 | 117.7 | 88.8 | 117.7 | | | |
| 26 | 32 | 13444 | 1.35 | 56.31 | 93.1 | 119.0 | 93.1 | 119.0 | | | |
| 32 | 38 | 11212 | 1.65 | 46.96 | 98.2 | 120.8 | 98.2 | 120.8 | | | |
| 37 | 44 | 9636 | 1.90 | 40.36 | 101.1 | 122.1 | 101.1 | 122.1 | | | |
| 42 | 51 | 8340 | 2.20 | 34.93 | 103.2 | 123.2 | 103.2 | 123.2 | | | |
| 41 | 49 | 8724 | 1.80 | 36.54 | 102.6 | 122.8 | 102.6 | 122.8 | | | |
| 53 | 64 | 6649 | 2.75 | 27.85 | 105.4 | 124.5 | 105.4 | 124.5 | | | |
| 85 | 103 | 4142 | 1.80 | 17.35 | 107.6 | 126.1 | 107.6 | 126.1 | | | |
| 22 | 26 | 16297 | 0.80 | 68.26 | ** | ** | ** | ** | FH123-22P-200L-04F | 667 | 312 |
| 25 | 30 | 14382 | 0.95 | 60.24 | 65.5 | 83.6 | 65.5 | 83.6 | | | |
| 29 | 35 | 12210 | 1.05 | 51.14 | 72.9 | 85.7 | 72.9 | 85.7 | | | |
| 30 | 37 | 11641 | 1.05 | 48.76 | 74.6 | 86.3 | 74.6 | 86.3 | | | |
| 34 | 41 | 10421 | 1.20 | 43.65 | 77.7 | 87.5 | 77.7 | 87.5 | | | |
| 37 | 44 | 9579 | 1.25 | 40.12 | 79.6 | 88.3 | 79.6 | 88.3 | | | |
| 45 | 54 | 7874 | 1.40 | 32.98 | 82.9 | 89.9 | 82.9 | 89.9 | | | |
| 53 | 64 | 6685 | 1.55 | 28.00 | 84.7 | 91.1 | 84.7 | 91.1 | | | |
| 62 | 75 | 5706 | 1.75 | 23.90 | 86.0 | 92.0 | 86.0 | 92.0 | | | |
| 50 | 60 | 7110 | 1.80 | 29.78 | 84.1 | 90.6 | 84.1 | 90.6 | | | |
| 56 | 68 | 6272 | 2.10 | 26.27 | 85.3 | 91.5 | 85.3 | 91.5 | | | |
| 66 | 79 | 5386 | 2.40 | 22.56 | 86.4 | 92.3 | 86.4 | 92.3 | | | |
| 79 | 95 | 4481 | 2.80 | 18.77 | 82.9 | 93.2 | 82.9 | 93.2 | | | |
| 104 | 125 | 3412 | 1.80 | 14.29 | 76.0 | 93.7 | 76.0 | 93.7 | | | |
| 117 | 141 | 3011 | 2.45 | 12.61 | 72.7 | 94.1 | 72.7 | 94.1 | | | |
| 137 | 165 | 2586 | 2.80 | 10.83 | 68.7 | 94.6 | 68.7 | 94.6 | | | |
| 54 | 64 | 6599 | 1.25 | 27.64 | 51.5 | 61.8 | 51.5 | 61.8 | FH102-22P-200L-04F | 501 | 308 |
| 61 | 74 | 5763 | 1.40 | 24.14 | 54.2 | 62.8 | 54.2 | 62.8 | | | |
| 71 | 85 | 4980 | 1.65 | 20.86 | 56.2 | 63.6 | 56.2 | 63.6 | | | |
| 86 | 103 | 4118 | 1.95 | 17.25 | 57.0 | 64.6 | 57.0 | 64.6 | | | |
| 103 | 124 | 3419 | 1.60 | 14.32 | 53.8 | 64.9 | 53.8 | 64.9 | | | |
| 104 | 126 | 3388 | 2.40 | 14.19 | 52.7 | 65.4 | 52.7 | 65.4 | | | |
| 118 | 142 | 2987 | 1.85 | 12.51 | 50.9 | 65.5 | 50.9 | 65.5 | | | |
| 127 | 153 | 2786 | 2.85 | 11.67 | 48.8 | 66.1 | 48.8 | 66.1 | | | |
| 137 | 165 | 2579 | 2.15 | 10.80 | 48.0 | 66.0 | 48.0 | 66.0 | | | |
| 149 | 180 | 2366 | 3.25 | 9.91 | 45.8 | 66.5 | 45.8 | 66.5 | | | |
| 166 | 199 | 2134 | 2.55 | 8.94 | 44.6 | 66.5 | 44.6 | 66.5 | | | |
| 175 | 211 | 2017 | 3.65 | 8.45 | 43.2 | 66.9 | 43.2 | 66.9 | | | |
| 201 | 242 | 1755 | 3.10 | 7.35 | 41.4 | 67.0 | 41.4 | 67.0 | | | |
| 245 | 295 | 1442 | 3.80 | 6.04 | 38.5 | 67.4 | 38.5 | 67.4 | | | |
| 288 | 347 | 1225 | 4.45 | 5.13 | 36.3 | 67.6 | 36.3 | 67.6 | | | |
| 338 | 407 | 1046 | 5.20 | 4.38 | 34.3 | 67.3 | 34.3 | 67.3 | | | |

Legend see page 187

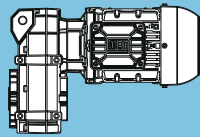
** ... on request

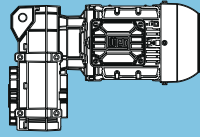
| P _N = 45 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 45 kW | | 55 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 18 | 22 | 23683 | 0.80 | 81.56 | ** | ** | ** | ** | FH153-22P-225S/M-04F | 1034 | 316 | |
| 20 | 25 | 21069 | 0.90 | 72.56 | 63.0 | 108.7 | 63.0 | 108.7 | | | | |
| 22 | 26 | 19705 | 0.95 | 67.86 | 70.4 | 113.8 | 70.4 | 113.8 | | | | |
| 24 | 28 | 18232 | 1.00 | 62.79 | 77.2 | 115.0 | 77.2 | 115.0 | | | | |
| 26 | 32 | 16351 | 1.15 | 56.31 | 84.4 | 116.6 | 84.4 | 116.6 | | | | |
| 32 | 38 | 13636 | 1.35 | 46.96 | 92.6 | 118.8 | 92.6 | 118.8 | | | | |
| 37 | 44 | 11719 | 1.55 | 40.36 | 97.1 | 120.4 | 97.1 | 120.4 | | | | |
| 42 | 51 | 10143 | 1.80 | 34.93 | 100.3 | 121.7 | 100.3 | 121.7 | | | | |
| 41 | 49 | 10610 | 1.50 | 36.54 | 99.4 | 121.3 | 99.4 | 121.3 | FH152-22P-225S/M-04F | 996 | 316 | |
| 53 | 64 | 8087 | 2.25 | 27.85 | 103.5 | 123.4 | 103.5 | 123.4 | | | | |
| 63 | 76 | 6789 | 2.70 | 23.38 | 105.2 | 124.4 | 105.2 | 124.4 | | | | |
| 85 | 103 | 5038 | 1.50 | 17.35 | 106.9 | 125.3 | 106.9 | 125.3 | | | | |
| 112 | 135 | 3839 | 2.60 | 13.22 | 107.8 | 126.4 | 107.8 | 126.4 | | | | |
| 25 | 30 | 17120 | 0.80 | 58.96 | ** | ** | ** | ** | FH123-22P-225S/M-04F | 804 | 312 | |
| 29 | 35 | 14850 | 0.85 | 51.14 | ** | ** | ** | ** | | | | |
| 30 | 37 | 14159 | 0.90 | 48.76 | 66.4 | 83.9 | 66.4 | 83.9 | | | | |
| 34 | 41 | 12675 | 0.95 | 43.65 | 71.5 | 85.3 | 71.5 | 85.3 | | | | |
| 37 | 44 | 11650 | 1.00 | 40.12 | 74.6 | 86.3 | 74.6 | 86.3 | | | | |
| 45 | 54 | 9576 | 1.15 | 32.98 | 79.6 | 88.3 | 79.6 | 88.3 | | | | |
| 53 | 64 | 8130 | 1.30 | 28.00 | 82.5 | 89.7 | 82.5 | 89.7 | | | | |
| 62 | 75 | 6940 | 1.45 | 23.90 | 84.4 | 90.8 | 84.4 | 90.8 | | | | |
| 50 | 60 | 8647 | 1.50 | 29.78 | 81.5 | 89.2 | 81.5 | 89.2 | FH122-22P-225S/M-04F | 763 | 312 | |
| 56 | 68 | 7628 | 1.75 | 26.27 | 83.3 | 90.1 | 83.3 | 90.1 | | | | |
| 66 | 79 | 6551 | 2.00 | 22.56 | 84.9 | 91.2 | 84.9 | 91.2 | | | | |
| 79 | 95 | 5450 | 2.30 | 18.77 | 84.8 | 92.2 | 84.8 | 92.2 | | | | |
| 95 | 114 | 4524 | 2.65 | 15.58 | 79.0 | 93.1 | 79.0 | 93.1 | | | | |
| 104 | 125 | 4149 | 1.50 | 14.29 | 77.7 | 92.9 | 77.7 | 92.9 | | | | |
| 117 | 141 | 3662 | 2.00 | 12.61 | 74.2 | 93.4 | 74.2 | 93.4 | | | | |
| 137 | 165 | 3145 | 2.30 | 10.83 | 70.0 | 94.0 | 70.0 | 94.0 | | | | |
| 54 | 64 | 8026 | 1.00 | 27.64 | 45.6 | 60.2 | 45.6 | 60.2 | FH102-22P-225S/M-04F | 638 | 308 | |
| 61 | 74 | 7010 | 1.15 | 24.14 | 50.0 | 61.4 | 50.0 | 61.4 | | | | |
| 71 | 85 | 6057 | 1.35 | 20.86 | 53.3 | 62.4 | 53.3 | 62.4 | | | | |
| 86 | 103 | 5009 | 1.60 | 17.25 | 56.2 | 63.6 | 56.2 | 63.6 | | | | |
| 103 | 124 | 4158 | 1.30 | 14.32 | 55.6 | 64.0 | 55.6 | 64.0 | | | | |
| 104 | 126 | 4120 | 1.95 | 14.19 | 54.3 | 64.6 | 54.3 | 64.6 | | | | |
| 118 | 142 | 3633 | 1.50 | 12.51 | 52.5 | 64.7 | 52.5 | 64.7 | | | | |
| 127 | 153 | 3389 | 2.35 | 11.67 | 50.1 | 65.4 | 50.1 | 65.4 | | | | |
| 137 | 165 | 3136 | 1.75 | 10.80 | 49.4 | 65.3 | 49.4 | 65.3 | | | | |
| 149 | 180 | 2878 | 2.65 | 9.91 | 47.0 | 66.0 | 47.0 | 66.0 | | | | |
| 166 | 199 | 2596 | 2.10 | 8.94 | 45.7 | 66.0 | 45.7 | 66.0 | | | | |
| 175 | 211 | 2454 | 3.00 | 8.45 | 44.1 | 66.4 | 44.1 | 66.4 | | | | |
| 201 | 242 | 2134 | 2.55 | 7.35 | 42.4 | 66.5 | 42.4 | 66.5 | | | | |
| 245 | 295 | 1754 | 3.10 | 6.04 | 39.3 | 67.0 | 39.3 | 67.0 | | | | |
| 288 | 347 | 1490 | 3.65 | 5.13 | 37.0 | 67.3 | 37.0 | 67.3 | | | | |
| 338 | 407 | 1272 | 4.30 | 4.38 | 34.9 | 67.6 | 34.9 | 67.6 | | | | |

F

Legend see page 187

** ... on request

| P_N = 55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|------------|-----------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 55 kW | 66 kW | | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 24 | 28 | 22284 | 0.85 | 62.79 | ** | ** | ** | ** | FH153-22P-225S/M-04G | 1082 | 316 |
| 26 | 32 | 19984 | 0.95 | 56.31 | 69.0 | 113.6 | 69.0 | 113.6 | | | |
| 32 | 38 | 16666 | 1.10 | 46.96 | 83.3 | 116.3 | 83.3 | 116.3 | | | |
| 37 | 44 | 14324 | 1.30 | 40.36 | 90.7 | 118.2 | 90.7 | 118.2 | | | |
| 42 | 51 | 12397 | 1.50 | 34.93 | 95.6 | 119.8 | 95.6 | 119.8 | | | |
| 53 | 64 | 9884 | 1.85 | 27.85 | 100.7 | 121.9 | 100.7 | 121.9 | FH152-22P-225S/M-04G | 1044 | 316 |
| 63 | 76 | 8298 | 2.20 | 23.38 | 103.2 | 123.2 | 103.2 | 123.2 | | | |
| 77 | 93 | 6828 | 2.65 | 19.24 | 105.1 | 124.4 | 105.1 | 124.4 | | | |
| 112 | 135 | 4692 | 2.10 | 13.22 | 107.2 | 125.6 | 107.2 | 125.6 | | | |
| 133 | 161 | 3939 | 2.85 | 11.10 | 106.4 | 126.3 | 106.4 | 126.3 | | | |
| 34 | 41 | 15491 | 0.80 | 43.65 | ** | ** | ** | ** | FH123-22P-225S/M-04G | 852 | 312 |
| 37 | 44 | 14239 | 0.85 | 40.12 | ** | ** | ** | ** | | | |
| 45 | 54 | 11705 | 0.95 | 32.98 | 74.4 | 86.2 | 74.4 | 86.2 | | | |
| 53 | 64 | 9937 | 1.05 | 28.00 | 78.8 | 87.9 | 78.8 | 87.9 | | | |
| 62 | 75 | 8482 | 1.20 | 23.90 | 81.8 | 89.3 | 81.8 | 89.3 | | | |
| 56 | 68 | 9323 | 1.40 | 26.27 | 80.2 | 88.5 | 80.2 | 88.5 | FH122-22P-225S/M-04G | 811 | 312 |
| 66 | 79 | 8007 | 1.65 | 22.56 | 82.7 | 89.8 | 82.7 | 89.8 | | | |
| 79 | 95 | 6661 | 1.90 | 18.77 | 84.8 | 91.1 | 84.8 | 91.1 | | | |
| 95 | 115 | 5529 | 2.15 | 15.58 | 81.0 | 92.2 | 81.0 | 92.2 | | | |
| 114 | 137 | 4610 | 2.50 | 12.99 | 75.4 | 93.1 | 75.4 | 93.1 | | | |
| 117 | 142 | 4475 | 1.65 | 12.61 | 76.1 | 92.5 | 76.1 | 92.5 | | | |
| 132 | 160 | 3964 | 2.80 | 11.17 | 71.3 | 93.7 | 71.3 | 93.7 | | | |
| 137 | 165 | 3844 | 1.90 | 10.83 | 71.6 | 93.2 | 71.6 | 93.2 | | | |
| 153 | 185 | 3428 | 3.10 | 9.66 | 67.5 | 94.2 | 67.5 | 94.2 | | | |
| 164 | 198 | 3198 | 2.60 | 9.01 | 66.8 | 93.9 | 66.8 | 93.9 | | | |
| 198 | 239 | 2651 | 3.10 | 7.47 | 62.3 | 94.5 | 62.3 | 94.5 | | | |
| 238 | 287 | 2211 | 3.70 | 6.23 | 58.2 | 95.0 | 58.2 | 95.0 | | | |
| 276 | 333 | 1902 | 4.30 | 5.36 | 55.2 | 95.4 | 55.2 | 95.4 | | | |
| 319 | 385 | 1647 | 4.65 | 4.64 | 52.5 | 95.7 | 52.5 | 95.7 | | | |
| 61 | 74 | 8567 | 0.95 | 24.14 | 42.9 | 59.6 | 42.9 | 59.6 | | | |
| 71 | 86 | 7403 | 1.10 | 20.86 | 48.4 | 60.9 | 48.4 | 60.9 | | | |
| 86 | 103 | 6122 | 1.35 | 17.25 | 53.1 | 62.4 | 53.1 | 62.4 | | | |
| 104 | 126 | 5036 | 1.60 | 14.19 | 56.1 | 63.6 | 56.1 | 63.6 | | | |
| 118 | 143 | 4440 | 1.25 | 12.51 | 54.5 | 63.7 | 54.5 | 63.7 | | | |
| 127 | 153 | 4142 | 1.95 | 11.67 | 51.8 | 64.6 | 51.8 | 64.6 | | | |
| 137 | 165 | 3833 | 1.45 | 10.8 | 51.1 | 64.4 | 51.1 | 64.4 | | | |
| 149 | 180 | 3517 | 2.20 | 9.91 | 48.4 | 65.3 | 48.4 | 65.3 | | | |
| 166 | 200 | 3173 | 1.75 | 8.94 | 47.1 | 65.2 | 47.1 | 65.2 | | | |
| 175 | 211 | 2999 | 2.50 | 8.45 | 45.3 | 65.8 | 45.3 | 65.8 | | | |
| 201 | 243 | 2609 | 2.10 | 7.35 | 43.5 | 65.9 | 43.5 | 65.9 | | | |
| 245 | 296 | 2144 | 2.55 | 6.04 | 40.3 | 66.5 | 40.3 | 66.5 | | | |
| 288 | 348 | 1821 | 3.00 | 5.13 | 37.8 | 66.9 | 37.8 | 66.9 | | | |

| P_N = 75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|------------|-----------------------------|
| 50 Hz | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 75 kW | 90 kW | | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 32 | 38 | 22726 | 0.80 | 46.96 | ** | ** | ** | ** | FH153-22P-250S/M-04F | 1186 | 316 |
| 37 | 44 | 19532 | 0.95 | 40.36 | 71.3 | 114.0 | 71.3 | 114.0 | | | |
| 42 | 51 | 16904 | 1.10 | 34.93 | 82.4 | 116.1 | 82.4 | 116.1 | | | |
| 53 | 64 | 13478 | 1.35 | 27.85 | 93.0 | 118.9 | 93.0 | 118.9 | FH152-22P-250S/M-04F | 1148 | 316 |
| 63 | 76 | 11315 | 1.60 | 23.38 | 98.0 | 120.7 | 98.0 | 120.7 | | | |
| 77 | 93 | 9311 | 1.95 | 19.24 | 101.7 | 122.4 | 101.7 | 122.4 | | | |
| 90 | 109 | 7922 | 2.30 | 16.37 | 103.8 | 123.5 | 103.8 | 123.5 | | | |
| 105 | 126 | 6843 | 2.65 | 14.14 | 105.1 | 124.4 | 105.1 | 124.4 | | | |
| 112 | 135 | 6398 | 1.55 | 13.22 | 105.6 | 124.0 | 105.6 | 124.0 | | | |
| 133 | 160 | 5372 | 2.10 | 11.10 | 106.6 | 125.0 | 106.6 | 125.0 | | | |
| 162 | 195 | 4423 | 2.50 | 9.14 | 101.7 | 125.9 | 101.7 | 125.9 | | | |
| 190 | 229 | 3760 | 2.95 | 7.77 | 96.0 | 126.5 | 96.0 | 126.5 | | | |

| Type | $i_{ges.}$ | M_{2max} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|-----|------|---|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | - | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | - | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | - | - | - | - | - | - | - | | |
| F022 | 97.85 | 130 | 14 | 1957/20 | 6000 | | | | | | | | | | | | |
| | 88.09 | 130 | 16 | 969/11 | 6000 | | | | | | | | | | | | |
| | 76.22 | 130 | 18 | 3811/50 | 6000 | | | | | | | | | | | | |
| | 68.62 | 130 | 20 | 3774/55 | 6000 | | | | | | | | | | | | |
| | 61.80 | 130 | 23 | 309/5 | 6000 | | | | | | | | | | | | |
| | 55.64 | 130 | 25 | 612/11 | 6000 | | | | | | | | | | | | |
| | 48.69 | 130 | 29 | 2678/55 | 6000 | | | | | | | | | | | | |
| | 43.83 | 130 | 32 | 5304/121 | 6000 | | | | | | | | | | | | |
| | 37.52 | 130 | 37 | 5253/140 | 6000 | | | | | | | | | | | | |
| | 33.78 | 130 | 41 | 2601/77 | 6000 | | | | | | | | | | | | |
| | 31.79 | 53 | 44 | 1653/52 | 6000 | | | | | | | | | | | | |
| | 29.32 | 130 | 48 | 3811/130 | 6000 | | | | | | | | | | | | |
| | 26.39 | 130 | 53 | 3774/143 | 6000 | | | | | | | | | | | | |
| | 24.76 | 84 | 57 | 3219/130 | 6000 | | | | | | | | | | | | |
| | 21.89 | 130 | 64 | 1751/80 | 6000 | | | | | | | | | | | | |
| | 20.08 | 84 | 70 | 261/13 | 6000 | | | | | | | | | | | | |
| | 19.70 | 130 | 71 | 867/44 | 6000 | | | | | | | | | | | | |
| | 18.88 | 130 | 74 | 1133/60 | 6000 | | | | | | | | | | | | |
| | 17.00 | 130 | 82 | 17/1 | 6000 | | | | | | | | | | | | |
| | 16.48 | 130 | 85 | 412/25 | 6000 | | | | | | | | | | | | |
| | 15.82 | 84 | 89 | 174/11 | 6000 | | | | | | | | | | | | |
| | 14.84 | 130 | 94 | 816/55 | 6000 | | | | | | | | | | | | |
| | 12.19 | 84 | 115 | 4437/364 | 6000 | | | | | | | | | | | | |
| | 12.09 | 130 | 116 | 2781/230 | 6000 | | | | | | | | | | | | |
| | 10.89 | 130 | 129 | 2754/253 | 6000 | | | | | | | | | | | | |
| | 9.52 | 84 | 147 | 3219/338 | 6000 | | | | | | | | | | | | |
| | 7.11 | 84 | 197 | 1479/208 | 6000 | | | | | | | | | | | | |
| | 6.13 | 84 | 228 | 319/52 | 6000 | | | | | | | | | | | | |
| | 5.35 | 84 | 261 | 348/65 | 6000 | | | | | | | | | | | | |
| | 3.93 | 72 | 356 | 2349/598 | 6000 | | | | | | | | | | | | |
| | F032 | 70.17 | 220 | 20 | 7719/110 | 6000 | | | | | | | | | | | |
| | | 63.63 | 220 | 22 | 1909/30 | 6000 | | | | | | | | | | | |
| 57.07 | | 220 | 25 | 2511/44 | 6000 | | | | | | | | | | | | |
| 51.75 | | 220 | 27 | 207/4 | 6000 | | | | | | | | | | | | |
| 45.35 | | 220 | 31 | 5487/121 | 6000 | | | | | | | | | | | | |
| 41.12 | | 220 | 34 | 1357/33 | 6000 | | | | | | | | | | | | |
| 35.03 | | 220 | 40 | 2697/77 | 6000 | | | | | | | | | | | | |
| 31.76 | | 220 | 44 | 667/21 | 6000 | | | | | | | | | | | | |
| 27.97 | | 220 | 50 | 3999/143 | 6000 | | | | | | | | | | | | |
| 27.67 | | 119 | 51 | 83/3 | 6000 | | | | | | | | | | | | |
| 25.36 | | 220 | 55 | 989/39 | 6000 | | | | | | | | | | | | |
| 22.50 | | 147 | 62 | 45/2 | 6000 | | | | | | | | | | | | |
| 21.14 | | 220 | 66 | 465/22 | 6000 | | | | | | | | | | | | |
| 19.17 | | 220 | 73 | 115/6 | 6000 | | | | | | | | | | | | |
| 17.88 | | 150 | 78 | 590/33 | 6000 | | | | | | | | | | | | |
| 16.06 | | 220 | 87 | 1767/110 | 6000 | | | | | | | | | | | | |
| 14.57 | | 220 | 96 | 437/30 | 6000 | | | | | | | | | | | | |
| 13.81 | | 150 | 101 | 290/21 | 6000 | | | | | | | | | | | | |
| 12.50 | | 220 | 112 | 3162/253 | 6000 | | | | | | | | | | | | |
| 11.33 | | 220 | 124 | 34/3 | 6000 | | | | | | | | | | | | |
| 11.03 | | 150 | 127 | 430/39 | 6000 | | | | | | | | | | | | |
| 9.76 | | 212 | 144 | 1395/143 | 6000 | | | | | | | | | | | | |
| 8.85 | | 202 | 158 | 115/13 | 6000 | | | | | | | | | | | | |
| 8.33 | | 150 | 168 | 25/3 | 6000 | | | | | | | | | | | | |
| 6.33 | 145 | 221 | 19/3 | 6000 | | | | | | | | | | | | | |
| 4.93 | 127 | 284 | 340/69 | 6000 | | | | | | | | | | | | | |
| 3.85 | 111 | 364 | 50/13 | 6000 | | | | | | | | | | | | | |

Legend see page 253

| Type | $i_{ges.}$ | M_{2max} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|-----|------|---|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | - | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | - | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | - | - | - | - | - | - | - | - | |
| F042 | | 75.79 | 322 | 18 | 1819/24 | 6000 | | | | | | | | | | | |
| | | 69.14 | 293 | 20 | 4494/65 | 6000 | | | | | | | | | | | |
| | | 61.98 | 400 | 23 | 2975/48 | 6000 | | | | | | | | | | | |
| | | 56.54 | 396 | 25 | 735/13 | 6000 | | | | | | | | | | | |
| | | 48.94 | 400 | 29 | 1615/33 | 6000 | | | | | | | | | | | |
| | | 44.64 | 400 | 31 | 6384/143 | 6000 | | | | | | | | | | | |
| | | 41.20 | 175 | 34 | 8239/200 | 6000 | | | | | | | | | | | |
| | | 37.95 | 400 | 37 | 2125/56 | 6000 | | | | | | | | | | | |
| | | 34.62 | 400 | 40 | 450/13 | 6000 | | | | | | | | | | | |
| | | 33.69 | 236 | 42 | 539/16 | 6000 | | | | | | | | | | | |
| | | 31.06 | 400 | 45 | 1615/52 | 6000 | | | | | | | | | | | |
| | | 28.33 | 400 | 49 | 4788/169 | 6000 | | | | | | | | | | | |
| | | 26.60 | 308 | 53 | 133/5 | 6000 | | | | | | | | | | | |
| | | 23.91 | 400 | 59 | 765/32 | 6000 | | | | | | | | | | | |
| | | 21.81 | 400 | 64 | 567/26 | 6000 | | | | | | | | | | | |
| | | 20.63 | 308 | 68 | 165/8 | 6000 | | | | | | | | | | | |
| | | 18.06 | 400 | 78 | 289/16 | 6000 | | | | | | | | | | | |
| | | 16.88 | 308 | 83 | 4389/260 | 6000 | | | | | | | | | | | |
| | | 16.48 | 400 | 85 | 1071/65 | 6000 | | | | | | | | | | | |
| | | 14.78 | 400 | 95 | 340/23 | 6000 | | | | | | | | | | | |
| | | 13.48 | 400 | 104 | 4032/299 | 6000 | | | | | | | | | | | |
| | | 12.99 | 308 | 108 | 2079/160 | 6000 | | | | | | | | | | | |
| | | 11.99 | 384 | 117 | 935/78 | 6000 | | | | | | | | | | | |
| | | 10.93 | 361 | 128 | 1848/169 | 6000 | | | | | | | | | | | |
| | | 10.03 | 348 | 140 | 1445/144 | 5600 | | | | | | | | | | | |
| | | 9.82 | 308 | 143 | 3927/400 | 6000 | | | | | | | | | | | |
| | | 9.15 | 327 | 153 | 119/13 | 5600 | | | | | | | | | | | |
| | | 8.13 | 310 | 172 | 2635/324 | 5000 | | | | | | | | | | | |
| | | 8.03 | 280 | 174 | 924/115 | 6000 | | | | | | | | | | | |
| | | 7.84 | 304 | 179 | 2635/336 | 4800 | | | | | | | | | | | |
| | | 7.42 | 291 | 189 | 868/117 | 5000 | | | | | | | | | | | |
| | | 7.15 | 285 | 196 | 93/13 | 4800 | | | | | | | | | | | |
| | 6.52 | 247 | 215 | 847/130 | 6000 | | | | | | | | | | | | |
| | 5.45 | 222 | 257 | 1309/240 | 5600 | | | | | | | | | | | | |
| | 4.42 | 196 | 317 | 2387/540 | 5000 | | | | | | | | | | | | |
| | 4.26 | 192 | 328 | 341/80 | 4800 | | | | | | | | | | | | |
| F043 | | 422.98 | 400 | 3.3 | 17765/42 | 6000 | | | | | | | | | | | |
| | | 385.85 | 400 | 3.6 | 5016/13 | 6000 | | | | | | | | | | | |
| | | 329.48 | 400 | 4.2 | 6919/21 | 6000 | | | | | | | | | | | |
| | | 300.55 | 400 | 4.7 | 19536/65 | 6000 | | | | | | | | | | | |
| | | 267.14 | 400 | 5.2 | 1870/7 | 6000 | | | | | | | | | | | |
| | | 243.69 | 400 | 5.7 | 3168/13 | 6000 | | | | | | | | | | | |
| | | 210.48 | 400 | 6.7 | 4420/21 | 6000 | | | | | | | | | | | |
| | | 192.00 | 400 | 7.3 | 192/1 | 6000 | | | | | | | | | | | |
| | | 162.19 | 400 | 8.6 | 15895/98 | 6000 | | | | | | | | | | | |
| | | 147.96 | 400 | 9.5 | 13464/91 | 6000 | | | | | | | | | | | |
| | | 126.72 | 400 | 11 | 34595/273 | 6000 | | | | | | | | | | | |
| | | 115.60 | 400 | 12 | 19536/169 | 6000 | | | | | | | | | | | |
| | | 94.61 | 400 | 15 | 15895/168 | 6000 | | | | | | | | | | | |
| | | 86.31 | 400 | 16 | 1122/13 | 6000 | | | | | | | | | | | |
| | | 81.63 | 400 | 17 | 10285/126 | 6000 | | | | | | | | | | | |
| | | 74.46 | 400 | 19 | 968/13 | 6000 | | | | | | | | | | | |
| | | 71.24 | 400 | 20 | 1496/21 | 6000 | | | | | | | | | | | |
| | | 64.98 | 400 | 22 | 4224/65 | 6000 | | | | | | | | | | | |
| | | 52.27 | 400 | 27 | 8415/161 | 6000 | | | | | | | | | | | |
| | | 47.68 | 400 | 29 | 14256/299 | 6000 | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | Input unit | | | | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------------|-------------------|------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | | S190 | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | | | | |
| F042 | 75.79 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 69.14 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 61.98 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 56.54 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 48.94 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 44.64 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 41.20 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 37.95 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 34.62 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 33.69 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 31.06 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 28.33 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 26.60 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 23.91 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 21.81 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 20.63 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 18.06 | 4900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 16.88 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 16.48 | 4900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 14.78 | 4300 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 13.48 | 4300 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 12.99 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 11.99 | 3800 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 10.93 | 3800 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 10.03 | 3400 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 9.82 | 4900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 9.15 | 3400 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 8.13 | 3000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 8.03 | 4300 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 7.84 | 2900 | | | | | | | | | | | | | | - | | | | | | | | | | | | |
| | 7.42 | 3000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 7.15 | 2900 | | | | | | | | | | | | | | 0 | | | | | | | | | | | | |
| | 6.52 | 3800 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 5.45 | 3400 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 4.42 | 3000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 4.26 | 2900 | | | | | | | | | | | | | | - | | | | | | | | | | | | |
| F043 | 422.98 | 5000 | | | | | | | | | | | | | | - | | | | | | | | | | | | |
| | 385.85 | 5000 | | | | | | | | | | | | | | - | | | | | | | | | | | | |
| | 329.48 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 300.55 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 267.14 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 243.69 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 210.48 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 192.00 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 162.19 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 147.96 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 126.72 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 115.60 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 94.61 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 86.31 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 81.63 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 74.46 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 71.24 | 4900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 64.98 | 4900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 52.27 | 4300 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |
| | 47.68 | 4300 | | | | | | | | | | | | | | 3000 | | | | | | | | | | | | |

F

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|--------------------------|------------|----------------------|-------------|----------------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | I63 | I71 | I80 | I90 | I100 | I112 | I132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| F052 | 87.38 | 371 | 16 | 5243/60 | 6000 | | | | | | | | | | | | | |
| | 79.84 | 339 | 18 | 10379/130 | 6000 | | | | | | | | | | | | | |
| | 71.46 | 501 | 20 | 1715/24 | 6000 | | | | | | | | | | | | | |
| | 65.29 | 457 | 21 | 3395/52 | 6000 | | | | | | | | | | | | | |
| | 56.42 | 600 | 25 | 1862/33 | 6000 | | | | | | | | | | | | | |
| | 51.55 | 597 | 27 | 7372/143 | 6000 | | | | | | | | | | | | | |
| | 48.15 | 204 | 29 | 963/20 | 6000 | | | | | | | | | | | | | |
| | 43.75 | 600 | 32 | 175/4 | 6000 | | | | | | | | | | | | | |
| | 39.97 | 597 | 35 | 7275/182 | 6000 | | | | | | | | | | | | | |
| | 39.38 | 276 | 36 | 315/8 | 6000 | | | | | | | | | | | | | |
| | 35.81 | 600 | 39 | 931/26 | 6000 | | | | | | | | | | | | | |
| | 32.72 | 597 | 43 | 5529/169 | 6000 | | | | | | | | | | | | | |
| | 31.09 | 360 | 45 | 342/11 | 6000 | | | | | | | | | | | | | |
| | 27.56 | 600 | 51 | 441/16 | 6000 | | | | | | | | | | | | | |
| | 25.18 | 597 | 56 | 2619/104 | 6000 | | | | | | | | | | | | | |
| | 24.11 | 360 | 58 | 675/28 | 6000 | | | | | | | | | | | | | |
| | 20.83 | 600 | 67 | 833/40 | 6000 | | | | | | | | | | | | | |
| | 19.73 | 360 | 71 | 513/26 | 6000 | | | | | | | | | | | | | |
| | 19.03 | 597 | 74 | 4947/260 | 6000 | | | | | | | | | | | | | |
| | 17.04 | 600 | 82 | 392/23 | 6000 | | | | | | | | | | | | | |
| | Maximum torque 600 Nm | 15.57 | 597 | 90 | 4656/299 | 6000 | | | | | | | | | | | | |
| | | 15.19 | 360 | 92 | 243/16 | 6000 | | | | | | | | | | | | |
| | | 13.82 | 600 | 101 | 539/39 | 6000 | | | | | | | | | | | | |
| | | 12.63 | 597 | 111 | 2134/169 | 6000 | | | | | | | | | | | | |
| | | 11.57 | 600 | 121 | 833/72 | 5600 | | | | | | | | | | | | |
| | | 11.48 | 360 | 122 | 459/40 | 6000 | | | | | | | | | | | | |
| | | 10.57 | 584 | 132 | 1649/156 | 5600 | | | | | | | | | | | | |
| | | 9.39 | 360 | 149 | 216/23 | 6000 | | | | | | | | | | | | |
| | | 9.38 | 564 | 149 | 1519/162 | 5000 | | | | | | | | | | | | |
| | | 9.04 | 558 | 155 | 217/24 | 4800 | | | | | | | | | | | | |
| | | 8.57 | 549 | 163 | 3007/351 | 5000 | | | | | | | | | | | | |
| | | 8.26 | 543 | 169 | 3007/364 | 4800 | | | | | | | | | | | | |
| 7.62 | | 360 | 184 | 99/13 | 6000 | | | | | | | | | | | | | |
| 6.38 | | 360 | 220 | 51/8 | 5600 | | | | | | | | | | | | | |
| 5.17 | | 360 | 271 | 31/6 | 5000 | | | | | | | | | | | | | |
| 4.98 | | 360 | 281 | 279/56 | 4800 | | | | | | | | | | | | | |
| F053 | 487.67 | 600 | 2.9 | 1463/3 | 6000 | | | | | | | | | | | | | |
| | 445.56 | 597 | 3.1 | 40546/91 | 6000 | | | | | | | | | | | | | |
| | 379.87 | 600 | 3.7 | 5698/15 | 6000 | | | | | | | | | | | | | |
| | 347.07 | 597 | 4.0 | 157916/455 | 6000 | | | | | | | | | | | | | |
| | 308.00 | 600 | 4.5 | 308/1 | 6000 | | | | | | | | | | | | | |
| | 281.41 | 597 | 5.0 | 25608/91 | 6000 | | | | | | | | | | | | | |
| | 242.67 | 600 | 5.8 | 728/3 | 6000 | | | | | | | | | | | | | |
| | 221.71 | 597 | 6.3 | 1552/7 | 6000 | | | | | | | | | | | | | |
| | 187.00 | 600 | 7.5 | 187/1 | 6000 | | | | | | | | | | | | | |
| | 170.85 | 597 | 8.2 | 108834/637 | 6000 | | | | | | | | | | | | | |
| | 146.10 | 600 | 9.6 | 5698/39 | 6000 | | | | | | | | | | | | | |
| | 133.49 | 597 | 10 | 157916/1183 | 6000 | | | | | | | | | | | | | |
| | 109.08 | 600 | 13 | 1309/12 | 6000 | | | | | | | | | | | | | |
| | 99.66 | 597 | 14 | 18139/182 | 6000 | | | | | | | | | | | | | |
| | 94.11 | 600 | 15 | 847/9 | 6000 | | | | | | | | | | | | | |
| | 85.99 | 597 | 16 | 23474/273 | 6000 | | | | | | | | | | | | | |
| 82.13 | 600 | 17 | 1232/15 | 6000 | | | | | | | | | | | | | | |
| 75.04 | 597 | 19 | 34144/455 | 6000 | | | | | | | | | | | | | | |
| 60.26 | 600 | 23 | 1386/23 | 6000 | | | | | | | | | | | | | | |
| 55.06 | 597 | 25 | 115236/2093 | 6000 | | | | | | | | | | | | | | |

Legend see page 253

| Type | i _{ges.} | SERVO adapter | | | | | | | | | | Input unit | | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------------|-------------------|------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | | S190 | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | | |
| F052 | 87.38 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 79.84 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 71.46 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 65.29 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 56.42 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 51.55 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 48.15 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 43.75 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 39.97 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 39.38 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 35.81 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 32.72 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 31.09 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 27.56 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 25.18 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 24.11 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 20.83 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 19.73 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 19.03 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 17.04 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 15.57 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 15.19 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 13.82 | 4100 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 12.63 | 4100 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 11.57 | 3700 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 11.48 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 10.57 | 3700 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 9.39 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 9.38 | 3300 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 9.04 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 8.57 | 3300 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 8.26 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 7.62 | 4100 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 6.38 | 3700 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 5.17 | 3300 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 4.98 | 3200 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| F053 | 487.67 | 5000 | | | | | | | | | | | | | - | | | | | | | | | | | |
| | 445.56 | 5000 | | | | | | | | | | | | | - | | | | | | | | | | | |
| | 379.87 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 347.07 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 308.00 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 281.41 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 242.67 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 221.71 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 187.00 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 170.85 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 146.10 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 133.49 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 109.08 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 99.66 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 94.11 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 85.99 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 82.13 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 75.04 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 60.26 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |
| | 55.06 | 4600 | | | | | | | | | | | | | 3000 | | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|------|------|-----|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| F062 | 49.67 | 820 | 28 | 4520/91 | 6000 | | | | | | | | | | | | | |
| | 45.55 | 820 | 31 | 8927/196 | 6000 | | | | | | | | | | | | | |
| | 41.66 | 820 | 34 | 7040/169 | 6000 | | | | | | | | | | | | | |
| | 38.20 | 820 | 37 | 3476/91 | 6000 | | | | | | | | | | | | | |
| | 32.69 | 820 | 43 | 425/13 | 6000 | | | | | | | | | | | | | |
| | 29.98 | 820 | 47 | 6715/224 | 6000 | | | | | | | | | | | | | |
| | 25.23 | 820 | 55 | 328/13 | 6000 | | | | | | | | | | | | | |
| | 23.14 | 820 | 61 | 3239/140 | 6000 | | | | | | | | | | | | | |
| | 20.87 | 820 | 67 | 480/23 | 6000 | | | | | | | | | | | | | |
| | 20.49 | 422 | 68 | 3729/182 | 6000 | | | | | | | | | | | | | |
| | 19.14 | 820 | 73 | 3081/161 | 6000 | | | | | | | | | | | | | |
| | 17.75 | 820 | 79 | 3000/169 | 6000 | | | | | | | | | | | | | |
| | 17.18 | 571 | 81 | 2904/169 | 6000 | | | | | | | | | | | | | |
| | 16.28 | 820 | 86 | 5925/364 | 6000 | | | | | | | | | | | | | |
| | 15.38 | 820 | 91 | 200/13 | 5600 | | | | | | | | | | | | | |
| | 14.11 | 820 | 99 | 395/28 | 5600 | | | | | | | | | | | | | |
| | 13.49 | 571 | 104 | 2805/208 | 6000 | | | | | | | | | | | | | |
| | 12.99 | 820 | 108 | 1520/117 | 5000 | | | | | | | | | | | | | |
| | 12.53 | 820 | 112 | 1140/91 | 4800 | | | | | | | | | | | | | |
| | 11.91 | 820 | 118 | 1501/126 | 5000 | | | | | | | | | | | | | |
| | 11.49 | 820 | 122 | 4503/392 | 4800 | | | | | | | | | | | | | |
| | 10.70 | 820 | 131 | 3200/299 | 4400 | | | | | | | | | | | | | |
| | 10.41 | 571 | 135 | 1353/130 | 6000 | | | | | | | | | | | | | |
| | 9.81 | 820 | 143 | 1580/161 | 4400 | | | | | | | | | | | | | |
| | 8.61 | 571 | 163 | 198/23 | 6000 | | | | | | | | | | | | | |
| | 7.32 | 571 | 191 | 2475/338 | 6000 | | | | | | | | | | | | | |
| | 6.35 | 571 | 221 | 165/26 | 5600 | | | | | | | | | | | | | |
| 5.36 | 571 | 261 | 209/39 | 5000 | | | | | | | | | | | | | | |
| 5.17 | 571 | 271 | 1881/364 | 4800 | | | | | | | | | | | | | | |
| 4.41 | 571 | 317 | 1320/299 | 4400 | | | | | | | | | | | | | | |
| F063 | 412.64 | 820 | 3.4 | 80464/195 | 6000 | | | | | | | | | | | | | |
| | 378.37 | 820 | 3.7 | 397291/1050 | 6000 | | | | | | | | | | | | | |
| | 337.44 | 820 | 4.1 | 13160/39 | 6000 | | | | | | | | | | | | | |
| | 309.42 | 820 | 4.5 | 3713/12 | 6000 | | | | | | | | | | | | | |
| | 266.44 | 820 | 5.3 | 114304/429 | 6000 | | | | | | | | | | | | | |
| | 244.32 | 820 | 5.7 | 282188/1155 | 6000 | | | | | | | | | | | | | |
| | 206.59 | 820 | 6.8 | 18800/91 | 6000 | | | | | | | | | | | | | |
| | 189.44 | 820 | 7.4 | 18565/98 | 6000 | | | | | | | | | | | | | |
| | 169.09 | 820 | 8.3 | 28576/169 | 6000 | | | | | | | | | | | | | |
| | 155.05 | 820 | 9.0 | 70547/455 | 6000 | | | | | | | | | | | | | |
| | 130.15 | 820 | 11 | 1692/13 | 6000 | | | | | | | | | | | | | |
| | 119.35 | 820 | 12 | 33417/280 | 6000 | | | | | | | | | | | | | |
| | 98.34 | 820 | 14 | 6392/65 | 6000 | | | | | | | | | | | | | |
| | 90.17 | 820 | 16 | 63121/700 | 6000 | | | | | | | | | | | | | |
| | 80.48 | 820 | 17 | 24064/299 | 6000 | | | | | | | | | | | | | |
| | 73.80 | 820 | 19 | 59408/805 | 6000 | | | | | | | | | | | | | |
| | 65.26 | 820 | 21 | 33088/507 | 6000 | | | | | | | | | | | | | |
| | 59.84 | 820 | 23 | 81686/1365 | 6000 | | | | | | | | | | | | | |
| 54.63 | 820 | 26 | 6392/117 | 5600 | | | | | | | | | | | | | | |
| 50.10 | 820 | 28 | 63121/1260 | 5600 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | | |
| F062 | 49.67 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 45.55 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 41.66 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 38.20 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 32.69 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 29.98 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.23 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 23.14 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.87 | 4900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.49 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 19.14 | 4900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.75 | 4300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.18 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.28 | 4300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.38 | 3900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.11 | 3900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.49 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.99 | 3500 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.53 | 3300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.91 | 3500 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.49 | 3300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.70 | 3000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.41 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.81 | 3000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 8.61 | 4900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.32 | 4300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 6.35 | 3900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 5.36 | 3500 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 5.17 | 3300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 4.41 | 3000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| F063 | 412.64 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 378.37 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 337.44 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 309.42 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 266.44 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 244.32 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 206.59 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 189.44 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 169.09 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 155.05 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 130.15 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 119.35 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 98.34 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 90.17 | 5000 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 80.48 | 4900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 73.80 | 4900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 65.26 | 4300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 59.84 | 4300 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 54.63 | 3900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 50.10 | 3900 | | | | | | | | | | | | | | 2500 | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|-----------------------------|------------------------|-----------------------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|------|------|-----|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| F072 | | 45.02 | 1500 | 31 | 5763/128 | 6000 | | | | | | | | | | | | |
| | | 39.31 | 1500 | 36 | 629/16 | 6000 | | | | | | | | | | | | |
| | 2 stages | | 34.74 | 1500 | 40 | 5559/160 | 6000 | | | | | | | | | | | |
| | | | 29.38 | 1500 | 48 | 2703/92 | 6000 | | | | | | | | | | | |
| | | | 25.25 | 1500 | 55 | 5253/208 | 6000 | | | | | | | | | | | |
| | | | 22.05 | 1500 | 64 | 1411/64 | 5600 | | | | | | | | | | | |
| | | | 20.72 | 939 | 68 | 1243/60 | 6000 | | | | | | | | | | | |
| | | | 18.89 | 1500 | 74 | 170/9 | 5000 | | | | | | | | | | | |
| | | | 18.21 | 1500 | 77 | 255/14 | 4800 | | | | | | | | | | | |
| | | | 18.09 | 1103 | 77 | 814/45 | 6000 | | | | | | | | | | | |
| | | | 16.08 | 1500 | 87 | 1479/92 | 4400 | | | | | | | | | | | |
| | | $n_1=1400 \text{ min}^{-1}$ | | 15.99 | 1094 | 88 | 1199/75 | 6000 | | | | | | | | | | |
| | | | 13.52 | 1103 | 104 | 4664/345 | 6000 | | | | | | | | | | | |
| | | | 13.49 | 1500 | 104 | 2805/208 | 3900 | | | | | | | | | | | |
| | Maximum torque 1500 Nm | | | 11.62 | 1085 | 120 | 2266/195 | 6000 | | | | | | | | | | |
| | | | | 11.36 | 1500 | 123 | 2091/184 | 3500 | | | | | | | | | | |
| | | | | 10.14 | 1115 | 138 | 913/90 | 5600 | | | | | | | | | | |
| | | | | 9.32 | 1500 | 150 | 969/104 | 3100 | | | | | | | | | | |
| | | | | 8.69 | 1115 | 161 | 704/81 | 5000 | | | | | | | | | | |
| | | | | 8.38 | 1006 | 167 | 176/21 | 4800 | | | | | | | | | | |
| | | | 7.40 | 1115 | 189 | 2552/345 | 4400 | | | | | | | | | | | |
| | | 6.21 | 1115 | 226 | 242/39 | 3900 | | | | | | | | | | | | |
| | | 5.23 | 1115 | 268 | 1804/345 | 3500 | | | | | | | | | | | | |
| | | 4.29 | 1081 | 327 | 836/195 | 3100 | | | | | | | | | | | | |
| F073 | | 385.37 | 1500 | 3.6 | 61659/160 | 6000 | | | | | | | | | | | | |
| | | 305.42 | 1500 | 4.6 | 26877/88 | 6000 | | | | | | | | | | | | |
| 3 stages | | 237.15 | 1500 | 5.9 | 4743/20 | 6000 | | | | | | | | | | | | |
| | | 194.58 | 1500 | 7.2 | 12648/65 | 6000 | | | | | | | | | | | | |
| | | 150.69 | 1500 | 9.3 | 96441/640 | 6000 | | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | | 114.62 | 1500 | 12 | 45849/400 | 6000 | | | | | | | | | | | | |
| | | 94.52 | 1500 | 15 | 17391/184 | 6000 | | | | | | | | | | | | |
| Maximum torque 1500 Nm | | 77.53 | 1500 | 18 | 80631/1040 | 6000 | | | | | | | | | | | | |
| | | 65.88 | 1500 | 21 | 527/8 | 5600 | | | | | | | | | | | | |
| | | 54.16 | 1500 | 26 | 19499/360 | 5000 | | | | | | | | | | | | |
| | | 52.23 | 1500 | 27 | 58497/1120 | 4800 | | | | | | | | | | | | |

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| Type | $i_{ges.}$ | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|------------|---------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n_{1max} | Adapter size | | | | | | | | | | n_{1max} | Input shaft [mm] | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | | S190 | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| F072 | 45.02 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 39.31 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 34.74 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 29.38 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.25 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 22.05 | 4300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.72 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.89 | 3800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.21 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.09 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.08 | 3400 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.99 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.52 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.49 | 3000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.62 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.36 | 2700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.14 | 4300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.32 | - | | | | | | | | | | | | | 2400 | | | | | | | | | | |
| | 8.69 | 3800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 8.38 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.40 | 3400 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 6.21 | 3000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 5.23 | 2700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 4.29 | - | | | | | | | | | | | | | 2400 | | | | | | | | | | |
| F073 | 385.37 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 305.42 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 237.15 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 194.58 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 150.69 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 114.62 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 94.52 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 77.53 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 65.88 | 4300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 54.16 | 3800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 52.23 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |

F

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| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|---------------------------|------------|----------------------|-------------|----------------------|----------------------|----------|------|------|----------|----------|----------|------|------|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | 1160 | 1180 | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | - | - | - | - | | |
| F082 | 33.87 | 2785 | 41 | 6165/182 | 6000 | | | | | | | | | | | | | |
| 2 stages | 30.00 | 3000 | 47 | 30/1 | 5600 | | | | | | | | | | | | | |
| | 25.95 | 3000 | 54 | 545/21 | 5000 | | | | | | | | | | | | | |
| | 22.08 | 3000 | 63 | 3555/161 | 4400 | | | | | | | | | | | | | |
| | 18.79 | 3000 | 75 | 1710/91 | 3900 | | | | | | | | | | | | | |
| | 16.21 | 3000 | 86 | 2610/161 | 3500 | | | | | | | | | | | | | |
| | 16.01 | 1647 | 87 | 10823/676 | 6000 | | | | | | | | | | | | | |
| | 14.18 | 1762 | 99 | 553/39 | 5600 | | | | | | | | | | | | | |
| | 13.60 | 3000 | 103 | 2475/182 | 3100 | | | | | | | | | | | | | |
| | 12.27 | 1762 | 114 | 8611/702 | 5000 | | | | | | | | | | | | | |
| | 11.06 | 3000 | 127 | 387/35 | 2700 | | | | | | | | | | | | | |
| | Maximum torque 3000 Nm | 10.44 | 1762 | 134 | 6241/598 | 4400 | | | | | | | | | | | | |
| | | 8.88 | 1762 | 158 | 1501/169 | 3900 | | | | | | | | | | | | |
| | | 8.65 | 3000 | 162 | 1755/203 | 2300 | | | | | | | | | | | | |
| | | 7.66 | 1762 | 183 | 2291/299 | 3500 | | | | | | | | | | | | |
| | | 6.43 | 1762 | 218 | 4345/676 | 3100 | | | | | | | | | | | | |
| | | 5.23 | 1762 | 268 | 3397/650 | 2700 | | | | | | | | | | | | |
| 4.09 | | 1564 | 343 | 237/58 | 2300 | | | | | | | | | | | | | |
| F083 | | 358.52 | 3000 | 3.9 | 32625/91 | 6000 | | | | | | | | | | | | |
| 3 stages | 283.76 | 3000 | 4.9 | 127125/448 | 6000 | | | | | | | | | | | | | |
| | 247.77 | 3000 | 5.7 | 13875/56 | 6000 | | | | | | | | | | | | | |
| | 218.97 | 3000 | 6.4 | 24525/112 | 6000 | | | | | | | | | | | | | |
| | 185.17 | 3000 | 7.6 | 59625/322 | 6000 | | | | | | | | | | | | | |
| | 180.28 | 3000 | 7.8 | 114840/637 | 6000 | | | | | | | | | | | | | |
| | 159.17 | 3000 | 8.8 | 115875/728 | 6000 | | | | | | | | | | | | | |
| | 142.69 | 3000 | 9.8 | 55935/392 | 6000 | | | | | | | | | | | | | |
| | 138.95 | 3000 | 10 | 31125/224 | 5600 | | | | | | | | | | | | | |
| | 124.59 | 3000 | 11 | 6105/49 | 6000 | | | | | | | | | | | | | |
| | 119.05 | 3000 | 12 | 2500/21 | 5000 | | | | | | | | | | | | | |
| | 114.80 | 3000 | 12 | 5625/49 | 4800 | | | | | | | | | | | | | |
| | 110.11 | 3000 | 13 | 10791/98 | 6000 | | | | | | | | | | | | | |
| | 101.32 | 3000 | 14 | 32625/322 | 4400 | | | | | | | | | | | | | |
| | 93.11 | 3000 | 15 | 104940/1127 | 6000 | | | | | | | | | | | | | |
| | 84.99 | 3000 | 16 | 61875/728 | 3900 | | | | | | | | | | | | | |
| | Maximum torque 3000 Nm | 80.04 | 3000 | 17 | 50985/637 | 6000 | | | | | | | | | | | | |
| 71.62 | | 2947 | 20 | 46125/644 | 3500 | | | | | | | | | | | | | |
| 69.87 | | 2903 | 20 | 13695/196 | 5600 | | | | | | | | | | | | | |
| 59.86 | | 2771 | 23 | 8800/147 | 5000 | | | | | | | | | | | | | |
| 58.72 | | 2777 | 24 | 21375/364 | 3100 | | | | | | | | | | | | | |
| 57.73 | | 2741 | 24 | 19800/343 | 4800 | | | | | | | | | | | | | |
| 50.95 | | 2640 | 27 | 57420/1127 | 4400 | | | | | | | | | | | | | |
| 42.74 | | 2505 | 33 | 27225/637 | 3900 | | | | | | | | | | | | | |
| 36.02 | | 2379 | 39 | 40590/1127 | 3500 | | | | | | | | | | | | | |
| 29.53 | | 2242 | 47 | 18810/637 | 3100 | | | | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{2max} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|-----------------------------|------------|------------|----------------------|---------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| F084 | 3836.13 | 3000 | 0.36 | 698175/182 | 6000 | | | | | | | | | | | | | |
| | 3137.02 | 3000 | 0.45 | 163125/52 | 6000 | | | | | | | | | | | | | |
| | 3036.24 | 3000 | 0.46 | 2720475/896 | 6000 | | | | | | | | | | | | | |
| | 2651.12 | 3000 | 0.53 | 296925/112 | 6000 | | | | | | | | | | | | | |
| | 2482.91 | 3000 | 0.56 | 635625/256 | 6000 | | | | | | | | | | | | | |
| | 2477.02 | 3000 | 0.57 | 2479500/1001 | 6000 | | | | | | | | | | | | | |
| | 2167.97 | 3000 | 0.65 | 69375/32 | 6000 | | | | | | | | | | | | | |
| | 1960.53 | 3000 | 0.71 | 2415375/1232 | 6000 | | | | | | | | | | | | | |
| | 1920.62 | 3000 | 0.73 | 2446875/1274 | 6000 | | | | | | | | | | | | | |
| | 1711.85 | 3000 | 0.82 | 263625/154 | 6000 | | | | | | | | | | | | | |
| | 1571.96 | 3000 | 0.89 | 1859625/1183 | 6000 | | | | | | | | | | | | | |
| | 1520.15 | 3000 | 0.92 | 9534375/6272 | 6000 | | | | | | | | | | | | | |
| | 1327.33 | 3000 | 1.1 | 1040625/784 | 6000 | | | | | | | | | | | | | |
| | 1244.18 | 3000 | 1.1 | 7246125/5824 | 6000 | | | | | | | | | | | | | |
| 4 stages | 1209.99 | 3000 | 1.2 | 880875/728 | 6000 | | | | | | | | | | | | | |
| | 1086.37 | 3000 | 1.3 | 790875/728 | 6000 | | | | | | | | | | | | | |
| | 957.69 | 3000 | 1.5 | 3432375/3584 | 6000 | | | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | 914.22 | 3000 | 1.5 | 332775/364 | 6000 | | | | | | | | | | | | | |
| | 836.22 | 3000 | 1.7 | 374625/448 | 6000 | | | | | | | | | | | | | |
| | 748.21 | 3000 | 1.9 | 1566000/2093 | 6000 | | | | | | | | | | | | | |
| Maximum torque 3000 Nm | 723.59 | 3000 | 1.9 | 1296675/1792 | 6000 | | | | | | | | | | | | | |
| | 631.81 | 3000 | 2.2 | 141525/224 | 6000 | | | | | | | | | | | | | |
| | 606.72 | 3000 | 2.3 | 717750/1183 | 6000 | | | | | | | | | | | | | |
| | 592.20 | 3000 | 2.4 | 381375/644 | 6000 | | | | | | | | | | | | | |
| | 517.08 | 3000 | 2.7 | 83250/161 | 6000 | | | | | | | | | | | | | |
| | 507.90 | 3000 | 2.8 | 184875/364 | 5600 | | | | | | | | | | | | | |
| | 480.21 | 3000 | 2.9 | 1398375/2912 | 6000 | | | | | | | | | | | | | |
| | 419.30 | 3000 | 3.3 | 152625/364 | 6000 | | | | | | | | | | | | | |
| | 411.63 | 3000 | 3.4 | 112375/273 | 5000 | | | | | | | | | | | | | |
| | 401.99 | 3000 | 3.5 | 720375/1792 | 5600 | | | | | | | | | | | | | |
| | 396.93 | 3000 | 3.5 | 1011375/2548 | 4800 | | | | | | | | | | | | | |
| | 351.00 | 3000 | 4.0 | 78625/224 | 5600 | | | | | | | | | | | | | |
| | 325.80 | 3000 | 4.3 | 437875/1344 | 5000 | | | | | | | | | | | | | |
| | 314.16 | 3000 | 4.5 | 3940875/12544 | 4800 | | | | | | | | | | | | | |
| | 284.47 | 3000 | 4.9 | 143375/504 | 5000 | | | | | | | | | | | | | |
| | 274.31 | 3000 | 5.1 | 430125/1568 | 4800 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |
| F092 | 38.65 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 34.13 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 29.63 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 28.57 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 25.60 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 21.91 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 19.01 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 18.92 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 16.79 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 16.00 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 14.57 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 14.05 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 13.06 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 12.59 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 10.78 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 10.59 | - | | | | | | | | | | | | 2000 | | | | | | | | |
| | 9.31 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 8.46 | - | | | | | | | | | | | | 1800 | | | | | | | | |
| | 7.87 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 6.42 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 5.21 | - | | | | | | | | | | | | 2000 | | | | | | | | |
| | 4.16 | - | | | | | | | | | | | | 1800 | | | | | | | | |
| F093 | 288.50 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 243.90 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 211.14 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 186.99 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 161.76 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 155.99 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 142.85 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 137.63 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 120.77 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 117.13 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 104.54 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 101.04 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 92.59 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 84.76 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 80.09 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 77.23 | 4100 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 68.92 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 68.15 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 57.99 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 53.89 | - | | | | | | | | | | | | 2000 | | | | | | | | |
| | 50.03 | 3000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 41.97 | - | | | | | | | | | | | | 2500 | | | | | | | | |
| | 34.12 | - | | | | | | | | | | | | 2300 | | | | | | | | |
| | 26.68 | - | | | | | | | | | | | | 2000 | | | | | | | | |

F

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|---------------------------|------------|----------------------|---------------|---------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| F094 | 3086.96 | 4500 | 0.45 | 8875008/2875 | 6000 | | | | | | | | | | | | | |
| | 2609.75 | 4500 | 0.54 | 6902784/2645 | 6000 | | | | | | | | | | | | | |
| 4 stages | 2524.38 | 4500 | 0.55 | 290304/115 | 6000 | | | | | | | | | | | | | |
| | 2134.14 | 4500 | 0.66 | 1128960/529 | 6000 | | | | | | | | | | | | | |
| | 1993.28 | 4500 | 0.70 | 12607488/6325 | 6000 | | | | | | | | | | | | | |
| | 1685.14 | 4500 | 0.83 | 9805824/5819 | 6000 | | | | | | | | | | | | | |
| | 1545.54 | 4500 | 0.91 | 248832/161 | 6000 | | | | | | | | | | | | | |
| | 1306.62 | 4500 | 1.1 | 691200/529 | 6000 | | | | | | | | | | | | | |
| | 1264.97 | 4500 | 1.1 | 9455616/7475 | 6000 | | | | | | | | | | | | | |
| | 1069.42 | 4500 | 1.3 | 7354368/6877 | 6000 | | | | | | | | | | | | | |
| | 973.69 | 4500 | 1.4 | 559872/575 | 6000 | | | | | | | | | | | | | |
| | 823.17 | 4500 | 1.7 | 435456/529 | 6000 | | | | | | | | | | | | | |
| | 735.68 | 4500 | 1.9 | 2115072/2875 | 6000 | | | | | | | | | | | | | |
| | 621.95 | 4500 | 2.3 | 1645056/2645 | 6000 | | | | | | | | | | | | | |
| | Maximum torque 4500 Nm | 602.09 | 4500 | 2.3 | 7962624/13225 | 6000 | | | | | | | | | | | | |
| | | 509.01 | 4500 | 2.8 | 6193152/12167 | 6000 | | | | | | | | | | | | |
| | | 488.23 | 4500 | 2.9 | 3649536/7475 | 6000 | | | | | | | | | | | | |
| | | 412.76 | 4500 | 3.4 | 2838528/6877 | 6000 | | | | | | | | | | | | |
| 408.71 | | 4500 | 3.4 | 235008/575 | 5600 | | | | | | | | | | | | | |
| 345.53 | | 4500 | 4.1 | 182784/529 | 5600 | | | | | | | | | | | | | |
| 331.24 | | 4500 | 4.2 | 190464/575 | 5000 | | | | | | | | | | | | | |
| 319.41 | | 4500 | 4.4 | 1285632/4025 | 4800 | | | | | | | | | | | | | |
| 280.04 | | 4500 | 5.0 | 444416/1587 | 5000 | | | | | | | | | | | | | |
| 270.03 | | 4500 | 5.2 | 142848/529 | 4800 | | | | | | | | | | | | | |

F

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | | |
|--------------|------------------------|-----------------------------|----------------------|-------------|----------------------|----------------------|-----------|------|------|----------|----------|----------|----------|------|------|------|---|---|--|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | - | - | |
| | | | | | | IEC adapter | | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | - | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | | |
| F102 | | 42.74 | 6409 | 33 | 7693/180 | 5600 | | | | | | | | | | | | | |
| | | 37.26 | 7082 | 38 | 15092/405 | 5000 | | | | | | | | | | | | | |
| | 2 stages | | 35.93 | 4312 | 39 | 539/15 | 4800 | | | | | | | | | | | | |
| | | | 32.10 | 8000 | 44 | 11074/345 | 4400 | | | | | | | | | | | | |
| | | | 27.64 | 8000 | 51 | 1078/39 | 3900 | | | | | | | | | | | | |
| | | | 24.14 | 8000 | 58 | 1666/69 | 3500 | | | | | | | | | | | | |
| | | | 22.14 | 3320 | 63 | 1727/78 | 5600 | | | | | | | | | | | | |
| | | | 20.86 | 8000 | 67 | 4067/195 | 3100 | | | | | | | | | | | | |
| | | | 19.30 | 3669 | 73 | 6776/351 | 5000 | | | | | | | | | | | | |
| | | | 18.62 | 2234 | 75 | 242/13 | 4800 | | | | | | | | | | | | |
| | | | 17.25 | 8000 | 81 | 2156/125 | 2700 | | | | | | | | | | | | |
| | | $n_1=1400 \text{ min}^{-1}$ | | 16.63 | 4820 | 84 | 4972/299 | 4400 | | | | | | | | | | | |
| | | | 14.32 | 5348 | 98 | 2420/169 | 3900 | | | | | | | | | | | | |
| | | | 14.19 | 8000 | 99 | 2058/145 | 2300 | | | | | | | | | | | | |
| | Maximum torque 8000 Nm | | | 12.51 | 5415 | 112 | 3740/299 | 3500 | | | | | | | | | | | |
| | | | | 11.67 | 7875 | 120 | 35/3 | 2100 | | | | | | | | | | | |
| | | | | 10.80 | 5415 | 130 | 1826/169 | 3100 | | | | | | | | | | | |
| | | | | 9.91 | 7609 | 141 | 4606/465 | 1900 | | | | | | | | | | | |
| | | | | 8.94 | 5415 | 157 | 2904/325 | 2700 | | | | | | | | | | | |
| | | | | 8.45 | 7361 | 166 | 2156/255 | 1700 | | | | | | | | | | | |
| | | | 7.35 | 5415 | 190 | 2772/377 | 2300 | | | | | | | | | | | | |
| | | 6.04 | 5415 | 232 | 550/91 | 2100 | | | | | | | | | | | | | |
| | | 5.13 | 5415 | 273 | 2068/403 | 1900 | | | | | | | | | | | | | |
| | | 4.38 | 5415 | 320 | 968/221 | 1700 | | | | | | | | | | | | | |
| F103 | | 246.57 | 8000 | 5.7 | 38465/156 | 6000 | | | | | | | | | | | | | |
| | | 217.78 | 8000 | 6.4 | 1960/9 | 5600 | | | | | | | | | | | | | |
| | 3 stages | | 189.04 | 8000 | 7.4 | 30625/162 | 5000 | | | | | | | | | | | | |
| | | | 182.29 | 8000 | 7.7 | 4375/24 | 4800 | | | | | | | | | | | | |
| | | | 163.33 | 8000 | 8.6 | 490/3 | 4400 | | | | | | | | | | | | |
| | | | 139.78 | 8000 | 10 | 21805/156 | 3900 | | | | | | | | | | | | |
| | | | 122.58 | 8000 | 11 | 31871/260 | 6000 | | | | | | | | | | | | |
| | | | 120.72 | 8000 | 12 | 8330/69 | 3500 | | | | | | | | | | | | |
| | | | 108.27 | 8000 | 13 | 1624/15 | 5600 | | | | | | | | | | | | |
| | | | 102.08 | 8000 | 14 | 1225/12 | 3100 | | | | | | | | | | | | |
| | | $n_1=1400 \text{ min}^{-1}$ | | 93.98 | 8000 | 15 | 5075/54 | 5000 | | | | | | | | | | | |
| | | | | 90.63 | 8000 | 15 | 725/8 | 4800 | | | | | | | | | | | |
| | | | 83.30 | 8000 | 17 | 833/10 | 2700 | | | | | | | | | | | | |
| | Maximum torque 8000 Nm | | | 81.20 | 8000 | 17 | 406/5 | 4400 | | | | | | | | | | | |
| | | | | 69.49 | 8000 | 20 | 18067/260 | 3900 | | | | | | | | | | | |
| | | | | 67.59 | 8000 | 21 | 1960/29 | 2300 | | | | | | | | | | | |
| | | | | 60.02 | 8000 | 23 | 6902/115 | 3500 | | | | | | | | | | | |
| | | | | 53.96 | 8000 | 26 | 1295/24 | 2100 | | | | | | | | | | | |
| | | | | 50.75 | 8000 | 28 | 203/4 | 3100 | | | | | | | | | | | |
| | | | | 41.41 | 8000 | 34 | 10353/250 | 2700 | | | | | | | | | | | |
| | | 33.60 | 7876 | 42 | 168/5 | 2300 | | | | | | | | | | | | | |
| | | 26.83 | 7361 | 52 | 1073/40 | 2100 | | | | | | | | | | | | | |

Legend see page 253

| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | |
| F102 | 42.74 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 37.26 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 35.93 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 32.10 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.64 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 24.14 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 22.14 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.86 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 19.30 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.62 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.25 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 16.63 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.32 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.19 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 12.51 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 11.67 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 10.80 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 9.91 | - | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 8.94 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 8.45 | - | | | | | | | | | | | | 1500 | | | | | | | | | | |
| | 7.35 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 6.04 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 5.13 | - | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 4.38 | - | | | | | | | | | | | | 1500 | | | | | | | | | | |
| F103 | 246.57 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 217.78 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 189.04 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 182.29 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 163.33 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 139.78 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 122.58 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 120.72 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 108.27 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 102.08 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 93.98 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 90.63 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 83.30 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 81.20 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 69.49 | 3500 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 67.59 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 60.02 | 3200 | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 53.96 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 50.75 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 41.41 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 33.60 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 26.83 | - | | | | | | | | | | | | 1800 | | | | | | | | | | |

F

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|------|------|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| F104 | 2276.77 | 8000 | 0.61 | 225400/99 | 6000 | | | | | | | | | | | | | |
| | 1976.36 | 8000 | 0.71 | 3521875/1782 | 6000 | | | | | | | | | | | | | |
| | 1757.78 | 8000 | 0.80 | 15820/9 | 6000 | | | | | | | | | | | | | |
| | 1707.58 | 8000 | 0.82 | 56350/33 | 6000 | | | | | | | | | | | | | |
| | 1525.85 | 8000 | 0.92 | 494375/324 | 6000 | | | | | | | | | | | | | |
| | 1474.19 | 8000 | 0.95 | 172480/117 | 6000 | | | | | | | | | | | | | |
| | 1318.33 | 8000 | 1.1 | 3955/3 | 6000 | | | | | | | | | | | | | |
| | 1279.68 | 8000 | 1.1 | 1347500/1053 | 6000 | | | | | | | | | | | | | |
| | 1156.94 | 8000 | 1.2 | 20825/18 | 6000 | | | | | | | | | | | | | |
| | 1105.64 | 8000 | 1.3 | 43120/39 | 6000 | | | | | | | | | | | | | |
| | 1004.29 | 8000 | 1.4 | 2603125/2592 | 6000 | | | | | | | | | | | | | |
| | 892.89 | 8000 | 1.6 | 8036/9 | 6000 | | | | | | | | | | | | | |
| | 867.71 | 8000 | 1.6 | 20825/24 | 6000 | | | | | | | | | | | | | |
| | 775.08 | 8000 | 1.8 | 251125/324 | 6000 | | | | | | | | | | | | | |
| | 738.55 | 8000 | 1.9 | 50960/69 | 6000 | | | | | | | | | | | | | |
| | 669.67 | 8000 | 2.1 | 2009/3 | 6000 | | | | | | | | | | | | | |
| | 641.10 | 8000 | 2.2 | 398125/621 | 6000 | | | | | | | | | | | | | |
| | 628.21 | 8000 | 2.2 | 24500/39 | 6000 | | | | | | | | | | | | | |
| | 553.91 | 8000 | 2.5 | 12740/23 | 6000 | | | | | | | | | | | | | |
| | 545.32 | 8000 | 2.6 | 765625/1404 | 6000 | | | | | | | | | | | | | |
| | 544.44 | 8000 | 2.6 | 4900/9 | 5600 | | | | | | | | | | | | | |
| | 472.61 | 8000 | 3.0 | 153125/324 | 5600 | | | | | | | | | | | | | |
| | 471.15 | 8000 | 3.0 | 6125/13 | 6000 | | | | | | | | | | | | | |
| | 459.75 | 8000 | 3.0 | 37240/81 | 5000 | | | | | | | | | | | | | |
| | 443.33 | 8000 | 3.2 | 1330/3 | 4800 | | | | | | | | | | | | | |
| | 408.33 | 8000 | 3.4 | 1225/3 | 5600 | | | | | | | | | | | | | |
| | 399.09 | 8000 | 3.5 | 581875/1458 | 5000 | | | | | | | | | | | | | |
| | 384.84 | 8000 | 3.6 | 83125/216 | 4800 | | | | | | | | | | | | | |
| | 378.74 | 8000 | 3.7 | 78400/207 | 4400 | | | | | | | | | | | | | |
| | 344.81 | 8000 | 4.1 | 9310/27 | 5000 | | | | | | | | | | | | | |
| | 332.50 | 8000 | 4.2 | 665/2 | 4800 | | | | | | | | | | | | | |
| | 328.77 | 8000 | 4.3 | 612500/1863 | 4400 | | | | | | | | | | | | | |
| | 284.06 | 8000 | 4.9 | 19600/69 | 4400 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |
| F104 | 2276.77 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | |
| | 1976.36 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | |
| | 1757.78 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1707.58 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | |
| | 1525.85 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1474.19 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1318.33 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1279.68 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1156.94 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1105.64 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 1004.29 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 892.89 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 867.71 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 775.08 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 738.55 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 669.67 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 641.10 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 628.21 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 553.91 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 545.32 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 544.44 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 472.61 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 471.15 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 459.75 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 443.33 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 408.33 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 399.09 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 384.84 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 378.74 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 344.81 | 4500 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 332.50 | 4400 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 328.77 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | |
| | 284.06 | 4000 | | | | | | | | | | | | 2500 | | | | | | | | |

F

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|------|---|--|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | - | - | |
| | | | | | | IEC adapter | | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | l250 | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | | |
| F122 | 39.98 | 7597 | 35 | 16192/405 | 5000 | | | | | | | | | | | | | | |
| | 34.43 | 9985 | 41 | 792/23 | 4400 | | | | | | | | | | | | | | |
| | 29.78 | 12543 | 47 | 1936/65 | 3900 | | | | | | | | | | | | | | |
| | 26.27 | 13000 | 53 | 9064/345 | 3500 | | | | | | | | | | | | | | |
| | 22.56 | 12916 | 62 | 880/39 | 3100 | | | | | | | | | | | | | | |
| | 19.18 | 3645 | 73 | 13984/729 | 5000 | | | | | | | | | | | | | | |
| | 18.77 | 12365 | 75 | 1408/75 | 2700 | | | | | | | | | | | | | | |
| | 16.52 | 4791 | 85 | 380/23 | 4400 | | | | | | | | | | | | | | |
| | 15.58 | 11830 | 90 | 6776/435 | 2300 | | | | | | | | | | | | | | |
| | 14.29 | 6018 | 98 | 1672/117 | 3900 | | | | | | | | | | | | | | |
| | 12.99 | 11332 | 108 | 1364/105 | 2100 | | | | | | | | | | | | | | |
| | 12.61 | 7319 | 111 | 7828/621 | 3500 | | | | | | | | | | | | | | |
| | 11.17 | 10933 | 125 | 5192/465 | 1900 | | | | | | | | | | | | | | |
| | 10.83 | 7209 | 129 | 3800/351 | 3100 | | | | | | | | | | | | | | |
| | 9.66 | 10565 | 145 | 2464/255 | 1700 | | | | | | | | | | | | | | |
| | 9.01 | 8163 | 155 | 1216/135 | 2700 | | | | | | | | | | | | | | |
| | 7.47 | 8093 | 187 | 5852/783 | 2300 | | | | | | | | | | | | | | |
| | 6.23 | 8163 | 225 | 1178/189 | 2100 | | | | | | | | | | | | | | |
| | 5.36 | 8163 | 261 | 4484/837 | 1900 | | | | | | | | | | | | | | |
| | 4.64 | 7647 | 302 | 2128/459 | 1700 | | | | | | | | | | | | | | |
| F123 | 220.67 | 13000 | 6.3 | 39721/180 | 5600 | | | | | | | | | | | | | | |
| | 192.40 | 13000 | 7.3 | 77924/405 | 5000 | | | | | | | | | | | | | | |
| | 185.53 | 13000 | 7.5 | 2783/15 | 4800 | | | | | | | | | | | | | | |
| | 165.73 | 13000 | 8.4 | 2486/15 | 4400 | | | | | | | | | | | | | | |
| | 142.72 | 13000 | 9.8 | 5566/39 | 3900 | | | | | | | | | | | | | | |
| | 124.67 | 13000 | 11 | 374/3 | 3500 | | | | | | | | | | | | | | |
| | 120.82 | 13000 | 12 | 29359/243 | 5600 | | | | | | | | | | | | | | |
| | 107.69 | 13000 | 13 | 20999/195 | 3100 | | | | | | | | | | | | | | |
| | 105.34 | 13000 | 13 | 230384/2187 | 5000 | | | | | | | | | | | | | | |
| | 101.58 | 12190 | 14 | 8228/81 | 4800 | | | | | | | | | | | | | | |
| | 90.74 | 13000 | 15 | 169048/1863 | 4400 | | | | | | | | | | | | | | |
| | 89.06 | 13000 | 16 | 11132/125 | 2700 | | | | | | | | | | | | | | |
| | 78.14 | 13000 | 18 | 82280/1053 | 3900 | | | | | | | | | | | | | | |
| | 73.28 | 13000 | 19 | 10626/145 | 2300 | | | | | | | | | | | | | | |
| | 68.26 | 13000 | 21 | 127160/1863 | 3500 | | | | | | | | | | | | | | |
| | 60.24 | 13000 | 23 | 1265/21 | 2100 | | | | | | | | | | | | | | |
| | 58.96 | 12929 | 24 | 62084/1053 | 3100 | | | | | | | | | | | | | | |
| | 51.14 | 12609 | 27 | 23782/465 | 1900 | | | | | | | | | | | | | | |
| | 48.76 | 12213 | 29 | 32912/675 | 2700 | | | | | | | | | | | | | | |
| | 43.65 | 12024 | 32 | 11132/255 | 1700 | | | | | | | | | | | | | | |
| 40.12 | 11519 | 35 | 10472/261 | 2300 | | | | | | | | | | | | | | | |
| 32.98 | 10861 | 42 | 18700/567 | 2100 | | | | | | | | | | | | | | | |
| 28.00 | 10341 | 50 | 70312/2511 | 1900 | | | | | | | | | | | | | | | |
| 23.90 | 9861 | 59 | 1936/81 | 1700 | | | | | | | | | | | | | | | |

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|--------------|----------------------|----------------------|----------|------|------|----------|----------|------|------|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | [min ⁻¹] | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| F124 | 2307.03 | 13000 | 0.61 | 83053/36 | 6000 | | | | | | | | | | | | | |
| | 2011.51 | 13000 | 0.70 | 162932/81 | 6000 | | | | | | | | | | | | | |
| | 1781.14 | 13000 | 0.79 | 4488473/2520 | 6000 | | | | | | | | | | | | | |
| | 1732.67 | 13000 | 0.81 | 5198/3 | 6000 | | | | | | | | | | | | | |
| | 1552.98 | 13000 | 0.90 | 628958/405 | 6000 | | | | | | | | | | | | | |
| | 1493.78 | 13000 | 0.94 | 873862/585 | 6000 | | | | | | | | | | | | | |
| | 1492.05 | 13000 | 0.94 | 58190/39 | 6000 | | | | | | | | | | | | | |
| | 1337.70 | 13000 | 1.0 | 140459/105 | 6000 | | | | | | | | | | | | | |
| | 1302.43 | 13000 | 1.1 | 6857312/5265 | 6000 | | | | | | | | | | | | | |
| | 1172.32 | 13000 | 1.2 | 675257/576 | 6000 | | | | | | | | | | | | | |
| | 1151.94 | 13000 | 1.2 | 314479/273 | 6000 | | | | | | | | | | | | | |
| | 1121.89 | 13000 | 1.2 | 218768/195 | 6000 | | | | | | | | | | | | | |
| | 1022.15 | 13000 | 1.4 | 331177/324 | 6000 | | | | | | | | | | | | | |
| | 966.09 | 13000 | 1.4 | 489808/507 | 6000 | | | | | | | | | | | | | |
| | 904.76 | 13000 | 1.5 | 1628561/1800 | 6000 | | | | | | | | | | | | | |
| | 880.46 | 13000 | 1.6 | 21131/24 | 6000 | | | | | | | | | | | | | |
| | 788.86 | 13000 | 1.8 | 1597442/2025 | 6000 | | | | | | | | | | | | | |
| | 758.19 | 13000 | 1.8 | 236555/312 | 6000 | | | | | | | | | | | | | |
| | 748.37 | 13000 | 1.9 | 22451/30 | 6000 | | | | | | | | | | | | | |
| | 679.51 | 13000 | 2.1 | 50963/75 | 6000 | | | | | | | | | | | | | |
| | 652.50 | 13000 | 2.1 | 88088/135 | 6000 | | | | | | | | | | | | | |
| | 636.55 | 13000 | 2.2 | 198605/312 | 6000 | | | | | | | | | | | | | |
| | 585.14 | 13000 | 2.4 | 114103/195 | 6000 | | | | | | | | | | | | | |
| | 562.05 | 13000 | 2.5 | 64636/115 | 6000 | | | | | | | | | | | | | |
| | 555.01 | 13000 | 2.5 | 194810/351 | 6000 | | | | | | | | | | | | | |
| | 551.68 | 13000 | 2.5 | 39721/72 | 5600 | | | | | | | | | | | | | |
| | 484.00 | 13000 | 2.9 | 484/1 | 6000 | | | | | | | | | | | | | |
| | 481.01 | 13000 | 2.9 | 38962/81 | 5600 | | | | | | | | | | | | | |
| | 478.08 | 13000 | 2.9 | 6215/13 | 6000 | | | | | | | | | | | | | |
| | 465.86 | 13000 | 3.0 | 754699/1620 | 5000 | | | | | | | | | | | | | |
| | 449.23 | 13000 | 3.1 | 754699/1680 | 4800 | | | | | | | | | | | | | |
| | 414.33 | 13000 | 3.4 | 1243/3 | 5600 | | | | | | | | | | | | | |
| | 411.69 | 13000 | 3.4 | 69575/169 | 6000 | | | | | | | | | | | | | |
| | 406.19 | 13000 | 3.4 | 1480556/3645 | 5000 | | | | | | | | | | | | | |
| | 391.68 | 13000 | 3.6 | 52877/135 | 4800 | | | | | | | | | | | | | |
| | 383.78 | 13000 | 3.6 | 3454/9 | 4400 | | | | | | | | | | | | | |
| | 356.79 | 13000 | 3.9 | 13915/39 | 5600 | | | | | | | | | | | | | |
| | 349.88 | 13000 | 4.0 | 47234/135 | 5000 | | | | | | | | | | | | | |
| | 337.39 | 13000 | 4.1 | 23617/70 | 4800 | | | | | | | | | | | | | |
| | 334.62 | 13000 | 4.2 | 27104/81 | 4400 | | | | | | | | | | | | | |
| 301.29 | 13000 | 4.6 | 105754/351 | 5000 | | | | | | | | | | | | | | |
| 290.53 | 13000 | 4.8 | 52877/182 | 4800 | | | | | | | | | | | | | | |
| 288.23 | 13000 | 4.9 | 19888/69 | 4400 | | | | | | | | | | | | | | |
| 248.21 | 13000 | 5.6 | 9680/39 | 4400 | | | | | | | | | | | | | | |

Legend see page 253

| Type | $i_{ges.}$ | M_{2max} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|---|-------------|------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|------|------|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | l250 | l280 |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | |
| F152 | 36.54 | 15418 | 38 | 1023/28 | 3900 | | | | | | | | | | | | | |
| 2 stages $n_1=1400 \text{ min}^{-1}$ Maximum torque 18000 Nm | 27.85 | 18000 | 50 | 10137/364 | 3100 | | | | | | | | | | | | | |
| | 23.38 | 18000 | 60 | 4092/175 | 2700 | | | | | | | | | | | | | |
| | 19.24 | 18000 | 73 | 558/29 | 2300 | | | | | | | | | | | | | |
| | 17.35 | 7320 | 81 | 451/26 | 3900 | | | | | | | | | | | | | |
| | 16.37 | 18000 | 86 | 6417/392 | 2100 | | | | | | | | | | | | | |
| | 14.14 | 18000 | 99 | 99/7 | 1900 | | | | | | | | | | | | | |
| | 13.22 | 9805 | 106 | 4469/338 | 3100 | | | | | | | | | | | | | |
| | 12.31 | 18000 | 114 | 837/68 | 1700 | | | | | | | | | | | | | |
| | 11.10 | 11038 | 126 | 3608/325 | 2700 | | | | | | | | | | | | | |
| | 9.14 | 10975 | 153 | 3444/377 | 2300 | | | | | | | | | | | | | |
| | 7.77 | 11038 | 180 | 2829/364 | 2100 | | | | | | | | | | | | | |
| | 6.71 | 11038 | 208 | 2706/403 | 1900 | | | | | | | | | | | | | |
| | 5.84 | 11038 | 240 | 2583/442 | 1700 | | | | | | | | | | | | | |
| | F153 | 259.81 | 18000 | 5.4 | 5456/21 | 5000 | | | | | | | | | | | | |
| 3 stages $n_1=1400 \text{ min}^{-1}$ Maximum torque 18000 Nm | 223.77 | 18000 | 6.3 | 828630/3703 | 4400 | | | | | | | | | | | | | |
| | 193.55 | 18000 | 7.2 | 405108/2093 | 3900 | | | | | | | | | | | | | |
| | 170.73 | 18000 | 8.2 | 632214/3703 | 3500 | | | | | | | | | | | | | |
| | 146.63 | 18000 | 9.5 | 306900/2093 | 3100 | | | | | | | | | | | | | |
| | 144.52 | 18000 | 9.7 | 118358/819 | 5000 | | | | | | | | | | | | | |
| | 124.47 | 18000 | 11 | 1042065/8372 | 4400 | | | | | | | | | | | | | |
| | 122.00 | 18000 | 11 | 98208/805 | 2700 | | | | | | | | | | | | | |
| | 107.66 | 18000 | 13 | 254727/2366 | 3900 | | | | | | | | | | | | | |
| | 101.23 | 18000 | 14 | 67518/667 | 2300 | | | | | | | | | | | | | |
| | 94.97 | 18000 | 15 | 795057/8372 | 3500 | | | | | | | | | | | | | |
| | 84.42 | 18000 | 17 | 95139/1127 | 2100 | | | | | | | | | | | | | |
| | 81.56 | 18000 | 17 | 192975/2366 | 3100 | | | | | | | | | | | | | |
| | 72.56 | 18000 | 19 | 11682/161 | 1900 | | | | | | | | | | | | | |
| | 67.86 | 18000 | 21 | 30876/455 | 2700 | | | | | | | | | | | | | |
| 62.79 | 18000 | 22 | 24552/391 | 1700 | | | | | | | | | | | | | | |
| 56.31 | 18000 | 25 | 84909/1508 | 2300 | | | | | | | | | | | | | | |
| 46.96 | 18000 | 30 | 239289/5096 | 2100 | | | | | | | | | | | | | | |
| 40.36 | 18000 | 35 | 14691/364 | 1900 | | | | | | | | | | | | | | |
| 34.93 | 18000 | 40 | 7719/221 | 1700 | | | | | | | | | | | | | | |

Legend see page 253

| Type | $i_{ges.}$ | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|------------|---------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n_{1max} | Adapter size | | | | | | | | | | | n_{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| F152 | 36.54 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.85 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 23.38 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 19.24 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 17.35 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.37 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 14.14 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 13.22 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 12.31 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 11.10 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 9.14 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 7.77 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 6.71 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 5.84 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |
| F153 | 259.81 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 223.77 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 193.55 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 170.73 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 146.63 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 144.52 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 124.47 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 122.00 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 107.66 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 101.23 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 94.97 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 84.42 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 81.56 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 72.56 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 67.86 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 62.79 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |
| | 56.31 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 46.96 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 40.36 | - | | | | | | | | | | | | | 1800 | | | | | | | | | | |
| | 34.93 | - | | | | | | | | | | | | | 1700 | | | | | | | | | | |

F

Legend see page 253

| Type | $i_{ges.}$ | M_{zmax} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|----------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | - | - | - | | |
| F154 | 2318.30 | 18000 | 0.60 | 632896/273 | 6000 | | | | | | | | | | | | | |
| | 1996.74 | 18000 | 0.70 | 96121080/48139 | 6000 | | | | | | | | | | | | | |
| | 1834.90 | 18000 | 0.76 | 38533/21 | 6000 | | | | | | | | | | | | | |
| | 1727.10 | 18000 | 0.81 | 46992528/27209 | 6000 | | | | | | | | | | | | | |
| | 1602.16 | 18000 | 0.87 | 100936/63 | 6000 | | | | | | | | | | | | | |
| | 1580.39 | 18000 | 0.89 | 46817595/29624 | 6000 | | | | | | | | | | | | | |
| | 1415.96 | 18000 | 0.99 | 148676/105 | 6000 | | | | | | | | | | | | | |
| | 1379.93 | 18000 | 1.0 | 5109885/3703 | 6000 | | | | | | | | | | | | | |
| | 1366.97 | 18000 | 1.0 | 11444301/8372 | 6000 | | | | | | | | | | | | | |
| | 1219.56 | 18000 | 1.1 | 9032067/7406 | 6000 | | | | | | | | | | | | | |
| | 1197.38 | 18000 | 1.2 | 578336/483 | 6000 | | | | | | | | | | | | | |
| | 1193.58 | 18000 | 1.2 | 2498166/2093 | 6000 | | | | | | | | | | | | | |
| | 1054.87 | 18000 | 1.3 | 11039193/10465 | 6000 | | | | | | | | | | | | | |
| | 1031.30 | 18000 | 1.4 | 87834780/85169 | 6000 | | | | | | | | | | | | | |
| | 1029.25 | 18000 | 1.4 | 280984/273 | 6000 | | | | | | | | | | | | | |
| | 898.51 | 18000 | 1.6 | 56606/63 | 5600 | | | | | | | | | | | | | |
| | 892.03 | 18000 | 1.6 | 42941448/48139 | 6000 | | | | | | | | | | | | | |
| | 886.48 | 18000 | 1.6 | 42674445/48139 | 6000 | | | | | | | | | | | | | |
| | 773.88 | 18000 | 1.8 | 11462715/14812 | 5600 | | | | | | | | | | | | | |
| | 769.81 | 18000 | 1.8 | 436480/567 | 5000 | | | | | | | | | | | | | |
| | 766.77 | 18000 | 1.8 | 20863062/27209 | 6000 | | | | | | | | | | | | | |
| | 742.31 | 18000 | 1.9 | 109120/147 | 4800 | | | | | | | | | | | | | |
| | 669.37 | 18000 | 2.1 | 2801997/4186 | 5600 | | | | | | | | | | | | | |
| | 663.03 | 18000 | 2.1 | 2455200/3703 | 5000 | | | | | | | | | | | | | |
| | 655.17 | 18000 | 2.1 | 316448/483 | 4400 | | | | | | | | | | | | | |
| | 639.35 | 18000 | 2.2 | 16572600/25921 | 4800 | | | | | | | | | | | | | |
| | 573.49 | 18000 | 2.4 | 1200320/2093 | 5000 | | | | | | | | | | | | | |
| | 564.30 | 18000 | 2.5 | 48060540/85169 | 4400 | | | | | | | | | | | | | |
| | 553.01 | 18000 | 2.5 | 8102160/14651 | 4800 | | | | | | | | | | | | | |
| | 549.60 | 18000 | 2.5 | 150040/273 | 3900 | | | | | | | | | | | | | |
| | 488.09 | 18000 | 2.9 | 23496264/48139 | 4400 | | | | | | | | | | | | | |
| | 473.37 | 18000 | 3.0 | 22787325/48139 | 3900 | | | | | | | | | | | | | |
| | 463.14 | 18000 | 3.0 | 223696/483 | 3500 | | | | | | | | | | | | | |
| | 409.44 | 18000 | 3.4 | 11140470/27209 | 3900 | | | | | | | | | | | | | |
| | 398.90 | 18000 | 3.5 | 33973830/85169 | 3500 | | | | | | | | | | | | | |
| | 379.72 | 18000 | 3.7 | 103664/273 | 3100 | | | | | | | | | | | | | |
| | 345.03 | 18000 | 4.1 | 16609428/48139 | 3500 | | | | | | | | | | | | | |
| | 327.05 | 18000 | 4.3 | 15743970/48139 | 3100 | | | | | | | | | | | | | |
| | 282.89 | 18000 | 4.9 | 7697052/27209 | 3100 | | | | | | | | | | | | | |

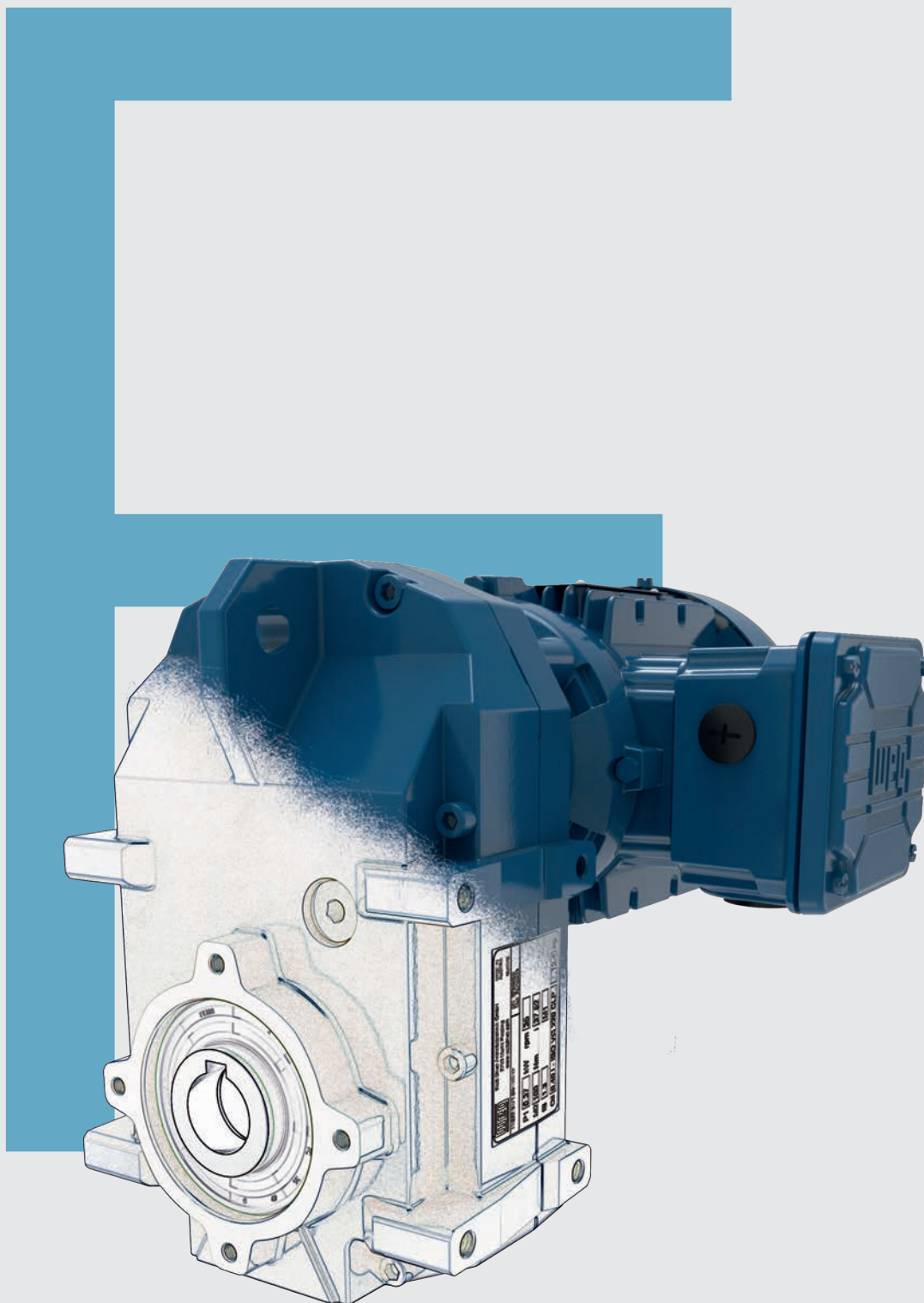
Legend see page 253

| Type | $i_{ges.}$ | M_{2max} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | |
|--------------|----------------------------|------------|----------------------|---------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | |
| F155 | 24805.81 | 18000 | 0.06 | 33859936/1365 | 6000 | | | | | | | | | | | |
| 5 stages | 20285.13 | 18000 | 0.07 | 791120/39 | 6000 | | | | | | | | | | | |
| | 17143.10 | 18000 | 0.08 | 5400076/315 | 6000 | | | | | | | | | | | |
| | 16017.35 | 18000 | 0.09 | 4372736/273 | 6000 | | | | | | | | | | | |
| | 14018.89 | 18000 | 0.10 | 126170/9 | 6000 | | | | | | | | | | | |
| | 12419.47 | 18000 | 0.11 | 7911200/637 | 6000 | | | | | | | | | | | |
| | 11069.46 | 18000 | 0.13 | 697376/63 | 6000 | | | | | | | | | | | |
| | 10164.86 | 18000 | 0.14 | 12025024/1183 | 6000 | | | | | | | | | | | |
| | 8582.99 | 18000 | 0.16 | 1261700/147 | 6000 | | | | | | | | | | | |
| | 7824.26 | 18000 | 0.18 | 712008/91 | 6000 | | | | | | | | | | | |
| | 7024.85 | 18000 | 0.20 | 1917784/273 | 6000 | | | | | | | | | | | |
| | 5911.67 | 18000 | 0.24 | 2689808/455 | 6000 | | | | | | | | | | | |
| | 5407.29 | 18000 | 0.26 | 37851/7 | 6000 | | | | | | | | | | | |
| | 4838.19 | 18000 | 0.29 | 10126336/2093 | 6000 | | | | | | | | | | | |
| | Maximum torque 18000 Nm | 4085.50 | 18000 | 0.34 | 428978/105 | 6000 | | | | | | | | | | |
| 3923.28 | | 18000 | 0.36 | 13923712/3549 | 6000 | | | | | | | | | | | |
| 3343.64 | | 18000 | 0.42 | 1614976/483 | 6000 | | | | | | | | | | | |
| 3284.26 | | 18000 | 0.43 | 2689808/819 | 5600 | | | | | | | | | | | |
| 2711.35 | | 18000 | 0.52 | 2220592/819 | 6000 | | | | | | | | | | | |
| 2661.75 | | 18000 | 0.53 | 19619776/7371 | 5000 | | | | | | | | | | | |
| 2566.69 | | 18000 | 0.55 | 4904944/1911 | 4800 | | | | | | | | | | | |
| 2269.72 | | 18000 | 0.62 | 428978/189 | 5600 | | | | | | | | | | | |
| 1839.52 | 18000 | 0.76 | 3129016/1701 | 5000 | | | | | | | | | | | | |
| 1773.82 | 18000 | 0.79 | 782254/441 | 4800 | | | | | | | | | | | | |

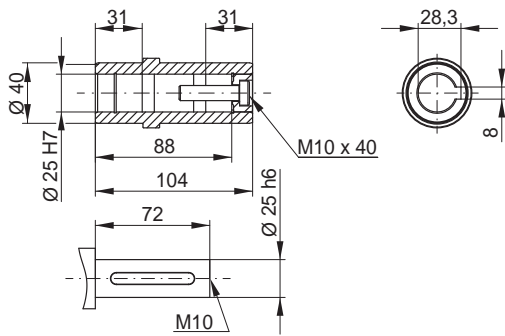
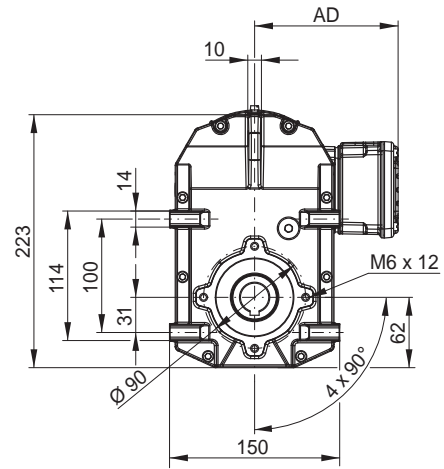
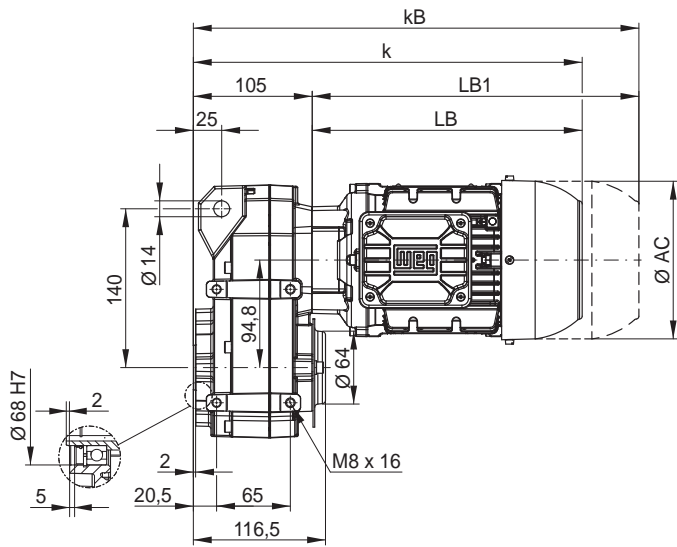
F

Legend see page 253

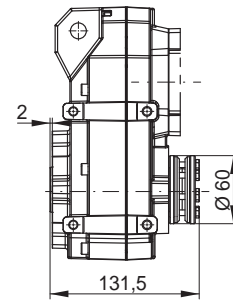
Dimension sheets Geared Motors



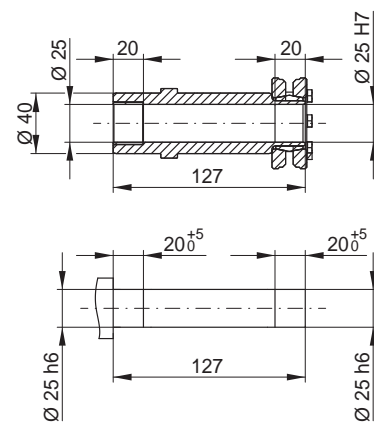
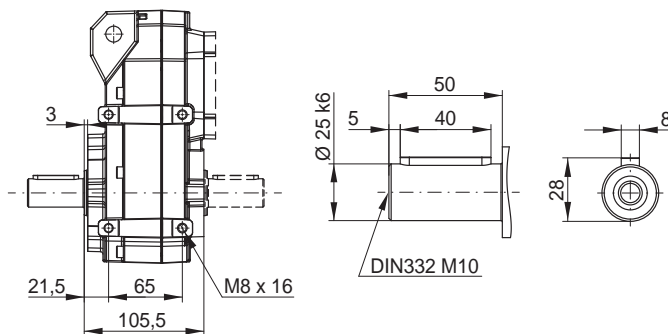
FH02 - Hollow shaft



FD02 - Shrink disc *



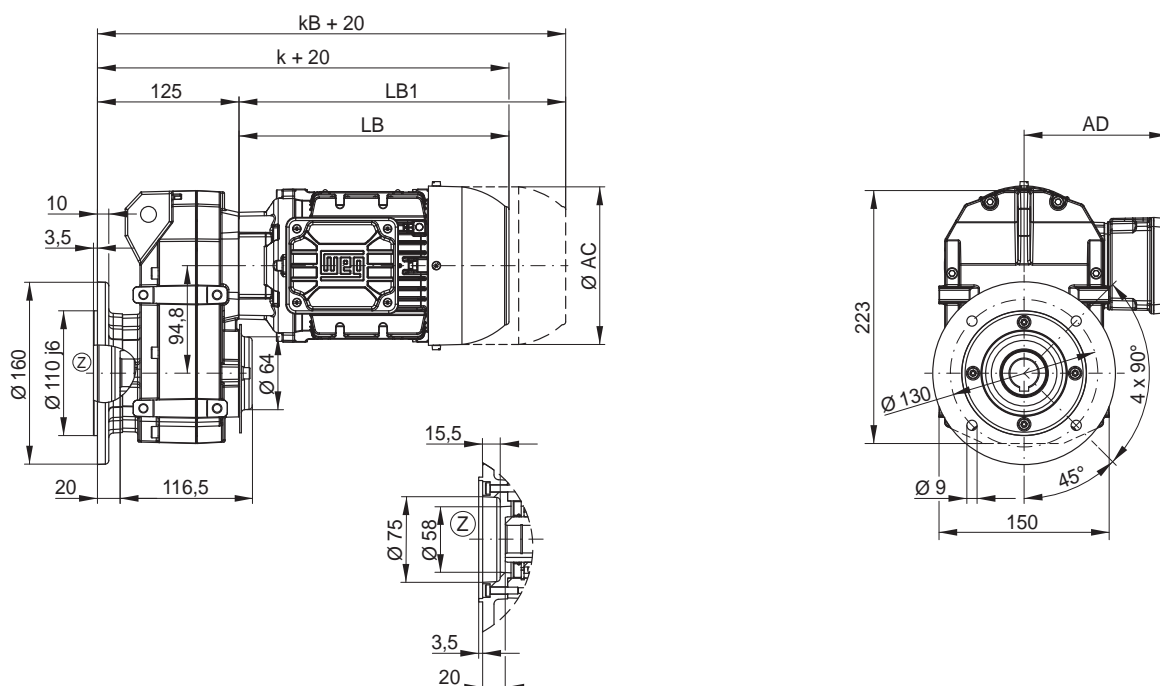
FS02 - Output shaft FB02 - Output shaft on both sides



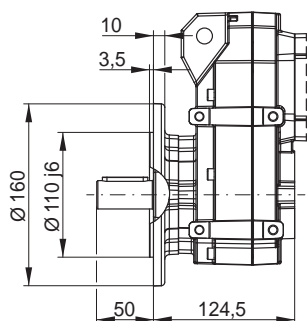
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L |
|-----------|-----|-----|-----|-----|-------|
| Dimension | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 |
| AD | 128 | 136 | 145 | 145 | 155 |
| k | 309 | 343 | 351 | 375 | 393 |
| kB | 353 | 392 | 409 | 433 | 466 |
| LB | 204 | 238 | 246 | 270 | 288 |
| LB1 | 248 | 287 | 304 | 328 | 361 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

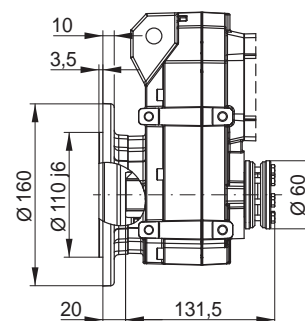
FO02 - B5 flange execution with hollow shaft



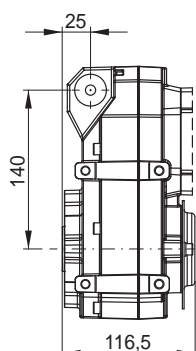
FO02 - B5 flange execution with output shaft



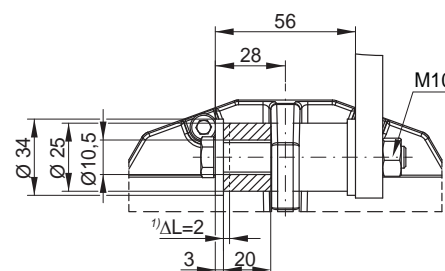
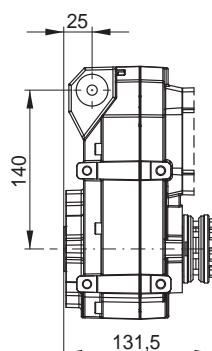
FP02 - B5 flange execution with hollow shaft and shrink disc *



FT02 - Hollow shaft with rubber buffer



FU02 - Hollow shaft with shrink disc * and rubber buffer

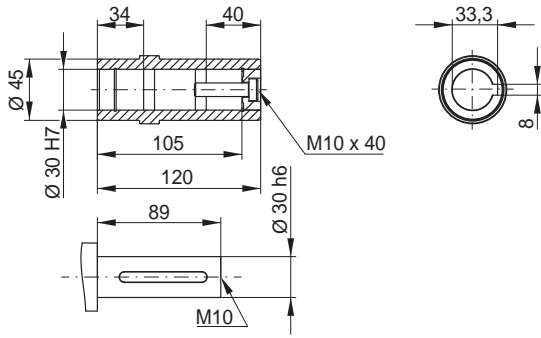
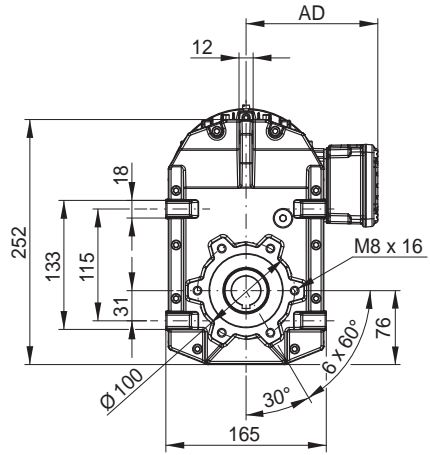
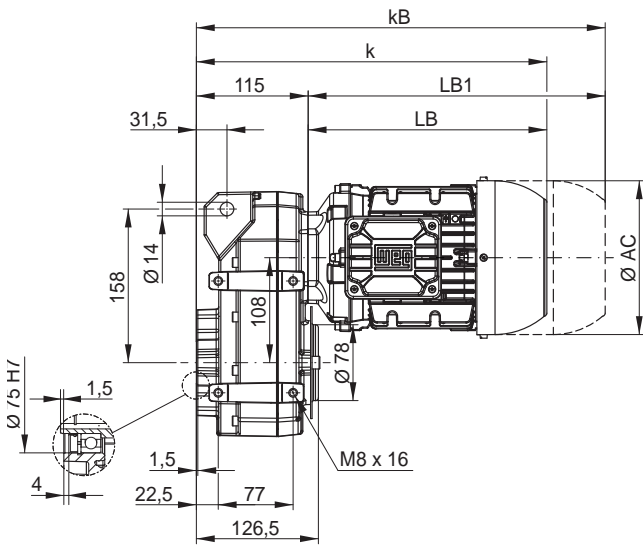


Dimensions in mm.

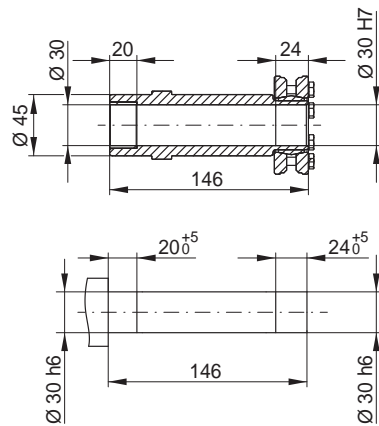
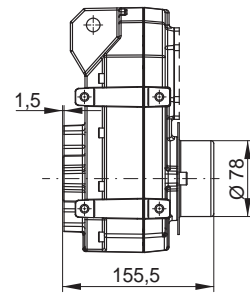
* Shrink disc only in combination with motor frame sizes 63 and 71
Protection cap for shrink disc never possible

1) ΔL = recommended preload

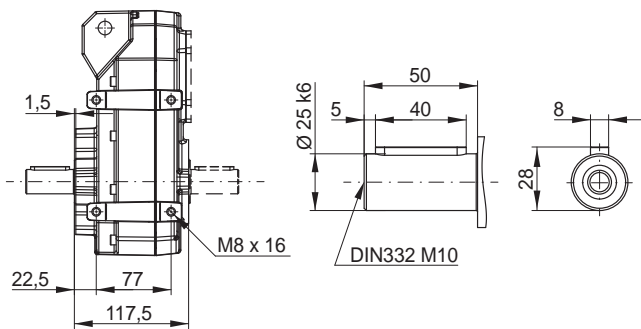
FH03 - Hollow shaft



FD03 - Shrink disc *

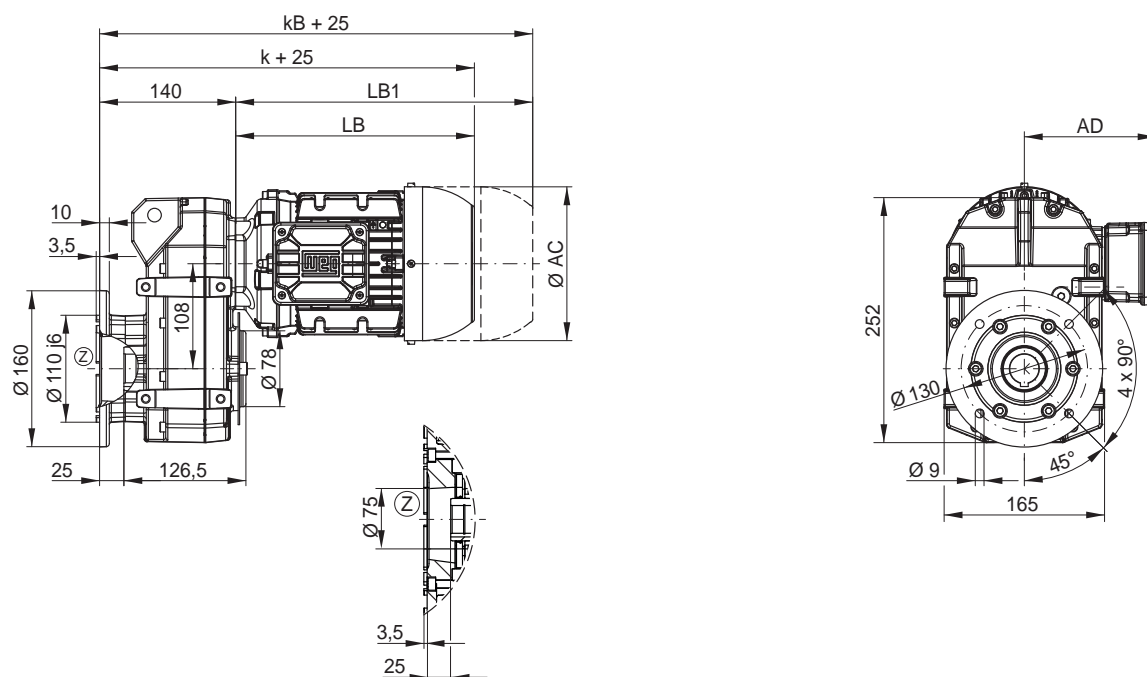
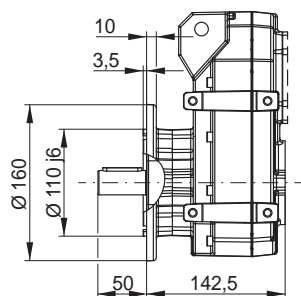
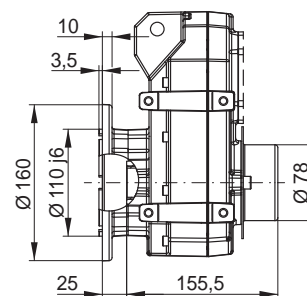
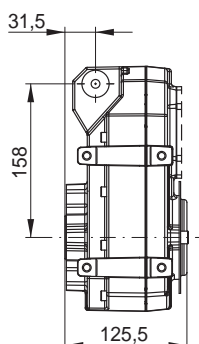
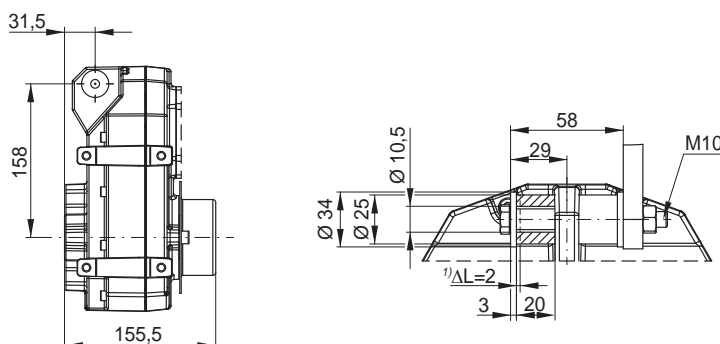


FS03 - Output shaft FB03 - Output shaft on both sides



| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L |
|-----------|-----|-----|-----|-----|-------|------|-------|
| Dimension | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 |
| k | 319 | 353 | 361 | 385 | 403 | 453 | 491 |
| kB | 363 | 402 | 419 | 443 | 476 | 537 | 575 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 |

Motorabmessungen ab Seite 496. Längenbeschreibungen LB und LB1 siehe Seite 500.

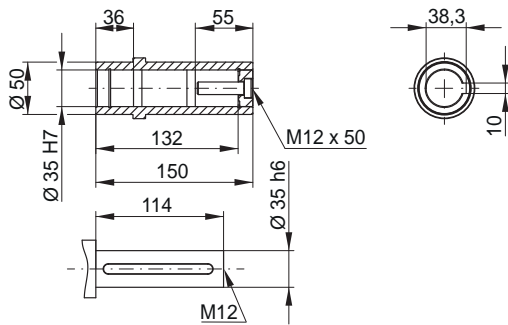
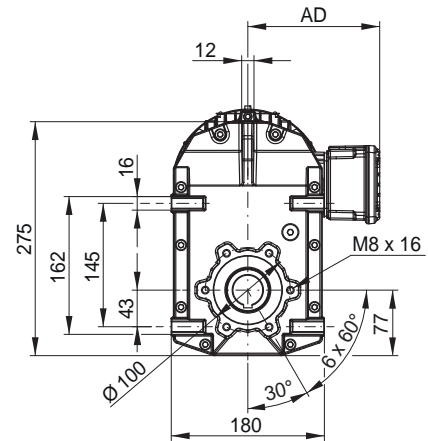
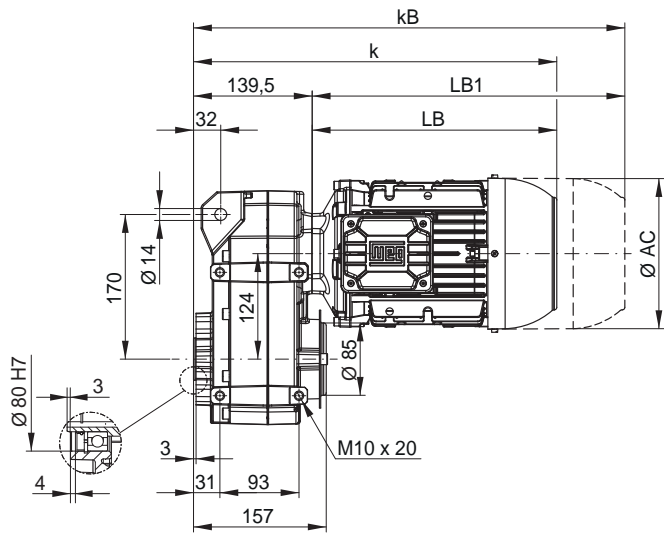
FO03 - B5 flange execution with hollow shaft

FF03 - B5 flange execution with output shaft

FP03 - B5 flange execution with hollow shaft and shrink disc *

FT03 - Hollow shaft with rubber buffer

FU03 - Hollow shaft with shrink disc * and rubber buffer


Dimensions in mm.

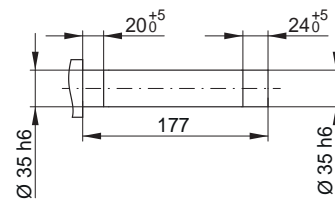
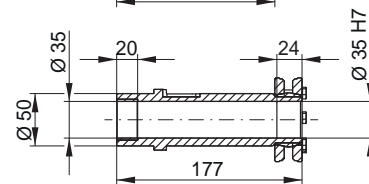
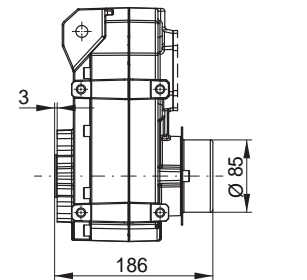
* Shrink disc only in combination with motor frame sizes 63 und 71

1) ΔL = recommended preload

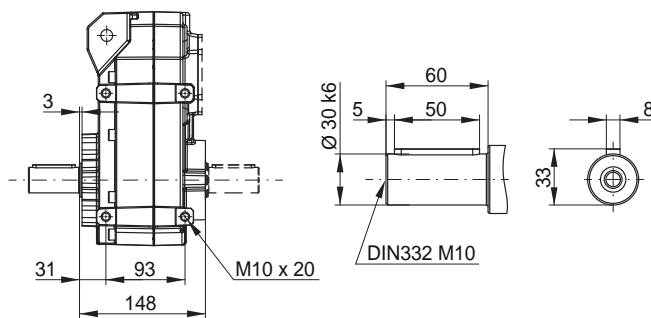
FH04 - Hollow shaft



FD04 - Shrink disc *

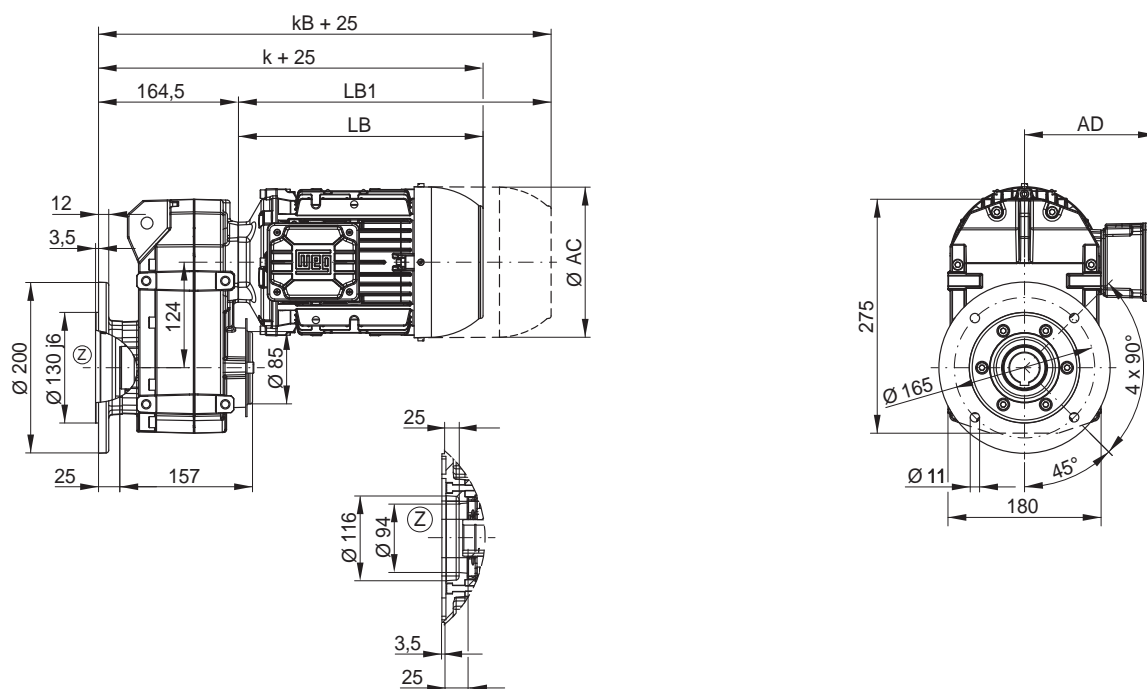
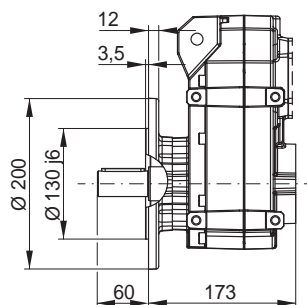
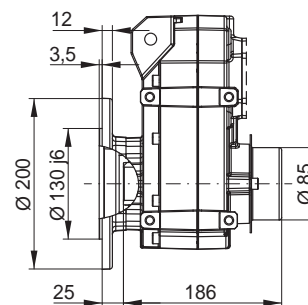
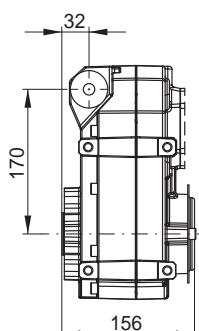
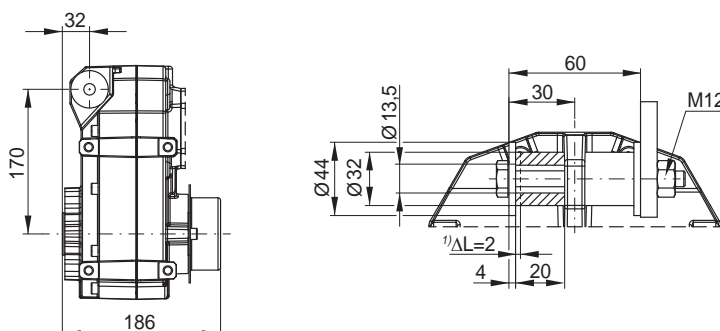


FS04 - Output shaft FB04 - Output shaft on both sides



| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L |
|-----------|-----|-----|-----|-----|-------|------|-------|
| Dimension | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 |
| k | 344 | 378 | 386 | 410 | 428 | 478 | 516 |
| kB | 388 | 427 | 444 | 468 | 501 | 562 | 600 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

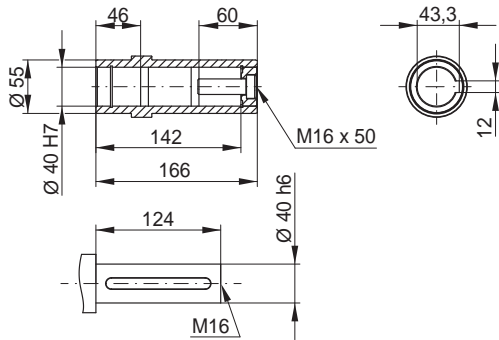
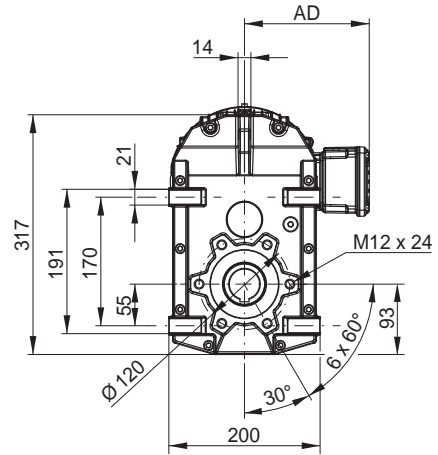
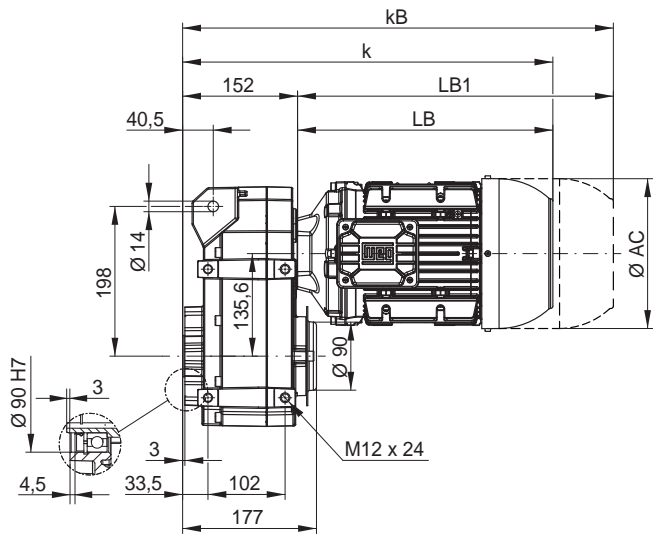
FO04 - B5 flange execution with hollow shaft

FO04 - B5 flange execution with output shaft

FP04 - B5 flange execution with hollow shaft and shrink disc *

FT04 - Hollow shaft with rubber buffer

FU04 - Hollow shaft with shrink disc * and rubber buffer


Dimensions in mm.

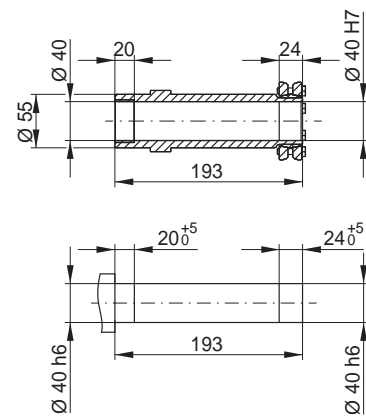
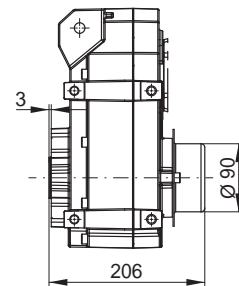
* Shrink disc only in combination with motor frame sizes 63, 71 and 80

1) ΔL = recommended preload

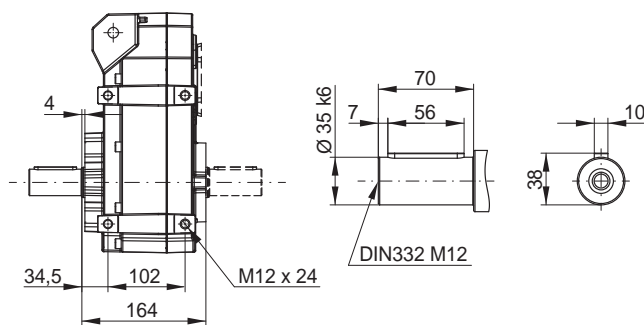
FH05 - Hollow shaft



FD05 - Shrink disc *

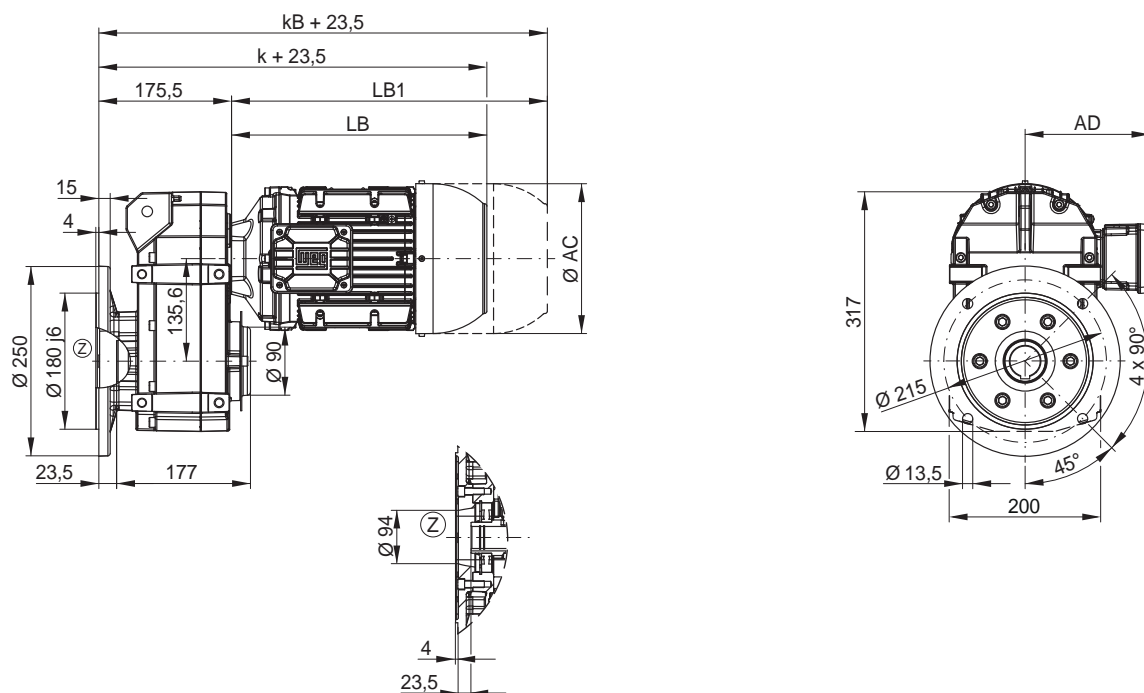
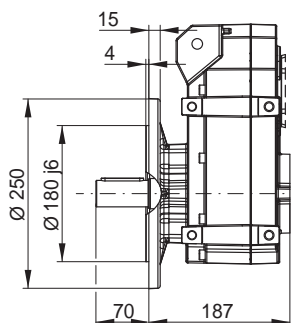
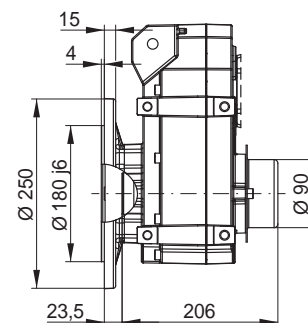
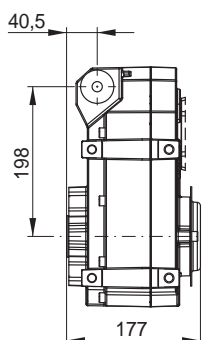
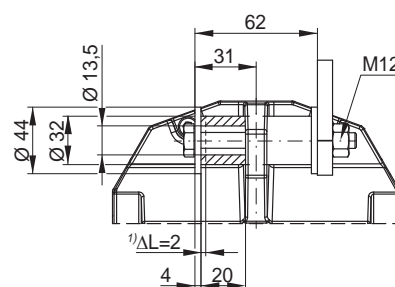
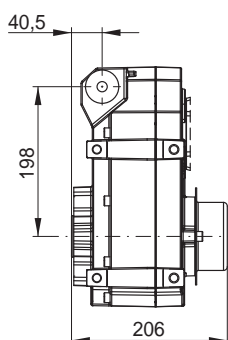


FS05 - Output shaft FB05 - Output shaft on both sides



| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 356 | 390 | 398 | 422 | 440 | 490 | 528 | 500 | 565 | 603 |
| kB | 400 | 439 | 456 | 480 | 513 | 574 | 612 | 587 | 683 | 721 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

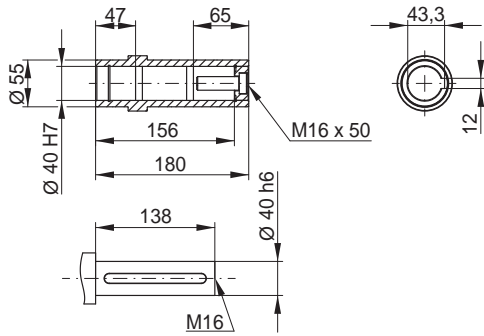
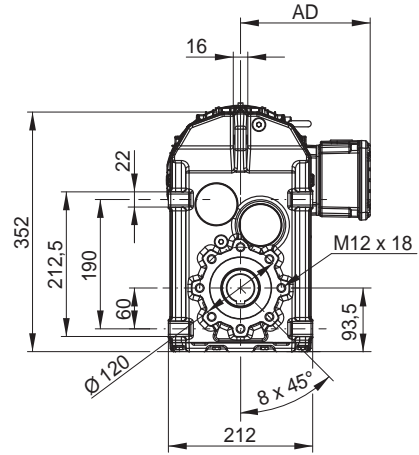
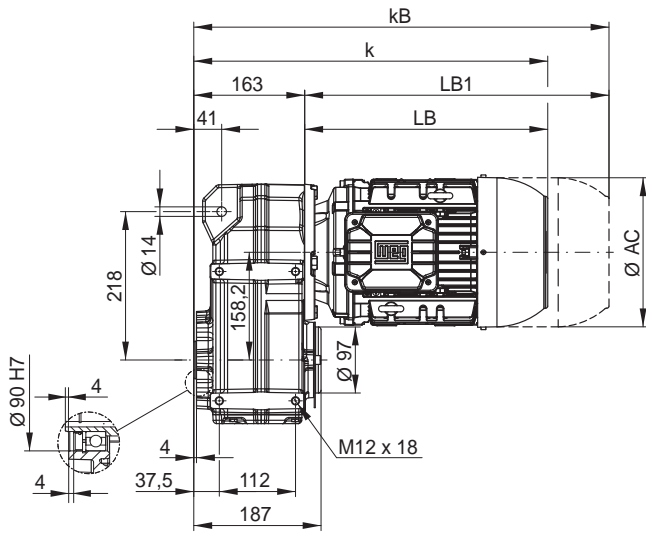
FO05 - B5 flange execution with hollow shaft

FF05 - B5 flange execution with output shaft

FP05 - B5 flange execution with hollow shaft and shrink disc *

FT05 - Hollow shaft with rubber buffer

FU05 - Hollow shaft with shrink disc * and rubber buffer


Dimensions in mm.

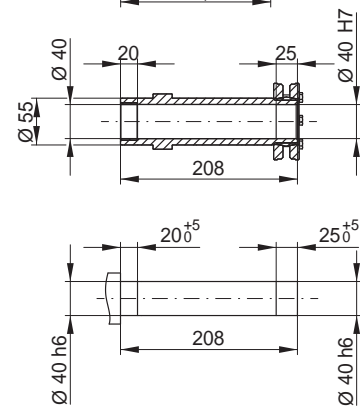
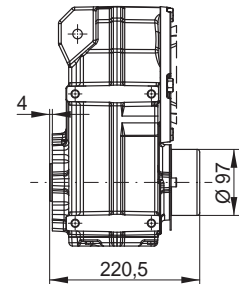
* Shrink disc only in combination with motor frame sizes 63, 71, 80 and 90

1) ΔL = recommended preload

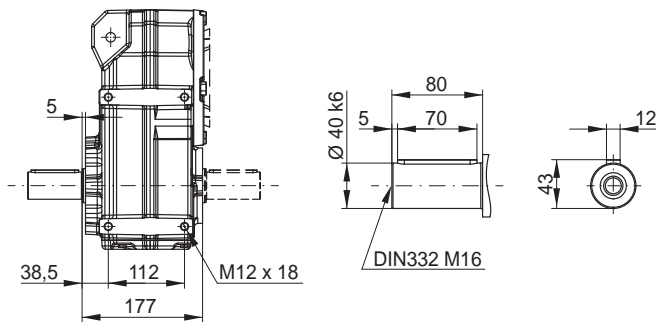
FH06 - Hollow shaft



FD06 - Shrink disc *



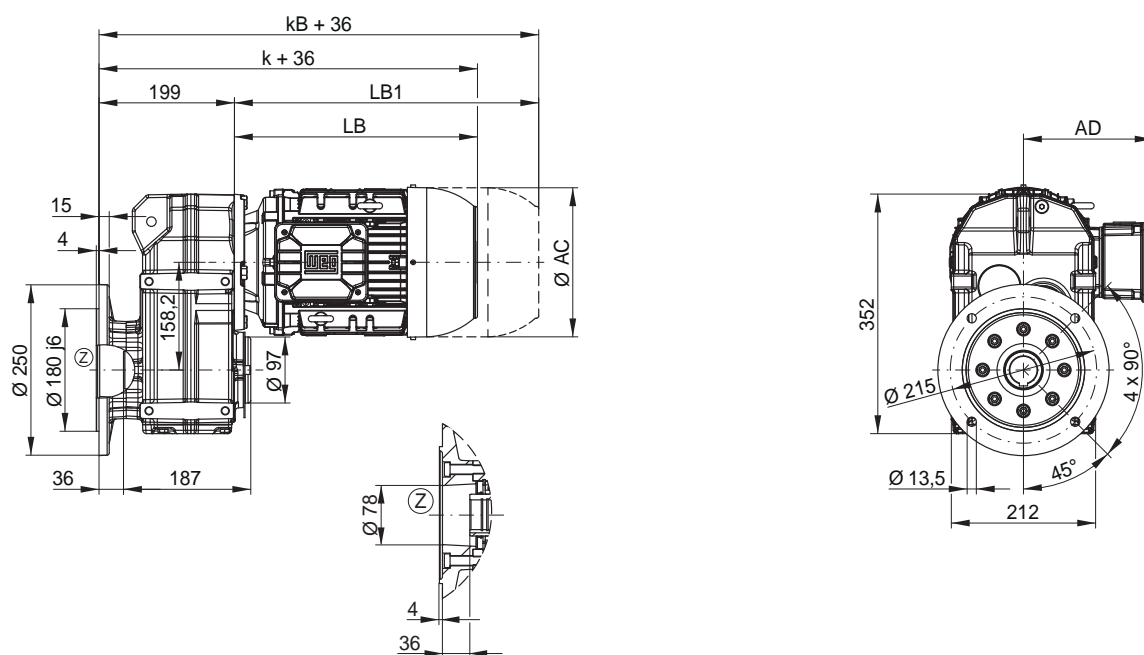
FS06 - Output shaft FB06 - Output shaft on both sides



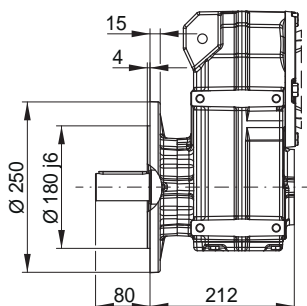
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 367 | 401 | 409 | 433 | 451 | 501 | 539 | 511 | 576 | 614 | 708 | 752 |
| kB | 411 | 450 | 467 | 491 | 524 | 585 | 623 | 598 | 694 | 732 | 832 | 876 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size F06 corresponds to motor flange FR-200. Description of motor lengths LB and LB1 see page 500.

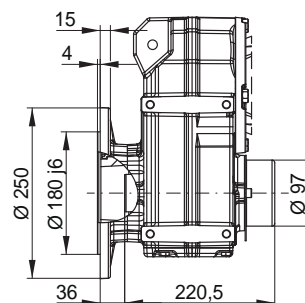
FO06 - B5 flange execution with hollow shaft



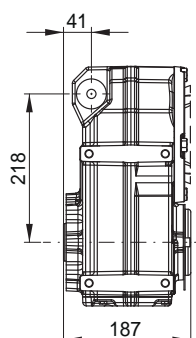
FO06 - B5 flange execution with output shaft



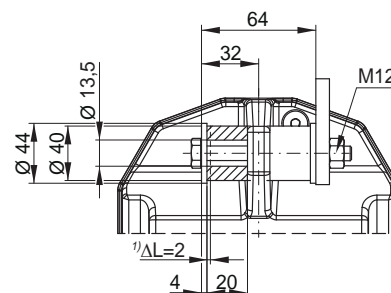
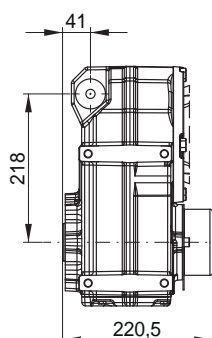
FP06 - B5 flange execution with hollow shaft and shrink disc *



FT06 - Hollow shaft with rubber buffer



FU06 - Hollow shaft with shrink disc * and rubber buffer

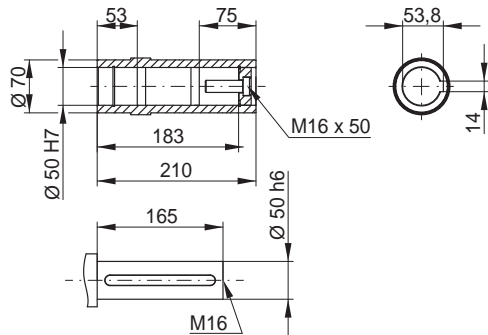
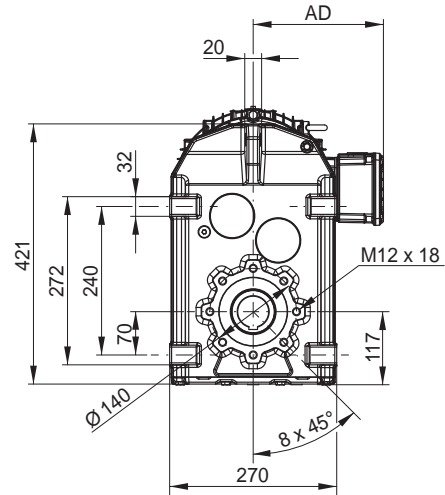
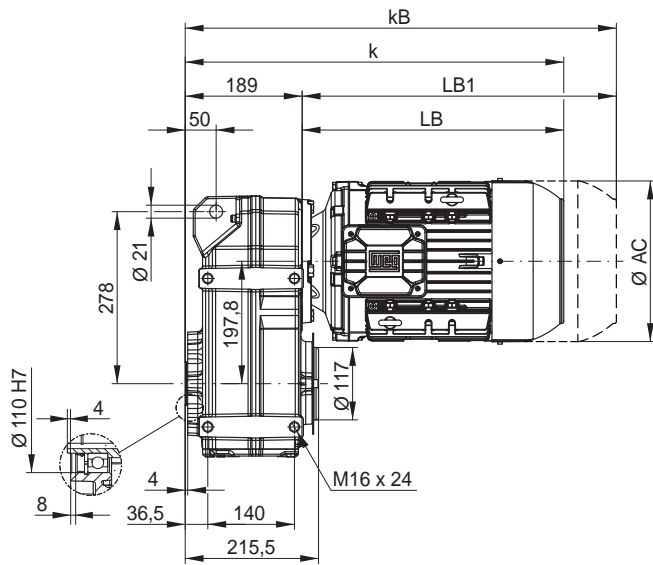


Dimensions in mm.

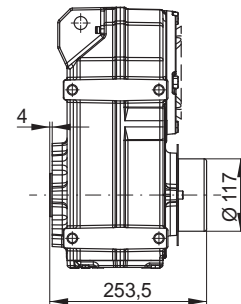
* Shrink disc only in combination with motor frame sizes 63, 71, 80, 90, 100 and 112

1) ΔL = recommended preload

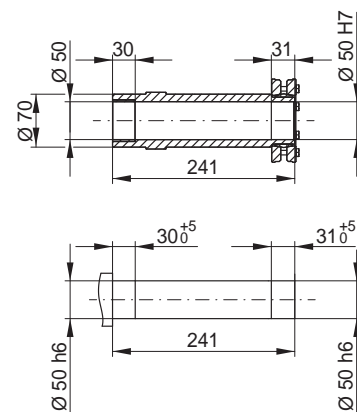
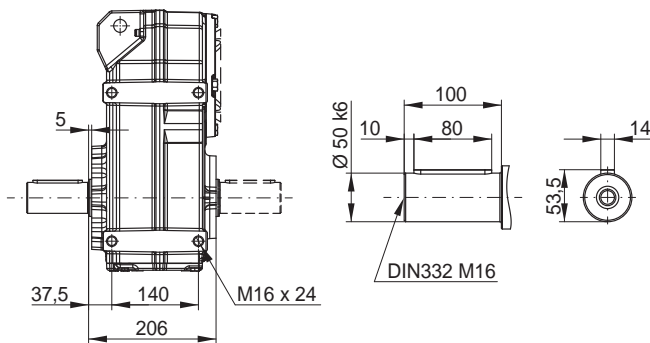
FH07 - Hollow shaft



FD07 - Shrink disc *



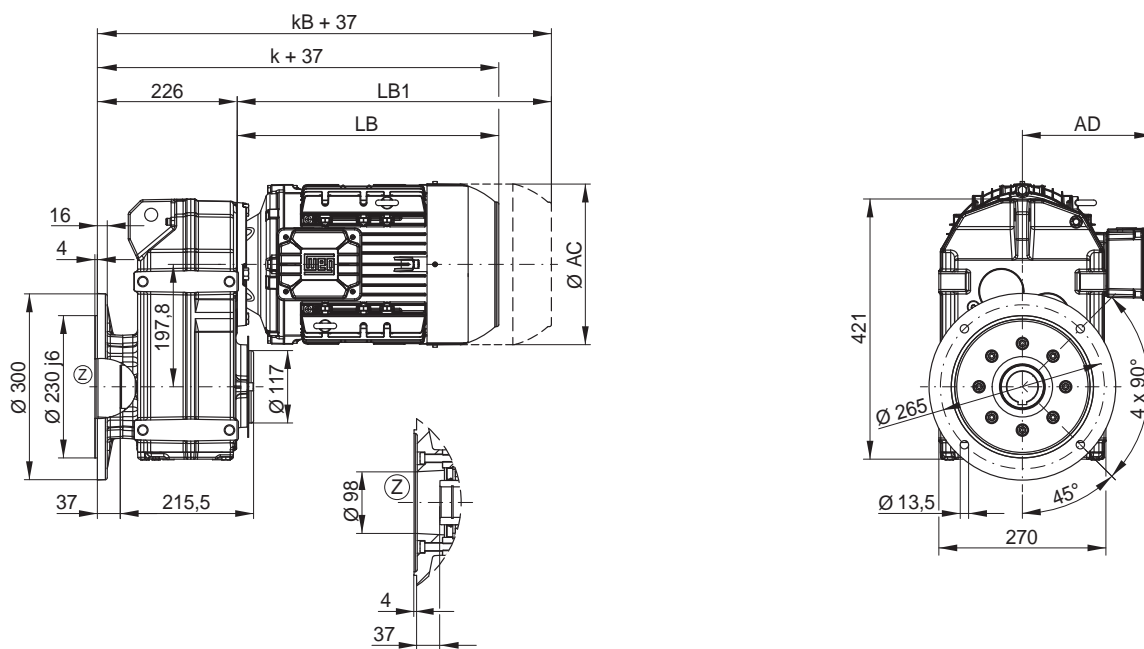
FS07 - Output shaft FB07 - Output shaft on both sides



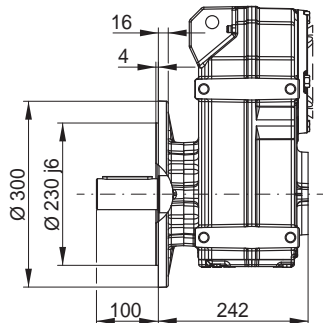
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 393 | 427 | 435 | 459 | 477 | 527 | 565 | 537 | 602 | 640 | 734 | 778 |
| kB | 437 | 476 | 493 | 517 | 550 | 611 | 649 | 624 | 720 | 758 | 858 | 902 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size F07 corresponds to motor flange FR-200. Description of motor lengths LB and LB1 see page 500.

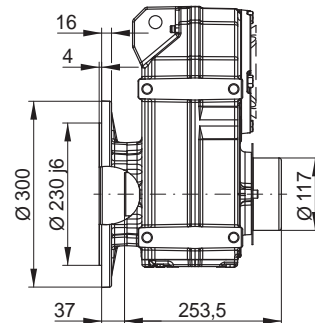
FO07 - B5 flange execution with hollow shaft



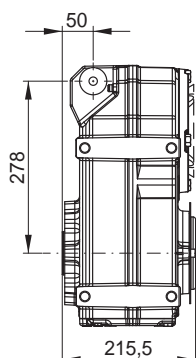
FF07 - B5 flange execution with output shaft



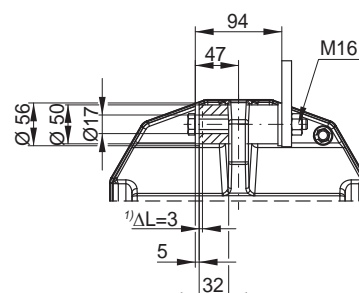
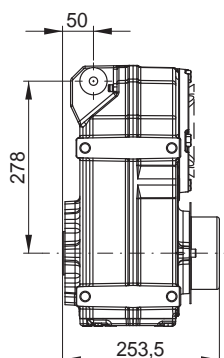
FP07 - B5 flange execution with hollow shaft and shrink disc *



FT07 - Hollow shaft with rubber buffer



FU07 - Hollow shaft with shrink disc * and rubber buffer

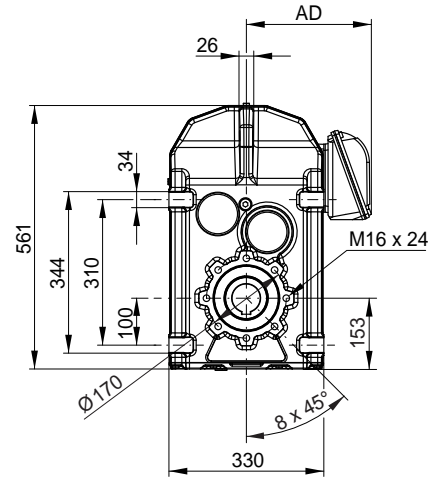
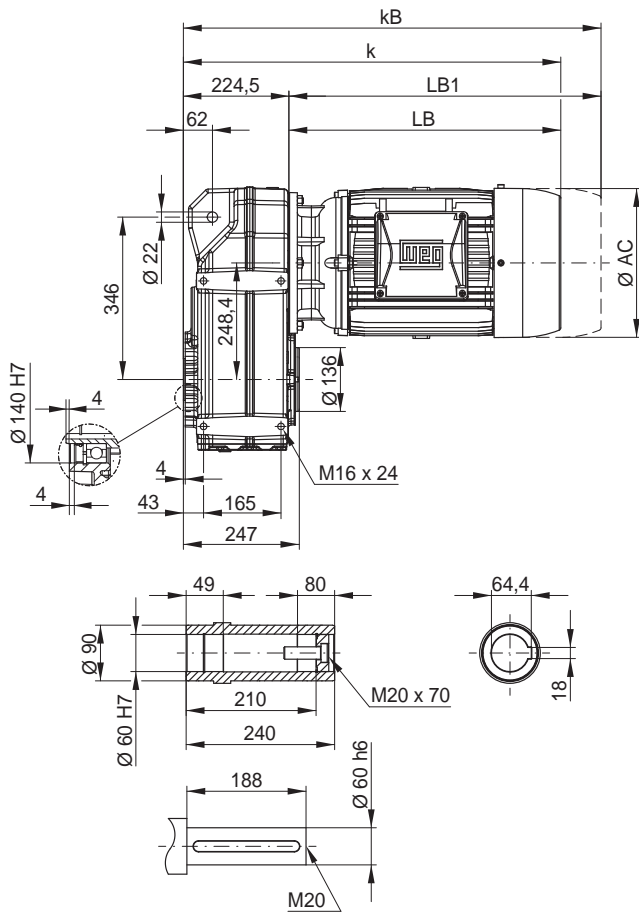


Dimensions in mm.

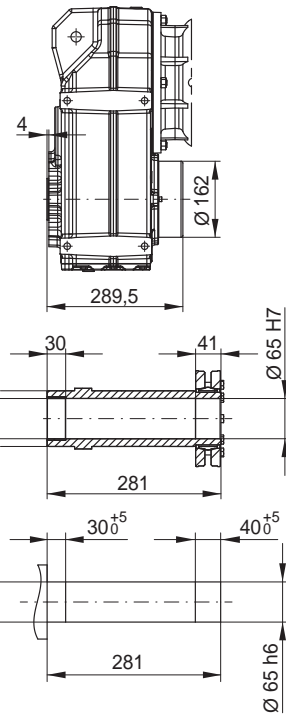
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

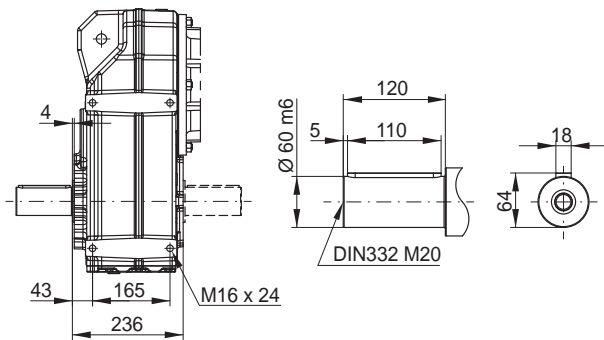
FH082 / FH083 - Hollow shaft



FD082 / FD083 - Shrink disc *



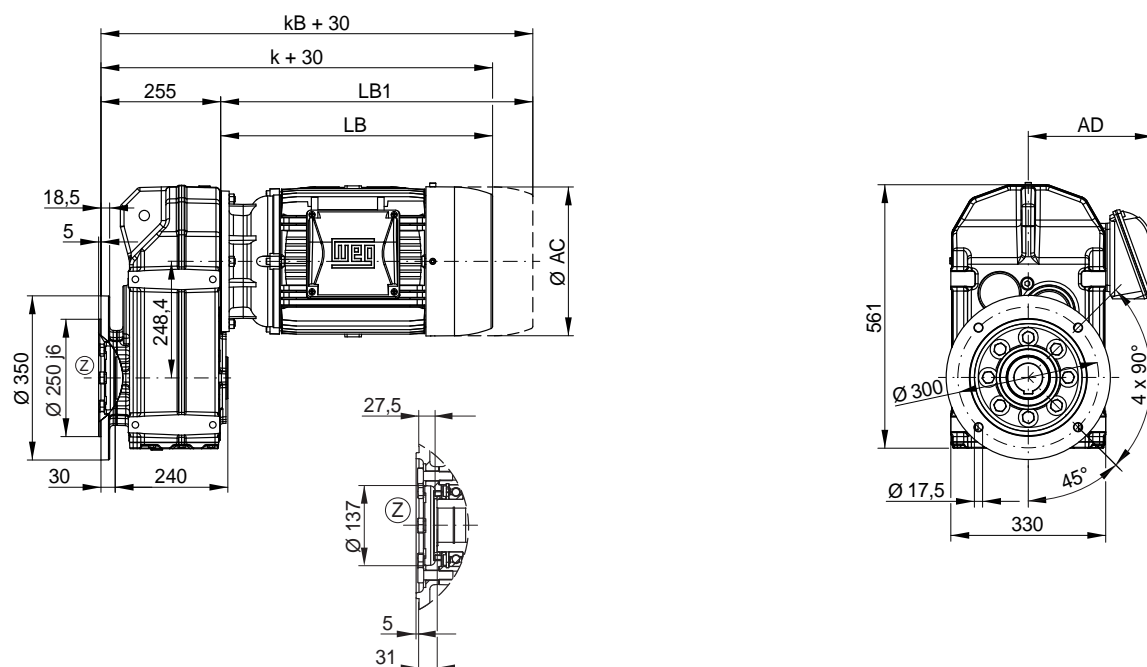
FS082 / FS083 - Output shaft FB082 / FB083 - Output shaft on both sides



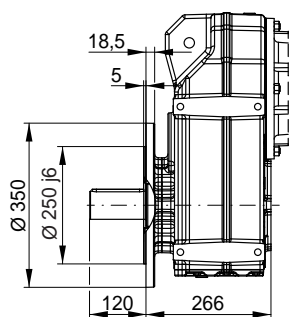
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|
| Dimension | | | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 |
| k | 429 | 463 | 471 | 495 | 513 | 563 | 601 | 573 | 638 | 676 | 760 | 804 | 828 | 866 |
| kB | 473 | 512 | 529 | 553 | 586 | 647 | 685 | 660 | 756 | 794 | 884 | 928 | 946 | 984 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 |

Motor dimension sheets see page 496; Gear unit size F08 corresponds to motor flange FR-300. Description of motor lengths LB and LB1 see page 500.

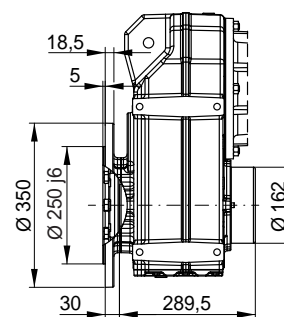
FO082 / FO083 - B5 flange execution with hollow shaft



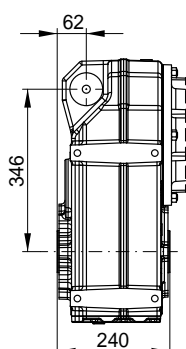
FF082 / FO083 - B5 flange execution with output shaft



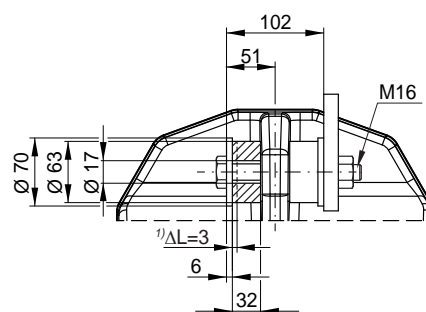
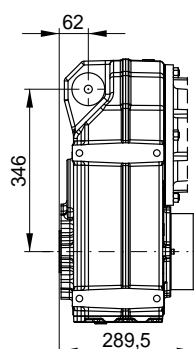
FP082 / FP083 - B5 flange execution with hollow shaft and shrink disc *



FT082 / FT083 - Hollow shaft with rubber buffer



FU082 / FU083 - Hollow shaft with shrink disc * and rubber buffer

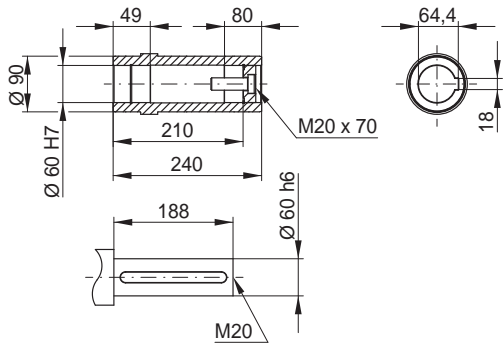
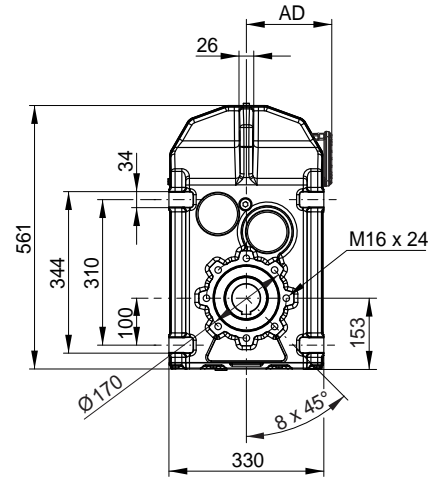
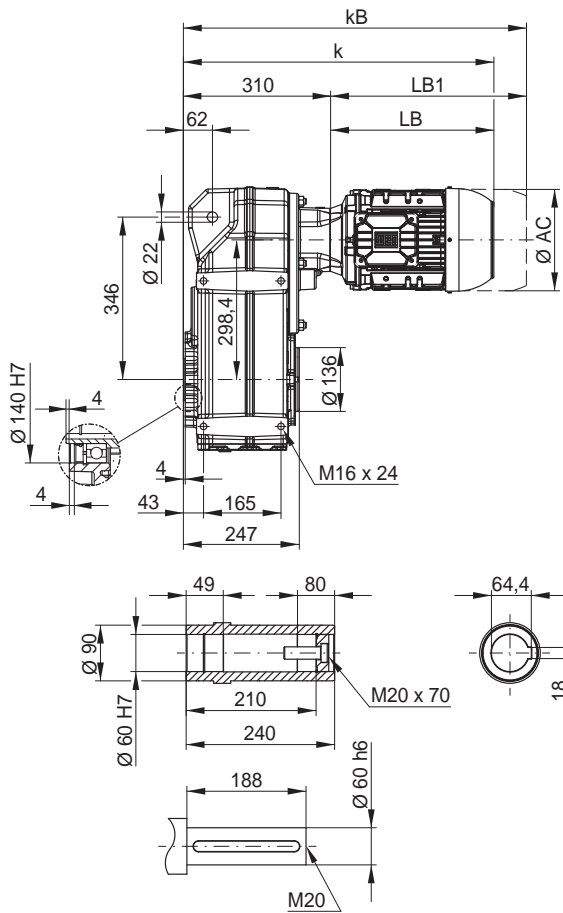


Dimensions in mm.

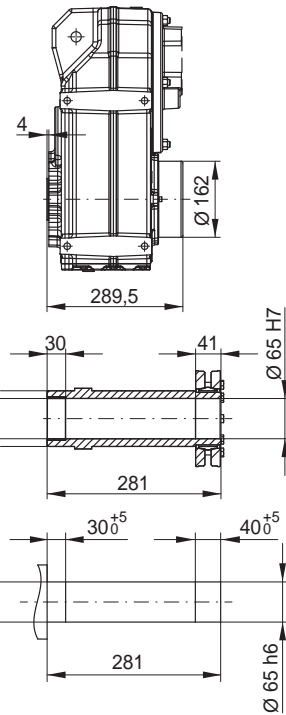
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

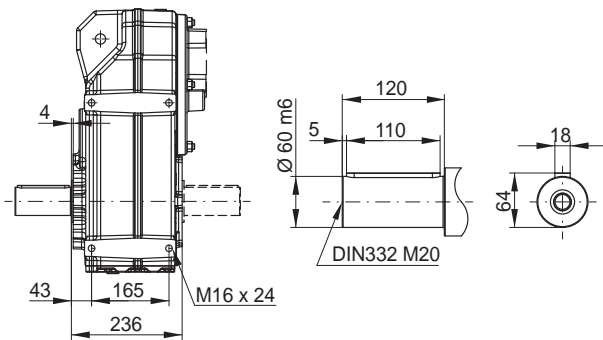
FH084 - Hollow shaft



FD084 - Shrink disc *



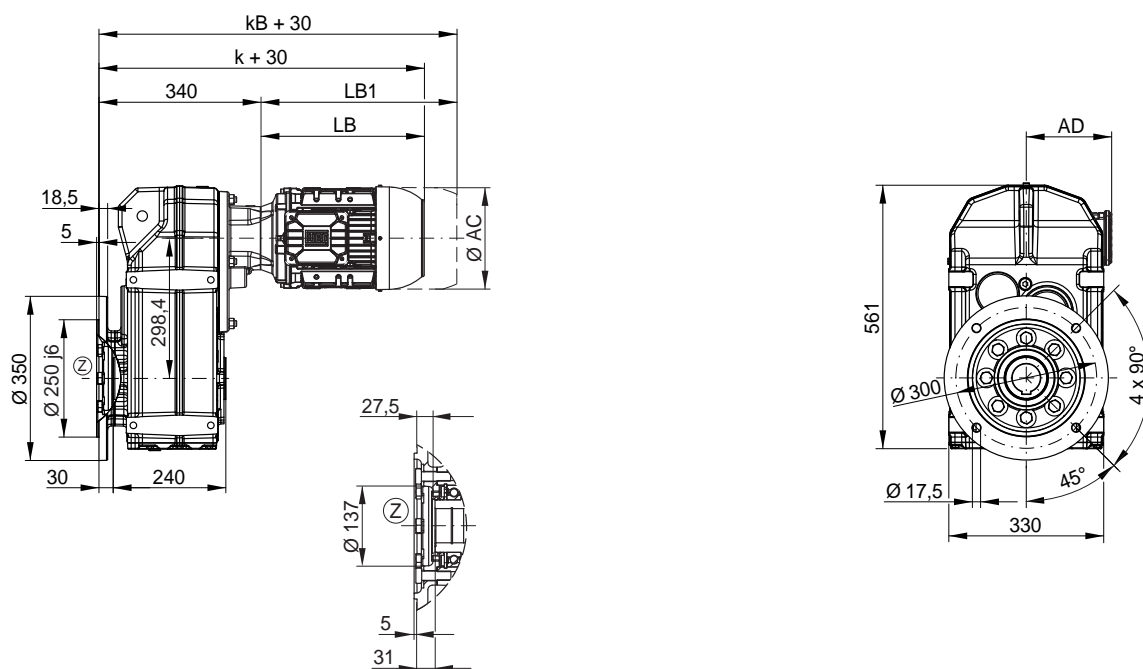
FS084 - Output shaft FB084 - Output shaft on both sides



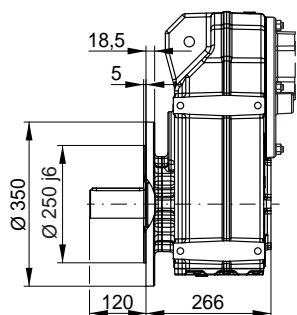
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 514 | 548 | 556 | 580 | 598 | 648 | 686 | 658 | 723 | 761 |
| kB | 558 | 597 | 614 | 638 | 671 | 732 | 770 | 745 | 841 | 879 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496; Gear unit size F12 corresponds to motor flange FR-400. Description of motor lengths LB and LB1 see page 500.

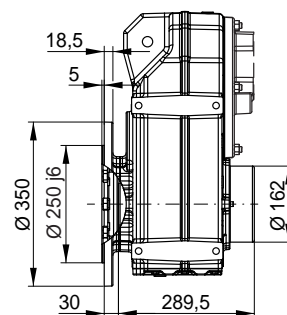
FO084 - B5 flange execution with hollow shaft



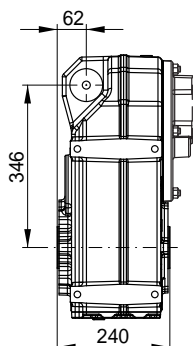
FF084 - B5 flange execution with output shaft



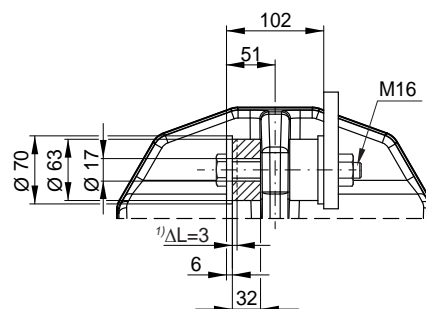
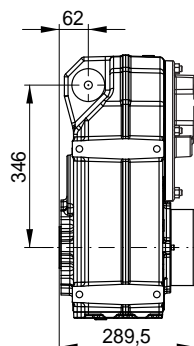
FP084 - B5 flange execution with hollow shaft and shrink disc *



FT084 - Hollow shaft with rubber buffer



FU084 - Hollow shaft with shrink disc * and rubber buffer

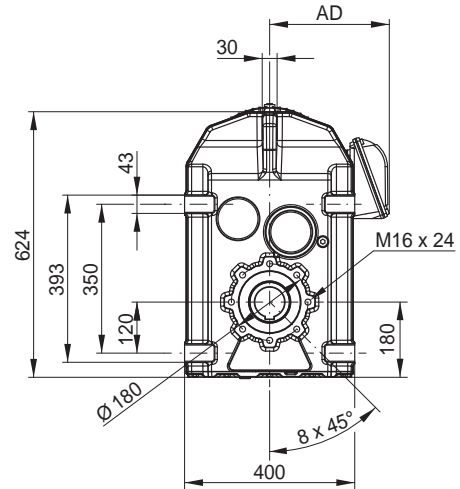
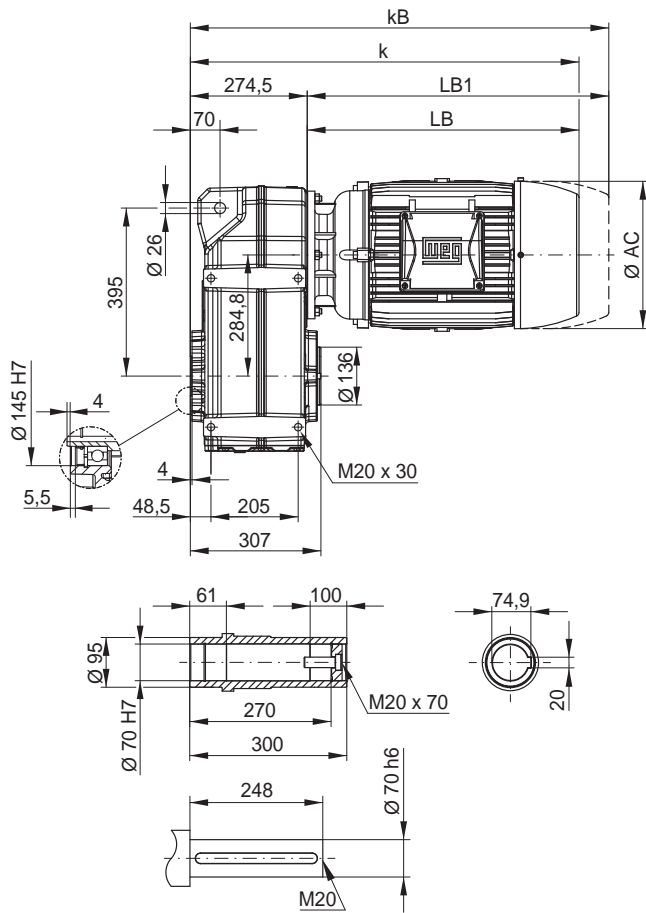


Dimensions in mm.

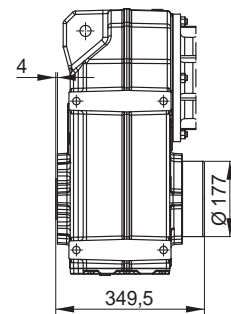
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

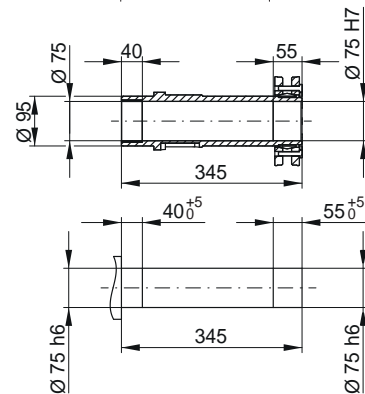
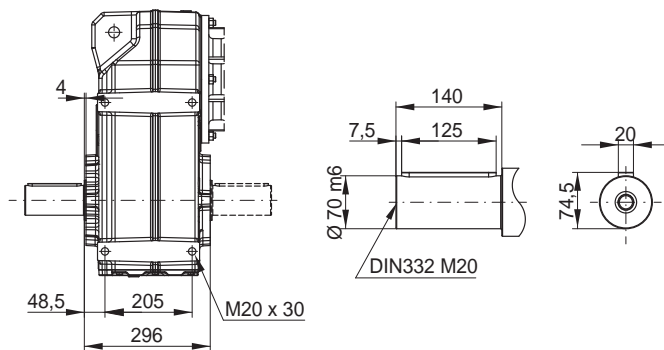
FH092 / FH093 - Hollow shaft



FD092 / FD093 - Shrink disc *



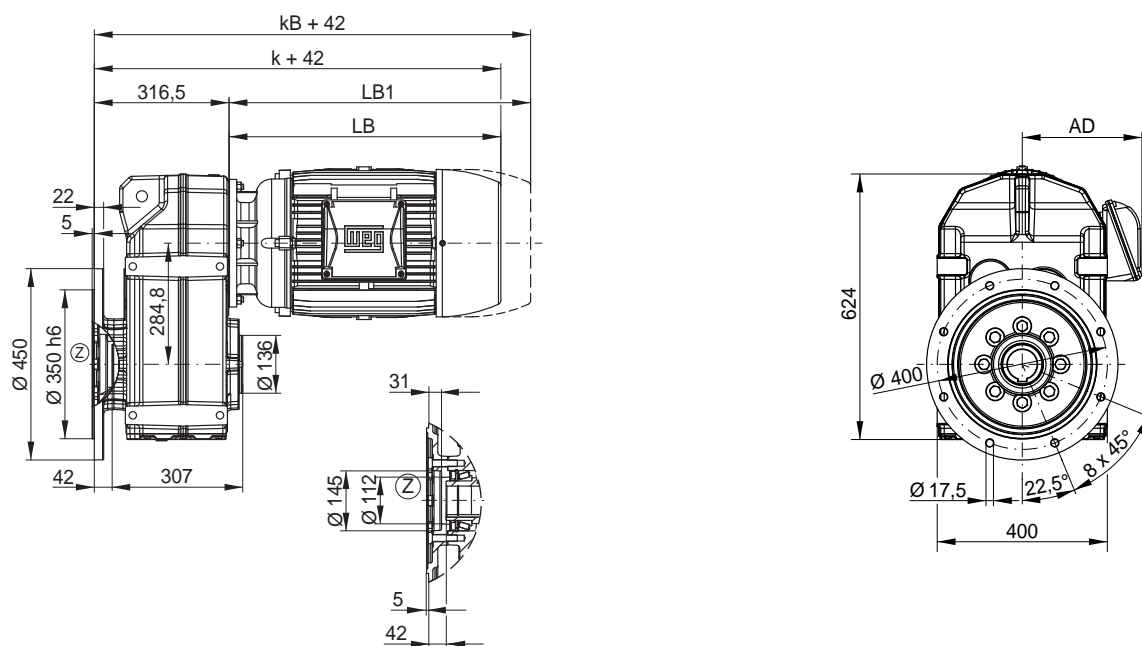
FS092 / FS093 - Output shaft FB092 / FB093 - Output shaft on both sides



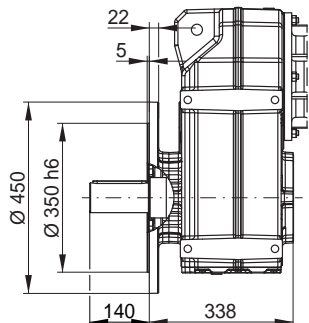
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 479 | 513 | 521 | 545 | 563 | 613 | 651 | 623 | 688 | 726 | 810 | 854 | 878 | 916 | 1008 |
| kB | 523 | 562 | 579 | 603 | 636 | 697 | 735 | 710 | 806 | 844 | 934 | 978 | 996 | 1034 | 1134 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496; Gear unit size F09 corresponds to motor flange FR-300. Description of motor lengths LB and LB1 see page 500.

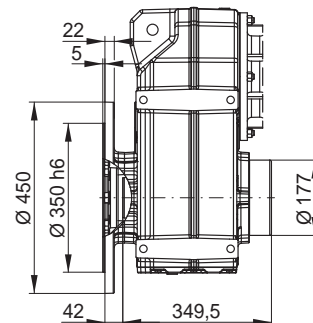
FO092 / FO093 - B5 flange execution with hollow shaft



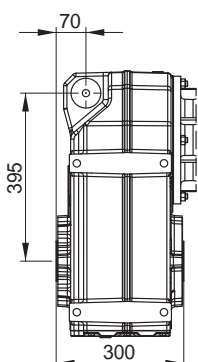
FF092 / FF093 - B5 flange execution with output shaft



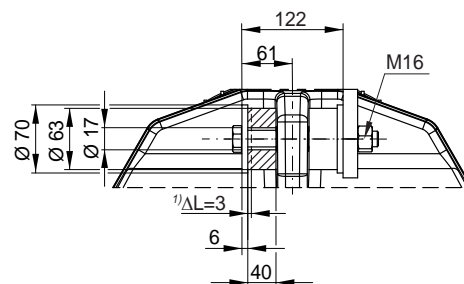
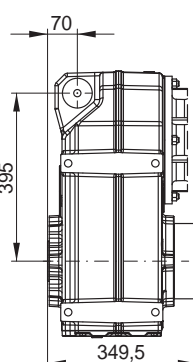
FP092 / FP093 - B5 flange execution with hollow shaft and shrink disc *



FT092 / FT093 - Hollow shaft with rubber buffer



FU092 / FU093 - Hollow shaft with shrink disc * and rubber buffer

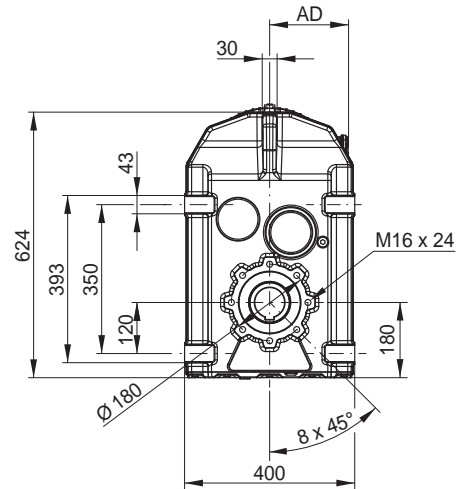
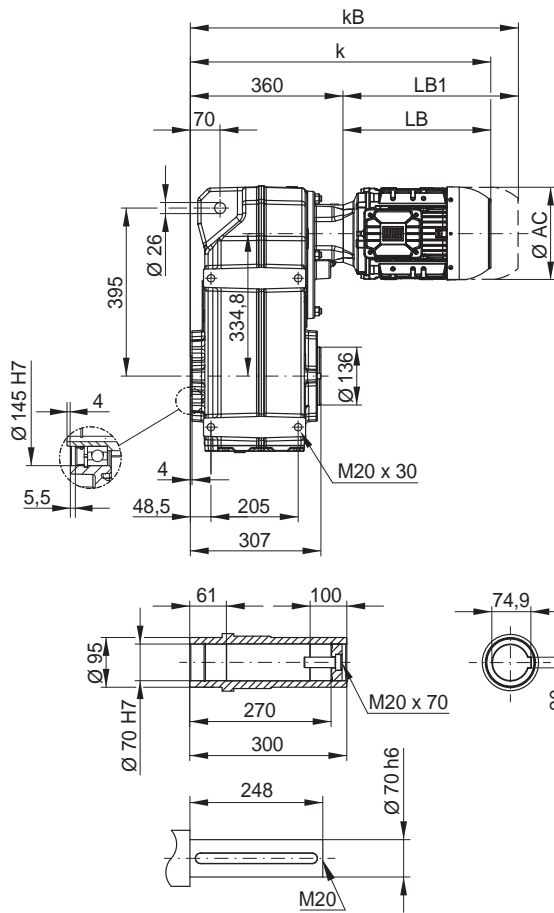


Dimensions in mm.

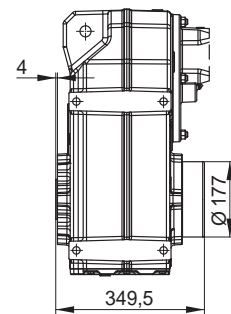
* Shrink disc and protection cap possible with all mountable motors.

$^1)\Delta L$ = recommended preload

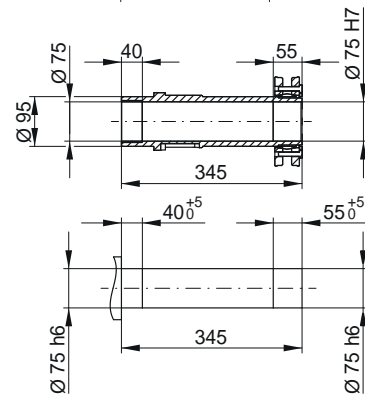
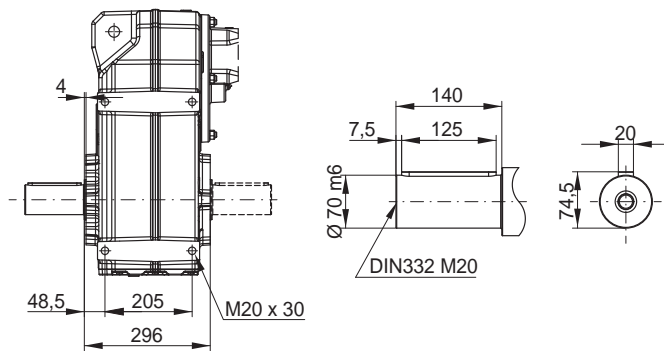
FH094 - Hollow shaft



FD094 - Shrink disc *



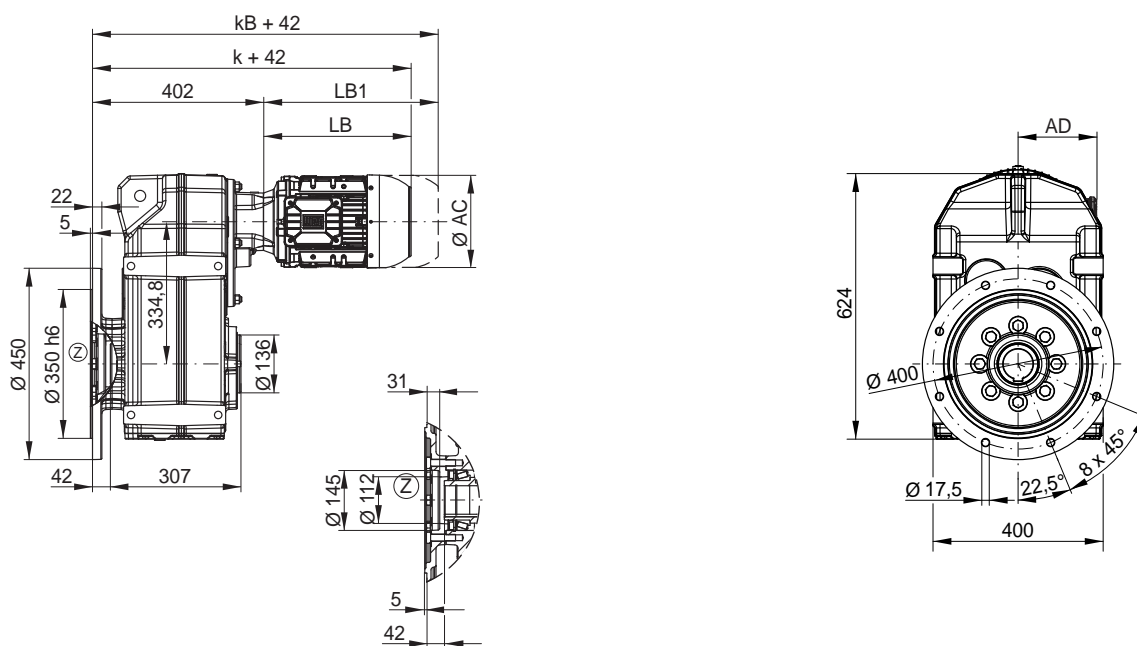
FS094 - Output shaft FB094 - Output shaft on both sides



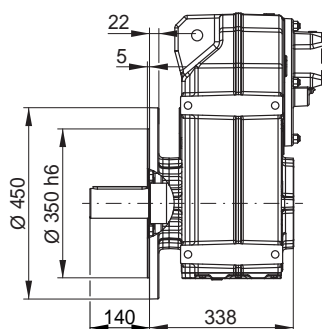
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 564 | 598 | 606 | 630 | 648 | 698 | 736 | 708 | 773 | 811 |
| kB | 608 | 647 | 664 | 688 | 721 | 782 | 820 | 795 | 891 | 929 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496; Gear unit size F12 corresponds to motor flange FR-400. Description of motor lengths LB and LB1 see page 500.

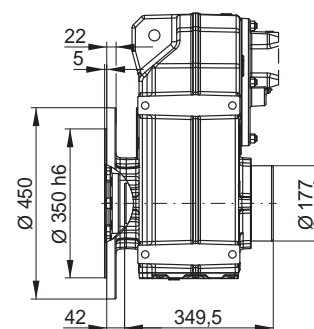
FO094 - B5 flange execution with hollow shaft



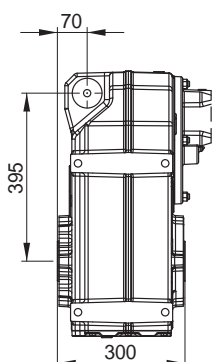
FF094 - B5 flange execution with output shaft



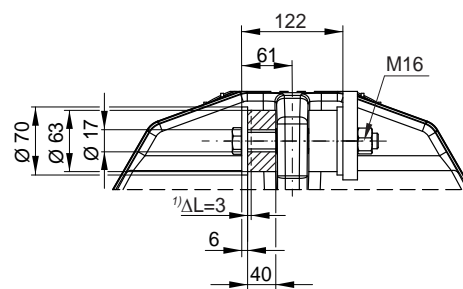
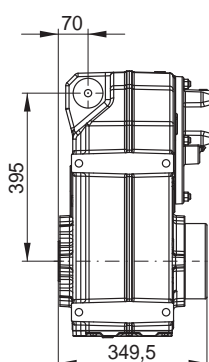
FP094 - B5 flange execution with hollow shaft and shrink disc *



FT094 - Ausführung mit Hohlwelle und Gummipuffer



FU094 - Hollow shaft with shrink disc * and rubber buffer

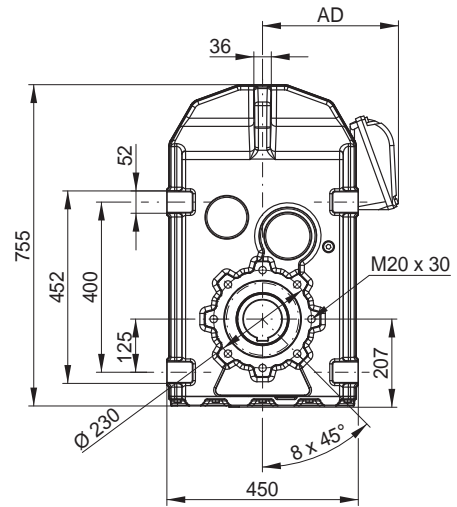
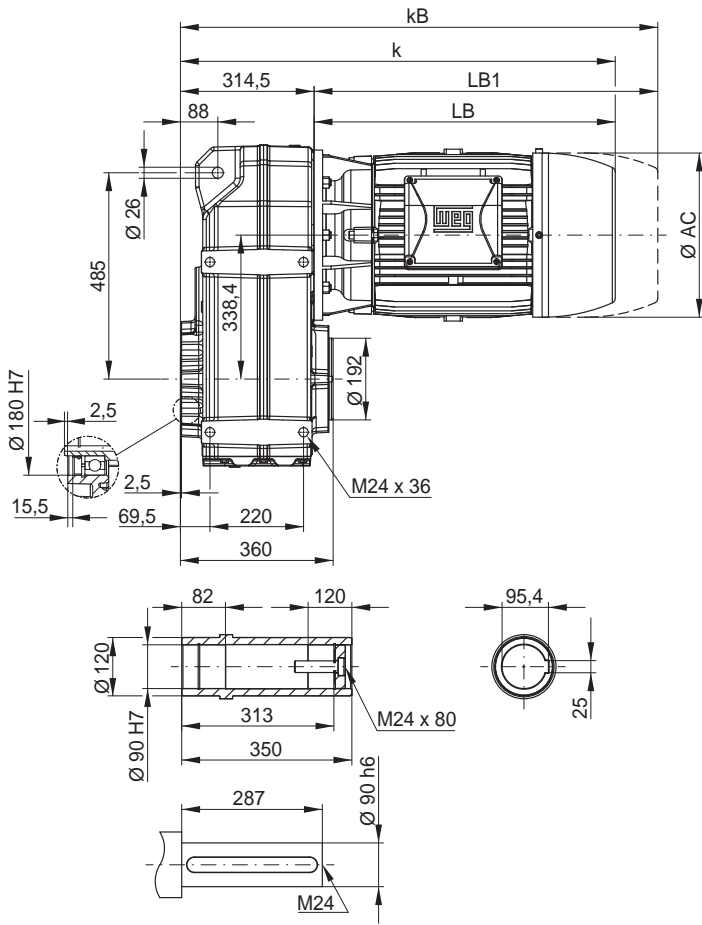


Dimensions in mm.

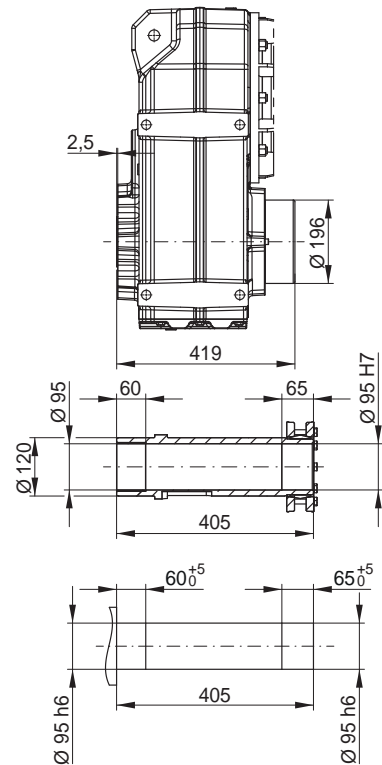
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

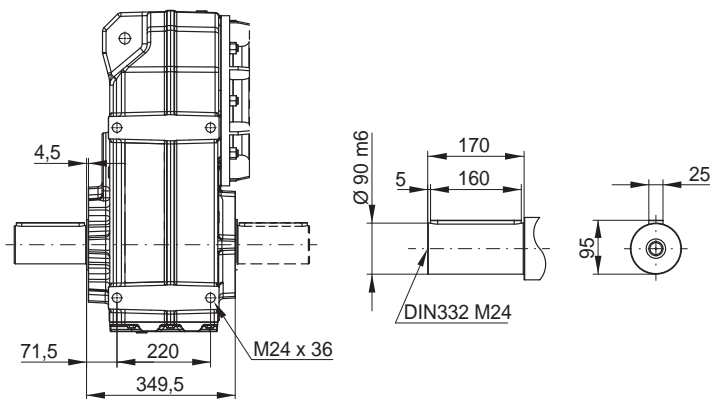
FH102 / FH103 - Hollow shaft



FD102 / FD103 - Shrink disc *



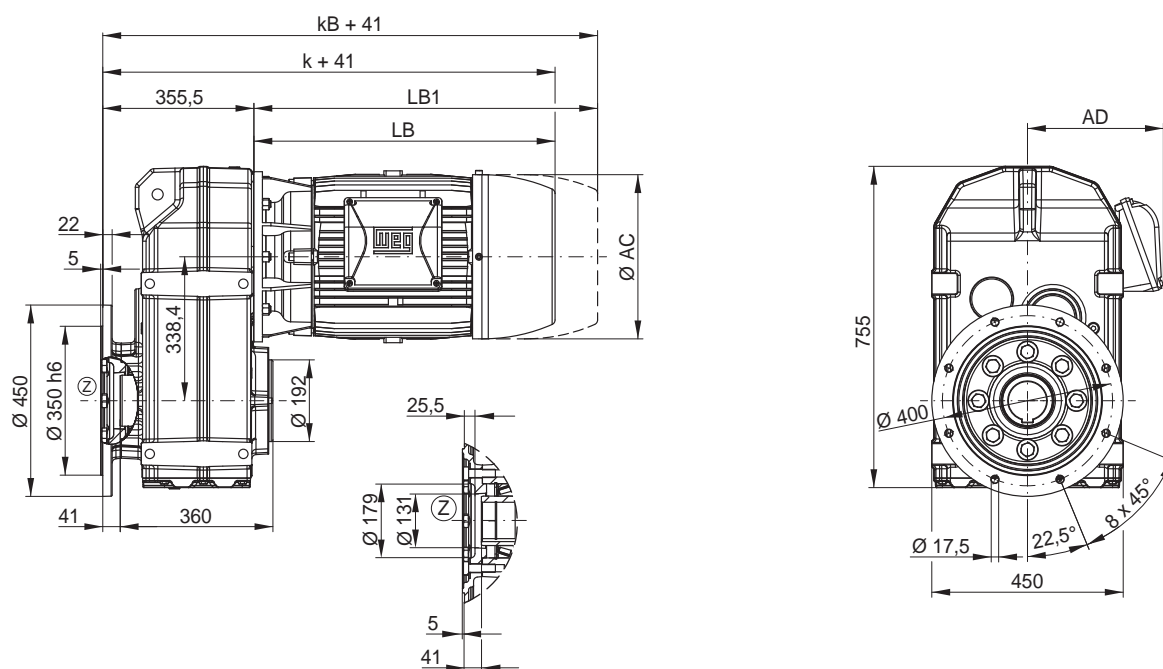
FS102 / FS103 - Output shaft FB102 / FB103 - Output shaft on both sides



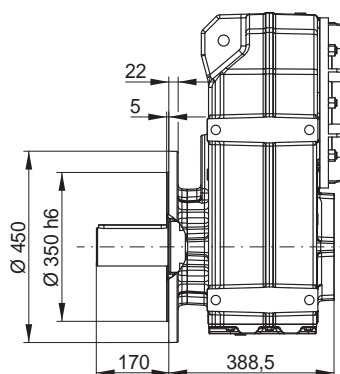
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|
| Dimension | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 | 453 |
| AD | - | - | - | - | - | - | - | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 | 385 |
| k | - | - | - | - | - | - | - | 663 | 728 | 766 | 837 | 881 | 905 | 943 | 1035 | 1143 |
| kB | - | - | - | - | - | - | - | 750 | 846 | 884 | 961 | 1005 | 1023 | 1061 | 1161 | 1261 |
| LB | - | - | - | - | - | - | - | 348 | 413 | 451 | 522 | 566 | 590 | 628 | 720 | 828 |
| LB1 | - | - | - | - | - | - | - | 435 | 531 | 569 | 646 | 690 | 708 | 746 | 846 | 946 |

Motor dimension sheets see page 496; Gear unit size F10 corresponds to motor flange FR-400. Description of motor lengths LB and LB1 see page 500.

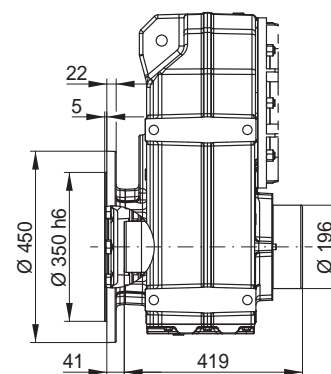
FO102 / FO103 - B5 flange execution with hollow shaft



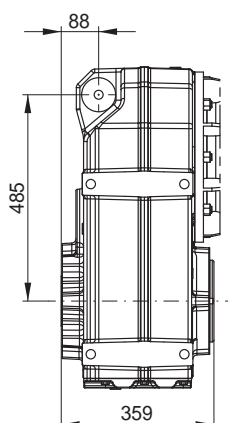
FF102 / FF103 - B5 flange execution with output shaft



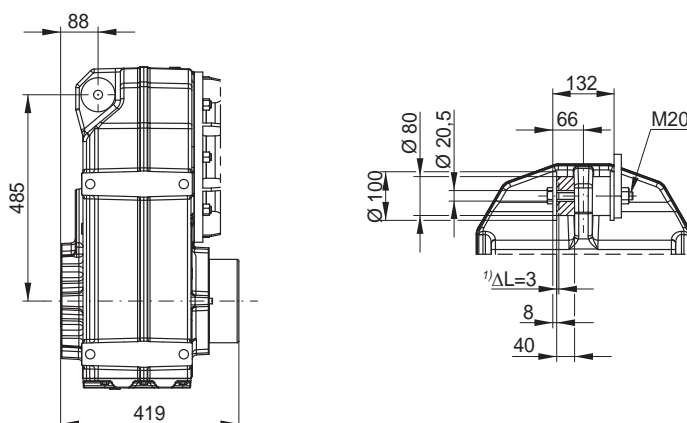
FP102 / FP103 - B5 flange execution with hollow shaft and shrink disc *



FT102 / FT103 - Hollow shaft with rubber buffer



FU102 / FU103 - Hollow shaft with shrink disc * and rubber buffer

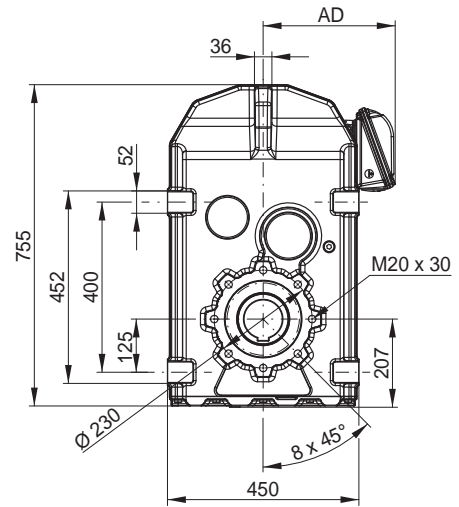
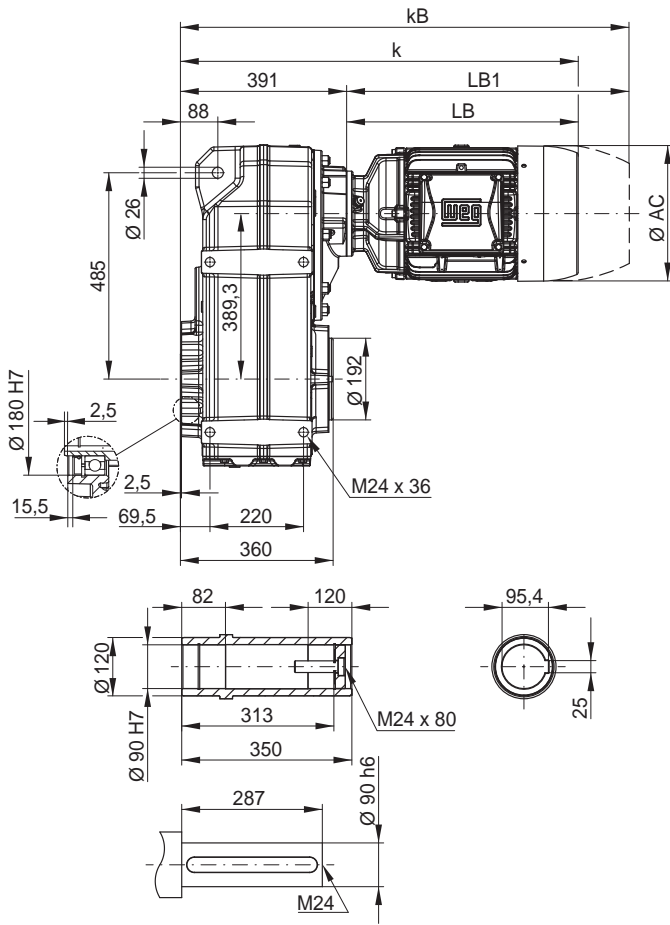


Dimensions in mm.

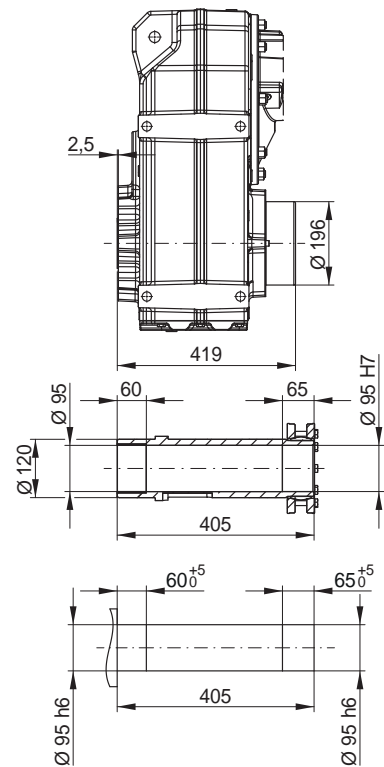
* Shrink disc and protection cap possible with all mountable motors.

¹⁾ ΔL = recommended preload

FH104 - Hollow shaft

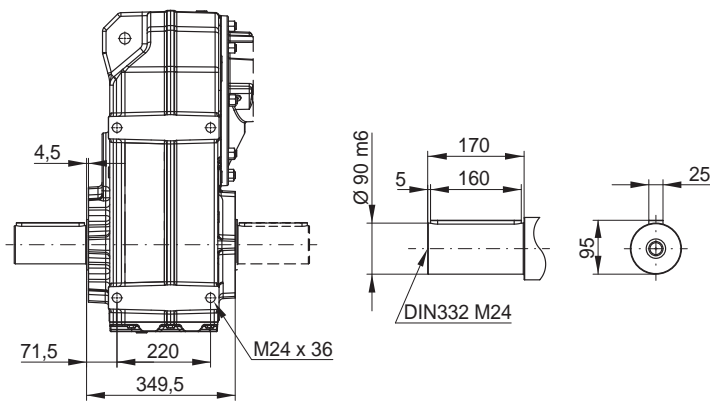


FD104 - Shrink disc *



FS104 - Output shaft

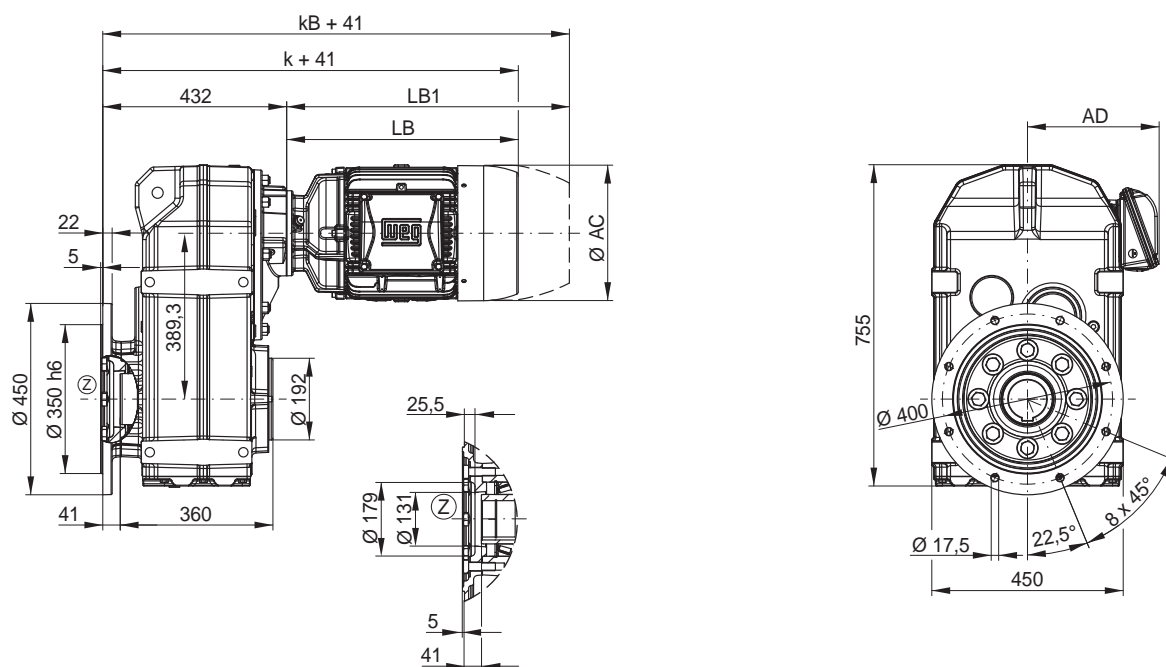
FB104 - Output shaft on both sides



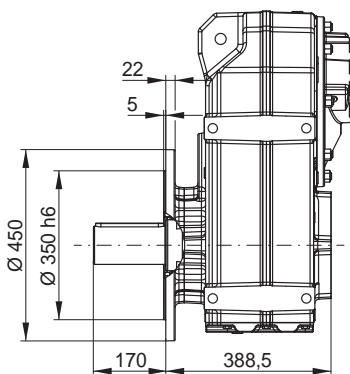
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 595 | 629 | 637 | 661 | 679 | 729 | 767 | 739 | 804 | 842 | 936 | 980 |
| kB | 639 | 678 | 695 | 719 | 752 | 813 | 851 | 826 | 922 | 960 | 1060 | 1104 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size F12 corresponds to motor flange FR-400. Description of motor lengths LB and LB1 see page 500.

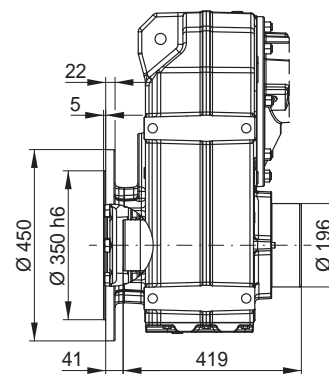
FO104 - B5 flange execution with hollow shaft



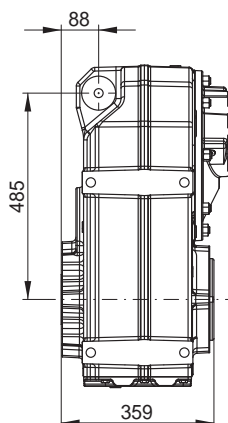
FF104 - B5 flange execution with output shaft



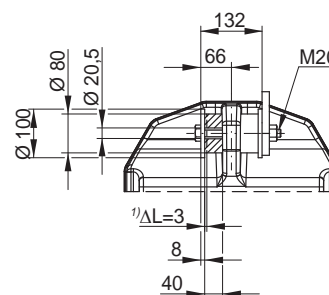
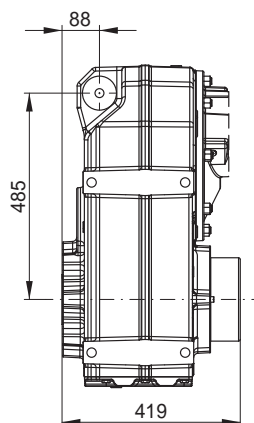
FP104 - B5 flange execution with hollow shaft and shrink disc *



FT104 - Hollow shaft with rubber buffer



FU104 - Hollow shaft with shrink disc * and rubber buffer

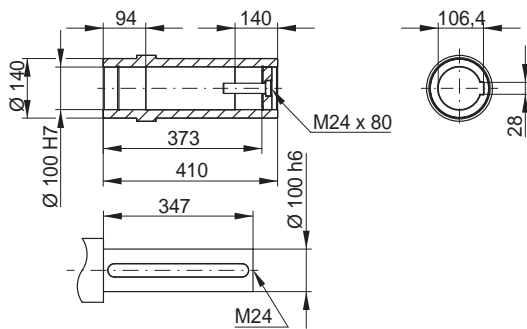
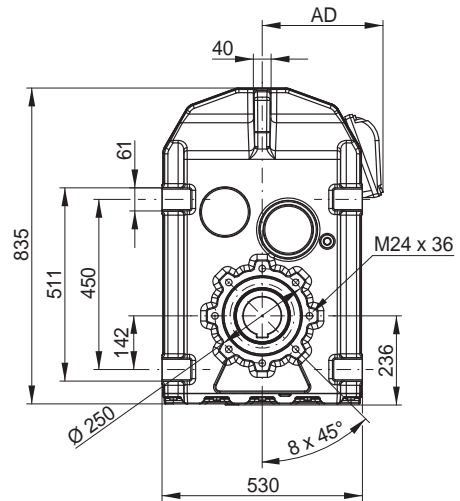
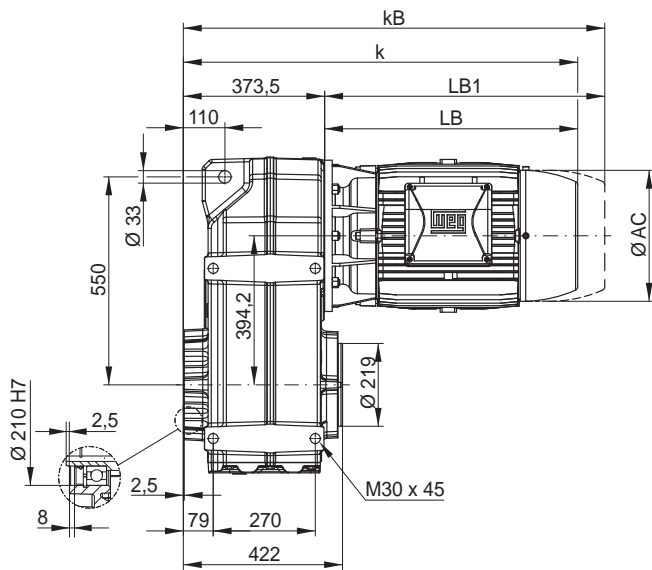


Dimensions in mm.

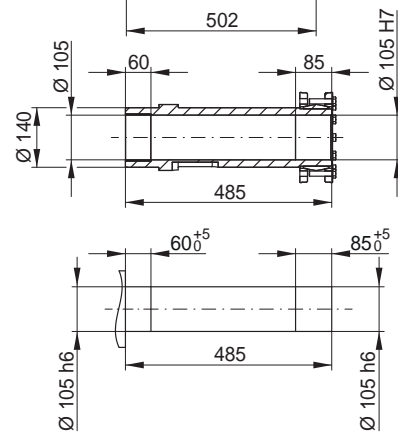
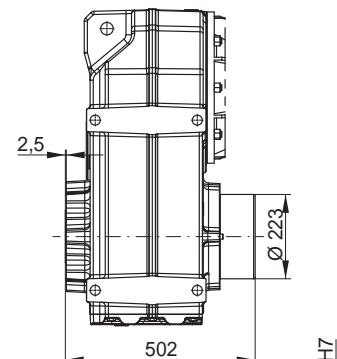
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

FH122 / FH123 - Hollow shaft

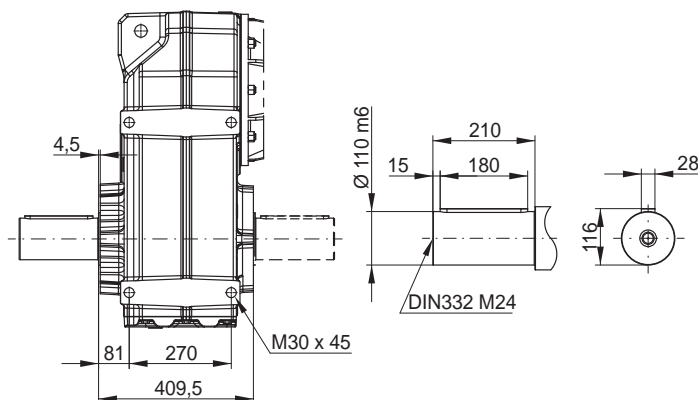


FD122 / FD123 - Shrink disc *



FS122 / FS123 - Output shaft

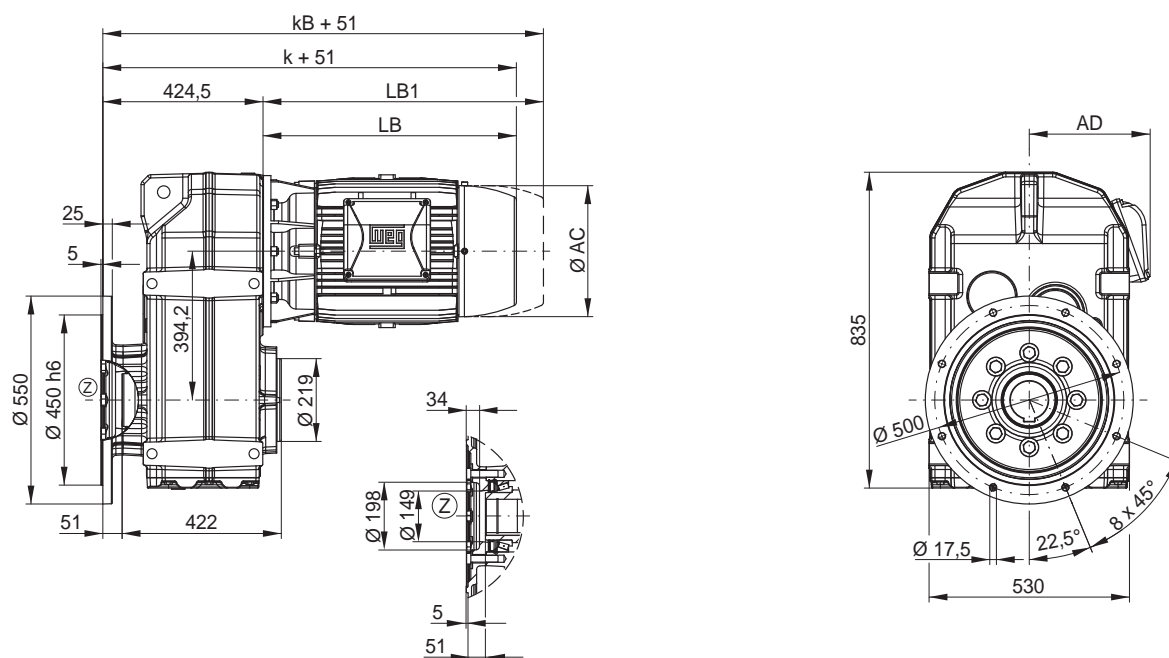
FB122 / FB123 - Output shaft on both sides



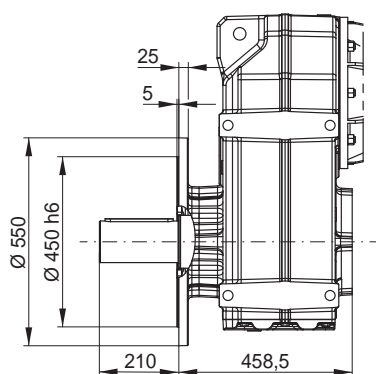
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|
| Dimension | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 | 453 |
| AD | - | - | - | - | - | - | - | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 | 385 |
| k | - | - | - | - | - | - | - | 722 | 787 | 825 | 896 | 940 | 964 | 1002 | 1094 | 1202 |
| kB | - | - | - | - | - | - | - | 809 | 905 | 943 | 1020 | 1064 | 1082 | 1120 | 1220 | 1320 |
| LB | - | - | - | - | - | - | - | 348 | 413 | 451 | 522 | 566 | 590 | 628 | 720 | 828 |
| LB1 | - | - | - | - | - | - | - | 435 | 531 | 569 | 646 | 690 | 708 | 746 | 846 | 946 |

Motor dimension sheets see page 496; Gear unit size F12 corresponds to motor flange FR-400. Description of motor lengths LB and LB1 see page 500.

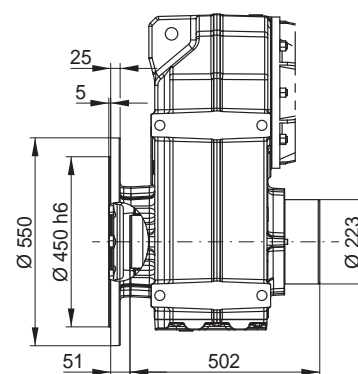
FO122 / FO123 - B5 flange execution with hollow shaft



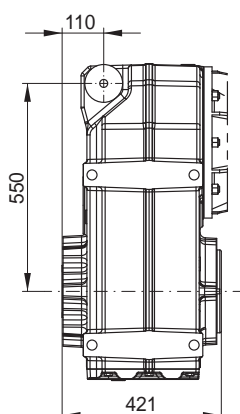
FF122 / FF123 - B5 flange execution with output shaft



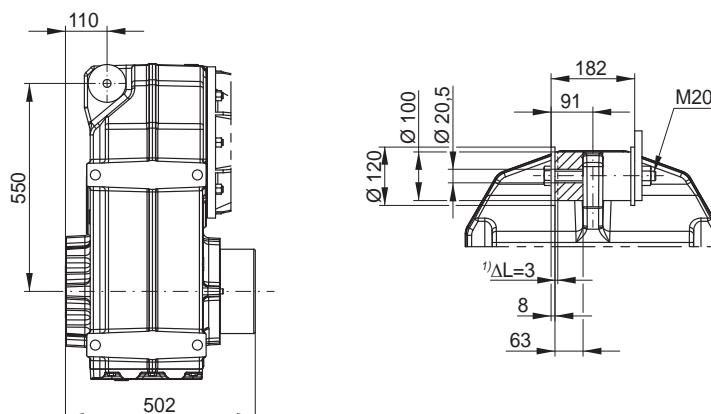
FP122 / FP123 - B5 flange execution with hollow shaft and shrink disc *



FT122 / FT123 - Hollow shaft with rubber buffer



FU122 / FU123 - Hollow shaft with shrink disc * and rubber buffer

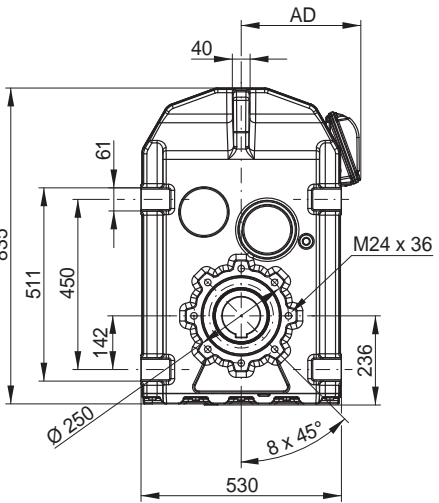
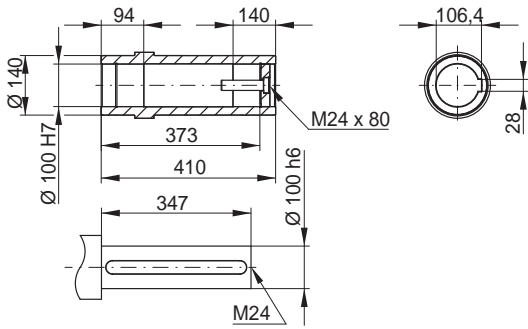
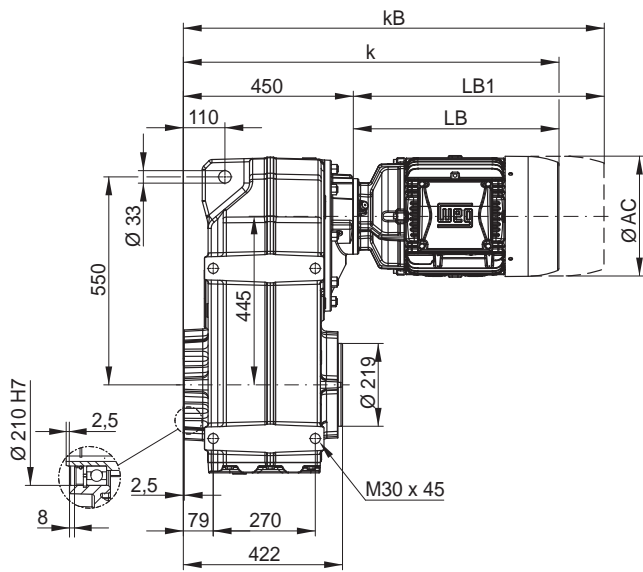


Dimensions in mm.

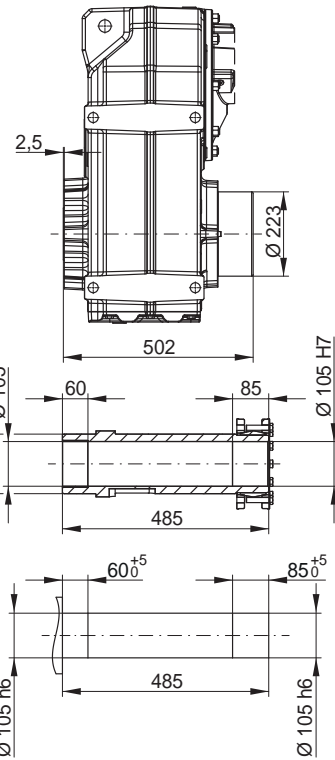
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

FH124 - Hollow shaft

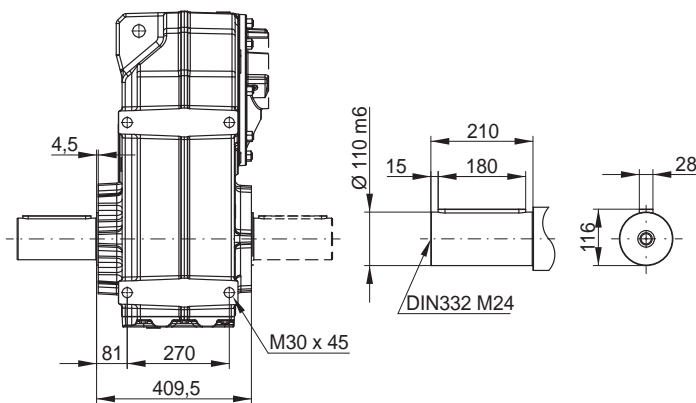


FD124 - Shrink disc *



FS124 - Output shaft

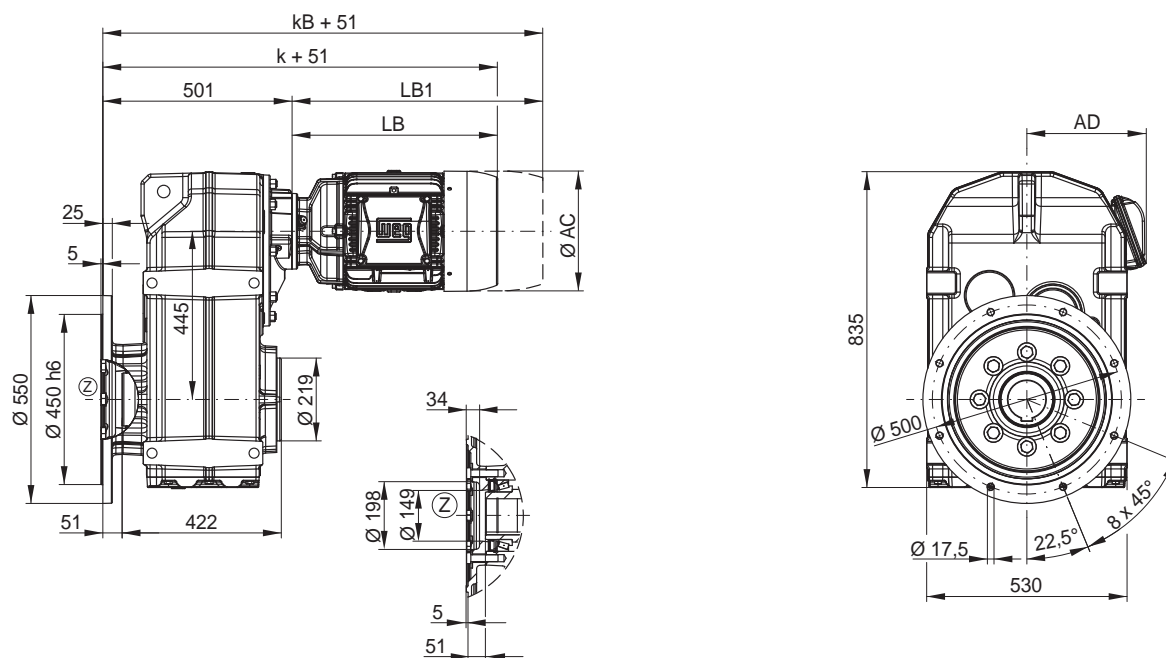
FB124 - Output shaft on both sides



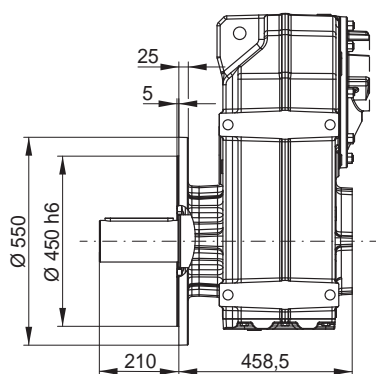
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 654 | 688 | 696 | 720 | 738 | 788 | 826 | 798 | 863 | 901 | 995 | 1039 |
| kB | 698 | 737 | 754 | 778 | 811 | 872 | 910 | 885 | 981 | 1019 | 1119 | 1163 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496; Gear unit size F12 corresponds to motor flange FR-400. Description of motor lengths LB and LB1 see page 500.

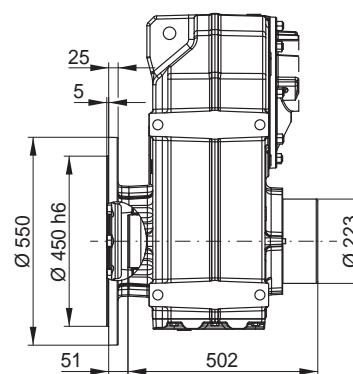
FO124 - B5 flange execution with hollow shaft



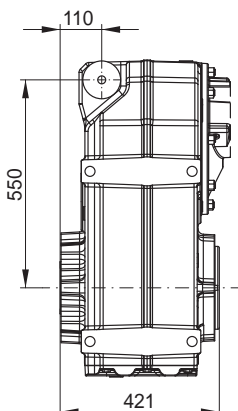
FF124 - B5 flange execution with output shaft



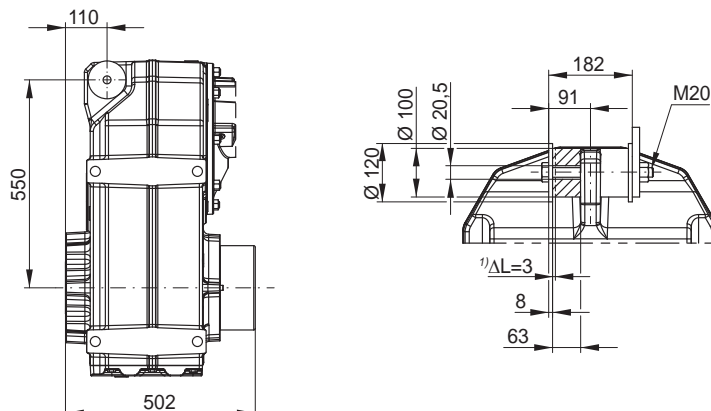
FP124 - B5 flange execution with hollow shaft and shrink disc *



FT124 - Hollow shaft with rubber buffer



FU124 - Hollow shaft with shrink disc * and rubber buffer

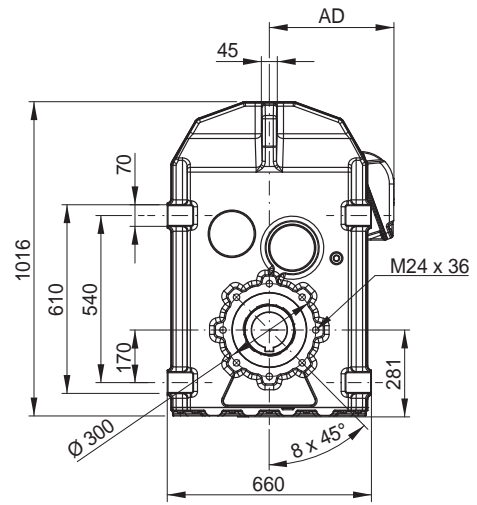
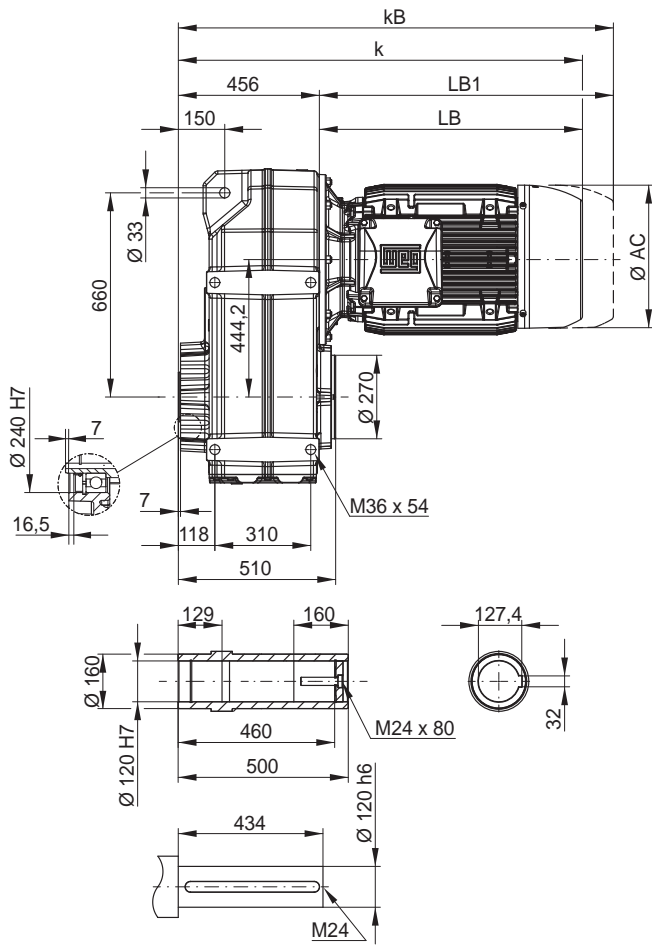


Dimensions in mm.

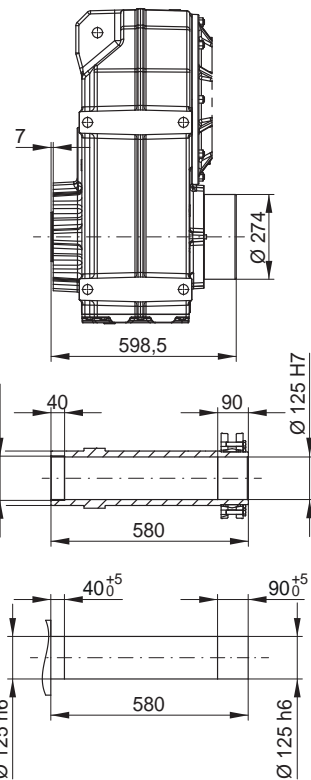
* Shrink disc and protection cap possible with all mountable motors.

¹⁾ ΔL = recommended preload

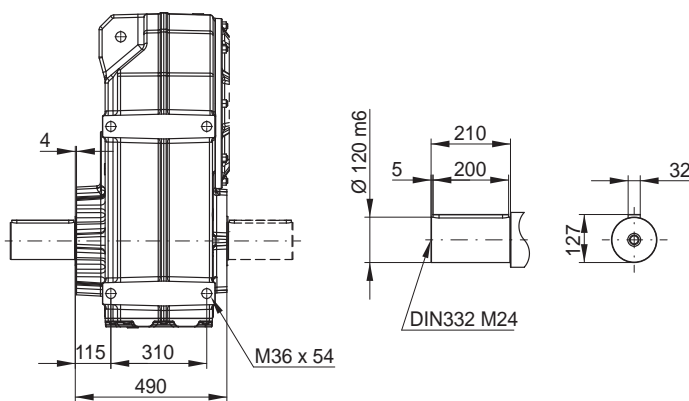
FH152 / FH153 - Hollow shaft



FD152 / FD153 - Shrink disc *



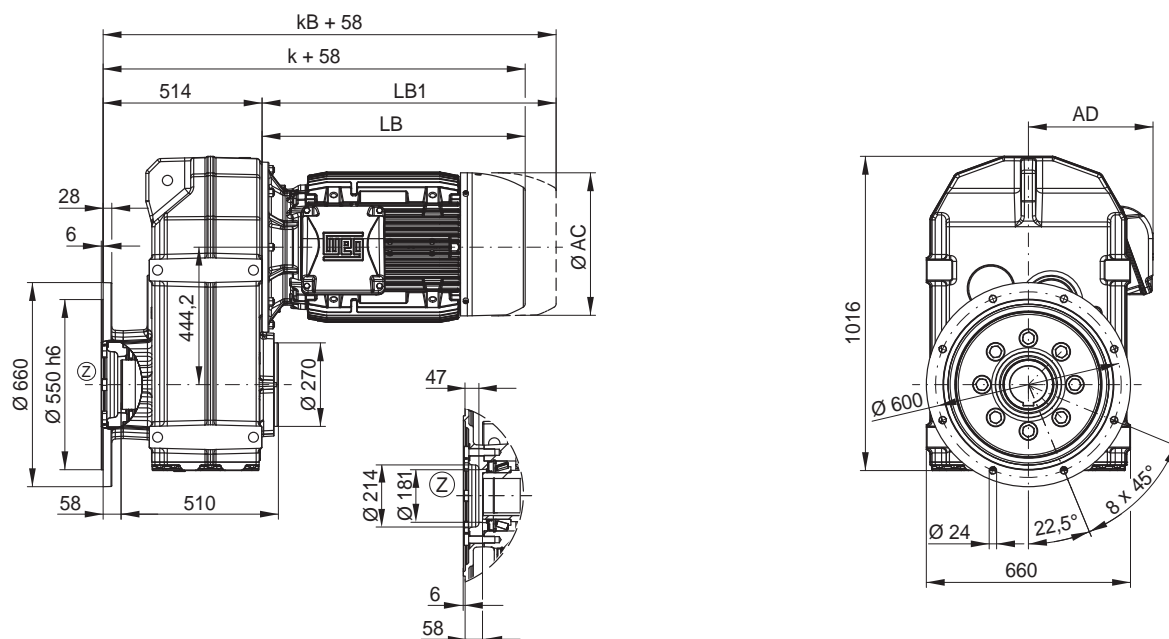
FS152 / FS153 - Output shaft FB152 / FB153 - Output shaft on both sides



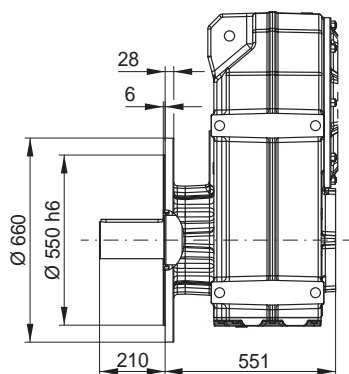
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M | 250S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|--------|
| Dimension | | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | - | - | - | 329 | 329 | 347 | 347 | 386 | 453 | 482 |
| AD | - | - | - | - | - | - | - | - | - | - | 266 | 266 | 281 | 281 | 317 | 385 | 403 |
| k | - | - | - | - | - | - | - | - | - | - | 962 | 1006 | 1030 | 1068 | 1160 | 1268 | 1307 |
| kB | - | - | - | - | - | - | - | - | - | - | 1086 | 1130 | 1148 | 1186 | 1286 | 1386 | 1425 |
| LB | - | - | - | - | - | - | - | - | - | - | 506 | 550 | 574 | 612 | 704 | 812 | 851 |
| LB1 | - | - | - | - | - | - | - | - | - | - | 630 | 674 | 692 | 730 | 830 | 930 | 969 |

Motor dimension sheets see page 496; Gear unit size F15 corresponds to motor flange FR-550. Description of motor lengths LB and LB1 see page 500.

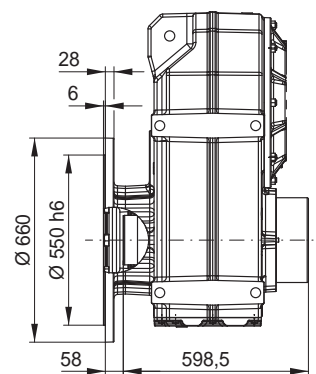
FO152 / FO153 - B5 flange execution with hollow shaft



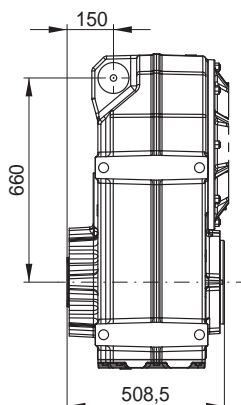
FF152 / FF153 - B5 flange execution with output shaft



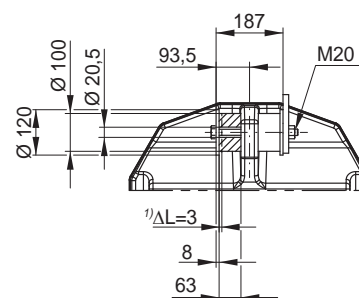
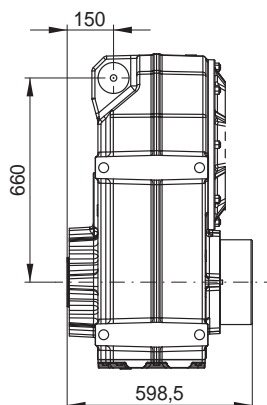
FP152 / FP153 - B5 flange execution with hollow shaft and shrink disc *



FT152 / FT153 - Hollow shaft with rubber buffer



FU152 / FU153 - Hollow shaft with shrink disc * and rubber buffer

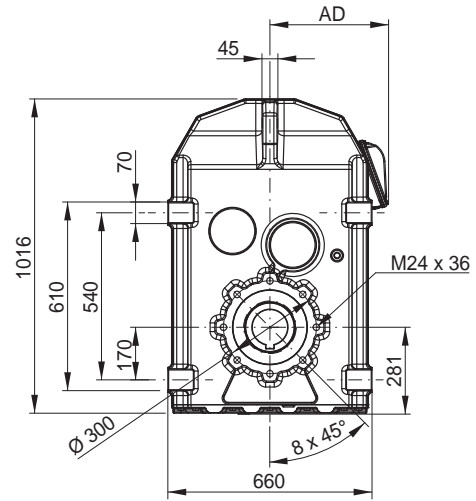
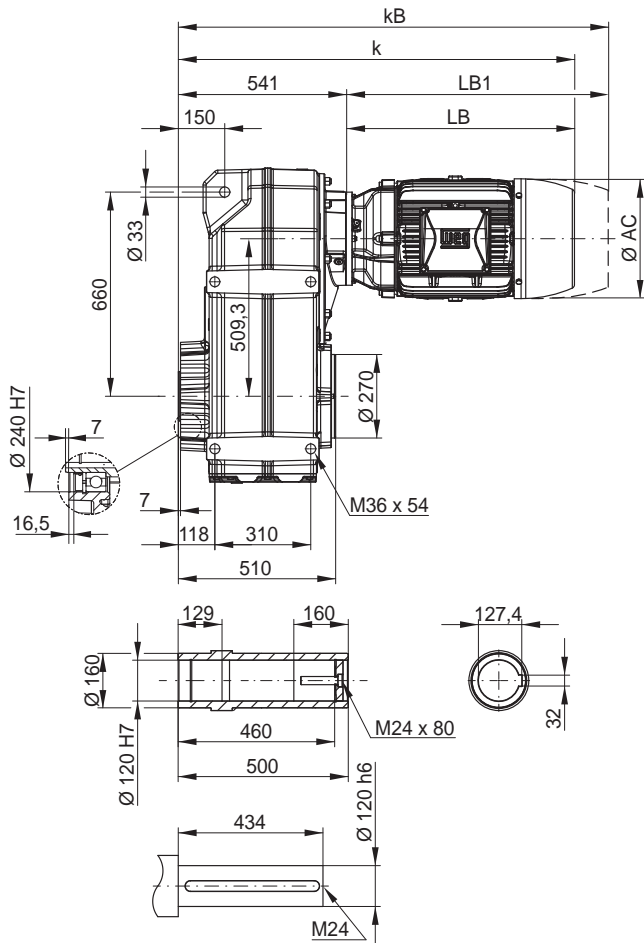


Dimensions in mm.

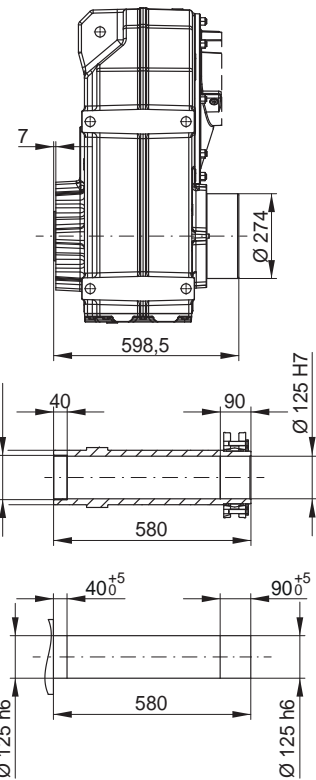
* Shrink disc and protection cap possible with all mountable motors.

¹⁾ ΔL = recommended preload

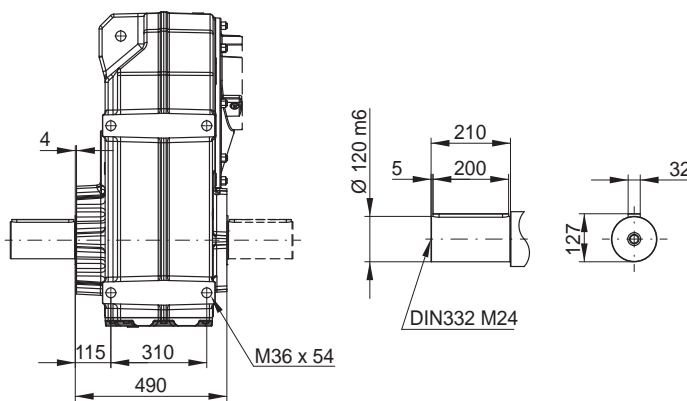
FH154 - Hollow shaft



FD154 - Shrink disc *



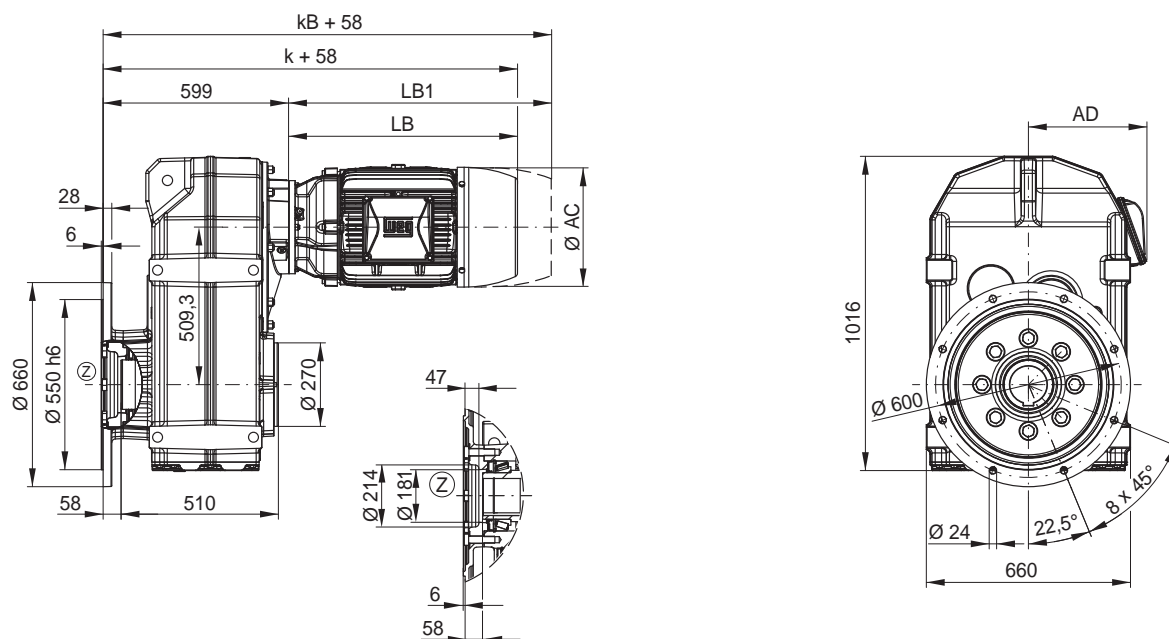
FS154 - Output shaft FB154 - Output shaft on both sides



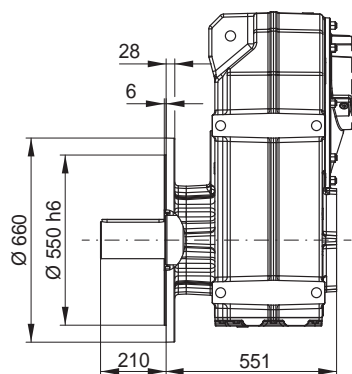
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 745 | 779 | 787 | 811 | 829 | 879 | 917 | 889 | 954 | 992 | 1076 | 1120 | 1144 | 1182 | 1274 |
| kB | 789 | 828 | 845 | 869 | 902 | 963 | 1001 | 976 | 1072 | 1110 | 1200 | 1244 | 1262 | 1300 | 1400 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496; Gear unit size F15 corresponds to motor flange FR-550. Description of motor lengths LB and LB1 see page 500.

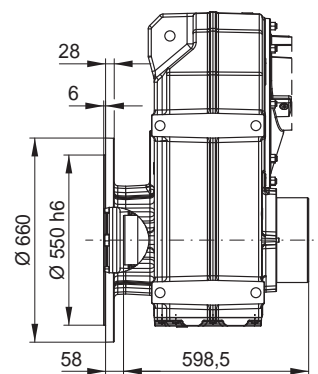
FO154 - B5 flange execution with hollow shaft



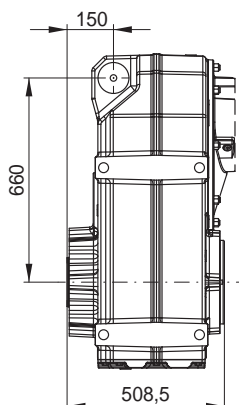
FF154 - B5 flange execution with output shaft



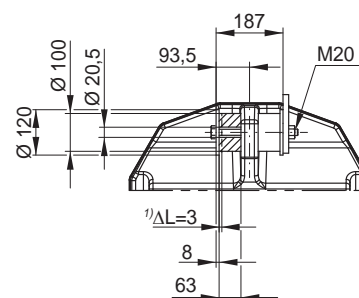
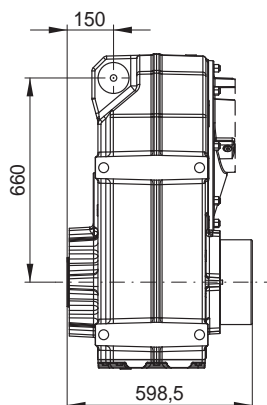
FP154 - B5 flange execution with hollow shaft and shrink disc *



FT154 - Hollow shaft with rubber buffer



FU154 - Hollow shaft with shrink disc * and rubber buffer

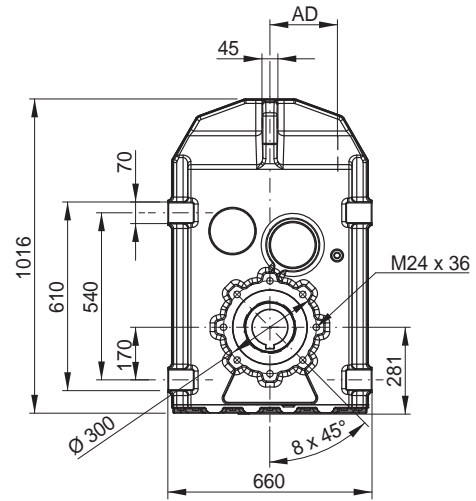
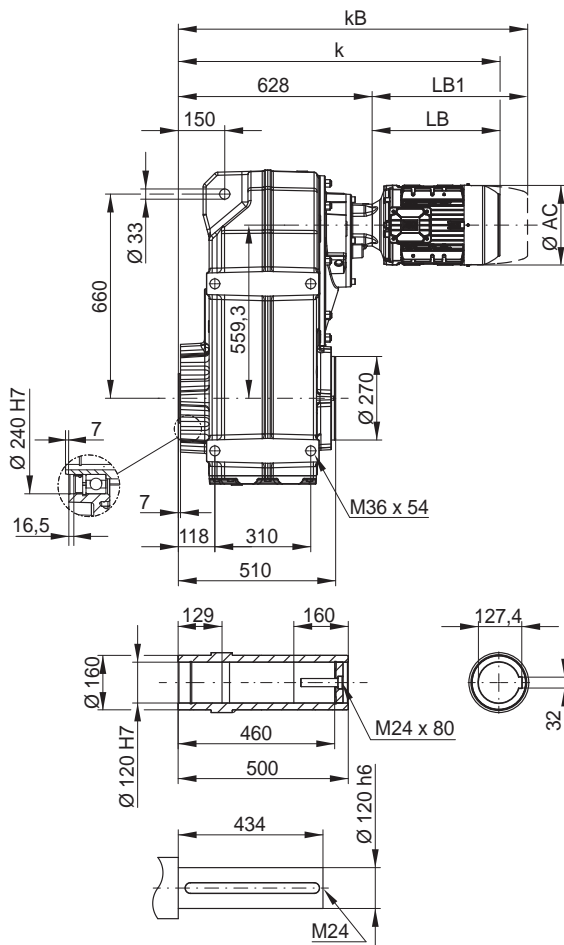


Dimensions in mm.

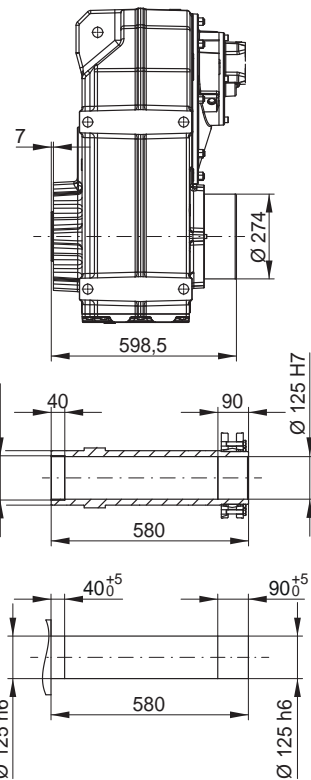
* Shrink disc and protection cap possible with all mountable motors.

$^1)\Delta L$ = recommended preload

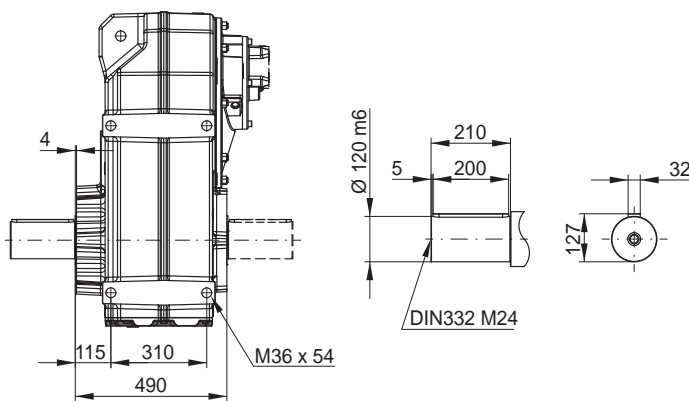
FH155 - Hollow shaft



FD155 - Shrink disc *



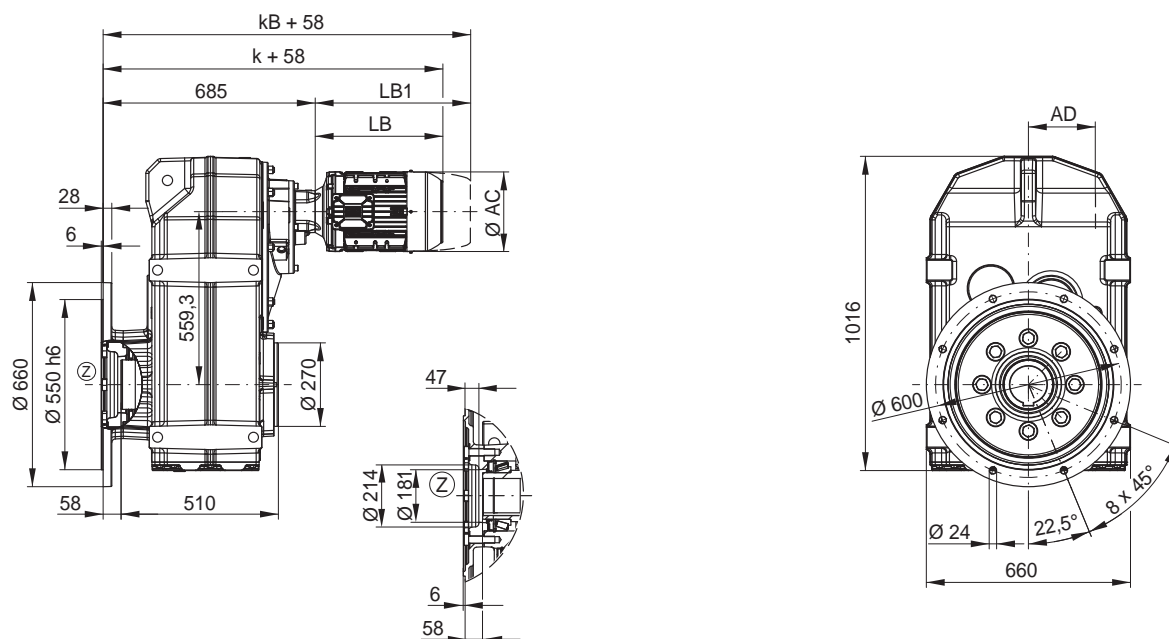
FS155 - Output shaft FB155 - Output shaft on both sides



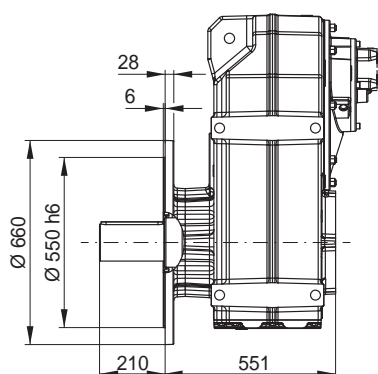
| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 832 | 866 | 874 | 898 | 916 | 966 | 1004 | 976 | 1041 | 1079 |
| kB | 876 | 915 | 932 | 956 | 989 | 1050 | 1088 | 1063 | 1159 | 1197 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496; Gear unit size F15 corresponds to motor flange FR-550. Description of motor lengths LB and LB1 see page 500.

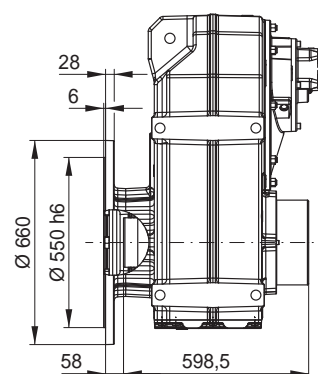
FO155 - B5 flange execution with hollow shaft



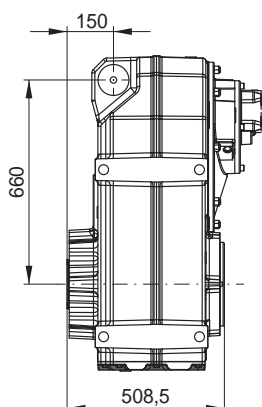
FF155 - B5 flange execution with output shaft



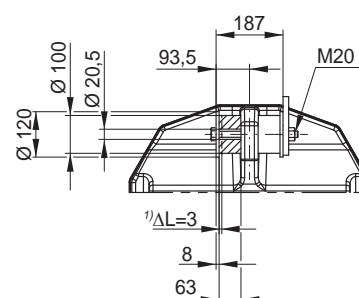
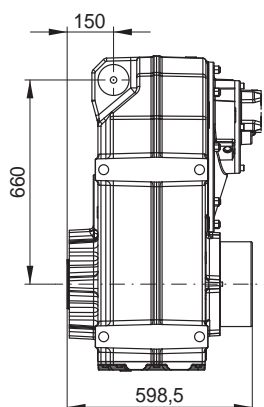
FP155 - B5 flange execution with hollow shaft and shrink disc *



FT155 - Hollow shaft with rubber buffer



FU155 - Hollow shaft with shrink disc * and rubber buffer



Dimensions in mm.

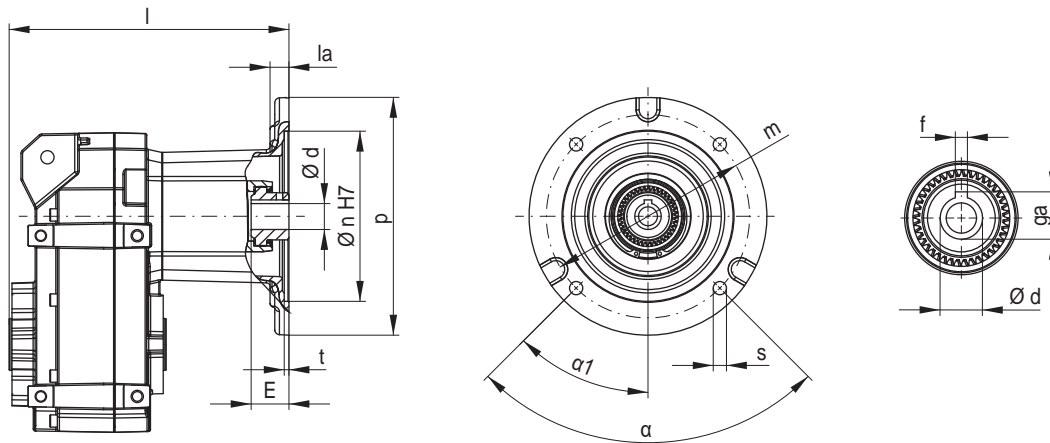
* Shrink disc and protection cap possible with all mountable motors.

1) ΔL = recommended preload

Dimension sheets Input types



IEC Adapter I63 to I280



F

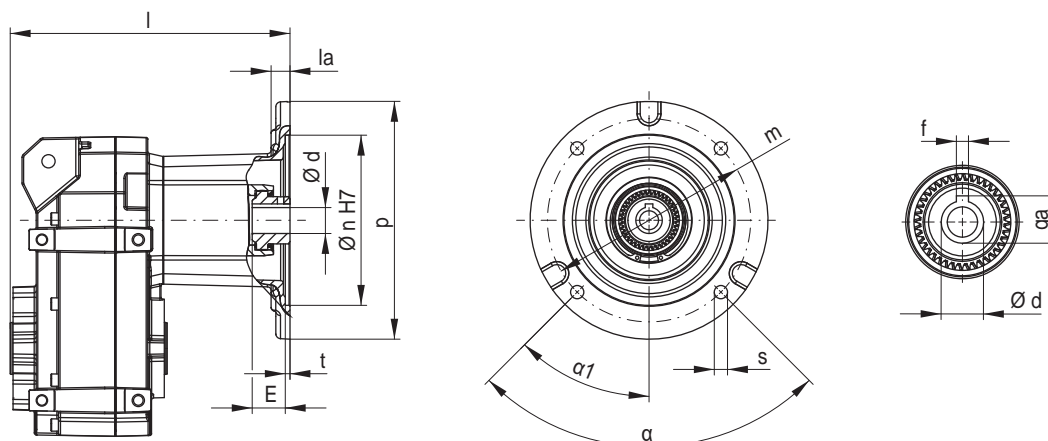
| Type | I63 | I71 | I80 | I90 | I100 | I112 | I132 | I160 | I180 | I200 | I225 | I250 | I280 |
|-----------------|-------|-------|------|------|------|------|------|-------|-------|-------|------|------|------|
| p | 154 | 154 | 200 | 200 | 250 | 250 | 300 | 350 | 350 | 400 | 450 | 550 | 550 |
| n | 95 | 110 | 130 | 130 | 180 | 180 | 230 | 250 | 250 | 300 | 350 | 450 | 450 |
| la | 22.5 | 10 | 13 | 13 | 15 | 20 | 15 | 35 | 35 | 20 | 20 | 20 | 20 |
| m | 115 | 130 | 165 | 165 | 215 | 215 | 265 | 300 | 300 | 350 | 400 | 500 | 500 |
| t | 4.5 | 4.5 | 4.5 | 4.5 | 5 | 5 | 5 | 5 | 5 | 5.5 | 5 | 5 | 5 |
| s | M8x16 | M8x10 | 11 | 11 | 13.5 | 13.5 | 13.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 |
| α | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 45 | 45 | 45 |
| α ₁ | 35 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| d | 11 | 14 | 19 | 24 | 28 | 28 | 38 | 42 | 48 | 55 | 60 | 65 | 75 |
| f | 4 | 5 | 6 | 8 | 8 | 8 | 10 | 12 | 14 | 16 | 18 | 18 | 20 |
| ga | 12.8 | 16.3 | 21.8 | 27.3 | 31.3 | 31.3 | 41.3 | 45.3 | 51.8 | 59.3 | 64.4 | 69.4 | 79.9 |
| E ¹⁾ | 25 | 32 | 43 | 47.5 | 63 | 100 | 85.5 | 111.5 | 111.5 | 114.5 | 140 | 146 | 146 |

¹⁾ Maximum motor shaft length for motors with key

| Gear unit size | I63 | I71 | I80 | I90 | I100 | I112 | I132 | I160 | I180 | I200 | I225 | I250 | I280 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | l | | | | | | | | | | | |
| F02 | 137 | 137 | 165 | 165 | - | - | - | - | - | - | - | - | - |
| F03 | 147 | 147 | 175 | 175 | 206 | - | - | - | - | - | - | - | - |
| F04 | 171.5 | 171.5 | 199.5 | 199.5 | 230.5 | - | - | - | - | - | - | - | - |
| F05 | 184 | 184 | 212 | 212 | 243 | 296 | 307 | - | - | - | - | - | - |
| F06 | 195.5 | 195.5 | 223.5 | 223.5 | 254.5 | 307.5 | 318.5 | 404.5 | - | - | - | - | - |
| F07 | 221.5 | 221.5 | 249.5 | 249.5 | 280.5 | 333.5 | 344.5 | 430.5 | - | - | - | - | - |
| F08 | 248.5 | 248.5 | 276.5 | 276.5 | 307.5 | 360.5 | 371.5 | 456 | 456 | - | - | - | - |
| F09 | 298.5 | 298.5 | 326.5 | 326.5 | 357.5 | 410.5 | 421.5 | 506 | 506 | 534.5 | - | - | - |
| F10 | - | - | - | - | - | 440 | 451 | 533 | 533 | 561.5 | 591.5 | - | - |
| F12 | - | - | - | - | - | 499.5 | 510.5 | 592.5 | 592.5 | 621 | 651 | 740 | 740 |
| F15 | - | - | - | - | - | - | - | 659 | 659 | 687.5 | 717.5 | 806.5 | 806.5 |

Dimensions in mm.

NEMA Adapter N56 to N364



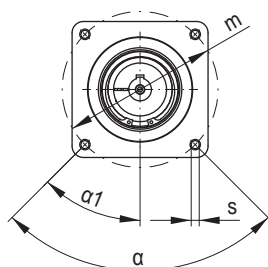
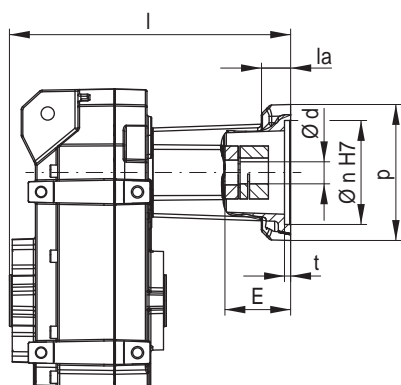
F

| Typ | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 |
|-----------------|---------|----------|--------|--------|----------|----------|----------|----------|--------|
| p | 170 | 170 | 250 | 250 | 300 | 225 | 280 | 350 | 400 |
| n | 114.3 | 114.3 | 215.9 | 215.9 | 215.9 | 215.9 | 266.7 | 317.5 | 317.5 |
| la | 13 | 13 | 10 | 16.8 | 10 | 30 | 35 | 15 | 15 |
| m | 149.225 | 149.225 | 184.15 | 184.15 | 184.15 | 184.15 | 228.6 | 279.4 | 279.4 |
| t | 4.5 | 4.5 | 5 | 3.2 | 5 | 5 | 3 | 5 | 5 |
| s | 11 | 11 | 14 | 14 | 14 | 14 | 14 | 16 | 16 |
| α | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| α_1 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| d | 15.875 | 22.225 | 28.575 | 28.575 | 34.925 | 41.275 | 47.625 | 53.975 | 60.325 |
| f | 4.775 | 4.775 | 6.350 | 6.350 | 7.950 | 9.525 | 12.700 | 12.700 | 15.875 |
| ga | 18.008 | 24.486 | 31.521 | 31.521 | 38.557 | 45.618 | 53.238 | 59.690 | 67.335 |
| E ¹⁾ | 55 | 55 | 67.5 | 96.8 | 80.5 | 105.5 | 111.5 | 109.5 | 109.5 |

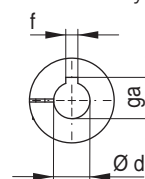
¹⁾ Maximum motor shaft length for motors with key

| Gear unit size | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 |
|----------------|-------|----------|-------|-------|----------|----------|----------|----------|-------|
| | l | | | | | | | | |
| F02 | 165 | 165 | - | - | - | - | - | - | - |
| F03 | 175 | 175 | 206 | - | - | - | - | - | - |
| F04 | 199.5 | 199.5 | 230.5 | - | - | - | - | - | - |
| F05 | 212 | 212 | 243 | 296 | 307 | - | - | - | - |
| F06 | 223.5 | 223.5 | 254.5 | 307.5 | 318.5 | 404.5 | - | - | - |
| F07 | 249.5 | 249.5 | 280.5 | 333.5 | 344.5 | 430.5 | - | - | - |
| F08 | 276.5 | 276.5 | 307.5 | 360.5 | 371.5 | 456 | 459 | - | - |
| F09 | 326.5 | 326.5 | 357.5 | 410.5 | 421.5 | 506 | 509 | 556.5 | - |
| F10 | - | - | - | 440 | 451 | 533 | 536 | 583.5 | 599 |
| F12 | - | - | - | 499.5 | 510.5 | 592.5 | 595.5 | 643 | 658.5 |
| F15 | - | - | - | - | - | 659 | 662 | 725 | 725 |

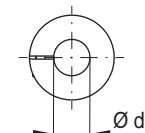
SERVO Adapter S92 to S190



Shaft with key



Smooth shaft



| Typ | S92 | S105 | S114 | S115 | S130 | | | | S141 | S142 | S180 | S189 | S190 | | | | | | |
|-----------------|-------|------|-------|-------|-------|------|------|------|-------|-------|-------|------|------|------|------|------|------|----|----|
| p | 101 | 144 | 144 | 144 | 144 | | | | 144 | 144 | 197 | 197 | 197 | | | | | | |
| n | 80 | 95 | 95 | 110 | 110 | | | | 110 | 130 | 114,3 | 130 | 180 | | | | | | |
| la | 17,5 | 31 | 31 | 31 | 31 | | | | 31 | 31 | 35 | 32 | 38 | | | | | | |
| m | 100 | 115 | 130 | 130 | 145 | | | | 165 | 165 | 200 | 215 | 215 | | | | | | |
| t | 6,5 | 6,5 | 6,5 | 6,5 | 6,5 | | | | 6,5 | 6,5 | 6,5 | 6,5 | 6,5 | | | | | | |
| s | M6x12 | | M8x16 | M8x16 | M8x16 | | | | M8x16 | M8x16 | 13,5 | 15 | 15 | | | | | | |
| α | 90° | | 90° | 90° | 90° | | | | 90° | 90° | 90° | 90° | 90° | | | | | | |
| α ₁ | 45° | | 45° | 45° | 45° | | | | 45° | 45° | 45° | 45° | 45° | | | | | | |
| d ¹⁾ | 14 | 16 | 19 | 19 | 19 | 24 | 19 | 22 | 24 | 28 | 24 | 24 | 32 | 35 | 32 | 38 | 38 | | |
| f | 5 | 5 | 6 | 6 | 6 | 8 | 6 | 8 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | | |
| ga | 16,3 | 18,3 | 21,8 | 21,8 | 21,8 | 27,3 | 21,8 | 24,8 | 27,3 | 31,3 | 27,3 | 27,3 | 35,3 | 38,3 | 35,3 | 41,3 | 41,3 | | |
| E ²⁾ | 46 | 46 | 34 | 67 | 67 | 54 | 67 | 54 | 76 | 63 | 63 | 63 | 54 | 63 | 63 | 66 | 74 | 60 | 87 |
| E ³⁾ | 46 | 46 | 46 | 67 | 67 | 67 | 67 | 67 | 76 | 76 | 76 | 63 | 67 | 76 | 63 | 87 | 74 | 60 | 87 |

¹⁾ Other shaft diameters on request

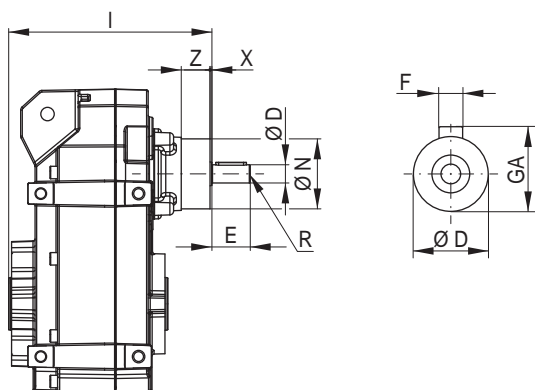
²⁾ Maximum motor shaft length for motors with key

³⁾ Maximum motor shaft length for motors with smooth shaft

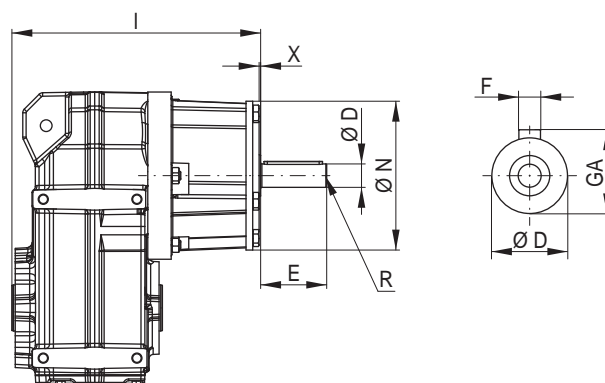
| Gear unit size | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | l | | | | | | | | | |
| F02 | 202.5 | 250.5 | 250.5 | 250.5 | 250.5 | 250.5 | 250.5 | - | - | - |
| F03 | 212.5 | 260.5 | 260.5 | 260.5 | 260.5 | 260.5 | 260.5 | - | - | - |
| F04 | 237 | 285 | 285 | 285 | 285 | 285 | 285 | - | - | - |
| F05 | 249.5 | 297.5 | 297.5 | 297.5 | 297.5 | 297.5 | 297.5 | 368 | 362 | 389 |
| F06 | 261 | 309 | 309 | 309 | 309 | 309 | 309 | 379.5 | 373.5 | 400.5 |
| F07 | 287 | 335 | 335 | 335 | 335 | 335 | 335 | 405.5 | 399.5 | 426.5 |
| F08 | 314 | 362 | 362 | 362 | 362 | 362 | 362 | 432.5 | 426.5 | 453.5 |
| F09 | 364 | 412 | 412 | 412 | 412 | 412 | 412 | 482.5 | 476.5 | 503.5 |
| F10 | - | - | - | - | - | - | - | 512 | 506 | 533 |
| F12 | - | - | - | - | - | - | - | 571.5 | 565.5 | 592.5 |
| F15 | - | - | - | - | - | - | - | - | - | - |

Dimensions in mm.

Input Unit U2, U3



Input Unit U5, U6, U7

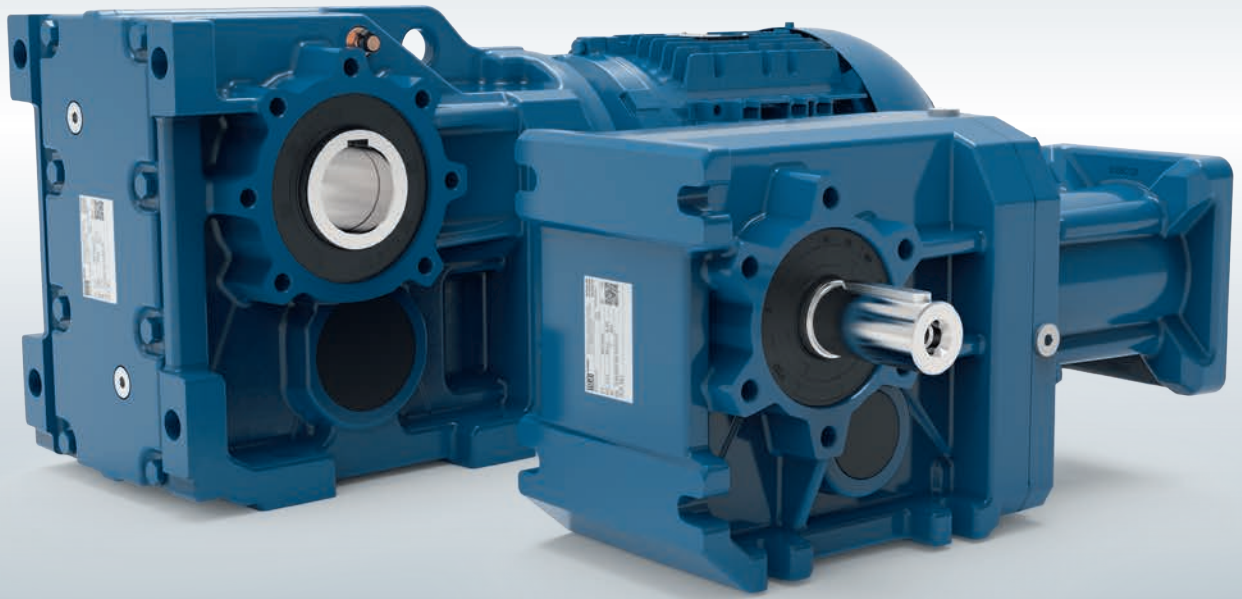


F

| Type | Input shaft [mm] | | | | | | |
|------|------------------|-------|-------|-------|--------|--------|--------|
| | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |
| | U2 | U3 | U5 | | | U6 | U7 |
| D | 19 | 24 | 28 | 38 | 42 | 48 | 55 |
| F | 6 | 8 | 8 | 10 | 12 | 14 | 16 |
| GA | 21.5 | 27 | 31 | 41 | 45 | 51.5 | 59 |
| E | 40 | 50 | 60 | 80 | 110 | 110 | 110 |
| N | 73 | 101 | 178 | | | 235 | 290 |
| X | 2 | 2.5 | 1.9 | | | 6.5 | 4 |
| Z | 3 | 35 | - | | | - | - |
| R | M6 | M10 | M10 | M12 | M16 | M16 | M20 |

| Tolerances | | |
|----------------|--------------------------------|----|
| Dimension name | ISO tolerance DIN EN ISO 286-2 | |
| D | < Ø 55 mm | k6 |
| | ≥ Ø 55 mm | m6 |

| Gear unit size | Input shaft [mm] | | | | |
|----------------|------------------|-------|--------------------------|--------|--------|
| | 19x40 | 24x50 | 28x60 38x80 42x110 | 48x110 | 55x110 |
| | U2 | U3 | U5 | U6 | U7 |
| | I | | | | |
| F02 | 165 | - | - | - | - |
| F03 | 175 | - | - | - | - |
| F04 | 199.5 | - | - | - | - |
| F05 | 212 | 244 | - | - | - |
| F06 | 223.5 | 255.5 | 298 | - | - |
| F07 | 249.5 | 281.5 | 324 | - | - |
| F08 | 276.5 | 308.5 | 349.5 | 371.5 | - |
| F09 | 326.5 | 358.5 | 399.5 | 421.5 | - |
| F10 | - | 388 | 426.5 | 448.5 | 517.5 |
| F12 | - | 447.5 | 486 | 508 | 577 |
| F15 | - | - | 552.5 | 574.5 | 643.5 |



Helical bevel gear units and Helical bevel geared motors K

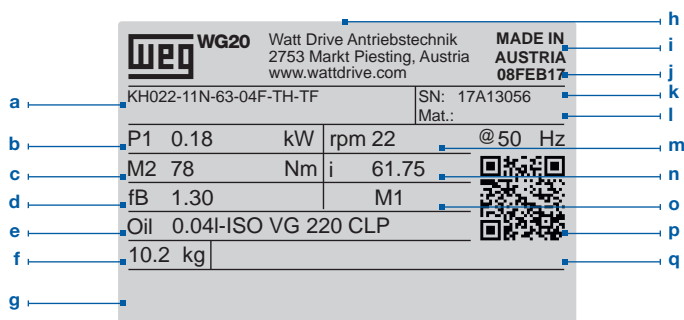


Technical data

| Size | K02 | K03 | K04 | K05 | K06 | K07 | K08 | K09 | K10 | K12 | K15 |
|------------------|---|---|----------------|---------------|-------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Power [kW] | 0.12 - 1.5 | 0.12 - 3 | 0.12 - 4 | 0.12 - 9.2 | 0.18 - 9.2 | 0.12 - 15 | 0.12 - 22 | 0.12 - 37 | 0.12 - 55 | 0.12 - 55 | 0.12 - 75 |
| Torque [Nm] | 110 | 200 | 400 | 600 | 820 | 1550 | 3000 | 4500 | 8000 | 13000 | 18000 |
| Ratio | 3.82 68.88 | 4.17 217.88 | 4.87 277.79 | 4.27 245.7 | 4.94 198 | 7.91 256.14 | 7.45 2205.52 | 6.94 1810.95 | 6.64 1301.54 | 6.60 1579.81 | 8.61 14005.40 |
| Number of stages | 2 | 3 | 3 | 3 | 3 | 3 | 3 / 4 | 3 / 4 | 3 / 4 | 3 / 4 | 3 / 4 / 5 |
| Housing material | aluminium | | | | | cast iron | | | | | |
| Solid shaft | Type | with key acc. to DIN 6885.1 and threaded bore acc. to DIN 332 sheet 2 | | | | | | | | | |
| | Tolerance | < Ø 55: k6 / ≥ Ø 55: m6 | | | | | | | | | |
| | Material | standard: C45E (1.1191) / stainless steel on request | | | | | | | | | |
| Hollow shaft | Type | with key acc. to DIN 6885.1 | | | | | | | | | |
| | Tolerance | H7 | | | | | | | | | |
| | Material | standard: C45E (1.1191) / stainless steel on request | | | | | | | | | |
| Flanges | Tolerance | centring ≤ 250: j6 / > 250: h6 acc. to DIN EN 50347 | | | | | | | | | |
| | Material | cast iron | | | | | | | | | |
| Gear wheels | Type | honed - designed and produced according to DIN 3990/3991 - Q7 | | | | | | | | | |
| | Material | 16MnCr5 (1.7131) case hardened – minimum 58HRC | | | | | | | | | |
| Shaft seals | Type | type AS acc. to DIN 3760 | | | | | | | | | |
| | Material | standard NBR / special FKM | | | | | | | | | |
| Bearing | standard / reinforced | | | | | | | | | | |
| Lubricants | Type | standard CLP 220 / special CLP HC 220 | | | | | | | | | |
| | Quantity | depending on mounting position | | | | | | | | | |
| Axle height | acc. to DIN 747: ≤ 50: -0.4; > 50 bis ≤ 250: -0.5; > 250: -1 for foot-mounted gear motors, the motor may extend below the mounting surface | | | | | | | | | | |

General information

1. Nameplate



| | | | |
|---|-------------------------------------|---|---|
| a | Type code | j | Production date |
| b | Motor power | k | Serial number |
| c | Output torque | l | Material number |
| d | Service factor | m | Output speed and Frequency |
| e | Type and quantity of lubricant | n | Total gear ratio |
| f | Weight | o | Mounting position |
| g | Space for ATEX code (if applicable) | p | QR-Code linked online to additional information |
| h | Manufacturer address | q | Space for additional information |
| i | Country of origin | | |

2. Type code

KH073-EX-11P-90S/L-04F ...

1 2 3 4 5 6 7 8 9 10

KH073-EX-I112-HT

1 2 3 4 5 11 12

| | | | | | | | | | | | | | |
|-----------|---------------------------------|--|-------|------|------|-------|-------------------|-------|--------|--------|----|----|--|
| 1 | Type: | K = Helical bevel gear unit | | | | | | | | | | | |
| 2 | Design: | B = Output shaft on both sides D = Hollow shaft with shrink disc F = B5 flange type with output shaft H = Hollow shaft O = B5 flange type with hollow shaft P = B5 flange type with hollow shaft and shrink disc S = Output shaft T = Hollow shaft with torque arm U = Hollow shaft with shrink disc and torque arm | | | | | | | | | | | |
| 3 | Size: | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 12 | 15 | |
| 4 | Number of stages: | 2 = 2 gear stages | | | | | 3 = 3 gear stages | | | | | | |
| | | 4 = 4 gear stages | | | | | 5 = 5 gear stages | | | | | | |
| 5 | ATEX execution: | when operated in explosive atmospheres, see page 15 | | | | | | | | | | | |
| 6 | Motor type: | 14P = Integral motor aluminium IE3 11P = Integral motor aluminium IE3 22P = Integral motor cast iron IE3 | | | | | | | | | | | |
| 7 | Motor frame size: | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S | | | |
| | | 132M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M | 250S/M | | | |
| 8 | Number of poles: | 04 = 4 poles | | | | | 06 = 6 poles | | | | | | |
| 9 | Power indicator: | D | E | F | G | | | | | | | | |
| 10 | Motor modules: | see from page 501 | | | | | | | | | | | |
| 11 | Adapters, Input unit: | IEC adapter I63 I71 I80 I90 I100 I112 I132 I160 I180 I200 I225 I250 I280 NEMA adapter N56 N143 N182 N184 N213 N254 N284 N324 N364 SERVO adapter S92 S105 S114 S115 S130 S141 S142 S180 S189 S190 Input unit U2 U3 U5 U6 U7 Direct mounting (IEC): IEC63 IEC71 IEC80 IEC90 IEC100 IEC112 IEC132 IEC160 IEC180 IEC200 IEC225 IEC250 | | | | | | | | | | | |
| 12 | High/Low temperature execution: | HT LT | | | | | | | | | | | |

Type code Motor see page 477



3. Range

| Size | K02 | K03 | K04 | K05 | K06 | K07 | K08 | K09 | K10 | K12 | K15 |
|------------------|-----------|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|
| Housing material | Aluminium | | | | Cast iron | | | | | | |

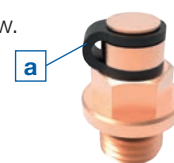
4. Design

| | | | |
|----------|----------------------------------|----------|--|
| B | Output shaft on both sides | P | B5 flange type with hollow shaft and shrink disc |
| D | Hollow shaft with shrink disc | S | Output shaft |
| F | B5 flange type with output shaft | T | Hollow shaft with torque arm |
| H | Hollow shaft | U | Hollow shaft with shrink disc and torque arm |
| O | B5 flange type with hollow shaft | | |

5. Venting the gear unit

The helical bevel gear unit sizes K02 to K05 are neither equipped with a venting nor an oil drain screw. They are supplied with lifetime-lubrication.

By default, the helical bevel gear units from K06 are equipped with venting screws with a safety strap for transportation (see illustration). The rubber strap (a) of the venting screw must be removed entirely before the initial startup. The venting screw is placed accordingly to the mounting position (see chapter Mounting positions, page 335)



6. Overhung and axial loads

The overhung loads (F_{rN}) indicated in the respective selection tables apply to gear units with the force acting on the shaft center ($x=l/2$). The permissible overhung loads listed are based on the least favourable loading direction and calculated for standard shafts and standard bearings. Other load directions and action can be calculated with equations Q1 to Q3. If transmission elements are placed on the output shaft, an appropriate factor (f_z) has to be taken into consideration when determining the overhung load.

| Gear wheels | Sprockets | | V-belts | Flat belts |
|------------------------------|------------------------------|---------------------------|-----------|------------|
| | | | | |
| $f_z=1.1$ ($z \leq 17$) | $f_z=1.2$ ($z \leq 13$) | $f_z=1.1$ ($z > 13$) | $f_z=1.8$ | $f_z=2.5$ |

Use the following equations Q1 and Q2 to calculate the permissible radial loads on the output shaft. Q3 is to calculate the real existing shaft loads for your application. The results are to be compared by using the equation Q4.

Q1 $F_{zL} = F_{rN} \cdot a_1$

Q2 $F_{zW} = F_W \cdot a_2$

Q3 $F_{Qvorh} = \frac{2 \cdot M_2}{d_0} \cdot f_z$

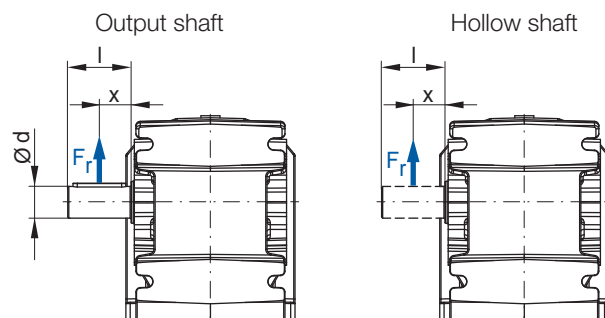
Q4 $F_{Qvorh} \leq F_{zL}$
 $F_{Qvorh} \leq F_{zW}$

| Variable | Unit | Description |
|----------|------|---|
| a1 | | Load action factor - output shaft bearing from Table 1 |
| a2 | | Load action factor - output shaft from Table 1 |
| d0 | [m] | Effective diameter of the transmission element |
| M2 | [Nm] | Geared motor output torque (from selection tables) or required calculated output torque |
| FzL | [N] | Permissible overhung load for output shaft bearings |
| FzW | [N] | Permissible overhung load for output shaft |
| FrN | [N] | Permissible overhung load from selection tables |
| FW | [N] | Permissible overhung load - Output shaft x=l/2 from Table 2 |
| FQvorh | [N] | Existing overhung load at gear shaft |
| fz | | Factor for transmission element |
| Mmax | [Nm] | Highest possible output torque for coupling operation (Table 2) |

Always use both equations Q1 and Q2 for your calculations.

| | | x / l | | | | | | |
|------------------|--|-------|------|------|------|------|------|------|
| | | 0 | 0.25 | 0.5 | 0.75 | 1 | 1.5 | 2 |
| a1 → Equation Q1 | | 1.39 | 1.18 | 1.00 | 0.85 | 0.73 | 0.52 | 0.38 |
| a2 → Equation Q2 | | 2.00 | 2.00 | 1.00 | 0.55 | 0.38 | 0.23 | 0.17 |

Table 1: Load action factors a1, a2



Intermediate values can be interpolated linearly. Combined load ($F_r \neq 0$; $F_a = 0$) on request.

| Output shaft [mm] | | Mmax at Fr = 0 | Output torque M2 [Nm] | | | | | | | | | | |
|-------------------|-----|----------------|------------------------------------|------|------|------|------|------|------|-------|-------|-------|-------|
| Ø d | l | | 110 | 200 | 400 | 600 | 820 | 1550 | 3000 | 4500 | 8000 | 13000 | 18000 |
| | | | Fw [kN] at x/l = 0.5 → Equation Q2 | | | | | | | | | | |
| 20 | 40 | 160 | 2.6 | | | | | | | | | | |
| 25 | 50 | 300 | 5.6 | 4.8 | | | | | | | | | |
| 30 | 60 | 500 | 7.5 | 7.1 | 5.0 | | | | | | | | |
| 35 | 70 | 800 | | 11.0 | 10.0 | 8.3 | | | | | | | |
| 40 | 80 | 1170 | | | 13.0 | 12.0 | 10.7 | | | | | | |
| 50 | 100 | 2250 | | | 24.0 | 24.0 | 23.0 | 20.0 | | | | | |
| 60 | 120 | 3740 | | | | | 31.0 | 30.0 | 23.0 | | | | |
| 70 | 140 | 5850 | | | | | | 44.0 | 41.0 | 36.0 | | | |
| 90 | 170 | 11700 | | | | | | | 72.0 | 70.0 | 61.0 | | |
| 110 | 210 | 20800 | | | | | | | | 106.0 | 103.0 | 93.0 | |
| 120 | 210 | 26700 | | | | | | | | | 129.0 | 121.0 | 109.0 |

Table 2: Permissible overhung load - output shaft x = l/2

The axial loads (F_{aN}) for the respective execution (output shaft or hollow shaft), given in the following selection tables, are valid at radial force $F_{rN} = 0$. If there are axial loads or radial and axial components acting on the drive which are extraordinarily high, we recommend to contact the manufacturer.



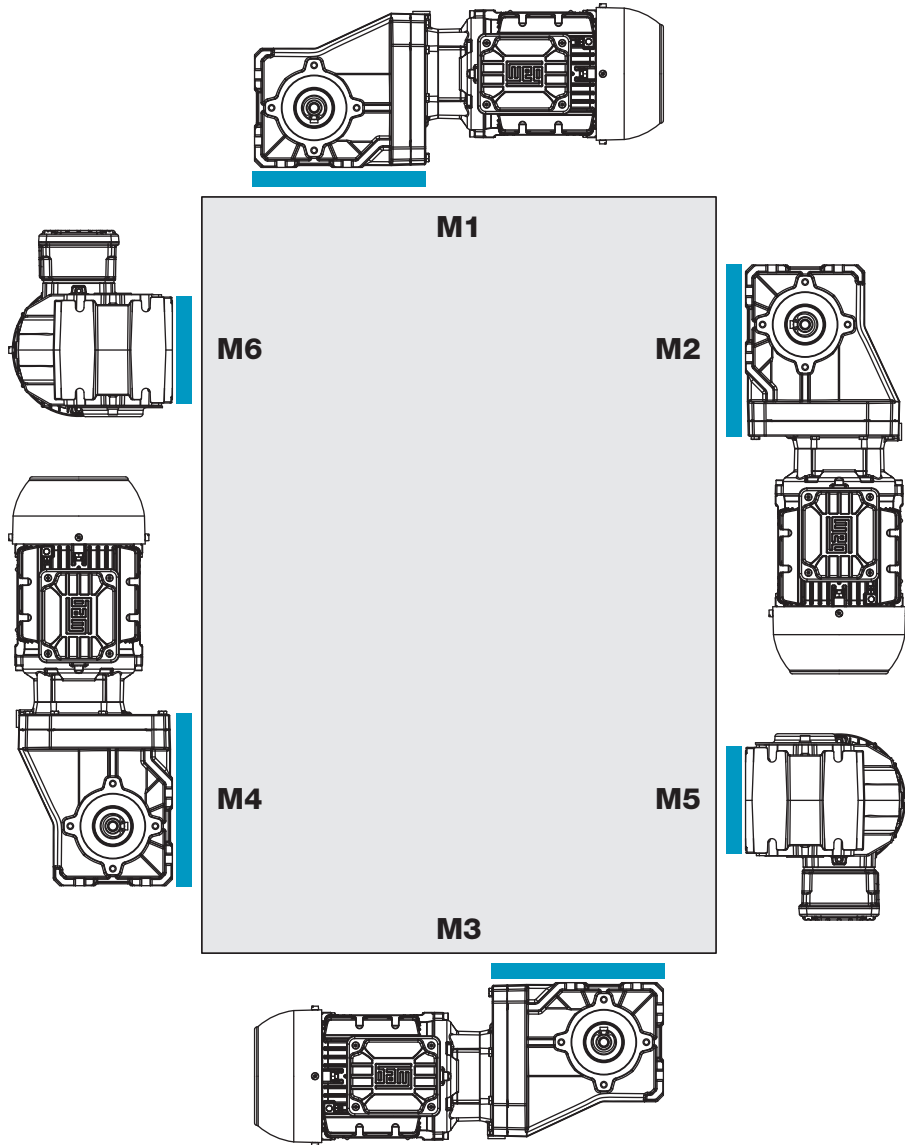
7. Mounting positions, Position of the terminal box and Cable entry

Mounting positions - Sizes K02 to K05

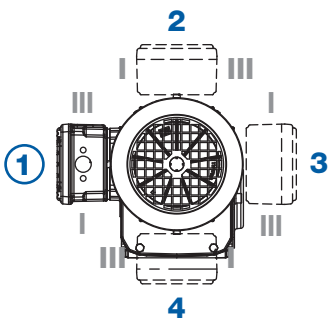
Gear units K02 to K05 are not ventilated and supplied with lifetime lubrication

 Reference area

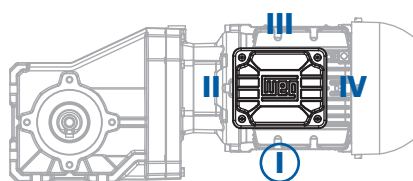
K



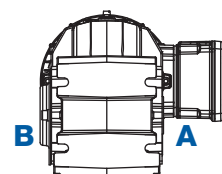
Position of the terminal box
Standard: Position 1



Cable entry
Standard: Position I



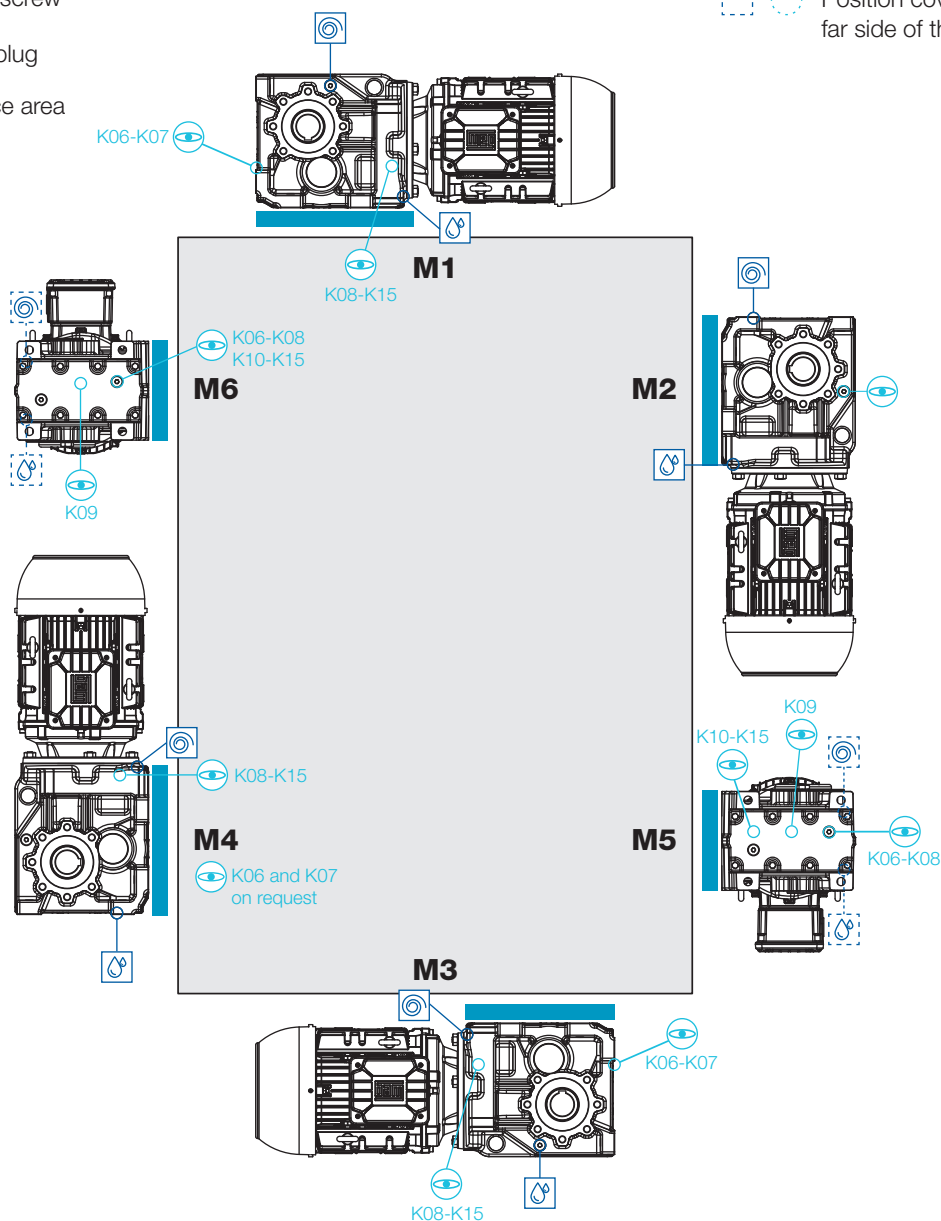
Side indication



Mounting positions - Sizes K06 to K15

- Venting screw
- Oil drain screw
- Oil level plug
- Reference area

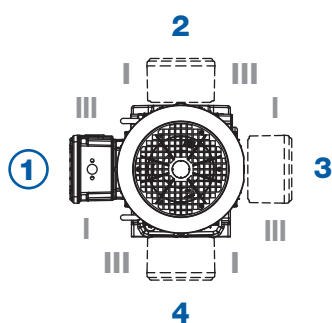
- Position visible on this side
- Position covered or on the far side of the gear unit



K

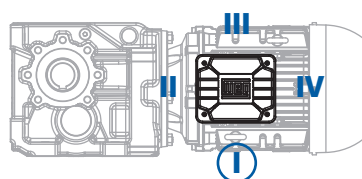
Position of the terminal box

Standard: Position 1

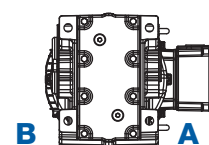


Cable entry

Standard: Position I



Side indication



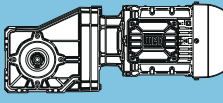
Selection tables - Geared motors

The technical data of the geared motors shown in the selection tables apply to an ambient temperature of +20 °C.

The selection tables are calculated with following motor data:

| Power (IEC frame size) | Motor series (IE class) |
|--------------------------|-------------------------|
| up to 0.55 kW (63 - 80) | 14P (IE3) - aluminium |
| 0.75 - 9.2 kW (80 - 132) | 11P (IE3) - aluminium |
| 11 - 75 kW (160 - 250) | 22P (IE3) - cast iron |

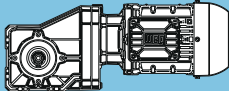
Structure of the selection tables

| 1 | | | | | | | | | | 2 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---|-----------------------|-----------------------|-----------------------|-----------------------|----|---|---------|-----------------------------|
| P _N = 0.12 kW | | | | | | | | | | IE3 | | |
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.12 kW | | 0.14 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |

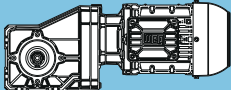
- 1 Rated power of the motor
- 2 Given values are based on the respective efficiency class
- 3 Output speed at 50 Hz
- 4 Output speed at 60 Hz
- 5 Output torque
- 6 Service factor
- 7 Total ratio
- 8 Permissible radial load - Execution with output shaft at midpoint of the shaft (standard bearing) at axial load=0
- 9 Permissible axial load - Execution with output shaft (standard bearing) at axial load=0
- 10 Permissible radial load - Execution with hollow shaft at midpoint of x=l/2 (standard bearing) at axial load=0
- 11 Permissible axial load - Execution with hollow shaft (standard bearing) at axial load=0
- 12 Geared motor type
- 13 Weight
- 14 Page reference for dimension sheet

*) Increased rated power at 60 Hz can only be reached together with increased voltage within the wide range (for details see page 485).

| Increased rated power |
|-----------------------|
| 1.2 x P _N |

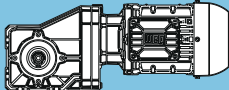
| P _N = 0.12 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.12 kW | | 0.14 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.07 | 0.08 | 15132 | 1.20 | 14005.40 | 88.3 | 118.5 | 88.3 | 118.5 | KH155-14P-63-06F | 677 | 464 |
| 0.08 | 0.10 | 12185 | 1.50 | 11453.02 | 96.1 | 120.7 | 96.1 | 120.7 | | | |
| 0.10 | 0.13 | 9400 | 1.95 | 9043.42 | 101.5 | 122.8 | 101.5 | 122.8 | | | |
| 0.12 | 0.14 | 8100 | 2.25 | 7915.09 | 103.5 | 123.8 | 103.5 | 123.8 | | | |
| 0.13 | 0.16 | 7065 | 2.55 | 7012.05 | 104.9 | 124.6 | 104.9 | 124.6 | | | |
| 0.15 | 0.18 | 6167 | 2.95 | 6249.84 | 105.9 | 125.3 | 105.9 | 125.3 | | | |
| 0.10 | 0.12 | 9609 | 1.90 | 14005.40 | 101.2 | 122.7 | 101.2 | 122.7 | KH155-14P-63-04E | 677 | 464 |
| 0.12 | 0.15 | 7677 | 2.35 | 11453.02 | 104.1 | 124.1 | 104.1 | 124.1 | | | |
| 0.15 | 0.18 | 6321 | 2.85 | 9679.02 | 105.7 | 125.2 | 105.7 | 125.2 | | | |
| 0.51 | 0.63 | 1918 | 2.35 | 1810.95 | 38.0 | 42.6 | 38.0 | 42.6 | KH094-14P-63-06F | 158 | 450 |
| 0.60 | 0.74 | 1588 | 2.85 | 1531.00 | 38.6 | 43.0 | 38.6 | 43.0 | | | |
| 0.62 | 0.77 | 1529 | 2.95 | 1480.92 | 38.7 | 43.1 | 38.7 | 43.1 | | | |
| 0.42 | 0.52 | 2444 | 1.25 | 2205.52 | 23.2 | 41.4 | 23.2 | 8.9 | KH084-14P-63-06F | 108 | 446 |
| 0.51 | 0.63 | 1974 | 1.55 | 1803.58 | 25.6 | 42.1 | 25.6 | 9.6 | | | |
| 0.53 | 0.65 | 1907 | 1.60 | 1745.64 | 25.8 | 42.2 | 25.8 | 9.7 | | | |
| 0.61 | 0.75 | 1648 | 1.85 | 1524.22 | 26.8 | 42.6 | 26.8 | 10.1 | | | |
| 0.65 | 0.8 | 1530 | 2.00 | 1424.12 | 27.2 | 42.7 | 27.2 | 10.2 | | | |
| 0.65 | 0.8 | 1534 | 2.00 | 1427.51 | 27.2 | 42.7 | 27.2 | 10.2 | | | |
| 0.74 | 0.91 | 1323 | 2.30 | 1246.44 | 27.8 | 43.0 | 27.8 | 10.5 | | | |
| 0.82 | 1.0 | 1184 | 2.55 | 1127.18 | 28.1 | 43.3 | 28.1 | 10.8 | | | |
| 0.84 | 1.0 | 1157 | 2.60 | 1104.23 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 0.94 | 1.2 | 1014 | 3.00 | 984.20 | 28.5 | 43.5 | 28.5 | 11.0 | | | |
| 0.64 | 0.78 | 1563 | 1.95 | 2205.52 | 27.1 | 42.7 | 27.1 | 10.2 | KH084-14P-63-04E | 108 | 446 |
| 0.78 | 0.95 | 1255 | 2.40 | 1803.58 | 27.9 | 43.1 | 27.9 | 10.6 | | | |
| 0.80 | 0.99 | 1209 | 2.50 | 1745.64 | 28.1 | 43.2 | 28.1 | 10.7 | | | |
| 0.92 | 1.1 | 1038 | 2.90 | 1524.22 | 28.4 | 43.5 | 28.4 | 11.0 | | | |
| 3.8 | 4.6 | 304 | 2.00 | 245.70 | 8.9 | 11.1 | 8.9 | 4.4 | KH053-14P-63-06F | 21 | 438 |
| 4.8 | 5.9 | 241 | 2.50 | 194.73 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 5.7 | 7 | 200 | 3.00 | 245.70 | 9.4 | 11.4 | 9.4 | 4.7 | KH053-14P-63-04E | 21 | 438 |
| 3.3 | 4.1 | 344 | 1.20 | 277.79 | 4.9 | 8.1 | 4.9 | 2.5 | KH043-14P-63-06F | 18 | 436 |
| 4.1 | 5.0 | 281 | 1.45 | 227.16 | 5.7 | 8.4 | 5.7 | 2.8 | | | |
| 5.2 | 6.4 | 222 | 1.80 | 179.37 | 6.2 | 8.6 | 6.2 | 3.0 | | | |
| 6.7 | 8.2 | 172 | 2.35 | 139.08 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 8.1 | 10 | 141 | 2.85 | 113.83 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 5.1 | 6.2 | 227 | 1.80 | 277.79 | 6.2 | 8.6 | 6.2 | 3.0 | KH043-14P-63-04E | 17 | 436 |
| 6.2 | 7.6 | 185 | 2.20 | 227.16 | 6.5 | 8.8 | 6.5 | 3.2 | | | |
| 7.8 | 9.6 | 146 | 2.75 | 179.37 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 5.2 | 6.4 | 220 | 0.95 | 177.19 | 3.4 | 2.4 | 3.4 | 2.4 | KH033-14P-63-06F | 14 | 434 |
| 6.6 | 8.1 | 174 | 1.15 | 140.80 | 4.1 | 2.7 | 4.1 | 2.7 | | | |
| 8.5 | 10 | 135 | 1.50 | 108.75 | 4.6 | 2.9 | 4.6 | 2.9 | | | |
| 11 | 13 | 108 | 1.90 | 86.83 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 13 | 16 | 89 | 2.25 | 71.93 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 14 | 17 | 81 | 2.50 | 65.63 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 16 | 19 | 72 | 2.80 | 58.50 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 6.4 | 7.9 | 178 | 1.15 | 217.88 | 4.1 | 2.6 | 4.1 | 2.6 | KH033-14P-63-04E | 14 | 434 |
| 7.9 | 9.7 | 145 | 1.40 | 177.19 | 4.5 | 2.8 | 4.5 | 2.8 | | | |
| 10 | 12 | 115 | 1.75 | 140.80 | 4.7 | 3.0 | 4.7 | 3.0 | | | |
| 13 | 16 | 89 | 2.30 | 108.75 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 16 | 20 | 71 | 2.85 | 86.83 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 13 | 17 | 85 | 1.30 | 68.88 | 5.1 | 2.8 | 5.1 | 2.8 | KH022-14P-63-06F | 12 | 432 |
| 15 | 18 | 77 | 1.35 | 61.75 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 17 | 21 | 66 | 1.70 | 53.65 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 19 | 24 | 60 | 1.85 | 48.10 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 21 | 26 | 54 | 2.05 | 43.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 24 | 29 | 48 | 2.30 | 39.00 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 27 | 33 | 42 | 2.60 | 34.27 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 30 | 37 | 38 | 1.35 | 30.88 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 38 | 47 | 30 | 2.75 | 24.05 | 5.3 | 2.8 | 5.3 | 2.8 | | | |

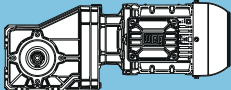
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| P _N = 0.12 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-----|-----------------------|-----------------------|-----------------------|------------------|---|---------|-----------------------------|
| 50 Hz 0.12 kW | | 60 Hz 0.14 kW | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | Output shaft | | | Hollow shaft | | | | | | |
| | | | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 20 | 25 | 56 | 2.00 | 68.88 | 5.2 | 2.8 | 5.2 | 2.8 | KH022-14P-63-04E | 12 | 432 | |
| 23 | 28 | 50 | 2.05 | 61.75 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 26 | 32 | 44 | 2.55 | 53.65 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 29 | 36 | 39 | 2.85 | 48.10 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 32 | 40 | 35 | 3.15 | 43.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 36 | 44 | 32 | 3.50 | 39.00 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 41 | 50 | 28 | 3.95 | 34.27 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 45 | 56 | 25 | 2.05 | 30.88 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 46 | 56 | 25 | 4.40 | 30.73 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 53 | 65 | 22 | 5.15 | 26.41 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 58 | 72 | 20 | 4.15 | 24.05 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 59 | 73 | 19 | 5.70 | 23.68 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 68 | 83 | 17 | 6.15 | 20.63 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 72 | 88 | 16 | 5.10 | 19.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 76 | 93 | 15 | 6.80 | 18.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 91 | 112 | 13 | 6.50 | 15.36 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 102 | 125 | 11 | 8.30 | 13.81 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 119 | 145 | 10 | 8.40 | 11.84 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 121 | 148 | 9 | 9.00 | 11.60 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 135 | 165 | 8 | 10.05 | 10.40 | 4.8 | 2.8 | 4.8 | 2.8 | | | | |
| 152 | 186 | 8 | 10.75 | 9.25 | 4.7 | 2.8 | 4.7 | 2.8 | | | | |
| 165 | 202 | 7 | 11.10 | 8.51 | 4.5 | 2.8 | 4.5 | 2.8 | | | | |
| 184 | 225 | 6 | 12.40 | 7.63 | 4.4 | 2.8 | 4.4 | 2.8 | | | | |
| 203 | 249 | 6 | 13.15 | 6.91 | 4.2 | 2.8 | 4.2 | 2.8 | | | | |
| 270 | 331 | 4 | 15.35 | 5.20 | 3.8 | 2.8 | 3.8 | 2.8 | | | | |
| 368 | 450 | 3 | 18.30 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | | |

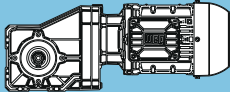


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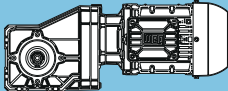
| P _N = 0.18 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.18 kW | | 0.22 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.06 | 0.08 | 23812 | 0.80 | 14005.40 | ** | ** | ** | ** | KH155-14P-71-06E | 680 | 464 |
| 0.08 | 0.10 | 19324 | 0.95 | 11453.02 | 72.3 | 115.3 | 72.3 | 115.3 | | | |
| 0.09 | 0.11 | 16164 | 1.15 | 9679.02 | 85.0 | 117.7 | 85.0 | 117.7 | | | |
| 0.10 | 0.12 | 15064 | 1.20 | 9043.42 | 88.5 | 118.5 | 88.5 | 118.5 | | | |
| 0.11 | 0.14 | 13049 | 1.40 | 7915.09 | 94.1 | 120.0 | 94.1 | 120.0 | | | |
| 0.13 | 0.16 | 11442 | 1.60 | 7012.05 | 97.7 | 121.3 | 97.7 | 121.3 | | | |
| 0.14 | 0.18 | 10093 | 1.80 | 6249.84 | 100.4 | 122.3 | 100.4 | 122.3 | | | |
| 0.16 | 0.19 | 9173 | 2.00 | 5739.09 | 101.9 | 123.0 | 101.9 | 123.0 | | | |
| 0.19 | 0.23 | 7586 | 2.40 | 4845.97 | 104.2 | 124.2 | 104.2 | 124.2 | | | |
| 0.20 | 0.25 | 6826 | 2.65 | 4417.59 | 105.1 | 124.8 | 105.1 | 124.8 | | | |
| 0.23 | 0.28 | 6018 | 3.00 | 3966.24 | 106.0 | 125.4 | 106.0 | 125.4 | | | |
| 0.10 | 0.12 | 15214 | 1.20 | 14005.40 | 88.1 | 118.4 | 88.1 | 118.4 | KH155-14P-63-04F | 677 | 464 |
| 0.12 | 0.15 | 12251 | 1.50 | 11453.02 | 96.0 | 120.7 | 96.0 | 120.7 | | | |
| 0.14 | 0.18 | 10194 | 1.80 | 9679.02 | 100.2 | 122.2 | 100.2 | 122.2 | | | |
| 0.15 | 0.19 | 9476 | 1.90 | 9043.42 | 101.4 | 122.8 | 101.4 | 122.8 | | | |
| 0.17 | 0.21 | 8144 | 2.25 | 7915.09 | 103.5 | 123.8 | 103.5 | 123.8 | | | |
| 0.20 | 0.24 | 7103 | 2.55 | 7012.05 | 104.8 | 124.6 | 104.8 | 124.6 | | | |
| 0.22 | 0.27 | 6217 | 2.90 | 6249.84 | 105.8 | 125.3 | 105.8 | 125.3 | | | |
| 0.50 | 0.61 | 3062 | 1.50 | 1810.95 | 34.9 | 41.1 | 34.9 | 41.1 | KH094-14P-71-06E | 161 | 450 |
| 0.59 | 0.73 | 2557 | 1.80 | 1531.00 | 36.5 | 41.7 | 36.5 | 41.7 | | | |
| 0.61 | 0.75 | 2468 | 1.85 | 1480.92 | 36.7 | 41.9 | 36.7 | 41.9 | | | |
| 0.72 | 0.89 | 2057 | 2.20 | 1251.99 | 37.7 | 42.4 | 37.7 | 42.4 | | | |
| 0.77 | 0.95 | 1905 | 2.40 | 1169.35 | 38.1 | 42.6 | 38.1 | 42.6 | | | |
| 0.91 | 1.1 | 1580 | 2.85 | 988.58 | 38.6 | 43.0 | 38.6 | 43.0 | | | |
| 0.76 | 0.94 | 1928 | 2.35 | 1810.95 | 38.0 | 42.5 | 38.0 | 42.5 | KH094-14P-63-04F | 158 | 450 |
| 0.90 | 1.1 | 1596 | 2.85 | 1531.00 | 38.6 | 43.0 | 38.6 | 43.0 | | | |
| 0.93 | 1.1 | 1538 | 2.95 | 1480.92 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 0.41 | 0.50 | 3838 | 0.80 | 2205.52 | ** | ** | ** | ** | KH084-14P-71-06E | 111 | 446 |
| 0.50 | 0.62 | 3113 | 1.00 | 1803.58 | 18.4 | 32.2 | 18.4 | 7.9 | | | |
| 0.52 | 0.64 | 3013 | 1.00 | 1745.64 | 19.3 | 34.1 | 19.3 | 8.0 | | | |
| 0.59 | 0.73 | 2615 | 1.15 | 1524.22 | 22.2 | 40.5 | 22.2 | 8.6 | | | |
| 0.63 | 0.78 | 2439 | 1.25 | 1427.51 | 23.3 | 41.4 | 23.3 | 8.9 | | | |
| 0.72 | 0.89 | 2112 | 1.45 | 1246.44 | 25.0 | 41.9 | 25.0 | 9.4 | | | |
| 0.80 | 0.98 | 1898 | 1.60 | 1127.18 | 25.9 | 42.2 | 25.9 | 9.7 | | | |
| 0.82 | 1.0 | 1856 | 1.65 | 1104.23 | 26.1 | 42.3 | 26.1 | 9.8 | | | |
| 0.91 | 1.1 | 1640 | 1.85 | 984.20 | 26.8 | 42.6 | 26.8 | 10.1 | | | |
| 1.0 | 1.2 | 1494 | 2.05 | 903.77 | 27.3 | 42.8 | 27.3 | 10.3 | | | |
| 1.2 | 1.5 | 1241 | 2.45 | 763.13 | 28.0 | 43.2 | 28.0 | 10.7 | | | |
| 1.3 | 1.6 | 1156 | 2.60 | 715.32 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 0.63 | 0.77 | 2457 | 1.25 | 2205.52 | 23.2 | 41.4 | 23.2 | 8.9 | | | |
| 0.77 | 0.94 | 1985 | 1.55 | 1803.58 | 25.5 | 42.1 | 25.5 | 9.6 | | | |
| 0.79 | 0.97 | 1917 | 1.60 | 1745.64 | 25.8 | 42.2 | 25.8 | 9.7 | | | |
| 0.91 | 1.1 | 1657 | 1.85 | 1524.22 | 26.8 | 42.6 | 26.8 | 10.1 | | | |
| 0.97 | 1.2 | 1545 | 1.95 | 1427.51 | 27.1 | 42.7 | 27.1 | 10.2 | | | |
| 1.1 | 1.4 | 1330 | 2.30 | 1246.44 | 27.8 | 43.0 | 27.8 | 10.5 | | | |
| 1.2 | 1.5 | 1190 | 2.55 | 1127.18 | 28.1 | 43.2 | 28.1 | 10.7 | | | |
| 1.4 | 1.7 | 1022 | 2.95 | 984.20 | 28.5 | 43.5 | 28.5 | 11.0 | | | |
| 4.5 | 5.6 | 378 | 2.20 | 198.00 | 11.7 | 14.1 | 11.7 | 4.1 | KH063-14P-71-06E | 37 | 440 |
| 5.7 | 7.1 | 300 | 2.75 | 156.92 | 12.0 | 14.3 | 12.0 | 4.4 | | | |
| 3.7 | 4.5 | 469 | 1.30 | 245.70 | 7.7 | 10.6 | 7.7 | 3.9 | KH053-14P-71-06E | 23 | 438 |
| 4.6 | 5.7 | 372 | 1.65 | 194.73 | 8.5 | 10.9 | 8.5 | 4.2 | | | |
| 6.0 | 7.3 | 289 | 2.10 | 151.20 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 7.3 | 8.9 | 237 | 2.55 | 124.06 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 5.6 | 6.9 | 306 | 2.00 | 245.70 | 8.9 | 11.1 | 8.9 | 4.4 | KH053-14P-63-04F | 21 | 438 |
| 7.1 | 8.7 | 243 | 2.50 | 194.73 | 9.2 | 11.3 | 9.2 | 4.6 | | | |
| 3.2 | 4.0 | 531 | 0.80 | 277.79 | ** | ** | ** | ** | KH043-14P-71-06E | 20 | 436 |
| 4.0 | 4.9 | 434 | 0.95 | 227.16 | 2.9 | 4.1 | 2.9 | 2.2 | | | |
| 5.0 | 6.2 | 343 | 1.20 | 179.37 | 4.9 | 8.1 | 4.9 | 2.5 | | | |
| 6.5 | 8.0 | 266 | 1.55 | 139.08 | 5.8 | 8.4 | 5.8 | 2.8 | | | |
| 7.9 | 9.8 | 217 | 1.85 | 113.83 | 6.3 | 8.6 | 6.3 | 3.0 | | | |
| 10 | 12 | 170 | 2.25 | 89.17 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 12 | 15 | 139 | 2.90 | 72.92 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 19 | 24 | 90 | 2.25 | 47.07 | 6.9 | 9.0 | 6.9 | 3.4 | | | |

| P _N = 0.18 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.18 kW | | 0.22 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 5.0 | 6.1 | 346 | 1.20 | 277.79 | 4.8 | 8.1 | 4.8 | 2.5 | KH043-14P-63-04F | 17 | 436 |
| 6.1 | 7.5 | 283 | 1.45 | 227.16 | 5.7 | 8.4 | 5.7 | 2.8 | | | |
| 7.7 | 9.5 | 223 | 1.80 | 179.37 | 6.2 | 8.6 | 6.2 | 3.0 | | | |
| 9.9 | 12 | 173 | 2.35 | 139.08 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 12 | 15 | 142 | 2.85 | 113.83 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 8.3 | 10 | 208 | 1.00 | 108.75 | 3.6 | 2.5 | 3.6 | 2.5 | KH033-14P-71-06E | 16 | 434 |
| 10 | 13 | 166 | 1.25 | 86.83 | 4.2 | 2.7 | 4.2 | 2.7 | | | |
| 13 | 15 | 137 | 1.50 | 71.93 | 4.5 | 2.9 | 4.5 | 2.9 | | | |
| 14 | 17 | 125 | 1.60 | 65.63 | 4.6 | 2.9 | 4.6 | 2.9 | | | |
| 15 | 19 | 112 | 1.80 | 58.50 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 18 | 22 | 95 | 2.10 | 49.88 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 19 | 24 | 89 | 2.30 | 46.48 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 23 | 29 | 74 | 2.70 | 38.80 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 25 | 31 | 69 | 2.95 | 35.90 | 5.0 | 3.3 | 5.0 | 3.3 | | | |
| 30 | 37 | 57 | 2.30 | 29.97 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 7.8 | 9.6 | 221 | 0.95 | 177.19 | 3.3 | 2.4 | 3.3 | 2.4 | KH033-14P-63-04F | 14 | 434 |
| 9.8 | 12 | 175 | 1.15 | 140.80 | 4.1 | 2.7 | 4.1 | 2.7 | | | |
| 13 | 16 | 135 | 1.50 | 108.75 | 4.6 | 2.9 | 4.6 | 2.9 | | | |
| 16 | 20 | 108 | 1.85 | 86.83 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 19 | 24 | 90 | 2.25 | 71.93 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 21 | 26 | 82 | 2.45 | 65.63 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 24 | 29 | 73 | 2.75 | 58.50 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 13 | 16 | 132 | 0.85 | 68.88 | 4.8 | 2.8 | 4.8 | 2.8 | KH022-14P-71-06E | 14 | 432 |
| 15 | 18 | 118 | 0.90 | 61.75 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 17 | 21 | 102 | 1.10 | 53.65 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 19 | 23 | 92 | 1.20 | 48.10 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 21 | 26 | 83 | 1.35 | 43.50 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 23 | 28 | 74 | 1.50 | 39.00 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 26 | 32 | 65 | 1.70 | 34.27 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 29 | 36 | 59 | 1.90 | 30.73 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 34 | 42 | 50 | 2.20 | 26.41 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 37 | 46 | 46 | 1.80 | 24.05 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 38 | 47 | 45 | 2.45 | 23.68 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 44 | 54 | 39 | 2.65 | 20.63 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 46 | 57 | 37 | 2.20 | 19.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 49 | 60 | 35 | 2.90 | 18.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 59 | 72 | 29 | 2.80 | 15.36 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 20 | 25 | 86 | 1.30 | 68.88 | 5.1 | 2.8 | 5.1 | 2.8 | KH022-14P-63-04F | 12 | 432 |
| 22 | 28 | 77 | 1.35 | 61.75 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 26 | 32 | 67 | 1.65 | 53.65 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 29 | 35 | 60 | 1.85 | 48.10 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 32 | 39 | 54 | 2.05 | 43.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 35 | 44 | 49 | 2.30 | 39.00 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 40 | 50 | 43 | 2.60 | 34.27 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 45 | 55 | 38 | 2.90 | 30.73 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 52 | 64 | 33 | 3.35 | 26.41 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 57 | 71 | 30 | 2.75 | 24.05 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 58 | 72 | 29 | 3.75 | 23.68 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 67 | 82 | 26 | 4.05 | 20.63 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 71 | 87 | 24 | 3.35 | 19.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 75 | 92 | 23 | 4.45 | 18.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 90 | 110 | 19 | 4.85 | 15.41 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 100 | 123 | 17 | 5.45 | 13.81 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 117 | 144 | 15 | 5.50 | 11.84 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 119 | 147 | 14 | 5.90 | 11.60 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 133 | 163 | 13 | 6.60 | 10.40 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 149 | 184 | 12 | 7.05 | 9.25 | 4.7 | 2.8 | 4.7 | 2.8 | | | |
| 162 | 200 | 11 | 7.30 | 8.51 | 4.6 | 2.8 | 4.6 | 2.8 | | | |
| 181 | 223 | 10 | 8.15 | 7.63 | 4.4 | 2.8 | 4.4 | 2.8 | | | |
| 200 | 246 | 9 | 8.60 | 6.91 | 4.3 | 2.8 | 4.3 | 2.8 | | | |
| 265 | 327 | 6 | 10.05 | 5.20 | 3.9 | 2.8 | 3.9 | 2.8 | | | |
| 361 | 445 | 5 | 12.00 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | |

Legend see page 337

| P _N = 0.25 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|------------------|-----|-----|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page | | | |
| 0.25 kW | | 0.33 kW | | Output shaft | | Hollow shaft | | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 0.10 | 0.12 | 21485 | 0.85 | 9679.02 | 60.5 | 104.6 | 60.5 | 104.6 | KH155-14P-80-06D | 680 | 464 | | | |
| 0.11 | 0.13 | 20023 | 0.90 | 9043.42 | 68.8 | 114.7 | 68.8 | 114.7 | | | | | | |
| 0.12 | 0.15 | 17390 | 1.05 | 7915.09 | 80.6 | 116.7 | 80.6 | 116.7 | | | | | | |
| 0.14 | 0.17 | 15288 | 1.20 | 7012.05 | 87.9 | 118.3 | 87.9 | 118.3 | | | | | | |
| 0.15 | 0.19 | 13521 | 1.35 | 6249.84 | 92.9 | 119.7 | 92.9 | 119.7 | | | | | | |
| 0.17 | 0.21 | 12321 | 1.50 | 5739.09 | 95.8 | 120.6 | 95.8 | 120.6 | | | | | | |
| 0.20 | 0.24 | 10244 | 1.80 | 4845.97 | 100.1 | 122.2 | 100.1 | 122.2 | | | | | | |
| 0.22 | 0.27 | 9266 | 1.95 | 4417.59 | 101.8 | 122.9 | 101.8 | 122.9 | | | | | | |
| 0.24 | 0.30 | 8212 | 2.20 | 3966.24 | 103.4 | 123.7 | 103.4 | 123.7 | | | | | | |
| 0.29 | 0.36 | 6733 | 2.70 | 3337.74 | 105.3 | 124.9 | 105.3 | 124.9 | | | | | | |
| 0.31 | 0.39 | 6063 | 3.00 | 3052.96 | 106.0 | 125.4 | 106.0 | 125.4 | | | | | | |
| 0.10 | 0.12 | 21514 | 0.85 | 14005.40 | 60.3 | 104.2 | 60.3 | 104.2 | KH155-14P-71-04E | 678 | 464 | | | |
| 0.12 | 0.15 | 17414 | 1.05 | 11453.02 | 80.5 | 116.7 | 80.5 | 116.7 | | | | | | |
| 0.14 | 0.18 | 14566 | 1.25 | 9679.02 | 90.0 | 118.9 | 90.0 | 118.9 | | | | | | |
| 0.15 | 0.19 | 13540 | 1.35 | 9043.42 | 92.8 | 119.7 | 92.8 | 119.7 | | | | | | |
| 0.17 | 0.21 | 11729 | 1.55 | 7915.09 | 97.1 | 121.1 | 97.1 | 121.1 | | | | | | |
| 0.20 | 0.24 | 10258 | 1.80 | 7012.05 | 100.1 | 122.2 | 100.1 | 122.2 | | | | | | |
| 0.22 | 0.27 | 9048 | 2.00 | 6249.84 | 102.1 | 123.1 | 102.1 | 123.1 | | | | | | |
| 0.24 | 0.30 | 8223 | 2.20 | 5739.09 | 103.4 | 123.7 | 103.4 | 123.7 | | | | | | |
| 0.28 | 0.35 | 6765 | 2.70 | 4845.97 | 105.2 | 124.8 | 105.2 | 124.8 | | | | | | |
| 0.31 | 0.38 | 6071 | 3.00 | 4417.59 | 106.0 | 125.4 | 106.0 | 125.4 | | | | | | |
| 0.73 | 0.91 | 2712 | 2.95 | 1301.54 | 60.3 | 66.1 | 60.3 | 66.1 | | | | KH104-14P-80-06D | 290 | 454 |
| 0.53 | 0.65 | 4066 | 1.15 | 1810.95 | 30.5 | 39.8 | 30.5 | 39.8 | KH094-14P-80-06D | 161 | 450 | | | |
| 0.62 | 0.77 | 3409 | 1.35 | 1531.00 | 33.6 | 40.7 | 33.6 | 40.7 | | | | | | |
| 0.64 | 0.80 | 3291 | 1.40 | 1480.92 | 34.0 | 40.8 | 34.0 | 40.8 | | | | | | |
| 0.76 | 0.95 | 2754 | 1.65 | 1251.99 | 35.9 | 41.5 | 35.9 | 41.5 | | | | | | |
| 0.82 | 1.0 | 2556 | 1.80 | 1169.35 | 36.5 | 41.7 | 36.5 | 41.7 | | | | | | |
| 0.97 | 1.2 | 2130 | 2.15 | 988.58 | 37.6 | 42.3 | 37.6 | 42.3 | | | | | | |
| 1.1 | 1.3 | 1937 | 2.35 | 906.69 | 38.0 | 42.5 | 38.0 | 42.5 | | | | | | |
| 1.2 | 1.5 | 1607 | 2.80 | 766.52 | 38.6 | 43.0 | 38.6 | 43.0 | | | | | | |
| 1.3 | 1.6 | 1546 | 2.95 | 742.09 | 38.7 | 43.0 | 38.7 | 43.0 | | | | | | |
| 0.76 | 0.94 | 2757 | 1.65 | 1810.95 | 35.9 | 41.5 | 35.9 | 41.5 | | | | KH094-14P-71-04E | 159 | 450 |
| 0.90 | 1.1 | 2297 | 2.00 | 1531.00 | 37.2 | 42.1 | 37.2 | 42.1 | | | | | | |
| 0.93 | 1.1 | 2217 | 2.05 | 1480.92 | 37.4 | 42.2 | 37.4 | 42.2 | | | | | | |
| 1.1 | 1.4 | 1844 | 2.45 | 1251.99 | 38.2 | 42.7 | 38.2 | 42.7 | | | | | | |
| 1.2 | 1.5 | 1708 | 2.65 | 1169.35 | 38.4 | 42.8 | 38.4 | 42.8 | | | | | | |
| 0.55 | 0.68 | 3976 | 0.80 | 1745.64 | ** | ** | ** | ** | KH084-14P-80-06D | 111 | 446 | | | |
| 0.63 | 0.78 | 3458 | 0.90 | 1524.22 | 14.6 | 24.1 | 14.6 | 24.1 | | | | | | |
| 0.67 | 0.83 | 3232 | 0.95 | 1427.51 | 17.2 | 29.6 | 17.2 | 29.6 | | | | | | |
| 0.77 | 0.95 | 2804 | 1.10 | 1246.44 | 20.9 | 37.7 | 20.9 | 37.7 | | | | | | |
| 0.85 | 1.1 | 2526 | 1.20 | 1127.18 | 22.8 | 41.3 | 22.8 | 41.3 | | | | | | |
| 0.86 | 1.1 | 2469 | 1.25 | 1104.23 | 23.1 | 41.4 | 23.1 | 41.4 | | | | | | |
| 0.97 | 1.2 | 2187 | 1.40 | 984.20 | 24.6 | 41.8 | 24.6 | 41.8 | | | | | | |
| 1.1 | 1.3 | 2000 | 1.50 | 903.77 | 25.5 | 42.0 | 25.5 | 42.0 | | | | | | |
| 1.3 | 1.6 | 1668 | 1.80 | 763.13 | 26.7 | 42.5 | 26.7 | 42.5 | | | | | | |
| 1.4 | 1.7 | 1508 | 2.00 | 695.67 | 27.2 | 42.8 | 27.2 | 42.8 | | | | | | |
| 1.5 | 1.9 | 1340 | 2.25 | 624.59 | 27.7 | 43.0 | 27.7 | 43.0 | | | | | | |
| 1.7 | 2.2 | 1164 | 2.60 | 550.61 | 28.2 | 43.3 | 28.2 | 43.3 | | | | | | |
| 1.8 | 2.3 | 1104 | 2.75 | 525.61 | 28.3 | 43.4 | 28.3 | 43.4 | | | | | | |
| 0.63 | 0.77 | 3462 | 0.90 | 2205.52 | 14.6 | 24.1 | 14.6 | 24.1 | KH084-14P-71-04E | 109 | 446 | | | |
| 0.77 | 0.94 | 2808 | 1.10 | 1803.58 | 20.9 | 37.7 | 20.9 | 37.7 | | | | | | |
| 0.79 | 0.97 | 2712 | 1.15 | 1745.64 | 21.6 | 39.2 | 21.6 | 39.2 | | | | | | |
| 0.91 | 1.1 | 2354 | 1.30 | 1524.22 | 23.8 | 41.5 | 23.8 | 41.5 | | | | | | |
| 0.97 | 1.2 | 2190 | 1.40 | 1424.12 | 24.6 | 41.8 | 24.6 | 41.8 | | | | | | |
| 0.97 | 1.2 | 2195 | 1.40 | 1427.51 | 24.6 | 41.8 | 24.6 | 41.8 | | | | | | |
| 1.1 | 1.4 | 1901 | 1.60 | 1246.44 | 25.9 | 42.2 | 25.9 | 42.2 | | | | | | |
| 1.2 | 1.5 | 1705 | 1.80 | 1127.18 | 26.6 | 42.5 | 26.6 | 42.5 | | | | | | |
| 1.4 | 1.7 | 1474 | 2.05 | 984.20 | 27.4 | 42.8 | 27.4 | 42.8 | | | | | | |
| 1.5 | 1.9 | 1342 | 2.25 | 903.77 | 27.7 | 43.0 | 27.7 | 43.0 | | | | | | |
| 1.6 | 1.9 | 1292 | 2.35 | 873.98 | 27.8 | 43.1 | 27.8 | 43.1 | | | | | | |
| 1.8 | 2.2 | 1112 | 2.70 | 763.13 | 28.3 | 43.4 | 28.3 | 43.4 | | | | | | |
| 1.9 | 2.4 | 1032 | 2.95 | 715.32 | 28.4 | 43.5 | 28.4 | 43.5 | | | | | | |
| 2.0 | 2.4 | 1001 | 3.00 | 695.67 | 28.5 | 43.5 | 28.5 | 43.5 | | | | | | |

K

| P _N = 0.25 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|------|-----------------------|-----------------------|-----------------------|-------------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.25 kW | | 0.33 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 3.7 | 4.6 | 640 | 2.45 | 256.14 | 19.7 | 17.7 | 19.7 | 6.4 | KH073-14P-80-06D | 57 | 442 | |
| 4.8 | 6.0 | 495 | 1.70 | 198.00 | 11.2 | 13.7 | 11.2 | 3.7 | KH063-14P-80-06D | 37 | 440 | |
| 6.1 | 7.6 | 392 | 2.10 | 156.92 | 11.7 | 14.0 | 11.7 | 4.1 | | | | |
| 7.8 | 9.7 | 305 | 2.70 | 121.85 | 12.0 | 14.3 | 12.0 | 4.3 | | | | |
| 12 | 15 | 204 | 2.85 | 81.53 | 12.3 | 14.6 | 12.3 | 4.7 | | | | |
| 22 | 27 | 111 | 2.85 | 44.35 | 12.4 | 14.8 | 11.4 | 4.8 | | | | |
| 7 | 8.6 | 343 | 2.40 | 198.00 | 11.9 | 14.2 | 11.9 | 4.2 | KH063-14P-71-04E | 35 | 440 | |
| 3.9 | 4.8 | 614 | 1.00 | 245.70 | 5.9 | 9.9 | 5.9 | 3.4 | KH053-14P-80-06D | 24 | 438 | |
| 4.9 | 6.1 | 487 | 1.25 | 194.73 | 7.5 | 10.5 | 7.5 | 3.8 | | | | |
| 6.3 | 7.8 | 378 | 1.60 | 151.20 | 8.5 | 10.9 | 8.5 | 4.2 | | | | |
| 7.7 | 9.6 | 310 | 1.95 | 124.06 | 8.9 | 11.1 | 8.9 | 4.4 | | | | |
| 9.9 | 12 | 240 | 2.50 | 96.08 | 9.3 | 11.3 | 9.3 | 4.6 | | | | |
| 12 | 15 | 201 | 2.85 | 80.46 | 9.4 | 11.4 | 9.4 | 4.7 | | | | |
| 25 | 31 | 96 | 2.80 | 38.32 | 9.7 | 11.6 | 9.7 | 4.9 | | | | |
| 5.6 | 6.9 | 425 | 1.45 | 245.70 | 8.1 | 10.7 | 8.1 | 4.0 | KH053-14P-71-04E | 22 | 438 | |
| 7.1 | 8.7 | 337 | 1.80 | 194.73 | 8.8 | 11.0 | 8.8 | 4.3 | | | | |
| 9.1 | 11 | 262 | 2.30 | 151.20 | 9.2 | 11.2 | 9.2 | 4.5 | | | | |
| 11 | 14 | 215 | 2.80 | 124.06 | 9.4 | 11.4 | 9.4 | 4.7 | | | | |
| 5.3 | 6.6 | 448 | 0.90 | 179.37 | 2.4 | 3.0 | 2.4 | 2.1 | KH043-14P-80-06D | 21 | 436 | |
| 6.9 | 8.5 | 348 | 1.20 | 139.08 | 4.8 | 8.1 | 4.8 | 2.5 | | | | |
| 8.4 | 10 | 285 | 1.45 | 113.83 | 5.6 | 8.4 | 5.6 | 2.8 | | | | |
| 11 | 13 | 223 | 1.70 | 89.17 | 6.2 | 8.6 | 6.2 | 3.0 | | | | |
| 13 | 16 | 182 | 2.20 | 72.92 | 6.5 | 8.8 | 6.5 | 3.2 | | | | |
| 14 | 18 | 166 | 2.45 | 66.20 | 6.6 | 8.8 | 6.6 | 3.2 | | | | |
| 17 | 21 | 144 | 2.80 | 57.58 | 6.7 | 8.9 | 6.7 | 3.3 | | | | |
| 18 | 22 | 135 | 3.00 | 54.18 | 6.7 | 9.0 | 6.7 | 3.4 | | | | |
| 20 | 25 | 118 | 1.70 | 47.07 | 6.8 | 8.9 | 6.8 | 3.3 | | | | |
| 25 | 31 | 96 | 2.85 | 38.49 | 6.9 | 9.0 | 6.9 | 3.4 | | | | |
| 5.0 | 6.1 | 481 | 0.85 | 277.79 | ** | ** | ** | ** | | | | KH043-14P-71-04E |
| 6.1 | 7.5 | 393 | 1.05 | 227.16 | 4.0 | 6.4 | 4.0 | 2.3 | | | | |
| 7.7 | 9.5 | 310 | 1.30 | 179.37 | 5.3 | 8.3 | 5.3 | 2.7 | | | | |
| 9.9 | 12 | 241 | 1.70 | 139.08 | 6.1 | 8.5 | 6.1 | 2.9 | | | | |
| 12 | 15 | 197 | 2.05 | 113.83 | 6.4 | 8.7 | 6.4 | 3.1 | | | | |
| 15 | 19 | 154 | 2.50 | 89.17 | 6.7 | 8.9 | 6.7 | 3.3 | | | | |
| 16 | 19 | 152 | 2.65 | 87.62 | 6.7 | 8.9 | 6.7 | 3.3 | | | | |
| 29 | 36 | 81 | 2.50 | 47.07 | 6.9 | 9.1 | 6.9 | 3.5 | | | | |
| 11 | 14 | 217 | 0.95 | 86.83 | 3.4 | 2.4 | 3.4 | 2.4 | | | | |
| 13 | 16 | 180 | 1.15 | 71.93 | 4.0 | 2.6 | 4.0 | 2.6 | | | | |
| 15 | 18 | 164 | 1.25 | 65.63 | 4.2 | 2.7 | 4.2 | 2.7 | | | | |
| 16 | 20 | 146 | 1.40 | 58.50 | 4.4 | 2.8 | 4.4 | 2.8 | | | | |
| 19 | 24 | 125 | 1.65 | 49.88 | 4.6 | 2.9 | 4.6 | 2.9 | | | | |
| 21 | 26 | 116 | 1.75 | 46.48 | 4.7 | 3.0 | 4.7 | 3.0 | | | | |
| 25 | 31 | 97 | 2.10 | 38.80 | 4.9 | 3.1 | 4.9 | 3.1 | | | | |
| 27 | 33 | 90 | 2.25 | 35.90 | 4.9 | 3.1 | 4.9 | 3.1 | | | | |
| 32 | 39 | 76 | 2.65 | 30.29 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 33 | 41 | 72 | 2.80 | 28.67 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 39 | 49 | 61 | 2.65 | 24.38 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 9.8 | 12 | 244 | 0.85 | 140.80 | 2.8 | 2.3 | 2.8 | 2.3 | KH033-14P-71-04E | 15 | 434 | |
| 13 | 16 | 188 | 1.10 | 108.75 | 3.9 | 2.6 | 3.9 | 2.6 | | | | |
| 16 | 20 | 150 | 1.35 | 86.83 | 4.4 | 2.8 | 4.4 | 2.8 | | | | |
| 19 | 24 | 124 | 1.65 | 71.93 | 4.7 | 2.9 | 4.7 | 2.9 | | | | |
| 21 | 26 | 114 | 1.80 | 65.63 | 4.7 | 3.0 | 4.7 | 3.0 | | | | |
| 24 | 29 | 101 | 2.00 | 58.50 | 4.8 | 3.1 | 4.8 | 3.1 | | | | |
| 28 | 34 | 86 | 2.35 | 49.88 | 4.9 | 3.2 | 4.9 | 3.2 | | | | |
| 30 | 37 | 80 | 2.50 | 46.48 | 4.9 | 3.2 | 4.9 | 3.2 | | | | |
| 36 | 44 | 67 | 3.00 | 38.80 | 5.0 | 3.3 | 5.0 | 3.3 | | | | |
| 46 | 57 | 52 | 2.50 | 29.97 | 5.1 | 3.3 | 5.1 | 3.3 | | | | |

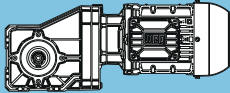


Legend see page 337

** ... on request

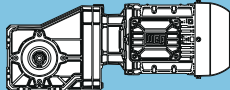
P_N = 0.25 kW

IE3

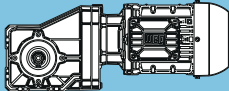
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 0.25 kW | | 0.33 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 18 | 22 | 134 | 0.85 | 53.65 | 4.7 | 2.8 | 4.7 | 2.8 | KH022-14P-80-06D | 15 | 432 |
| 20 | 25 | 120 | 0.95 | 48.10 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 22 | 27 | 109 | 1.05 | 43.50 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 24 | 30 | 98 | 1.15 | 39.00 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 28 | 35 | 86 | 1.30 | 34.27 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 31 | 39 | 77 | 1.45 | 30.73 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 36 | 45 | 66 | 1.70 | 26.41 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 40 | 49 | 60 | 1.35 | 24.05 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 46 | 57 | 52 | 2.00 | 20.63 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 49 | 61 | 49 | 1.70 | 19.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 52 | 64 | 46 | 2.25 | 18.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 62 | 77 | 39 | 2.45 | 15.41 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 69 | 86 | 35 | 2.70 | 13.81 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 72 | 89 | 33 | 2.70 | 13.29 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 80 | 99 | 30 | 3.00 | 11.92 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 81 | 100 | 30 | 2.75 | 11.84 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 82 | 102 | 29 | 2.95 | 11.60 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 20 | 25 | 119 | 0.95 | 68.88 | 4.9 | 2.8 | 4.9 | 2.8 | KH022-14P-71-04E | 13 | 432 |
| 22 | 28 | 107 | 1.00 | 61.75 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 26 | 32 | 93 | 1.20 | 53.65 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 29 | 35 | 83 | 1.35 | 48.10 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 32 | 39 | 75 | 1.50 | 43.50 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 35 | 44 | 67 | 1.65 | 39.00 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 40 | 50 | 59 | 1.90 | 34.27 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 45 | 55 | 53 | 2.10 | 30.73 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 52 | 64 | 46 | 2.45 | 26.41 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 57 | 71 | 42 | 1.95 | 24.05 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 58 | 72 | 41 | 2.70 | 23.68 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 67 | 82 | 36 | 2.90 | 20.63 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 71 | 87 | 34 | 2.45 | 19.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 75 | 92 | 32 | 3.20 | 18.50 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 90 | 110 | 27 | 3.50 | 15.41 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 100 | 123 | 24 | 3.90 | 13.81 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 117 | 144 | 20 | 4.00 | 11.84 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 119 | 147 | 20 | 4.25 | 11.60 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 133 | 163 | 18 | 4.75 | 10.40 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 149 | 184 | 16 | 5.10 | 9.25 | 4.7 | 2.8 | 4.7 | 2.8 | | | |
| 162 | 200 | 15 | 5.25 | 8.51 | 4.6 | 2.8 | 4.6 | 2.8 | | | |
| 181 | 223 | 13 | 5.85 | 7.63 | 4.4 | 2.8 | 4.4 | 2.8 | | | |
| 200 | 246 | 12 | 6.20 | 6.91 | 4.3 | 2.8 | 4.3 | 2.8 | | | |
| 265 | 327 | 9 | 7.25 | 5.20 | 3.9 | 2.8 | 3.9 | 2.8 | | | |
| 361 | 445 | 7 | 8.65 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | |

K

Legend see page 337

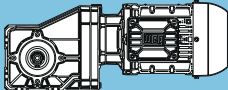
| P _N = 0.37 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.13 | 0.16 | 23844 | 0.80 | 7012.05 | ** | ** | ** | ** | KH155-14P-80-06E | 682 | 464 |
| 0.15 | 0.18 | 21198 | 0.85 | 6249.84 | 62.2 | 108.2 | 62.2 | 108.2 | | | |
| 0.16 | 0.2 | 19366 | 0.95 | 5739.09 | 72.1 | 115.2 | 72.1 | 115.2 | | | |
| 0.19 | 0.24 | 16185 | 1.15 | 4845.97 | 84.9 | 117.6 | 84.9 | 117.6 | | | |
| 0.21 | 0.26 | 14679 | 1.25 | 4417.59 | 89.7 | 118.8 | 89.7 | 118.8 | | | |
| 0.23 | 0.29 | 13078 | 1.40 | 3966.24 | 94.0 | 120.0 | 94.0 | 120.0 | | | |
| 0.28 | 0.34 | 10837 | 1.70 | 3337.74 | 99.0 | 121.7 | 99.0 | 121.7 | | | |
| 0.30 | 0.37 | 9835 | 1.85 | 3052.96 | 100.8 | 122.5 | 100.8 | 122.5 | | | |
| 0.34 | 0.42 | 8687 | 2.10 | 2731.65 | 102.7 | 123.4 | 102.7 | 123.4 | | | |
| 0.40 | 0.49 | 7166 | 2.55 | 2306.68 | 104.7 | 124.5 | 104.7 | 124.5 | | | |
| 0.42 | 0.51 | 6846 | 2.65 | 2215.09 | 105.1 | 124.8 | 105.1 | 124.8 | | | |
| 0.14 | 0.18 | 21768 | 0.85 | 9679.02 | 58.6 | 100.6 | 58.6 | 100.6 | KH155-14P-71-04F | 679 | 464 |
| 0.15 | 0.19 | 20287 | 0.90 | 9043.42 | 67.4 | 114.5 | 67.4 | 114.5 | | | |
| 0.18 | 0.22 | 17620 | 1.05 | 7915.09 | 79.7 | 116.6 | 79.7 | 116.6 | | | |
| 0.20 | 0.24 | 15490 | 1.20 | 7012.05 | 87.2 | 118.2 | 87.2 | 118.2 | | | |
| 0.22 | 0.27 | 13700 | 1.35 | 6249.84 | 92.4 | 119.5 | 92.4 | 119.5 | | | |
| 0.24 | 0.30 | 12516 | 1.45 | 5739.09 | 95.4 | 120.4 | 95.4 | 120.4 | | | |
| 0.29 | 0.35 | 10406 | 1.75 | 4845.97 | 99.8 | 122.1 | 99.8 | 122.1 | | | |
| 0.32 | 0.39 | 9388 | 1.95 | 4417.59 | 101.6 | 122.8 | 101.6 | 122.8 | | | |
| 0.35 | 0.43 | 8320 | 2.20 | 3966.24 | 103.2 | 123.7 | 103.2 | 123.7 | | | |
| 0.42 | 0.51 | 6840 | 2.65 | 3337.74 | 105.1 | 124.8 | 105.1 | 124.8 | | | |
| 0.46 | 0.56 | 6159 | 2.95 | 3052.96 | 105.9 | 125.3 | 105.9 | 125.3 | | | |
| 0.59 | 0.72 | 5115 | 2.55 | 1579.81 | 86.7 | 92.4 | 86.7 | 92.4 | KH124-14P-80-06E | 415 | 458 |
| 0.67 | 0.83 | 4377 | 3.00 | 1377.44 | 87.4 | 93.1 | 87.4 | 93.1 | | | |
| 0.71 | 0.88 | 4338 | 1.85 | 1301.54 | 57.7 | 64.2 | 57.7 | 64.2 | KH104-14P-80-06E | 292 | 454 |
| 0.82 | 1.0 | 3712 | 2.20 | 1129.81 | 58.8 | 64.9 | 58.8 | 64.9 | | | |
| 0.92 | 1.1 | 3267 | 2.45 | 1004.85 | 59.5 | 65.4 | 59.5 | 65.4 | | | |
| 0.95 | 1.2 | 3161 | 2.55 | 976.16 | 59.7 | 65.6 | 59.7 | 65.6 | | | |
| 1.1 | 1.3 | 2783 | 2.90 | 872.27 | 60.2 | 66.0 | 60.2 | 66.0 | | | |
| 1.1 | 1.3 | 2748 | 2.95 | 1301.54 | 60.3 | 66.0 | 60.3 | 66.0 | KH104-14P-71-04F | 289 | 454 |
| 0.60 | 0.74 | 5318 | 0.85 | 1531.00 | 21.4 | 36.0 | 21.4 | 36.0 | KH094-14P-80-06E | 163 | 450 |
| 0.62 | 0.77 | 5133 | 0.90 | 1480.92 | 23.2 | 38.5 | 23.2 | 38.5 | | | |
| 0.74 | 0.91 | 4313 | 1.05 | 1251.99 | 29.1 | 39.5 | 29.1 | 39.5 | | | |
| 0.79 | 0.97 | 4012 | 1.15 | 1169.35 | 30.8 | 39.9 | 30.8 | 39.9 | | | |
| 0.94 | 1.2 | 3364 | 1.35 | 988.58 | 33.8 | 40.7 | 33.8 | 40.7 | | | |
| 1.0 | 1.3 | 3066 | 1.50 | 906.69 | 34.9 | 41.1 | 34.9 | 41.1 | | | |
| 1.2 | 1.5 | 2560 | 1.80 | 766.52 | 36.5 | 41.7 | 36.5 | 41.7 | | | |
| 1.5 | 1.8 | 2061 | 2.20 | 627.37 | 37.7 | 42.4 | 37.7 | 42.4 | | | |
| 1.6 | 2.0 | 1857 | 2.45 | 571.21 | 38.1 | 42.6 | 38.1 | 42.6 | | | |
| 1.9 | 2.4 | 1538 | 2.95 | 482.91 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 0.77 | 0.94 | 4128 | 1.10 | 1810.95 | 30.2 | 39.7 | 30.2 | 39.7 | KH094-14P-71-04F | 160 | 450 |
| 0.91 | 1.1 | 3462 | 1.30 | 1531.00 | 33.4 | 40.6 | 33.4 | 40.6 | | | |
| 0.94 | 1.2 | 3341 | 1.35 | 1480.92 | 33.8 | 40.8 | 33.8 | 40.8 | | | |
| 1.1 | 1.4 | 2790 | 1.65 | 1251.99 | 35.8 | 41.5 | 35.8 | 41.5 | | | |
| 1.2 | 1.5 | 2595 | 1.75 | 1169.35 | 36.4 | 41.7 | 36.4 | 41.7 | | | |
| 1.4 | 1.7 | 2162 | 2.10 | 988.58 | 37.5 | 42.3 | 37.5 | 42.3 | | | |
| 1.5 | 1.9 | 1967 | 2.30 | 906.69 | 37.9 | 42.5 | 37.9 | 42.5 | | | |
| 1.8 | 2.2 | 1629 | 2.80 | 766.52 | 38.6 | 42.9 | 38.6 | 42.9 | | | |
| 1.9 | 2.3 | 1570 | 2.90 | 742.09 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 0.82 | 1.0 | 3923 | 0.80 | 1127.18 | ** | ** | ** | ** | | | |
| 0.84 | 1.0 | 3843 | 0.80 | 1104.23 | ** | ** | ** | ** | | | |
| 0.94 | 1.2 | 3412 | 0.90 | 984.20 | 15.2 | 25.4 | 15.2 | 25.4 | | | |
| 1.0 | 1.3 | 3120 | 1.00 | 903.77 | 18.3 | 32.0 | 18.3 | 32.0 | | | |
| 1.1 | 1.3 | 3017 | 1.00 | 873.98 | 19.2 | 33.9 | 19.2 | 33.9 | | | |
| 1.2 | 1.5 | 2618 | 1.15 | 763.13 | 22.2 | 40.5 | 22.2 | 40.5 | | | |
| 1.3 | 1.6 | 2444 | 1.25 | 715.32 | 23.2 | 41.4 | 23.2 | 41.4 | | | |
| 1.5 | 1.8 | 2117 | 1.45 | 624.59 | 24.9 | 41.9 | 24.9 | 41.9 | | | |
| 1.7 | 2.1 | 1851 | 1.65 | 550.61 | 26.1 | 42.3 | 26.1 | 42.3 | | | |
| 1.8 | 2.2 | 1759 | 1.75 | 525.61 | 26.4 | 42.4 | 26.4 | 42.4 | | | |
| 1.9 | 2.4 | 1599 | 1.90 | 480.77 | 27.0 | 42.6 | 27.0 | 42.6 | | | |
| 2.2 | 2.7 | 1416 | 2.15 | 430.17 | 27.5 | 42.9 | 27.5 | 42.9 | | | |
| 2.5 | 3.1 | 1174 | 2.60 | 363.25 | 28.1 | 43.3 | 28.1 | 43.3 | | | |
| 2.7 | 3.3 | 1122 | 2.70 | 348.82 | 28.2 | 43.3 | 28.2 | 43.3 | | | |



| P _N = 0.37 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.92 | 1.1 | 3503 | 0.90 | 1524.22 | 14.0 | 22.8 | 14.0 | 7.3 | KH084-14P-71-04F | 110 | 446 |
| 0.98 | 1.2 | 3274 | 0.95 | 1427.51 | 16.8 | 28.8 | 16.8 | 7.7 | | | |
| 1.1 | 1.4 | 2841 | 1.10 | 1246.44 | 20.6 | 37.0 | 20.6 | 8.3 | | | |
| 1.2 | 1.5 | 2559 | 1.20 | 1127.18 | 22.6 | 41.2 | 22.6 | 8.7 | | | |
| 1.3 | 1.5 | 2507 | 1.20 | 1104.23 | 22.9 | 41.3 | 22.9 | 8.8 | | | |
| 1.4 | 1.7 | 2216 | 1.40 | 984.20 | 24.5 | 41.7 | 24.5 | 9.2 | | | |
| 1.5 | 1.9 | 2027 | 1.50 | 903.77 | 25.3 | 42.0 | 25.3 | 9.5 | | | |
| 1.6 | 2.0 | 1956 | 1.55 | 873.98 | 25.6 | 42.1 | 25.6 | 9.6 | | | |
| 1.8 | 2.2 | 1690 | 1.80 | 763.13 | 26.7 | 42.5 | 26.7 | 10.0 | | | |
| 2.0 | 2.4 | 1574 | 1.95 | 715.32 | 27.0 | 42.7 | 27.0 | 10.2 | | | |
| 2.2 | 2.7 | 1358 | 2.25 | 624.59 | 27.7 | 43.0 | 27.7 | 10.5 | | | |
| 2.5 | 3.1 | 1182 | 2.55 | 550.61 | 28.1 | 43.3 | 28.1 | 10.8 | | | |
| 2.7 | 3.3 | 1121 | 2.70 | 525.61 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 2.9 | 3.6 | 1013 | 3.00 | 480.77 | 28.5 | 43.5 | 28.5 | 11.0 | | | |
| 3.6 | 4.5 | 978 | 1.60 | 256.14 | 18.5 | 17.0 | 18.5 | 5.7 | KH073-14P-80-06E | 59 | 442 |
| 4.7 | 5.8 | 755 | 2.10 | 197.75 | 19.3 | 17.4 | 19.3 | 6.2 | | | |
| 5.6 | 6.9 | 634 | 2.45 | 165.85 | 19.7 | 17.7 | 19.7 | 6.4 | | | |
| 5.4 | 6.7 | 649 | 2.40 | 256.14 | 19.6 | 17.7 | 19.6 | 6.4 | KH073-14P-71-04F | 56 | 442 |
| 4.7 | 5.8 | 756 | 1.10 | 198.00 | 9.2 | 12.9 | 9.2 | 2.9 | KH063-14P-80-06E | 39 | 440 |
| 5.9 | 7.3 | 599 | 1.40 | 156.92 | 10.6 | 13.4 | 10.6 | 3.4 | | | |
| 7.6 | 9.4 | 465 | 1.80 | 121.85 | 11.4 | 13.8 | 11.4 | 3.8 | | | |
| 9.3 | 11 | 382 | 2.15 | 99.98 | 11.7 | 14.0 | 11.7 | 4.1 | | | |
| 11 | 14 | 311 | 1.85 | 81.53 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 12 | 15 | 296 | 2.80 | 77.42 | 12.0 | 14.3 | 12.0 | 4.4 | | | |
| 21 | 26 | 169 | 1.85 | 44.35 | 12.3 | 14.5 | 11.9 | 4.5 | | | |
| 7.0 | 8.6 | 502 | 1.65 | 198.00 | 11.2 | 13.7 | 11.2 | 3.7 | KH063-14P-71-04F | 36 | 440 |
| 8.9 | 11 | 397 | 2.10 | 156.92 | 11.7 | 14.0 | 11.7 | 4.0 | | | |
| 11 | 14 | 309 | 2.70 | 121.85 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 17 | 21 | 207 | 2.80 | 81.53 | 12.3 | 14.6 | 12.3 | 4.6 | | | |
| 31 | 39 | 112 | 2.80 | 44.35 | 12.4 | 14.7 | 10.2 | 4.8 | | | |
| 4.8 | 5.9 | 744 | 0.85 | 194.73 | 2.5 | 2.7 | 2.5 | 2.7 | KH053-14P-80-06E | 26 | 438 |
| 6.1 | 7.5 | 578 | 1.05 | 151.20 | 6.4 | 10.3 | 6.4 | 3.6 | | | |
| 7.5 | 9.2 | 474 | 1.30 | 124.06 | 7.7 | 10.6 | 7.7 | 3.9 | | | |
| 9.6 | 12 | 367 | 1.65 | 96.08 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 11 | 14 | 307 | 1.85 | 80.46 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 13 | 16 | 279 | 2.15 | 73.08 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 15 | 18 | 244 | 2.50 | 63.77 | 9.2 | 11.3 | 9.2 | 4.6 | | | |
| 24 | 30 | 146 | 1.85 | 38.32 | 9.6 | 11.3 | 9.6 | 4.6 | | | |
| 5.7 | 7.0 | 622 | 1.00 | 245.70 | 5.7 | 9.5 | 5.7 | 3.4 | KH053-14P-71-04F | 23 | 438 |
| 7.2 | 8.8 | 493 | 1.25 | 194.73 | 7.5 | 10.5 | 7.5 | 3.8 | | | |
| 9.2 | 11 | 383 | 1.60 | 151.20 | 8.5 | 10.8 | 8.5 | 4.1 | | | |
| 11 | 14 | 314 | 1.95 | 124.06 | 8.9 | 11.0 | 8.9 | 4.3 | | | |
| 15 | 18 | 243 | 2.50 | 96.08 | 9.2 | 11.3 | 9.2 | 4.6 | | | |
| 17 | 21 | 204 | 2.80 | 80.46 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 36 | 45 | 97 | 2.80 | 38.32 | 9.7 | 11.6 | 9.7 | 4.9 | | | |
| 6.7 | 8.2 | 531 | 0.80 | 139.08 | ** | ** | ** | ** | KH043-14P-80-06E | 22 | 436 |
| 8.1 | 10 | 435 | 0.95 | 113.83 | 2.9 | 4.1 | 2.9 | 2.2 | | | |
| 10 | 13 | 341 | 1.15 | 89.17 | 4.9 | 8.1 | 4.9 | 2.5 | | | |
| 11 | 13 | 335 | 1.20 | 87.62 | 5.0 | 8.2 | 5.0 | 2.6 | | | |
| 13 | 16 | 279 | 1.45 | 72.92 | 5.7 | 8.4 | 5.7 | 2.8 | | | |
| 14 | 17 | 253 | 1.60 | 66.20 | 6.0 | 8.5 | 6.0 | 2.9 | | | |
| 16 | 20 | 220 | 1.85 | 57.58 | 6.2 | 8.6 | 6.2 | 3.0 | | | |
| 17 | 21 | 207 | 1.95 | 54.18 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 20 | 24 | 180 | 1.15 | 47.07 | 6.5 | 8.6 | 6.5 | 3.0 | | | |
| 21 | 26 | 171 | 2.35 | 44.64 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 24 | 30 | 147 | 1.85 | 38.49 | 6.7 | 8.7 | 6.7 | 3.1 | | | |
| 25 | 31 | 140 | 2.75 | 36.78 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 30 | 38 | 116 | 2.80 | 30.39 | 6.8 | 8.9 | 6.8 | 3.3 | | | |

Legend see page 337

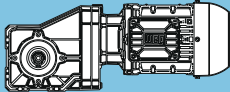
** ... on request

| P _N = 0.37 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-----|-----------------------|-----------------------|-----------------------|------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 7.8 | 9.5 | 454 | 0.90 | 179.37 | 2.1 | 2.4 | 2.1 | 2.1 | KH043-14P-71-04F | 19 | 436 | |
| 10 | 12 | 352 | 1.15 | 139.08 | 4.7 | 8.0 | 4.7 | 2.5 | | | | |
| 12 | 15 | 288 | 1.40 | 113.83 | 5.6 | 8.3 | 5.6 | 2.7 | | | | |
| 16 | 19 | 226 | 1.70 | 89.17 | 6.2 | 8.6 | 6.2 | 3.0 | | | | |
| 19 | 23 | 185 | 2.20 | 72.92 | 6.5 | 8.8 | 6.5 | 3.2 | | | | |
| 21 | 26 | 168 | 2.40 | 66.20 | 6.6 | 8.8 | 6.6 | 3.2 | | | | |
| 24 | 30 | 146 | 2.75 | 57.58 | 6.7 | 8.9 | 6.7 | 3.3 | | | | |
| 26 | 32 | 137 | 2.95 | 54.18 | 6.7 | 9.0 | 6.7 | 3.4 | | | | |
| 30 | 36 | 119 | 1.70 | 47.07 | 6.8 | 8.9 | 6.8 | 3.3 | | | | |
| 36 | 44 | 97 | 2.80 | 38.49 | 6.9 | 9.0 | 6.9 | 3.4 | | | | |
| 14 | 17 | 251 | 0.80 | 65.63 | ** | ** | ** | ** | KH033-14P-80-06E | 19 | 434 | |
| 16 | 19 | 223 | 0.90 | 58.50 | 3.3 | 2.4 | 3.3 | 2.4 | | | | |
| 19 | 23 | 191 | 1.05 | 49.88 | 3.9 | 2.6 | 3.9 | 2.6 | | | | |
| 20 | 25 | 178 | 1.15 | 46.48 | 4.1 | 2.6 | 4.1 | 2.6 | | | | |
| 24 | 29 | 148 | 1.35 | 38.80 | 4.4 | 2.8 | 4.4 | 2.8 | | | | |
| 26 | 32 | 137 | 1.50 | 35.90 | 4.5 | 2.9 | 4.5 | 2.9 | | | | |
| 31 | 38 | 116 | 1.75 | 30.29 | 4.7 | 3.0 | 4.7 | 3.0 | | | | |
| 32 | 40 | 110 | 1.85 | 28.67 | 4.8 | 3.0 | 4.8 | 3.0 | | | | |
| 38 | 47 | 93 | 1.75 | 24.38 | 4.9 | 3.0 | 4.9 | 3.0 | | | | |
| 43 | 53 | 83 | 2.45 | 21.67 | 4.9 | 3.2 | 4.9 | 3.2 | | | | |
| 48 | 59 | 74 | 2.25 | 19.37 | 5.0 | 3.1 | 5.0 | 3.1 | | | | |
| 62 | 76 | 57 | 2.90 | 14.96 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 16 | 20 | 220 | 0.95 | 86.83 | 3.4 | 2.4 | 3.4 | 2.4 | KH033-14P-71-04F | 16 | 434 | |
| 19 | 24 | 182 | 1.10 | 71.93 | 4.0 | 2.6 | 4.0 | 2.6 | | | | |
| 21 | 26 | 166 | 1.25 | 65.63 | 4.2 | 2.7 | 4.2 | 2.7 | | | | |
| 24 | 29 | 148 | 1.35 | 58.50 | 4.4 | 2.8 | 4.4 | 2.8 | | | | |
| 28 | 34 | 126 | 1.60 | 49.88 | 4.6 | 2.9 | 4.6 | 2.9 | | | | |
| 30 | 37 | 118 | 1.70 | 46.48 | 4.7 | 3.0 | 4.7 | 3.0 | | | | |
| 36 | 44 | 98 | 2.05 | 38.80 | 4.8 | 3.1 | 4.8 | 3.1 | | | | |
| 39 | 48 | 91 | 2.20 | 35.90 | 4.9 | 3.1 | 4.9 | 3.1 | | | | |
| 47 | 57 | 76 | 1.70 | 29.97 | 5.0 | 3.1 | 5.0 | 3.1 | | | | |
| 49 | 60 | 73 | 2.80 | 28.67 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 57 | 70 | 62 | 2.60 | 24.38 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 27 | 33 | 131 | 0.85 | 34.27 | 4.8 | 2.8 | 4.8 | 2.8 | KH022-14P-80-06E | 17 | 432 | |
| 30 | 37 | 117 | 0.95 | 30.73 | 4.9 | 2.8 | 4.9 | 2.8 | | | | |
| 35 | 43 | 101 | 1.10 | 26.41 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 38 | 47 | 92 | 0.90 | 24.05 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 39 | 48 | 90 | 1.25 | 23.68 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 45 | 55 | 79 | 1.35 | 20.63 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 47 | 58 | 74 | 1.10 | 19.50 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 50 | 62 | 71 | 1.45 | 18.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 60 | 74 | 59 | 1.60 | 15.41 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 67 | 83 | 53 | 1.80 | 13.81 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 70 | 86 | 51 | 1.80 | 13.29 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 78 | 96 | 45 | 1.80 | 11.84 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 80 | 98 | 44 | 1.95 | 11.60 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 89 | 110 | 40 | 2.15 | 10.40 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 100 | 123 | 35 | 2.30 | 9.25 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 109 | 134 | 33 | 2.40 | 8.51 | 5.3 | 2.8 | 5.3 | 2.8 | | | | |
| 121 | 149 | 29 | 2.65 | 7.63 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 134 | 165 | 26 | 2.85 | 6.91 | 4.9 | 2.8 | 4.9 | 2.8 | | | | |



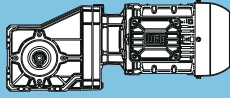
Legend see page 337

** ... on request

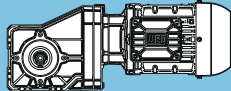
| P _N = 0.37 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.37 kW | | 0.44 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 26 | 32 | 136 | 0.85 | 53.65 | 4.7 | 2.8 | 4.7 | 2.8 | KH022-14P-71-04F | 14 | 432 |
| 29 | 36 | 122 | 0.95 | 48.10 | 4.8 | 2.8 | 4.8 | 2.8 | | | |
| 32 | 39 | 110 | 1.00 | 43.50 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 36 | 44 | 99 | 1.15 | 39.00 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 41 | 50 | 87 | 1.30 | 34.27 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 45 | 56 | 78 | 1.45 | 30.73 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 53 | 65 | 67 | 1.65 | 26.41 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 58 | 71 | 61 | 1.35 | 24.05 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 59 | 72 | 60 | 1.85 | 23.68 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 68 | 83 | 52 | 2.00 | 20.63 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 72 | 88 | 49 | 1.65 | 19.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 75 | 92 | 47 | 2.20 | 18.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 91 | 111 | 39 | 2.40 | 15.41 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 101 | 124 | 35 | 2.70 | 13.81 | 5.3 | 2.8 | 5.3 | 2.8 | | | |
| 118 | 144 | 30 | 2.75 | 11.84 | 5.2 | 2.8 | 5.2 | 2.8 | | | |
| 120 | 147 | 29 | 2.90 | 11.60 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 134 | 164 | 26 | 3.25 | 10.40 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 151 | 185 | 23 | 3.50 | 9.25 | 4.7 | 2.8 | 4.7 | 2.8 | | | |
| 164 | 201 | 22 | 3.60 | 8.51 | 4.6 | 2.8 | 4.6 | 2.8 | | | |
| 183 | 224 | 19 | 4.00 | 7.63 | 4.4 | 2.8 | 4.4 | 2.8 | | | |
| 202 | 247 | 18 | 4.25 | 6.91 | 4.3 | 2.8 | 4.3 | 2.8 | | | |
| 268 | 329 | 13 | 4.95 | 5.20 | 3.9 | 2.8 | 3.9 | 2.8 | | | |
| 365 | 448 | 10 | 5.90 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | |

K

Legend see page 337

| P _N = 0.55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.21 | 0.26 | 21801 | 0.85 | 4417.59 | 58.4 | 100.2 | 58.4 | 100.2 | KH155-14P-L80-06F | 683 | 464 |
| 0.24 | 0.29 | 19474 | 0.95 | 3966.24 | 71.6 | 115.1 | 71.6 | 115.1 | | | |
| 0.28 | 0.35 | 16221 | 1.15 | 3337.74 | 84.8 | 117.6 | 84.8 | 117.6 | | | |
| 0.31 | 0.38 | 14761 | 1.25 | 3052.96 | 89.5 | 118.7 | 89.5 | 118.7 | | | |
| 0.35 | 0.42 | 13106 | 1.40 | 2731.65 | 93.9 | 120.0 | 93.9 | 120.0 | | | |
| 0.41 | 0.50 | 10925 | 1.65 | 2306.68 | 98.8 | 121.7 | 98.8 | 121.7 | | | |
| 0.43 | 0.52 | 10437 | 1.75 | 2215.09 | 99.7 | 122.0 | 99.7 | 122.0 | | | |
| 0.50 | 0.61 | 8735 | 2.10 | 1887.82 | 102.6 | 123.3 | 102.6 | 123.3 | | | |
| 0.51 | 0.62 | 8580 | 2.10 | 1854.30 | 102.8 | 123.5 | 102.8 | 123.5 | | | |
| 0.62 | 0.75 | 6884 | 2.65 | 1530.83 | 105.1 | 124.7 | 105.1 | 124.7 | | | |
| 0.63 | 0.77 | 6740 | 2.70 | 1502.83 | 105.2 | 124.9 | 105.2 | 124.9 | | | |
| 0.20 | 0.25 | 23088 | 0.80 | 7012.05 | ** | ** | ** | ** | KH155-14P-80-04E | 681 | 464 |
| 0.23 | 0.28 | 20474 | 0.90 | 6249.84 | 66.4 | 114.4 | 66.4 | 114.4 | | | |
| 0.25 | 0.30 | 18704 | 1.00 | 5739.09 | 75.2 | 115.7 | 75.2 | 115.7 | | | |
| 0.29 | 0.35 | 15672 | 1.15 | 4845.97 | 86.6 | 118.0 | 86.6 | 118.0 | | | |
| 0.32 | 0.39 | 14177 | 1.30 | 4417.59 | 91.1 | 119.2 | 91.1 | 119.2 | | | |
| 0.36 | 0.43 | 12631 | 1.45 | 3966.24 | 95.1 | 120.4 | 95.1 | 120.4 | | | |
| 0.43 | 0.52 | 10466 | 1.75 | 3337.74 | 99.7 | 122.0 | 99.7 | 122.0 | | | |
| 0.47 | 0.56 | 9499 | 1.90 | 3052.96 | 101.4 | 122.8 | 101.4 | 122.8 | | | |
| 0.52 | 0.63 | 8390 | 2.15 | 2731.65 | 103.1 | 123.6 | 103.1 | 123.6 | | | |
| 0.62 | 0.75 | 6903 | 2.65 | 2306.68 | 105.1 | 124.7 | 105.1 | 124.7 | | | |
| 0.64 | 0.78 | 6594 | 2.75 | 2215.09 | 105.4 | 125.0 | 105.4 | 125.0 | | | |
| 0.72 | 0.88 | 6051 | 3.00 | 1308.92 | 106.0 | 125.4 | 106.0 | 125.4 | KH154-14P-L80-06F | 670 | 462 |
| 0.60 | 0.73 | 7710 | 1.70 | 1579.81 | 83.2 | 89.8 | 83.2 | 89.8 | KH124-14P-L80-06F | 416 | 458 |
| 0.69 | 0.84 | 6639 | 2.00 | 1377.44 | 84.8 | 90.8 | 84.8 | 90.8 | | | |
| 0.77 | 0.95 | 5818 | 2.25 | 1219.69 | 85.9 | 91.7 | 85.9 | 91.7 | | | |
| 0.80 | 0.97 | 5636 | 2.35 | 1186.50 | 86.1 | 91.9 | 86.1 | 91.9 | | | |
| 0.89 | 1.1 | 4989 | 2.65 | 1063.46 | 86.8 | 92.5 | 86.8 | 92.5 | | | |
| 0.92 | 1.1 | 4779 | 2.75 | 1022.92 | 87.0 | 92.7 | 87.0 | 92.7 | | | |
| 0.90 | 1.1 | 4932 | 2.65 | 1579.81 | 86.9 | 92.6 | 86.9 | 92.6 | KH124-14P-80-04E | 414 | 458 |
| 0.73 | 0.89 | 6471 | 1.25 | 1301.54 | 51.9 | 61.8 | 51.9 | 61.8 | KH104-14P-L80-06F | 293 | 454 |
| 0.84 | 1.0 | 5571 | 1.45 | 1129.81 | 54.7 | 62.8 | 54.7 | 62.8 | | | |
| 0.94 | 1.1 | 4914 | 1.65 | 1004.85 | 56.4 | 63.6 | 56.4 | 63.6 | | | |
| 0.97 | 1.2 | 4764 | 1.70 | 976.16 | 56.7 | 63.7 | 56.7 | 63.7 | | | |
| 1.1 | 1.3 | 4222 | 1.90 | 872.27 | 57.9 | 64.3 | 57.9 | 64.3 | | | |
| 1.3 | 1.5 | 3595 | 2.25 | 753.64 | 59.0 | 65.1 | 59.0 | 65.1 | | | |
| 1.4 | 1.7 | 3109 | 2.60 | 661.38 | 59.8 | 65.6 | 59.8 | 65.6 | | | |
| 1.5 | 1.8 | 2953 | 2.75 | 632.05 | 60.0 | 65.8 | 60.0 | 65.8 | | | |
| 1.1 | 1.3 | 4184 | 1.95 | 1301.54 | 58.0 | 64.4 | 58.0 | 64.4 | KH104-14P-80-04E | 291 | 454 |
| 1.3 | 1.5 | 3587 | 2.25 | 1129.81 | 59.0 | 65.1 | 59.0 | 65.1 | | | |
| 1.4 | 1.7 | 3150 | 2.55 | 1004.85 | 59.7 | 65.6 | 59.7 | 65.6 | | | |
| 1.5 | 1.8 | 3048 | 2.65 | 976.16 | 59.9 | 65.7 | 59.9 | 65.7 | | | |
| 1.6 | 2.0 | 2684 | 3.00 | 872.27 | 60.3 | 66.1 | 60.3 | 66.1 | | | |
| 0.81 | 0.99 | 5922 | 0.80 | 1169.35 | ** | ** | ** | ** | KH094-14P-L80-06F | 164 | 450 |
| 0.96 | 1.2 | 4976 | 0.95 | 988.58 | 24.5 | 38.7 | 24.5 | 38.7 | | | |
| 1.0 | 1.3 | 4554 | 1.00 | 906.69 | 27.6 | 39.2 | 27.6 | 39.2 | | | |
| 1.2 | 1.5 | 3819 | 1.20 | 766.52 | 31.8 | 40.1 | 31.8 | 40.1 | | | |
| 1.3 | 1.6 | 3689 | 1.25 | 742.09 | 32.4 | 40.3 | 32.4 | 40.3 | | | |
| 1.5 | 1.8 | 3087 | 1.50 | 627.37 | 34.8 | 41.1 | 34.8 | 41.1 | | | |
| 1.7 | 2.0 | 2793 | 1.65 | 571.21 | 35.8 | 41.4 | 35.8 | 41.4 | | | |
| 2.0 | 2.4 | 2332 | 1.95 | 482.91 | 37.1 | 42.0 | 37.1 | 42.0 | | | |
| 2.2 | 2.7 | 2063 | 2.20 | 431.58 | 37.7 | 42.4 | 37.7 | 42.4 | | | |
| 2.6 | 3.2 | 1712 | 2.65 | 364.86 | 38.4 | 42.8 | 38.4 | 42.8 | | | |
| 2.7 | 3.3 | 1650 | 2.75 | 353.21 | 38.5 | 42.9 | 38.5 | 42.9 | | | |
| 0.93 | 1.1 | 5139 | 0.90 | 1531.00 | 23.1 | 38.5 | 23.1 | 38.5 | KH094-14P-80-04E | 162 | 450 |
| 0.96 | 1.2 | 4960 | 0.95 | 1480.92 | 24.6 | 38.7 | 24.6 | 38.7 | | | |
| 1.1 | 1.4 | 4168 | 1.10 | 1251.99 | 29.9 | 39.7 | 29.9 | 39.7 | | | |
| 1.2 | 1.5 | 3877 | 1.20 | 1169.35 | 31.5 | 40.1 | 31.5 | 40.1 | | | |
| 1.4 | 1.7 | 3251 | 1.40 | 988.58 | 34.2 | 40.9 | 34.2 | 40.9 | | | |
| 1.6 | 1.9 | 2963 | 1.55 | 906.69 | 35.2 | 41.2 | 35.2 | 41.2 | | | |
| 1.9 | 2.2 | 2474 | 1.85 | 766.52 | 36.7 | 41.9 | 36.7 | 41.9 | | | |
| 2.3 | 2.7 | 1987 | 2.30 | 627.37 | 37.9 | 42.5 | 37.9 | 42.5 | | | |
| 2.5 | 3.0 | 1791 | 2.55 | 571.21 | 38.3 | 42.7 | 38.3 | 42.7 | | | |

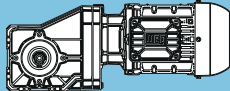


| P _N = 0.55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------|----------------|----------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.55 kW | 0.66 kW | M ₂ | f _b | i | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | Nm | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 1.2 | 1.5 | 3865 | 0.80 | 763.13 | ** | ** | ** | ** | | | |
| 1.3 | 1.6 | 3615 | 0.85 | 715.32 | 12.4 | 19.5 | 12.4 | 7.2 | | | |
| 1.4 | 1.7 | 3509 | 0.90 | 695.67 | 13.9 | 22.6 | 13.9 | 7.3 | | | |
| 1.5 | 1.8 | 3137 | 1.00 | 624.59 | 18.1 | 31.6 | 18.1 | 7.9 | | | |
| 1.7 | 2.1 | 2754 | 1.10 | 550.61 | 21.3 | 38.5 | 21.3 | 8.4 | | | |
| 1.8 | 2.2 | 2624 | 1.15 | 525.61 | 22.2 | 40.5 | 22.2 | 8.6 | | | |
| 2.0 | 2.4 | 2385 | 1.30 | 480.77 | 23.6 | 41.5 | 23.6 | 9.0 | | | |
| 2.2 | 2.7 | 2121 | 1.45 | 430.17 | 24.9 | 41.9 | 24.9 | 9.4 | | | |
| 2.3 | 2.8 | 2047 | 1.50 | 416.02 | 25.3 | 42.0 | 25.3 | 9.5 | | | |
| 2.6 | 3.2 | 1773 | 1.70 | 363.25 | 26.4 | 42.4 | 26.4 | 9.9 | | | |
| 2.7 | 3.3 | 1695 | 1.80 | 348.82 | 26.6 | 42.5 | 26.6 | 10.0 | | | |
| 2.8 | 3.4 | 1651 | 1.85 | 340.47 | 26.8 | 42.6 | 26.8 | 10.1 | | | |
| 3.2 | 3.9 | 1424 | 2.15 | 297.29 | 27.5 | 42.9 | 27.5 | 10.4 | | | |
| 3.4 | 4.2 | 1314 | 2.30 | 276.09 | 27.8 | 43.1 | 27.8 | 10.6 | | | |
| 3.9 | 4.8 | 1129 | 2.70 | 241.07 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 4.0 | 4.9 | 1106 | 2.75 | 236.66 | 28.3 | 43.4 | 28.3 | 10.9 | | | |
| 4.1 | 5.0 | 1078 | 2.80 | 231.12 | 28.3 | 43.4 | 28.3 | 10.9 | | | |
| 4.1 | 5.0 | 1078 | 2.80 | 231.12 | 28.3 | 43.4 | 28.3 | 10.9 | | | |
| 1.3 | 1.5 | 3799 | 0.80 | 1127.18 | ** | ** | ** | ** | | | |
| 1.4 | 1.7 | 3297 | 0.95 | 984.20 | 16.5 | 28.1 | 16.5 | 7.6 | | | |
| 1.6 | 1.9 | 3021 | 1.00 | 903.77 | 19.2 | 33.9 | 19.2 | 8.0 | | | |
| 1.9 | 2.3 | 2530 | 1.20 | 763.13 | 22.7 | 41.3 | 22.7 | 8.8 | | | |
| 2.0 | 2.4 | 2362 | 1.30 | 715.32 | 23.7 | 41.5 | 23.7 | 9.0 | | | |
| 2.3 | 2.8 | 2045 | 1.50 | 624.59 | 25.3 | 42.0 | 25.3 | 9.5 | | | |
| 2.6 | 3.1 | 1788 | 1.70 | 550.61 | 26.3 | 42.4 | 26.3 | 9.9 | | | |
| 2.7 | 3.3 | 1700 | 1.80 | 525.61 | 26.6 | 42.5 | 26.6 | 10.0 | | | |
| 3.0 | 3.6 | 1545 | 1.95 | 480.77 | 27.1 | 42.7 | 27.1 | 10.2 | | | |
| 3.3 | 4.0 | 1368 | 2.20 | 430.17 | 27.6 | 43.0 | 27.6 | 10.5 | | | |
| 3.4 | 4.1 | 1318 | 2.30 | 416.02 | 27.8 | 43.1 | 27.8 | 10.6 | | | |
| 3.9 | 4.7 | 1134 | 2.65 | 363.25 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 4.1 | 4.9 | 1082 | 2.80 | 348.82 | 28.3 | 43.4 | 28.3 | 10.9 | | | |
| 4.2 | 5.1 | 1054 | 2.85 | 340.47 | 28.4 | 43.4 | 28.4 | 10.9 | | | |
| 4.6 | 5.6 | 1146 | 2.65 | 206.12 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 4.6 | 5.6 | 1146 | 2.65 | 206.12 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 3.7 | 4.5 | 1424 | 1.10 | 256.14 | 16.1 | 16.1 | 16.1 | 4.8 | | | |
| 4.8 | 5.8 | 1099 | 1.45 | 197.75 | 18.0 | 16.7 | 18.0 | 5.5 | | | |
| 5.7 | 7.0 | 922 | 1.70 | 165.85 | 18.8 | 17.1 | 18.8 | 5.8 | | | |
| 7.3 | 8.9 | 723 | 2.15 | 130.16 | 19.4 | 17.5 | 19.4 | 6.3 | | | |
| 9.4 | 11 | 558 | 2.80 | 100.45 | 19.9 | 17.8 | 19.4 | 6.6 | | | |
| 9.5 | 12 | 555 | 2.35 | 99.87 | 19.9 | 17.9 | 19.4 | 6.6 | | | |
| 20 | 24 | 264 | 2.35 | 47.56 | 20.3 | 18.2 | 14.6 | 6.9 | | | |
| 5.5 | 6.7 | 947 | 1.65 | 256.14 | 18.7 | 17.0 | 18.7 | 5.8 | | | |
| 7.2 | 8.7 | 731 | 2.15 | 197.75 | 19.4 | 17.5 | 19.4 | 6.2 | | | |
| 8.6 | 10 | 613 | 2.55 | 165.85 | 19.7 | 17.7 | 19.7 | 6.5 | | | |
| 6.0 | 7.4 | 872 | 0.95 | 156.92 | 7.9 | 12.5 | 7.9 | 2.6 | | | |
| 7.8 | 9.5 | 677 | 1.25 | 121.85 | 10.0 | 13.1 | 10.0 | 3.2 | | | |
| 9.5 | 12 | 556 | 1.50 | 99.98 | 10.8 | 13.5 | 10.8 | 3.5 | | | |
| 12 | 14 | 453 | 1.30 | 81.53 | 11.4 | 13.8 | 11.4 | 3.9 | | | |
| 15 | 18 | 359 | 2.30 | 64.62 | 11.8 | 14.1 | 11.8 | 4.2 | | | |
| 16 | 20 | 327 | 2.55 | 58.89 | 11.9 | 14.2 | 11.9 | 4.3 | | | |
| 19 | 23 | 279 | 2.95 | 50.17 | 12.1 | 14.4 | 12.1 | 4.4 | | | |
| 21 | 26 | 247 | 1.30 | 44.35 | 12.2 | 14.2 | 12.2 | 4.2 | | | |
| 27 | 33 | 195 | 2.35 | 35.15 | 12.3 | 14.4 | 11.2 | 4.4 | | | |
| 7.2 | 8.7 | 732 | 1.15 | 198.00 | 9.5 | 12.9 | 9.5 | 3.0 | | | |
| 9.0 | 11 | 580 | 1.45 | 156.92 | 10.7 | 13.4 | 10.7 | 3.5 | | | |
| 12 | 14 | 451 | 1.85 | 121.85 | 11.4 | 13.8 | 11.4 | 3.9 | | | |
| 14 | 17 | 370 | 2.25 | 99.98 | 11.8 | 14.1 | 11.8 | 4.1 | | | |
| 17 | 21 | 302 | 1.90 | 81.53 | 12.0 | 14.3 | 12.0 | 4.4 | | | |
| 18 | 22 | 286 | 2.90 | 77.42 | 12.1 | 14.3 | 12.1 | 4.4 | | | |
| 32 | 39 | 164 | 1.90 | 44.35 | 12.3 | 14.5 | 10.4 | 4.6 | | | |

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Legend see page 337

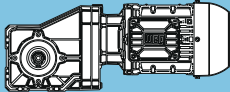
** ... on request

| P _N = 0.55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.55 kW | | 0.66 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 7.6 | 9.3 | 690 | 0.90 | 124.06 | 4.3 | 6.5 | 4.3 | 3.2 | KH053-14P-L80-06F | 27 | 438 |
| 9.8 | 12 | 534 | 1.15 | 96.08 | 7.0 | 10.4 | 7.0 | 3.7 | | | |
| 12 | 14 | 447 | 1.30 | 80.46 | 7.9 | 10.6 | 7.9 | 3.9 | | | |
| 13 | 16 | 406 | 1.50 | 73.08 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 15 | 18 | 354 | 1.70 | 63.77 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 16 | 19 | 335 | 1.80 | 60.26 | 8.8 | 11.0 | 8.8 | 4.3 | | | |
| 19 | 23 | 275 | 2.20 | 49.52 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 23 | 28 | 233 | 2.60 | 42.00 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 25 | 30 | 213 | 1.30 | 38.32 | 9.4 | 11.0 | 9.4 | 4.3 | | | |
| 31 | 38 | 169 | 2.35 | 30.37 | 9.5 | 11.2 | 9.5 | 4.5 | | | |
| 7.3 | 8.8 | 720 | 0.85 | 194.73 | 3.4 | 4.6 | 3.4 | 3.1 | KH084-14P-80-04E | 25 | 446 |
| 9.4 | 11 | 559 | 1.10 | 151.20 | 6.7 | 10.3 | 6.7 | 3.6 | | | |
| 11 | 14 | 459 | 1.35 | 124.06 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 15 | 18 | 355 | 1.70 | 96.08 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 18 | 21 | 298 | 1.90 | 80.46 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 19 | 24 | 270 | 2.25 | 73.08 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 22 | 27 | 236 | 2.55 | 63.77 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 24 | 29 | 223 | 2.70 | 60.26 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 37 | 45 | 142 | 1.90 | 38.32 | 9.6 | 11.4 | 9.6 | 4.7 | | | |
| 11 | 13 | 496 | 0.80 | 89.17 | ** | ** | ** | ** | | | |
| 13 | 16 | 405 | 1.00 | 72.92 | 3.7 | 5.8 | 3.7 | 2.3 | | | |
| 14 | 17 | 368 | 1.10 | 66.20 | 4.5 | 7.5 | 4.5 | 2.4 | | | |
| 16 | 20 | 320 | 1.25 | 57.58 | 5.2 | 8.2 | 5.2 | 2.6 | | | |
| 17 | 21 | 301 | 1.35 | 54.18 | 5.4 | 8.3 | 5.4 | 2.7 | | | |
| 20 | 25 | 262 | 0.80 | 47.07 | ** | ** | ** | ** | | | |
| 21 | 26 | 248 | 1.65 | 44.64 | 6.0 | 8.5 | 6.0 | 2.9 | | | |
| 22 | 26 | 244 | 1.65 | 43.93 | 6.0 | 8.5 | 6.0 | 2.9 | | | |
| 25 | 30 | 214 | 1.30 | 38.49 | 6.3 | 8.4 | 6.3 | 2.8 | | | |
| 26 | 31 | 204 | 1.90 | 36.78 | 6.4 | 8.7 | 6.4 | 3.1 | | | |
| 31 | 38 | 169 | 1.95 | 30.39 | 6.6 | 8.6 | 6.6 | 3.0 | | | |
| 32 | 39 | 166 | 2.20 | 29.81 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 34 | 41 | 156 | 2.60 | 28.13 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 40 | 49 | 131 | 2.35 | 23.57 | 6.8 | 8.8 | 6.8 | 3.2 | | | |
| 49 | 60 | 107 | 2.75 | 19.29 | 6.9 | 8.9 | 6.9 | 3.3 | | | |
| 10 | 12 | 514 | 0.80 | 139.08 | ** | ** | ** | ** | KH084-14P-80-04E | 21 | 446 |
| 12 | 15 | 421 | 1.00 | 113.83 | 3.3 | 4.9 | 3.3 | 2.2 | | | |
| 16 | 19 | 330 | 1.15 | 89.17 | 5.1 | 8.2 | 5.1 | 2.6 | | | |
| 19 | 24 | 270 | 1.50 | 72.92 | 5.8 | 8.4 | 5.8 | 2.8 | | | |
| 21 | 26 | 245 | 1.65 | 66.20 | 6.0 | 8.5 | 6.0 | 2.9 | | | |
| 25 | 30 | 213 | 1.90 | 57.58 | 6.3 | 8.6 | 6.3 | 3.0 | | | |
| 26 | 32 | 200 | 2.00 | 54.18 | 6.4 | 8.7 | 6.4 | 3.1 | | | |
| 30 | 37 | 174 | 1.15 | 47.07 | 6.5 | 8.6 | 6.5 | 3.0 | | | |
| 32 | 39 | 165 | 2.45 | 44.64 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 37 | 45 | 142 | 1.90 | 38.49 | 6.7 | 8.8 | 6.7 | 3.2 | | | |
| 39 | 47 | 136 | 2.85 | 36.78 | 6.7 | 9.0 | 6.7 | 3.4 | | | |
| 47 | 57 | 112 | 2.90 | 30.39 | 6.8 | 8.9 | 6.8 | 3.3 | | | |
| 20 | 25 | 258 | 0.80 | 46.48 | ** | ** | ** | ** | KH033-14P-L80-06F | 20 | 434 |
| 24 | 30 | 216 | 0.95 | 38.80 | 3.4 | 2.4 | 3.4 | 2.4 | | | |
| 26 | 32 | 200 | 1.05 | 35.90 | 3.7 | 2.5 | 3.7 | 2.5 | | | |
| 31 | 38 | 168 | 1.20 | 30.29 | 4.2 | 2.7 | 4.2 | 2.7 | | | |
| 32 | 39 | 167 | 0.80 | 29.97 | ** | ** | ** | ** | | | |
| 33 | 40 | 159 | 1.30 | 28.67 | 4.3 | 2.7 | 4.3 | 2.7 | | | |
| 39 | 47 | 136 | 1.20 | 24.38 | 4.6 | 2.7 | 4.6 | 2.7 | | | |
| 44 | 53 | 120 | 1.70 | 21.67 | 4.7 | 3.0 | 4.7 | 3.0 | | | |
| 49 | 60 | 108 | 1.55 | 19.37 | 4.8 | 2.9 | 4.8 | 2.9 | | | |
| 57 | 70 | 92 | 2.20 | 16.47 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 63 | 77 | 83 | 2.00 | 14.96 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 74 | 90 | 71 | 2.85 | 12.81 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 79 | 97 | 66 | 2.50 | 11.94 | 5.0 | 3.2 | 5.0 | 3.2 | | | |



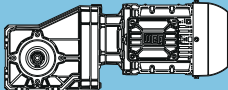
Legend see page 337

** ... on request

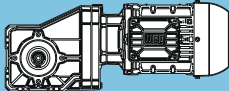
| P _N = 0.55 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|-------------------|----|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page | | | |
| 0.55 kW | | 0.66 kW | | | Output shaft | | Hollow shaft | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 20 | 24 | 266 | 0.80 | 71.93 | ** | ** | ** | ** | KH033-14P-80-04E | 18 | 434 | | | |
| 22 | 26 | 243 | 0.85 | 65.63 | 2.8 | 2.3 | 2.8 | 2.3 | | | | | | |
| 24 | 29 | 216 | 0.95 | 58.50 | 3.4 | 2.4 | 3.4 | 2.4 | | | | | | |
| 28 | 34 | 185 | 1.10 | 49.88 | 4.0 | 2.6 | 4.0 | 2.6 | | | | | | |
| 31 | 37 | 172 | 1.20 | 46.48 | 4.1 | 2.7 | 4.1 | 2.7 | | | | | | |
| 37 | 44 | 144 | 1.40 | 38.80 | 4.5 | 2.8 | 4.5 | 2.8 | | | | | | |
| 40 | 48 | 133 | 1.55 | 35.90 | 4.6 | 2.9 | 4.6 | 2.9 | | | | | | |
| 47 | 57 | 112 | 1.80 | 30.29 | 4.7 | 3.0 | 4.7 | 3.0 | | | | | | |
| 50 | 60 | 106 | 1.90 | 28.67 | 4.8 | 3.1 | 4.8 | 3.1 | | | | | | |
| 58 | 71 | 90 | 1.80 | 24.38 | 4.9 | 3.0 | 4.9 | 3.0 | | | | | | |
| 66 | 79 | 80 | 2.50 | 21.67 | 4.9 | 3.2 | 4.9 | 3.2 | | | | | | |
| 73 | 89 | 72 | 2.30 | 19.37 | 5.0 | 3.1 | 5.0 | 3.1 | | | | | | |
| 95 | 115 | 55 | 2.95 | 14.96 | 5.1 | 3.3 | 5.1 | 3.3 | | | | | | |
| 40 | 49 | 132 | 0.85 | 23.68 | 4.8 | 2.8 | 4.8 | 2.8 | | | | KH022-14P-L80-06F | 18 | 432 |
| 46 | 56 | 115 | 0.90 | 20.63 | 4.9 | 2.8 | 4.9 | 2.8 | | | | | | |
| 51 | 62 | 103 | 1.00 | 18.50 | 5.0 | 2.8 | 5.0 | 2.8 | | | | | | |
| 61 | 75 | 86 | 1.10 | 15.41 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 62 | 75 | 85 | 0.95 | 15.36 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 68 | 84 | 77 | 1.25 | 13.81 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 71 | 87 | 74 | 1.25 | 13.29 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 79 | 97 | 66 | 1.35 | 11.92 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 80 | 98 | 66 | 1.25 | 11.84 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 81 | 100 | 64 | 1.35 | 11.60 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 91 | 111 | 58 | 1.50 | 10.40 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 102 | 125 | 51 | 1.60 | 9.25 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 111 | 136 | 47 | 1.65 | 8.51 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 124 | 151 | 42 | 1.85 | 7.63 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 137 | 167 | 38 | 1.95 | 6.91 | 4.9 | 2.8 | 4.9 | 2.8 | | | | | | |
| 159 | 194 | 33 | 2.10 | 5.96 | 4.7 | 2.8 | 4.7 | 2.8 | | | | | | |
| 182 | 222 | 29 | 2.25 | 5.20 | 4.5 | 2.8 | 4.5 | 2.8 | | | | | | |
| 247 | 302 | 21 | 2.70 | 3.82 | 4.0 | 2.8 | 4.0 | 2.8 | | | | | | |
| 36 | 44 | 144 | 0.80 | 39.00 | ** | ** | ** | ** | KH022-14P-80-04E | 16 | 432 | | | |
| 41 | 50 | 127 | 0.90 | 34.27 | 4.8 | 2.8 | 4.8 | 2.8 | | | | | | |
| 46 | 56 | 114 | 1.00 | 30.73 | 4.9 | 2.8 | 4.9 | 2.8 | | | | | | |
| 54 | 65 | 98 | 1.15 | 26.41 | 5.0 | 2.8 | 5.0 | 2.8 | | | | | | |
| 59 | 72 | 89 | 0.95 | 24.05 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 60 | 73 | 88 | 1.30 | 23.68 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 69 | 83 | 76 | 1.35 | 20.63 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 73 | 88 | 72 | 1.15 | 19.50 | 5.1 | 2.8 | 5.1 | 2.8 | | | | | | |
| 77 | 93 | 68 | 1.50 | 18.50 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 92 | 112 | 57 | 1.65 | 15.41 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 103 | 125 | 51 | 1.85 | 13.81 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 107 | 129 | 49 | 1.85 | 13.29 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 119 | 144 | 44 | 2.05 | 11.92 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 120 | 145 | 44 | 1.85 | 11.84 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 122 | 148 | 43 | 2.00 | 11.60 | 5.2 | 2.8 | 5.2 | 2.8 | | | | | | |
| 137 | 165 | 38 | 2.25 | 10.40 | 4.9 | 2.8 | 4.9 | 2.8 | | | | | | |
| 154 | 186 | 34 | 2.40 | 9.25 | 4.7 | 2.8 | 4.7 | 2.8 | | | | | | |
| 167 | 202 | 31 | 2.45 | 8.51 | 4.6 | 2.8 | 4.6 | 2.8 | | | | | | |
| 186 | 225 | 28 | 2.75 | 7.63 | 4.4 | 2.8 | 4.4 | 2.8 | | | | | | |
| 205 | 249 | 26 | 2.90 | 6.91 | 4.3 | 2.8 | 4.3 | 2.8 | | | | | | |
| 238 | 289 | 22 | 3.15 | 5.96 | 4.1 | 2.8 | 4.1 | 2.8 | | | | | | |
| 273 | 331 | 19 | 3.40 | 5.20 | 3.9 | 2.8 | 3.9 | 2.8 | | | | | | |
| 372 | 450 | 14 | 4.05 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | | | | |

Legend see page 337

** ... on request

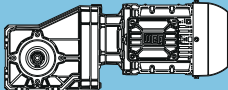
| P _N = 0.75 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.28 | 0.34 | 22639 | 0.80 | 3337.74 | ** | ** | ** | ** | KH155-11P-90S/L-06E | 689 | 464 | |
| 0.31 | 0.38 | 20602 | 0.90 | 3052.96 | 65.7 | 114.3 | 65.7 | 114.3 | | | | |
| 0.34 | 0.42 | 18339 | 1.00 | 2731.65 | 76.7 | 116.0 | 76.7 | 116.0 | | | | |
| 0.41 | 0.5 | 15328 | 1.20 | 2306.68 | 87.7 | 118.3 | 87.7 | 118.3 | | | | |
| 0.42 | 0.52 | 14682 | 1.25 | 2215.09 | 89.7 | 118.8 | 89.7 | 118.8 | | | | |
| 0.50 | 0.61 | 12353 | 1.50 | 1887.82 | 95.7 | 120.6 | 95.7 | 120.6 | | | | |
| 0.51 | 0.62 | 12133 | 1.50 | 1854.30 | 96.2 | 120.7 | 96.2 | 120.7 | | | | |
| 0.61 | 0.75 | 9837 | 1.85 | 1530.83 | 100.8 | 122.5 | 100.8 | 122.5 | | | | |
| 0.63 | 0.76 | 9632 | 1.90 | 1502.83 | 101.2 | 122.7 | 101.2 | 122.7 | | | | |
| 0.73 | 0.89 | 8066 | 2.25 | 1281.49 | 103.6 | 123.8 | 103.6 | 123.8 | | | | |
| 0.91 | 1.10 | 6336 | 2.85 | 1038.59 | 105.7 | 125.2 | 105.7 | 125.2 | | | | |
| 0.30 | 0.36 | 21551 | 0.85 | 4845.97 | 60.0 | 103.6 | 60.0 | 103.6 | KH155-11P-80-04F | 683 | 464 | |
| 0.32 | 0.39 | 19546 | 0.95 | 4417.59 | 71.2 | 115.1 | 71.2 | 115.1 | | | | |
| 0.36 | 0.44 | 17459 | 1.05 | 3966.24 | 80.3 | 116.7 | 80.3 | 116.7 | | | | |
| 0.43 | 0.52 | 14542 | 1.25 | 3337.74 | 90.1 | 118.9 | 90.1 | 118.9 | | | | |
| 0.47 | 0.57 | 13199 | 1.40 | 3052.96 | 93.7 | 119.9 | 93.7 | 119.9 | | | | |
| 0.52 | 0.64 | 11719 | 1.55 | 2731.65 | 97.1 | 121.1 | 97.1 | 121.1 | | | | |
| 0.62 | 0.75 | 9744 | 1.85 | 2306.68 | 101.0 | 122.6 | 101.0 | 122.6 | | | | |
| 0.65 | 0.79 | 9309 | 1.95 | 2215.09 | 101.7 | 122.9 | 101.7 | 122.9 | | | | |
| 0.76 | 0.92 | 7770 | 2.35 | 1887.82 | 104.0 | 124.1 | 104.0 | 124.1 | | | | |
| 0.77 | 0.94 | 7612 | 2.40 | 1854.30 | 104.2 | 124.2 | 104.2 | 124.2 | | | | |
| 0.93 | 1.1 | 6107 | 2.95 | 1530.83 | 105.9 | 125.3 | 105.9 | 125.3 | | | | |
| 0.72 | 0.87 | 8613 | 2.10 | 1308.92 | 102.8 | 123.4 | 102.8 | 123.4 | KH154-11P-90S/L-06E | 676 | 462 | |
| 0.83 | 1.0 | 7296 | 2.50 | 1127.36 | 104.6 | 124.4 | 104.6 | 124.4 | | | | |
| 0.91 | 1.1 | 6635 | 2.75 | 1035.99 | 105.4 | 124.9 | 105.4 | 124.9 | | | | |
| 0.96 | 1.2 | 6193 | 2.95 | 975.12 | 105.8 | 125.3 | 105.8 | 125.3 | | | | |
| 0.60 | 0.72 | 10767 | 1.25 | 1579.81 | 76.9 | 86.7 | 76.9 | 86.7 | KH154-11P-90S/L-06E | 422 | 462 | |
| 0.68 | 0.83 | 9330 | 1.40 | 1377.44 | 80.2 | 88.1 | 80.2 | 88.1 | | | | |
| 0.77 | 0.94 | 8194 | 1.60 | 1219.69 | 82.3 | 89.3 | 82.3 | 89.3 | | | | |
| 0.79 | 0.97 | 7954 | 1.65 | 1186.50 | 82.8 | 89.5 | 82.8 | 89.5 | | | | |
| 0.88 | 1.1 | 7071 | 1.85 | 1063.46 | 84.2 | 90.4 | 84.2 | 90.4 | | | | |
| 0.92 | 1.1 | 6773 | 1.95 | 1022.92 | 84.6 | 90.7 | 84.6 | 90.7 | | | | |
| 1.0 | 1.2 | 6003 | 2.20 | 916.04 | 85.6 | 91.5 | 85.6 | 91.5 | | | | |
| 1.1 | 1.3 | 5832 | 2.25 | 891.88 | 85.9 | 91.7 | 85.9 | 91.7 | | | | |
| 1.2 | 1.4 | 5185 | 2.55 | 802.79 | 86.6 | 92.3 | 86.6 | 92.3 | | | | |
| 1.3 | 1.6 | 4446 | 2.95 | 699.95 | 87.3 | 93.0 | 87.3 | 93.0 | | | | |
| 0.91 | 1.1 | 6890 | 1.90 | 1579.81 | 84.4 | 90.6 | 84.4 | 90.6 | KH124-11P-80-04F | 416 | 458 | |
| 1.0 | 1.3 | 5933 | 2.20 | 1377.44 | 85.7 | 91.6 | 85.7 | 91.6 | | | | |
| 1.2 | 1.4 | 5178 | 2.55 | 1219.69 | 86.6 | 92.3 | 86.6 | 92.3 | | | | |
| 1.3 | 1.6 | 4440 | 2.95 | 1063.46 | 87.3 | 93.1 | 87.3 | 93.1 | | | | |
| 0.72 | 0.88 | 8999 | 0.90 | 1301.54 | 40.4 | 58.9 | 40.4 | 58.9 | KH104-11P-90S/L-06E | 299 | 454 | |
| 0.83 | 1.0 | 7764 | 1.05 | 1129.81 | 46.9 | 60.3 | 46.9 | 60.3 | | | | |
| 0.94 | 1.1 | 6863 | 1.20 | 1004.85 | 50.5 | 61.3 | 50.5 | 61.3 | | | | |
| 0.96 | 1.2 | 6667 | 1.20 | 976.16 | 51.3 | 61.6 | 51.3 | 61.6 | | | | |
| 1.1 | 1.3 | 5908 | 1.40 | 872.27 | 53.7 | 62.4 | 53.7 | 62.4 | | | | |
| 1.2 | 1.5 | 5063 | 1.60 | 753.64 | 56.0 | 63.4 | 56.0 | 63.4 | | | | |
| 1.3 | 1.6 | 4904 | 1.65 | 731.54 | 56.4 | 63.6 | 56.4 | 63.6 | | | | |
| 1.4 | 1.7 | 4397 | 1.85 | 661.38 | 57.5 | 64.1 | 57.5 | 64.1 | | | | |
| 1.5 | 1.8 | 4185 | 1.95 | 632.05 | 58.0 | 64.4 | 58.0 | 64.4 | | | | |
| 1.6 | 2.0 | 3770 | 2.15 | 574.12 | 58.7 | 64.9 | 58.7 | 64.9 | | | | |
| 1.8 | 2.2 | 3310 | 2.45 | 510.43 | 59.5 | 65.4 | 59.5 | 65.4 | | | | |
| 1.9 | 2.3 | 3210 | 2.50 | 496.04 | 59.6 | 65.5 | 59.6 | 65.5 | | | | |
| 2.1 | 2.6 | 2826 | 2.85 | 443.08 | 60.2 | 65.9 | 60.2 | 65.9 | | | | |
| 2.2 | 2.7 | 2676 | 3.00 | 422.20 | 60.3 | 66.1 | 60.3 | 66.1 | | | | |
| 1.1 | 1.3 | 5795 | 1.40 | 1301.54 | 54.1 | 62.5 | 54.1 | 62.5 | KH104-11P-80-04F | 293 | 454 | |
| 1.3 | 1.5 | 4979 | 1.65 | 1129.81 | 56.2 | 63.5 | 56.2 | 63.5 | | | | |
| 1.4 | 1.7 | 4392 | 1.85 | 1004.85 | 57.5 | 64.1 | 57.5 | 64.1 | | | | |
| 1.5 | 1.8 | 4258 | 1.90 | 976.16 | 57.8 | 64.3 | 57.8 | 64.3 | | | | |
| 1.6 | 2.0 | 3765 | 2.15 | 872.27 | 58.7 | 64.9 | 58.7 | 64.9 | | | | |
| 1.7 | 2.1 | 3623 | 2.25 | 842.74 | 59.0 | 65.0 | 59.0 | 65.0 | | | | |
| 1.9 | 2.3 | 3206 | 2.50 | 753.64 | 59.6 | 65.5 | 59.6 | 65.5 | | | | |
| 2.0 | 2.4 | 3099 | 2.60 | 731.54 | 59.8 | 65.6 | 59.8 | 65.6 | | | | |
| 2.2 | 2.6 | 2767 | 2.90 | 661.38 | 60.2 | 66.0 | 60.2 | 66.0 | | | | |



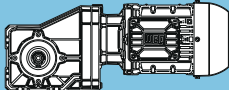
| P _N = 0.75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 1.2 | 1.5 | 5311 | 0.85 | 766.52 | 21.5 | 36.2 | 21.5 | 36.2 | KH094-11P-90S/L-06E | 170 | 450 |
| 1.3 | 1.5 | 5131 | 0.90 | 742.09 | 23.2 | 38.5 | 23.2 | 38.5 | | | |
| 1.5 | 1.8 | 4311 | 1.05 | 627.37 | 29.1 | 39.5 | 29.1 | 39.5 | | | |
| 1.6 | 2.0 | 3901 | 1.20 | 571.21 | 31.4 | 40.0 | 31.4 | 40.0 | | | |
| 1.9 | 2.4 | 3271 | 1.40 | 482.91 | 34.1 | 40.8 | 34.1 | 40.8 | | | |
| 2.2 | 2.7 | 2905 | 1.55 | 431.58 | 35.4 | 41.3 | 35.4 | 41.3 | | | |
| 2.6 | 3.1 | 2421 | 1.90 | 364.86 | 36.9 | 41.9 | 36.9 | 41.9 | | | |
| 2.7 | 3.2 | 2339 | 1.95 | 353.21 | 37.1 | 42.0 | 37.1 | 42.0 | | | |
| 3.1 | 3.8 | 1945 | 2.35 | 298.61 | 38.0 | 42.5 | 38.0 | 42.5 | | | |
| 3.3 | 4.0 | 1858 | 2.45 | 286.42 | 38.1 | 42.6 | 38.1 | 42.6 | | | |
| 3.9 | 4.7 | 1538 | 2.95 | 242.14 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 1.1 | 1.4 | 5714 | 0.80 | 1251.99 | ** | ** | ** | ** | KH094-11P-80-04F | 164 | 450 |
| 1.2 | 1.5 | 5326 | 0.85 | 1169.35 | 21.3 | 35.8 | 21.3 | 35.8 | | | |
| 1.4 | 1.8 | 4465 | 1.05 | 988.58 | 28.2 | 39.3 | 28.2 | 39.3 | | | |
| 1.6 | 1.9 | 4079 | 1.15 | 906.69 | 30.4 | 39.8 | 30.4 | 39.8 | | | |
| 1.9 | 2.3 | 3420 | 1.35 | 766.52 | 33.5 | 40.7 | 33.5 | 40.7 | | | |
| 2.3 | 2.8 | 2765 | 1.65 | 627.37 | 35.9 | 41.5 | 35.9 | 41.5 | | | |
| 2.5 | 3.0 | 2502 | 1.80 | 571.21 | 36.6 | 41.8 | 36.6 | 41.8 | | | |
| 3.0 | 3.6 | 2080 | 2.20 | 482.91 | 37.7 | 42.4 | 37.7 | 42.4 | | | |
| 3.3 | 4.0 | 1840 | 2.45 | 431.58 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 3.9 | 4.8 | 1520 | 3.00 | 364.86 | 38.7 | 43.1 | 38.7 | 43.1 | | | |
| 1.7 | 2.1 | 3823 | 0.80 | 550.61 | ** | ** | ** | ** | KH084-11P-90S/L-06E | 120 | 446 |
| 1.8 | 2.2 | 3642 | 0.85 | 525.61 | 11.9 | 18.4 | 11.9 | 7.1 | | | |
| 2.0 | 2.4 | 3317 | 0.95 | 480.77 | 16.3 | 27.7 | 16.3 | 7.6 | | | |
| 2.2 | 2.7 | 2956 | 1.05 | 430.17 | 19.7 | 35.0 | 19.7 | 8.1 | | | |
| 2.3 | 2.8 | 2859 | 1.05 | 416.02 | 20.5 | 36.8 | 20.5 | 8.3 | | | |
| 2.6 | 3.2 | 2476 | 1.25 | 363.25 | 23.1 | 41.3 | 23.1 | 8.8 | | | |
| 2.7 | 3.3 | 2372 | 1.30 | 348.82 | 23.7 | 41.5 | 23.7 | 9.0 | | | |
| 2.8 | 3.4 | 2316 | 1.30 | 340.47 | 24.0 | 41.6 | 24.0 | 9.1 | | | |
| 3.2 | 3.9 | 2005 | 1.50 | 297.29 | 25.4 | 42.0 | 25.4 | 9.5 | | | |
| 3.4 | 4.1 | 1851 | 1.65 | 276.09 | 26.1 | 42.3 | 26.1 | 9.8 | | | |
| 3.9 | 4.7 | 1600 | 1.90 | 241.07 | 27.0 | 42.6 | 27.0 | 10.1 | | | |
| 4.0 | 4.8 | 1567 | 1.95 | 236.66 | 27.1 | 42.7 | 27.1 | 10.2 | | | |
| 4.1 | 5.0 | 1527 | 2.00 | 231.12 | 27.2 | 42.7 | 27.2 | 10.2 | | | |
| 4.7 | 5.7 | 1317 | 2.30 | 201.80 | 27.8 | 43.1 | 27.8 | 10.6 | | | |
| 5.0 | 6.1 | 1212 | 2.50 | 187.31 | 28.0 | 43.2 | 28.0 | 10.7 | | | |
| 5.7 | 7.0 | 1041 | 2.90 | 163.55 | 28.4 | 43.5 | 28.4 | 11.0 | | | |
| 1.6 | 2.0 | 3988 | 0.80 | 873.98 | ** | ** | ** | ** | KH084-11P-80-04F | 114 | 446 |
| 1.9 | 2.3 | 3468 | 0.90 | 763.13 | 14.5 | 23.9 | 14.5 | 7.4 | | | |
| 2.0 | 2.4 | 3244 | 0.95 | 715.32 | 17.1 | 29.4 | 17.1 | 7.7 | | | |
| 2.1 | 2.5 | 3149 | 1.00 | 695.67 | 18.0 | 31.3 | 18.0 | 7.8 | | | |
| 2.3 | 2.8 | 2816 | 1.10 | 624.59 | 20.8 | 37.4 | 20.8 | 8.3 | | | |
| 2.6 | 3.2 | 2467 | 1.25 | 550.61 | 23.1 | 41.4 | 23.1 | 8.9 | | | |
| 2.7 | 3.3 | 2350 | 1.30 | 525.61 | 23.8 | 41.5 | 23.8 | 9.0 | | | |
| 3.0 | 3.6 | 2136 | 1.45 | 480.77 | 24.8 | 41.8 | 24.8 | 9.3 | | | |
| 3.3 | 4.0 | 1900 | 1.60 | 430.17 | 25.9 | 42.2 | 25.9 | 9.7 | | | |
| 3.4 | 4.2 | 1833 | 1.65 | 416.02 | 26.1 | 42.3 | 26.1 | 9.8 | | | |
| 3.9 | 4.8 | 1584 | 1.90 | 363.25 | 27.0 | 42.7 | 27.0 | 10.2 | | | |
| 4.1 | 5.0 | 1515 | 2.00 | 348.82 | 27.2 | 42.8 | 27.2 | 10.3 | | | |
| 4.2 | 5.1 | 1476 | 2.05 | 340.47 | 27.3 | 42.8 | 27.3 | 10.3 | | | |
| 4.8 | 5.9 | 1270 | 2.40 | 297.29 | 27.9 | 43.1 | 27.9 | 10.6 | | | |
| 4.9 | 6.0 | 1245 | 2.45 | 292.01 | 28.0 | 43.2 | 28.0 | 10.7 | | | |
| 5.2 | 6.3 | 1170 | 2.60 | 276.09 | 28.1 | 43.3 | 28.1 | 10.8 | | | |
| 5.9 | 7.2 | 1004 | 3.00 | 241.07 | 28.5 | 43.5 | 28.5 | 11.0 | | | |
| 4.6 | 5.6 | 1571 | 1.95 | 206.12 | 27.1 | 42.7 | 27.1 | 10.2 | KH083-11P-90S/L-06E | 107 | 444 |
| 5.8 | 7.0 | 1243 | 2.45 | 163.14 | 28.0 | 43.2 | 28.0 | 10.7 | | | |
| 6.6 | 8.0 | 1085 | 2.80 | 142.45 | 28.3 | 43.4 | 28.3 | 10.9 | | | |
| 6.9 | 8.4 | 1032 | 2.95 | 206.12 | 28.4 | 43.5 | 28.4 | 11.0 | KH083-11P-80-04F | 101 | 444 |

Legend see page 337

** ... on request

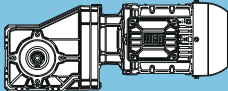
| P _N = 0.75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.7 | 4.5 | 1952 | 0.80 | 256.14 | ** | ** | ** | ** | KH073-11P-90S/L-06E | 66 | 442 |
| 4.8 | 5.8 | 1507 | 1.05 | 197.75 | 15.5 | 15.9 | 15.5 | 4.6 | | | |
| 5.7 | 6.9 | 1264 | 1.25 | 165.85 | 17.1 | 16.4 | 17.1 | 5.1 | | | |
| 7.2 | 8.8 | 992 | 1.60 | 130.16 | 18.5 | 17.0 | 18.5 | 5.7 | | | |
| 9.4 | 11 | 765 | 2.05 | 100.45 | 19.3 | 17.4 | 19.3 | 6.2 | | | |
| 11 | 14 | 633 | 2.45 | 83.09 | 19.7 | 17.7 | 18.9 | 6.4 | | | |
| 12 | 15 | 588 | 2.65 | 77.11 | 19.8 | 17.8 | 18.2 | 6.5 | | | |
| 13 | 16 | 538 | 2.90 | 70.67 | 19.9 | 17.9 | 17.6 | 6.6 | | | |
| 20 | 24 | 362 | 1.70 | 47.56 | 20.2 | 17.9 | 15.0 | 6.6 | | | |
| 26 | 31 | 280 | 2.75 | 36.72 | 20.3 | 18.1 | 13.5 | 6.9 | | | |
| 5.6 | 6.8 | 1283 | 1.25 | 256.14 | 17.0 | 16.3 | 17.0 | 5.1 | KH073-11P-80-04F | 60 | 442 |
| 7.2 | 8.8 | 990 | 1.60 | 197.75 | 18.5 | 17.0 | 18.5 | 5.7 | | | |
| 8.6 | 10 | 831 | 1.90 | 165.85 | 19.1 | 17.3 | 19.1 | 6.0 | | | |
| 11 | 13 | 652 | 2.40 | 130.16 | 19.6 | 17.7 | 18.9 | 6.4 | | | |
| 14 | 17 | 500 | 2.60 | 99.87 | 20.0 | 18.0 | 17.1 | 6.7 | | | |
| 30 | 37 | 238 | 2.60 | 47.56 | 20.4 | 18.3 | 12.8 | 7.0 | | | |
| 7.7 | 9.4 | 928 | 0.90 | 121.85 | 7.0 | 11.1 | 7.0 | 2.4 | KH063-11P-90S/L-06E | 46 | 440 |
| 9.4 | 11 | 762 | 1.10 | 99.98 | 9.2 | 12.9 | 9.2 | 2.9 | | | |
| 12 | 14 | 621 | 0.95 | 81.53 | 10.4 | 13.3 | 10.4 | 3.3 | | | |
| 15 | 18 | 492 | 1.70 | 64.62 | 11.2 | 13.7 | 11.2 | 3.7 | | | |
| 16 | 19 | 449 | 1.85 | 58.89 | 11.4 | 13.8 | 11.4 | 3.9 | | | |
| 19 | 23 | 382 | 2.15 | 50.17 | 11.7 | 14.0 | 11.7 | 4.1 | | | |
| 21 | 26 | 338 | 0.95 | 44.35 | 11.9 | 13.7 | 11.9 | 3.8 | | | |
| 23 | 28 | 314 | 2.65 | 41.17 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 24 | 29 | 303 | 2.65 | 39.83 | 12.0 | 14.3 | 12.0 | 4.3 | | | |
| 27 | 33 | 268 | 1.70 | 35.15 | 12.1 | 14.1 | 11.6 | 4.1 | | | |
| 28 | 34 | 258 | 2.95 | 33.85 | 12.1 | 14.4 | 11.2 | 4.5 | | | |
| 34 | 42 | 208 | 2.45 | 27.29 | 12.3 | 14.3 | 10.5 | 4.4 | | | |
| 42 | 51 | 171 | 2.95 | 22.40 | 12.3 | 14.5 | 9.6 | 4.5 | | | |
| 7.2 | 8.8 | 992 | 0.85 | 198.00 | 5.9 | 8.7 | 5.9 | 2.2 | KH063-11P-80-04F | 40 | 440 |
| 9.1 | 11 | 786 | 1.05 | 156.92 | 8.9 | 12.8 | 8.9 | 2.8 | | | |
| 12 | 14 | 610 | 1.35 | 121.85 | 10.5 | 13.3 | 10.5 | 3.4 | | | |
| 14 | 17 | 501 | 1.65 | 99.98 | 11.2 | 13.7 | 11.2 | 3.7 | | | |
| 18 | 21 | 408 | 1.40 | 81.53 | 11.6 | 14.0 | 11.6 | 4.0 | | | |
| 22 | 27 | 324 | 2.55 | 64.62 | 11.9 | 14.2 | 11.9 | 4.3 | | | |
| 24 | 30 | 295 | 2.80 | 58.89 | 12.0 | 14.3 | 12.0 | 4.4 | | | |
| 32 | 39 | 222 | 1.45 | 44.35 | 12.2 | 14.3 | 10.8 | 4.3 | | | |
| 41 | 50 | 176 | 2.60 | 35.15 | 12.3 | 14.5 | 9.7 | 4.5 | | | |
| 9.8 | 12 | 732 | 0.85 | 96.08 | 3.0 | 3.8 | 3.0 | 3.1 | KH053-11P-90S/L-06E | 33 | 438 |
| 12 | 14 | 613 | 0.95 | 80.46 | 5.9 | 9.9 | 5.9 | 3.4 | | | |
| 13 | 16 | 557 | 1.10 | 73.08 | 6.7 | 10.3 | 6.7 | 3.6 | | | |
| 15 | 18 | 486 | 1.25 | 63.77 | 7.6 | 10.5 | 7.6 | 3.8 | | | |
| 16 | 19 | 459 | 1.35 | 60.26 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 19 | 23 | 377 | 1.60 | 49.43 | 8.5 | 10.9 | 8.5 | 4.2 | | | |
| 22 | 27 | 320 | 1.90 | 42.00 | 8.9 | 11.0 | 8.9 | 4.3 | | | |
| 23 | 28 | 310 | 1.95 | 40.63 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 25 | 30 | 292 | 0.95 | 38.32 | 9.0 | 10.7 | 9.0 | 4.0 | | | |
| 27 | 33 | 263 | 2.30 | 34.53 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 30 | 36 | 240 | 2.55 | 31.46 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 31 | 38 | 231 | 1.70 | 30.37 | 9.3 | 11.0 | 9.3 | 4.3 | | | |
| 34 | 42 | 209 | 2.80 | 27.39 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 40 | 49 | 180 | 2.30 | 23.58 | 9.5 | 11.2 | 9.5 | 4.5 | | | |
| 49 | 59 | 147 | 2.85 | 19.35 | 9.6 | 11.3 | 9.6 | 4.6 | | | |
| 9.5 | 12 | 757 | 0.80 | 151.20 | ** | ** | ** | ** | KH053-11P-80-04F | 26 | 438 |
| 12 | 14 | 621 | 1.00 | 124.06 | 5.7 | 9.5 | 5.7 | 3.4 | | | |
| 15 | 18 | 481 | 1.25 | 96.08 | 7.6 | 10.5 | 7.6 | 3.8 | | | |
| 18 | 22 | 403 | 1.40 | 80.46 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 20 | 24 | 366 | 1.65 | 73.08 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 22 | 27 | 319 | 1.90 | 63.77 | 8.9 | 11.0 | 8.9 | 4.3 | | | |
| 24 | 29 | 302 | 2.00 | 60.26 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 29 | 35 | 248 | 2.45 | 49.43 | 9.2 | 11.3 | 9.2 | 4.6 | | | |
| 34 | 41 | 210 | 2.90 | 42.00 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 35 | 43 | 204 | 2.95 | 40.63 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 37 | 45 | 192 | 1.40 | 38.32 | 9.4 | 11.1 | 9.4 | 4.4 | | | |
| 47 | 57 | 152 | 2.60 | 30.37 | 9.6 | 11.3 | 9.6 | 4.6 | | | |

K

| P _N = 0.75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 14 | 17 | 504 | 0.80 | 66.20 | ** | ** | ** | ** | KH043-11P-90S/L-06E | 29 | 436 |
| 16 | 20 | 439 | 0.95 | 57.58 | 2.7 | 3.6 | 2.7 | 2.1 | | | |
| 17 | 21 | 413 | 1.00 | 54.18 | 3.5 | 5.3 | 3.5 | 2.2 | | | |
| 21 | 26 | 340 | 1.20 | 44.64 | 4.9 | 8.1 | 4.9 | 2.5 | | | |
| 24 | 30 | 293 | 0.95 | 38.49 | 5.5 | 8.0 | 5.5 | 2.4 | | | |
| 26 | 31 | 280 | 1.40 | 36.78 | 5.7 | 8.4 | 5.7 | 2.8 | | | |
| 31 | 38 | 232 | 1.40 | 30.39 | 6.1 | 8.3 | 6.1 | 2.7 | | | |
| 32 | 38 | 227 | 1.60 | 29.81 | 6.2 | 8.6 | 6.2 | 3.0 | | | |
| 33 | 41 | 214 | 1.90 | 28.13 | 6.3 | 8.6 | 6.3 | 3.0 | | | |
| 40 | 49 | 180 | 1.75 | 23.57 | 6.5 | 8.6 | 6.5 | 3.0 | | | |
| 44 | 54 | 162 | 2.50 | 21.25 | 6.6 | 8.9 | 6.6 | 3.3 | | | |
| 49 | 59 | 147 | 2.05 | 19.29 | 6.7 | 8.7 | 6.7 | 3.1 | | | |
| 63 | 77 | 113 | 2.50 | 14.85 | 6.8 | 8.9 | 6.8 | 3.3 | | | |
| 16 | 20 | 447 | 0.85 | 89.17 | 2.4 | 3.0 | 2.4 | 2.1 | KH043-11P-80-04F | 23 | 436 |
| 20 | 24 | 365 | 1.10 | 72.92 | 4.5 | 7.5 | 4.5 | 2.4 | | | |
| 22 | 26 | 332 | 1.25 | 66.20 | 5.0 | 8.2 | 5.0 | 2.6 | | | |
| 25 | 30 | 288 | 1.40 | 57.58 | 5.6 | 8.3 | 5.6 | 2.7 | | | |
| 26 | 32 | 271 | 1.50 | 54.18 | 5.8 | 8.4 | 5.8 | 2.8 | | | |
| 30 | 37 | 236 | 0.85 | 47.07 | 6.1 | 8.3 | 6.1 | 2.7 | | | |
| 32 | 39 | 224 | 1.80 | 44.64 | 6.2 | 8.6 | 6.2 | 3.0 | | | |
| 33 | 40 | 220 | 1.85 | 43.93 | 6.2 | 8.6 | 6.2 | 3.0 | | | |
| 37 | 45 | 193 | 1.45 | 38.49 | 6.4 | 8.5 | 6.4 | 2.9 | | | |
| 39 | 47 | 184 | 2.10 | 36.78 | 6.5 | 8.8 | 6.5 | 3.2 | | | |
| 39 | 48 | 183 | 2.20 | 36.54 | 6.5 | 8.8 | 6.5 | 3.2 | | | |
| 47 | 57 | 152 | 2.15 | 30.39 | 6.7 | 8.7 | 6.7 | 3.1 | | | |
| 48 | 58 | 149 | 2.45 | 29.81 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 51 | 62 | 141 | 2.85 | 28.13 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 61 | 74 | 118 | 2.65 | 23.57 | 6.8 | 8.9 | 6.8 | 3.3 | | | |
| 31 | 38 | 231 | 0.90 | 30.29 | 3.1 | 2.3 | 3.1 | 2.3 | KH033-11P-90S/L-06E | 26 | 434 |
| 33 | 40 | 218 | 0.95 | 28.67 | 3.4 | 2.4 | 3.4 | 2.4 | | | |
| 39 | 47 | 186 | 0.90 | 24.38 | 4.0 | 2.3 | 4.0 | 2.3 | | | |
| 43 | 53 | 165 | 1.25 | 21.67 | 4.2 | 2.7 | 4.2 | 2.7 | | | |
| 49 | 59 | 148 | 1.15 | 19.37 | 4.4 | 2.6 | 4.4 | 2.6 | | | |
| 57 | 70 | 125 | 1.60 | 16.47 | 4.6 | 2.9 | 4.6 | 2.9 | | | |
| 63 | 77 | 114 | 1.45 | 14.96 | 4.7 | 2.8 | 4.7 | 2.8 | | | |
| 73 | 89 | 98 | 2.05 | 12.81 | 4.8 | 3.1 | 4.8 | 3.1 | | | |
| 79 | 96 | 91 | 1.80 | 11.94 | 4.9 | 3.0 | 4.9 | 3.0 | | | |
| 94 | 115 | 76 | 2.65 | 10.00 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 104 | 127 | 69 | 2.40 | 9.03 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 137 | 167 | 52 | 2.90 | 6.86 | 5.1 | 3.3 | 5.1 | 3.3 | | | |
| 29 | 35 | 250 | 0.85 | 49.88 | 2.6 | 2.2 | 2.6 | 2.2 | | | |
| 31 | 37 | 233 | 0.90 | 46.48 | 3.1 | 2.3 | 3.1 | 2.3 | | | |
| 37 | 45 | 194 | 1.05 | 38.80 | 3.8 | 2.6 | 3.8 | 2.6 | | | |
| 40 | 48 | 180 | 1.15 | 35.90 | 4.0 | 2.6 | 4.0 | 2.6 | | | |
| 47 | 57 | 152 | 1.35 | 30.29 | 4.4 | 2.8 | 4.4 | 2.8 | | | |
| 48 | 58 | 150 | 0.90 | 29.97 | 4.4 | 2.6 | 4.4 | 2.6 | | | |
| 50 | 61 | 144 | 1.40 | 28.67 | 4.5 | 2.8 | 4.5 | 2.8 | | | |
| 59 | 71 | 122 | 1.35 | 24.38 | 4.7 | 2.8 | 4.7 | 2.8 | | | |
| 66 | 80 | 109 | 1.85 | 21.67 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 74 | 90 | 97 | 1.70 | 19.37 | 4.9 | 3.0 | 4.9 | 3.0 | | | |
| 87 | 106 | 82 | 2.45 | 16.47 | 4.9 | 3.2 | 4.9 | 3.2 | | | |
| 96 | 116 | 75 | 2.20 | 14.96 | 5.0 | 3.1 | 5.0 | 3.1 | | | |
| 120 | 146 | 60 | 2.75 | 11.94 | 5.0 | 3.2 | 5.0 | 3.2 | | | |

Legend see page 337

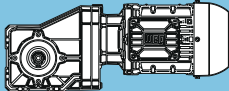
** ... on request

| P _N = 0.75 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-----|-----------------------|-----------------------|-----------------------|---------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 0.75 kW | | 0.90 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 61 | 74 | 117 | 0.80 | 15.41 | ** | ** | ** | ** | KH022-11P-90S/L-06E | 24 | 432 | |
| 68 | 83 | 105 | 0.90 | 13.81 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 71 | 86 | 101 | 0.90 | 13.29 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 79 | 96 | 91 | 1.00 | 11.92 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 81 | 99 | 88 | 1.00 | 11.60 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 90 | 110 | 79 | 1.10 | 10.40 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 102 | 124 | 70 | 1.15 | 9.25 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 110 | 135 | 65 | 1.20 | 8.51 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 123 | 150 | 58 | 1.35 | 7.63 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 136 | 166 | 53 | 1.45 | 6.91 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 158 | 192 | 45 | 1.55 | 5.96 | 4.8 | 2.8 | 4.8 | 2.8 | | | | |
| 181 | 220 | 40 | 1.65 | 5.20 | 4.5 | 2.8 | 4.5 | 2.8 | | | | |
| 246 | 300 | 29 | 2.00 | 3.82 | 4.1 | 2.8 | 4.1 | 2.8 | | | | |
| 54 | 66 | 132 | 0.85 | 26.41 | 4.8 | 2.8 | 4.8 | 2.8 | | | | KH022-11P-80-04F |
| 60 | 73 | 119 | 0.95 | 23.68 | 4.9 | 2.8 | 4.9 | 2.8 | | | | |
| 69 | 84 | 103 | 1.00 | 20.63 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 73 | 89 | 98 | 0.85 | 19.50 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 77 | 94 | 93 | 1.15 | 18.50 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 93 | 113 | 77 | 1.25 | 15.41 | 5.1 | 2.8 | 5.1 | 2.8 | | | | |
| 104 | 126 | 69 | 1.35 | 13.81 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 108 | 131 | 67 | 1.35 | 13.29 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 120 | 146 | 60 | 1.50 | 11.92 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 121 | 147 | 59 | 1.40 | 11.84 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 123 | 150 | 58 | 1.50 | 11.60 | 5.2 | 2.8 | 5.2 | 2.8 | | | | |
| 138 | 167 | 52 | 1.65 | 10.40 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 155 | 188 | 46 | 1.75 | 9.25 | 4.8 | 2.8 | 4.8 | 2.8 | | | | |
| 168 | 204 | 43 | 1.85 | 8.51 | 4.6 | 2.8 | 4.6 | 2.8 | | | | |
| 187 | 228 | 38 | 2.05 | 7.63 | 4.5 | 2.8 | 4.5 | 2.8 | | | | |
| 207 | 252 | 35 | 2.15 | 6.91 | 4.3 | 2.8 | 4.3 | 2.8 | | | | |
| 240 | 292 | 30 | 2.35 | 5.96 | 4.1 | 2.8 | 4.1 | 2.8 | | | | |
| 275 | 335 | 26 | 2.50 | 5.20 | 3.9 | 2.8 | 3.9 | 2.8 | | | | |
| 374 | 455 | 19 | 3.00 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | | |

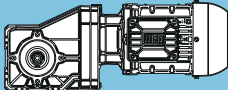
K

Legend see page 337

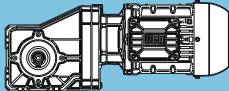
** ... on request

| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.44 | 0.53 | 21397 | 0.85 | 3337.74 | 61.0 | 105.7 | 61.0 | 105.7 | KH155-11P-90S/L-04E | 687 | 464 |
| 0.48 | 0.58 | 19471 | 0.95 | 3052.96 | 71.6 | 115.1 | 71.6 | 115.1 | | | |
| 0.53 | 0.64 | 17333 | 1.05 | 2731.65 | 80.8 | 116.8 | 80.8 | 116.8 | | | |
| 0.63 | 0.76 | 14487 | 1.25 | 2306.68 | 90.2 | 118.9 | 90.2 | 118.9 | | | |
| 0.66 | 0.79 | 13876 | 1.30 | 2215.09 | 91.9 | 119.4 | 91.9 | 119.4 | | | |
| 0.77 | 0.93 | 11674 | 1.55 | 1887.82 | 97.2 | 121.1 | 97.2 | 121.1 | | | |
| 0.78 | 0.95 | 11438 | 1.60 | 1854.30 | 97.7 | 121.3 | 97.7 | 121.3 | | | |
| 0.95 | 1.1 | 9273 | 1.95 | 1530.83 | 101.8 | 122.9 | 101.8 | 122.9 | | | |
| 0.97 | 1.2 | 9080 | 2.00 | 1502.83 | 102.1 | 123.1 | 102.1 | 123.1 | | | |
| 1.1 | 1.4 | 7583 | 2.40 | 1281.49 | 104.2 | 124.2 | 104.2 | 124.2 | | | |
| 0.42 | 0.51 | 22412 | 0.85 | 2306.68 | 54.1 | 91.1 | 54.1 | 91.1 | KH155-11P-100L-06D | 693 | 464 |
| 0.43 | 0.53 | 21522 | 0.85 | 2215.09 | 60.2 | 104.0 | 60.2 | 104.0 | | | |
| 0.51 | 0.62 | 18202 | 1.00 | 1887.82 | 77.3 | 116.1 | 77.3 | 116.1 | | | |
| 0.52 | 0.63 | 17833 | 1.05 | 1854.30 | 78.8 | 116.4 | 78.8 | 116.4 | | | |
| 0.63 | 0.76 | 14571 | 1.25 | 1530.83 | 90.0 | 118.9 | 90.0 | 118.9 | | | |
| 0.64 | 0.78 | 14268 | 1.30 | 1502.83 | 90.9 | 119.1 | 90.9 | 119.1 | | | |
| 0.75 | 0.91 | 12042 | 1.50 | 1281.49 | 96.4 | 120.8 | 96.4 | 120.8 | | | |
| 0.92 | 1.1 | 9560 | 1.90 | 1038.59 | 101.3 | 122.7 | 101.3 | 122.7 | | | |
| 1.1 | 1.3 | 8111 | 2.25 | 1308.92 | 103.5 | 123.8 | 103.5 | 123.8 | KH154-11P-90S/L-04E | 674 | 462 |
| 1.3 | 1.6 | 6870 | 2.65 | 1127.36 | 105.1 | 124.8 | 105.1 | 124.8 | | | |
| 1.4 | 1.7 | 6248 | 2.90 | 1035.99 | 105.8 | 125.2 | 105.8 | 125.2 | | | |
| 0.73 | 0.89 | 12706 | 1.45 | 1308.92 | 94.9 | 120.3 | 94.9 | 120.3 | KH154-11P-100L-06D | 680 | 462 |
| 0.85 | 1.0 | 10832 | 1.70 | 1127.36 | 99.0 | 121.7 | 99.0 | 121.7 | | | |
| 0.93 | 1.1 | 9892 | 1.85 | 1035.99 | 100.7 | 122.5 | 100.7 | 122.5 | | | |
| 0.98 | 1.2 | 9272 | 1.95 | 975.12 | 101.8 | 122.9 | 101.8 | 122.9 | | | |
| 1.1 | 1.3 | 8531 | 2.15 | 904.58 | 102.9 | 123.5 | 102.9 | 123.5 | | | |
| 1.2 | 1.5 | 7446 | 2.45 | 799.45 | 104.4 | 124.3 | 104.4 | 124.3 | | | |
| 1.4 | 1.7 | 6294 | 2.90 | 688.57 | 105.7 | 125.2 | 105.7 | 125.2 | | | |
| 0.92 | 1.1 | 10181 | 1.30 | 1579.81 | 78.3 | 87.3 | 78.3 | 87.3 | KH124-11P-90S/L-04E | 420 | 458 |
| 1.1 | 1.3 | 8804 | 1.50 | 1377.44 | 81.2 | 88.7 | 81.2 | 88.7 | | | |
| 1.2 | 1.4 | 7732 | 1.70 | 1219.69 | 83.1 | 89.8 | 83.1 | 89.8 | | | |
| 1.4 | 1.7 | 6672 | 1.95 | 1063.46 | 84.8 | 90.8 | 84.8 | 90.8 | | | |
| 1.6 | 1.9 | 5664 | 2.30 | 916.04 | 86.1 | 91.8 | 86.1 | 91.8 | | | |
| 1.8 | 2.2 | 4882 | 2.70 | 802.79 | 86.9 | 92.6 | 86.9 | 92.6 | | | |
| 1.9 | 2.3 | 4652 | 2.80 | 768.25 | 87.1 | 92.8 | 87.1 | 92.8 | | | |
| 0.61 | 0.74 | 15719 | 0.85 | 1579.81 | 59.8 | 81.7 | 59.8 | 81.7 | KH124-11P-100L-06D | 426 | 458 |
| 0.70 | 0.85 | 13621 | 1.00 | 1377.44 | 68.3 | 83.8 | 68.3 | 83.8 | | | |
| 0.79 | 0.96 | 12012 | 1.10 | 1219.69 | 73.5 | 85.5 | 73.5 | 85.5 | | | |
| 0.81 | 0.98 | 11661 | 1.15 | 1186.50 | 74.5 | 85.8 | 74.5 | 85.8 | | | |
| 0.90 | 1.1 | 10409 | 1.25 | 1063.46 | 77.8 | 87.1 | 77.8 | 87.1 | | | |
| 0.94 | 1.1 | 9971 | 1.35 | 1022.92 | 78.8 | 87.5 | 78.8 | 87.5 | | | |
| 1.0 | 1.3 | 8874 | 1.50 | 916.04 | 81.1 | 88.6 | 81.1 | 88.6 | | | |
| 1.1 | 1.3 | 8622 | 1.55 | 891.88 | 81.6 | 88.9 | 81.6 | 88.9 | | | |
| 1.2 | 1.5 | 7713 | 1.70 | 802.79 | 83.2 | 89.8 | 83.2 | 89.8 | | | |
| 1.4 | 1.7 | 6642 | 2.00 | 699.95 | 84.8 | 90.8 | 84.8 | 90.8 | | | |
| 1.5 | 1.8 | 6252 | 2.10 | 661.56 | 85.3 | 91.2 | 85.3 | 91.2 | | | |
| 1.6 | 1.9 | 5639 | 2.35 | 602.92 | 86.1 | 91.8 | 86.1 | 91.8 | | | |
| 1.8 | 2.2 | 4989 | 2.65 | 540.20 | 86.8 | 92.5 | 86.8 | 92.5 | | | |
| 1.9 | 2.3 | 4704 | 2.80 | 512.47 | 87.1 | 92.8 | 87.1 | 92.8 | | | |
| 1.1 | 1.4 | 8509 | 0.95 | 1301.54 | 43.2 | 59.4 | 43.2 | 59.4 | KH104-11P-90S/L-04E | 297 | 454 |
| 1.3 | 1.6 | 7341 | 1.10 | 1129.81 | 48.7 | 60.8 | 48.7 | 60.8 | | | |
| 1.4 | 1.8 | 6489 | 1.25 | 1004.85 | 51.9 | 61.8 | 51.9 | 61.8 | | | |
| 1.5 | 1.8 | 6291 | 1.30 | 976.16 | 52.5 | 62.0 | 52.5 | 62.0 | | | |
| 1.7 | 2.0 | 5587 | 1.45 | 872.27 | 54.7 | 62.8 | 54.7 | 62.8 | | | |
| 1.9 | 2.3 | 4777 | 1.70 | 753.64 | 56.7 | 63.7 | 56.7 | 63.7 | | | |
| 2.0 | 2.4 | 4628 | 1.75 | 731.54 | 57.0 | 63.9 | 57.0 | 63.9 | | | |
| 2.2 | 2.7 | 4149 | 1.95 | 661.38 | 58.0 | 64.4 | 58.0 | 64.4 | | | |
| 2.3 | 2.8 | 3949 | 2.05 | 632.05 | 58.4 | 64.7 | 58.4 | 64.7 | | | |
| 2.5 | 3.1 | 3557 | 2.25 | 574.12 | 59.1 | 65.1 | 59.1 | 65.1 | | | |
| 2.9 | 3.4 | 3117 | 2.60 | 510.43 | 59.8 | 65.6 | 59.8 | 65.6 | | | |

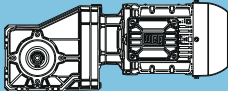
Legend see page 337

| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.96 | 1.2 | 10019 | 0.80 | 1004.85 | ** | ** | ** | ** | KH104-11P-100L-06D | 303 | 454 |
| 0.98 | 1.2 | 9713 | 0.85 | 976.16 | 35.6 | 58.1 | 35.6 | 58.1 | | | |
| 1.1 | 1.3 | 8643 | 0.95 | 872.27 | 42.5 | 59.3 | 42.5 | 59.3 | | | |
| 1.3 | 1.5 | 7422 | 1.10 | 753.64 | 48.3 | 60.7 | 48.3 | 60.7 | | | |
| 1.5 | 1.8 | 6473 | 1.25 | 661.38 | 51.9 | 61.8 | 51.9 | 61.8 | | | |
| 1.7 | 2.0 | 5573 | 1.45 | 574.12 | 54.7 | 62.8 | 54.7 | 62.8 | | | |
| 1.9 | 2.3 | 4914 | 1.65 | 510.43 | 56.4 | 63.6 | 56.4 | 63.6 | | | |
| 2.2 | 2.6 | 4222 | 1.90 | 443.08 | 57.9 | 64.3 | 57.9 | 64.3 | | | |
| 2.3 | 2.8 | 4006 | 2.00 | 422.20 | 58.3 | 64.6 | 58.3 | 64.6 | | | |
| 2.5 | 3.0 | 3595 | 2.25 | 382.82 | 59.0 | 65.1 | 59.0 | 65.1 | | | |
| 2.6 | 3.2 | 3428 | 2.35 | 366.49 | 59.3 | 65.3 | 59.3 | 65.3 | | | |
| 2.7 | 3.2 | 3352 | 2.40 | 359.12 | 59.4 | 65.3 | 59.4 | 65.3 | | | |
| 3.0 | 3.7 | 2912 | 2.75 | 316.65 | 60.0 | 65.8 | 60.0 | 65.8 | | | |
| 3.1 | 3.7 | 2861 | 2.80 | 311.74 | 60.1 | 65.9 | 60.1 | 65.9 | | | |
| 1.6 | 1.9 | 5964 | 0.80 | 906.69 | ** | ** | ** | ** | KH124-11P-90S/L-04E | 168 | 458 |
| 1.9 | 2.3 | 5022 | 0.90 | 766.52 | 24.1 | 38.6 | 24.1 | 38.6 | | | |
| 2.0 | 2.4 | 4852 | 0.95 | 742.09 | 25.5 | 38.8 | 25.5 | 38.8 | | | |
| 2.3 | 2.8 | 4068 | 1.15 | 627.37 | 30.5 | 39.8 | 30.5 | 39.8 | | | |
| 2.5 | 3.1 | 3689 | 1.25 | 571.21 | 32.4 | 40.3 | 32.4 | 40.3 | | | |
| 3.0 | 3.6 | 3087 | 1.50 | 482.91 | 34.8 | 41.1 | 34.8 | 41.1 | | | |
| 3.4 | 4.1 | 2742 | 1.65 | 431.58 | 35.9 | 41.5 | 35.9 | 41.5 | | | |
| 4.0 | 4.8 | 2284 | 2.00 | 364.86 | 37.2 | 42.1 | 37.2 | 42.1 | | | |
| 4.1 | 5.0 | 2207 | 2.05 | 353.21 | 37.4 | 42.2 | 37.4 | 42.2 | | | |
| 4.9 | 5.9 | 1831 | 2.50 | 298.61 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 5.1 | 6.1 | 1749 | 2.60 | 286.42 | 38.4 | 42.8 | 38.4 | 42.8 | | | |
| 1.7 | 2.0 | 5695 | 0.80 | 571.21 | ** | ** | ** | ** | KH094-11P-100L-06D | 174 | 450 |
| 2.0 | 2.4 | 4785 | 0.95 | 482.91 | 26.0 | 38.9 | 26.0 | 38.9 | | | |
| 2.2 | 2.7 | 4250 | 1.10 | 431.58 | 29.5 | 39.6 | 29.5 | 39.6 | | | |
| 2.6 | 3.2 | 3564 | 1.30 | 364.86 | 32.9 | 40.5 | 32.9 | 40.5 | | | |
| 2.7 | 3.3 | 3443 | 1.35 | 353.21 | 33.4 | 40.6 | 33.4 | 40.6 | | | |
| 3.2 | 3.9 | 2881 | 1.60 | 298.61 | 35.5 | 41.3 | 35.5 | 41.3 | | | |
| 3.4 | 4.1 | 2758 | 1.65 | 286.42 | 35.9 | 41.5 | 35.9 | 41.5 | | | |
| 4.0 | 4.8 | 2298 | 2.00 | 242.14 | 37.2 | 42.1 | 37.2 | 42.1 | | | |
| 4.7 | 5.7 | 1892 | 2.40 | 202.70 | 38.1 | 42.6 | 38.1 | 42.6 | | | |
| 4.9 | 6.0 | 1806 | 2.50 | 194.32 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 5.7 | 6.9 | 1852 | 2.45 | 169.25 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 6.7 | 8.1 | 1566 | 2.90 | 143.08 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 2.6 | 3.2 | 3615 | 0.85 | 550.61 | 12.4 | 19.5 | 12.4 | 7.2 | KH084-11P-90S/L-04E | 118 | 446 |
| 2.8 | 3.3 | 3443 | 0.90 | 525.61 | 14.8 | 24.5 | 14.8 | 7.4 | | | |
| 3.0 | 3.7 | 3137 | 1.00 | 480.77 | 18.1 | 31.6 | 18.1 | 7.9 | | | |
| 3.4 | 4.1 | 2795 | 1.10 | 430.17 | 21.0 | 37.9 | 21.0 | 8.4 | | | |
| 3.5 | 4.2 | 2698 | 1.15 | 416.02 | 21.7 | 39.4 | 21.7 | 8.5 | | | |
| 4.0 | 4.8 | 2341 | 1.30 | 363.25 | 23.8 | 41.5 | 23.8 | 9.0 | | | |
| 4.2 | 5.0 | 2243 | 1.35 | 348.82 | 24.3 | 41.7 | 24.3 | 9.2 | | | |
| 4.3 | 5.2 | 2185 | 1.40 | 340.47 | 24.6 | 41.8 | 24.6 | 9.3 | | | |
| 4.9 | 5.9 | 1892 | 1.60 | 297.29 | 25.9 | 42.2 | 25.9 | 9.7 | | | |
| 5.0 | 6.0 | 1855 | 1.65 | 292.01 | 26.1 | 42.3 | 26.1 | 9.8 | | | |
| 5.3 | 6.4 | 1747 | 1.75 | 276.09 | 26.5 | 42.4 | 26.5 | 9.9 | | | |
| 6.0 | 7.3 | 1509 | 2.00 | 241.07 | 27.2 | 42.8 | 27.2 | 10.3 | | | |
| 6.1 | 7.4 | 1479 | 2.05 | 236.66 | 27.3 | 42.8 | 27.3 | 10.3 | | | |
| 6.3 | 7.6 | 1441 | 2.10 | 231.12 | 27.4 | 42.9 | 27.4 | 10.4 | | | |
| 7.2 | 8.7 | 1240 | 2.45 | 201.80 | 28.0 | 43.2 | 28.0 | 10.7 | | | |
| 7.8 | 9.4 | 1141 | 2.65 | 187.31 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 2.6 | 3.2 | 3614 | 0.85 | 363.25 | 12.4 | 19.5 | 12.4 | 7.2 | KH093-11P-100L-06D | 124 | 448 |
| 2.8 | 3.3 | 3464 | 0.90 | 348.82 | 14.5 | 23.9 | 14.5 | 7.4 | | | |
| 3.2 | 3.9 | 2934 | 1.05 | 297.29 | 19.9 | 35.5 | 19.9 | 8.2 | | | |
| 3.3 | 4.0 | 2882 | 1.05 | 292.01 | 20.3 | 36.3 | 20.3 | 8.2 | | | |
| 3.5 | 4.2 | 2713 | 1.15 | 276.09 | 21.6 | 39.2 | 21.6 | 8.5 | | | |
| 4.0 | 4.8 | 2355 | 1.30 | 241.07 | 23.7 | 41.5 | 23.7 | 9.0 | | | |
| 4.1 | 4.9 | 2312 | 1.30 | 236.66 | 24.0 | 41.6 | 24.0 | 9.1 | | | |
| 4.2 | 5.0 | 2253 | 1.35 | 231.12 | 24.3 | 41.7 | 24.3 | 9.2 | | | |
| 4.8 | 5.8 | 1951 | 1.55 | 201.80 | 25.7 | 42.1 | 25.7 | 9.6 | | | |
| 5.1 | 6.2 | 1800 | 1.70 | 187.31 | 26.3 | 42.3 | 26.3 | 9.8 | | | |
| 5.9 | 7.1 | 1555 | 1.95 | 163.55 | 27.1 | 42.7 | 27.1 | 10.2 | | | |



| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 7.1 | 8.5 | 1488 | 2.05 | 206.12 | 27.3 | 42.8 | 27.3 | 10.3 | KH083-11P-90S/L-04E | 105 | 444 |
| 8.9 | 11 | 1178 | 2.55 | 163.14 | 28.1 | 43.3 | 28.1 | 10.8 | | | |
| 10 | 12 | 1028 | 2.95 | 142.45 | 28.4 | 43.5 | 27.9 | 11.0 | | | |
| 4.7 | 5.7 | 2256 | 1.35 | 206.12 | 24.3 | 41.7 | 24.3 | 9.2 | KH083-11P-100L-06D | 111 | 444 |
| 5.9 | 7.1 | 1785 | 1.70 | 163.14 | 26.3 | 42.4 | 26.3 | 9.9 | | | |
| 6.7 | 8.2 | 1559 | 1.95 | 142.45 | 27.1 | 42.7 | 27.1 | 10.2 | | | |
| 7.6 | 9.3 | 1378 | 2.20 | 125.90 | 27.6 | 43.0 | 27.6 | 10.5 | | | |
| 9.0 | 11 | 1165 | 2.60 | 106.46 | 28.2 | 43.3 | 28.2 | 10.8 | | | |
| 10 | 13 | 1001 | 3.00 | 91.51 | 28.5 | 43.5 | 27.8 | 11.0 | | | |
| 5.7 | 6.9 | 1849 | 0.85 | 256.14 | 12.3 | 15.2 | 12.3 | 3.9 | KH073-11P-90S/L-04E | 64 | 442 |
| 7.4 | 8.9 | 1428 | 1.10 | 197.75 | 16.1 | 16.0 | 16.1 | 4.8 | | | |
| 8.8 | 11 | 1197 | 1.30 | 165.85 | 17.5 | 16.5 | 17.5 | 5.3 | | | |
| 11 | 14 | 940 | 1.65 | 130.16 | 18.7 | 17.1 | 18.7 | 5.8 | | | |
| 14 | 18 | 725 | 2.15 | 100.45 | 19.4 | 17.5 | 18.0 | 6.3 | | | |
| 15 | 18 | 721 | 1.80 | 99.87 | 19.4 | 17.5 | 17.6 | 6.3 | | | |
| 18 | 21 | 600 | 2.60 | 83.09 | 19.8 | 17.8 | 16.3 | 6.5 | | | |
| 19 | 23 | 557 | 2.80 | 77.11 | 19.9 | 17.8 | 15.8 | 6.6 | | | |
| 31 | 37 | 343 | 1.80 | 47.56 | 20.2 | 17.9 | 13.1 | 6.7 | | | |
| 40 | 48 | 265 | 2.90 | 36.72 | 20.3 | 18.2 | 11.8 | 6.9 | | | |
| 5.8 | 7 | 1815 | 0.90 | 165.85 | 12.6 | 15.2 | 12.6 | 4.0 | KH073-11P-100L-06D | 70 | 442 |
| 7.4 | 9 | 1424 | 1.10 | 130.16 | 16.1 | 16.1 | 16.1 | 4.8 | | | |
| 9.6 | 12 | 1099 | 1.45 | 100.45 | 18.0 | 16.7 | 18.0 | 5.5 | | | |
| 12 | 14 | 909 | 1.75 | 83.09 | 18.8 | 17.1 | 18.8 | 5.9 | | | |
| 14 | 16 | 773 | 2.05 | 70.67 | 19.3 | 17.4 | 18.2 | 6.2 | | | |
| 15 | 18 | 708 | 2.20 | 64.67 | 19.5 | 17.5 | 17.6 | 6.3 | | | |
| 16 | 19 | 670 | 2.35 | 61.25 | 19.6 | 17.6 | 17.1 | 6.4 | | | |
| 19 | 23 | 566 | 2.75 | 51.72 | 19.8 | 17.8 | 15.9 | 6.6 | | | |
| 20 | 24 | 520 | 1.20 | 47.56 | 19.9 | 17.4 | 15.8 | 6.1 | | | |
| 26 | 32 | 402 | 1.90 | 36.72 | 20.2 | 17.7 | 14.1 | 6.5 | | | |
| 31 | 38 | 337 | 2.75 | 30.79 | 20.3 | 17.9 | 13.1 | 6.7 | | | |
| 12 | 14 | 880 | 0.95 | 121.85 | 7.8 | 12.5 | 7.8 | 2.5 | KH063-11P-90S/L-04E | 44 | 440 |
| 15 | 18 | 722 | 1.15 | 99.98 | 9.6 | 13.0 | 9.6 | 3.0 | | | |
| 18 | 22 | 589 | 1.00 | 81.53 | 10.6 | 13.4 | 10.6 | 3.4 | | | |
| 19 | 23 | 559 | 1.50 | 77.42 | 10.8 | 13.5 | 10.8 | 3.5 | | | |
| 23 | 27 | 467 | 1.80 | 64.62 | 11.4 | 13.8 | 11.4 | 3.8 | | | |
| 25 | 30 | 425 | 1.95 | 58.89 | 11.5 | 13.9 | 11.5 | 4.0 | | | |
| 29 | 35 | 362 | 2.30 | 50.17 | 11.8 | 14.1 | 11.7 | 4.2 | | | |
| 30 | 36 | 351 | 2.35 | 48.56 | 11.9 | 14.1 | 11.5 | 4.2 | | | |
| 33 | 40 | 320 | 1.00 | 44.35 | 12.0 | 13.8 | 11.3 | 3.9 | | | |
| 35 | 43 | 297 | 2.80 | 41.17 | 12.0 | 14.3 | 10.8 | 4.4 | | | |
| 37 | 44 | 288 | 2.80 | 39.83 | 12.1 | 14.3 | 10.5 | 4.4 | | | |
| 41 | 50 | 254 | 1.80 | 35.15 | 12.2 | 14.1 | 10.2 | 4.2 | | | |
| 53 | 64 | 197 | 2.55 | 27.29 | 12.3 | 14.4 | 9.2 | 4.4 | | | |
| 12 | 15 | 847 | 1.00 | 77.42 | 8.2 | 12.6 | 8.2 | 2.6 | KH063-11P-100L-06D | 50 | 440 |
| 15 | 18 | 707 | 1.20 | 64.62 | 9.7 | 13.0 | 9.7 | 3.1 | | | |
| 16 | 20 | 644 | 1.30 | 58.89 | 10.2 | 13.2 | 10.2 | 3.3 | | | |
| 19 | 23 | 549 | 1.50 | 50.17 | 10.9 | 13.5 | 10.9 | 3.6 | | | |
| 20 | 24 | 531 | 1.55 | 48.56 | 11.0 | 13.6 | 11.0 | 3.6 | | | |
| 23 | 28 | 451 | 1.85 | 41.17 | 11.4 | 13.8 | 11.4 | 3.9 | | | |
| 24 | 29 | 436 | 1.85 | 39.83 | 11.5 | 13.9 | 11.5 | 3.9 | | | |
| 27 | 33 | 385 | 1.20 | 35.15 | 11.7 | 13.5 | 11.7 | 3.6 | | | |
| 28 | 34 | 370 | 2.05 | 33.85 | 11.8 | 14.1 | 11.8 | 4.1 | | | |
| 30 | 37 | 349 | 2.40 | 31.88 | 11.9 | 14.2 | 11.5 | 4.2 | | | |
| 34 | 42 | 305 | 2.35 | 27.83 | 12.0 | 14.3 | 10.9 | 4.3 | | | |
| 35 | 43 | 299 | 1.70 | 27.29 | 12.0 | 13.9 | 11.0 | 4.0 | | | |
| 40 | 48 | 265 | 2.95 | 24.25 | 12.1 | 14.4 | 10.2 | 4.5 | | | |
| 43 | 52 | 245 | 2.05 | 22.40 | 12.2 | 14.2 | 10.0 | 4.2 | | | |
| 55 | 67 | 190 | 2.65 | 17.34 | 12.3 | 14.4 | 9.0 | 4.5 | | | |

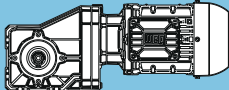
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| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 15 | 18 | 694 | 0.90 | 96.08 | 4.2 | 6.3 | 4.2 | 3.2 | KH053-11P-90S/L-04E | 31 | 438 |
| 18 | 22 | 581 | 1.00 | 80.46 | 6.4 | 10.2 | 6.4 | 3.5 | | | |
| 20 | 24 | 528 | 1.15 | 73.08 | 7.1 | 10.4 | 7.1 | 3.7 | | | |
| 23 | 28 | 460 | 1.35 | 63.77 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 24 | 29 | 435 | 1.40 | 60.26 | 8.0 | 10.7 | 8.0 | 4.0 | | | |
| 29 | 36 | 358 | 1.70 | 49.52 | 8.6 | 10.9 | 8.6 | 4.2 | | | |
| 35 | 42 | 303 | 2.00 | 42.00 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 36 | 43 | 293 | 2.05 | 40.63 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 38 | 46 | 277 | 1.00 | 38.32 | 9.1 | 10.8 | 9.1 | 4.1 | | | |
| 42 | 51 | 249 | 2.45 | 34.53 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 46 | 56 | 227 | 2.65 | 31.46 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 48 | 58 | 219 | 1.80 | 30.37 | 9.3 | 11.0 | 9.3 | 4.3 | | | |
| 53 | 64 | 198 | 2.95 | 27.39 | 9.4 | 11.4 | 9.4 | 4.7 | | | |
| 62 | 75 | 170 | 2.45 | 23.58 | 9.5 | 11.2 | 9.5 | 4.5 | | | |
| 75 | 91 | 140 | 3.00 | 19.35 | 9.6 | 11.4 | 9.6 | 4.7 | | | |
| 13 | 16 | 800 | 0.80 | 73.08 | ** | ** | ** | ** | KH053-11P-100L-06D | 36 | 438 |
| 15 | 18 | 698 | 0.90 | 63.77 | 4.1 | 6.1 | 4.1 | 3.2 | | | |
| 16 | 19 | 659 | 0.95 | 60.26 | 5.0 | 8.0 | 5.0 | 3.3 | | | |
| 19 | 24 | 542 | 1.15 | 49.52 | 6.9 | 10.4 | 6.9 | 3.7 | | | |
| 23 | 28 | 460 | 1.35 | 42.00 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 24 | 29 | 445 | 1.35 | 40.63 | 8.0 | 10.7 | 8.0 | 4.0 | | | |
| 28 | 34 | 378 | 1.60 | 34.53 | 8.5 | 10.9 | 8.5 | 4.2 | | | |
| 31 | 37 | 344 | 1.75 | 31.46 | 8.7 | 11.0 | 8.7 | 4.3 | | | |
| 32 | 38 | 332 | 1.20 | 30.37 | 8.8 | 10.5 | 8.8 | 3.8 | | | |
| 35 | 43 | 300 | 1.95 | 27.39 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 40 | 49 | 262 | 2.30 | 23.93 | 9.2 | 11.2 | 9.2 | 4.5 | | | |
| 41 | 49 | 258 | 1.65 | 23.58 | 9.2 | 10.8 | 9.2 | 4.1 | | | |
| 49 | 59 | 216 | 2.80 | 19.73 | 9.4 | 11.3 | 9.4 | 4.6 | | | |
| 50 | 60 | 212 | 2.00 | 19.35 | 9.4 | 11.1 | 9.4 | 4.4 | | | |
| 64 | 78 | 164 | 2.55 | 14.98 | 9.5 | 11.3 | 9.5 | 4.6 | | | |
| 20 | 24 | 526 | 0.80 | 72.92 | ** | ** | ** | ** | KH043-11P-90S/L-04E | 27 | 436 |
| 22 | 27 | 478 | 0.85 | 66.20 | ** | ** | ** | ** | | | |
| 25 | 31 | 416 | 1.00 | 57.58 | 3.4 | 5.1 | 3.4 | 2.2 | | | |
| 27 | 32 | 391 | 1.05 | 54.18 | 4.0 | 6.4 | 4.0 | 2.3 | | | |
| 33 | 39 | 322 | 1.25 | 44.64 | 5.2 | 8.2 | 5.2 | 2.6 | | | |
| 38 | 46 | 278 | 1.00 | 38.49 | 5.7 | 8.1 | 5.7 | 2.5 | | | |
| 40 | 48 | 266 | 1.45 | 36.78 | 5.8 | 8.4 | 5.8 | 2.8 | | | |
| 48 | 58 | 219 | 1.50 | 30.39 | 6.2 | 8.4 | 6.2 | 2.8 | | | |
| 49 | 59 | 215 | 1.70 | 29.81 | 6.3 | 8.6 | 6.3 | 3.0 | | | |
| 52 | 63 | 203 | 2.00 | 28.13 | 6.4 | 8.7 | 6.4 | 3.1 | | | |
| 62 | 75 | 170 | 1.85 | 23.57 | 6.6 | 8.6 | 6.6 | 3.0 | | | |
| 68 | 83 | 153 | 2.65 | 21.25 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 75 | 91 | 139 | 2.15 | 19.29 | 6.7 | 8.8 | 6.7 | 3.2 | | | |
| 98 | 119 | 107 | 2.60 | 14.85 | 6.9 | 8.9 | 6.9 | 3.3 | | | |
| 22 | 26 | 488 | 0.85 | 44.64 | ** | ** | ** | ** | | | |
| 26 | 32 | 402 | 1.00 | 36.78 | 3.8 | 6.0 | 3.8 | 2.3 | | | |
| 32 | 38 | 333 | 1.00 | 30.39 | 5.0 | 7.8 | 5.0 | 2.2 | | | |
| 34 | 41 | 308 | 1.30 | 28.13 | 5.4 | 8.3 | 5.4 | 2.7 | | | |
| 41 | 49 | 258 | 1.20 | 23.57 | 5.9 | 8.2 | 5.9 | 2.6 | | | |
| 45 | 55 | 233 | 1.75 | 21.25 | 6.1 | 8.6 | 6.1 | 3.0 | | | |
| 50 | 60 | 211 | 1.40 | 19.29 | 6.3 | 8.4 | 6.3 | 2.8 | | | |
| 55 | 67 | 190 | 2.15 | 17.39 | 6.4 | 8.7 | 6.4 | 3.1 | | | |
| 65 | 78 | 162 | 1.75 | 14.85 | 6.6 | 8.7 | 6.6 | 3.1 | | | |
| 68 | 83 | 154 | 2.60 | 14.10 | 6.7 | 8.9 | 6.7 | 3.3 | | | |
| 86 | 104 | 123 | 2.15 | 11.22 | 6.8 | 8.9 | 6.8 | 3.3 | | | |
| 105 | 127 | 100 | 2.50 | 9.18 | 6.9 | 9.0 | 6.9 | 3.4 | | | |
| 129 | 157 | 81 | 2.95 | 7.44 | 6.9 | 9.1 | 6.4 | 3.5 | | | |



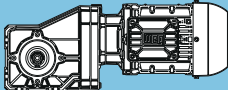
Legend see page 337

** ... on request

| P _N = 1.1 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 1.1 kW | | 1.3 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 41 | 49 | 259 | 0.80 | 35.90 | ** | ** | ** | ** | KH033-11P-90S/L-04E | 24 | 434 |
| 48 | 58 | 219 | 0.95 | 30.29 | 3.4 | 2.4 | 3.4 | 2.4 | | | |
| 51 | 61 | 207 | 1.00 | 28.67 | 3.6 | 2.5 | 3.6 | 2.5 | | | |
| 60 | 72 | 176 | 0.95 | 24.38 | 4.1 | 2.4 | 4.1 | 2.4 | | | |
| 67 | 81 | 156 | 1.30 | 21.67 | 4.3 | 2.8 | 4.3 | 2.8 | | | |
| 75 | 91 | 140 | 1.20 | 19.37 | 4.5 | 2.6 | 4.5 | 2.6 | | | |
| 88 | 107 | 119 | 1.70 | 16.47 | 4.7 | 3.0 | 4.7 | 3.0 | | | |
| 97 | 118 | 108 | 1.55 | 14.96 | 4.8 | 2.9 | 4.8 | 2.9 | | | |
| 114 | 137 | 92 | 2.20 | 12.81 | 4.9 | 3.1 | 4.9 | 3.1 | | | |
| 122 | 147 | 86 | 1.90 | 11.94 | 4.9 | 3.0 | 4.9 | 3.0 | | | |
| 146 | 176 | 72 | 2.80 | 10.00 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 161 | 195 | 65 | 2.55 | 9.03 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 44 | 54 | 237 | 0.85 | 21.67 | 3.0 | 2.3 | 3.0 | 2.3 | KH033-11P-100L-06D | 29 | 434 |
| 50 | 60 | 212 | 0.80 | 19.37 | ** | ** | ** | ** | | | |
| 58 | 71 | 180 | 1.15 | 16.47 | 4.0 | 2.6 | 4.0 | 2.6 | | | |
| 64 | 78 | 164 | 1.00 | 14.96 | 4.3 | 2.5 | 4.3 | 2.5 | | | |
| 75 | 91 | 140 | 1.45 | 12.81 | 4.5 | 2.9 | 4.5 | 2.9 | | | |
| 80 | 98 | 131 | 1.25 | 11.94 | 4.6 | 2.7 | 4.6 | 2.7 | | | |
| 96 | 117 | 109 | 1.85 | 10.00 | 4.8 | 3.0 | 4.8 | 3.0 | | | |
| 106 | 129 | 99 | 1.65 | 9.03 | 4.8 | 2.9 | 4.8 | 2.9 | | | |
| 140 | 170 | 75 | 2.00 | 6.86 | 5.0 | 3.1 | 5.0 | 3.1 | | | |
| 180 | 218 | 58 | 2.35 | 5.34 | 5.0 | 3.2 | 5.0 | 3.2 | | | |
| 230 | 279 | 46 | 2.80 | 4.17 | 5.1 | 3.3 | 5.1 | 3.3 | | | |
| 79 | 95 | 134 | 0.80 | 18.50 | ** | ** | ** | ** | KH022-11P-90S/L-04E | 22 | 432 |
| 94 | 114 | 111 | 0.85 | 15.41 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 105 | 127 | 100 | 0.95 | 13.81 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 109 | 132 | 96 | 0.95 | 13.29 | 5.0 | 2.8 | 5.0 | 2.8 | | | |
| 122 | 148 | 86 | 1.05 | 11.92 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 123 | 149 | 85 | 0.95 | 11.84 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 125 | 152 | 84 | 1.05 | 11.60 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 140 | 169 | 75 | 1.15 | 10.40 | 5.1 | 2.8 | 5.1 | 2.8 | | | |
| 157 | 190 | 67 | 1.25 | 9.25 | 4.9 | 2.8 | 4.9 | 2.8 | | | |
| 171 | 207 | 61 | 1.30 | 8.51 | 4.7 | 2.8 | 4.7 | 2.8 | | | |
| 191 | 231 | 55 | 1.40 | 7.63 | 4.5 | 2.8 | 4.5 | 2.8 | | | |
| 211 | 255 | 50 | 1.50 | 6.91 | 4.4 | 2.8 | 4.4 | 2.8 | | | |
| 244 | 295 | 43 | 1.65 | 5.96 | 4.1 | 2.8 | 4.1 | 2.8 | | | |
| 280 | 338 | 38 | 1.75 | 5.20 | 3.9 | 2.8 | 3.9 | 2.8 | | | |
| 381 | 461 | 28 | 2.10 | 3.82 | 3.5 | 2.8 | 3.5 | 2.8 | | | |

Legend see page 337

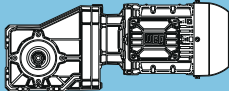
** ... on request

| P _N = 1.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.5 kW | | 1.8 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.63 | 0.76 | 20182 | 0.90 | 2306.68 | 68.0 | 114.6 | 68.0 | 114.6 | KH155-11P-90S/L-04F | 688 | 464 |
| 0.65 | 0.79 | 19331 | 0.95 | 2215.09 | 72.3 | 115.2 | 72.3 | 115.2 | | | |
| 0.77 | 0.93 | 16307 | 1.15 | 1887.82 | 84.5 | 117.6 | 84.5 | 117.6 | | | |
| 0.78 | 0.95 | 16017 | 1.15 | 1854.30 | 85.5 | 117.8 | 85.5 | 117.8 | | | |
| 0.95 | 1.1 | 13054 | 1.40 | 1530.83 | 94.1 | 120.0 | 94.1 | 120.0 | | | |
| 0.96 | 1.2 | 12782 | 1.45 | 1502.83 | 94.7 | 120.2 | 94.7 | 120.2 | | | |
| 1.1 | 1.4 | 10760 | 1.70 | 1281.49 | 99.1 | 121.8 | 99.1 | 121.8 | | | |
| 1.4 | 1.7 | 8520 | 2.15 | 1038.59 | 102.9 | 123.5 | 102.9 | 123.5 | | | |
| 1.1 | 1.3 | 11401 | 1.60 | 1308.92 | 97.8 | 121.3 | 97.8 | 121.3 | KH154-11P-90S/L-04F | 675 | 462 |
| 1.3 | 1.6 | 9698 | 1.90 | 1127.36 | 101.0 | 122.6 | 101.0 | 122.6 | | | |
| 1.4 | 1.7 | 8857 | 2.05 | 1035.99 | 102.4 | 123.2 | 102.4 | 123.2 | | | |
| 1.5 | 1.8 | 8285 | 2.20 | 975.12 | 103.3 | 123.7 | 103.3 | 123.7 | | | |
| 1.6 | 1.9 | 7622 | 2.40 | 904.58 | 104.2 | 124.2 | 104.2 | 124.2 | | | |
| 1.8 | 2.2 | 6639 | 2.75 | 799.45 | 105.4 | 124.9 | 105.4 | 124.9 | | | |
| 1.9 | 2.3 | 6456 | 2.80 | 779.11 | 105.6 | 125.1 | 105.6 | 125.1 | | | |
| 0.92 | 1.1 | 14133 | 0.95 | 1579.81 | 66.5 | 83.3 | 66.5 | 83.3 | KH124-11P-90S/L-04F | 421 | 458 |
| 1.1 | 1.3 | 12247 | 1.10 | 1377.44 | 72.8 | 85.2 | 72.8 | 85.2 | | | |
| 1.2 | 1.5 | 10485 | 1.25 | 1186.50 | 77.6 | 87.0 | 77.6 | 87.0 | | | |
| 1.4 | 1.7 | 9340 | 1.40 | 1063.46 | 80.1 | 88.1 | 80.1 | 88.1 | | | |
| 1.6 | 1.9 | 7962 | 1.65 | 916.04 | 82.7 | 89.5 | 82.7 | 89.5 | | | |
| 1.8 | 2.2 | 6906 | 1.90 | 802.79 | 84.4 | 90.6 | 84.4 | 90.6 | | | |
| 1.9 | 2.3 | 6582 | 2.00 | 768.25 | 84.9 | 90.9 | 84.9 | 90.9 | | | |
| 2.1 | 2.5 | 5947 | 2.20 | 699.95 | 85.7 | 91.5 | 85.7 | 91.5 | | | |
| 2.2 | 2.7 | 5586 | 2.35 | 661.56 | 86.1 | 91.9 | 86.1 | 91.9 | | | |
| 2.3 | 2.8 | 5188 | 2.55 | 619.56 | 86.6 | 92.3 | 86.6 | 92.3 | | | |
| 2.4 | 2.9 | 5038 | 2.60 | 602.92 | 86.7 | 92.5 | 86.7 | 92.5 | | | |
| 2.7 | 3.2 | 4448 | 2.95 | 540.20 | 87.3 | 93.0 | 87.3 | 93.0 | | | |
| 1.3 | 1.6 | 10170 | 0.80 | 1129.81 | ** | ** | ** | ** | KH104-11P-90S/L-04F | 298 | 454 |
| 1.4 | 1.7 | 9008 | 0.90 | 1004.85 | 40.3 | 58.9 | 40.3 | 58.9 | | | |
| 1.5 | 1.8 | 8733 | 0.95 | 976.16 | 42.0 | 59.2 | 42.0 | 59.2 | | | |
| 1.7 | 2.0 | 7772 | 1.05 | 872.27 | 46.8 | 60.3 | 46.8 | 60.3 | | | |
| 1.9 | 2.3 | 6673 | 1.20 | 753.64 | 51.2 | 61.5 | 51.2 | 61.5 | | | |
| 2.0 | 2.4 | 6464 | 1.25 | 731.54 | 52.0 | 61.8 | 52.0 | 61.8 | | | |
| 2.2 | 2.7 | 5808 | 1.40 | 661.38 | 54.0 | 62.5 | 54.0 | 62.5 | | | |
| 2.3 | 2.8 | 5539 | 1.45 | 632.05 | 54.8 | 62.8 | 54.8 | 62.8 | | | |
| 2.5 | 3.1 | 5001 | 1.60 | 574.12 | 56.2 | 63.5 | 56.2 | 63.5 | | | |
| 2.8 | 3.4 | 4400 | 1.85 | 510.43 | 57.5 | 64.1 | 57.5 | 64.1 | | | |
| 2.9 | 3.5 | 4267 | 1.90 | 496.04 | 57.8 | 64.3 | 57.8 | 64.3 | | | |
| 3.3 | 4.0 | 3772 | 2.15 | 443.08 | 58.7 | 64.9 | 58.7 | 64.9 | | | |
| 3.4 | 4.2 | 3580 | 2.25 | 422.20 | 59.1 | 65.1 | 59.1 | 65.1 | | | |
| 3.8 | 4.6 | 3212 | 2.50 | 382.82 | 59.6 | 65.5 | 59.6 | 65.5 | | | |
| 4.0 | 4.8 | 3056 | 2.65 | 366.49 | 59.8 | 65.7 | 59.8 | 65.7 | | | |
| 2.3 | 2.8 | 5647 | 0.80 | 627.37 | ** | ** | ** | ** | KH094-11P-90S/L-04F | 169 | 450 |
| 2.5 | 3.1 | 5121 | 0.90 | 571.21 | 23.3 | 38.5 | 23.3 | 38.5 | | | |
| 3.0 | 3.6 | 4302 | 1.05 | 482.91 | 29.2 | 39.5 | 29.2 | 39.5 | | | |
| 3.4 | 4.1 | 3822 | 1.20 | 431.58 | 31.7 | 40.1 | 31.7 | 40.1 | | | |
| 4.0 | 4.8 | 3198 | 1.45 | 364.86 | 34.4 | 40.9 | 34.4 | 40.9 | | | |
| 4.1 | 5.0 | 3089 | 1.50 | 353.21 | 34.8 | 41.1 | 34.8 | 41.1 | | | |
| 4.9 | 5.9 | 2585 | 1.75 | 298.61 | 36.4 | 41.7 | 36.4 | 41.7 | | | |
| 5.1 | 6.1 | 2469 | 1.85 | 286.42 | 36.7 | 41.9 | 36.7 | 41.9 | | | |
| 6.0 | 7.2 | 2057 | 2.20 | 242.14 | 37.7 | 42.4 | 37.7 | 42.4 | | | |
| 7.2 | 8.7 | 1687 | 2.70 | 202.70 | 38.5 | 42.9 | 38.5 | 42.9 | | | |
| 7.5 | 9.0 | 1610 | 2.80 | 194.32 | 38.6 | 43.0 | 38.6 | 43.0 | | | |
| 8.6 | 10 | 1672 | 2.70 | 169.25 | 38.5 | 42.9 | 38.5 | 42.9 | KH093-11P-90S/L-04F | 156 | 448 |



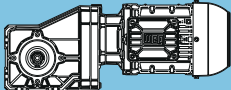
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** ... on request

| P _N = 1.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 1.5 kW | | 1.8 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.4 | 4.1 | 3872 | 0.80 | 430.17 | ** | ** | ** | ** | KH084-11P-90S/L-04F | 119 | 446 |
| 3.5 | 4.2 | 3737 | 0.85 | 416.02 | 10.2 | 14.9 | 10.2 | 7.0 | | | |
| 4.0 | 4.8 | 3250 | 0.95 | 363.25 | 17.0 | 29.2 | 17.0 | 7.7 | | | |
| 4.2 | 5.0 | 3114 | 1.00 | 348.82 | 18.4 | 32.2 | 18.4 | 7.9 | | | |
| 4.3 | 5.2 | 3040 | 1.00 | 340.47 | 19.0 | 33.5 | 19.0 | 8.0 | | | |
| 4.9 | 5.9 | 2638 | 1.15 | 297.29 | 22.1 | 40.3 | 22.1 | 8.6 | | | |
| 5.0 | 6.0 | 2586 | 1.20 | 292.01 | 22.4 | 41.0 | 22.4 | 8.7 | | | |
| 5.3 | 6.4 | 2440 | 1.25 | 276.09 | 23.3 | 41.4 | 23.3 | 8.9 | | | |
| 6.0 | 7.3 | 2113 | 1.45 | 241.07 | 25.0 | 41.9 | 25.0 | 9.4 | | | |
| 6.1 | 7.4 | 2074 | 1.45 | 236.66 | 25.1 | 41.9 | 25.1 | 9.4 | | | |
| 6.3 | 7.6 | 2021 | 1.50 | 231.12 | 25.4 | 42.0 | 25.4 | 9.5 | | | |
| 7.2 | 8.7 | 1747 | 1.75 | 201.80 | 26.5 | 42.4 | 26.5 | 9.9 | | | |
| 7.7 | 9.4 | 1611 | 1.90 | 187.31 | 26.9 | 42.6 | 26.9 | 10.1 | | | |
| 8.9 | 11 | 1390 | 2.20 | 163.55 | 27.6 | 42.9 | 27.6 | 10.4 | | | |
| 7.0 | 8.5 | 2036 | 1.50 | 206.12 | 25.3 | 42.0 | 25.3 | 9.5 | KH083-11P-90S/L-04F | 106 | 444 |
| 8.9 | 11 | 1612 | 1.90 | 163.14 | 26.9 | 42.6 | 26.9 | 10.1 | | | |
| 10 | 12 | 1407 | 2.15 | 142.45 | 27.5 | 42.9 | 27.5 | 10.4 | | | |
| 12 | 14 | 1244 | 2.45 | 125.90 | 28.0 | 43.2 | 27.2 | 10.7 | | | |
| 14 | 16 | 1052 | 2.90 | 106.46 | 28.4 | 43.4 | 25.4 | 10.9 | | | |
| 7.3 | 8.9 | 1954 | 0.80 | 197.75 | ** | ** | ** | ** | KH073-11P-90S/L-04F | 65 | 442 |
| 8.7 | 11 | 1638 | 0.95 | 165.85 | 14.4 | 15.6 | 14.4 | 4.4 | | | |
| 11 | 13 | 1286 | 1.25 | 130.16 | 17.0 | 16.3 | 17.0 | 5.1 | | | |
| 14 | 17 | 992 | 1.60 | 100.45 | 18.5 | 16.9 | 18.5 | 5.7 | | | |
| 15 | 18 | 987 | 1.35 | 99.87 | 18.5 | 17.0 | 18.5 | 5.7 | | | |
| 17 | 21 | 821 | 1.90 | 83.09 | 19.1 | 17.3 | 17.4 | 6.1 | | | |
| 19 | 23 | 762 | 2.05 | 77.11 | 19.3 | 17.4 | 16.7 | 6.2 | | | |
| 21 | 25 | 698 | 2.25 | 70.67 | 19.5 | 17.6 | 16.0 | 6.3 | | | |
| 22 | 27 | 639 | 2.45 | 64.67 | 19.7 | 17.7 | 15.5 | 6.4 | | | |
| 24 | 29 | 605 | 2.60 | 61.25 | 19.8 | 17.7 | 15.0 | 6.5 | | | |
| 30 | 37 | 470 | 1.35 | 47.56 | 20.0 | 17.5 | 13.9 | 6.3 | | | |
| 39 | 48 | 363 | 2.10 | 36.72 | 20.2 | 17.9 | 12.4 | 6.6 | | | |
| 47 | 57 | 304 | 3.00 | 30.79 | 20.3 | 18.1 | 11.5 | 6.8 | | | |
| 15 | 18 | 988 | 0.85 | 99.98 | 6.0 | 8.9 | 6.0 | 2.2 | KH073-11P-90S/L-04F | 45 | 442 |
| 19 | 23 | 765 | 1.10 | 77.42 | 9.1 | 12.8 | 9.1 | 2.9 | | | |
| 22 | 27 | 638 | 1.30 | 64.62 | 10.3 | 13.2 | 10.3 | 3.3 | | | |
| 25 | 30 | 582 | 1.45 | 58.89 | 10.7 | 13.4 | 10.7 | 3.5 | | | |
| 29 | 35 | 496 | 1.70 | 50.17 | 11.2 | 13.7 | 11.2 | 3.7 | | | |
| 30 | 36 | 480 | 1.75 | 48.56 | 11.3 | 13.7 | 11.3 | 3.8 | | | |
| 35 | 43 | 407 | 2.05 | 41.17 | 11.6 | 14.0 | 11.3 | 4.0 | | | |
| 36 | 44 | 393 | 2.05 | 39.83 | 11.7 | 14.0 | 11.2 | 4.1 | | | |
| 41 | 50 | 347 | 1.35 | 35.15 | 11.9 | 13.7 | 10.8 | 3.8 | | | |
| 43 | 52 | 334 | 2.30 | 33.85 | 11.9 | 14.2 | 10.3 | 4.2 | | | |
| 45 | 55 | 315 | 2.65 | 31.88 | 12.0 | 14.3 | 10.1 | 4.3 | | | |
| 52 | 63 | 275 | 2.60 | 27.83 | 12.1 | 14.4 | 9.5 | 4.4 | | | |
| 53 | 64 | 270 | 1.90 | 27.29 | 12.1 | 14 | 9.6 | 4.1 | | | |
| 65 | 78 | 221 | 2.30 | 22.40 | 12.2 | 14.3 | 8.8 | 4.3 | | | |
| 84 | 101 | 171 | 2.95 | 17.34 | 12.3 | 14.5 | 7.9 | 4.5 | | | |
| 20 | 24 | 722 | 0.85 | 73.08 | 3.4 | 4.6 | 3.4 | 3.1 | KH053-11P-90S/L-04F | 32 | 438 |
| 23 | 28 | 630 | 1.00 | 63.77 | 5.6 | 9.3 | 5.6 | 3.4 | | | |
| 24 | 29 | 595 | 1.05 | 60.26 | 6.2 | 10.2 | 6.2 | 3.5 | | | |
| 29 | 35 | 489 | 1.25 | 49.52 | 7.5 | 10.5 | 7.5 | 3.8 | | | |
| 35 | 42 | 415 | 1.45 | 42.00 | 8.2 | 10.7 | 8.2 | 4.0 | | | |
| 36 | 43 | 401 | 1.50 | 40.63 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 42 | 51 | 341 | 1.80 | 34.53 | 8.7 | 11.0 | 8.7 | 4.3 | | | |
| 46 | 56 | 311 | 1.95 | 31.46 | 8.9 | 11.1 | 8.9 | 4.4 | | | |
| 48 | 58 | 300 | 1.35 | 30.37 | 9.0 | 10.7 | 9.0 | 4.0 | | | |
| 53 | 64 | 271 | 2.15 | 27.39 | 9.1 | 11.2 | 9.1 | 4.5 | | | |
| 61 | 73 | 236 | 2.55 | 23.93 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 75 | 91 | 191 | 2.20 | 19.35 | 9.4 | 11.1 | 9.4 | 4.4 | | | |
| 97 | 117 | 148 | 2.80 | 14.98 | 9.6 | 11.3 | 9.1 | 4.6 | | | |

Legend see page 337

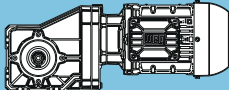
** ... on request

| P _N = 1.5 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-----|-----------------------|-----------------------|-----------------------|---------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 1.5 kW | | 1.8 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 32 | 39 | 441 | 0.95 | 44.64 | 2.6 | 3.4 | 2.6 | 2.1 | KH043-11P-90S/L-04F | 29 | 436 | |
| 33 | 40 | 434 | 0.95 | 43.93 | 2.9 | 4.1 | 2.9 | 2.2 | | | | |
| 39 | 48 | 363 | 1.10 | 36.78 | 4.5 | 7.5 | 4.5 | 2.4 | | | | |
| 40 | 48 | 361 | 1.15 | 36.54 | 4.6 | 7.8 | 4.6 | 2.5 | | | | |
| 48 | 58 | 300 | 1.10 | 30.39 | 5.5 | 8.0 | 5.5 | 2.4 | | | | |
| 49 | 59 | 295 | 1.25 | 29.81 | 5.5 | 8.3 | 5.5 | 2.7 | | | | |
| 52 | 62 | 278 | 1.45 | 28.13 | 5.7 | 8.4 | 5.7 | 2.8 | | | | |
| 62 | 74 | 233 | 1.35 | 23.57 | 6.1 | 8.3 | 6.1 | 2.7 | | | | |
| 68 | 83 | 210 | 1.95 | 21.25 | 6.3 | 8.7 | 6.3 | 3.1 | | | | |
| 75 | 91 | 191 | 1.55 | 19.29 | 6.4 | 8.5 | 6.4 | 2.9 | | | | |
| 83 | 101 | 172 | 2.35 | 17.39 | 6.6 | 8.8 | 6.6 | 3.2 | | | | |
| 98 | 118 | 147 | 1.90 | 14.85 | 6.7 | 8.7 | 6.7 | 3.1 | | | | |
| 103 | 124 | 139 | 2.90 | 14.10 | 6.7 | 8.9 | 6.7 | 3.3 | | | | |
| 129 | 156 | 111 | 2.40 | 11.22 | 6.8 | 8.9 | 6.7 | 3.3 | | | | |
| 158 | 191 | 91 | 2.80 | 9.18 | 6.9 | 9.0 | 6.1 | 3.4 | | | | |
| 67 | 81 | 214 | 0.95 | 21.67 | 3.5 | 2.4 | 3.5 | 2.4 | KH033-11P-90S/L-04F | 25 | 434 | |
| 75 | 91 | 191 | 0.90 | 19.37 | 3.9 | 2.3 | 3.9 | 2.3 | | | | |
| 88 | 107 | 163 | 1.25 | 16.47 | 4.3 | 2.7 | 4.3 | 2.7 | | | | |
| 97 | 117 | 148 | 1.15 | 14.96 | 4.4 | 2.6 | 4.4 | 2.6 | | | | |
| 113 | 137 | 127 | 1.60 | 12.81 | 4.6 | 2.9 | 4.6 | 2.9 | | | | |
| 121 | 147 | 118 | 1.40 | 11.94 | 4.7 | 2.8 | 4.7 | 2.8 | | | | |
| 145 | 176 | 99 | 2.05 | 10.00 | 4.8 | 3.1 | 4.8 | 3.1 | | | | |
| 161 | 194 | 89 | 1.85 | 9.03 | 4.9 | 3.0 | 4.9 | 3.0 | | | | |
| 211 | 256 | 68 | 2.20 | 6.86 | 5.0 | 3.2 | 5.0 | 3.2 | | | | |
| 272 | 329 | 53 | 2.60 | 5.34 | 5.0 | 3.3 | 5.0 | 3.3 | | | | |
| 122 | 147 | 118 | 0.80 | 11.92 | ** | ** | ** | ** | KH022-11P-90S/L-04F | 23 | 432 | |
| 139 | 169 | 103 | 0.85 | 10.40 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 157 | 190 | 91 | 0.90 | 9.25 | 5.0 | 2.8 | 5.0 | 2.8 | | | | |
| 170 | 206 | 84 | 0.95 | 8.51 | 4.8 | 2.8 | 4.8 | 2.8 | | | | |
| 190 | 230 | 75 | 1.05 | 7.63 | 4.6 | 2.8 | 4.6 | 2.8 | | | | |
| 210 | 254 | 68 | 1.10 | 6.91 | 4.4 | 2.8 | 4.4 | 2.8 | | | | |
| 243 | 294 | 59 | 1.20 | 5.96 | 4.2 | 2.8 | 4.2 | 2.8 | | | | |
| 279 | 338 | 51 | 1.30 | 5.20 | 4.0 | 2.8 | 4.0 | 2.8 | | | | |
| 380 | 459 | 38 | 1.55 | 3.82 | 3.6 | 2.8 | 3.6 | 2.8 | | | | |



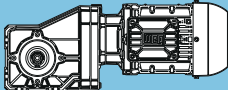
Legend see page 337

** ... on request

| P _N = 2.2 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 0.94 | 1.1 | 19799 | 0.95 | 1530.83 | 70.0 | 114.9 | 70.0 | 114.9 | KH155-11P-100L-04E | 698 | 464 |
| 0.95 | 1.2 | 19437 | 0.95 | 1502.83 | 71.8 | 115.2 | 71.8 | 115.2 | | | |
| 0.99 | 1.2 | 18694 | 1.00 | 1449.16 | 75.2 | 115.7 | 75.2 | 115.7 | | | |
| 1.1 | 1.4 | 16447 | 1.10 | 1281.49 | 84.0 | 117.4 | 84.0 | 117.4 | | | |
| 1.4 | 1.7 | 13125 | 1.40 | 1038.59 | 93.9 | 120.0 | 93.9 | 120.0 | | | |
| 1.1 | 1.3 | 17283 | 1.05 | 1308.92 | 81.0 | 116.8 | 81.0 | 116.8 | KH154-11P-100L-04E | 685 | 462 |
| 1.3 | 1.5 | 14764 | 1.25 | 1127.36 | 89.4 | 118.7 | 89.4 | 118.7 | | | |
| 1.4 | 1.7 | 13511 | 1.35 | 1035.99 | 92.9 | 119.7 | 92.9 | 119.7 | | | |
| 1.5 | 1.8 | 12665 | 1.45 | 975.12 | 95.0 | 120.3 | 95.0 | 120.3 | | | |
| 1.6 | 1.9 | 11701 | 1.55 | 904.58 | 97.2 | 121.1 | 97.2 | 121.1 | | | |
| 1.8 | 2.2 | 10235 | 1.80 | 799.45 | 100.1 | 122.2 | 100.1 | 122.2 | | | |
| 1.9 | 2.3 | 9860 | 1.85 | 771.80 | 100.8 | 122.5 | 100.8 | 122.5 | | | |
| 2.1 | 2.5 | 8706 | 2.10 | 688.57 | 102.6 | 123.4 | 102.6 | 123.4 | | | |
| 2.4 | 2.9 | 7422 | 2.45 | 595.58 | 104.4 | 124.3 | 104.4 | 124.3 | | | |
| 2.5 | 3.0 | 7241 | 2.50 | 582.27 | 104.7 | 124.5 | 104.7 | 124.5 | | | |
| 2.8 | 3.4 | 6191 | 2.95 | 507.30 | 105.8 | 125.3 | 105.8 | 125.3 | | | |
| 2.9 | 3.5 | 6108 | 2.95 | 500.51 | 105.9 | 125.3 | 105.9 | 125.3 | | | |
| 1.2 | 1.4 | 16271 | 0.80 | 1219.69 | ** | ** | ** | ** | KH124-11P-100L-04E | 431 | 458 |
| 1.3 | 1.6 | 14100 | 0.95 | 1063.46 | 66.6 | 83.4 | 66.6 | 83.4 | | | |
| 1.4 | 1.7 | 13534 | 1.00 | 1022.92 | 68.6 | 83.9 | 68.6 | 83.9 | | | |
| 1.6 | 1.9 | 12070 | 1.10 | 916.04 | 73.3 | 85.4 | 73.3 | 85.4 | | | |
| 1.8 | 2.2 | 10513 | 1.25 | 802.79 | 77.5 | 87.0 | 77.5 | 87.0 | | | |
| 1.9 | 2.3 | 10040 | 1.30 | 768.25 | 78.6 | 87.4 | 78.6 | 87.4 | | | |
| 2.1 | 2.5 | 9091 | 1.45 | 699.95 | 80.6 | 88.4 | 80.6 | 88.4 | | | |
| 2.2 | 2.6 | 8557 | 1.55 | 661.56 | 81.7 | 88.9 | 81.7 | 88.9 | | | |
| 2.3 | 2.8 | 7981 | 1.65 | 619.56 | 82.7 | 89.5 | 82.7 | 89.5 | | | |
| 2.4 | 2.9 | 7751 | 1.70 | 602.92 | 83.1 | 89.7 | 83.1 | 89.7 | | | |
| 2.7 | 3.2 | 6887 | 1.90 | 540.20 | 84.5 | 90.6 | 84.5 | 90.6 | | | |
| 2.8 | 3.4 | 6592 | 2.00 | 519.19 | 84.9 | 90.9 | 84.9 | 90.9 | | | |
| 3.1 | 3.8 | 5847 | 2.25 | 465.31 | 85.8 | 91.6 | 85.8 | 91.6 | | | |
| 3.2 | 3.9 | 5591 | 2.35 | 446.82 | 86.1 | 91.9 | 86.1 | 91.9 | | | |
| 3.3 | 4.0 | 5443 | 2.40 | 435.90 | 86.3 | 92.0 | 86.3 | 92.0 | | | |
| 3.6 | 4.4 | 4952 | 2.65 | 400.70 | 86.8 | 92.5 | 86.8 | 92.5 | | | |
| 3.7 | 4.5 | 4736 | 2.75 | 384.88 | 87.1 | 92.8 | 87.1 | 92.8 | | | |
| 3.8 | 4.6 | 4667 | 2.80 | 380.06 | 87.1 | 92.8 | 87.1 | 92.8 | | | |
| 1.9 | 2.3 | 10053 | 0.80 | 753.64 | ** | ** | ** | ** | KH104-11P-100L-04E | 308 | 454 |
| 2.0 | 2.4 | 9739 | 0.85 | 731.54 | 35.4 | 58.0 | 35.4 | 58.0 | | | |
| 2.2 | 2.6 | 8769 | 0.95 | 661.38 | 41.8 | 59.1 | 41.8 | 59.1 | | | |
| 2.3 | 2.8 | 8363 | 1.00 | 632.05 | 44.0 | 59.6 | 44.0 | 59.6 | | | |
| 2.5 | 3.0 | 7565 | 1.10 | 574.12 | 47.7 | 60.5 | 47.7 | 60.5 | | | |
| 2.8 | 3.4 | 6698 | 1.20 | 510.43 | 51.1 | 61.5 | 51.1 | 61.5 | | | |
| 2.9 | 3.5 | 6496 | 1.25 | 496.04 | 51.8 | 61.7 | 51.8 | 61.7 | | | |
| 3.2 | 3.9 | 5767 | 1.40 | 443.08 | 54.1 | 62.6 | 54.1 | 62.6 | | | |
| 3.4 | 4.1 | 5472 | 1.50 | 422.20 | 55.0 | 62.9 | 55.0 | 62.9 | | | |
| 3.7 | 4.6 | 4931 | 1.65 | 382.82 | 56.3 | 63.5 | 56.3 | 63.5 | | | |
| 3.9 | 4.8 | 4711 | 1.70 | 366.49 | 56.9 | 63.8 | 56.9 | 63.8 | | | |
| 4.0 | 4.9 | 4607 | 1.75 | 359.12 | 57.1 | 63.9 | 57.1 | 63.9 | | | |
| 4.5 | 5.5 | 4020 | 2.00 | 316.65 | 58.3 | 64.6 | 58.3 | 64.6 | | | |
| 4.6 | 5.6 | 3950 | 2.05 | 311.74 | 58.4 | 64.7 | 58.4 | 64.7 | | | |
| 5.3 | 6.5 | 3374 | 2.40 | 270.17 | 59.4 | 65.3 | 59.4 | 65.3 | | | |
| 5.5 | 6.6 | 3275 | 2.45 | 262.82 | 59.5 | 65.4 | 59.5 | 65.4 | | | |
| 5.7 | 6.9 | 3145 | 2.55 | 253.44 | 59.7 | 65.6 | 59.7 | 65.6 | | | |
| 6.1 | 7.5 | 2867 | 2.80 | 233.43 | 60.1 | 65.9 | 60.1 | 65.9 | | | |
| 6.3 | 7.6 | 2790 | 2.90 | 228.15 | 60.2 | 66.0 | 60.2 | 66.0 | | | |
| 6.5 | 7.9 | 2679 | 3.00 | 220.00 | 60.3 | 66.1 | 60.3 | 66.1 | | | |

Legend see page 337

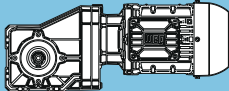
** ... on request

| P _N = 2.2 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|------|----------------|------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 3.3 | 4.0 | 5757 | 0.80 | 431.58 | ** | ** | ** | ** | KH094-11P-100L-04E | 179 | 450 | |
| 3.9 | 4.8 | 4837 | 0.95 | 364.86 | 25.6 | 38.8 | 25.6 | 38.8 | | | | |
| 4.1 | 4.9 | 4673 | 1.00 | 353.21 | 26.8 | 39.1 | 26.8 | 39.1 | | | | |
| 4.8 | 5.8 | 3927 | 1.15 | 298.61 | 31.2 | 40.0 | 31.2 | 40.0 | | | | |
| 5.0 | 6.1 | 3759 | 1.20 | 286.42 | 32.0 | 40.2 | 32.0 | 40.2 | | | | |
| 5.9 | 7.2 | 3145 | 1.45 | 242.14 | 34.6 | 41.0 | 34.6 | 41.0 | | | | |
| 6.0 | 7.3 | 3114 | 1.45 | 239.77 | 34.7 | 41.0 | 34.7 | 41.0 | | | | |
| 7.1 | 8.6 | 2600 | 1.75 | 202.70 | 36.4 | 41.7 | 36.4 | 41.7 | | | | |
| 7.4 | 9.0 | 2483 | 1.85 | 194.32 | 36.7 | 41.8 | 36.7 | 41.8 | | | | |
| 7.7 | 9.3 | 2389 | 1.90 | 187.38 | 36.9 | 42.0 | 36.9 | 42.0 | | | | |
| 8.7 | 11 | 2069 | 2.20 | 164.28 | 37.7 | 42.4 | 37.7 | 42.4 | | | | |
| 9.1 | 11 | 1986 | 2.30 | 158.41 | 37.9 | 42.5 | 37.9 | 42.5 | | | | |
| 8.5 | 10 | 2478 | 1.85 | 169.25 | 36.7 | 41.8 | 36.7 | 41.8 | KH093-11P-100L-04E | 166 | 448 | |
| 10 | 12 | 2095 | 2.15 | 143.08 | 37.7 | 42.3 | 37.7 | 42.3 | | | | |
| 12 | 14 | 1813 | 2.50 | 123.86 | 38.2 | 42.7 | 38.2 | 42.7 | | | | |
| 13 | 16 | 1606 | 2.85 | 109.70 | 38.6 | 43.0 | 38.6 | 43.0 | | | | |
| 4.8 | 5.9 | 3966 | 0.80 | 297.29 | ** | ** | ** | ** | KH084-11P-100L-04E | 129 | 446 | |
| 4.9 | 6.0 | 3895 | 0.80 | 292.01 | ** | ** | ** | ** | | | | |
| 5.2 | 6.3 | 3675 | 0.85 | 276.09 | 11.4 | 17.4 | 11.4 | 7.1 | | | | |
| 6.0 | 7.2 | 3196 | 0.95 | 241.07 | 17.6 | 30.5 | 17.6 | 7.8 | | | | |
| 6.1 | 7.4 | 3131 | 1.00 | 236.66 | 18.2 | 31.8 | 18.2 | 7.9 | | | | |
| 6.2 | 7.6 | 3058 | 1.00 | 231.12 | 18.9 | 33.3 | 18.9 | 8.0 | | | | |
| 6.3 | 7.6 | 3019 | 1.00 | 228.21 | 19.2 | 33.9 | 19.2 | 8.0 | | | | |
| 7.1 | 8.6 | 2654 | 1.15 | 201.80 | 22.0 | 40.1 | 22.0 | 8.6 | | | | |
| 7.7 | 9.3 | 2453 | 1.25 | 187.31 | 23.2 | 41.4 | 23.2 | 8.9 | | | | |
| 7.9 | 9.7 | 2361 | 1.30 | 180.62 | 23.7 | 41.5 | 23.7 | 9.0 | | | | |
| 8.8 | 11 | 2124 | 1.45 | 163.55 | 24.9 | 41.9 | 24.9 | 9.4 | | | | |
| 9.1 | 11 | 2044 | 1.50 | 157.71 | 25.3 | 42.0 | 25.3 | 9.5 | | | | |
| 7.0 | 8.5 | 3018 | 1.00 | 206.12 | 19.2 | 33.9 | 19.2 | 8.0 | KH083-11P-100L-04E | 116 | 444 | |
| 8.8 | 11 | 2389 | 1.30 | 163.14 | 23.6 | 41.5 | 23.6 | 9.0 | | | | |
| 10 | 12 | 2086 | 1.45 | 142.45 | 25.1 | 41.9 | 25.1 | 9.4 | | | | |
| 11 | 14 | 1843 | 1.65 | 125.90 | 26.1 | 42.3 | 26.1 | 9.8 | | | | |
| 13 | 16 | 1559 | 1.95 | 106.46 | 27.1 | 42.7 | 27.1 | 10.2 | | | | |
| 16 | 19 | 1340 | 2.25 | 91.51 | 27.7 | 43.0 | 25.5 | 10.5 | | | | |
| 18 | 22 | 1170 | 2.60 | 79.89 | 28.1 | 43.3 | 24.1 | 10.8 | | | | |
| 21 | 25 | 1002 | 3.00 | 68.44 | 28.5 | 43.5 | 22.5 | 11.0 | | | | |
| 32 | 38 | 666 | 2.45 | 45.48 | 29.0 | 43.7 | 19.1 | 11.2 | | | | |
| 11 | 13 | 1906 | 0.85 | 130.16 | 11.6 | 15.1 | 11.6 | 3.8 | | | | KH073-11P-100L-04E |
| 14 | 17 | 1471 | 1.10 | 100.45 | 15.8 | 16.0 | 15.8 | 4.7 | | | | |
| 17 | 21 | 1217 | 1.30 | 83.09 | 17.4 | 16.5 | 17.4 | 5.2 | | | | |
| 19 | 23 | 1129 | 1.40 | 77.11 | 17.9 | 16.7 | 17.9 | 5.4 | | | | |
| 20 | 25 | 1035 | 1.50 | 70.67 | 18.3 | 16.9 | 17.6 | 5.6 | | | | |
| 22 | 27 | 947 | 1.65 | 64.67 | 18.7 | 17.0 | 16.8 | 5.8 | | | | |
| 23 | 28 | 897 | 1.75 | 61.25 | 18.9 | 17.1 | 16.4 | 5.9 | | | | |
| 28 | 34 | 757 | 2.05 | 51.72 | 19.3 | 17.4 | 15.0 | 6.2 | | | | |
| 29 | 35 | 730 | 2.15 | 49.88 | 19.4 | 17.5 | 14.8 | 6.2 | | | | |
| 34 | 41 | 624 | 2.50 | 42.61 | 19.7 | 17.7 | 13.7 | 6.5 | | | | |
| 37 | 45 | 573 | 2.75 | 39.17 | 19.8 | 17.8 | 13.2 | 6.6 | | | | |
| 39 | 48 | 538 | 1.45 | 36.72 | 19.9 | 17.3 | 13.2 | 6.1 | | | | |
| 47 | 57 | 451 | 2.05 | 30.79 | 20.1 | 17.6 | 12.2 | 6.3 | | | | |
| 59 | 72 | 354 | 2.60 | 24.17 | 20.2 | 17.9 | 11.0 | 6.6 | | | | |

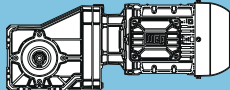


Legend see page 337

** ... on request

| P _N = 2.2 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 2.2 kW | | 2.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 24 | 30 | 862 | 1.00 | 58.89 | 8.0 | 12.5 | 8.0 | 2.6 | KH063-11P-100L-04E | 55 | 440 |
| 29 | 35 | 735 | 1.15 | 50.17 | 9.4 | 12.9 | 9.4 | 3.0 | | | |
| 30 | 36 | 711 | 1.20 | 48.56 | 9.7 | 13.0 | 9.7 | 3.1 | | | |
| 35 | 42 | 603 | 1.40 | 41.17 | 10.5 | 13.4 | 10.5 | 3.4 | | | |
| 36 | 44 | 583 | 1.40 | 39.83 | 10.7 | 13.4 | 10.7 | 3.5 | | | |
| 42 | 52 | 496 | 1.55 | 33.85 | 11.2 | 13.7 | 11.2 | 3.7 | | | |
| 45 | 55 | 467 | 1.80 | 31.88 | 11.4 | 13.8 | 10.9 | 3.8 | | | |
| 52 | 63 | 407 | 1.80 | 27.83 | 11.6 | 14.0 | 10.2 | 4.0 | | | |
| 53 | 64 | 400 | 1.30 | 27.29 | 11.7 | 13.5 | 10.4 | 3.5 | | | |
| 59 | 72 | 355 | 2.25 | 24.25 | 11.8 | 14.1 | 9.6 | 4.2 | | | |
| 64 | 78 | 328 | 1.55 | 22.40 | 11.9 | 13.8 | 9.5 | 3.8 | | | |
| 65 | 79 | 323 | 2.10 | 22.07 | 11.9 | 14.2 | 9.2 | 4.3 | | | |
| 72 | 87 | 293 | 2.55 | 20.00 | 12.0 | 14.3 | 8.8 | 4.4 | | | |
| 83 | 101 | 254 | 2.00 | 17.34 | 12.2 | 14.1 | 8.4 | 4.2 | | | |
| 88 | 106 | 240 | 2.90 | 16.40 | 12.2 | 14.5 | 8.0 | 4.5 | | | |
| 109 | 132 | 193 | 2.60 | 13.19 | 12.3 | 14.4 | 7.4 | 4.4 | | | |
| 29 | 35 | 725 | 0.85 | 49.52 | 3.3 | 4.4 | 3.3 | 3.1 | KH053-11P-100L-04E | 42 | 438 |
| 34 | 42 | 615 | 1.00 | 42.00 | 5.9 | 9.9 | 5.9 | 3.4 | | | |
| 35 | 43 | 595 | 1.05 | 40.63 | 6.2 | 10.2 | 6.2 | 3.5 | | | |
| 42 | 51 | 506 | 1.20 | 34.53 | 7.3 | 10.5 | 7.3 | 3.8 | | | |
| 43 | 52 | 488 | 1.25 | 33.30 | 7.5 | 10.5 | 7.5 | 3.8 | | | |
| 46 | 55 | 461 | 1.35 | 31.46 | 7.8 | 10.6 | 7.8 | 3.9 | | | |
| 52 | 64 | 401 | 1.45 | 27.39 | 8.3 | 10.8 | 8.3 | 4.1 | | | |
| 60 | 73 | 350 | 1.75 | 23.93 | 8.7 | 10.9 | 8.7 | 4.2 | | | |
| 61 | 74 | 345 | 1.20 | 23.58 | 8.7 | 10.5 | 8.7 | 3.8 | | | |
| 73 | 88 | 289 | 2.10 | 19.73 | 9.0 | 11.1 | 9.0 | 4.4 | | | |
| 74 | 90 | 283 | 1.50 | 19.35 | 9.1 | 10.7 | 9.1 | 4.0 | | | |
| 89 | 108 | 237 | 2.55 | 16.19 | 9.3 | 11.3 | 9.3 | 4.6 | | | |
| 96 | 116 | 219 | 1.90 | 14.98 | 9.3 | 11.0 | 9.3 | 4.3 | | | |
| 104 | 127 | 201 | 3.00 | 13.75 | 9.4 | 11.4 | 9.1 | 4.7 | | | |
| 126 | 153 | 167 | 2.50 | 11.40 | 9.5 | 11.3 | 8.5 | 4.6 | | | |
| 48 | 59 | 436 | 0.85 | 29.81 | 2.8 | 3.9 | 2.8 | 2.2 | KH043-11P-100L-04E | 38 | 436 |
| 50 | 61 | 421 | 0.85 | 28.74 | 3.3 | 4.9 | 3.3 | 2.2 | | | |
| 51 | 62 | 412 | 1.00 | 28.13 | 3.5 | 5.4 | 3.5 | 2.3 | | | |
| 61 | 74 | 345 | 0.90 | 23.57 | 4.8 | 7.7 | 4.8 | 2.1 | | | |
| 68 | 82 | 311 | 1.30 | 21.25 | 5.3 | 8.3 | 5.3 | 2.7 | | | |
| 74 | 90 | 282 | 1.05 | 19.29 | 5.7 | 8.0 | 5.7 | 2.4 | | | |
| 83 | 100 | 255 | 1.60 | 17.39 | 5.9 | 8.5 | 5.9 | 2.9 | | | |
| 97 | 118 | 217 | 1.30 | 14.85 | 6.3 | 8.4 | 6.3 | 2.8 | | | |
| 102 | 124 | 206 | 1.95 | 14.10 | 6.3 | 8.7 | 6.3 | 3.1 | | | |
| 122 | 148 | 173 | 2.35 | 11.81 | 6.6 | 8.8 | 6.6 | 3.2 | | | |
| 128 | 156 | 164 | 1.60 | 11.22 | 6.6 | 8.7 | 6.6 | 3.1 | | | |
| 150 | 182 | 140 | 2.70 | 9.57 | 6.7 | 8.9 | 6.5 | 3.3 | | | |
| 155 | 189 | 135 | 2.75 | 9.23 | 6.7 | 9.0 | 6.4 | 3.4 | | | |
| 156 | 190 | 134 | 1.90 | 9.18 | 6.7 | 8.8 | 6.5 | 3.2 | | | |
| 193 | 235 | 109 | 2.25 | 7.44 | 6.8 | 8.9 | 5.9 | 3.3 | | | |
| 230 | 280 | 91 | 2.55 | 6.23 | 6.9 | 9.0 | 5.5 | 3.4 | | | |
| 284 | 346 | 74 | 3.00 | 5.05 | 6.9 | 9.1 | 5.0 | 3.5 | | | |
| 87 | 106 | 241 | 0.85 | 16.47 | 2.9 | 2.3 | 2.9 | 2.3 | KH033-11P-100L-04E | 35 | 434 |
| 112 | 136 | 188 | 1.10 | 12.81 | 3.9 | 2.6 | 3.9 | 2.6 | | | |
| 120 | 146 | 175 | 0.95 | 11.94 | 4.1 | 2.4 | 4.1 | 2.4 | | | |
| 144 | 175 | 146 | 1.40 | 10.00 | 4.4 | 2.8 | 4.4 | 2.8 | | | |
| 159 | 193 | 132 | 1.25 | 9.03 | 4.6 | 2.7 | 4.6 | 2.7 | | | |
| 209 | 254 | 100 | 1.50 | 6.86 | 4.8 | 2.9 | 4.8 | 2.9 | | | |
| 269 | 327 | 78 | 1.80 | 5.34 | 5.0 | 3.1 | 5.0 | 3.1 | | | |
| 344 | 418 | 61 | 2.10 | 4.17 | 4.7 | 3.2 | 4.7 | 3.2 | | | |

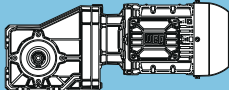
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| P _N = 3.0 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 1.1 | 1.4 | 22696 | 0.80 | 1281.49 | ** | ** | ** | ** | KH155-11P-L100L-04F | 705 | 464 |
| 1.4 | 1.7 | 18207 | 1.00 | 1038.59 | 77.3 | 116.1 | 77.3 | 116.1 | | | |
| 1.1 | 1.3 | 23728 | 0.80 | 1308.92 | ** | ** | ** | ** | KH154-11P-L100L-04F | 692 | 462 |
| 1.3 | 1.5 | 20353 | 0.90 | 1127.36 | 67.1 | 114.5 | 67.1 | 114.5 | | | |
| 1.4 | 1.7 | 18627 | 1.00 | 1035.99 | 75.5 | 115.8 | 75.5 | 115.8 | | | |
| 1.5 | 1.8 | 17496 | 1.05 | 975.12 | 80.2 | 116.6 | 80.2 | 116.6 | | | |
| 1.6 | 1.9 | 16164 | 1.15 | 904.58 | 85.0 | 117.7 | 85.0 | 117.7 | | | |
| 1.8 | 2.2 | 14198 | 1.30 | 799.45 | 91.1 | 119.2 | 91.1 | 119.2 | | | |
| 1.9 | 2.3 | 13678 | 1.35 | 771.80 | 92.5 | 119.6 | 92.5 | 119.6 | | | |
| 2.1 | 2.5 | 12128 | 1.50 | 688.57 | 96.2 | 120.7 | 96.2 | 120.7 | | | |
| 2.4 | 2.9 | 10383 | 1.75 | 595.58 | 99.8 | 122.1 | 99.8 | 122.1 | | | |
| 2.5 | 3.0 | 10130 | 1.80 | 582.27 | 100.3 | 122.3 | 100.3 | 122.3 | | | |
| 2.8 | 3.4 | 8716 | 2.10 | 507.30 | 102.6 | 123.3 | 102.6 | 123.3 | | | |
| 2.9 | 3.5 | 8653 | 2.10 | 503.64 | 102.7 | 123.4 | 102.7 | 123.4 | | | |
| 3.3 | 4.0 | 7399 | 2.45 | 436.93 | 104.5 | 124.4 | 104.5 | 124.4 | | | |
| 3.4 | 4.2 | 7068 | 2.55 | 419.11 | 104.9 | 124.6 | 104.9 | 124.6 | | | |
| 3.8 | 4.6 | 6281 | 2.90 | 377.93 | 105.8 | 125.2 | 105.8 | 125.2 | | | |
| 3.9 | 4.7 | 6135 | 2.95 | 369.91 | 105.9 | 125.3 | 105.9 | 125.3 | | | |
| 1.6 | 1.9 | 16606 | 0.80 | 916.04 | ** | ** | ** | ** | KH124-11P-L100L-04F | 438 | 458 |
| 1.8 | 2.2 | 14493 | 0.90 | 802.79 | 65.1 | 83.0 | 65.1 | 83.0 | | | |
| 1.9 | 2.3 | 13841 | 0.95 | 768.25 | 67.5 | 83.6 | 67.5 | 83.6 | | | |
| 2.1 | 2.5 | 12559 | 1.05 | 699.95 | 71.9 | 84.9 | 71.9 | 84.9 | | | |
| 2.2 | 2.6 | 11846 | 1.10 | 661.56 | 74.0 | 85.6 | 74.0 | 85.6 | | | |
| 2.3 | 2.8 | 11048 | 1.20 | 619.56 | 76.2 | 86.4 | 76.2 | 86.4 | | | |
| 2.4 | 2.9 | 10730 | 1.25 | 602.92 | 77.0 | 86.7 | 77.0 | 86.7 | | | |
| 2.7 | 3.2 | 9554 | 1.40 | 540.20 | 79.7 | 87.9 | 79.7 | 87.9 | | | |
| 2.8 | 3.4 | 9164 | 1.45 | 519.19 | 80.5 | 88.3 | 80.5 | 88.3 | | | |
| 3.1 | 3.7 | 8162 | 1.60 | 465.31 | 82.4 | 89.3 | 82.4 | 89.3 | | | |
| 3.2 | 3.9 | 7805 | 1.70 | 446.82 | 83.0 | 89.7 | 83.0 | 89.7 | | | |
| 3.3 | 4.0 | 7599 | 1.75 | 435.90 | 83.4 | 89.9 | 83.4 | 89.9 | | | |
| 3.6 | 4.3 | 6942 | 1.90 | 400.70 | 84.4 | 90.5 | 84.4 | 90.5 | | | |
| 3.7 | 4.5 | 6640 | 2.00 | 384.88 | 84.8 | 90.8 | 84.8 | 90.8 | | | |
| 3.8 | 4.6 | 6557 | 2.00 | 380.06 | 84.9 | 90.9 | 84.9 | 90.9 | | | |
| 4.3 | 5.2 | 5636 | 2.35 | 331.43 | 86.1 | 91.9 | 86.1 | 91.9 | | | |
| 4.4 | 5.3 | 5601 | 2.35 | 329.39 | 86.1 | 91.9 | 86.1 | 91.9 | | | |
| 4.5 | 5.5 | 5402 | 2.45 | 319.02 | 86.4 | 92.1 | 86.4 | 92.1 | | | |
| 4.7 | 5.7 | 5187 | 2.55 | 307.62 | 86.6 | 92.3 | 86.6 | 92.3 | | | |
| 5.1 | 6.1 | 4745 | 2.75 | 283.73 | 87.0 | 92.7 | 87.0 | 92.7 | | | |
| 5.2 | 6.3 | 4632 | 2.85 | 278.15 | 87.2 | 92.9 | 87.2 | 92.9 | | | |
| 5.4 | 6.5 | 4448 | 2.95 | 268.22 | 87.3 | 93.0 | 87.3 | 93.0 | | | |
| 5.5 | 6.6 | 4349 | 3.00 | 262.80 | 87.4 | 93.1 | 87.4 | 93.1 | | | |
| 2.5 | 3 | 10407 | 0.80 | 574.12 | ** | ** | ** | ** | KH104-11P-L100L-04F | 315 | 454 |
| 2.8 | 3.4 | 9215 | 0.90 | 510.43 | 39.1 | 58.6 | 39.1 | 58.6 | | | |
| 2.9 | 3.5 | 8955 | 0.90 | 496.04 | 40.7 | 58.9 | 40.7 | 58.9 | | | |
| 3.2 | 3.9 | 7950 | 1.05 | 443.08 | 46.0 | 60.1 | 46.0 | 60.1 | | | |
| 3.4 | 4.1 | 7560 | 1.10 | 422.20 | 47.8 | 60.5 | 47.8 | 60.5 | | | |
| 3.8 | 4.5 | 6827 | 1.20 | 382.82 | 50.7 | 61.4 | 50.7 | 61.4 | | | |
| 3.9 | 4.7 | 6522 | 1.25 | 366.49 | 51.8 | 61.7 | 51.8 | 61.7 | | | |
| 4.0 | 4.8 | 6378 | 1.30 | 359.12 | 52.2 | 61.9 | 52.2 | 61.9 | | | |
| 4.5 | 5.5 | 5589 | 1.45 | 316.65 | 54.6 | 62.8 | 54.6 | 62.8 | | | |
| 4.6 | 5.6 | 5491 | 1.50 | 311.74 | 54.9 | 62.9 | 54.9 | 62.9 | | | |
| 5.3 | 6.4 | 4720 | 1.70 | 270.17 | 56.8 | 63.8 | 56.8 | 63.8 | | | |
| 5.5 | 6.6 | 4582 | 1.75 | 262.82 | 57.1 | 63.9 | 57.1 | 63.9 | | | |
| 5.7 | 6.9 | 4400 | 1.85 | 253.44 | 57.5 | 64.1 | 57.5 | 64.1 | | | |
| 6.2 | 7.5 | 4027 | 2.00 | 233.43 | 58.3 | 64.6 | 58.3 | 64.6 | | | |
| 6.3 | 7.6 | 3928 | 2.05 | 228.15 | 58.4 | 64.7 | 58.4 | 64.7 | | | |
| 6.5 | 7.9 | 3772 | 2.15 | 220.00 | 58.7 | 64.9 | 58.7 | 64.9 | | | |
| 6.7 | 8 | 3705 | 2.20 | 216.51 | 58.8 | 64.9 | 58.8 | 64.9 | | | |
| 7.3 | 8.8 | 3345 | 2.40 | 197.12 | 59.4 | 65.3 | 59.4 | 65.3 | | | |
| 7.6 | 9.2 | 3212 | 2.50 | 190.08 | 59.6 | 65.5 | 59.6 | 65.5 | | | |
| 7.7 | 9.3 | 3169 | 2.55 | 187.95 | 59.7 | 65.5 | 59.7 | 65.5 | | | |
| 8.9 | 11 | 2687 | 3.00 | 162.39 | 60.3 | 66.1 | 60.3 | 66.1 | | | |



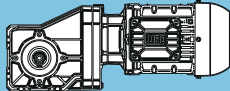
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** ... on request

| P _N = 3.0 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 4.8 | 5.8 | 5402 | 0.85 | 298.61 | 20.6 | 34.3 | 20.6 | 34.3 | KH094-11P-L100L-04F | 186 | 450 |
| 5.0 | 6.1 | 5171 | 0.90 | 286.42 | 22.8 | 38.4 | 22.8 | 38.4 | | | |
| 5.9 | 7.2 | 4345 | 1.05 | 242.14 | 28.9 | 39.5 | 28.9 | 39.5 | | | |
| 6.0 | 7.3 | 4302 | 1.05 | 239.77 | 29.2 | 39.5 | 29.2 | 39.5 | | | |
| 7.1 | 8.6 | 3607 | 1.25 | 202.70 | 32.7 | 40.4 | 32.7 | 40.4 | | | |
| 7.4 | 9.0 | 3444 | 1.35 | 194.32 | 33.4 | 40.6 | 33.4 | 40.6 | | | |
| 7.7 | 9.3 | 3314 | 1.40 | 187.38 | 34.0 | 40.8 | 34.0 | 40.8 | | | |
| 8.8 | 11 | 2882 | 1.60 | 164.28 | 35.5 | 41.3 | 35.5 | 41.3 | | | |
| 9.1 | 11 | 2773 | 1.65 | 158.41 | 35.8 | 41.5 | 35.8 | 41.5 | | | |
| 8.5 | 10 | 3367 | 1.35 | 169.25 | 33.7 | 40.7 | 33.7 | 40.7 | KH093-11P-L100L-04F | 173 | 448 |
| 10 | 12 | 2847 | 1.60 | 143.08 | 35.6 | 41.4 | 35.6 | 41.4 | | | |
| 12 | 14 | 2464 | 1.85 | 123.86 | 36.7 | 41.9 | 36.7 | 41.9 | | | |
| 13 | 16 | 2183 | 2.10 | 109.70 | 37.5 | 42.2 | 37.5 | 42.2 | | | |
| 15 | 18 | 1888 | 2.40 | 94.90 | 38.1 | 42.6 | 38.1 | 42.6 | | | |
| 16 | 19 | 1821 | 2.50 | 91.51 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 18 | 22 | 1606 | 2.85 | 80.74 | 38.6 | 43.0 | 38.6 | 43.0 | | | |
| 7.1 | 8.6 | 3651 | 0.85 | 201.80 | 11.8 | 18.2 | 11.8 | 7.1 | KH084-11P-L100L-04F | 136 | 446 |
| 7.7 | 9.3 | 3382 | 0.90 | 187.31 | 15.6 | 26.2 | 15.6 | 7.5 | | | |
| 8.0 | 9.6 | 3254 | 0.95 | 180.62 | 17.0 | 29.2 | 17.0 | 7.7 | | | |
| 8.8 | 11 | 2935 | 1.05 | 163.55 | 19.9 | 35.5 | 19.9 | 8.2 | | | |
| 9.1 | 11 | 2824 | 1.10 | 157.71 | 20.8 | 37.4 | 20.8 | 8.3 | | | |
| 8.8 | 11 | 3246 | 0.95 | 163.14 | 17.1 | 29.4 | 17.1 | 7.7 | KH083-11P-L100L-04F | 123 | 444 |
| 10 | 12 | 2834 | 1.10 | 142.45 | 20.7 | 37.2 | 20.7 | 8.3 | | | |
| 11 | 14 | 2505 | 1.20 | 125.90 | 22.9 | 41.3 | 22.9 | 8.8 | | | |
| 14 | 16 | 2118 | 1.45 | 106.46 | 24.9 | 41.9 | 24.9 | 9.4 | | | |
| 16 | 19 | 1821 | 1.65 | 91.51 | 26.2 | 42.3 | 26.2 | 9.8 | | | |
| 18 | 22 | 1589 | 1.90 | 79.89 | 27.0 | 42.7 | 25.5 | 10.2 | | | |
| 21 | 25 | 1362 | 2.25 | 68.44 | 27.7 | 43.0 | 23.7 | 10.5 | | | |
| 22 | 26 | 1313 | 2.30 | 66.00 | 27.8 | 43.1 | 23.3 | 10.6 | | | |
| 23 | 28 | 1256 | 2.30 | 63.12 | 27.9 | 43.1 | 22.8 | 10.6 | | | |
| 25 | 30 | 1159 | 2.60 | 58.25 | 28.2 | 43.3 | 21.9 | 10.8 | | | |
| 26 | 32 | 1096 | 2.75 | 55.11 | 28.3 | 43.4 | 21.5 | 10.9 | | | |
| 32 | 38 | 905 | 1.80 | 45.48 | 28.7 | 43.2 | 20 | 10.7 | | | |
| 40 | 48 | 716 | 2.30 | 35.99 | 29.0 | 43.6 | 18.1 | 11.1 | | | |
| 14 | 17 | 1999 | 0.80 | 100.45 | ** | ** | ** | ** | KH073-11P-L100L-04F | 82 | 442 |
| 17 | 21 | 1653 | 0.95 | 83.09 | 14.3 | 15.6 | 14.3 | 4.3 | | | |
| 19 | 23 | 1534 | 1.05 | 77.11 | 15.3 | 15.8 | 15.3 | 4.6 | | | |
| 20 | 25 | 1406 | 1.15 | 70.67 | 16.2 | 16.1 | 16.2 | 4.8 | | | |
| 22 | 27 | 1287 | 1.25 | 64.67 | 17.0 | 16.3 | 17.0 | 5.1 | | | |
| 24 | 28 | 1219 | 1.30 | 61.25 | 17.4 | 16.5 | 17.4 | 5.2 | | | |
| 28 | 34 | 1029 | 1.55 | 51.72 | 18.3 | 16.9 | 16.2 | 5.6 | | | |
| 29 | 35 | 992 | 1.60 | 49.88 | 18.5 | 16.9 | 15.9 | 5.7 | | | |
| 34 | 41 | 848 | 1.85 | 42.61 | 19.0 | 17.2 | 14.7 | 6.0 | | | |
| 37 | 44 | 779 | 2.00 | 39.17 | 19.3 | 17.4 | 14.1 | 6.1 | | | |
| 39 | 47 | 731 | 1.05 | 36.72 | 19.4 | 16.7 | 14.1 | 5.5 | | | |
| 44 | 54 | 645 | 2.45 | 32.40 | 19.7 | 17.7 | 12.9 | 6.4 | | | |
| 47 | 57 | 613 | 1.50 | 30.79 | 19.7 | 17.1 | 12.9 | 5.8 | | | |
| 52 | 63 | 548 | 2.85 | 27.56 | 19.9 | 17.9 | 11.9 | 6.6 | | | |
| 60 | 72 | 481 | 1.90 | 24.17 | 20.0 | 17.5 | 11.5 | 6.2 | | | |
| 77 | 93 | 371 | 2.50 | 18.65 | 20.2 | 17.8 | 10.3 | 6.6 | | | |
| 93 | 113 | 307 | 3.00 | 15.43 | 20.3 | 18.0 | 9.4 | 6.8 | | | |

Legend see page 337

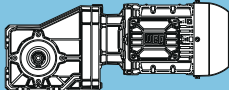
** ... on request

| P _N = 3.0 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|------|--------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | | | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 3.0 kW | | 3.6 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | | | |
| 29 | 35 | 998 | 0.85 | 50.17 | 5.8 | 8.5 | 5.8 | 2.2 | KH063-11P-L100L-04F | 62 | 440 | |
| 30 | 36 | 966 | 0.85 | 48.56 | 6.4 | 9.8 | 6.4 | 2.3 | | | | |
| 35 | 42 | 819 | 1.05 | 41.17 | 8.6 | 12.7 | 8.6 | 2.7 | | | | |
| 36 | 44 | 792 | 1.05 | 39.83 | 8.9 | 12.8 | 8.9 | 2.8 | | | | |
| 43 | 51 | 673 | 1.15 | 33.85 | 10.0 | 13.1 | 10.0 | 3.2 | | | | |
| 45 | 55 | 634 | 1.30 | 31.88 | 10.3 | 13.3 | 10.3 | 3.3 | | | | |
| 52 | 63 | 554 | 1.30 | 27.83 | 10.9 | 13.5 | 10.9 | 3.6 | | | | |
| 53 | 64 | 543 | 0.95 | 27.29 | 10.9 | 12.8 | 10.9 | 2.9 | | | | |
| 54 | 65 | 534 | 1.35 | 26.84 | 11.0 | 13.6 | 10.8 | 3.6 | | | | |
| 59 | 72 | 482 | 1.65 | 24.25 | 11.3 | 13.7 | 10.3 | 3.8 | | | | |
| 64 | 78 | 446 | 1.15 | 22.40 | 11.5 | 13.3 | 10.2 | 3.3 | | | | |
| 65 | 79 | 439 | 1.55 | 22.07 | 11.5 | 13.9 | 9.8 | 3.9 | | | | |
| 72 | 87 | 398 | 1.90 | 20.00 | 11.7 | 14.0 | 9.3 | 4.0 | | | | |
| 83 | 100 | 345 | 1.45 | 17.34 | 11.9 | 13.7 | 9.0 | 3.8 | | | | |
| 88 | 106 | 326 | 2.15 | 16.40 | 11.9 | 14.2 | 8.5 | 4.3 | | | | |
| 103 | 125 | 277 | 2.40 | 13.94 | 12.1 | 14.4 | 7.9 | 4.4 | | | | |
| 109 | 132 | 262 | 1.95 | 13.19 | 12.1 | 14.1 | 7.9 | 4.1 | | | | |
| 126 | 152 | 228 | 2.75 | 11.46 | 12.2 | 14.5 | 7.2 | 4.6 | | | | |
| 130 | 157 | 220 | 2.85 | 11.05 | 12.2 | 14.6 | 7.1 | 4.6 | | | | |
| 132 | 160 | 216 | 2.35 | 10.88 | 12.2 | 14.3 | 7.2 | 4.3 | | | | |
| 161 | 195 | 177 | 2.85 | 8.92 | 12.3 | 14.5 | 6.6 | 4.5 | | | | |
| 42 | 50 | 687 | 0.90 | 34.53 | 4.4 | 6.7 | 4.4 | 3.2 | KH053-11P-L100L-04F | 48 | 438 | |
| 43 | 52 | 663 | 0.95 | 33.30 | 5.0 | 8.0 | 5.0 | 3.3 | | | | |
| 46 | 55 | 626 | 1.00 | 31.46 | 5.7 | 9.5 | 5.7 | 3.4 | | | | |
| 53 | 64 | 545 | 1.10 | 27.39 | 6.9 | 10.3 | 6.9 | 3.6 | | | | |
| 60 | 73 | 476 | 1.30 | 23.93 | 7.7 | 10.6 | 7.7 | 3.9 | | | | |
| 61 | 74 | 469 | 0.90 | 23.58 | 7.7 | 9.9 | 7.7 | 3.2 | | | | |
| 73 | 88 | 393 | 1.55 | 19.73 | 8.4 | 10.8 | 8.4 | 4.1 | | | | |
| 74 | 90 | 385 | 1.10 | 19.35 | 8.4 | 10.3 | 8.4 | 3.6 | | | | |
| 89 | 107 | 322 | 1.90 | 16.19 | 8.8 | 11.0 | 8.8 | 4.3 | | | | |
| 96 | 116 | 298 | 1.40 | 14.98 | 9.0 | 10.7 | 9.0 | 4.0 | | | | |
| 105 | 127 | 274 | 2.20 | 13.75 | 9.1 | 11.2 | 9.1 | 4.5 | | | | |
| 126 | 153 | 227 | 1.85 | 11.40 | 9.3 | 11.0 | 9.0 | 4.3 | | | | |
| 127 | 154 | 225 | 2.70 | 11.31 | 9.3 | 11.3 | 8.7 | 4.6 | | | | |
| 132 | 159 | 217 | 2.80 | 10.91 | 9.3 | 11.3 | 8.6 | 4.6 | | | | |
| 153 | 185 | 187 | 2.25 | 9.40 | 9.5 | 11.2 | 8.2 | 4.5 | | | | |
| 187 | 226 | 153 | 2.70 | 7.71 | 9.5 | 11.3 | 7.5 | 4.6 | | | | |
| 68 | 82 | 423 | 0.95 | 21.25 | 3.2 | 4.7 | 3.2 | 2.2 | KH043-11P-L100L-04F | 45 | 436 | |
| 75 | 90 | 384 | 0.80 | 19.29 | ** | ** | ** | ** | | | | |
| 83 | 100 | 346 | 1.20 | 17.39 | 4.8 | 8.1 | 4.8 | 2.5 | | | | |
| 97 | 117 | 295 | 0.95 | 14.85 | 5.5 | 8.0 | 5.5 | 2.4 | | | | |
| 102 | 123 | 281 | 1.45 | 14.10 | 5.7 | 8.4 | 5.7 | 2.8 | | | | |
| 122 | 147 | 235 | 1.75 | 11.81 | 6.1 | 8.6 | 6.1 | 3.0 | | | | |
| 128 | 155 | 223 | 1.20 | 11.22 | 6.2 | 8.4 | 6.2 | 2.8 | | | | |
| 150 | 182 | 190 | 2.00 | 9.57 | 6.4 | 8.7 | 6.4 | 3.1 | | | | |
| 156 | 189 | 184 | 2.05 | 9.23 | 6.5 | 8.8 | 6.5 | 3.2 | | | | |
| 157 | 190 | 183 | 1.40 | 9.18 | 6.5 | 8.6 | 6.5 | 3.0 | | | | |
| 194 | 234 | 148 | 1.65 | 7.44 | 6.7 | 8.7 | 6.2 | 3.1 | | | | |
| 231 | 279 | 124 | 1.90 | 6.23 | 6.8 | 8.9 | 5.7 | 3.3 | | | | |
| 285 | 345 | 100 | 2.20 | 5.05 | 6.9 | 9.0 | 5.2 | 3.4 | | | | |
| 296 | 357 | 97 | 2.30 | 4.87 | 6.9 | 9.0 | 5.2 | 3.4 | | | | |
| 112 | 136 | 255 | 0.80 | 12.81 | ** | ** | ** | ** | KH033-11P-L100L-04F | 41 | 434 | |
| 144 | 174 | 199 | 1.05 | 10.00 | 3.7 | 2.5 | 3.7 | 2.5 | | | | |
| 159 | 193 | 180 | 0.95 | 9.03 | 4.0 | 2.4 | 4.0 | 2.4 | | | | |
| 210 | 254 | 136 | 1.10 | 6.86 | 4.5 | 2.7 | 4.5 | 2.7 | | | | |
| 270 | 326 | 106 | 1.30 | 5.34 | 4.8 | 2.9 | 4.8 | 2.9 | | | | |
| 345 | 417 | 83 | 1.55 | 4.17 | 4.9 | 3.1 | 4.9 | 3.1 | | | | |

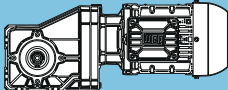


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** ... on request

| P _N = 4.0 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--------------------|--------------------------------|-----|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page | |
| 4.0 kW | | 4.8 kW | | Output shaft | | Hollow shaft | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 1.4 | 1.8 | 23487 | 0.80 | 1001.50 | ** | ** | ** | ** | KH155-11P-112M-04E | 706 | 464 | |
| 1.5 | 1.8 | 23406 | 0.80 | 975.12 | ** | ** | ** | ** | | | | |
| 1.6 | 1.9 | 21669 | 0.85 | 904.58 | 59.3 | 102.1 | 59.3 | 102.1 | | | | |
| 1.8 | 2.2 | 19072 | 0.95 | 799.45 | 73.5 | 115.4 | 73.5 | 115.4 | | | | |
| 1.9 | 2.3 | 18549 | 1.00 | 779.11 | 75.8 | 115.8 | 75.8 | 115.8 | | | | |
| 2.1 | 2.5 | 16292 | 1.15 | 688.57 | 84.6 | 117.6 | 84.6 | 117.6 | | | | |
| 2.2 | 2.6 | 15945 | 1.15 | 673.90 | 85.7 | 117.8 | 85.7 | 117.8 | | | | |
| 2.4 | 2.9 | 14006 | 1.30 | 595.58 | 91.6 | 119.3 | 91.6 | 119.3 | | | | |
| 2.5 | 3.0 | 13664 | 1.35 | 582.27 | 92.5 | 119.6 | 92.5 | 119.6 | | | | |
| 2.9 | 3.5 | 11807 | 1.55 | 507.30 | 97.0 | 121.0 | 97.0 | 121.0 | | | | |
| 3.3 | 4.0 | 10065 | 1.80 | 436.93 | 100.4 | 122.3 | 100.4 | 122.3 | | | | |
| 3.5 | 4.2 | 9615 | 1.90 | 419.11 | 101.2 | 122.7 | 101.2 | 122.7 | | | | |
| 3.8 | 4.6 | 8598 | 2.10 | 377.93 | 102.8 | 123.4 | 102.8 | 123.4 | | | | |
| 3.9 | 4.7 | 8499 | 2.15 | 374.35 | 103.0 | 123.5 | 103.0 | 123.5 | | | | |
| 4.0 | 4.9 | 8162 | 2.25 | 360.98 | 103.4 | 123.8 | 103.4 | 123.8 | | | | |
| 4.5 | 5.4 | 7245 | 2.50 | 323.79 | 104.6 | 124.5 | 104.6 | 124.5 | | | | |
| 4.6 | 5.5 | 7114 | 2.55 | 318.60 | 104.8 | 124.6 | 104.8 | 124.6 | | | | |
| 4.7 | 5.7 | 6900 | 2.65 | 310.30 | 105.1 | 124.7 | 105.1 | 124.7 | | | | |
| 5.3 | 6.4 | 6039 | 3.00 | 275.58 | 106.0 | 125.4 | 106.0 | 125.4 | | | | |
| 2.1 | 2.5 | 16801 | 0.80 | 699.95 | ** | ** | ** | ** | KH124-11P-112M-04E | 439 | 458 | |
| 2.2 | 2.7 | 15847 | 0.85 | 661.56 | 59.2 | 81.6 | 59.2 | 81.6 | | | | |
| 2.3 | 2.8 | 14811 | 0.90 | 619.56 | 63.8 | 82.7 | 63.8 | 82.7 | | | | |
| 2.4 | 2.9 | 14383 | 0.95 | 602.92 | 65.5 | 83.1 | 65.5 | 83.1 | | | | |
| 2.7 | 3.2 | 12834 | 1.05 | 540.20 | 71.0 | 84.6 | 71.0 | 84.6 | | | | |
| 2.8 | 3.4 | 12310 | 1.10 | 519.19 | 72.6 | 85.2 | 72.6 | 85.2 | | | | |
| 3.1 | 3.8 | 10987 | 1.20 | 465.31 | 76.3 | 86.5 | 76.3 | 86.5 | | | | |
| 3.2 | 3.9 | 10529 | 1.25 | 446.82 | 77.5 | 86.9 | 77.5 | 86.9 | | | | |
| 3.3 | 4.0 | 10251 | 1.30 | 435.90 | 78.1 | 87.2 | 78.1 | 87.2 | | | | |
| 3.6 | 4.4 | 9384 | 1.40 | 400.70 | 80.0 | 88.1 | 80.0 | 88.1 | | | | |
| 3.8 | 4.6 | 8995 | 1.45 | 384.88 | 80.8 | 88.5 | 80.8 | 88.5 | | | | |
| 4.4 | 5.3 | 7666 | 1.70 | 331.43 | 83.2 | 89.8 | 83.2 | 89.8 | | | | |
| 4.5 | 5.5 | 7349 | 1.80 | 319.02 | 83.8 | 90.1 | 83.8 | 90.1 | | | | |
| 4.7 | 5.7 | 7072 | 1.85 | 307.62 | 84.2 | 90.4 | 84.2 | 90.4 | | | | |
| 5.1 | 6.2 | 6469 | 2.05 | 283.73 | 85.0 | 91.0 | 85.0 | 91.0 | | | | |
| 5.2 | 6.3 | 6328 | 2.10 | 278.15 | 85.2 | 91.2 | 85.2 | 91.2 | | | | |
| 5.4 | 6.5 | 6090 | 2.15 | 268.22 | 85.5 | 91.4 | 85.5 | 91.4 | | | | |
| 5.5 | 6.7 | 5954 | 2.20 | 262.80 | 85.7 | 91.5 | 85.7 | 91.5 | | | | |
| 5.9 | 7.2 | 5490 | 2.40 | 244.33 | 86.3 | 92.0 | 86.3 | 92.0 | | | | |
| 6.1 | 7.3 | 5372 | 2.45 | 239.59 | 86.4 | 92.1 | 86.4 | 92.1 | | | | |
| 6.3 | 7.6 | 5159 | 2.55 | 231.04 | 86.6 | 92.3 | 86.6 | 92.3 | | | | |
| 7.0 | 8.5 | 4540 | 2.90 | 206.32 | 87.2 | 92.9 | 87.2 | 92.9 | | | | |
| 7.3 | 8.8 | 4360 | 3.00 | 198.95 | 87.4 | 93.1 | 87.4 | 93.1 | | | | |
| 3.3 | 4.0 | 10635 | 0.80 | 443.08 | ** | ** | ** | ** | KH104-11P-112M-04E | 316 | 454 | |
| 3.4 | 4.2 | 10134 | 0.80 | 422.20 | ** | ** | ** | ** | | | | |
| 3.8 | 4.6 | 9151 | 0.90 | 382.82 | 39.5 | 58.7 | 39.5 | 58.7 | | | | |
| 4.0 | 4.8 | 8743 | 0.95 | 366.49 | 41.9 | 59.2 | 41.9 | 59.2 | | | | |
| 4.6 | 5.5 | 7508 | 1.10 | 316.65 | 48.0 | 60.6 | 48.0 | 60.6 | | | | |
| 4.7 | 5.6 | 7391 | 1.10 | 311.74 | 48.5 | 60.7 | 48.5 | 60.7 | | | | |
| 5.4 | 6.5 | 6353 | 1.30 | 270.17 | 52.3 | 61.9 | 52.3 | 61.9 | | | | |
| 5.5 | 6.7 | 6180 | 1.30 | 262.82 | 52.9 | 62.1 | 52.9 | 62.1 | | | | |
| 5.7 | 6.9 | 5948 | 1.35 | 253.44 | 53.6 | 62.4 | 53.6 | 62.4 | | | | |
| 6.2 | 7.5 | 5444 | 1.50 | 233.43 | 55.0 | 62.9 | 55.0 | 62.9 | | | | |
| 6.4 | 7.7 | 5310 | 1.55 | 228.15 | 55.4 | 63.1 | 55.4 | 63.1 | | | | |
| 6.6 | 8.0 | 5110 | 1.60 | 220.00 | 55.9 | 63.3 | 55.9 | 63.3 | | | | |
| 6.7 | 8.1 | 5029 | 1.60 | 216.51 | 56.1 | 63.4 | 56.1 | 63.4 | | | | |
| 7.4 | 8.9 | 4541 | 1.80 | 197.12 | 57.2 | 64.0 | 57.2 | 64.0 | | | | |
| 7.6 | 9.2 | 4370 | 1.85 | 190.08 | 57.6 | 64.2 | 57.6 | 64.2 | | | | |
| 7.7 | 9.3 | 4312 | 1.90 | 187.95 | 57.7 | 64.2 | 57.7 | 64.2 | | | | |
| 8.9 | 11 | 3679 | 2.20 | 162.39 | 58.9 | 65.0 | 58.9 | 65.0 | | | | |
| 10 | 12 | 3713 | 2.20 | 140.95 | 58.8 | 64.9 | 58.8 | 64.9 | | | | |
| 12 | 14 | 3280 | 2.45 | 124.50 | 59.5 | 65.4 | 59.5 | 65.4 | | | | |
| 13 | 16 | 2847 | 2.85 | 108.07 | 60.1 | 65.9 | 60.1 | 65.9 | | | | |
| 14 | 17 | 2745 | 2.95 | 104.21 | 60.3 | 66.0 | 60.3 | 66.0 | | | | |
| | | | | | | | | | | KH103-11P-112M-04E | 292 | 452 |

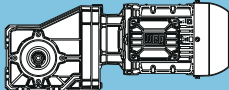
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| P _N = 4.0 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|------|-----------------------|-----------------------|-----------------------|--------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 4.0 kW | | 4.8 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 6.0 | 7.2 | 5812 | 0.80 | 242.14 | ** | ** | ** | ** | KH094-11P-112M-04E | 187 | 450 | |
| 7.2 | 8.7 | 4836 | 0.95 | 202.70 | 25.6 | 38.9 | 25.6 | 38.9 | | | | |
| 7.5 | 9.0 | 4626 | 1.00 | 194.32 | 27.1 | 39.1 | 27.1 | 39.1 | | | | |
| 7.7 | 9.4 | 4452 | 1.05 | 187.38 | 28.3 | 39.3 | 28.3 | 39.3 | | | | |
| 8.8 | 11 | 3879 | 1.20 | 164.28 | 31.5 | 40.1 | 31.5 | 40.1 | | | | |
| 9.2 | 11 | 3733 | 1.25 | 158.41 | 32.2 | 40.3 | 32.2 | 40.3 | | | | |
| 8.6 | 10 | 4459 | 1.05 | 169.25 | 28.2 | 39.3 | 28.2 | 39.3 | KH093-11P-112M-04E | 174 | 448 | |
| 10 | 12 | 3769 | 1.20 | 143.08 | 32.0 | 40.2 | 32.0 | 40.2 | | | | |
| 12 | 14 | 3263 | 1.40 | 123.86 | 34.2 | 40.9 | 34.2 | 40.9 | | | | |
| 13 | 16 | 2890 | 1.60 | 109.70 | 35.5 | 41.3 | 35.5 | 41.3 | | | | |
| 15 | 18 | 2500 | 1.80 | 94.90 | 36.6 | 41.8 | 36.6 | 41.8 | | | | |
| 16 | 19 | 2411 | 1.90 | 91.51 | 36.9 | 41.9 | 36.9 | 41.9 | | | | |
| 18 | 22 | 2127 | 2.15 | 80.74 | 37.6 | 42.3 | 37.6 | 42.3 | | | | |
| 21 | 26 | 1810 | 2.50 | 68.71 | 38.2 | 42.7 | 38.2 | 42.7 | | | | |
| 23 | 27 | 1685 | 2.70 | 63.96 | 38.5 | 42.9 | 38.5 | 42.9 | | | | |
| 24 | 30 | 1562 | 2.90 | 59.28 | 38.7 | 43.0 | 38.7 | 43.0 | | | | |
| 39 | 47 | 978 | 2.85 | 37.13 | 39.4 | 43.3 | 39.4 | 43.3 | | | | |
| 8.9 | 11 | 3926 | 0.80 | 163.55 | ** | ** | ** | ** | KH084-11P-112M-04E | 137 | 446 | |
| 9.2 | 11 | 3786 | 0.80 | 157.71 | ** | ** | ** | ** | | | | |
| 10 | 12 | 3753 | 0.80 | 142.45 | ** | ** | ** | ** | KH083-11P-112M-04E | 124 | 444 | |
| 12 | 14 | 3317 | 0.95 | 125.90 | 16.3 | 27.7 | 16.3 | 7.6 | | | | |
| 14 | 16 | 2805 | 1.10 | 106.46 | 20.9 | 37.7 | 20.9 | 8.4 | | | | |
| 16 | 19 | 2411 | 1.25 | 91.51 | 23.4 | 41.4 | 23.4 | 8.9 | | | | |
| 18 | 22 | 2105 | 1.45 | 79.89 | 25.0 | 41.9 | 25.0 | 9.4 | | | | |
| 21 | 26 | 1803 | 1.70 | 68.44 | 26.3 | 42.3 | 25.3 | 9.8 | | | | |
| 22 | 27 | 1739 | 1.75 | 66.00 | 26.5 | 42.4 | 24.7 | 9.9 | | | | |
| 23 | 28 | 1663 | 1.75 | 63.12 | 26.8 | 42.5 | 24.2 | 10.0 | | | | |
| 25 | 30 | 1535 | 2.00 | 58.25 | 27.2 | 42.7 | 23.3 | 10.2 | | | | |
| 26 | 32 | 1452 | 2.10 | 55.11 | 27.4 | 42.9 | 22.7 | 10.4 | | | | |
| 30 | 36 | 1287 | 2.35 | 48.87 | 27.9 | 43.1 | 21.3 | 10.6 | | | | |
| 32 | 39 | 1198 | 1.40 | 45.48 | 28.1 | 42.6 | 21.1 | 10.1 | | | | |
| 35 | 43 | 1085 | 2.80 | 41.18 | 28.3 | 43.4 | 19.8 | 10.9 | | | | |
| 40 | 49 | 948 | 1.75 | 35.99 | 28.6 | 43.1 | 19.0 | 10.6 | | | | |
| 46 | 56 | 828 | 2.35 | 31.43 | 28.8 | 43.3 | 17.8 | 10.8 | | | | |
| 52 | 63 | 732 | 2.60 | 27.78 | 28.9 | 43.5 | 16.9 | 11.0 | | | | |
| 19 | 23 | 2031 | 0.80 | 77.11 | ** | ** | ** | ** | KH073-11P-112M-04E | 83 | 442 | |
| 21 | 25 | 1862 | 0.85 | 70.67 | 12.1 | 15.2 | 12.1 | 3.9 | | | | |
| 22 | 27 | 1704 | 0.95 | 64.67 | 13.8 | 15.5 | 13.8 | 4.2 | | | | |
| 24 | 29 | 1614 | 1.00 | 61.25 | 14.6 | 15.7 | 14.6 | 4.4 | | | | |
| 28 | 34 | 1363 | 1.15 | 51.72 | 16.5 | 16.2 | 16.5 | 4.9 | | | | |
| 29 | 35 | 1337 | 1.20 | 50.75 | 16.7 | 16.2 | 16.7 | 5.0 | | | | |
| 34 | 41 | 1123 | 1.40 | 42.61 | 17.9 | 16.7 | 15.8 | 5.4 | | | | |
| 37 | 45 | 1032 | 1.55 | 39.17 | 18.3 | 16.9 | 15.1 | 5.6 | | | | |
| 39 | 48 | 967 | 0.80 | 36.72 | ** | ** | ** | ** | | | | |
| 45 | 54 | 854 | 1.85 | 32.40 | 19.0 | 17.2 | 13.7 | 6.0 | | | | |
| 47 | 57 | 811 | 1.15 | 30.79 | 19.2 | 16.5 | 13.9 | 5.2 | | | | |
| 53 | 64 | 726 | 2.15 | 27.56 | 19.4 | 17.5 | 12.6 | 6.2 | | | | |
| 60 | 73 | 637 | 1.45 | 24.17 | 19.7 | 17.0 | 12.3 | 5.8 | | | | |
| 61 | 73 | 629 | 2.50 | 23.88 | 19.7 | 17.7 | 11.8 | 6.5 | | | | |
| 72 | 87 | 531 | 2.95 | 20.17 | 19.9 | 17.9 | 10.9 | 6.7 | | | | |
| 78 | 94 | 491 | 1.90 | 18.65 | 20.0 | 17.5 | 10.8 | 6.2 | | | | |
| 94 | 114 | 407 | 2.25 | 15.43 | 20.2 | 17.7 | 9.9 | 6.5 | | | | |
| 111 | 134 | 346 | 2.65 | 13.12 | 20.2 | 17.9 | 9.2 | 6.7 | | | | |



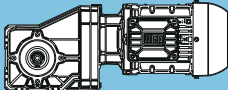
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** ... on request

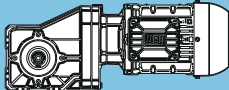
| P _N = 4.0 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|----|-----|
| 50 Hz | | 60 Hz | | i | | at 50 Hz | | | |  | m kg | Dimension sheet see page | | |
| 4.0 kW | | 4.8 kW | | | | Output shaft | | Hollow shaft | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | |
| 35 | 43 | 1085 | 0.80 | 41.17 | ** | ** | ** | ** | KH063-11P-112M-04E | 63 | 440 | | | |
| 36 | 44 | 1049 | 0.80 | 39.83 | ** | ** | ** | ** | | | | | | |
| 43 | 52 | 892 | 0.85 | 33.85 | 7.6 | 12.4 | 7.6 | 2.5 | | | | | | |
| 45 | 55 | 840 | 1.00 | 31.88 | 8.3 | 12.6 | 8.3 | 2.7 | | | | | | |
| 52 | 63 | 733 | 1.00 | 27.83 | 9.5 | 12.9 | 9.5 | 3.0 | | | | | | |
| 54 | 65 | 707 | 1.00 | 26.84 | 9.7 | 13.0 | 9.7 | 3.1 | | | | | | |
| 60 | 72 | 639 | 1.25 | 24.25 | 10.3 | 13.2 | 10.3 | 3.3 | | | | | | |
| 65 | 78 | 590 | 0.85 | 22.40 | 10.6 | 12.6 | 10.6 | 2.7 | | | | | | |
| 66 | 80 | 581 | 1.15 | 22.07 | 10.7 | 13.4 | 10.5 | 3.5 | | | | | | |
| 73 | 88 | 527 | 1.45 | 20.00 | 11.0 | 13.6 | 10.0 | 3.6 | | | | | | |
| 84 | 101 | 457 | 1.10 | 17.34 | 11.4 | 13.2 | 9.6 | 3.3 | | | | | | |
| 88 | 107 | 432 | 1.65 | 16.40 | 11.5 | 13.9 | 9.1 | 3.9 | | | | | | |
| 104 | 126 | 367 | 1.85 | 13.94 | 11.8 | 14.1 | 8.3 | 4.1 | | | | | | |
| 110 | 133 | 347 | 1.45 | 13.19 | 11.9 | 13.7 | 8.4 | 3.7 | | | | | | |
| 127 | 153 | 302 | 2.10 | 11.46 | 12.0 | 14.3 | 7.6 | 4.3 | | | | | | |
| 131 | 159 | 291 | 2.15 | 11.05 | 12.0 | 14.3 | 7.5 | 4.4 | | | | | | |
| 133 | 161 | 287 | 1.75 | 10.88 | 12.1 | 14.0 | 7.6 | 4.0 | | | | | | |
| 160 | 193 | 239 | 2.45 | 9.09 | 12.2 | 14.5 | 6.8 | 4.5 | | | | | | |
| 163 | 197 | 235 | 2.15 | 8.92 | 12.2 | 14.2 | 6.9 | 4.3 | | | | | | |
| 191 | 232 | 200 | 2.45 | 7.58 | 12.3 | 14.4 | 6.4 | 4.4 | | | | | | |
| 233 | 282 | 164 | 2.80 | 6.23 | 12.3 | 14.5 | 5.9 | 4.6 | | | | | | |
| 241 | 292 | 158 | 2.90 | 6.01 | 12.3 | 14.5 | 5.8 | 4.6 | | | | | | |
| 53 | 64 | 722 | 0.80 | 27.39 | ** | ** | ** | ** | | | | KH053-11P-112M-04E | 49 | 438 |
| 61 | 73 | 630 | 1.00 | 23.93 | 5.6 | 9.3 | 5.6 | 3.4 | | | | | | |
| 73 | 89 | 520 | 1.20 | 19.73 | 7.2 | 10.4 | 7.2 | 3.7 | | | | | | |
| 75 | 91 | 510 | 0.85 | 19.35 | 7.3 | 9.7 | 7.3 | 3.0 | | | | | | |
| 90 | 108 | 427 | 1.45 | 16.19 | 8.1 | 10.7 | 8.1 | 4.0 | | | | | | |
| 97 | 117 | 395 | 1.05 | 14.98 | 8.4 | 10.2 | 8.4 | 3.5 | | | | | | |
| 105 | 128 | 362 | 1.70 | 13.75 | 8.6 | 10.9 | 8.6 | 4.2 | | | | | | |
| 127 | 154 | 300 | 1.40 | 11.40 | 9.0 | 10.7 | 9.0 | 4.0 | | | | | | |
| 128 | 155 | 298 | 2.05 | 11.31 | 9.0 | 11.1 | 9.0 | 4.4 | | | | | | |
| 133 | 161 | 287 | 2.10 | 10.91 | 9.0 | 11.1 | 9.0 | 4.4 | | | | | | |
| 154 | 187 | 248 | 1.70 | 9.40 | 9.2 | 10.9 | 8.6 | 4.2 | | | | | | |
| 162 | 196 | 236 | 2.40 | 8.97 | 9.3 | 11.3 | 8.2 | 4.6 | | | | | | |
| 188 | 228 | 203 | 2.05 | 7.71 | 9.4 | 11.1 | 7.9 | 4.4 | | | | | | |
| 221 | 268 | 173 | 2.40 | 6.55 | 9.5 | 11.2 | 7.3 | 4.5 | | | | | | |
| 269 | 326 | 142 | 2.95 | 5.39 | 9.2 | 11.4 | 6.7 | 4.7 | | | | | | |
| 83 | 101 | 458 | 0.90 | 17.39 | 1.9 | 2.0 | 1.9 | 2.0 | KH043-11P-112M-04E | 46 | 436 | | | |
| 103 | 124 | 371 | 1.10 | 14.10 | 4.4 | 7.3 | 4.4 | 2.4 | | | | | | |
| 123 | 149 | 311 | 1.30 | 11.81 | 5.3 | 8.3 | 5.3 | 2.7 | | | | | | |
| 129 | 156 | 296 | 0.90 | 11.22 | 5.5 | 8.0 | 5.5 | 2.4 | | | | | | |
| 152 | 183 | 252 | 1.50 | 9.57 | 6.0 | 8.5 | 6.0 | 2.9 | | | | | | |
| 157 | 190 | 243 | 1.55 | 9.23 | 6.0 | 8.5 | 6.0 | 2.9 | | | | | | |
| 158 | 191 | 242 | 1.05 | 9.18 | 6.1 | 8.3 | 6.1 | 2.7 | | | | | | |
| 195 | 236 | 196 | 1.25 | 7.44 | 6.4 | 8.5 | 6.4 | 2.9 | | | | | | |
| 233 | 282 | 164 | 1.45 | 6.23 | 6.6 | 8.7 | 6.0 | 3.1 | | | | | | |
| 287 | 348 | 133 | 1.70 | 5.05 | 6.8 | 8.8 | 5.5 | 3.2 | | | | | | |
| 298 | 360 | 128 | 1.75 | 4.87 | 6.8 | 8.8 | 5.4 | 3.2 | | | | | | |

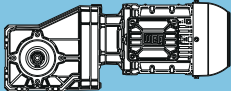
Legend see page 337

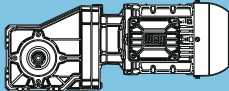
** ... on request

| P _N = 5.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 2.1 | 2.6 | 22447 | 0.85 | 688.57 | 53.9 | 90.7 | 53.9 | 90.7 | KH154-11P-132S-04E | 711 | 462 |
| 2.2 | 2.6 | 22039 | 0.85 | 676.04 | 56.8 | 96.8 | 56.8 | 96.8 | | | |
| 2.5 | 3.0 | 19336 | 0.95 | 595.58 | 72.2 | 115.2 | 72.2 | 115.2 | | | |
| 2.9 | 3.5 | 16369 | 1.10 | 507.30 | 84.3 | 117.5 | 84.3 | 117.5 | | | |
| 3.4 | 4.0 | 13983 | 1.30 | 436.93 | 91.7 | 119.3 | 91.7 | 119.3 | | | |
| 3.5 | 4.2 | 13385 | 1.35 | 419.11 | 93.2 | 119.8 | 93.2 | 119.8 | | | |
| 3.9 | 4.7 | 11971 | 1.55 | 377.93 | 96.6 | 120.9 | 96.6 | 120.9 | | | |
| 4.0 | 4.8 | 11717 | 1.55 | 369.91 | 97.2 | 121.1 | 97.2 | 121.1 | | | |
| 4.1 | 4.9 | 11411 | 1.60 | 360.98 | 97.8 | 121.3 | 97.8 | 121.3 | | | |
| 4.5 | 5.5 | 10151 | 1.80 | 323.79 | 100.2 | 122.3 | 100.2 | 122.3 | | | |
| 4.6 | 5.5 | 9967 | 1.85 | 318.60 | 100.6 | 122.4 | 100.6 | 122.4 | | | |
| 4.7 | 5.7 | 9768 | 1.85 | 312.23 | 100.9 | 122.5 | 100.9 | 122.5 | | | |
| 5.3 | 6.4 | 8515 | 2.15 | 275.58 | 102.9 | 123.5 | 102.9 | 123.5 | | | |
| 5.5 | 6.6 | 8241 | 2.20 | 267.26 | 103.3 | 123.7 | 103.3 | 123.7 | | | |
| 5.6 | 6.7 | 8046 | 2.25 | 261.49 | 103.6 | 123.9 | 103.6 | 123.9 | | | |
| 6.3 | 7.6 | 7010 | 2.60 | 231.17 | 104.9 | 124.7 | 104.9 | 124.7 | | | |
| 6.5 | 7.8 | 6816 | 2.65 | 225.22 | 105.2 | 124.8 | 105.2 | 124.8 | | | |
| 2.8 | 3.4 | 16960 | 0.80 | 519.19 | ** | ** | ** | ** | KH124-11P-132S-04E | 457 | 458 |
| 2.9 | 3.4 | 16741 | 0.80 | 512.47 | ** | ** | ** | ** | | | |
| 3.1 | 3.8 | 15138 | 0.90 | 465.31 | 62.4 | 82.3 | 62.4 | 82.3 | | | |
| 3.3 | 4.0 | 14537 | 0.90 | 446.82 | 64.9 | 82.9 | 64.9 | 82.9 | | | |
| 3.4 | 4.0 | 14152 | 0.95 | 435.90 | 66.4 | 83.3 | 66.4 | 83.3 | | | |
| 3.7 | 4.4 | 12956 | 1.05 | 400.70 | 70.6 | 84.5 | 70.6 | 84.5 | | | |
| 3.8 | 4.6 | 12445 | 1.05 | 384.88 | 72.2 | 85.0 | 72.2 | 85.0 | | | |
| 3.9 | 4.6 | 12264 | 1.10 | 380.06 | 72.8 | 85.2 | 72.8 | 85.2 | | | |
| 4.4 | 5.3 | 10629 | 1.25 | 331.43 | 77.2 | 86.8 | 77.2 | 86.8 | | | |
| 4.5 | 5.4 | 10499 | 1.25 | 327.38 | 77.5 | 87.0 | 77.5 | 87.0 | | | |
| 4.6 | 5.5 | 10210 | 1.30 | 319.02 | 78.2 | 87.3 | 78.2 | 87.3 | | | |
| 4.8 | 5.7 | 9825 | 1.35 | 307.62 | 79.1 | 87.7 | 79.1 | 87.7 | | | |
| 5.2 | 6.2 | 9024 | 1.45 | 283.73 | 80.8 | 88.5 | 80.8 | 88.5 | | | |
| 5.3 | 6.3 | 8829 | 1.50 | 278.15 | 81.2 | 88.7 | 81.2 | 88.7 | | | |
| 5.5 | 6.6 | 8496 | 1.55 | 268.22 | 81.8 | 89.0 | 81.8 | 89.0 | | | |
| 5.6 | 6.7 | 8307 | 1.60 | 262.80 | 82.1 | 89.2 | 82.1 | 89.2 | | | |
| 6.0 | 7.2 | 7691 | 1.70 | 244.33 | 83.2 | 89.8 | 83.2 | 89.8 | | | |
| 6.1 | 7.4 | 7527 | 1.75 | 239.59 | 83.5 | 90.0 | 83.5 | 90.0 | | | |
| 6.3 | 7.6 | 7243 | 1.80 | 231.04 | 83.9 | 90.2 | 83.9 | 90.2 | | | |
| 6.4 | 7.7 | 7169 | 1.85 | 229.14 | 84.0 | 90.3 | 84.0 | 90.3 | | | |
| 7.1 | 8.6 | 6401 | 2.05 | 206.32 | 85.1 | 91.1 | 85.1 | 91.1 | | | |
| 7.4 | 8.9 | 6147 | 2.15 | 198.95 | 85.5 | 91.3 | 85.5 | 91.3 | | | |
| 8.6 | 10 | 5165 | 2.55 | 169.97 | 86.6 | 92.3 | 86.6 | 92.3 | | | |
| 9.7 | 12 | 5418 | 2.40 | 151.11 | 86.3 | 92.1 | 86.3 | 92.1 | KH123-11P-132S-04E | 433 | 456 |
| 11 | 13 | 4724 | 2.80 | 131.76 | 87.1 | 92.8 | 87.1 | 92.8 | | | |
| 12 | 14 | 4555 | 2.90 | 127.05 | 87.2 | 92.9 | 87.2 | 92.9 | | | |
| 4.6 | 5.6 | 10344 | 0.80 | 316.65 | ** | ** | ** | ** | KH104-11P-132S-04E | 334 | 454 |
| 4.7 | 5.7 | 10184 | 0.80 | 311.74 | ** | ** | ** | ** | | | |
| 5.4 | 6.5 | 8772 | 0.95 | 270.17 | 41.7 | 59.1 | 41.7 | 59.1 | | | |
| 5.6 | 6.7 | 8533 | 0.95 | 262.82 | 43.1 | 59.4 | 43.1 | 59.4 | | | |
| 5.8 | 7.0 | 8211 | 1.00 | 253.44 | 44.7 | 59.8 | 44.7 | 59.8 | | | |
| 6.3 | 7.6 | 7532 | 1.10 | 233.43 | 47.9 | 60.6 | 47.9 | 60.6 | | | |
| 6.4 | 7.7 | 7362 | 1.10 | 228.15 | 48.6 | 60.8 | 48.6 | 60.8 | | | |
| 6.7 | 8.0 | 7084 | 1.15 | 220.00 | 49.7 | 61.1 | 49.7 | 61.1 | | | |
| 6.8 | 8.2 | 6972 | 1.15 | 216.51 | 50.1 | 61.2 | 50.1 | 61.2 | | | |
| 7.4 | 9.0 | 6308 | 1.30 | 197.12 | 52.5 | 62.0 | 52.5 | 62.0 | | | |
| 7.7 | 9.3 | 6071 | 1.35 | 190.08 | 53.2 | 62.2 | 53.2 | 62.2 | | | |
| 7.8 | 9.4 | 6003 | 1.35 | 187.95 | 53.4 | 62.3 | 53.4 | 62.3 | | | |
| 9.0 | 11 | 5133 | 1.60 | 162.39 | 55.8 | 63.3 | 55.8 | 63.3 | KH103-11P-132S-04E | 310 | 452 |
| 10 | 13 | 5054 | 1.60 | 140.95 | 56.0 | 63.4 | 56.0 | 63.4 | | | |
| 12 | 14 | 4464 | 1.80 | 124.50 | 57.4 | 64.1 | 57.4 | 64.1 | | | |
| 14 | 16 | 3875 | 2.10 | 108.07 | 58.5 | 64.7 | 58.5 | 64.7 | | | |
| 16 | 19 | 3348 | 2.40 | 93.37 | 59.4 | 65.3 | 59.4 | 65.3 | | | |
| 18 | 22 | 2865 | 2.80 | 79.90 | 60.1 | 65.9 | 60.1 | 65.9 | KH094-11P-132S-04E | 205 | 450 |
| 8.9 | 11 | 5356 | 0.85 | 164.28 | 21.0 | 35.2 | 21.0 | 35.2 | | | |
| 9.2 | 11 | 5154 | 0.90 | 158.41 | 23.0 | 38.4 | 23.0 | 38.4 | | | |



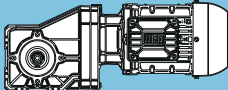
| P _N = 5.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 10 | 12 | 5130 | 0.90 | 143.08 | 23.2 | 38.5 | 23.2 | 38.5 | KH093-11P-132S-04E | 192 | 448 |
| 12 | 14 | 4441 | 1.05 | 123.86 | 28.3 | 39.4 | 28.3 | 39.4 | | | |
| 13 | 16 | 3933 | 1.15 | 109.70 | 31.2 | 40.0 | 31.2 | 40.0 | | | |
| 15 | 19 | 3402 | 1.35 | 94.90 | 33.6 | 40.7 | 33.6 | 40.7 | | | |
| 16 | 19 | 3281 | 1.40 | 91.51 | 34.1 | 40.8 | 34.1 | 40.8 | | | |
| 18 | 22 | 2895 | 1.60 | 80.74 | 35.5 | 41.3 | 35.5 | 41.3 | | | |
| 21 | 26 | 2463 | 1.85 | 68.71 | 36.7 | 41.9 | 36.7 | 41.9 | | | |
| 23 | 28 | 2293 | 2.00 | 63.96 | 37.2 | 42.1 | 37.2 | 42.1 | | | |
| 25 | 30 | 2125 | 2.15 | 59.28 | 37.6 | 42.3 | 37.6 | 42.3 | | | |
| 27 | 33 | 1939 | 2.35 | 54.07 | 38.0 | 42.5 | 38.0 | 42.5 | | | |
| 31 | 38 | 1678 | 2.70 | 46.81 | 38.5 | 42.9 | 38.5 | 42.9 | | | |
| 39 | 48 | 1331 | 2.10 | 37.13 | 39.0 | 42.7 | 39.0 | 42.7 | | | |
| 47 | 56 | 1125 | 2.50 | 31.39 | 39.3 | 43.0 | 39.3 | 43.0 | | | |
| 54 | 65 | 974 | 2.90 | 27.18 | 39.4 | 43.3 | 39.4 | 43.3 | | | |
| 14 | 17 | 3817 | 0.80 | 106.46 | ** | ** | ** | ** | | | |
| 16 | 19 | 3281 | 0.95 | 91.51 | 16.7 | 28.6 | 16.7 | 7.7 | | | |
| 18 | 22 | 2864 | 1.05 | 79.89 | 20.5 | 36.8 | 20.5 | 8.3 | | | |
| 21 | 26 | 2454 | 1.25 | 68.44 | 23.2 | 41.4 | 23.2 | 8.9 | | | |
| 22 | 27 | 2366 | 1.30 | 66.00 | 23.7 | 41.5 | 23.7 | 9.0 | | | |
| 23 | 28 | 2263 | 1.30 | 63.12 | 24.2 | 41.7 | 24.2 | 9.2 | | | |
| 25 | 30 | 2088 | 1.45 | 58.25 | 25.1 | 41.9 | 25.1 | 9.4 | | | |
| 27 | 32 | 1976 | 1.55 | 55.11 | 25.6 | 42.1 | 24.3 | 9.6 | | | |
| 30 | 36 | 1752 | 1.75 | 48.87 | 26.4 | 42.4 | 23.0 | 9.9 | | | |
| 32 | 39 | 1631 | 1.00 | 45.48 | 26.9 | 41.7 | 22.8 | 9.2 | | | |
| 36 | 43 | 1477 | 2.05 | 41.19 | 27.3 | 42.8 | 21.0 | 10.3 | | | |
| 41 | 49 | 1290 | 1.30 | 35.99 | 27.9 | 42.4 | 20.2 | 9.9 | | | |
| 47 | 56 | 1127 | 1.75 | 31.43 | 28.2 | 42.7 | 18.9 | 10.2 | | | |
| 53 | 64 | 996 | 1.95 | 27.78 | 28.5 | 43.0 | 17.8 | 10.5 | | | |
| 62 | 75 | 842 | 2.30 | 23.49 | 28.8 | 43.3 | 16.5 | 10.8 | | | |
| 73 | 87 | 724 | 2.65 | 20.19 | 29.0 | 43.5 | 15.3 | 11.0 | | | |
| 28 | 34 | 1854 | 0.85 | 51.72 | 12.2 | 15.2 | 12.2 | 3.9 | KH073-11P-132S-04E | 101 | 442 |
| 29 | 35 | 1820 | 0.90 | 50.75 | 12.6 | 15.2 | 12.6 | 4.0 | | | |
| 34 | 41 | 1528 | 1.05 | 42.61 | 15.3 | 15.8 | 15.3 | 4.6 | | | |
| 37 | 45 | 1404 | 1.15 | 39.17 | 16.2 | 16.1 | 15.7 | 4.8 | | | |
| 45 | 54 | 1162 | 1.35 | 32.40 | 17.7 | 16.6 | 15.0 | 5.3 | | | |
| 48 | 57 | 1104 | 0.85 | 30.79 | 18.0 | 15.6 | 14.4 | 4.3 | | | |
| 53 | 64 | 988 | 1.60 | 27.56 | 18.5 | 17.0 | 13.7 | 5.7 | | | |
| 61 | 73 | 867 | 1.10 | 24.17 | 19.0 | 16.3 | 13.3 | 5.0 | | | |
| 73 | 88 | 723 | 2.15 | 20.17 | 19.4 | 17.5 | 11.6 | 6.3 | | | |
| 75 | 91 | 697 | 2.25 | 19.45 | 19.5 | 17.6 | 11.5 | 6.3 | | | |
| 79 | 95 | 669 | 1.40 | 18.65 | 19.6 | 16.9 | 11.6 | 5.7 | | | |
| 88 | 106 | 596 | 2.65 | 16.61 | 19.8 | 17.8 | 10.6 | 6.5 | | | |
| 95 | 114 | 553 | 1.65 | 15.43 | 19.9 | 17.3 | 10.6 | 6.0 | | | |
| 112 | 135 | 470 | 1.95 | 13.12 | 20.0 | 17.5 | 9.7 | 6.3 | | | |
| 129 | 155 | 408 | 2.25 | 11.37 | 20.1 | 17.7 | 9.1 | 6.5 | | | |
| 153 | 184 | 344 | 2.65 | 9.60 | 20.2 | 17.9 | 8.4 | 6.7 | | | |
| 158 | 191 | 332 | 2.75 | 9.26 | 20.3 | 18.0 | 8.3 | 6.7 | | | |
| 60 | 73 | 869 | 0.90 | 24.25 | 7.9 | 12.5 | 7.9 | 2.6 | KH063-11P-132S-04E | 81 | 440 |
| 66 | 80 | 791 | 0.85 | 22.07 | 8.9 | 12.8 | 8.9 | 2.8 | | | |
| 73 | 88 | 717 | 1.05 | 20.00 | 9.6 | 13.0 | 9.6 | 3.0 | | | |
| 84 | 102 | 622 | 0.85 | 17.34 | 10.4 | 12.5 | 10.1 | 2.5 | | | |
| 89 | 108 | 588 | 1.20 | 16.40 | 10.6 | 13.4 | 9.9 | 3.4 | | | |
| 105 | 127 | 500 | 1.35 | 13.94 | 11.2 | 13.7 | 9.0 | 3.7 | | | |
| 111 | 134 | 473 | 1.10 | 13.19 | 11.3 | 13.1 | 9.1 | 3.2 | | | |
| 128 | 154 | 411 | 1.55 | 11.46 | 11.6 | 14.0 | 8.2 | 4.0 | | | |
| 133 | 160 | 396 | 1.60 | 11.05 | 11.7 | 14.0 | 8.0 | 4.1 | | | |
| 135 | 162 | 390 | 1.30 | 10.88 | 11.7 | 13.5 | 8.2 | 3.6 | | | |
| 161 | 194 | 326 | 1.80 | 9.09 | 11.9 | 14.2 | 7.3 | 4.3 | | | |
| 164 | 198 | 320 | 1.60 | 8.92 | 12.0 | 13.8 | 7.4 | 3.9 | | | |
| 193 | 233 | 272 | 1.80 | 7.58 | 12.1 | 14.0 | 6.8 | 4.1 | | | |
| 235 | 283 | 223 | 2.10 | 6.23 | 12.2 | 14.3 | 6.2 | 4.3 | | | |
| 244 | 294 | 215 | 2.15 | 6.01 | 12.2 | 14.3 | 6.1 | 4.3 | | | |
| 297 | 357 | 177 | 2.45 | 4.94 | 12.3 | 14.5 | 5.6 | 4.5 | | | |

| P _N = 5.5 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-----|-----------------------|-----------------------|-----------------------|--------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 5.5 kW | | 6.6 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 74 | 89 | 707 | 0.85 | 19.73 | 3.8 | 5.5 | 3.8 | 3.2 | KH053-11P-132S-04E | 68 | 438 | |
| 90 | 109 | 580 | 1.05 | 16.19 | 6.4 | 10.2 | 6.4 | 3.5 | | | | |
| 98 | 118 | 537 | 0.80 | 14.98 | ** | ** | ** | ** | | | | |
| 107 | 128 | 493 | 1.25 | 13.75 | 7.5 | 10.5 | 7.5 | 3.8 | | | | |
| 129 | 155 | 409 | 1.05 | 11.40 | 8.3 | 10.2 | 8.3 | 3.5 | | | | |
| 130 | 156 | 406 | 1.50 | 11.31 | 8.3 | 10.8 | 8.3 | 4.1 | | | | |
| 134 | 162 | 391 | 1.55 | 10.91 | 8.4 | 10.8 | 8.4 | 4.1 | | | | |
| 156 | 188 | 337 | 1.25 | 9.40 | 8.8 | 10.5 | 8.8 | 3.8 | | | | |
| 163 | 197 | 322 | 1.80 | 8.97 | 8.9 | 11.0 | 8.7 | 4.3 | | | | |
| 190 | 229 | 276 | 1.50 | 7.71 | 9.1 | 10.8 | 8.4 | 4.1 | | | | |
| 224 | 269 | 235 | 1.80 | 6.55 | 9.3 | 10.9 | 7.7 | 4.2 | | | | |
| 272 | 327 | 193 | 2.15 | 5.39 | 9.4 | 11.1 | 7.1 | 4.4 | | | | |
| 282 | 340 | 186 | 2.25 | 5.19 | 9.4 | 11.2 | 6.9 | 4.5 | | | | |
| 343 | 413 | 153 | 2.70 | 4.27 | 8.6 | 11.3 | 6.4 | 4.6 | | | | |

| P _N = 7.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 7.5 kW | | 9.0 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 2.9 | 3.5 | 22598 | 0.80 | 507.30 | ** | ** | ** | ** | KH154-11P-L132M-04F | 725 | 462 |
| 3.4 | 4.1 | 19344 | 0.95 | 436.93 | 72.2 | 115.2 | 72.2 | 115.2 | | | |
| 3.5 | 4.2 | 18517 | 1.00 | 419.11 | 76.0 | 115.9 | 76.0 | 115.9 | | | |
| 3.9 | 4.7 | 16629 | 1.10 | 377.93 | 83.4 | 117.3 | 83.4 | 117.3 | | | |
| 4.0 | 4.8 | 16243 | 1.15 | 369.91 | 84.7 | 117.6 | 84.7 | 117.6 | | | |
| 4.1 | 4.9 | 15851 | 1.15 | 360.98 | 86.1 | 117.9 | 86.1 | 117.9 | | | |
| 4.5 | 5.5 | 14130 | 1.30 | 323.79 | 91.2 | 119.2 | 91.2 | 119.2 | | | |
| 4.6 | 5.6 | 13904 | 1.30 | 318.60 | 91.9 | 119.4 | 91.9 | 119.4 | | | |
| 4.7 | 5.7 | 13598 | 1.35 | 312.23 | 92.7 | 119.6 | 92.7 | 119.6 | | | |
| 5.3 | 6.4 | 11903 | 1.55 | 275.58 | 96.7 | 120.9 | 96.7 | 120.9 | | | |
| 5.5 | 6.6 | 11520 | 1.60 | 267.26 | 97.6 | 121.2 | 97.6 | 121.2 | | | |
| 5.6 | 6.8 | 11271 | 1.60 | 261.49 | 98.1 | 121.4 | 98.1 | 121.4 | | | |
| 6.3 | 7.7 | 9862 | 1.85 | 231.17 | 100.8 | 122.5 | 100.8 | 122.5 | | | |
| 6.5 | 7.9 | 9588 | 1.90 | 225.22 | 101.2 | 122.7 | 101.2 | 122.7 | | | |
| 7.5 | 9.1 | 8191 | 2.20 | 194.80 | 103.4 | 123.8 | 103.4 | 123.8 | | | |
| 3.8 | 4.6 | 17145 | 0.80 | 384.88 | ** | ** | ** | ** | KH124-11P-L132M-04F | 471 | 458 |
| 3.9 | 4.7 | 16930 | 0.80 | 380.06 | ** | ** | ** | ** | | | |
| 4.4 | 5.3 | 14703 | 0.90 | 331.43 | 64.2 | 82.8 | 64.2 | 82.8 | | | |
| 4.5 | 5.4 | 14524 | 0.90 | 327.38 | 64.9 | 82.9 | 64.9 | 82.9 | | | |
| 4.6 | 5.5 | 14124 | 0.95 | 319.02 | 66.5 | 83.3 | 66.5 | 83.3 | | | |
| 4.8 | 5.8 | 13591 | 1.00 | 307.62 | 68.4 | 83.9 | 68.4 | 83.9 | | | |
| 5.2 | 6.2 | 12510 | 1.05 | 283.73 | 72.0 | 85.0 | 72.0 | 85.0 | | | |
| 5.3 | 6.4 | 12239 | 1.10 | 278.15 | 72.8 | 85.2 | 72.8 | 85.2 | | | |
| 5.5 | 6.6 | 11778 | 1.15 | 268.22 | 74.2 | 85.7 | 74.2 | 85.7 | | | |
| 5.6 | 6.7 | 11540 | 1.15 | 262.80 | 74.9 | 85.9 | 74.9 | 85.9 | | | |
| 6.0 | 7.2 | 10685 | 1.25 | 244.33 | 77.1 | 86.8 | 77.1 | 86.8 | | | |
| 6.1 | 7.4 | 10477 | 1.25 | 239.59 | 77.6 | 87.0 | 77.6 | 87.0 | | | |
| 6.3 | 7.7 | 10083 | 1.30 | 231.04 | 78.5 | 87.4 | 78.5 | 87.4 | | | |
| 6.4 | 7.7 | 9979 | 1.35 | 229.14 | 78.8 | 87.5 | 78.8 | 87.5 | | | |
| 7.1 | 8.6 | 8930 | 1.50 | 206.32 | 81.0 | 88.5 | 81.0 | 88.5 | | | |
| 7.4 | 8.9 | 8593 | 1.55 | 198.95 | 81.6 | 88.9 | 81.6 | 88.9 | | | |
| 8.6 | 10 | 7266 | 1.80 | 169.97 | 83.9 | 90.2 | 83.9 | 90.2 | | | |
| 9.7 | 12 | 7388 | 1.80 | 151.11 | 83.7 | 90.1 | 83.7 | 90.1 | | | |
| 11 | 13 | 6442 | 2.05 | 131.76 | 85.1 | 91.0 | 85.1 | 91.0 | | | |
| 12 | 14 | 6212 | 2.10 | 127.05 | 85.4 | 91.3 | 85.4 | 91.3 | | | |
| 13 | 16 | 5549 | 2.35 | 113.49 | 86.2 | 91.9 | 86.2 | 91.9 | | | |
| 15 | 18 | 4778 | 2.75 | 97.73 | 87.0 | 92.7 | 87.0 | 92.7 | | | |
| 30 | 36 | 2403 | 2.50 | 49.16 | 88.7 | 95.1 | 88.7 | 95.1 | | | |
| 52 | 63 | 1370 | 2.50 | 28.03 | 87.3 | 95.8 | 87.3 | 95.8 | | | |
| 6.3 | 7.6 | 10398 | 0.80 | 233.43 | ** | ** | ** | ** | KH104-11P-L132M-04F | 348 | 454 |
| 6.4 | 7.8 | 10163 | 0.80 | 228.15 | ** | ** | ** | ** | | | |
| 6.7 | 8.0 | 9780 | 0.85 | 220.00 | 35.1 | 58.0 | 35.1 | 58.0 | | | |
| 6.8 | 8.2 | 9625 | 0.85 | 216.51 | 36.3 | 58.2 | 36.3 | 58.2 | | | |
| 7.4 | 9.0 | 8727 | 0.95 | 197.12 | 42.0 | 59.2 | 42.0 | 59.2 | | | |
| 7.7 | 9.3 | 8398 | 1.00 | 190.08 | 43.8 | 59.6 | 43.8 | 59.6 | | | |
| 7.8 | 9.4 | 8304 | 1.00 | 187.95 | 44.3 | 59.7 | 44.3 | 59.7 | | | |
| 9.0 | 11 | 7131 | 1.15 | 162.39 | 49.5 | 61.0 | 49.5 | 61.0 | | | |
| 10 | 13 | 6891 | 1.20 | 140.95 | 50.4 | 61.3 | 50.4 | 61.3 | | | |
| 12 | 14 | 6087 | 1.35 | 124.50 | 53.2 | 62.2 | 53.2 | 62.2 | | | |
| 14 | 16 | 5284 | 1.55 | 108.07 | 55.5 | 63.1 | 55.5 | 63.1 | | | |
| 16 | 19 | 4565 | 1.80 | 93.37 | 57.2 | 64.0 | 57.2 | 64.0 | | | |
| 18 | 22 | 3906 | 2.05 | 79.90 | 58.5 | 64.7 | 58.5 | 64.7 | | | |
| 21 | 26 | 3374 | 2.40 | 69.01 | 59.4 | 65.3 | 59.4 | 65.3 | | | |
| 28 | 33 | 2604 | 2.30 | 53.27 | 60.4 | 66.2 | 60.4 | 66.2 | | | |
| 37 | 45 | 1925 | 2.50 | 39.38 | 61.1 | 67.0 | 61.1 | 67.0 | | | |
| 48 | 58 | 1483 | 2.30 | 30.33 | 61.1 | 67.1 | 61.1 | 67.1 | | | |
| 65 | 79 | 1096 | 2.50 | 22.42 | 55.1 | 67.6 | 55.1 | 67.6 | | | |

Legend see page 337

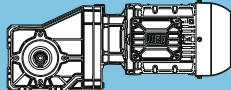
** ... on request

| P _N = 7.5 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|------|-----------------------|-----------------------|-----------------------|---------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 7.5 kW | | 9.0 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 13 | 16 | 5363 | 0.85 | 109.70 | 21.0 | 35.2 | 21.0 | 35.2 | KH093-11P-L132M-04F | 206 | 448 | |
| 15 | 19 | 4640 | 1.00 | 94.90 | 27.0 | 39.1 | 27.0 | 39.1 | | | | |
| 16 | 19 | 4474 | 1.05 | 91.51 | 28.1 | 39.3 | 28.1 | 39.3 | | | | |
| 18 | 22 | 3947 | 1.15 | 80.74 | 31.1 | 40.0 | 31.1 | 40.0 | | | | |
| 21 | 26 | 3359 | 1.35 | 68.71 | 33.8 | 40.7 | 33.8 | 40.7 | | | | |
| 23 | 28 | 3127 | 1.45 | 63.96 | 34.7 | 41.0 | 34.7 | 41.0 | | | | |
| 25 | 30 | 2898 | 1.60 | 59.28 | 35.4 | 41.3 | 35.4 | 41.3 | | | | |
| 27 | 33 | 2644 | 1.75 | 54.07 | 36.2 | 41.6 | 36.2 | 41.6 | | | | |
| 31 | 38 | 2289 | 2.00 | 46.81 | 37.2 | 42.1 | 37.2 | 42.1 | | | | |
| 35 | 43 | 2027 | 2.25 | 41.46 | 37.8 | 42.4 | 37.8 | 42.4 | | | | |
| 39 | 48 | 1815 | 1.55 | 37.13 | 38.2 | 41.8 | 38.2 | 41.8 | | | | |
| 41 | 49 | 1753 | 2.60 | 35.86 | 38.3 | 42.8 | 38.3 | 42.8 | | | | |
| 42 | 51 | 1691 | 2.50 | 34.58 | 38.5 | 42.9 | 38.5 | 42.9 | | | | |
| 47 | 56 | 1535 | 1.85 | 31.39 | 38.7 | 42.3 | 38.7 | 42.3 | | | | |
| 54 | 65 | 1329 | 2.15 | 27.18 | 39.0 | 42.7 | 39.0 | 42.7 | | | | |
| 61 | 74 | 1177 | 2.55 | 24.07 | 39.2 | 42.9 | 39.2 | 42.9 | | | | |
| 70 | 85 | 1018 | 2.95 | 20.82 | 39.4 | 43.2 | 39.4 | 43.2 | | | | |
| 73 | 88 | 982 | 2.50 | 20.08 | 39.4 | 43.3 | 39.4 | 43.3 | | | | |
| 18 | 22 | 3906 | 0.80 | 79.89 | ** | ** | ** | ** | KH083-11P-L132M-04F | 156 | 444 | |
| 21 | 26 | 3346 | 0.90 | 68.44 | 16.0 | 27.1 | 16.0 | 27.1 | | | | |
| 22 | 27 | 3227 | 0.95 | 66.00 | 17.3 | 29.8 | 17.3 | 29.8 | | | | |
| 23 | 28 | 3086 | 0.95 | 63.12 | 18.6 | 32.6 | 18.6 | 32.6 | | | | |
| 25 | 30 | 2848 | 1.10 | 58.25 | 20.6 | 37.0 | 20.6 | 37.0 | | | | |
| 27 | 32 | 2694 | 1.15 | 55.11 | 21.7 | 39.4 | 21.7 | 39.4 | | | | |
| 30 | 36 | 2381 | 1.30 | 48.71 | 23.6 | 41.5 | 23.6 | 41.5 | | | | |
| 36 | 43 | 2013 | 1.50 | 41.18 | 25.4 | 42.0 | 22.9 | 42.0 | | | | |
| 36 | 43 | 2014 | 1.50 | 41.19 | 25.4 | 42.0 | 22.9 | 42.0 | | | | |
| 41 | 49 | 1760 | 0.95 | 35.99 | 26.4 | 41.5 | 22.0 | 41.5 | | | | |
| 47 | 56 | 1537 | 1.25 | 31.43 | 27.2 | 41.9 | 20.5 | 41.9 | | | | |
| 47 | 57 | 1511 | 2.00 | 30.91 | 27.2 | 42.8 | 19.8 | 42.8 | | | | |
| 53 | 64 | 1358 | 1.40 | 27.78 | 27.7 | 42.3 | 19.2 | 42.3 | | | | |
| 55 | 67 | 1295 | 2.30 | 26.48 | 27.8 | 43.1 | 18.3 | 43.1 | | | | |
| 57 | 69 | 1249 | 2.40 | 25.54 | 28.0 | 43.2 | 18.0 | 43.2 | | | | |
| 62 | 75 | 1148 | 1.70 | 23.49 | 28.2 | 42.7 | 17.7 | 42.7 | | | | |
| 65 | 79 | 1102 | 2.60 | 22.54 | 28.3 | 43.4 | 16.9 | 43.4 | | | | |
| 73 | 88 | 987 | 1.95 | 20.19 | 28.5 | 43.0 | 16.3 | 43.0 | | | | |
| 77 | 94 | 925 | 2.95 | 18.91 | 28.6 | 43.6 | 15.5 | 43.6 | | | | |
| 83 | 100 | 862 | 2.25 | 17.63 | 28.7 | 43.3 | 15.3 | 43.3 | | | | |
| 97 | 117 | 738 | 2.65 | 15.10 | 28.9 | 43.5 | 14.3 | 43.5 | | | | |
| 101 | 122 | 712 | 2.50 | 14.56 | 29.0 | 43.6 | 14.0 | 43.6 | | | | |
| 37 | 45 | 1915 | 0.85 | 39.17 | 11.4 | 15.0 | 11.4 | 15.0 | KH073-11P-L132M-04F | 115 | 442 | |
| 45 | 55 | 1584 | 1.00 | 32.40 | 14.9 | 15.7 | 13.3 | 15.7 | | | | |
| 53 | 64 | 1347 | 1.20 | 27.56 | 16.6 | 16.2 | 13.4 | 16.2 | | | | |
| 61 | 73 | 1182 | 0.80 | 24.17 | ** | ** | ** | ** | | | | |
| 73 | 88 | 986 | 1.60 | 20.17 | 18.5 | 17.0 | 12.7 | 17.0 | | | | |
| 75 | 91 | 951 | 1.65 | 19.45 | 18.7 | 17.0 | 12.5 | 17.0 | | | | |
| 79 | 95 | 912 | 1.00 | 18.65 | 18.8 | 16.2 | 12.3 | 16.2 | | | | |
| 88 | 107 | 812 | 1.95 | 16.61 | 19.2 | 17.3 | 11.5 | 17.3 | | | | |
| 95 | 115 | 754 | 1.25 | 15.43 | 19.3 | 16.6 | 11.5 | 16.6 | | | | |
| 112 | 135 | 641 | 1.45 | 13.12 | 19.7 | 17.0 | 10.6 | 17.0 | | | | |
| 129 | 156 | 556 | 1.65 | 11.37 | 19.9 | 17.3 | 9.8 | 17.3 | | | | |
| 153 | 184 | 469 | 1.95 | 9.60 | 20.0 | 17.5 | 9.0 | 17.5 | | | | |
| 158 | 191 | 453 | 2.05 | 9.26 | 20.1 | 17.6 | 8.8 | 17.6 | | | | |
| 185 | 224 | 387 | 2.40 | 7.91 | 20.2 | 17.8 | 8.2 | 17.8 | | | | |



Legend see page 337

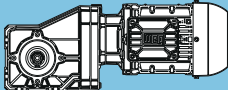
** ... on request

| P _N = 7.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|-----------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 7.5 kW | | 9.0 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 73 | 89 | 978 | 0.80 | 20.00 | ** | ** | ** | ** | KH063-11P-L132M-04F | 95 | 440 |
| 89 | 108 | 802 | 0.90 | 16.40 | 8.8 | 12.7 | 8.8 | 2.8 | | | |
| 105 | 127 | 682 | 1.00 | 13.94 | 9.9 | 13.1 | 9.2 | 3.2 | | | |
| 111 | 134 | 645 | 0.80 | 13.19 | ** | ** | ** | ** | | | |
| 128 | 154 | 560 | 1.15 | 11.46 | 10.8 | 13.5 | 9.0 | 3.5 | | | |
| 133 | 160 | 540 | 1.15 | 11.05 | 10.9 | 13.5 | 8.8 | 3.6 | | | |
| 135 | 163 | 532 | 0.95 | 10.88 | 11.0 | 12.9 | 8.6 | 2.9 | | | |
| 161 | 195 | 444 | 1.35 | 9.09 | 11.5 | 13.9 | 7.9 | 3.9 | | | |
| 164 | 198 | 436 | 1.15 | 8.92 | 11.5 | 13.3 | 8.1 | 3.4 | | | |
| 193 | 234 | 371 | 1.35 | 7.58 | 11.8 | 13.6 | 7.4 | 3.6 | | | |
| 235 | 284 | 305 | 1.55 | 6.23 | 12.0 | 13.9 | 6.7 | 3.9 | | | |
| 244 | 295 | 294 | 1.55 | 6.01 | 12.0 | 13.9 | 6.6 | 4.0 | | | |
| 297 | 358 | 242 | 1.80 | 4.94 | 12.2 | 14.2 | 6.0 | 4.2 | | | |
| 90 | 109 | 792 | 0.80 | 16.19 | ** | ** | ** | ** | | | |
| 107 | 129 | 672 | 0.90 | 13.75 | 4.7 | 7.4 | 4.7 | 3.3 | | | |
| 130 | 156 | 553 | 1.10 | 11.31 | 6.8 | 10.3 | 6.8 | 3.6 | | | |
| 134 | 162 | 533 | 1.15 | 10.91 | 7.0 | 10.4 | 7.0 | 3.7 | | | |
| 156 | 188 | 460 | 0.90 | 9.40 | 7.8 | 9.9 | 7.8 | 3.2 | | | |
| 163 | 197 | 439 | 1.30 | 8.97 | 8.0 | 10.7 | 8.0 | 4.0 | | | |
| 190 | 230 | 377 | 1.10 | 7.71 | 8.5 | 10.3 | 8.5 | 3.6 | | | |
| 224 | 270 | 320 | 1.30 | 6.55 | 8.9 | 10.6 | 8.3 | 3.9 | | | |
| 272 | 328 | 264 | 1.60 | 5.39 | 9.2 | 10.8 | 7.5 | 4.1 | | | |
| 282 | 341 | 254 | 1.65 | 5.19 | 9.2 | 10.9 | 7.4 | 4.2 | | | |
| 343 | 415 | 209 | 2.00 | 4.27 | 9.0 | 11.1 | 6.7 | 4.4 | | | |

K

Legend see page 337

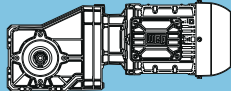
** ... on request

| P _N = 9.2 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|---------------------|-----|-----|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page | | | |
| 9.2 kW | | 11 kW | | | Output shaft | | Hollow shaft | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 3.4 | 4.1 | 23831 | 0.80 | 434.63 | ** | ** | ** | ** | KH154-11P-L132M-04G | 730 | 462 | | | |
| 3.5 | 4.2 | 22980 | 0.80 | 419.11 | ** | ** | ** | ** | | | | | | |
| 3.9 | 4.7 | 20637 | 0.90 | 377.93 | 65.5 | 114.3 | 65.5 | 114.3 | | | | | | |
| 4.0 | 4.9 | 19671 | 0.95 | 360.98 | 70.6 | 115.0 | 70.6 | 115.0 | | | | | | |
| 4.5 | 5.5 | 17572 | 1.05 | 323.79 | 79.9 | 116.6 | 79.9 | 116.6 | | | | | | |
| 4.6 | 5.5 | 17291 | 1.05 | 318.60 | 81.0 | 116.8 | 81.0 | 116.8 | | | | | | |
| 4.7 | 5.7 | 16910 | 1.10 | 312.23 | 82.4 | 117.1 | 82.4 | 117.1 | | | | | | |
| 5.3 | 6.4 | 14834 | 1.25 | 275.58 | 89.2 | 118.7 | 89.2 | 118.7 | | | | | | |
| 5.5 | 6.6 | 14356 | 1.30 | 267.26 | 90.6 | 119.0 | 90.6 | 119.0 | | | | | | |
| 5.6 | 6.7 | 14046 | 1.30 | 261.49 | 91.5 | 119.3 | 91.5 | 119.3 | | | | | | |
| 6.3 | 7.6 | 12316 | 1.50 | 231.17 | 95.8 | 120.6 | 95.8 | 120.6 | | | | | | |
| 6.5 | 7.8 | 11974 | 1.55 | 225.22 | 96.6 | 120.9 | 96.6 | 120.9 | | | | | | |
| 7.5 | 9.1 | 10250 | 1.80 | 194.80 | 100.1 | 122.2 | 100.1 | 122.2 | | | | | | |
| 4.7 | 5.7 | 16867 | 0.80 | 307.62 | ** | ** | ** | ** | | | | KH124-11P-L132M-04G | 476 | 458 |
| 5.1 | 6.2 | 15525 | 0.85 | 283.73 | 60.7 | 81.9 | 60.7 | 81.9 | | | | | | |
| 5.2 | 6.3 | 15426 | 0.85 | 281.92 | 61.1 | 82.0 | 61.1 | 82.0 | | | | | | |
| 5.4 | 6.6 | 14646 | 0.90 | 268.22 | 64.4 | 82.8 | 64.4 | 82.8 | | | | | | |
| 5.6 | 6.7 | 14321 | 0.95 | 262.80 | 65.7 | 83.1 | 65.7 | 83.1 | | | | | | |
| 6.0 | 7.2 | 13287 | 1.00 | 244.33 | 69.5 | 84.2 | 69.5 | 84.2 | | | | | | |
| 6.1 | 7.4 | 13029 | 1.00 | 239.59 | 70.4 | 84.4 | 70.4 | 84.4 | | | | | | |
| 6.3 | 7.6 | 12539 | 1.05 | 231.04 | 71.9 | 84.9 | 71.9 | 84.9 | | | | | | |
| 6.4 | 7.7 | 12436 | 1.05 | 229.14 | 72.3 | 85.0 | 72.3 | 85.0 | | | | | | |
| 7.1 | 8.6 | 11128 | 1.20 | 206.32 | 76.0 | 86.3 | 76.0 | 86.3 | | | | | | |
| 7.3 | 8.9 | 10709 | 1.25 | 198.95 | 77.0 | 86.8 | 77.0 | 86.8 | | | | | | |
| 7.4 | 8.9 | 10624 | 1.25 | 197.38 | 77.2 | 86.9 | 77.2 | 86.9 | | | | | | |
| 8.6 | 10 | 9074 | 1.45 | 169.97 | 80.7 | 88.4 | 80.7 | 88.4 | | | | | | |
| 9.7 | 12 | 9094 | 1.45 | 151.11 | 80.6 | 88.4 | 80.6 | 88.4 | KH123-11P-L132M-04G | 452 | 456 | | | |
| 11 | 13 | 7929 | 1.65 | 131.76 | 82.8 | 89.6 | 82.8 | 89.6 | | | | | | |
| 13 | 16 | 6830 | 1.95 | 113.49 | 84.5 | 90.7 | 84.5 | 90.7 | | | | | | |
| 15 | 18 | 5881 | 2.25 | 97.73 | 85.8 | 91.6 | 85.8 | 91.6 | | | | | | |
| 17 | 21 | 5137 | 2.55 | 85.37 | 86.6 | 92.4 | 86.6 | 92.4 | | | | | | |
| 25 | 30 | 3519 | 2.50 | 58.47 | 88.1 | 94.0 | 88.1 | 94.0 | | | | | | |
| 30 | 36 | 2958 | 2.00 | 49.16 | 88.4 | 94.5 | 88.4 | 94.5 | | | | | | |
| 44 | 53 | 2006 | 2.50 | 33.34 | 88.9 | 95.0 | 88.9 | 95.0 | | | | | | |
| 52 | 63 | 1687 | 2.00 | 28.03 | 88.1 | 95.4 | 88.1 | 95.4 | | | | | | |
| 7.7 | 9.3 | 10422 | 0.80 | 190.08 | ** | ** | ** | ** | KH104-11P-L132M-04G | 353 | 454 | | | |
| 7.8 | 9.4 | 10305 | 0.80 | 187.95 | ** | ** | ** | ** | | | | | | |
| 9.0 | 11 | 8849 | 0.95 | 162.39 | 41.3 | 59.1 | 41.3 | 59.1 | | | | | | |
| 10 | 13 | 8482 | 0.95 | 140.95 | 43.3 | 59.5 | 43.3 | 59.5 | KH103-11P-L132M-04G | 329 | 452 | | | |
| 12 | 14 | 7492 | 1.10 | 124.50 | 48.0 | 60.6 | 48.0 | 60.6 | | | | | | |
| 14 | 16 | 6503 | 1.25 | 108.07 | 51.8 | 61.7 | 51.8 | 61.7 | | | | | | |
| 16 | 19 | 5619 | 1.45 | 93.37 | 54.6 | 62.7 | 54.6 | 62.7 | | | | | | |
| 18 | 22 | 4808 | 1.70 | 79.90 | 56.6 | 63.7 | 56.6 | 63.7 | | | | | | |
| 21 | 26 | 4153 | 1.95 | 69.01 | 58.0 | 64.4 | 58.0 | 64.4 | | | | | | |
| 27 | 33 | 3206 | 1.90 | 53.27 | 59.6 | 65.5 | 59.6 | 65.5 | | | | | | |
| 31 | 38 | 2831 | 2.65 | 47.05 | 60.1 | 65.9 | 60.1 | 65.9 | | | | | | |
| 37 | 45 | 2370 | 2.00 | 39.38 | 60.7 | 66.5 | 60.7 | 66.5 | | | | | | |
| 48 | 58 | 1825 | 1.90 | 30.33 | 61.2 | 66.6 | 61.2 | 66.6 | | | | | | |
| 54 | 66 | 1612 | 2.65 | 26.79 | 59.4 | 66.9 | 59.4 | 66.9 | | | | | | |
| 65 | 79 | 1349 | 2.00 | 22.42 | 55.7 | 67.3 | 55.7 | 67.3 | | | | | | |

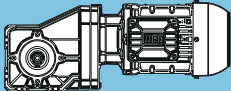


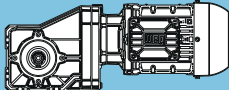
Legend see page 337

** ... on request

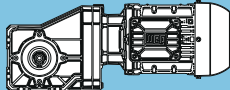
| P _N = 9.2 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 9.2 kW | | 11 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 15 | 19 | 5711 | 0.80 | 94.90 | ** | ** | ** | ** | | | |
| 16 | 19 | 5507 | 0.85 | 91.51 | 19.4 | 31.8 | 19.4 | 31.8 | | | |
| 18 | 22 | 4859 | 0.95 | 80.74 | 25.4 | 38.8 | 25.4 | 38.8 | | | |
| 21 | 26 | 4135 | 1.10 | 68.71 | 30.1 | 39.7 | 30.1 | 39.7 | | | |
| 23 | 28 | 3849 | 1.20 | 63.96 | 31.6 | 40.1 | 31.6 | 40.1 | | | |
| 25 | 30 | 3567 | 1.30 | 59.28 | 32.9 | 40.5 | 32.9 | 40.5 | | | |
| 27 | 33 | 3254 | 1.40 | 54.07 | 34.2 | 40.9 | 34.2 | 40.9 | | | |
| 31 | 38 | 2817 | 1.60 | 46.81 | 35.7 | 41.4 | 35.7 | 41.4 | | | |
| 35 | 43 | 2495 | 1.85 | 41.46 | 36.7 | 41.8 | 36.7 | 41.8 | | | |
| 39 | 48 | 2234 | 1.25 | 37.13 | 37.3 | 41.1 | 37.3 | 41.1 | | | |
| 41 | 49 | 2158 | 2.10 | 35.86 | 37.5 | 42.3 | 37.5 | 42.3 | | | |
| 42 | 51 | 2081 | 2.00 | 34.58 | 37.7 | 42.4 | 37.7 | 42.4 | | | |
| 47 | 56 | 1889 | 1.50 | 31.39 | 38.1 | 41.7 | 38.1 | 41.7 | | | |
| 48 | 58 | 1836 | 2.50 | 30.51 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 54 | 65 | 1636 | 1.75 | 27.18 | 38.6 | 42.2 | 38.6 | 42.2 | | | |
| 56 | 68 | 1563 | 2.90 | 25.97 | 38.7 | 43.0 | 38.7 | 43.0 | | | |
| 61 | 73 | 1448 | 2.10 | 24.07 | 38.9 | 42.5 | 38.9 | 42.5 | | | |
| 70 | 85 | 1253 | 2.40 | 20.82 | 39.1 | 42.8 | 39.1 | 42.8 | | | |
| 73 | 88 | 1208 | 2.00 | 20.08 | 39.2 | 42.9 | 39.2 | 42.9 | | | |
| 82 | 100 | 1066 | 2.85 | 17.72 | 39.3 | 43.1 | 39.3 | 43.1 | | | |
| 22 | 27 | 3972 | 0.80 | 66.00 | ** | ** | ** | ** | | | |
| 23 | 28 | 3798 | 0.80 | 63.12 | ** | ** | ** | ** | | | |
| 25 | 30 | 3505 | 0.90 | 58.25 | 14.0 | 22.8 | 14.0 | 7.3 | | | |
| 26 | 32 | 3316 | 0.95 | 55.11 | 16.3 | 27.7 | 16.3 | 7.6 | | | |
| 30 | 36 | 2941 | 1.05 | 48.87 | 19.9 | 35.5 | 19.9 | 8.2 | | | |
| 35 | 43 | 2479 | 1.25 | 41.19 | 23.0 | 41.3 | 23.0 | 8.8 | | | |
| 41 | 49 | 2166 | 0.80 | 35.99 | ** | ** | ** | ** | | | |
| 46 | 56 | 1891 | 1.05 | 31.43 | 25.9 | 41.2 | 21.9 | 8.7 | | | |
| 47 | 57 | 1860 | 1.65 | 30.91 | 26.0 | 42.3 | 21.0 | 9.8 | | | |
| 53 | 64 | 1672 | 1.15 | 27.78 | 26.7 | 41.6 | 20.4 | 9.1 | | | |
| 55 | 67 | 1594 | 1.90 | 26.48 | 27.0 | 42.6 | 19.3 | 10.1 | | | |
| 57 | 69 | 1537 | 1.95 | 25.54 | 27.2 | 42.7 | 19.0 | 10.2 | | | |
| 62 | 75 | 1414 | 1.40 | 23.49 | 27.5 | 42.2 | 18.7 | 9.7 | | | |
| 65 | 78 | 1356 | 2.10 | 22.54 | 27.7 | 43.0 | 17.8 | 10.5 | | | |
| 72 | 87 | 1215 | 1.60 | 20.19 | 28.0 | 42.6 | 17.3 | 10.1 | | | |
| 77 | 93 | 1138 | 2.40 | 18.91 | 28.2 | 43.3 | 16.3 | 10.8 | | | |
| 83 | 100 | 1061 | 1.85 | 17.63 | 28.4 | 42.9 | 16.1 | 10.4 | | | |
| 92 | 111 | 959 | 2.70 | 15.93 | 28.6 | 43.6 | 14.9 | 11.1 | | | |
| 97 | 117 | 909 | 2.15 | 15.10 | 28.7 | 43.2 | 14.9 | 10.7 | | | |
| 100 | 121 | 876 | 2.00 | 14.56 | 28.7 | 43.2 | 14.7 | 10.7 | | | |
| 114 | 137 | 773 | 2.55 | 12.85 | 28.9 | 43.4 | 13.8 | 10.9 | | | |
| 135 | 164 | 649 | 3.00 | 10.78 | 29.0 | 43.7 | 12.7 | 11.2 | | | |
| 45 | 54 | 1950 | 0.80 | 32.40 | ** | ** | ** | ** | | | |
| 53 | 64 | 1659 | 0.95 | 27.56 | 14.2 | 15.6 | 11.8 | 4.3 | | | |
| 61 | 74 | 1437 | 1.10 | 23.88 | 16.0 | 16.0 | 12.0 | 4.8 | | | |
| 72 | 88 | 1214 | 1.30 | 20.17 | 17.4 | 16.5 | 12.1 | 5.2 | | | |
| 75 | 91 | 1170 | 1.35 | 19.45 | 17.6 | 16.6 | 12.1 | 5.3 | | | |
| 78 | 95 | 1122 | 0.85 | 18.65 | 17.9 | 15.5 | 11.2 | 4.2 | | | |
| 88 | 106 | 1000 | 1.60 | 16.61 | 18.5 | 16.9 | 12.0 | 5.7 | | | |
| 95 | 114 | 929 | 1.00 | 15.43 | 18.7 | 16.1 | 11.2 | 4.8 | | | |
| 111 | 135 | 790 | 1.20 | 13.12 | 19.2 | 16.5 | 11.2 | 5.3 | | | |
| 128 | 155 | 684 | 1.35 | 11.37 | 19.6 | 16.9 | 10.4 | 5.6 | | | |
| 152 | 184 | 578 | 1.60 | 9.60 | 19.8 | 17.2 | 9.5 | 5.9 | | | |
| 158 | 191 | 557 | 1.65 | 9.26 | 19.9 | 17.3 | 9.3 | 6.0 | | | |
| 185 | 223 | 476 | 1.95 | 7.91 | 20.0 | 17.5 | 8.6 | 6.3 | | | |
| 105 | 127 | 839 | 0.80 | 13.94 | ** | ** | ** | ** | | | |

K

| P _N = 9.2 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|------|-----------------------|-----------------------|-----------------------|---------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 9.2 kW | | 11 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 105 | 127 | 839 | 0.80 | 13.94 | ** | ** | ** | ** | KH063-11P-L132M-04G | 100 | 440 | |
| 127 | 154 | 690 | 0.95 | 11.46 | 9.9 | 13.1 | 8.3 | 3.1 | | | | |
| 132 | 160 | 665 | 0.95 | 11.05 | 10.1 | 13.2 | 8.3 | 3.2 | | | | |
| 134 | 162 | 655 | 0.80 | 10.88 | ** | ** | ** | ** | | | | |
| 161 | 194 | 547 | 1.10 | 9.09 | 10.9 | 13.5 | 8.2 | 3.6 | | | | |
| 164 | 198 | 537 | 0.95 | 8.92 | 11.0 | 12.9 | 7.8 | 2.9 | | | | |
| 193 | 233 | 456 | 1.10 | 7.58 | 11.4 | 13.2 | 7.8 | 3.3 | | | | |
| 234 | 283 | 375 | 1.25 | 6.23 | 11.8 | 13.6 | 7.1 | 3.6 | | | | |
| 243 | 294 | 362 | 1.30 | 6.01 | 11.8 | 13.6 | 7.0 | 3.7 | | | | |
| 296 | 357 | 297 | 1.45 | 4.94 | 12 | 13.9 | 6.3 | 4.0 | | | | |
| 129 | 156 | 681 | 0.90 | 11.31 | 4.5 | 6.9 | 4.5 | 3.2 | KH053-11P-L132M-04G | 87 | 438 | |
| 134 | 162 | 657 | 0.95 | 10.91 | 5.1 | 8.2 | 5.1 | 3.3 | | | | |
| 163 | 197 | 540 | 1.05 | 8.97 | 6.9 | 10.4 | 6.9 | 3.7 | | | | |
| 189 | 229 | 464 | 0.90 | 7.71 | 7.8 | 9.9 | 7.8 | 3.2 | | | | |
| 223 | 269 | 394 | 1.05 | 6.55 | 8.4 | 10.2 | 8.4 | 3.5 | | | | |
| 271 | 327 | 324 | 1.30 | 5.39 | 8.8 | 10.5 | 8.0 | 3.8 | | | | |
| 281 | 340 | 312 | 1.35 | 5.19 | 8.9 | 10.6 | 7.8 | 3.9 | | | | |
| 342 | 413 | 257 | 1.65 | 4.27 | 9.2 | 10.8 | 7.1 | 4.1 | | | | |

| P _N = 11 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 11 kW | | 13 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 4.5 | 5.5 | 20996 | 0.90 | 323.79 | 63.4 | 110.8 | 63.4 | 110.8 | KH154-22P-160M-04E | 792 | 462 |
| 4.6 | 5.6 | 20660 | 0.90 | 318.60 | 65.4 | 114.2 | 65.4 | 114.2 | | | |
| 4.7 | 5.7 | 20121 | 0.90 | 310.30 | 68.3 | 114.6 | 68.3 | 114.6 | | | |
| 5.3 | 6.4 | 17760 | 1.05 | 275.58 | 79.1 | 116.4 | 79.1 | 116.4 | | | |
| 5.5 | 6.6 | 17224 | 1.05 | 267.26 | 81.2 | 116.9 | 81.2 | 116.9 | | | |
| 5.6 | 6.8 | 16818 | 1.10 | 261.49 | 82.7 | 117.2 | 82.7 | 117.2 | | | |
| 6.4 | 7.7 | 14776 | 1.25 | 231.17 | 89.4 | 118.7 | 89.4 | 118.7 | | | |
| 6.5 | 7.9 | 14366 | 1.30 | 225.22 | 90.6 | 119.0 | 90.6 | 119.0 | | | |
| 6.9 | 8.3 | 13648 | 1.35 | 214.39 | 92.6 | 119.6 | 92.6 | 119.6 | | | |
| 7.5 | 9.1 | 12324 | 1.50 | 194.80 | 95.8 | 120.6 | 95.8 | 120.6 | | | |
| 8.0 | 9.6 | 11658 | 1.55 | 184.65 | 97.3 | 121.1 | 97.3 | 121.1 | | | |
| 9.2 | 11 | 9960 | 1.85 | 159.72 | 100.6 | 122.4 | 100.6 | 122.4 | | | |
| 10 | 12 | 10483 | 1.75 | 146.69 | 99.6 | 122.0 | 99.6 | 122.0 | KH153-22P-160M-04E | 746 | 460 |
| 12 | 14 | 9029 | 2.00 | 126.34 | 102.1 | 123.1 | 102.1 | 123.1 | | | |
| 13 | 16 | 7809 | 2.35 | 109.28 | 103.9 | 124.0 | 103.9 | 124.0 | | | |
| 15 | 18 | 6888 | 2.65 | 96.39 | 105.1 | 124.7 | 105.1 | 124.7 | | | |
| 26 | 31 | 4056 | 2.70 | 56.75 | 107.7 | 126.9 | 107.7 | 126.9 | | | |
| 41 | 50 | 2546 | 2.70 | 35.63 | 108.5 | 127.4 | 108.5 | 127.4 | | | |
| 5.6 | 6.8 | 17111 | 0.80 | 262.80 | ** | ** | ** | ** | KH124-22P-160M-04E | 538 | 458 |
| 6.0 | 7.3 | 15876 | 0.85 | 244.33 | 59 | 81.6 | 59 | 81.6 | | | |
| 6.1 | 7.4 | 15568 | 0.85 | 239.59 | 60.5 | 81.9 | 60.5 | 81.9 | | | |
| 6.4 | 7.7 | 14859 | 0.90 | 229.14 | 63.6 | 82.6 | 63.6 | 82.6 | | | |
| 7.1 | 8.6 | 13324 | 1.00 | 206.32 | 69.4 | 84.1 | 69.4 | 84.1 | | | |
| 7.4 | 9 | 12721 | 1.05 | 197.38 | 71.4 | 84.8 | 71.4 | 84.8 | | | |
| 8.6 | 10 | 10887 | 1.20 | 169.97 | 76.6 | 86.6 | 76.6 | 86.6 | | | |
| 9.7 | 12 | 10799 | 1.25 | 151.11 | 76.8 | 86.7 | 76.8 | 86.7 | | | |
| 11 | 13 | 9416 | 1.40 | 131.76 | 80.0 | 88.1 | 80.0 | 88.1 | | | |
| 13 | 16 | 8110 | 1.65 | 113.49 | 82.5 | 89.4 | 82.5 | 89.4 | | | |
| 15 | 18 | 6984 | 1.90 | 97.73 | 84.3 | 90.5 | 84.3 | 90.5 | | | |
| 17 | 21 | 6101 | 2.15 | 85.37 | 85.5 | 91.4 | 85.5 | 91.4 | | | |
| 20 | 24 | 5270 | 2.50 | 73.74 | 86.5 | 92.2 | 86.5 | 92.2 | | | |
| 24 | 29 | 4358 | 3.00 | 60.98 | 87.4 | 93.1 | 87.4 | 93.1 | | | |
| 25 | 30 | 4178 | 2.10 | 58.47 | 87.6 | 93.3 | 87.6 | 93.3 | | | |
| 29 | 35 | 3643 | 2.70 | 50.98 | 88.0 | 93.8 | 88.0 | 93.8 | | | |
| 44 | 53 | 2383 | 2.10 | 33.34 | 88.8 | 94.6 | 88.8 | 94.6 | | | |
| 51 | 61 | 2077 | 2.70 | 29.07 | 88.9 | 94.9 | 88.9 | 94.9 | | | |
| 9.1 | 11 | 10573 | 0.80 | 162.39 | ** | ** | ** | ** | KH104-22P-160M-04E | 415 | 454 |
| 12 | 14 | 8897 | 0.90 | 124.50 | 41.0 | 59.0 | 41.0 | 59.0 | KH103-22P-160M-04E | 391 | 452 |
| 14 | 16 | 7723 | 1.05 | 108.07 | 47.0 | 60.3 | 47.0 | 60.3 | | | |
| 16 | 19 | 6672 | 1.20 | 93.37 | 51.2 | 61.5 | 51.2 | 61.5 | | | |
| 18 | 22 | 5710 | 1.45 | 79.90 | 54.3 | 62.6 | 54.3 | 62.6 | | | |
| 21 | 26 | 4932 | 1.65 | 69.01 | 56.3 | 63.5 | 56.3 | 63.5 | | | |
| 25 | 30 | 4171 | 1.95 | 58.36 | 58.0 | 64.4 | 58.0 | 64.4 | | | |
| 31 | 37 | 3403 | 2.40 | 47.62 | 59.3 | 65.3 | 59.3 | 65.3 | | | |
| 36 | 43 | 2919 | 2.60 | 40.84 | 60.0 | 65.8 | 60.0 | 65.8 | | | |
| 38 | 46 | 2761 | 2.90 | 38.64 | 60.2 | 66.0 | 60.2 | 66.0 | | | |
| 42 | 50 | 2522 | 3.00 | 35.29 | 60.5 | 66.3 | 60.5 | 66.3 | | | |
| 55 | 66 | 1914 | 2.25 | 26.79 | 59.9 | 66.5 | 59.9 | 66.5 | | | |
| 63 | 76 | 1662 | 2.60 | 23.25 | 57.1 | 66.8 | 57.1 | 66.8 | | | |
| 73 | 88 | 1436 | 3.00 | 20.09 | 54.2 | 67.2 | 54.2 | 67.2 | | | |
| 18 | 22 | 5770 | 0.80 | 80.74 | ** | ** | ** | ** | KH093-22P-160M-04E | 273 | 448 |
| 21 | 26 | 4910 | 0.95 | 68.71 | 25.0 | 38.8 | 25.0 | 38.8 | | | |
| 25 | 30 | 4236 | 1.10 | 59.28 | 29.6 | 39.6 | 29.6 | 39.6 | | | |
| 30 | 36 | 3554 | 1.30 | 49.73 | 33.0 | 40.5 | 33.0 | 40.5 | | | |
| 35 | 43 | 2963 | 1.55 | 41.46 | 35.2 | 41.2 | 35.2 | 41.2 | | | |
| 36 | 44 | 2889 | 1.60 | 40.43 | 35.5 | 41.3 | 35.5 | 41.3 | | | |
| 41 | 49 | 2563 | 1.80 | 35.86 | 36.5 | 41.7 | 36.5 | 41.7 | | | |
| 47 | 56 | 2259 | 2.00 | 31.61 | 37.3 | 42.1 | 37.3 | 42.1 | | | |
| 48 | 58 | 2180 | 2.10 | 30.51 | 37.5 | 42.2 | 37.5 | 42.2 | | | |
| 57 | 68 | 1856 | 2.45 | 25.97 | 38.2 | 42.6 | 38.2 | 42.6 | | | |
| 61 | 74 | 1720 | 1.75 | 24.07 | 38.4 | 42.0 | 38.4 | 42.0 | | | |
| 66 | 79 | 1601 | 2.85 | 22.40 | 38.6 | 43.0 | 38.6 | 43.0 | | | |
| 71 | 85 | 1488 | 2.05 | 20.82 | 38.8 | 42.4 | 38.8 | 42.4 | | | |
| 83 | 100 | 1266 | 2.40 | 17.72 | 39.1 | 42.8 | 39.1 | 42.8 | | | |
| 97 | 118 | 1078 | 2.80 | 15.08 | 39.3 | 43.1 | 39.3 | 43.1 | | | |

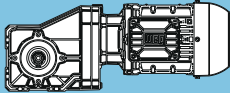
K

| P _N = 11 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|------|----------------|------|-----------------------|-----------------------|-----------------------|---------------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 11 kW | | 13 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 30 | 36 | 3492 | 0.90 | 48.87 | 14.2 | 23.2 | 14.2 | 7.3 | KH083-22P-160M-04E | 223 | 444 | |
| 36 | 43 | 2943 | 1.05 | 41.18 | 19.8 | 35.3 | 19.8 | 8.2 | | | | |
| 44 | 53 | 2413 | 1.25 | 33.76 | 23.4 | 41.4 | 22.4 | 8.9 | | | | |
| 48 | 57 | 2209 | 1.40 | 30.91 | 24.5 | 41.7 | 22.1 | 9.2 | | | | |
| 56 | 67 | 1892 | 1.60 | 26.48 | 25.9 | 42.2 | 20.3 | 9.7 | | | | |
| 65 | 79 | 1611 | 1.80 | 22.54 | 26.9 | 42.6 | 18.6 | 10.1 | | | | |
| 78 | 94 | 1351 | 2.00 | 18.91 | 27.7 | 43.0 | 17.0 | 10.5 | | | | |
| 83 | 101 | 1260 | 1.55 | 17.63 | 27.9 | 42.5 | 16.9 | 10.0 | | | | |
| 92 | 111 | 1138 | 2.25 | 15.93 | 28.2 | 43.3 | 15.6 | 10.8 | | | | |
| 97 | 118 | 1079 | 1.80 | 15.10 | 28.3 | 42.8 | 15.6 | 10.3 | | | | |
| 113 | 136 | 933 | 2.60 | 13.06 | 28.6 | 43.6 | 14.1 | 11.1 | | | | |
| 114 | 138 | 918 | 2.15 | 12.85 | 28.6 | 43.2 | 14.4 | 10.7 | | | | |
| 136 | 165 | 770 | 2.55 | 10.78 | 28.9 | 43.5 | 13.2 | 11.0 | | | | |
| 162 | 195 | 650 | 3.00 | 9.09 | 29.0 | 43.7 | 12.1 | 11.2 | | | | |
| 62 | 74 | 1707 | 0.95 | 23.88 | 13.8 | 15.5 | 10.5 | 4.2 | KH073-22P-160M-04E | 182 | 442 | |
| 73 | 88 | 1441 | 1.10 | 20.17 | 16.0 | 16.0 | 10.8 | 4.8 | | | | |
| 89 | 107 | 1187 | 1.35 | 16.61 | 17.6 | 16.5 | 11.0 | 5.3 | | | | |
| 129 | 156 | 813 | 1.15 | 11.37 | 19.2 | 16.5 | 10.3 | 5.2 | | | | |
| 153 | 185 | 686 | 1.35 | 9.60 | 19.5 | 16.9 | 10.0 | 5.6 | | | | |
| 186 | 224 | 565 | 1.65 | 7.91 | 19.8 | 17.2 | 9.0 | 6.0 | | | | |

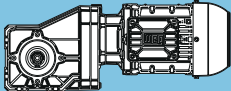
Legend see page 337

P_N = 15 kW

IE3

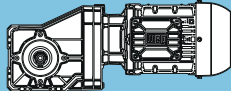
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 15 kW | 18 kW | M ₂ Nm | f _b | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 5.5 | 6.6 | 23811 | 0.80 | 267.26 | ** | ** | ** | ** | KH154-22P-160L-04F | 815 | 462 |
| 5.6 | 6.8 | 23296 | 0.80 | 261.49 | ** | ** | ** | ** | | | |
| 6.3 | 7.7 | 20511 | 0.90 | 231.17 | 66.2 | 114.3 | 66.2 | 114.3 | | | |
| 6.5 | 7.9 | 19942 | 0.95 | 225.22 | 69.2 | 114.8 | 69.2 | 114.8 | | | |
| 6.8 | 8.3 | 18983 | 0.95 | 214.39 | 73.9 | 115.5 | 73.9 | 115.5 | | | |
| 7.5 | 9.1 | 17178 | 1.05 | 194.80 | 81.4 | 116.9 | 81.4 | 116.9 | | | |
| 7.9 | 9.6 | 16216 | 1.15 | 184.65 | 84.8 | 117.6 | 84.8 | 117.6 | | | |
| 9.2 | 11 | 13941 | 1.30 | 159.72 | 91.8 | 119.4 | 91.8 | 119.4 | | | |
| 10 | 12 | 14344 | 1.30 | 146.69 | 90.7 | 119.1 | 90.7 | 119.1 | | | |
| 12 | 14 | 12354 | 1.50 | 126.34 | 95.7 | 120.6 | 95.7 | 120.6 | | | |
| 13 | 16 | 10686 | 1.70 | 109.28 | 99.3 | 121.8 | 99.3 | 121.8 | | | |
| 15 | 18 | 9425 | 1.95 | 96.39 | 101.5 | 122.8 | 101.5 | 122.8 | | | |
| 18 | 21 | 8095 | 2.25 | 82.79 | 103.5 | 123.8 | 103.5 | 123.8 | | | |
| 21 | 26 | 6735 | 2.70 | 68.88 | 105.3 | 124.9 | 105.3 | 124.9 | | | |
| 26 | 31 | 5549 | 1.95 | 56.75 | 106.5 | 125.8 | 106.5 | 125.8 | | | |
| 30 | 36 | 4780 | 3.00 | 48.88 | 107.1 | 126.4 | 107.1 | 126.4 | | | |
| 41 | 50 | 3484 | 1.95 | 35.63 | 108.0 | 126.4 | 108.0 | 126.4 | | | |
| 48 | 58 | 3001 | 3.00 | 30.69 | 108.3 | 126.9 | 108.3 | 126.9 | | | |
| 8.6 | 10 | 15081 | 0.90 | 169.97 | 62.6 | 82.4 | 62.6 | 82.4 | KH124-22P-160L-04F | 561 | 458 |
| 9.7 | 12 | 14776 | 0.90 | 151.11 | 63.9 | 82.7 | 63.9 | 82.7 | KH123-22P-160L-04F | 537 | 456 |
| 11 | 13 | 12884 | 1.05 | 131.76 | 70.8 | 84.6 | 70.8 | 84.6 | | | |
| 13 | 16 | 11097 | 1.20 | 113.49 | 76.0 | 86.4 | 76.0 | 86.4 | | | |
| 15 | 18 | 9556 | 1.40 | 97.73 | 79.7 | 87.9 | 79.7 | 87.9 | | | |
| 17 | 21 | 8348 | 1.60 | 85.37 | 82.1 | 89.1 | 82.1 | 89.1 | | | |
| 20 | 24 | 7210 | 1.85 | 73.74 | 84.0 | 90.3 | 84.0 | 90.3 | | | |
| 24 | 29 | 5963 | 2.20 | 60.98 | 85.7 | 91.5 | 85.7 | 91.5 | | | |
| 25 | 30 | 5717 | 1.55 | 58.47 | 86.0 | 91.8 | 86.0 | 91.8 | | | |
| 29 | 35 | 4985 | 1.95 | 50.98 | 86.8 | 92.5 | 86.8 | 92.5 | | | |
| 33 | 40 | 4294 | 3.00 | 43.91 | 87.5 | 93.2 | 87.5 | 93.2 | | | |
| 44 | 53 | 3260 | 1.55 | 33.34 | 88.3 | 93.5 | 88.3 | 93.5 | | | |
| 50 | 61 | 2843 | 1.95 | 29.07 | 88.5 | 94.0 | 88.5 | 94.0 | | | |
| 59 | 71 | 2448 | 3.00 | 25.04 | 86.8 | 94.5 | 86.8 | 94.5 | | | |
| 14 | 16 | 10567 | 0.80 | 108.07 | ** | ** | ** | ** | KH103-22P-160L-04F | 414 | 452 |
| 16 | 19 | 9130 | 0.90 | 93.37 | 39.6 | 58.7 | 39.6 | 58.7 | | | |
| 18 | 22 | 7813 | 1.05 | 79.90 | 46.6 | 60.2 | 46.6 | 60.2 | | | |
| 21 | 26 | 6748 | 1.20 | 69.01 | 51.0 | 61.5 | 51.0 | 61.5 | | | |
| 25 | 30 | 5707 | 1.45 | 58.36 | 54.3 | 62.6 | 54.3 | 62.6 | | | |
| 31 | 37 | 4656 | 1.75 | 47.62 | 57.0 | 63.8 | 57.0 | 63.8 | | | |
| 36 | 43 | 3993 | 1.90 | 40.84 | 58.3 | 64.6 | 58.3 | 64.6 | | | |
| 38 | 46 | 3778 | 2.15 | 38.64 | 58.7 | 64.9 | 58.7 | 64.9 | | | |
| 42 | 50 | 3451 | 2.20 | 35.29 | 59.3 | 65.2 | 59.3 | 65.2 | | | |
| 49 | 59 | 2953 | 2.55 | 30.20 | 60.0 | 65.8 | 60.0 | 65.8 | | | |
| 55 | 66 | 2620 | 1.65 | 26.79 | 60.4 | 65.5 | 60.4 | 65.5 | | | |
| 56 | 68 | 2550 | 2.95 | 26.08 | 60.5 | 66.3 | 60.5 | 66.3 | | | |
| 63 | 76 | 2273 | 1.90 | 23.25 | 58.7 | 66.0 | 58.7 | 66.0 | | | |
| 73 | 88 | 1964 | 2.20 | 20.09 | 55.6 | 66.4 | 55.6 | 66.4 | | | |
| 85 | 103 | 1681 | 2.55 | 17.19 | 52.6 | 66.8 | 52.6 | 66.8 | | | |
| 99 | 120 | 1452 | 2.95 | 14.85 | 49.8 | 67.1 | 49.8 | 67.1 | | | |
| 25 | 30 | 5796 | 0.80 | 59.28 | ** | ** | ** | ** | KH093-22P-160L-04F | 296 | 448 |
| 29 | 36 | 4863 | 0.95 | 49.73 | 25.4 | 38.8 | 25.4 | 38.8 | | | |
| 35 | 43 | 4054 | 1.15 | 41.46 | 30.6 | 39.8 | 30.6 | 39.8 | | | |
| 36 | 44 | 3953 | 1.15 | 40.43 | 31.1 | 40.0 | 31.1 | 40.0 | | | |
| 41 | 49 | 3506 | 1.30 | 35.86 | 33.2 | 40.5 | 33.2 | 40.5 | | | |
| 46 | 56 | 3091 | 1.50 | 31.61 | 34.8 | 41.1 | 34.8 | 41.1 | | | |
| 48 | 58 | 2983 | 1.55 | 30.51 | 35.2 | 41.2 | 35.2 | 41.2 | | | |
| 56 | 68 | 2539 | 1.80 | 25.97 | 36.5 | 41.8 | 36.5 | 41.8 | | | |
| 61 | 74 | 2354 | 1.30 | 24.07 | 37.0 | 40.9 | 37.0 | 40.9 | | | |
| 65 | 79 | 2190 | 2.10 | 22.40 | 37.4 | 42.2 | 37.4 | 42.2 | | | |
| 70 | 85 | 2036 | 1.50 | 20.82 | 37.8 | 41.5 | 37.8 | 41.5 | | | |
| 78 | 94 | 1837 | 2.45 | 18.79 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 83 | 100 | 1733 | 1.75 | 17.72 | 38.4 | 42.0 | 38.4 | 42.0 | | | |
| 97 | 118 | 1475 | 2.05 | 15.08 | 38.8 | 42.4 | 38.8 | 42.4 | | | |
| 113 | 136 | 1272 | 2.40 | 13.01 | 39.1 | 42.8 | 39.1 | 42.8 | | | |
| 134 | 163 | 1067 | 2.85 | 10.91 | 36.7 | 43.1 | 36.7 | 43.1 | | | |

K

| P _N = 15 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|------|-----------------------|-----------------------|-----------------------|--------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 15 kW | | 18 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 43 | 53 | 3301 | 0.95 | 33.76 | 16.5 | 28.1 | 16.5 | 7.6 | KH083-22P-160L-04F | 246 | 444 | |
| 47 | 57 | 3022 | 1.00 | 30.91 | 19.2 | 33.9 | 19.1 | 8.0 | | | | |
| 55 | 67 | 2589 | 1.15 | 26.48 | 22.4 | 41.0 | 19.3 | 8.7 | | | | |
| 65 | 79 | 2204 | 1.30 | 22.54 | 24.5 | 41.7 | 19.3 | 9.2 | | | | |
| 77 | 94 | 1849 | 1.50 | 18.91 | 26.1 | 42.3 | 18.8 | 9.8 | | | | |
| 83 | 101 | 1724 | 1.15 | 17.63 | 26.5 | 41.5 | 18.3 | 9.0 | | | | |
| 92 | 111 | 1558 | 1.65 | 15.93 | 27.1 | 42.7 | 17.0 | 10.2 | | | | |
| 97 | 118 | 1477 | 1.35 | 15.10 | 27.3 | 42.0 | 17.1 | 9.5 | | | | |
| 112 | 136 | 1277 | 1.90 | 13.06 | 27.9 | 43.1 | 15.3 | 10.6 | | | | |
| 114 | 138 | 1256 | 1.55 | 12.85 | 27.9 | 42.5 | 15.7 | 10.0 | | | | |
| 136 | 165 | 1054 | 1.85 | 10.78 | 28.4 | 42.9 | 14.3 | 10.4 | | | | |
| 161 | 195 | 889 | 2.20 | 9.09 | 28.7 | 43.2 | 13.1 | 10.7 | | | | |
| 197 | 238 | 728 | 2.70 | 7.45 | 28.9 | 43.5 | 11.8 | 11.0 | | | | |
| 73 | 88 | 1972 | 0.80 | 20.17 | ** | ** | ** | ** | | | | KH073-22P-160L-04F |
| 88 | 107 | 1624 | 1.00 | 16.61 | 14.5 | 15.6 | 8.8 | 4.4 | | | | |
| 129 | 156 | 1112 | 0.85 | 11.37 | 17.9 | 15.5 | 8.5 | 4.3 | | | | |
| 153 | 185 | 939 | 1.00 | 9.60 | 18.7 | 16.1 | 8.7 | 4.8 | | | | |
| 185 | 224 | 773 | 1.20 | 7.91 | 19.3 | 16.6 | 8.8 | 5.3 | | | | |

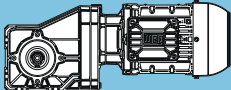
Legend see page 337

** ... on request

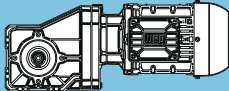
| P _N = 18.5 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page |
| 18.5 kW | | 22 kW | | Output shaft | | Hollow shaft | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _b | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 6.9 | 8.3 | 23477 | 0.80 | 214.39 | ** | ** | ** | ** | KH154-22P-180M-04E | 829 | 462 |
| 7.5 | 9.1 | 21288 | 0.85 | 194.80 | 61.7 | 107.2 | 61.7 | 107.2 | | | |
| 8.0 | 9.6 | 20138 | 0.90 | 184.65 | 68.2 | 114.6 | 68.2 | 114.6 | | | |
| 9.2 | 11 | 17312 | 1.05 | 159.72 | 80.9 | 116.8 | 80.9 | 116.8 | | | |
| 10 | 12 | 17630 | 1.05 | 146.69 | 79.7 | 116.5 | 79.7 | 116.5 | KH153-22P-180M-04E | 783 | 460 |
| 12 | 14 | 15184 | 1.20 | 126.34 | 88.2 | 118.4 | 88.2 | 118.4 | | | |
| 13 | 16 | 13134 | 1.40 | 109.28 | 93.9 | 120.0 | 93.9 | 120.0 | | | |
| 15 | 18 | 11585 | 1.60 | 96.39 | 97.4 | 121.2 | 97.4 | 121.2 | | | |
| 18 | 21 | 9950 | 1.85 | 82.79 | 100.6 | 122.4 | 100.6 | 122.4 | | | |
| 21 | 26 | 8278 | 2.20 | 68.88 | 103.3 | 123.7 | 103.3 | 123.7 | | | |
| 26 | 31 | 6821 | 1.60 | 56.75 | 105.2 | 124.8 | 105.2 | 124.8 | | | |
| 26 | 31 | 6869 | 2.65 | 57.15 | 105.1 | 124.8 | 105.1 | 124.8 | | | |
| 30 | 36 | 5875 | 2.45 | 48.88 | 106.2 | 125.5 | 106.2 | 125.5 | | | |
| 41 | 50 | 4282 | 1.60 | 35.63 | 107.5 | 125.6 | 107.5 | 125.6 | | | |
| 48 | 58 | 3689 | 2.45 | 30.69 | 107.9 | 126.2 | 107.9 | 126.2 | | | |
| 11 | 13 | 15836 | 0.85 | 131.76 | 59.2 | 81.6 | 59.2 | 81.6 | KH123-22P-180M-04E | 551 | 456 |
| 13 | 16 | 13640 | 1.00 | 113.49 | 68.3 | 83.8 | 68.3 | 83.8 | | | |
| 15 | 18 | 11746 | 1.15 | 97.73 | 74.3 | 85.7 | 74.3 | 85.7 | | | |
| 17 | 21 | 10260 | 1.30 | 85.37 | 78.1 | 87.2 | 78.1 | 87.2 | | | |
| 20 | 24 | 8863 | 1.50 | 73.74 | 81.1 | 88.6 | 81.1 | 88.6 | | | |
| 24 | 29 | 7329 | 1.80 | 60.98 | 83.8 | 90.2 | 83.8 | 90.2 | | | |
| 29 | 35 | 6127 | 1.60 | 50.98 | 85.5 | 91.4 | 85.5 | 91.4 | | | |
| 33 | 40 | 5277 | 2.45 | 43.91 | 86.5 | 92.2 | 86.5 | 92.2 | | | |
| 36 | 43 | 4958 | 2.65 | 41.25 | 86.8 | 92.5 | 86.8 | 92.5 | | | |
| 39 | 47 | 4544 | 2.90 | 37.81 | 87.2 | 92.9 | 87.2 | 92.9 | | | |
| 51 | 61 | 3494 | 1.60 | 29.07 | 88.1 | 93.2 | 88.1 | 93.2 | | | |
| 59 | 71 | 3009 | 2.45 | 25.04 | 88.2 | 93.8 | 88.2 | 93.8 | | | |
| 18 | 22 | 9603 | 0.85 | 79.90 | 36.4 | 58.2 | 36.4 | 58.2 | KH103-22P-180M-04E | 428 | 452 |
| 21 | 26 | 8294 | 1.00 | 69.01 | 44.3 | 59.7 | 44.3 | 59.7 | | | |
| 25 | 30 | 7014 | 1.15 | 58.36 | 50.0 | 61.2 | 50.0 | 61.2 | | | |
| 31 | 37 | 5723 | 1.40 | 47.62 | 54.3 | 62.6 | 54.3 | 62.6 | | | |
| 36 | 43 | 4908 | 1.55 | 40.84 | 56.4 | 63.6 | 56.4 | 63.6 | | | |
| 38 | 46 | 4644 | 1.75 | 38.64 | 57.0 | 63.9 | 57.0 | 63.9 | | | |
| 42 | 50 | 4241 | 1.80 | 35.29 | 57.9 | 64.3 | 57.9 | 64.3 | | | |
| 48 | 58 | 3708 | 2.20 | 30.85 | 58.8 | 64.9 | 58.8 | 64.9 | | | |
| 49 | 59 | 3630 | 2.10 | 30.20 | 59.0 | 65.0 | 59.0 | 65.0 | | | |
| 56 | 68 | 3134 | 2.40 | 26.08 | 59.7 | 65.6 | 59.7 | 65.6 | | | |
| 63 | 76 | 2794 | 1.55 | 23.25 | 60.1 | 65.2 | 60.1 | 65.2 | | | |
| 67 | 80 | 2650 | 2.85 | 22.05 | 58.0 | 66.1 | 58.0 | 66.1 | | | |
| 73 | 88 | 2415 | 1.80 | 20.09 | 56.8 | 65.8 | 56.8 | 65.8 | | | |
| 86 | 103 | 2066 | 2.10 | 17.19 | 53.5 | 66.3 | 53.5 | 66.3 | | | |
| 99 | 120 | 1785 | 2.40 | 14.85 | 50.7 | 66.7 | 50.7 | 66.7 | | | |
| 117 | 141 | 1510 | 2.85 | 12.56 | 47.8 | 67.0 | 47.8 | 67.0 | | | |
| 30 | 36 | 5977 | 0.80 | 49.73 | ** | ** | ** | ** | KH093-22P-180M-04E | 310 | 448 |
| 36 | 44 | 4859 | 0.95 | 40.43 | 25.4 | 38.8 | 25.4 | 38.8 | | | |
| 41 | 49 | 4310 | 1.05 | 35.86 | 29.1 | 39.5 | 29.1 | 39.5 | | | |
| 47 | 56 | 3799 | 1.20 | 31.61 | 31.9 | 40.2 | 31.9 | 40.2 | | | |
| 48 | 58 | 3667 | 1.25 | 30.51 | 32.5 | 40.3 | 32.5 | 40.3 | | | |
| 57 | 68 | 3121 | 1.45 | 25.97 | 34.7 | 41.0 | 34.7 | 41.0 | | | |
| 66 | 79 | 2692 | 1.70 | 22.40 | 36.1 | 41.6 | 36.1 | 41.6 | | | |
| 71 | 85 | 2502 | 1.20 | 20.82 | 36.6 | 40.6 | 36.6 | 40.6 | | | |
| 78 | 94 | 2258 | 2.00 | 18.79 | 37.3 | 42.1 | 37.3 | 42.1 | | | |
| 83 | 100 | 2130 | 1.45 | 17.72 | 37.6 | 41.3 | 37.6 | 41.3 | | | |
| 96 | 116 | 1836 | 2.50 | 15.28 | 38.2 | 42.7 | 38.2 | 42.7 | | | |
| 97 | 118 | 1812 | 1.70 | 15.08 | 38.2 | 41.8 | 38.2 | 41.8 | | | |
| 113 | 136 | 1564 | 1.95 | 13.01 | 38.7 | 42.3 | 38.7 | 42.3 | | | |
| 135 | 163 | 1311 | 2.30 | 10.91 | 37.5 | 42.7 | 37.5 | 42.7 | | | |
| 166 | 200 | 1066 | 2.85 | 8.87 | 34.6 | 43.1 | 34.6 | 43.1 | | | |

Legend see page 337

** ... on request

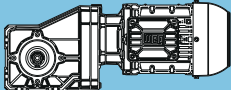
| P _N = 18.5 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|------|----------------|------|-----------------------|-----------------------|-----------------------|---------------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 18.5 kW | | 22 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 56 | 67 | 3183 | 0.95 | 26.48 | 17.7 | 30.7 | 16.6 | 7.8 | KH083-22P-180M-04E | 260 | 444 | |
| 65 | 79 | 2709 | 1.05 | 22.54 | 21.6 | 39.2 | 17.2 | 8.5 | | | | |
| 78 | 94 | 2273 | 1.20 | 18.91 | 24.2 | 41.6 | 17.3 | 9.1 | | | | |
| 92 | 111 | 1915 | 1.35 | 15.93 | 25.8 | 42.2 | 17.4 | 9.7 | | | | |
| 97 | 118 | 1815 | 1.10 | 15.10 | 26.2 | 41.4 | 16.5 | 8.9 | | | | |
| 113 | 136 | 1570 | 1.55 | 13.06 | 27.1 | 42.7 | 16.3 | 10.2 | | | | |
| 114 | 138 | 1544 | 1.30 | 12.85 | 27.1 | 41.9 | 16.4 | 9.4 | | | | |
| 136 | 165 | 1296 | 1.50 | 10.78 | 27.8 | 42.4 | 15.2 | 9.9 | | | | |
| 162 | 195 | 1093 | 1.80 | 9.09 | 28.3 | 42.8 | 13.8 | 10.3 | | | | |
| 197 | 238 | 895 | 2.20 | 7.45 | 28.7 | 43.2 | 12.5 | 10.7 | | | | |

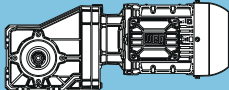
Legend see page 337

| P _N = 22 kW | | | | | | | | | | IE3 | | | | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|--------------------|-----|-----|
| 50 Hz | | 60 Hz | | at 50 Hz | | | | |  | m kg | Dimension sheet see page | | | |
| 22 kW | | 26 kW | | Output shaft | | Hollow shaft | | | | | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | i | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | | | |
| 9.2 | 11 | 20714 | 0.90 | 159.72 | 65.1 | 114.2 | 65.1 | 114.2 | KH154-22P-180L-04F | 850 | 462 | | | |
| 10 | 12 | 20966 | 0.90 | 146.69 | 63.6 | 111.2 | 63.6 | 111.2 | | | | | | |
| 12 | 14 | 18057 | 1.00 | 126.34 | 77.9 | 116.2 | 77.9 | 116.2 | | | | | | |
| 13 | 16 | 15619 | 1.20 | 109.28 | 86.8 | 118.1 | 86.8 | 118.1 | | | | | | |
| 15 | 18 | 13777 | 1.35 | 96.39 | 92.2 | 119.5 | 92.2 | 119.5 | | | | | | |
| 18 | 21 | 11833 | 1.55 | 82.79 | 96.9 | 121.0 | 96.9 | 121.0 | | | | | | |
| 21 | 26 | 9845 | 1.85 | 68.88 | 100.8 | 122.5 | 100.8 | 122.5 | | | | | | |
| 26 | 31 | 8168 | 2.25 | 57.15 | 103.4 | 123.8 | 103.4 | 123.8 | | | | | | |
| 30 | 36 | 6986 | 2.05 | 48.88 | 105.0 | 124.7 | 105.0 | 124.7 | | | | | | |
| 31 | 37 | 6812 | 2.65 | 47.66 | 105.2 | 124.8 | 105.2 | 124.8 | | | | | | |
| 35 | 42 | 6043 | 2.95 | 42.28 | 106.0 | 125.4 | 106.0 | 125.4 | | | | | | |
| 41 | 50 | 5092 | 1.35 | 35.63 | 106.9 | 124.7 | 106.9 | 124.7 | | | | | | |
| 48 | 58 | 4386 | 2.05 | 30.69 | 107.4 | 125.5 | 107.4 | 125.5 | | | | | | |
| 55 | 67 | 3793 | 2.95 | 26.54 | 107.8 | 126.1 | 107.8 | 126.1 | | | | | | |
| 13 | 16 | 16221 | 0.85 | 113.49 | 57.3 | 81.2 | 57.3 | 81.2 | KH123-22P-180L-04F | 572 | 456 | | | |
| 15 | 18 | 13968 | 0.95 | 97.73 | 67.1 | 83.5 | 67.1 | 83.5 | | | | | | |
| 17 | 21 | 12202 | 1.10 | 85.37 | 73.0 | 85.3 | 73.0 | 85.3 | | | | | | |
| 20 | 24 | 10539 | 1.25 | 73.74 | 77.4 | 86.9 | 77.4 | 86.9 | | | | | | |
| 24 | 29 | 8716 | 1.50 | 60.98 | 81.4 | 88.8 | 81.4 | 88.8 | | | | | | |
| 29 | 35 | 7286 | 1.35 | 50.98 | 83.9 | 90.2 | 83.9 | 90.2 | | | | | | |
| 33 | 40 | 6276 | 2.05 | 43.91 | 85.3 | 91.2 | 85.3 | 91.2 | | | | | | |
| 36 | 43 | 5896 | 2.25 | 41.25 | 85.8 | 91.6 | 85.8 | 91.6 | | | | | | |
| 39 | 47 | 5404 | 2.45 | 37.81 | 86.4 | 92.1 | 86.4 | 92.1 | | | | | | |
| 42 | 51 | 5005 | 2.60 | 35.02 | 86.8 | 92.5 | 86.8 | 92.5 | | | | | | |
| 45 | 54 | 4721 | 2.80 | 33.03 | 87.1 | 92.8 | 87.1 | 92.8 | | | | | | |
| 51 | 61 | 4155 | 1.35 | 29.07 | 87.6 | 92.4 | 87.6 | 92.4 | | | | | | |
| 59 | 71 | 3579 | 2.05 | 25.04 | 88.0 | 93.1 | 88.0 | 93.1 | | | | | | |
| 68 | 82 | 3081 | 2.65 | 21.56 | 85.0 | 93.7 | 85.0 | 93.7 | | | | | | |
| 21 | 26 | 9863 | 0.85 | 69.01 | 34.5 | 57.7 | 34.5 | 57.7 | | | | KH103-22P-180L-04F | 449 | 452 |
| 25 | 30 | 8341 | 1.00 | 58.36 | 44.1 | 59.6 | 44.1 | 59.6 | | | | | | |
| 31 | 37 | 6806 | 1.20 | 47.62 | 50.8 | 61.4 | 50.8 | 61.4 | | | | | | |
| 36 | 43 | 5837 | 1.30 | 40.84 | 53.9 | 62.5 | 53.9 | 62.5 | | | | | | |
| 38 | 46 | 5523 | 1.45 | 38.64 | 54.8 | 62.9 | 54.8 | 62.9 | | | | | | |
| 42 | 50 | 5044 | 1.50 | 35.29 | 56.1 | 63.4 | 56.1 | 63.4 | | | | | | |
| 48 | 58 | 4409 | 1.85 | 30.85 | 57.5 | 64.1 | 57.5 | 64.1 | | | | | | |
| 49 | 59 | 4316 | 1.75 | 30.20 | 57.7 | 64.2 | 57.7 | 64.2 | | | | | | |
| 56 | 68 | 3727 | 2.05 | 26.08 | 58.8 | 64.9 | 58.8 | 64.9 | | | | | | |
| 63 | 76 | 3323 | 1.30 | 23.25 | 59.5 | 64.5 | 59.5 | 64.5 | | | | | | |
| 67 | 80 | 3152 | 2.40 | 22.05 | 59.3 | 65.6 | 59.3 | 65.6 | | | | | | |
| 73 | 88 | 2871 | 1.50 | 20.09 | 58.1 | 65.1 | 58.1 | 65.1 | | | | | | |
| 82 | 99 | 2573 | 2.95 | 18.00 | 54.8 | 66.2 | 54.8 | 66.2 | | | | | | |
| 86 | 103 | 2457 | 1.75 | 17.19 | 54.5 | 65.7 | 54.5 | 65.7 | | | | | | |
| 99 | 120 | 2122 | 2.05 | 14.85 | 51.6 | 66.2 | 51.6 | 66.2 | | | | | | |
| 117 | 141 | 1795 | 2.40 | 12.56 | 48.5 | 66.6 | 48.5 | 66.6 | | | | | | |
| 143 | 173 | 1465 | 2.95 | 10.25 | 45.1 | 67.1 | 45.1 | 67.1 | | | | | | |
| 36 | 44 | 5778 | 0.80 | 40.43 | ** | ** | ** | ** | KH093-22P-180L-04F | 331 | 448 | | | |
| 41 | 49 | 5125 | 0.90 | 35.86 | 23.2 | 38.5 | 23.2 | 38.5 | | | | | | |
| 47 | 56 | 4518 | 1.00 | 31.61 | 27.8 | 39.3 | 27.8 | 39.3 | | | | | | |
| 48 | 58 | 4361 | 1.05 | 30.51 | 28.8 | 39.5 | 28.8 | 39.5 | | | | | | |
| 57 | 68 | 3712 | 1.25 | 25.97 | 32.3 | 40.3 | 32.3 | 40.3 | | | | | | |
| 66 | 79 | 3202 | 1.45 | 22.40 | 34.4 | 40.9 | 34.4 | 40.9 | | | | | | |
| 71 | 85 | 2976 | 1.05 | 20.82 | 35.2 | 39.8 | 35.2 | 39.8 | | | | | | |
| 78 | 94 | 2686 | 1.70 | 18.79 | 36.1 | 41.6 | 36.1 | 41.6 | | | | | | |
| 83 | 100 | 2533 | 1.20 | 17.72 | 36.6 | 40.6 | 36.6 | 40.6 | | | | | | |
| 96 | 116 | 2184 | 2.10 | 15.28 | 37.4 | 42.2 | 37.4 | 42.2 | | | | | | |
| 97 | 118 | 2155 | 1.40 | 15.08 | 37.5 | 41.2 | 37.5 | 41.2 | | | | | | |
| 113 | 136 | 1859 | 1.65 | 13.01 | 38.1 | 41.8 | 38.1 | 41.8 | | | | | | |
| 123 | 149 | 1708 | 2.65 | 11.95 | 38.4 | 42.8 | 38.4 | 42.8 | | | | | | |
| 135 | 163 | 1559 | 1.95 | 10.91 | 38.4 | 42.3 | 38.4 | 42.3 | | | | | | |
| 166 | 200 | 1268 | 2.40 | 8.87 | 35.4 | 42.8 | 35.4 | 42.8 | | | | | | |

Legend see page 337

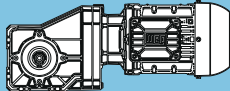
** ... on request

| P _N = 22 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|------|----------------|------|-----------------------|-----------------------|-----------------------|---------------------------|---|---------|-----------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 22 kW | | 26 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | | | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 56 | 67 | 3785 | 0.80 | 26.48 | ** | ** | ** | ** | KH083-22P-180L-04F | 281 | 444 | |
| 65 | 79 | 3222 | 0.90 | 22.54 | 17.3 | 29.8 | 15.0 | 7.7 | | | | |
| 78 | 94 | 2703 | 1.00 | 18.91 | 21.6 | 39.2 | 15.5 | 8.5 | | | | |
| 92 | 111 | 2277 | 1.15 | 15.93 | 24.2 | 41.6 | 15.8 | 9.1 | | | | |
| 97 | 118 | 2158 | 0.90 | 15.10 | 24.7 | 40.7 | 14.9 | 8.2 | | | | |
| 113 | 136 | 1867 | 1.30 | 13.06 | 26.0 | 42.2 | 15.9 | 9.7 | | | | |
| 114 | 138 | 1837 | 1.10 | 12.85 | 26.1 | 41.3 | 15.1 | 8.8 | | | | |
| 136 | 165 | 1541 | 1.30 | 10.78 | 27.1 | 41.9 | 15.1 | 9.4 | | | | |
| 162 | 195 | 1299 | 1.50 | 9.09 | 27.8 | 42.4 | 14.6 | 9.9 | | | | |
| 197 | 238 | 1065 | 1.85 | 7.45 | 28.4 | 42.9 | 13.1 | 10.4 | | | | |

| P _N = 30 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 30 kW | | 36 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 14 | 16 | 21155 | 0.90 | 109.28 | 62.5 | 108.9 | 62.5 | 108.9 | KH153-22P-200L-04E | 862 | 460 |
| 15 | 18 | 18659 | 1.00 | 96.39 | 75.4 | 115.8 | 75.4 | 115.8 | | | |
| 18 | 22 | 16027 | 1.15 | 82.79 | 85.5 | 117.8 | 85.5 | 117.8 | | | |
| 21 | 26 | 13334 | 1.35 | 68.88 | 93.4 | 119.8 | 93.4 | 119.8 | | | |
| 26 | 31 | 11063 | 1.65 | 57.15 | 98.5 | 121.6 | 98.5 | 121.6 | | | |
| 31 | 37 | 9226 | 2.00 | 47.66 | 101.8 | 123.0 | 101.8 | 123.0 | | | |
| 35 | 42 | 8185 | 2.20 | 42.28 | 103.4 | 123.8 | 103.4 | 123.8 | | | |
| 36 | 43 | 7931 | 2.30 | 40.97 | 103.8 | 123.9 | 103.8 | 123.9 | | | |
| 40 | 48 | 7221 | 2.50 | 37.30 | 104.7 | 124.5 | 104.7 | 124.5 | | | |
| 42 | 50 | 6862 | 2.65 | 35.45 | 105.1 | 124.8 | 105.1 | 124.8 | | | |
| 46 | 56 | 6200 | 2.95 | 32.03 | 105.8 | 125.3 | 105.8 | 125.3 | | | |
| 56 | 67 | 5138 | 2.20 | 26.54 | 106.8 | 124.7 | 106.8 | 124.7 | | | |
| 63 | 76 | 4532 | 3.00 | 23.41 | 107.3 | 125.3 | 107.3 | 125.3 | | | |
| 17 | 21 | 16526 | 0.80 | 85.37 | ** | ** | ** | ** | KH123-22P-200L-04E | 630 | 456 |
| 20 | 24 | 14275 | 0.95 | 73.74 | 65.9 | 83.2 | 65.9 | 83.2 | | | |
| 24 | 29 | 11805 | 1.15 | 60.98 | 74.1 | 85.7 | 74.1 | 85.7 | | | |
| 29 | 35 | 9714 | 1.35 | 50.18 | 79.3 | 87.8 | 79.3 | 87.8 | | | |
| 36 | 43 | 7985 | 1.65 | 41.25 | 82.7 | 89.5 | 82.7 | 89.5 | | | |
| 39 | 47 | 7319 | 1.80 | 37.81 | 83.8 | 90.2 | 83.8 | 90.2 | | | |
| 42 | 51 | 6779 | 1.95 | 35.02 | 84.6 | 90.7 | 84.6 | 90.7 | | | |
| 45 | 54 | 6394 | 2.05 | 33.03 | 85.1 | 91.1 | 85.1 | 91.1 | | | |
| 50 | 60 | 5786 | 2.25 | 29.89 | 85.9 | 91.7 | 85.9 | 91.7 | | | |
| 52 | 62 | 5523 | 2.40 | 28.53 | 86.2 | 92.0 | 86.2 | 92.0 | | | |
| 63 | 75 | 4569 | 2.85 | 23.60 | 87.2 | 92.9 | 87.2 | 92.9 | | | |
| 69 | 83 | 4174 | 1.95 | 21.56 | 87.3 | 92.4 | 87.3 | 92.4 | | | |
| 79 | 94 | 3647 | 2.25 | 18.84 | 82.9 | 93.0 | 82.9 | 93.0 | | | |
| 91 | 109 | 3150 | 2.60 | 16.27 | 78.6 | 93.6 | 78.6 | 93.6 | | | |
| 31 | 37 | 9218 | 0.90 | 47.62 | 39.0 | 58.6 | 39.0 | 58.6 | KH103-22P-200L-04E | 507 | 452 |
| 38 | 46 | 7480 | 1.10 | 38.64 | 48.1 | 60.6 | 48.1 | 60.6 | | | |
| 48 | 58 | 5972 | 1.35 | 30.85 | 53.5 | 62.3 | 53.5 | 62.3 | | | |
| 49 | 59 | 5846 | 1.30 | 30.20 | 53.9 | 62.5 | 53.9 | 62.5 | | | |
| 57 | 68 | 5049 | 1.50 | 26.08 | 56.1 | 63.4 | 56.1 | 63.4 | | | |
| 67 | 81 | 4268 | 1.80 | 22.05 | 57.8 | 64.3 | 57.8 | 64.3 | | | |
| 82 | 99 | 3484 | 2.20 | 18.00 | 57.0 | 65.2 | 57.0 | 65.2 | | | |
| 86 | 104 | 3328 | 1.30 | 17.19 | 56.9 | 64.5 | 56.9 | 64.5 | | | |
| 100 | 120 | 2875 | 1.50 | 14.85 | 53.5 | 65.1 | 53.5 | 65.1 | | | |
| 101 | 122 | 2826 | 2.70 | 14.60 | 52.5 | 65.9 | 52.5 | 65.9 | | | |
| 118 | 142 | 2431 | 1.80 | 12.56 | 50.1 | 65.8 | 50.1 | 65.8 | | | |
| 144 | 174 | 1984 | 2.20 | 10.25 | 46.4 | 66.4 | 46.4 | 66.4 | | | |
| 178 | 214 | 1609 | 2.70 | 8.31 | 42.9 | 66.9 | 42.9 | 66.9 | | | |
| 57 | 69 | 5027 | 0.90 | 25.97 | 24.1 | 38.6 | 24.1 | 38.6 | KH093-22P-200L-04E | 389 | 448 |
| 66 | 79 | 4336 | 1.05 | 22.40 | 29.0 | 39.5 | 29.0 | 39.5 | | | |
| 79 | 95 | 3637 | 1.25 | 18.79 | 32.6 | 40.4 | 32.6 | 40.4 | | | |
| 97 | 116 | 2958 | 1.55 | 15.28 | 35.3 | 41.2 | 35.3 | 41.2 | | | |
| 98 | 118 | 2919 | 1.05 | 15.08 | 35.4 | 39.9 | 35.4 | 39.9 | | | |
| 114 | 137 | 2518 | 1.20 | 13.01 | 36.6 | 40.6 | 36.6 | 40.6 | | | |
| 124 | 149 | 2313 | 1.95 | 11.95 | 37.1 | 42.1 | 37.1 | 42.1 | | | |
| 136 | 163 | 2112 | 1.45 | 10.91 | 37.6 | 41.3 | 37.6 | 41.3 | | | |
| 167 | 201 | 1717 | 1.75 | 8.87 | 37.0 | 42.0 | 37.0 | 42.0 | | | |
| 213 | 256 | 1343 | 2.25 | 6.94 | 33.5 | 42.7 | 33.5 | 42.7 | | | |

Legend see page 337

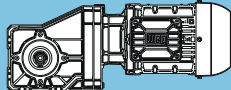
** ... on request

| P _N = 37 kW | | | | | | | | | | IE3 | | |
|--------------------------------------|--------------------------------------|----------------------|-----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|--------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | f _B | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 37 kW | | 44 kW | | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | F _{rN} kN | | | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | | |
| 15 | 18 | 23013 | 0.80 | 96.39 | ** | ** | ** | ** | KH153-22P-200L-04F | 889 | 460 | |
| 18 | 22 | 19766 | 0.95 | 82.79 | 70.1 | 114.9 | 70.1 | 114.9 | | | | |
| 21 | 26 | 16445 | 1.10 | 68.88 | 84.0 | 117.5 | 84.0 | 117.5 | | | | |
| 26 | 31 | 13645 | 1.35 | 57.15 | 92.6 | 119.6 | 92.6 | 119.6 | | | | |
| 31 | 37 | 11379 | 1.60 | 47.66 | 97.9 | 121.3 | 97.9 | 121.3 | | | | |
| 35 | 42 | 10094 | 1.80 | 42.28 | 100.3 | 122.3 | 100.3 | 122.3 | | | | |
| 36 | 43 | 9782 | 1.85 | 40.97 | 100.9 | 122.5 | 100.9 | 122.5 | | | | |
| 40 | 48 | 8905 | 2.05 | 37.30 | 102.3 | 123.2 | 102.3 | 123.2 | | | | |
| 42 | 50 | 8464 | 2.15 | 35.45 | 103.0 | 123.5 | 103.0 | 123.5 | | | | |
| 46 | 56 | 7647 | 2.40 | 32.03 | 104.1 | 124.2 | 104.1 | 124.2 | | | | |
| 56 | 67 | 6336 | 1.80 | 26.54 | 105.7 | 123.5 | 105.7 | 123.5 | | | | |
| 56 | 67 | 6363 | 2.85 | 26.65 | 105.7 | 125.1 | 105.7 | 125.1 | | | | |
| 63 | 76 | 5589 | 2.45 | 23.41 | 106.4 | 124.2 | 106.4 | 124.2 | | | | |
| 74 | 89 | 4801 | 2.80 | 20.11 | 107.1 | 125.0 | 107.1 | 125.0 | | | | |
| 24 | 29 | 14559 | 0.90 | 60.98 | 64.8 | 82.9 | 64.8 | 82.9 | KH123-22P-200L-04F | 657 | 456 | |
| 29 | 36 | 11980 | 1.10 | 50.18 | 73.6 | 85.5 | 73.6 | 85.5 | | | | |
| 36 | 43 | 9848 | 1.35 | 41.25 | 79.0 | 87.6 | 79.0 | 87.6 | | | | |
| 39 | 47 | 9027 | 1.45 | 37.81 | 80.8 | 88.5 | 80.8 | 88.5 | | | | |
| 42 | 51 | 8361 | 1.60 | 35.02 | 82.0 | 89.1 | 82.0 | 89.1 | | | | |
| 45 | 54 | 7886 | 1.65 | 33.03 | 82.9 | 89.6 | 82.9 | 89.6 | | | | |
| 50 | 60 | 7136 | 1.85 | 29.89 | 84.1 | 90.3 | 84.1 | 90.3 | | | | |
| 52 | 62 | 6812 | 1.95 | 28.53 | 84.6 | 90.7 | 84.6 | 90.7 | | | | |
| 63 | 76 | 5635 | 2.35 | 23.60 | 86.1 | 91.9 | 86.1 | 91.9 | | | | |
| 69 | 83 | 5147 | 1.60 | 21.56 | 86.6 | 91.2 | 86.6 | 91.2 | | | | |
| 76 | 92 | 4637 | 2.85 | 19.42 | 85.0 | 92.9 | 85.0 | 92.9 | | | | |
| 79 | 95 | 4498 | 1.85 | 18.84 | 85.0 | 92.0 | 85.0 | 92.0 | | | | |
| 91 | 110 | 3884 | 2.10 | 16.27 | 80.4 | 92.7 | 80.4 | 92.7 | | | | |
| 110 | 132 | 3214 | 2.55 | 13.46 | 74.9 | 93.6 | 74.9 | 93.6 | | | | |
| 38 | 46 | 9225 | 0.90 | 38.64 | 39.0 | 58.6 | 39.0 | 58.6 | KH103-22P-200L-04F | 534 | 452 | |
| 48 | 58 | 7365 | 1.10 | 30.85 | 48.6 | 60.8 | 48.6 | 60.8 | | | | |
| 49 | 59 | 7210 | 1.05 | 30.20 | 49.2 | 60.9 | 49.2 | 60.9 | | | | |
| 57 | 68 | 6227 | 1.25 | 26.08 | 52.7 | 62.1 | 52.7 | 62.1 | | | | |
| 67 | 81 | 5264 | 1.45 | 22.05 | 55.5 | 63.2 | 55.5 | 63.2 | | | | |
| 82 | 99 | 4298 | 1.75 | 18.00 | 57.7 | 64.3 | 57.7 | 64.3 | | | | |
| 86 | 104 | 4104 | 1.05 | 17.19 | 58.1 | 63.4 | 58.1 | 63.4 | | | | |
| 100 | 120 | 3545 | 1.25 | 14.85 | 55.3 | 64.2 | 55.3 | 64.2 | | | | |
| 101 | 122 | 3486 | 2.20 | 14.60 | 54.1 | 65.2 | 54.1 | 65.2 | | | | |
| 118 | 142 | 2999 | 1.45 | 12.56 | 51.7 | 65.0 | 51.7 | 65.0 | | | | |
| 127 | 153 | 2784 | 2.70 | 11.66 | 49.4 | 66.0 | 49.4 | 66.0 | | | | |
| 144 | 174 | 2447 | 1.75 | 10.25 | 47.6 | 65.7 | 47.6 | 65.7 | | | | |
| 178 | 214 | 1984 | 2.20 | 8.31 | 43.9 | 66.4 | 43.9 | 66.4 | | | | |
| 223 | 268 | 1585 | 2.70 | 6.64 | 40.3 | 66.9 | 40.3 | 66.9 | | | | |



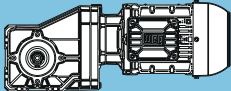
Legend see page 337

** ... on request

| P _N = 45 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 45 kW | | 55 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 21 | 26 | 20001 | 0.90 | 68.88 | 68.9 | 114.7 | 68.9 | 114.7 | KH153-22P-225S/M-04F | 1026 | 460 |
| 26 | 31 | 16595 | 1.10 | 57.15 | 83.5 | 117.3 | 83.5 | 117.3 | | | |
| 31 | 37 | 13839 | 1.35 | 47.66 | 92.0 | 119.4 | 92.0 | 119.4 | | | |
| 35 | 42 | 12277 | 1.50 | 42.28 | 95.9 | 120.6 | 95.9 | 120.6 | | | |
| 36 | 43 | 11897 | 1.55 | 40.97 | 96.8 | 120.9 | 96.8 | 120.9 | | | |
| 40 | 48 | 10831 | 1.70 | 37.30 | 99.0 | 121.7 | 99.0 | 121.7 | | | |
| 42 | 50 | 10294 | 1.75 | 35.45 | 100.0 | 122.1 | 100.0 | 122.1 | | | |
| 46 | 56 | 9301 | 1.95 | 32.03 | 101.7 | 122.9 | 101.7 | 122.9 | | | |
| 56 | 67 | 7738 | 2.35 | 26.65 | 104.0 | 124.1 | 104.0 | 124.1 | | | |
| 63 | 76 | 6798 | 2.00 | 23.41 | 105.2 | 123.0 | 105.2 | 123.0 | | | |
| 67 | 81 | 6420 | 2.85 | 22.11 | 105.6 | 125.1 | 105.6 | 125.1 | | | |
| 74 | 89 | 5839 | 2.30 | 20.11 | 106.2 | 124.0 | 106.2 | 124.0 | | | |
| 88 | 107 | 4858 | 2.95 | 16.73 | 107.1 | 125.0 | 107.1 | 125.0 | | | |
| 29 | 36 | 14571 | 0.90 | 50.18 | 64.7 | 82.9 | 64.7 | 82.9 | KH123-22P-225S/M-04F | 794 | 456 |
| 36 | 43 | 11978 | 1.10 | 41.25 | 73.6 | 85.5 | 73.6 | 85.5 | | | |
| 39 | 47 | 10979 | 1.20 | 37.81 | 76.3 | 86.5 | 76.3 | 86.5 | | | |
| 42 | 51 | 10169 | 1.30 | 35.02 | 78.3 | 87.3 | 78.3 | 87.3 | | | |
| 45 | 54 | 9591 | 1.40 | 33.03 | 79.6 | 87.9 | 79.6 | 87.9 | | | |
| 50 | 60 | 8679 | 1.50 | 29.89 | 81.5 | 88.8 | 81.5 | 88.8 | | | |
| 52 | 62 | 8284 | 1.60 | 28.53 | 82.2 | 89.2 | 82.2 | 89.2 | | | |
| 63 | 76 | 6853 | 1.90 | 23.60 | 84.5 | 90.6 | 84.5 | 90.6 | | | |
| 69 | 83 | 6260 | 1.30 | 21.56 | 85.3 | 89.8 | 85.3 | 89.8 | | | |
| 76 | 92 | 5639 | 2.35 | 19.42 | 86.1 | 91.8 | 86.1 | 91.8 | | | |
| 79 | 95 | 5471 | 1.50 | 18.84 | 86.3 | 90.8 | 86.3 | 90.8 | | | |
| 91 | 110 | 4724 | 1.75 | 16.27 | 82.4 | 91.7 | 82.4 | 91.7 | | | |
| 93 | 112 | 4634 | 2.85 | 15.96 | 80.6 | 92.9 | 80.6 | 92.9 | | | |
| 110 | 132 | 3908 | 2.10 | 13.46 | 76.5 | 92.7 | 76.5 | 92.7 | | | |
| 134 | 161 | 3214 | 2.55 | 11.07 | 71.0 | 93.5 | 71.0 | 93.5 | | | |
| 48 | 58 | 8958 | 0.90 | 30.85 | 40.7 | 58.9 | 40.7 | 58.9 | KH103-22P-225S/M-04F | 671 | 452 |
| 49 | 59 | 8769 | 0.90 | 30.20 | 41.8 | 59.1 | 41.8 | 59.1 | | | |
| 57 | 68 | 7573 | 1.00 | 26.08 | 47.7 | 60.5 | 47.7 | 60.5 | | | |
| 67 | 81 | 6403 | 1.20 | 22.05 | 52.2 | 61.9 | 52.2 | 61.9 | | | |
| 82 | 99 | 5227 | 1.45 | 18.00 | 55.6 | 63.2 | 55.6 | 63.2 | | | |
| 86 | 104 | 4991 | 0.90 | 17.19 | 56.2 | 62.2 | 56.2 | 62.2 | | | |
| 100 | 120 | 4312 | 1.00 | 14.85 | 57.4 | 63.1 | 57.4 | 63.1 | | | |
| 101 | 122 | 4239 | 1.80 | 14.60 | 55.9 | 64.3 | 55.9 | 64.3 | | | |
| 118 | 142 | 3647 | 1.20 | 12.56 | 53.4 | 64.0 | 53.4 | 64.0 | | | |
| 127 | 153 | 3386 | 2.25 | 11.66 | 50.8 | 65.3 | 50.8 | 65.3 | | | |
| 144 | 174 | 2976 | 1.45 | 10.25 | 49.1 | 65.0 | 49.1 | 65.0 | | | |
| 178 | 214 | 2413 | 1.80 | 8.31 | 45.0 | 65.8 | 45.0 | 65.8 | | | |
| 223 | 268 | 1928 | 2.25 | 6.64 | 41.2 | 66.5 | 41.2 | 66.5 | | | |

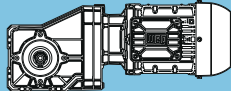
K

Legend see page 337

| P _N = 55 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|---|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 55 kW | | 66 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 26 | 31 | 20282 | 0.90 | 57.15 | 67.5 | 114.5 | 67.5 | 114.5 | KH153-22P-225S/M-04G | 1074 | 460 |
| 31 | 37 | 16914 | 1.10 | 47.66 | 82.4 | 117.1 | 82.4 | 117.1 | | | |
| 36 | 44 | 14540 | 1.25 | 40.97 | 90.1 | 118.9 | 90.1 | 118.9 | | | |
| 40 | 48 | 13238 | 1.40 | 37.30 | 93.6 | 119.9 | 93.6 | 119.9 | | | |
| 42 | 50 | 12581 | 1.45 | 35.45 | 95.2 | 120.4 | 95.2 | 120.4 | | | |
| 46 | 56 | 11367 | 1.60 | 32.03 | 97.9 | 121.3 | 97.9 | 121.3 | | | |
| 56 | 67 | 9458 | 1.95 | 26.65 | 101.4 | 122.8 | 101.4 | 122.8 | | | |
| 63 | 76 | 8308 | 1.65 | 23.41 | 103.2 | 121.4 | 103.2 | 121.4 | | | |
| 67 | 81 | 7847 | 2.30 | 22.11 | 103.9 | 124.0 | 103.9 | 124.0 | | | |
| 74 | 89 | 7137 | 1.90 | 20.11 | 104.8 | 122.6 | 104.8 | 122.6 | | | |
| 80 | 97 | 6544 | 2.80 | 18.44 | 105.5 | 125.0 | 105.5 | 125.0 | | | |
| 88 | 107 | 5937 | 2.40 | 16.73 | 106.1 | 123.9 | 106.1 | 123.9 | | | |
| 107 | 129 | 4926 | 2.90 | 13.88 | 107.0 | 124.9 | 107.0 | 124.9 | | | |
| 36 | 43 | 14640 | 0.90 | 41.25 | 64.5 | 82.8 | 64.5 | 82.8 | KH123-22P-225S/M-04G | 842 | 456 |
| 42 | 51 | 12429 | 1.05 | 35.02 | 72.3 | 85.0 | 72.3 | 85.0 | | | |
| 45 | 54 | 11722 | 1.15 | 33.03 | 74.3 | 85.8 | 74.3 | 85.8 | | | |
| 50 | 60 | 10608 | 1.25 | 29.89 | 77.3 | 86.9 | 77.3 | 86.9 | | | |
| 52 | 63 | 10125 | 1.30 | 28.53 | 78.4 | 87.4 | 78.4 | 87.4 | | | |
| 63 | 76 | 8376 | 1.60 | 23.60 | 82.0 | 89.1 | 82.0 | 89.1 | | | |
| 76 | 92 | 6892 | 1.90 | 19.42 | 84.4 | 90.6 | 84.4 | 90.6 | | | |
| 79 | 95 | 6686 | 1.25 | 18.84 | 84.7 | 89.3 | 84.7 | 89.3 | | | |
| 91 | 110 | 5774 | 1.45 | 16.27 | 85.0 | 90.4 | 85.0 | 90.4 | | | |
| 93 | 112 | 5664 | 2.30 | 15.96 | 82.9 | 91.8 | 82.9 | 91.8 | | | |
| 109 | 132 | 4809 | 2.75 | 13.55 | 77.7 | 92.7 | 77.7 | 92.7 | | | |
| 110 | 133 | 4777 | 1.75 | 13.46 | 78.6 | 91.6 | 78.6 | 91.6 | | | |
| 134 | 161 | 3929 | 2.10 | 11.07 | 72.7 | 92.7 | 72.7 | 92.7 | | | |
| 163 | 196 | 3230 | 2.55 | 9.10 | 67.4 | 93.5 | 67.4 | 93.5 | | | |
| 191 | 231 | 2743 | 3.00 | 7.73 | 63.5 | 94.1 | 63.5 | 94.1 | | | |



Legend see page 337

| P _N = 75 kW | | | | | | | | | | IE3 | |
|--------------------------------------|--------------------------------------|----------------------|----------------|-------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------|--------------------------------|
| 50 Hz | | 60 Hz | | i | at 50 Hz | | | |  | m kg | Dimension sheet see page |
| 75 kW | | 90 kW | | | Output shaft | | Hollow shaft | | | | |
| n ₅₀ min ⁻¹ | n ₆₀ min ⁻¹ | M ₂ Nm | f _B | | F _{rN} kN | F _{aN} kN | F _{rN} kN | F _{aN} kN | | | |
| 31 | 37 | 23065 | 0.80 | 47.66 | ** | ** | ** | ** | KH153-22P-250S/M-04F | 1178 | 460 |
| 36 | 43 | 19828 | 0.95 | 40.97 | 69.8 | 114.9 | 69.8 | 114.9 | | | |
| 40 | 48 | 18051 | 1.00 | 37.30 | 77.9 | 116.2 | 77.9 | 116.2 | | | |
| 42 | 50 | 17156 | 1.05 | 35.45 | 81.5 | 116.9 | 81.5 | 116.9 | | | |
| 46 | 56 | 15501 | 1.20 | 32.03 | 87.2 | 118.2 | 87.2 | 118.2 | | | |
| 56 | 67 | 12897 | 1.40 | 26.65 | 94.4 | 120.2 | 94.4 | 120.2 | | | |
| 63 | 76 | 11329 | 1.20 | 23.41 | 98.0 | 118.3 | 98.0 | 118.3 | | | |
| 67 | 81 | 10700 | 1.70 | 22.11 | 99.2 | 121.8 | 99.2 | 121.8 | | | |
| 74 | 89 | 9732 | 1.40 | 20.11 | 101.0 | 120.0 | 101.0 | 120.0 | | | |
| 80 | 97 | 8924 | 2.05 | 18.44 | 102.3 | 123.2 | 102.3 | 123.2 | | | |
| 88 | 106 | 8097 | 1.75 | 16.73 | 103.5 | 121.6 | 103.5 | 121.6 | | | |
| 93 | 112 | 7671 | 2.35 | 15.85 | 104.1 | 124.1 | 104.1 | 124.1 | | | |
| 107 | 128 | 6717 | 2.15 | 13.88 | 105.3 | 123.1 | 105.3 | 123.1 | | | |
| 108 | 130 | 6640 | 2.75 | 13.72 | 105.4 | 124.9 | 105.4 | 124.9 | | | |
| 128 | 154 | 5604 | 2.50 | 11.58 | 106.4 | 124.2 | 106.4 | 124.2 | | | |
| 149 | 179 | 4815 | 2.80 | 9.95 | 105.6 | 125.0 | 105.6 | 125.0 | | | |



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** ... on request

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|-----|------|---|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | - | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | - | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | - | - | - | - | - | - | - | - | |
| K022 | 68.88 | 110 | 20 | 551/8 | 6000 | | | | | | | | | | | | |
| | 61.75 | 102 | 23 | 247/4 | 6000 | | | | | | | | | | | | |
| | 53.65 | 110 | 26 | 1073/20 | 6000 | | | | | | | | | | | | |
| | 48.10 | 110 | 29 | 481/10 | 6000 | | | | | | | | | | | | |
| | 43.50 | 110 | 32 | 87/2 | 6000 | | | | | | | | | | | | |
| | 39.00 | 110 | 36 | 39/1 | 6000 | | | | | | | | | | | | |
| | 34.27 | 110 | 41 | 377/11 | 6000 | | | | | | | | | | | | |
| | 30.88 | 51 | 45 | 247/8 | 6000 | | | | | | | | | | | | |
| | 30.73 | 110 | 46 | 338/11 | 6000 | | | | | | | | | | | | |
| | 26.41 | 110 | 53 | 1479/56 | 6000 | | | | | | | | | | | | |
| | 24.05 | 81 | 58 | 481/20 | 6000 | | | | | | | | | | | | |
| | 23.68 | 110 | 59 | 663/28 | 6000 | | | | | | | | | | | | |
| | 20.63 | 103 | 68 | 1073/52 | 6000 | | | | | | | | | | | | |
| | 19.50 | 81 | 72 | 39/2 | 6000 | | | | | | | | | | | | |
| | 18.50 | 102 | 76 | 37/2 | 6000 | | | | | | | | | | | | |
| | 15.41 | 93 | 91 | 493/32 | 6000 | | | | | | | | | | | | |
| | 15.36 | 81 | 91 | 169/11 | 6000 | | | | | | | | | | | | |
| | 13.81 | 93 | 101 | 221/16 | 6000 | | | | | | | | | | | | |
| | 13.29 | 89 | 105 | 319/24 | 6000 | | | | | | | | | | | | |
| | 11.92 | 89 | 117 | 143/12 | 6000 | | | | | | | | | | | | |
| | 11.84 | 81 | 118 | 663/56 | 6000 | | | | | | | | | | | | |
| | 11.60 | 85 | 121 | 58/5 | 6000 | | | | | | | | | | | | |
| | 10.40 | 85 | 135 | 52/5 | 6000 | | | | | | | | | | | | |
| | 9.25 | 81 | 151 | 37/4 | 6000 | | | | | | | | | | | | |
| | 8.51 | 77 | 164 | 783/92 | 6000 | | | | | | | | | | | | |
| | 7.63 | 77 | 183 | 351/46 | 6000 | | | | | | | | | | | | |
| | 6.91 | 74 | 203 | 221/32 | 6000 | | | | | | | | | | | | |
| | 5.96 | 69 | 235 | 143/24 | 6000 | | | | | | | | | | | | |
| | 5.20 | 65 | 269 | 26/5 | 6000 | | | | | | | | | | | | |
| | 3.82 | 57 | 367 | 351/92 | 6000 | | | | | | | | | | | | |
| K033 | 217.88 | 200 | 6.4 | 1743/8 | 6000 | | | | | | | | | | | | |
| | 177.19 | 200 | 7.9 | 2835/16 | 6000 | | | | | | | | | | | | |
| | 140.80 | 200 | 9.9 | 6195/44 | 6000 | | | | | | | | | | | | |
| | 108.75 | 200 | 13 | 435/4 | 6000 | | | | | | | | | | | | |
| | 86.83 | 200 | 16 | 4515/52 | 6000 | | | | | | | | | | | | |
| | 71.93 | 200 | 19 | 1079/15 | 6000 | | | | | | | | | | | | |
| | 65.63 | 200 | 21 | 525/8 | 6000 | | | | | | | | | | | | |
| | 58.50 | 200 | 24 | 117/2 | 6000 | | | | | | | | | | | | |
| | 49.88 | 200 | 28 | 399/8 | 6000 | | | | | | | | | | | | |
| | 46.48 | 200 | 30 | 1534/33 | 6000 | | | | | | | | | | | | |
| | 38.80 | 200 | 36 | 1785/46 | 6000 | | | | | | | | | | | | |
| | 35.90 | 200 | 39 | 754/21 | 6000 | | | | | | | | | | | | |
| | 30.29 | 200 | 46 | 1575/52 | 6000 | | | | | | | | | | | | |
| | 29.97 | 129 | 47 | 1079/36 | 6000 | | | | | | | | | | | | |
| | 28.67 | 200 | 49 | 86/3 | 6000 | | | | | | | | | | | | |
| | 24.38 | 160 | 57 | 195/8 | 6000 | | | | | | | | | | | | |
| | 21.67 | 200 | 65 | 65/3 | 6000 | | | | | | | | | | | | |
| | 19.37 | 163 | 72 | 3835/198 | 6000 | | | | | | | | | | | | |
| | 16.47 | 200 | 85 | 247/15 | 6000 | | | | | | | | | | | | |
| | 14.96 | 163 | 94 | 1885/126 | 6000 | | | | | | | | | | | | |
| | 12.81 | 200 | 109 | 884/69 | 6000 | | | | | | | | | | | | |
| | 11.94 | 163 | 117 | 215/18 | 6000 | | | | | | | | | | | | |
| | 10.00 | 200 | 140 | 10/1 | 6000 | | | | | | | | | | | | |
| | 9.03 | 163 | 155 | 325/36 | 6000 | | | | | | | | | | | | |
| | 6.86 | 149 | 204 | 247/36 | 6000 | | | | | | | | | | | | |
| | 5.34 | 137 | 262 | 1105/207 | 6000 | | | | | | | | | | | | |
| | 4.17 | 126 | 336 | 25/6 | 6000 | | | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | |
|---|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | - | - | - | - | - | - | | |
| K 3 stages $n_1=1400\text{ min}^{-1}$ Maximum torque 400 Nm | 277.79 | 400 | 5 | 14445/52 | 6000 | | | | | | | | | | | | |
| | 227.16 | 400 | 6.2 | 23625/104 | 6000 | | | | | | | | | | | | |
| | 179.37 | 400 | 7.8 | 25650/143 | 6000 | | | | | | | | | | | | |
| | 139.08 | 400 | 10 | 50625/364 | 6000 | | | | | | | | | | | | |
| | 113.83 | 400 | 12 | 38475/338 | 6000 | | | | | | | | | | | | |
| | 89.17 | 378 | 16 | 535/6 | 6000 | | | | | | | | | | | | |
| | 87.62 | 400 | 16 | 18225/208 | 6000 | | | | | | | | | | | | |
| | 72.92 | 400 | 19 | 875/12 | 6000 | | | | | | | | | | | | |
| | 66.20 | 400 | 21 | 6885/104 | 6000 | | | | | | | | | | | | |
| | 57.58 | 400 | 24 | 1900/33 | 6000 | | | | | | | | | | | | |
| | 54.18 | 400 | 26 | 16200/299 | 6000 | | | | | | | | | | | | |
| | 47.07 | 200 | 30 | 93197/1980 | 6000 | | | | | | | | | | | | |
| | 44.64 | 400 | 31 | 625/14 | 6000 | | | | | | | | | | | | |
| | 43.93 | 400 | 32 | 7425/169 | 6000 | | | | | | | | | | | | |
| | 38.49 | 270 | 36 | 30485/792 | 6000 | | | | | | | | | | | | |
| | 36.78 | 384 | 38 | 3825/104 | 5600 | | | | | | | | | | | | |
| | 36.54 | 400 | 38 | 475/13 | 6000 | | | | | | | | | | | | |
| | 30.39 | 324 | 46 | 33098/1089 | 6000 | | | | | | | | | | | | |
| | 29.81 | 361 | 47 | 775/26 | 5000 | | | | | | | | | | | | |
| | 28.74 | 357 | 49 | 20925/728 | 4800 | | | | | | | | | | | | |
| | 28.13 | 400 | 50 | 225/8 | 6000 | | | | | | | | | | | | |
| | 23.57 | 307 | 59 | 21775/924 | 6000 | | | | | | | | | | | | |
| | 21.25 | 400 | 66 | 85/4 | 6000 | | | | | | | | | | | | |
| | 19.29 | 294 | 73 | 1273/66 | 6000 | | | | | | | | | | | | |
| | 17.39 | 400 | 81 | 400/23 | 6000 | | | | | | | | | | | | |
| | 14.85 | 278 | 94 | 2613/176 | 6000 | | | | | | | | | | | | |
| | 14.10 | 400 | 99 | 550/39 | 6000 | | | | | | | | | | | | |
| | 11.81 | 400 | 119 | 425/36 | 5600 | | | | | | | | | | | | |
| | 11.22 | 262 | 125 | 14807/1320 | 6000 | | | | | | | | | | | | |
| | 9.57 | 373 | 146 | 775/81 | 5000 | | | | | | | | | | | | |
| | 9.23 | 369 | 152 | 775/84 | 4800 | | | | | | | | | | | | |
| | 9.18 | 251 | 152 | 6968/759 | 6000 | | | | | | | | | | | | |
| 7.44 | 240 | 188 | 67/9 | 6000 | | | | | | | | | | | | | |
| 6.23 | 231 | 225 | 14807/2376 | 5600 | | | | | | | | | | | | | |
| 5.05 | 221 | 277 | 27001/5346 | 5000 | | | | | | | | | | | | | |
| 4.87 | 219 | 287 | 27001/5544 | 4800 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | |
| K043 | 277.79 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 227.16 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 179.37 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 139.08 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 113.83 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 89.17 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 87.62 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 72.92 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 66.20 | 4900 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 57.58 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 54.18 | 4200 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 47.07 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 44.64 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 43.93 | 3700 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 38.49 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 36.78 | 3400 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 36.54 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 30.39 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 29.81 | 3000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 28.74 | 2900 | | | | | | | | | | | | 2900 | | | | | | | | | | |
| | 28.13 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 23.57 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 21.25 | 4900 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 19.29 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 17.39 | 4200 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 14.85 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 14.10 | 3700 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 11.81 | 3400 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 11.22 | 4900 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 9.57 | 3000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 9.23 | 2900 | | | | | | | | | | | | 2900 | | | | | | | | | | |
| | 9.18 | 4200 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 7.44 | 3700 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 6.23 | 3400 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 5.05 | 3000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 4.87 | 2900 | | | | | | | | | | | | 2900 | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| K 3 stages $n_1=1400 \text{ min}^{-1}$ Maximum torque 600 Nm | 245.70 | 600 | 5.7 | 2457/10 | 6000 | | | | | | | | | | | | | |
| | 194.73 | 600 | 7.2 | 2142/11 | 6000 | | | | | | | | | | | | | |
| | 151.20 | 600 | 9.3 | 756/5 | 6000 | | | | | | | | | | | | | |
| | 124.06 | 600 | 11 | 8064/65 | 6000 | | | | | | | | | | | | | |
| | 96.08 | 600 | 15 | 3843/40 | 6000 | | | | | | | | | | | | | |
| | 80.46 | 564 | 17 | 7644/95 | 6000 | | | | | | | | | | | | | |
| | 73.08 | 600 | 19 | 1827/25 | 6000 | | | | | | | | | | | | | |
| | 63.77 | 600 | 22 | 13328/209 | 6000 | | | | | | | | | | | | | |
| | 60.26 | 600 | 23 | 1386/23 | 6000 | | | | | | | | | | | | | |
| | 49.52 | 600 | 28 | 4704/95 | 6000 | | | | | | | | | | | | | |
| | 49.43 | 600 | 28 | 3213/65 | 6000 | | | | | | | | | | | | | |
| | 42.00 | 600 | 33 | 42/1 | 5600 | | | | | | | | | | | | | |
| | 40.63 | 600 | 34 | 50176/1235 | 6000 | | | | | | | | | | | | | |
| | 38.32 | 268 | 37 | 728/19 | 6000 | | | | | | | | | | | | | |
| | 34.53 | 600 | 41 | 518/15 | 5000 | | | | | | | | | | | | | |
| | 33.30 | 600 | 42 | 333/10 | 4800 | | | | | | | | | | | | | |
| | 31.46 | 600 | 44 | 2989/95 | 6000 | | | | | | | | | | | | | |
| | 30.37 | 392 | 46 | 19040/627 | 6000 | | | | | | | | | | | | | |
| | 27.39 | 577 | 51 | 630/23 | 4400 | | | | | | | | | | | | | |
| | 23.93 | 600 | 58 | 11368/475 | 6000 | | | | | | | | | | | | | |
| | 23.58 | 413 | 59 | 448/19 | 6000 | | | | | | | | | | | | | |
| | 19.73 | 600 | 71 | 8624/437 | 6000 | | | | | | | | | | | | | |
| | 19.35 | 413 | 72 | 14336/741 | 6000 | | | | | | | | | | | | | |
| | 16.19 | 600 | 86 | 19992/1235 | 6000 | | | | | | | | | | | | | |
| | 14.98 | 413 | 93 | 854/57 | 6000 | | | | | | | | | | | | | |
| | 13.75 | 600 | 102 | 784/57 | 5600 | | | | | | | | | | | | | |
| | 11.40 | 413 | 123 | 3248/285 | 6000 | | | | | | | | | | | | | |
| | 11.31 | 600 | 124 | 29008/2565 | 5000 | | | | | | | | | | | | | |
| | 10.91 | 600 | 128 | 1036/95 | 4800 | | | | | | | | | | | | | |
| | 9.40 | 413 | 149 | 12320/1311 | 6000 | | | | | | | | | | | | | |
| | 8.97 | 565 | 156 | 3920/437 | 4400 | | | | | | | | | | | | | |
| | 7.71 | 413 | 182 | 1904/247 | 6000 | | | | | | | | | | | | | |
| 6.55 | 413 | 214 | 1120/171 | 5600 | | | | | | | | | | | | | | |
| 5.39 | 413 | 260 | 8288/1539 | 5000 | | | | | | | | | | | | | | |
| 5.19 | 413 | 270 | 296/57 | 4800 | | | | | | | | | | | | | | |
| 4.27 | 413 | 328 | 5600/1311 | 4400 | | | | | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--|------------|-------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| K 3 stages $n_1=1400 \text{ min}^{-1}$ Maximum torque 820 Nm | 198.00 | 820 | 7.1 | 198/1 | 6000 | | | | | | | | | | | | | |
| | 156.92 | 820 | 8.9 | 2040/13 | 6000 | | | | | | | | | | | | | |
| | 121.85 | 820 | 11 | 1584/13 | 6000 | | | | | | | | | | | | | |
| | 99.98 | 820 | 14 | 16896/169 | 6000 | | | | | | | | | | | | | |
| | 81.53 | 571 | 17 | 1386/17 | 6000 | | | | | | | | | | | | | |
| | 77.42 | 820 | 18 | 2013/26 | 6000 | | | | | | | | | | | | | |
| | 64.62 | 820 | 22 | 840/13 | 6000 | | | | | | | | | | | | | |
| | 58.89 | 820 | 24 | 3828/65 | 6000 | | | | | | | | | | | | | |
| | 50.17 | 820 | 28 | 11088/221 | 6000 | | | | | | | | | | | | | |
| | 48.56 | 820 | 29 | 14520/299 | 6000 | | | | | | | | | | | | | |
| | 44.35 | 311 | 32 | 754/17 | 6000 | | | | | | | | | | | | | |
| | 41.17 | 820 | 34 | 118272/2873 | 6000 | | | | | | | | | | | | | |
| | 39.83 | 795 | 35 | 6732/169 | 6000 | | | | | | | | | | | | | |
| | 35.15 | 454 | 40 | 1160/33 | 6000 | | | | | | | | | | | | | |
| | 33.85 | 757 | 41 | 440/13 | 5600 | | | | | | | | | | | | | |
| | 31.88 | 820 | 44 | 14091/442 | 6000 | | | | | | | | | | | | | |
| | 27.83 | 714 | 50 | 3256/117 | 5000 | | | | | | | | | | | | | |
| | 27.29 | 500 | 51 | 464/17 | 6000 | | | | | | | | | | | | | |
| | 26.84 | 707 | 52 | 2442/91 | 4800 | | | | | | | | | | | | | |
| | 24.25 | 782 | 58 | 26796/1105 | 6000 | | | | | | | | | | | | | |
| | 22.40 | 500 | 63 | 14848/663 | 6000 | | | | | | | | | | | | | |
| | 22.07 | 666 | 63 | 6600/299 | 4400 | | | | | | | | | | | | | |
| | 20.00 | 738 | 70 | 101640/5083 | 6000 | | | | | | | | | | | | | |
| | 17.34 | 500 | 81 | 1769/102 | 6000 | | | | | | | | | | | | | |
| | 16.40 | 695 | 85 | 2772/169 | 6000 | | | | | | | | | | | | | |
| | 13.94 | 662 | 100 | 3080/221 | 5600 | | | | | | | | | | | | | |
| | 13.19 | 500 | 106 | 3364/255 | 6000 | | | | | | | | | | | | | |
| | 11.46 | 624 | 122 | 22792/1989 | 5000 | | | | | | | | | | | | | |
| | 11.05 | 618 | 127 | 2442/221 | 4800 | | | | | | | | | | | | | |
| | 10.88 | 500 | 129 | 12760/1173 | 6000 | | | | | | | | | | | | | |
| | 9.09 | 582 | 154 | 46200/5083 | 4400 | | | | | | | | | | | | | |
| | 8.92 | 500 | 157 | 116/13 | 6000 | | | | | | | | | | | | | |
| | 7.58 | 487 | 185 | 1160/153 | 5600 | | | | | | | | | | | | | |
| 6.23 | 459 | 225 | 8584/1377 | 5000 | | | | | | | | | | | | | | |
| 6.01 | 454 | 233 | 2146/357 | 4800 | | | | | | | | | | | | | | |
| 4.94 | 428 | 283 | 5800/1173 | 4400 | | | | | | | | | | | | | | |

Legend see page 397

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|------|------|-----|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | | |
| K073 | 256.14 | 1550 | 5.5 | 5635/22 | 6000 | | | | | | | | | | | | |
| | 197.75 | 1550 | 7.1 | 791/4 | 6000 | | | | | | | | | | | | |
| | 165.85 | 1550 | 8.4 | 2156/13 | 6000 | | | | | | | | | | | | |
| | 130.16 | 1550 | 11 | 4165/32 | 6000 | | | | | | | | | | | | |
| | 100.45 | 1550 | 14 | 2009/20 | 6000 | | | | | | | | | | | | |
| | 99.87 | 1288 | 14 | 18676/187 | 6000 | | | | | | | | | | | | |
| | 83.09 | 1550 | 17 | 1911/23 | 6000 | | | | | | | | | | | | |
| | 77.11 | 1550 | 18 | 6554/85 | 6000 | | | | | | | | | | | | |
| | 70.67 | 1550 | 20 | 3675/52 | 6000 | | | | | | | | | | | | |
| | 64.67 | 1550 | 22 | 71456/1105 | 6000 | | | | | | | | | | | | |
| | 61.25 | 1550 | 23 | 245/4 | 5600 | | | | | | | | | | | | |
| | 51.72 | 1550 | 27 | 931/18 | 5000 | | | | | | | | | | | | |
| | 50.75 | 1550 | 28 | 203/4 | 6000 | | | | | | | | | | | | |
| | 49.88 | 1550 | 28 | 399/8 | 4800 | | | | | | | | | | | | |
| | 47.56 | 613 | 29 | 26680/561 | 6000 | | | | | | | | | | | | |
| | 42.61 | 1550 | 33 | 980/23 | 4400 | | | | | | | | | | | | |
| | 39.17 | 1550 | 36 | 16646/425 | 6000 | | | | | | | | | | | | |
| | 36.72 | 757 | 38 | 13108/357 | 6000 | | | | | | | | | | | | |
| | 32.40 | 1550 | 43 | 63336/1955 | 6000 | | | | | | | | | | | | |
| | 30.79 | 910 | 45 | 20416/663 | 6000 | | | | | | | | | | | | |
| | 27.56 | 1550 | 51 | 6090/221 | 6000 | | | | | | | | | | | | |
| | 24.17 | 910 | 58 | 145/6 | 6000 | | | | | | | | | | | | |
| | 23.88 | 1550 | 59 | 406/17 | 5600 | | | | | | | | | | | | |
| | 20.17 | 1550 | 69 | 15428/765 | 5000 | | | | | | | | | | | | |
| | 19.45 | 1550 | 72 | 1653/85 | 4800 | | | | | | | | | | | | |
| | 18.65 | 910 | 75 | 4756/255 | 6000 | | | | | | | | | | | | |
| | 16.61 | 1550 | 84 | 6496/391 | 4400 | | | | | | | | | | | | |
| | 15.43 | 910 | 91 | 6032/391 | 6000 | | | | | | | | | | | | |
| | 13.12 | 910 | 107 | 2900/221 | 6000 | | | | | | | | | | | | |
| | 11.37 | 910 | 123 | 580/51 | 5600 | | | | | | | | | | | | |
| | 9.60 | 910 | 146 | 4408/459 | 5000 | | | | | | | | | | | | |
| | 9.26 | 910 | 151 | 1102/119 | 4800 | | | | | | | | | | | | |
| | 7.91 | 910 | 177 | 9280/1173 | 4400 | | | | | | | | | | | | |

Legend see page 397

| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | |
| K073 | 256.14 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 197.75 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 165.85 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 130.16 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 100.45 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 99.87 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 83.09 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 77.11 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 70.67 | 4600 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 64.67 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 61.25 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 51.72 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 50.75 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 49.88 | 3600 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 47.56 | 5000 | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 42.61 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 39.17 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 36.72 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 32.40 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 30.79 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.56 | 4600 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 24.17 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 23.88 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.17 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 19.45 | 3600 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.65 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 16.61 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.43 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.12 | 4600 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.37 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.60 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.26 | 3600 | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.91 | 3300 | | | | | | | | | | | | 2500 | | | | | | | | | | |



Legend see page 397

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|---|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|------|------|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | - | - | - | - | | |
| K 3 stages $n_1=1400 \text{ min}^{-1}$ Maximum torque 3000 Nm | 206.12 | 3000 | 6.8 | 13398/65 | 6000 | | | | | | | | | | | | | |
| | 163.14 | 3000 | 8.6 | 26103/160 | 6000 | | | | | | | | | | | | | |
| | 142.45 | 3000 | 9.8 | 2849/20 | 6000 | | | | | | | | | | | | | |
| | 125.90 | 3000 | 11 | 25179/200 | 6000 | | | | | | | | | | | | | |
| | 106.46 | 3000 | 13 | 12243/115 | 6000 | | | | | | | | | | | | | |
| | 91.51 | 3000 | 15 | 23793/260 | 6000 | | | | | | | | | | | | | |
| | 79.89 | 3000 | 18 | 6391/80 | 5600 | | | | | | | | | | | | | |
| | 79.75 | 2851 | 18 | 319/4 | 6000 | | | | | | | | | | | | | |
| | 68.44 | 3000 | 20 | 616/9 | 5000 | | | | | | | | | | | | | |
| | 66.00 | 3000 | 21 | 66/1 | 4800 | | | | | | | | | | | | | |
| | 63.12 | 2860 | 22 | 16159/256 | 6000 | | | | | | | | | | | | | |
| | 58.25 | 3000 | 24 | 6699/115 | 4400 | | | | | | | | | | | | | |
| | 55.11 | 3000 | 25 | 5291/96 | 6000 | | | | | | | | | | | | | |
| | 48.87 | 3000 | 29 | 2541/52 | 3900 | | | | | | | | | | | | | |
| | 48.71 | 3000 | 29 | 15587/320 | 6000 | | | | | | | | | | | | | |
| | 45.48 | 1626 | 31 | 2001/44 | 6000 | | | | | | | | | | | | | |
| | 41.19 | 3000 | 34 | 7579/184 | 6000 | | | | | | | | | | | | | |
| | 41.18 | 3000 | 34 | 9471/230 | 3500 | | | | | | | | | | | | | |
| | 35.99 | 1631 | 39 | 101361/2816 | 6000 | | | | | | | | | | | | | |
| | 35.41 | 3000 | 40 | 1133/32 | 6000 | | | | | | | | | | | | | |
| | 33.76 | 3000 | 41 | 4389/130 | 3100 | | | | | | | | | | | | | |
| | 31.43 | 1916 | 45 | 11063/352 | 6000 | | | | | | | | | | | | | |
| | 30.91 | 3000 | 45 | 11869/384 | 5600 | | | | | | | | | | | | | |
| | 27.78 | 1901 | 50 | 97773/3520 | 6000 | | | | | | | | | | | | | |
| | 26.48 | 2972 | 53 | 715/27 | 5000 | | | | | | | | | | | | | |
| | 25.54 | 2940 | 55 | 715/28 | 4800 | | | | | | | | | | | | | |
| | 23.49 | 1916 | 60 | 2067/88 | 6000 | | | | | | | | | | | | | |
| | 22.54 | 2832 | 62 | 4147/184 | 4400 | | | | | | | | | | | | | |
| | 20.19 | 1886 | 69 | 7107/352 | 6000 | | | | | | | | | | | | | |
| | 18.91 | 2686 | 74 | 605/32 | 3900 | | | | | | | | | | | | | |
| | 17.63 | 1937 | 79 | 24817/1408 | 5600 | | | | | | | | | | | | | |
| | 15.93 | 2552 | 88 | 5863/368 | 3500 | | | | | | | | | | | | | |
| | 15.10 | 1937 | 93 | 1495/99 | 5000 | | | | | | | | | | | | | |
| | 14.56 | 1748 | 96 | 4485/308 | 4800 | | | | | | | | | | | | | |
| | 13.06 | 2404 | 107 | 209/16 | 3100 | | | | | | | | | | | | | |
| | 12.85 | 1937 | 109 | 1131/88 | 4400 | | | | | | | | | | | | | |
| | 10.78 | 1937 | 130 | 345/32 | 3900 | | | | | | | | | | | | | |
| | 9.09 | 1937 | 154 | 1599/176 | 3500 | | | | | | | | | | | | | |
| | 7.45 | 1937 | 188 | 1311/176 | 3100 | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| K083 | 206.12 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 163.14 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 142.45 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 125.90 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 106.46 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 91.51 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 79.89 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 79.75 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 68.44 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 66.00 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 63.12 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 58.25 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 55.11 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 48.87 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 48.71 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 45.48 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 41.19 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 41.18 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 35.99 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 35.41 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 33.76 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 31.43 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 30.91 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.78 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 26.48 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.54 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 23.49 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 22.54 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.19 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.91 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.63 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.93 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.10 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 14.56 | 3900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.06 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 12.85 | 3600 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 10.78 | 3100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 9.09 | 2800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 7.45 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------|------------|------------|------------|--------------|------------|----------------------|----------|-----|------|------|----------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | - | - | - | - | - | - |
| | | | | | | NEMA adapter | | | | | | | | | | | | |
| | | | | | | N56 | N143/145 | | N182 | N184 | N213/215 | - | - | - | - | - | - | |
| | | | | | | | | | | | | | | | | | | |
| K084 | 2205.52 | 3000 | 0.63 | 716793/325 | 6000 | | | | | | | | | | | | | |
| | 1803.58 | 3000 | 0.78 | 46893/26 | 6000 | | | | | | | | | | | | | |
| | 1745.64 | 3000 | 0.8 | 2793021/1600 | 6000 | | | | | | | | | | | | | |
| | 1524.22 | 3000 | 0.92 | 304843/200 | 6000 | | | | | | | | | | | | | |
| | 1427.51 | 3000 | 0.98 | 182721/128 | 6000 | | | | | | | | | | | | | |
| | 1424.12 | 3000 | 0.98 | 92568/65 | 6000 | | | | | | | | | | | | | |
| | 1246.44 | 3000 | 1.1 | 19943/16 | 6000 | | | | | | | | | | | | | |
| | 1127.18 | 3000 | 1.2 | 45087/40 | 6000 | | | | | | | | | | | | | |
| | 1104.23 | 3000 | 1.3 | 14355/13 | 6000 | | | | | | | | | | | | | |
| | 984.20 | 3000 | 1.4 | 4921/5 | 6000 | | | | | | | | | | | | | |
| | 903.77 | 3000 | 1.5 | 763686/845 | 6000 | | | | | | | | | | | | | |
| | 873.98 | 3000 | 1.6 | 55935/64 | 6000 | | | | | | | | | | | | | |
| | 763.13 | 3000 | 1.8 | 6105/8 | 6000 | | | | | | | | | | | | | |
| | 715.32 | 3000 | 2 | 1487871/2080 | 6000 | | | | | | | | | | | | | |
| | 695.67 | 3000 | 2 | 180873/260 | 6000 | | | | | | | | | | | | | |
| | 624.59 | 3000 | 2.2 | 162393/260 | 6000 | | | | | | | | | | | | | |
| | 550.61 | 3000 | 2.5 | 704781/1280 | 6000 | | | | | | | | | | | | | |
| | 525.61 | 3000 | 2.7 | 341649/650 | 6000 | | | | | | | | | | | | | |
| | 480.77 | 3000 | 2.9 | 76923/160 | 6000 | | | | | | | | | | | | | |
| | 430.17 | 3000 | 3.3 | 643104/1495 | 6000 | | | | | | | | | | | | | |
| | 416.02 | 3000 | 3.4 | 1331253/3200 | 6000 | | | | | | | | | | | | | |
| | 363.25 | 3000 | 3.9 | 145299/400 | 6000 | | | | | | | | | | | | | |
| | 348.82 | 3000 | 4 | 294756/845 | 6000 | | | | | | | | | | | | | |
| | 340.47 | 3000 | 4.1 | 78309/230 | 6000 | | | | | | | | | | | | | |
| | 297.29 | 3000 | 4.7 | 34188/115 | 6000 | | | | | | | | | | | | | |
| | 292.01 | 3000 | 4.8 | 37961/130 | 5600 | | | | | | | | | | | | | |
| | 276.09 | 3000 | 5.1 | 287133/1040 | 6000 | | | | | | | | | | | | | |
| | 241.07 | 3000 | 5.8 | 31339/130 | 6000 | | | | | | | | | | | | | |
| | 236.66 | 3000 | 5.9 | 138446/585 | 5000 | | | | | | | | | | | | | |
| | 231.12 | 3000 | 6.1 | 147917/640 | 5600 | | | | | | | | | | | | | |
| | 228.21 | 3000 | 6.1 | 29667/130 | 4800 | | | | | | | | | | | | | |
| | 201.80 | 3000 | 6.9 | 48433/240 | 5600 | | | | | | | | | | | | | |
| | 187.31 | 3000 | 7.5 | 269731/1440 | 5000 | | | | | | | | | | | | | |
| 180.62 | 3000 | 7.8 | 115599/640 | 4800 | | | | | | | | | | | | | | |
| 163.55 | 3000 | 8.6 | 88319/540 | 5000 | | | | | | | | | | | | | | |
| 157.71 | 3000 | 8.9 | 12617/80 | 4800 | | | | | | | | | | | | | | |

Legend see page 397

| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | | |
| K084 | 2205.52 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1803.58 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1745.64 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1524.22 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1427.51 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1424.12 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1246.44 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1127.18 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 1104.23 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 984.20 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 903.77 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 873.98 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 763.13 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 715.32 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 695.67 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 624.59 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 550.61 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 525.61 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 480.77 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 430.17 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 416.02 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 363.25 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 348.82 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 340.47 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 297.29 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 292.01 | 4500 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 276.09 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 241.07 | 5000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 236.66 | 4000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 231.12 | 4500 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 228.21 | 3900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 201.80 | 4500 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 187.31 | 4000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 180.62 | 3900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 163.55 | 4000 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |
| | 157.71 | 3900 | | | | | | | | | | | | | | 3000 | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|---|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|------|------|-----|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | 1160 | 1180 | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | - | - | - | - | | |
| K 3 stages $n_1=1400 \text{ min}^{-1}$ Maximum torque 4500 Nm | 169.25 | 4500 | 8.3 | 21156/125 | 6000 | | | | | | | | | | | | | |
| | 143.08 | 4500 | 9.8 | 49364/345 | 6000 | | | | | | | | | | | | | |
| | 123.86 | 4500 | 11 | 241531/1950 | 6000 | | | | | | | | | | | | | |
| | 109.70 | 4500 | 13 | 24682/225 | 5600 | | | | | | | | | | | | | |
| | 94.90 | 4500 | 15 | 192167/2025 | 5000 | | | | | | | | | | | | | |
| | 91.51 | 4500 | 15 | 192167/2100 | 4800 | | | | | | | | | | | | | |
| | 80.74 | 4500 | 17 | 139277/1725 | 4400 | | | | | | | | | | | | | |
| | 68.71 | 4500 | 20 | 66994/975 | 3900 | | | | | | | | | | | | | |
| | 63.96 | 4500 | 22 | 1599/25 | 6000 | | | | | | | | | | | | | |
| | 59.28 | 4500 | 24 | 102254/1725 | 3500 | | | | | | | | | | | | | |
| | 54.07 | 4500 | 26 | 3731/69 | 6000 | | | | | | | | | | | | | |
| | 49.73 | 4500 | 28 | 19393/390 | 3100 | | | | | | | | | | | | | |
| | 46.81 | 4500 | 30 | 5617/120 | 6000 | | | | | | | | | | | | | |
| | 41.46 | 4500 | 34 | 3731/90 | 5600 | | | | | | | | | | | | | |
| | 40.43 | 4500 | 35 | 75809/1875 | 2700 | | | | | | | | | | | | | |
| | 37.13 | 2785 | 38 | 8541/230 | 6000 | | | | | | | | | | | | | |
| | 35.86 | 4500 | 39 | 58097/1620 | 5000 | | | | | | | | | | | | | |
| | 34.58 | 4149 | 40 | 58097/1680 | 4800 | | | | | | | | | | | | | |
| | 31.61 | 4500 | 44 | 22919/725 | 2300 | | | | | | | | | | | | | |
| | 31.39 | 2806 | 45 | 33215/1058 | 6000 | | | | | | | | | | | | | |
| | 30.51 | 4500 | 46 | 42107/1380 | 4400 | | | | | | | | | | | | | |
| | 27.18 | 2795 | 52 | 10001/368 | 6000 | | | | | | | | | | | | | |
| | 25.97 | 4500 | 54 | 779/30 | 3900 | | | | | | | | | | | | | |
| | 24.07 | 2991 | 58 | 6643/276 | 5600 | | | | | | | | | | | | | |
| | 22.40 | 4500 | 62 | 15457/690 | 3500 | | | | | | | | | | | | | |
| | 20.82 | 2991 | 67 | 103441/4968 | 5000 | | | | | | | | | | | | | |
| | 20.08 | 2409 | 70 | 103441/5152 | 4800 | | | | | | | | | | | | | |
| | 18.79 | 4500 | 75 | 451/24 | 3100 | | | | | | | | | | | | | |
| | 17.72 | 2991 | 79 | 74971/4232 | 4400 | | | | | | | | | | | | | |
| | 15.28 | 4500 | 92 | 22919/1500 | 2700 | | | | | | | | | | | | | |
| | 15.08 | 2991 | 93 | 1387/92 | 3900 | | | | | | | | | | | | | |
| | 13.01 | 2991 | 108 | 27521/2116 | 3500 | | | | | | | | | | | | | |
| | 11.95 | 4500 | 117 | 6929/580 | 2300 | | | | | | | | | | | | | |
| 10.91 | 2991 | 128 | 4015/368 | 3100 | | | | | | | | | | | | | | |
| 8.87 | 2991 | 158 | 40807/4600 | 2700 | | | | | | | | | | | | | | |
| 6.94 | 2991 | 202 | 37011/5336 | 2300 | | | | | | | | | | | | | | |

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| K093 | 169.25 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 143.08 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 123.86 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 109.70 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 94.90 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 91.51 | 4100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 80.74 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 68.71 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 63.96 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 59.28 | 3000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 54.07 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 49.73 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 46.81 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 41.46 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 40.43 | - | | | | | | | | | | | | | 2300 | | | | | | | | | | |
| | 37.13 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 35.86 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 34.58 | 4100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 31.61 | - | | | | | | | | | | | | | 2000 | | | | | | | | | | |
| | 31.39 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 30.51 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 27.18 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 25.97 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 24.07 | 4800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 22.40 | 3000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.82 | 4200 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 20.08 | 4100 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 18.79 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 17.72 | 3700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 15.28 | - | | | | | | | | | | | | | 2300 | | | | | | | | | | |
| | 15.08 | 3300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 13.01 | 3000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 11.95 | - | | | | | | | | | | | | | 2000 | | | | | | | | | | |
| | 10.91 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 8.87 | - | | | | | | | | | | | | | 2300 | | | | | | | | | | |
| | 6.94 | - | | | | | | | | | | | | | 2000 | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{Znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|-----------------------------|-------------|----------------------|--------------|--------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| K094 | 1810.95 | 4500 | 0.77 | 1131846/625 | 6000 | | | | | | | | | | | | | |
| 4 stages | 1531.00 | 4500 | 0.91 | 2640974/1725 | 6000 | | | | | | | | | | | | | |
| | 1480.92 | 4500 | 0.95 | 37023/25 | 6000 | | | | | | | | | | | | | |
| | 1251.99 | 4500 | 1.1 | 86387/69 | 6000 | | | | | | | | | | | | | |
| | 1169.35 | 4500 | 1.2 | 1607856/1375 | 6000 | | | | | | | | | | | | | |
| | 988.58 | 4500 | 1.4 | 3751664/3795 | 6000 | | | | | | | | | | | | | |
| | 906.69 | 4500 | 1.5 | 31734/35 | 6000 | | | | | | | | | | | | | |
| | 766.52 | 4500 | 1.8 | 17630/23 | 6000 | | | | | | | | | | | | | |
| | 742.09 | 4500 | 1.9 | 1205892/1625 | 6000 | | | | | | | | | | | | | |
| | 627.37 | 4500 | 2.2 | 937916/1495 | 6000 | | | | | | | | | | | | | |
| | 571.21 | 4500 | 2.5 | 142803/250 | 6000 | | | | | | | | | | | | | |
| | $n_1=1400 \text{ min}^{-1}$ | 482.91 | 4500 | 2.9 | 111069/230 | 6000 | | | | | | | | | | | | |
| | | 431.58 | 4500 | 3.2 | 269739/625 | 6000 | | | | | | | | | | | | |
| | Maximum torque 4500 Nm | 364.86 | 4500 | 3.8 | 209797/575 | 6000 | | | | | | | | | | | | |
| | | 353.21 | 4500 | 4 | 1015488/2875 | 6000 | | | | | | | | | | | | |
| | | 298.61 | 4500 | 4.7 | 789824/2645 | 6000 | | | | | | | | | | | | |
| | | 286.42 | 4500 | 4.9 | 465432/1625 | 6000 | | | | | | | | | | | | |
| 242.14 | | 4500 | 5.8 | 1086008/4485 | 6000 | | | | | | | | | | | | | |
| 239.77 | | 4500 | 5.8 | 29971/125 | 5600 | | | | | | | | | | | | | |
| 202.70 | | 4500 | 6.9 | 209797/1035 | 5600 | | | | | | | | | | | | | |
| 194.32 | | 4500 | 7.2 | 218612/1125 | 5000 | | | | | | | | | | | | | |
| 187.38 | | 4500 | 7.5 | 163959/875 | 4800 | | | | | | | | | | | | | |
| 164.28 | | 4500 | 8.5 | 1530284/9315 | 5000 | | | | | | | | | | | | | |
| 158.41 | 4500 | 8.8 | 54653/345 | 4800 | | | | | | | | | | | | | | |

K

Legend see page 397

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | |
| K103 | 140.95 | 8000 | 9.9 | 128269/910 | 6000 | | | | | | | | | | | | | |
| | 124.50 | 8000 | 11 | 13072/105 | 5600 | | | | | | | | | | | | | |
| | 108.07 | 8000 | 13 | 20425/189 | 5000 | | | | | | | | | | | | | |
| | 104.21 | 8000 | 13 | 20425/196 | 4800 | | | | | | | | | | | | | |
| | 93.37 | 8000 | 15 | 3268/35 | 4400 | | | | | | | | | | | | | |
| | 79.90 | 8000 | 18 | 72713/910 | 3900 | | | | | | | | | | | | | |
| | 69.01 | 8000 | 20 | 55556/805 | 3500 | | | | | | | | | | | | | |
| | 58.36 | 8000 | 24 | 817/14 | 3100 | | | | | | | | | | | | | |
| | 53.27 | 5963 | 26 | 2983/56 | 6000 | | | | | | | | | | | | | |
| | 47.62 | 8000 | 29 | 41667/875 | 2700 | | | | | | | | | | | | | |
| | 47.05 | 7498 | 30 | 988/21 | 5600 | | | | | | | | | | | | | |
| | 40.84 | 7498 | 34 | 30875/756 | 5000 | | | | | | | | | | | | | |
| | 39.38 | 4728 | 36 | 30875/784 | 4800 | | | | | | | | | | | | | |
| | 38.64 | 8000 | 36 | 39216/1015 | 2300 | | | | | | | | | | | | | |
| | 35.29 | 7498 | 40 | 247/7 | 4400 | | | | | | | | | | | | | |
| | 30.85 | 8000 | 45 | 30229/980 | 2100 | | | | | | | | | | | | | |
| | 30.33 | 3395 | 46 | 2669/88 | 6000 | | | | | | | | | | | | | |
| | 30.20 | 7498 | 46 | 1691/56 | 3900 | | | | | | | | | | | | | |
| | 26.79 | 4269 | 52 | 884/33 | 5600 | | | | | | | | | | | | | |
| | 26.08 | 7498 | 54 | 4199/161 | 3500 | | | | | | | | | | | | | |
| | 23.25 | 4269 | 60 | 27625/1188 | 5000 | | | | | | | | | | | | | |
| | 22.42 | 2692 | 62 | 27625/1232 | 4800 | | | | | | | | | | | | | |
| | 22.05 | 7498 | 63 | 1235/56 | 3100 | | | | | | | | | | | | | |
| | 20.09 | 4269 | 70 | 221/11 | 4400 | | | | | | | | | | | | | |
| | 18.00 | 7498 | 78 | 12597/700 | 2700 | | | | | | | | | | | | | |
| | 17.19 | 4269 | 81 | 1513/88 | 3900 | | | | | | | | | | | | | |
| | 14.85 | 4269 | 94 | 3757/253 | 3500 | | | | | | | | | | | | | |
| | 14.60 | 7498 | 96 | 2964/203 | 2300 | | | | | | | | | | | | | |
| | 12.56 | 4269 | 111 | 1105/88 | 3100 | | | | | | | | | | | | | |
| | 11.66 | 7498 | 120 | 9139/784 | 2100 | | | | | | | | | | | | | |
| | 10.25 | 4269 | 137 | 11271/1100 | 2700 | | | | | | | | | | | | | |
| | 8.31 | 4269 | 168 | 2652/319 | 2300 | | | | | | | | | | | | | |
| | 6.64 | 4269 | 211 | 8177/1232 | 2100 | | | | | | | | | | | | | |

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|------|------|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| K104 | 1301.54 | 8000 | 1.1 | 300656/231 | 6000 | | | | | | | | | | | | | |
| | 1129.81 | 8000 | 1.2 | 2348875/2079 | 6000 | | | | | | | | | | | | | |
| | 1004.85 | 8000 | 1.4 | 738568/735 | 6000 | | | | | | | | | | | | | |
| | 976.16 | 8000 | 1.4 | 75164/77 | 6000 | | | | | | | | | | | | | |
| | 872.27 | 8000 | 1.6 | 2308025/2646 | 6000 | | | | | | | | | | | | | |
| | 842.74 | 8000 | 1.7 | 1150336/1365 | 6000 | | | | | | | | | | | | | |
| | 753.64 | 8000 | 1.9 | 184642/245 | 6000 | | | | | | | | | | | | | |
| | 731.54 | 8000 | 1.9 | 1797400/2457 | 6000 | | | | | | | | | | | | | |
| | 661.38 | 8000 | 2.1 | 13889/21 | 6000 | | | | | | | | | | | | | |
| | 632.05 | 8000 | 2.2 | 287584/455 | 6000 | | | | | | | | | | | | | |
| | 574.12 | 8000 | 2.4 | 1736125/3024 | 6000 | | | | | | | | | | | | | |
| | 510.43 | 8000 | 2.7 | 267976/525 | 6000 | | | | | | | | | | | | | |
| | 496.04 | 8000 | 2.8 | 13889/28 | 6000 | | | | | | | | | | | | | |
| | 443.08 | 8000 | 3.2 | 167485/378 | 6000 | | | | | | | | | | | | | |
| | 422.20 | 8000 | 3.3 | 339872/805 | 6000 | | | | | | | | | | | | | |
| | 382.82 | 8000 | 3.7 | 66994/175 | 6000 | | | | | | | | | | | | | |
| | 366.49 | 8000 | 3.8 | 531050/1449 | 6000 | | | | | | | | | | | | | |
| | 359.12 | 8000 | 3.9 | 32680/91 | 6000 | | | | | | | | | | | | | |
| | 316.65 | 8000 | 4.4 | 254904/805 | 6000 | | | | | | | | | | | | | |
| | 311.74 | 8000 | 4.5 | 510625/1638 | 6000 | | | | | | | | | | | | | |
| | 311.24 | 8000 | 4.5 | 6536/21 | 5600 | | | | | | | | | | | | | |
| | 270.17 | 8000 | 5.2 | 102125/378 | 5600 | | | | | | | | | | | | | |
| | 269.34 | 8000 | 5.2 | 24510/91 | 6000 | | | | | | | | | | | | | |
| | 262.82 | 8000 | 5.3 | 248368/945 | 5000 | | | | | | | | | | | | | |
| | 253.44 | 8000 | 5.5 | 62092/245 | 4800 | | | | | | | | | | | | | |
| | 233.43 | 8000 | 6 | 1634/7 | 5600 | | | | | | | | | | | | | |
| | 228.15 | 8000 | 6.1 | 388075/1701 | 5000 | | | | | | | | | | | | | |
| | 220.00 | 8000 | 6.4 | 388075/1764 | 4800 | | | | | | | | | | | | | |
| | 216.51 | 8000 | 6.5 | 104576/483 | 4400 | | | | | | | | | | | | | |
| | 197.12 | 8000 | 7.1 | 62092/315 | 5000 | | | | | | | | | | | | | |
| | 190.08 | 8000 | 7.4 | 46569/245 | 4800 | | | | | | | | | | | | | |
| | 187.95 | 8000 | 7.4 | 817000/4347 | 4400 | | | | | | | | | | | | | |
| 162.39 | 8000 | 8.6 | 26144/161 | 4400 | | | | | | | | | | | | | | |

K

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | | | | |
| K104 | 1301.54 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | | | |
| | 1129.81 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | | | |
| | 1004.85 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 976.16 | 5000 | | | | | | | | | | | | | 3000 | | | | | | | | | | | | | |
| | 872.27 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 842.74 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 753.64 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 731.54 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 661.38 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 632.05 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 574.12 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 510.43 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 496.04 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 443.08 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 422.20 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 382.82 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 366.49 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 359.12 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 316.65 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 311.74 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 311.24 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 270.17 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 269.34 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 262.82 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 253.44 | 4400 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 233.43 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 228.15 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 220.00 | 4400 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 216.51 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 197.12 | 4500 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 190.08 | 4400 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 187.95 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |
| | 162.39 | 4000 | | | | | | | | | | | | | 2500 | | | | | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | | |
|--------------|------------|-------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|------|---|--|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | - | - | |
| | | | | | | IEC adapter | | | | | | | | | | | | | |
| | | | | | | 163 | 171 | 180 | 190 | 1100 | 1112 | 1132 | 1160 | 1180 | 1200 | 1225 | 1250 | - | |
| NEMA adapter | | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | | |
| K123 | 151.11 | 13000 | 9.3 | 12089/80 | 5600 | | | | | | | | | | | | | | |
| | 131.76 | 13000 | 11 | 5929/45 | 5000 | | | | | | | | | | | | | | |
| | 127.05 | 13000 | 11 | 2541/20 | 4800 | | | | | | | | | | | | | | |
| | 113.49 | 13000 | 12 | 26103/230 | 4400 | | | | | | | | | | | | | | |
| | 97.73 | 13000 | 14 | 2541/26 | 3900 | | | | | | | | | | | | | | |
| | 85.37 | 13000 | 16 | 3927/46 | 3500 | | | | | | | | | | | | | | |
| | 73.74 | 13000 | 19 | 19173/260 | 3100 | | | | | | | | | | | | | | |
| | 60.98 | 13000 | 23 | 7623/125 | 2700 | | | | | | | | | | | | | | |
| | 58.47 | 8768 | 24 | 22451/384 | 5600 | | | | | | | | | | | | | | |
| | 50.98 | 9688 | 27 | 11011/216 | 5000 | | | | | | | | | | | | | | |
| | 50.18 | 13000 | 28 | 14553/290 | 2300 | | | | | | | | | | | | | | |
| | 49.16 | 5899 | 28 | 1573/32 | 4800 | | | | | | | | | | | | | | |
| | 43.91 | 12727 | 32 | 16159/368 | 4400 | | | | | | | | | | | | | | |
| | 41.25 | 13000 | 34 | 165/4 | 2100 | | | | | | | | | | | | | | |
| | 37.81 | 13000 | 37 | 605/16 | 3900 | | | | | | | | | | | | | | |
| | 35.02 | 13000 | 40 | 10857/310 | 1900 | | | | | | | | | | | | | | |
| | 33.34 | 5000 | 42 | 46943/1408 | 5600 | | | | | | | | | | | | | | |
| | 33.03 | 13000 | 42 | 12155/368 | 3500 | | | | | | | | | | | | | | |
| | 29.89 | 13000 | 47 | 2541/85 | 1700 | | | | | | | | | | | | | | |
| | 29.07 | 5525 | 48 | 2093/72 | 5000 | | | | | | | | | | | | | | |
| | 28.53 | 13000 | 49 | 913/32 | 3100 | | | | | | | | | | | | | | |
| | 28.03 | 3364 | 50 | 897/32 | 4800 | | | | | | | | | | | | | | |
| | 25.04 | 7258 | 56 | 4407/176 | 4400 | | | | | | | | | | | | | | |
| | 23.60 | 13000 | 59 | 4719/200 | 2700 | | | | | | | | | | | | | | |
| | 21.56 | 8053 | 65 | 345/16 | 3900 | | | | | | | | | | | | | | |
| | 19.42 | 13000 | 72 | 9009/464 | 2300 | | | | | | | | | | | | | | |
| | 18.84 | 8155 | 74 | 3315/176 | 3500 | | | | | | | | | | | | | | |
| | 16.27 | 8155 | 86 | 5727/352 | 3100 | | | | | | | | | | | | | | |
| | 15.96 | 13000 | 88 | 3575/224 | 2100 | | | | | | | | | | | | | | |
| | 13.55 | 13000 | 103 | 6721/496 | 1900 | | | | | | | | | | | | | | |
| | 13.46 | 8155 | 104 | 2691/200 | 2700 | | | | | | | | | | | | | | |
| | 11.57 | 13000 | 121 | 1573/136 | 1700 | | | | | | | | | | | | | | |
| | 11.07 | 8155 | 126 | 56511/5104 | 2300 | | | | | | | | | | | | | | |
| 9.10 | 8155 | 154 | 22425/2464 | 2100 | | | | | | | | | | | | | | | |
| 7.73 | 8155 | 181 | 42159/5456 | 1900 | | | | | | | | | | | | | | | |
| 6.60 | 8155 | 212 | 897/136 | 1700 | | | | | | | | | | | | | | | |

K

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| Type | i _{ges.} | SERVO adapter | | | | | | | | | | | Input unit | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------|------------|-------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|
| | | n _{1max} | Adapter size | | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 | | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | |
| K123 | 151.11 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 131.76 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 127.05 | 4600 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 113.49 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 97.73 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 85.37 | 3400 | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 73.74 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 60.98 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 58.47 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 50.98 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 50.18 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 49.16 | 4600 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 43.91 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 41.25 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 37.81 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 35.02 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 33.34 | 5000 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 33.03 | 3400 | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 29.89 | - | | | | | | | | | | | | 1600 | | | | | | | | | |
| | 29.07 | 4800 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 28.53 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 28.03 | 4600 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 25.04 | 4200 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 23.60 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 21.56 | 3700 | | | | | | | | | | | | 2500 | | | | | | | | | |
| | 19.42 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 18.84 | 3400 | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 16.27 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 15.96 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 13.55 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 13.46 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 11.57 | - | | | | | | | | | | | | 1600 | | | | | | | | | |
| | 11.07 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 9.10 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 7.73 | - | | | | | | | | | | | | 1800 | | | | | | | | | |
| | 6.60 | - | | | | | | | | | | | | 1600 | | | | | | | | | |



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| Type | $i_{ges.}$ | M_{znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|-------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|------|------|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | - | - | - | - | - | | |
| K124 | 1579.81 | 13000 | 0.89 | 25277/16 | 6000 | | | | | | | | | | | | | |
| | 1377.44 | 13000 | 1 | 12397/9 | 6000 | | | | | | | | | | | | | |
| | 1219.69 | 13000 | 1.1 | 195151/160 | 6000 | | | | | | | | | | | | | |
| | 1186.50 | 13000 | 1.2 | 2373/2 | 6000 | | | | | | | | | | | | | |
| | 1063.46 | 13000 | 1.3 | 95711/90 | 6000 | | | | | | | | | | | | | |
| | 1022.92 | 13000 | 1.4 | 132979/130 | 6000 | | | | | | | | | | | | | |
| | 1021.73 | 13000 | 1.4 | 26565/26 | 6000 | | | | | | | | | | | | | |
| | 916.04 | 13000 | 1.5 | 421377/460 | 6000 | | | | | | | | | | | | | |
| | 891.88 | 13000 | 1.6 | 521752/585 | 6000 | | | | | | | | | | | | | |
| | 802.79 | 13000 | 1.7 | 205513/256 | 6000 | | | | | | | | | | | | | |
| | 788.83 | 13000 | 1.8 | 41019/52 | 6000 | | | | | | | | | | | | | |
| | 768.25 | 13000 | 1.8 | 1148532/1495 | 6000 | | | | | | | | | | | | | |
| | 699.95 | 13000 | 2 | 100793/144 | 6000 | | | | | | | | | | | | | |
| | 661.56 | 13000 | 2.1 | 111804/169 | 6000 | | | | | | | | | | | | | |
| | 619.56 | 13000 | 2.3 | 495649/800 | 6000 | | | | | | | | | | | | | |
| | 602.92 | 13000 | 2.3 | 443751/736 | 6000 | | | | | | | | | | | | | |
| | 540.20 | 13000 | 2.6 | 243089/450 | 6000 | | | | | | | | | | | | | |
| | 519.19 | 13000 | 2.7 | 215985/416 | 6000 | | | | | | | | | | | | | |
| | 512.47 | 13000 | 2.7 | 471471/920 | 6000 | | | | | | | | | | | | | |
| | 465.31 | 13000 | 3 | 1070223/2300 | 6000 | | | | | | | | | | | | | |
| | 446.82 | 13000 | 3.1 | 154154/345 | 6000 | | | | | | | | | | | | | |
| | 435.90 | 13000 | 3.2 | 181335/416 | 6000 | | | | | | | | | | | | | |
| | 400.70 | 13000 | 3.5 | 104181/260 | 6000 | | | | | | | | | | | | | |
| | 384.88 | 13000 | 3.6 | 1018017/2645 | 6000 | | | | | | | | | | | | | |
| | 380.06 | 13000 | 3.7 | 29645/78 | 6000 | | | | | | | | | | | | | |
| | 377.78 | 13000 | 3.7 | 12089/32 | 5600 | | | | | | | | | | | | | |
| | 331.43 | 13000 | 4.2 | 7623/23 | 6000 | | | | | | | | | | | | | |
| | 329.39 | 13000 | 4.3 | 5929/18 | 5600 | | | | | | | | | | | | | |
| | 327.38 | 13000 | 4.3 | 391545/1196 | 6000 | | | | | | | | | | | | | |
| | 319.02 | 13000 | 4.4 | 229691/720 | 5000 | | | | | | | | | | | | | |
| | 307.62 | 13000 | 4.6 | 98439/320 | 4800 | | | | | | | | | | | | | |
| | 283.73 | 13000 | 4.9 | 26103/92 | 5600 | | | | | | | | | | | | | |
| | 281.92 | 13000 | 5 | 190575/676 | 6000 | | | | | | | | | | | | | |
| | 278.15 | 13000 | 5 | 112651/405 | 5000 | | | | | | | | | | | | | |
| | 268.22 | 13000 | 5.2 | 16093/60 | 4800 | | | | | | | | | | | | | |
| | 262.80 | 13000 | 5.3 | 12089/46 | 4400 | | | | | | | | | | | | | |
| | 244.33 | 13000 | 5.7 | 12705/52 | 5600 | | | | | | | | | | | | | |
| | 239.59 | 13000 | 5.8 | 165319/690 | 5000 | | | | | | | | | | | | | |
| | 231.04 | 13000 | 6.1 | 212553/920 | 4800 | | | | | | | | | | | | | |
| | 229.14 | 13000 | 6.1 | 47432/207 | 4400 | | | | | | | | | | | | | |
| 206.32 | 13000 | 6.8 | 16093/78 | 5000 | | | | | | | | | | | | | | |
| 198.95 | 13000 | 7 | 20691/104 | 4800 | | | | | | | | | | | | | | |
| 197.38 | 13000 | 7.1 | 104412/529 | 4400 | | | | | | | | | | | | | | |
| 169.97 | 13000 | 8.2 | 50820/299 | 4400 | | | | | | | | | | | | | | |

K

Legend see page 397

| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|----------------------------|------------|----------------------|-------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|------|------|------|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | l225 | l250 | l280 |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 | - | - | | |
| K153 | 146.69 | 18000 | 9.5 | 6601/45 | 5000 | | | | | | | | | | | | | |
| | 126.34 | 18000 | 11 | 23247/184 | 4400 | | | | | | | | | | | | | |
| 3 stages | 109.28 | 18000 | 13 | 28413/260 | 3900 | | | | | | | | | | | | | |
| | 96.39 | 18000 | 15 | 88683/920 | 3500 | | | | | | | | | | | | | |
| | 82.79 | 18000 | 17 | 4305/52 | 3100 | | | | | | | | | | | | | |
| | 68.88 | 18000 | 20 | 1722/25 | 2700 | | | | | | | | | | | | | |
| | 57.15 | 18000 | 24 | 66297/1160 | 2300 | | | | | | | | | | | | | |
| | 56.75 | 10785 | 25 | 12259/216 | 5000 | | | | | | | | | | | | | |
| | 48.88 | 14174 | 29 | 71955/1472 | 4400 | | | | | | | | | | | | | |
| | 47.66 | 18000 | 29 | 3813/80 | 2100 | | | | | | | | | | | | | |
| | 42.28 | 17806 | 33 | 1353/32 | 3900 | | | | | | | | | | | | | |
| | 40.97 | 18000 | 34 | 50799/1240 | 1900 | | | | | | | | | | | | | |
| | 37.30 | 18000 | 38 | 54899/1472 | 3500 | | | | | | | | | | | | | |
| | 35.63 | 6771 | 39 | 962/27 | 5000 | | | | | | | | | | | | | |
| | 35.45 | 18000 | 39 | 6027/170 | 1700 | | | | | | | | | | | | | |
| | 32.03 | 18000 | 44 | 1025/32 | 3100 | | | | | | | | | | | | | |
| | 30.69 | 8899 | 46 | 64935/2116 | 4400 | | | | | | | | | | | | | |
| | Maximum torque 18000 Nm | 26.65 | 18000 | 53 | 533/20 | 2700 | | | | | | | | | | | | |
| | | 26.54 | 11178 | 53 | 1221/46 | 3900 | | | | | | | | | | | | |
| | | 23.41 | 13593 | 60 | 49543/2116 | 3500 | | | | | | | | | | | | |
| 22.11 | | 18000 | 63 | 41041/1856 | 2300 | | | | | | | | | | | | | |
| 20.11 | | 13390 | 70 | 925/46 | 3100 | | | | | | | | | | | | | |
| 18.44 | | 18000 | 76 | 16523/896 | 2100 | | | | | | | | | | | | | |
| 16.73 | | 14116 | 84 | 1924/115 | 2700 | | | | | | | | | | | | | |
| 15.85 | | 18000 | 88 | 31447/1984 | 1900 | | | | | | | | | | | | | |
| 13.88 | | 14116 | 101 | 37037/2668 | 2300 | | | | | | | | | | | | | |
| 13.72 | | 18000 | 102 | 3731/272 | 1700 | | | | | | | | | | | | | |
| 11.58 | | 13865 | 121 | 14911/1288 | 2100 | | | | | | | | | | | | | |
| 9.95 | | 13306 | 141 | 28379/2852 | 1900 | | | | | | | | | | | | | |
| 8.61 | 12793 | 163 | 3367/391 | 1700 | | | | | | | | | | | | | | |

K

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| Type | $i_{ges.}$ | M_{znom} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|--------------|------------|------------|----------------------|--------------|------------|----------------------|----------|------|------|----------|----------|----------|----------|------|------|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | l160 | l180 | l200 | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | - | - | - | | |
| K154 | 1308.92 | 18000 | 1.1 | 765716/585 | 6000 | | | | | | | | | | | | | |
| | 1127.36 | 18000 | 1.2 | 674163/598 | 6000 | | | | | | | | | | | | | |
| | 1035.99 | 18000 | 1.4 | 745913/720 | 6000 | | | | | | | | | | | | | |
| | 975.12 | 18000 | 1.4 | 823977/845 | 6000 | | | | | | | | | | | | | |
| | 904.58 | 18000 | 1.5 | 244237/270 | 6000 | | | | | | | | | | | | | |
| | 892.29 | 18000 | 1.6 | 2626911/2944 | 6000 | | | | | | | | | | | | | |
| | 799.45 | 18000 | 1.8 | 719509/900 | 6000 | | | | | | | | | | | | | |
| | 779.11 | 18000 | 1.8 | 286713/368 | 6000 | | | | | | | | | | | | | |
| | 771.80 | 18000 | 1.8 | 3210669/4160 | 6000 | | | | | | | | | | | | | |
| | 688.57 | 18000 | 2 | 2533923/3680 | 6000 | | | | | | | | | | | | | |
| | 676.04 | 18000 | 2.1 | 30422/45 | 6000 | | | | | | | | | | | | | |
| | 673.90 | 18000 | 2.1 | 350427/520 | 6000 | | | | | | | | | | | | | |
| | 595.58 | 18000 | 2.4 | 3097017/5200 | 6000 | | | | | | | | | | | | | |
| | 582.27 | 18000 | 2.4 | 1232091/2116 | 6000 | | | | | | | | | | | | | |
| | 581.11 | 18000 | 2.4 | 679903/1170 | 6000 | | | | | | | | | | | | | |
| | 507.30 | 18000 | 2.8 | 547883/1080 | 5600 | | | | | | | | | | | | | |
| | 503.64 | 18000 | 2.8 | 1505889/2990 | 6000 | | | | | | | | | | | | | |
| | 500.51 | 18000 | 2.8 | 2394441/4784 | 6000 | | | | | | | | | | | | | |
| | 436.93 | 18000 | 3.2 | 643167/1472 | 5600 | | | | | | | | | | | | | |
| | 434.63 | 18000 | 3.2 | 105616/243 | 5000 | | | | | | | | | | | | | |
| | 432.92 | 18000 | 3.2 | 2926539/6760 | 6000 | | | | | | | | | | | | | |
| | 419.11 | 18000 | 3.3 | 3772/9 | 4800 | | | | | | | | | | | | | |
| | 377.93 | 18000 | 3.7 | 786093/2080 | 5600 | | | | | | | | | | | | | |
| | 374.35 | 18000 | 3.7 | 8610/23 | 5000 | | | | | | | | | | | | | |
| | 369.91 | 18000 | 3.8 | 16646/45 | 4400 | | | | | | | | | | | | | |
| | 360.98 | 18000 | 3.9 | 16605/46 | 4800 | | | | | | | | | | | | | |
| | 323.79 | 18000 | 4.3 | 12628/39 | 5000 | | | | | | | | | | | | | |
| | 318.60 | 18000 | 4.4 | 674163/2116 | 4400 | | | | | | | | | | | | | |
| | 312.23 | 18000 | 4.5 | 4059/13 | 4800 | | | | | | | | | | | | | |
| | 310.30 | 18000 | 4.5 | 72611/234 | 3900 | | | | | | | | | | | | | |
| | 275.58 | 18000 | 5.1 | 823977/2990 | 4400 | | | | | | | | | | | | | |
| | 267.26 | 18000 | 5.2 | 1278585/4784 | 3900 | | | | | | | | | | | | | |
| | 261.49 | 18000 | 5.4 | 11767/45 | 3500 | | | | | | | | | | | | | |
| | 231.17 | 18000 | 6.1 | 312543/1352 | 3900 | | | | | | | | | | | | | |
| | 225.22 | 18000 | 6.2 | 953127/4232 | 3500 | | | | | | | | | | | | | |
| | 214.39 | 18000 | 6.5 | 125419/585 | 3100 | | | | | | | | | | | | | |
| | 194.80 | 18000 | 7.2 | 1164933/5980 | 3500 | | | | | | | | | | | | | |
| | 184.65 | 18000 | 7.6 | 441693/2392 | 3100 | | | | | | | | | | | | | |
| | 159.72 | 18000 | 8.8 | 539847/3380 | 3100 | | | | | | | | | | | | | |

K

Legend see page 397

| Type | i _{ges.} | SERVO adapter | | | | | | | | | | Input unit | | | | | | | | | | | | | |
|-------------|-------------------|-------------------|----------------------|-----|------|------|------|------|------|------|------|------------|-------------------|------------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--|--|--|
| | | n _{1max} | Adapter size | | | | | | | | | | n _{1max} | Input shaft [mm] | | | | | | | | | | | |
| | | | [min ⁻¹] | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | | S190 | [min ⁻¹] | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 | | | |
| K154 | 1308.92 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1127.36 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 1035.99 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 975.12 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 904.58 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 892.29 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 799.45 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 779.11 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 771.80 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 688.57 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 676.04 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 673.90 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 595.58 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 582.27 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 581.11 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 507.30 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 503.64 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 500.51 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 436.93 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 434.63 | 4900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 432.92 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 419.11 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 377.93 | 5000 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 374.35 | 4900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 369.91 | 4300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 360.98 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 323.79 | 4900 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 318.60 | 4300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 312.23 | 4700 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 310.30 | 3800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 275.58 | 4300 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 267.26 | 3800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 261.49 | 3500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 231.17 | 3800 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 225.22 | 3500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 214.39 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 194.80 | 3500 | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 184.65 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |
| | 159.72 | - | | | | | | | | | | | | | 2500 | | | | | | | | | | |



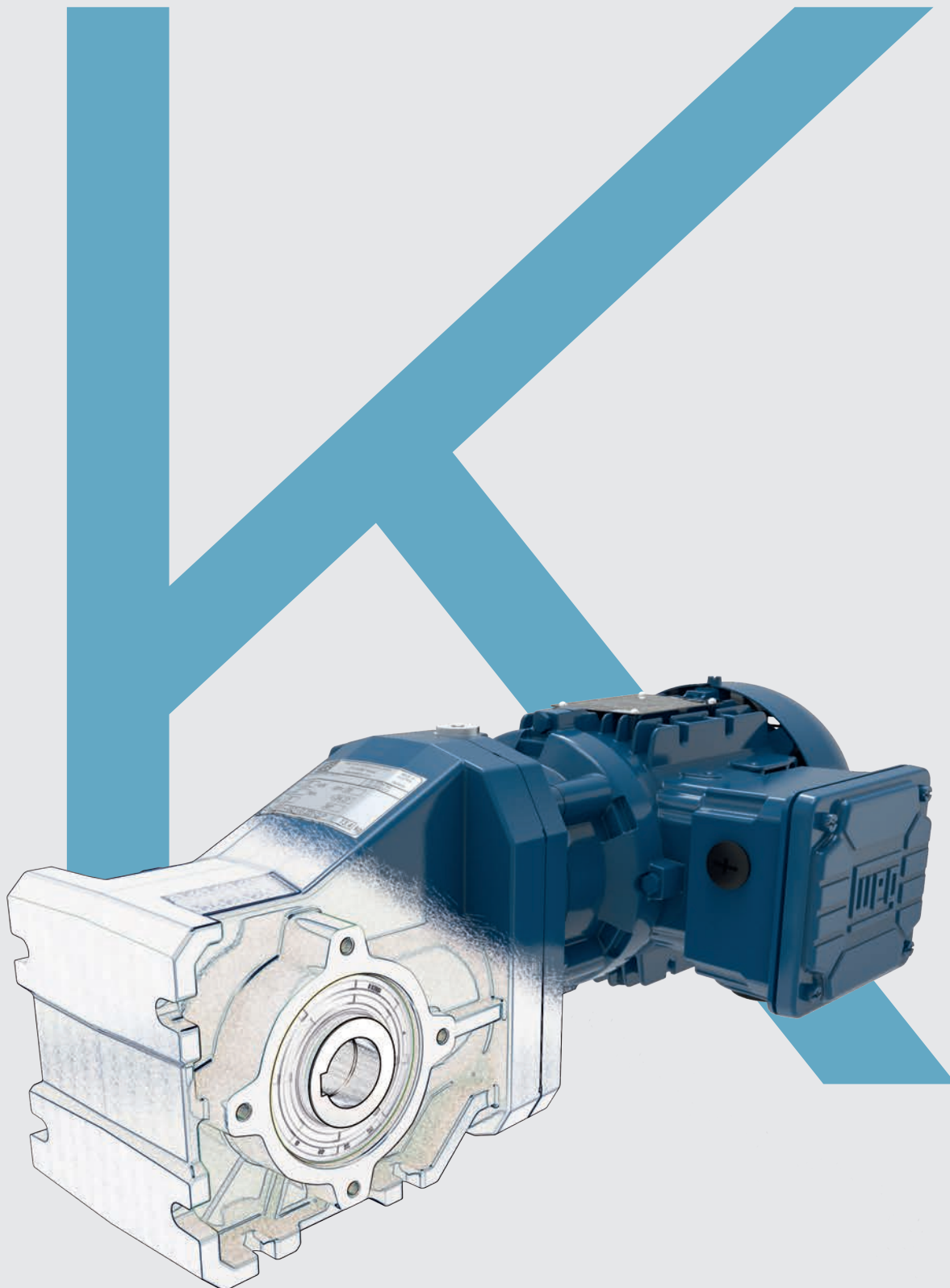
Legend see page 397

| Type | $i_{ges.}$ | M_{znenn} | n_2 | i_{exakt} | n_{1max} | IEC motor frame size | | | | | | | | | | | | |
|-----------------------------|------------|-------------|----------------------|----------------|------------|----------------------|----------|------|------|----------|------|------|---|---|---|---|---|---|
| | | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | - | - | - | - | - | - |
| | | | | | | IEC adapter | | | | | | | | | | | | |
| | | | | | | l63 | l71 | l80 | l90 | l100 | l112 | l132 | - | - | - | - | - | - |
| NEMA adapter | | | | | | | | | | | | | | | | | | |
| | | [Nm] | [min ⁻¹] | | | N56 | N143/145 | N182 | N184 | N213/215 | - | - | - | - | - | - | | |
| K155 | 14005.40 | 18000 | 0.1 | 40965806/2925 | 6000 | | | | | | | | | | | | | |
| | 11453.02 | 18000 | 0.12 | 1340003/117 | 6000 | | | | | | | | | | | | | |
| | 9679.02 | 18000 | 0.14 | 26133359/2700 | 6000 | | | | | | | | | | | | | |
| | 9043.42 | 18000 | 0.15 | 58194416/6435 | 6000 | | | | | | | | | | | | | |
| | 7915.09 | 18000 | 0.18 | 1709659/216 | 6000 | | | | | | | | | | | | | |
| | 7012.05 | 18000 | 0.2 | 273470/39 | 6000 | | | | | | | | | | | | | |
| | 6249.84 | 18000 | 0.22 | 9281006/1485 | 6000 | | | | | | | | | | | | | |
| | 5739.09 | 18000 | 0.24 | 14548604/2535 | 6000 | | | | | | | | | | | | | |
| 5 stages | 4845.97 | 18000 | 0.29 | 174455/36 | 6000 | | | | | | | | | | | | | |
| | 4417.59 | 18000 | 0.32 | 574287/130 | 6000 | | | | | | | | | | | | | |
| | 3966.24 | 18000 | 0.35 | 4640503/1170 | 6000 | | | | | | | | | | | | | |
| $n_1=1400 \text{ min}^{-1}$ | 3337.74 | 18000 | 0.42 | 3254293/975 | 6000 | | | | | | | | | | | | | |
| | 3052.96 | 18000 | 0.46 | 244237/80 | 6000 | | | | | | | | | | | | | |
| | 2731.65 | 18000 | 0.51 | 532672/195 | 6000 | | | | | | | | | | | | | |
| Maximum torque 18000 Nm | 2306.68 | 18000 | 0.61 | 4152029/1800 | 6000 | | | | | | | | | | | | | |
| | 2215.09 | 18000 | 0.63 | 16845752/7605 | 6000 | | | | | | | | | | | | | |
| | 1887.82 | 18000 | 0.74 | 84952/45 | 6000 | | | | | | | | | | | | | |
| | 1854.30 | 18000 | 0.76 | 3254293/1755 | 5600 | | | | | | | | | | | | | |
| | 1530.83 | 18000 | 0.91 | 2686607/1755 | 6000 | | | | | | | | | | | | | |
| | 1502.83 | 18000 | 0.93 | 23737196/15795 | 5000 | | | | | | | | | | | | | |
| | 1449.16 | 18000 | 0.97 | 847757/585 | 4800 | | | | | | | | | | | | | |
| | 1281.49 | 18000 | 1.1 | 4152029/3240 | 5600 | | | | | | | | | | | | | |
| | 1038.59 | 18000 | 1.3 | 7571347/7290 | 5000 | | | | | | | | | | | | | |
| | 1001.50 | 18000 | 1.4 | 1081621/1080 | 4800 | | | | | | | | | | | | | |

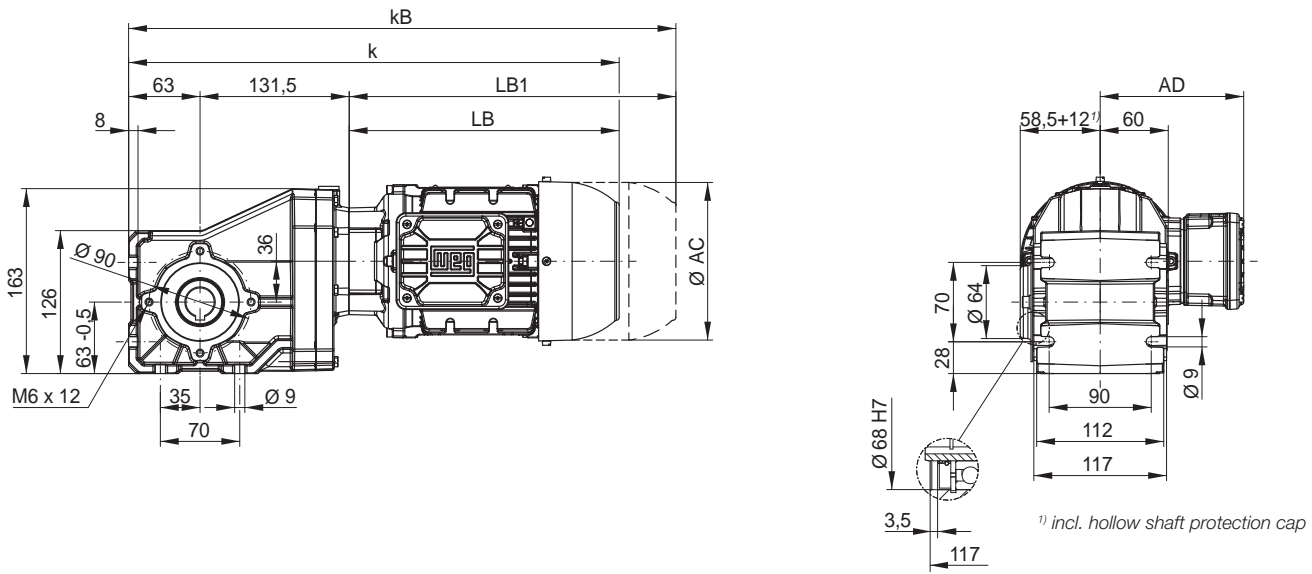


Legend see page 397

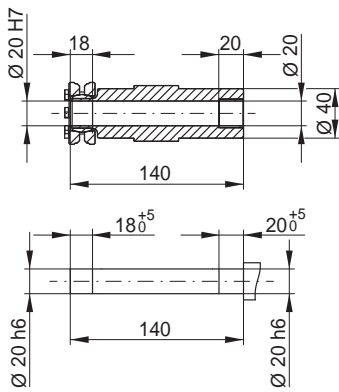
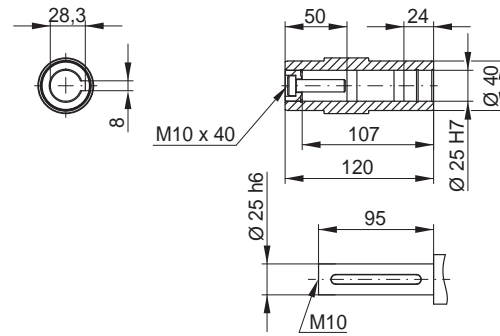
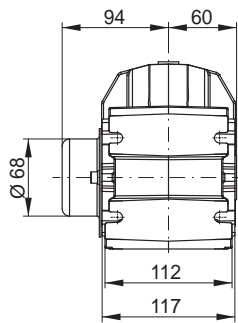
Dimension sheets Geared Motors



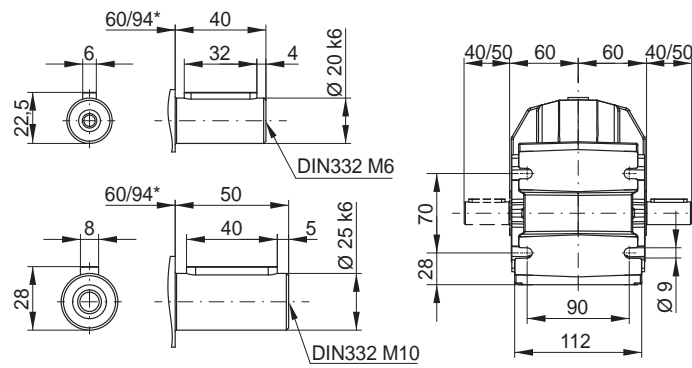
KH022 - Hollow shaft



KD022 - Shrink disc



KS022 - Output shaft KB022 - Output shaft on both sides

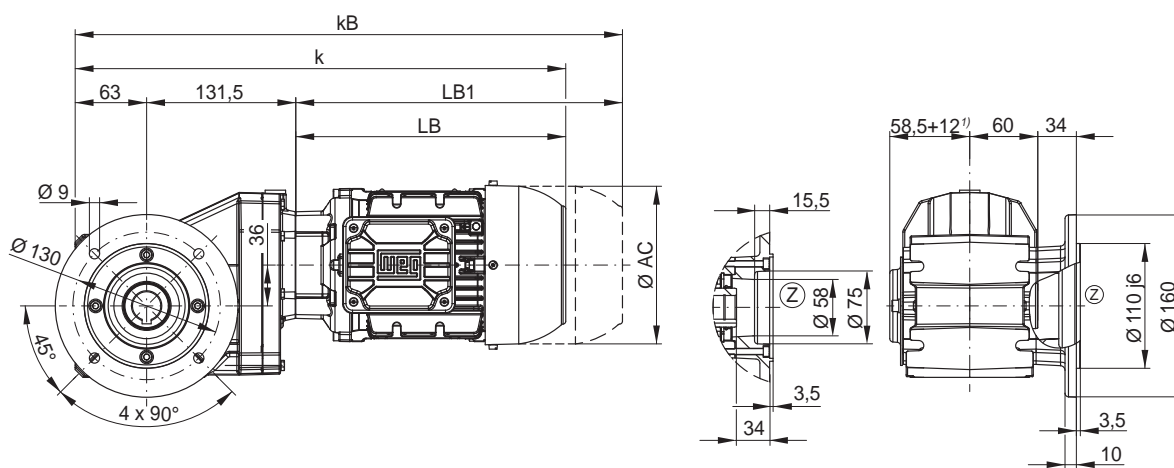


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L |
|-----------|-----|-----|-----|-----|-------|
| AC | 126 | 141 | 159 | 159 | 178 |
| AD | 128 | 136 | 145 | 145 | 155 |
| k | 399 | 433 | 441 | 465 | 483 |
| kB | 443 | 482 | 499 | 523 | 556 |
| LB | 204 | 238 | 246 | 270 | 288 |
| LB1 | 248 | 287 | 304 | 328 | 361 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

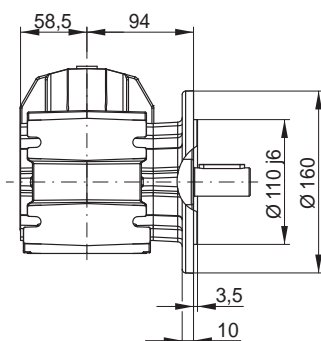
*Design KS(KB)/KF

KO022 - B5 flange execution with hollow shaft

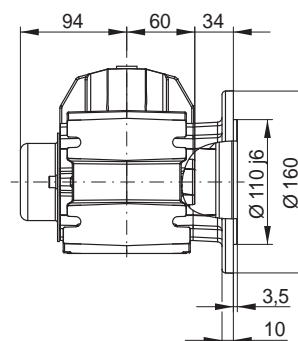


¹) incl. hollow shaft protection cap

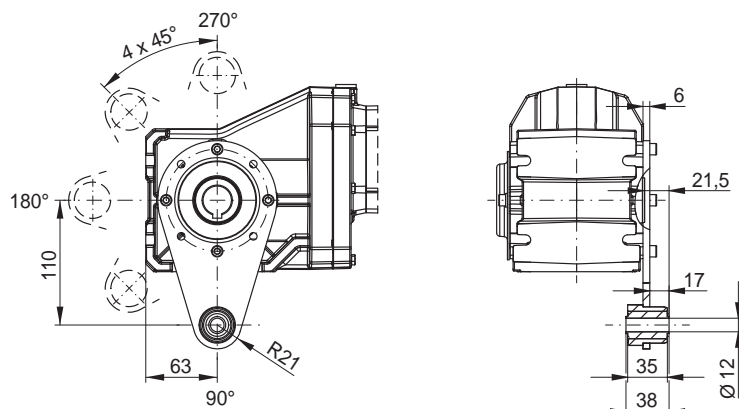
KF022 - B5 flange execution with output shaft



KP022 - B5 flange execution with hollow shaft and shrink disc

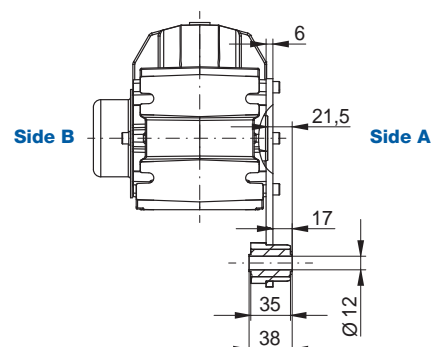


KT022 - Hollow shaft with torque arm **



Torque arm possible positions:
90°, 135°, 180°, 225°, 270°

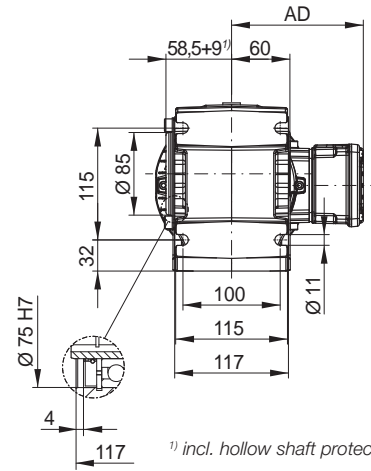
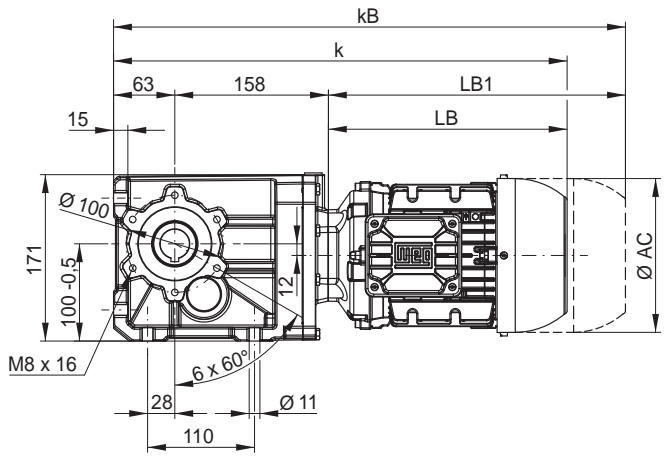
KU022 - Hollow shaft with shrink disc and torque arm **



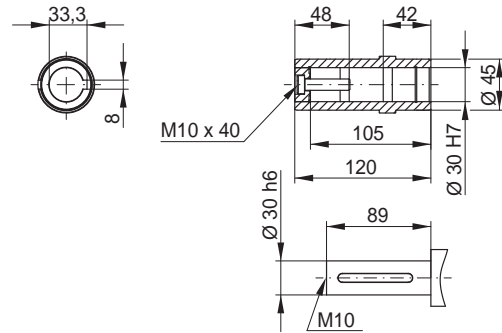
** Torque arm may be mounted on side A or side B.

Dimensions in mm.

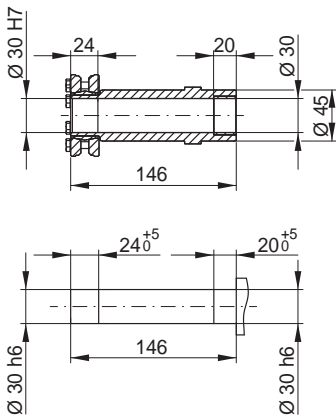
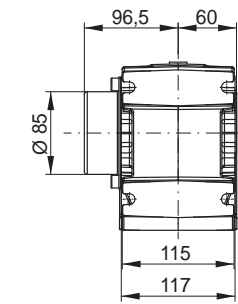
KH033 - Hollow shaft



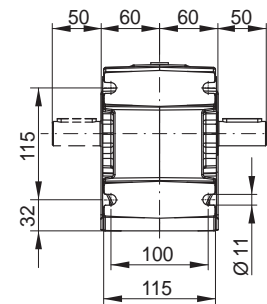
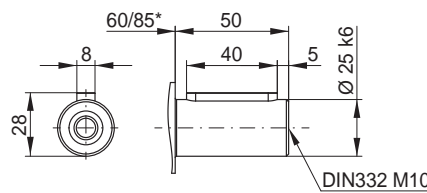
¹) incl. hollow shaft protection cap



KD033 - Shrink disc



KS033 - Output shaft KB033 - Output shaft on both sides

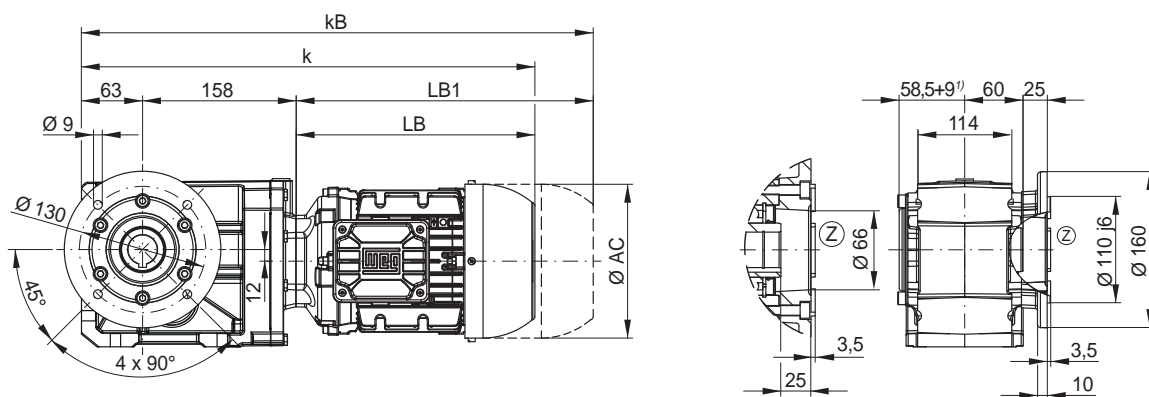


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L |
|-----------|-----|-----|-----|-----|-------|------|-------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 |
| k | 425 | 459 | 467 | 491 | 509 | 559 | 597 |
| kB | 469 | 508 | 525 | 549 | 582 | 643 | 681 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

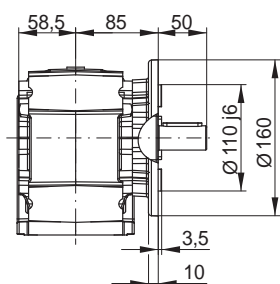
*Design KS(KB)/KF

KO033 - B5 flange execution with hollow shaft

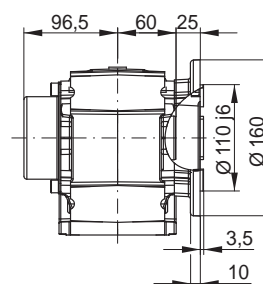


¹⁾ incl. hollow shaft protection cap

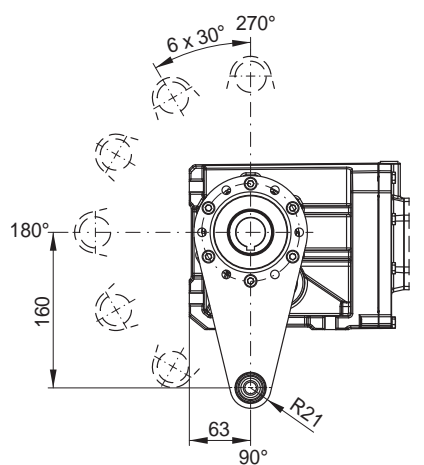
KF033 - B5 flange execution with output shaft



KP033 - B5 flange execution with hollow shaft and shrink disc



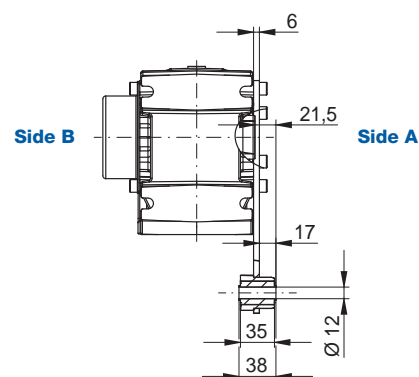
KT033 - Hollow shaft with torque arm **



Torque arm possible positions:
90°, 120°, 150°, 180°, 210°, 240°, 270°

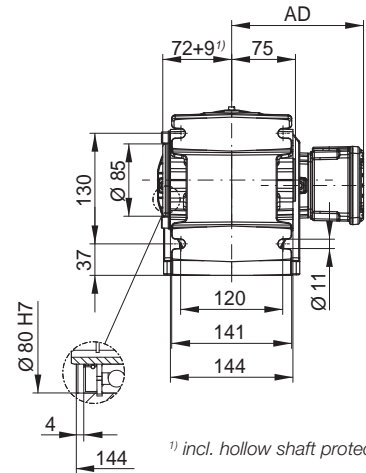
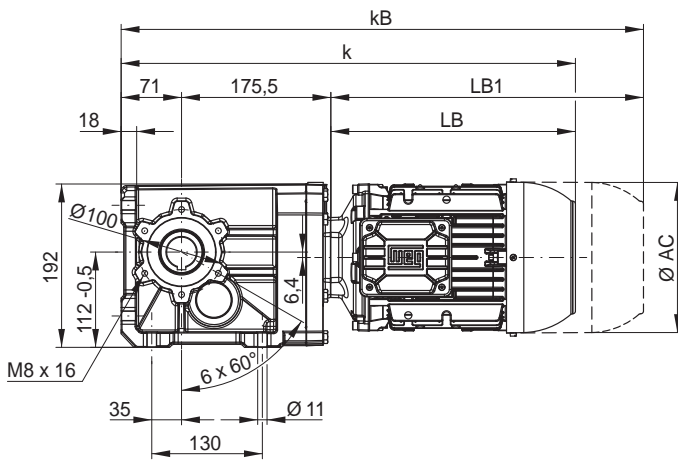
Dimensions in mm.

KU033 - Hollow shaft with shrink disc and torque arm **

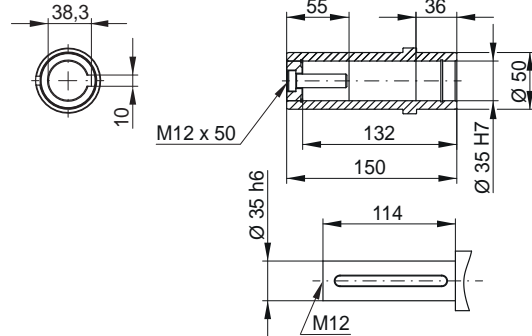


** Torque arm may be mounted on side A or side B.

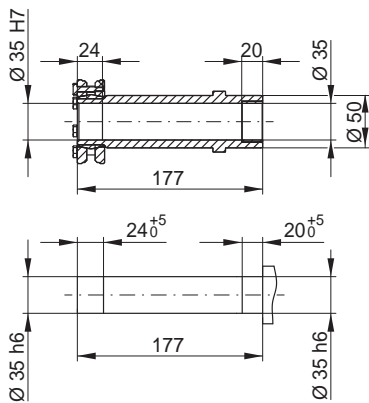
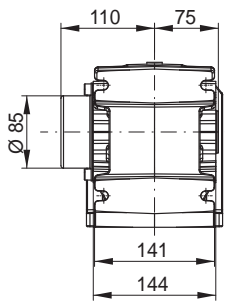
KH043 - Hollow shaft



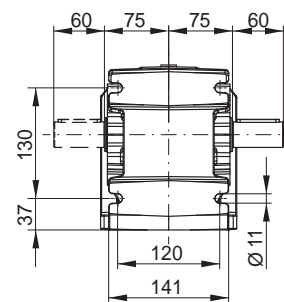
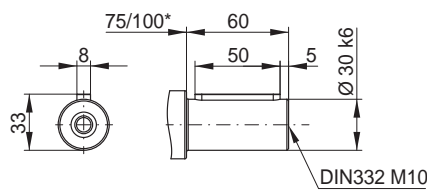
¹⁾ incl. hollow shaft protection cap



KD043 - Shrink disc



KS043 - Output shaft KB043 - Output shaft on both sides

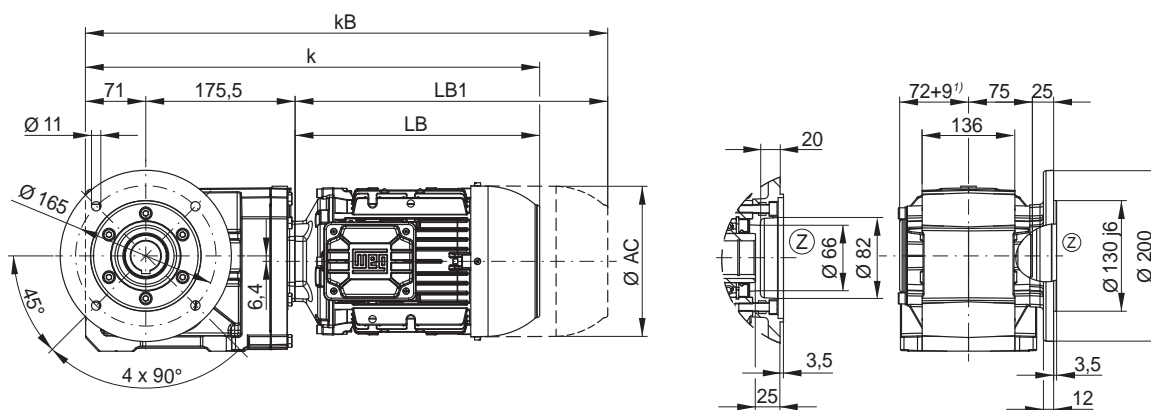


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 |
| k | 451 | 485 | 493 | 517 | 535 | 585 | 623 | 595 |
| kB | 495 | 534 | 551 | 575 | 608 | 669 | 707 | 682 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

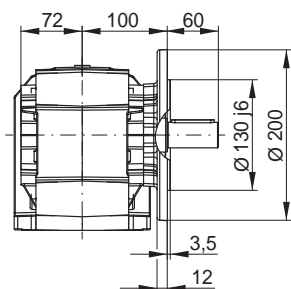
*Design KS(KB)/KF

KO043 - B5 flange execution with hollow shaft

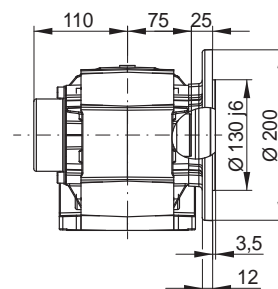


¹⁾ incl. hollow shaft protection cap

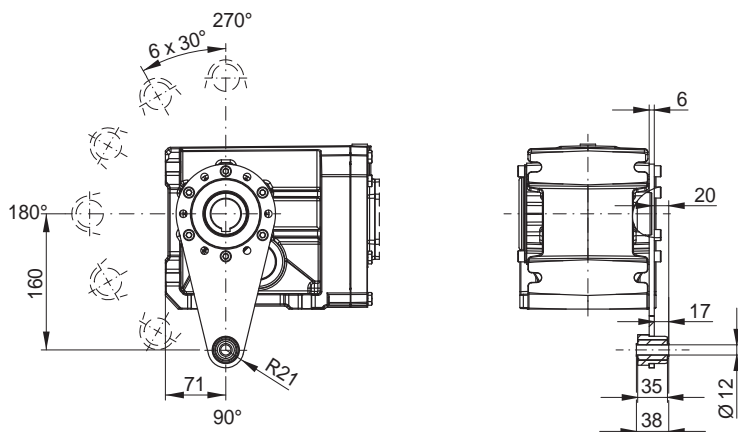
KF043 - B5 flange execution with output shaft



KP043 - B5 flange execution with hollow shaft and shrink disc



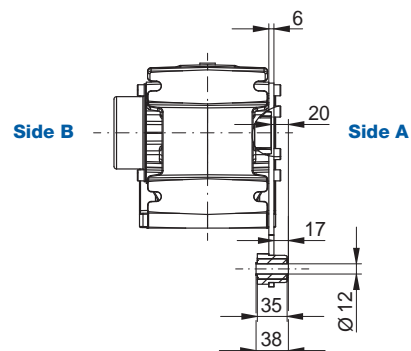
KT043 - Hollow shaft with torque arm **



Torque arm possible positions:
90°, 120°, 150°, 180°, 210°, 240°, 270°

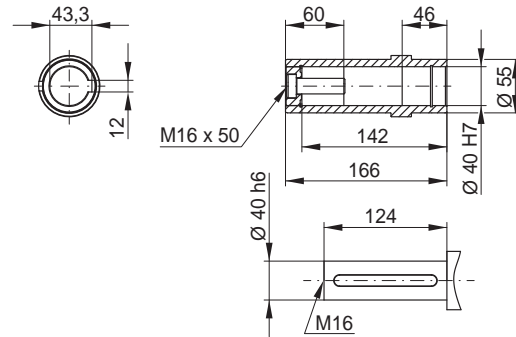
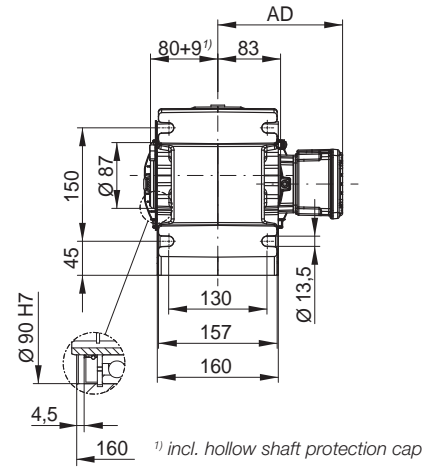
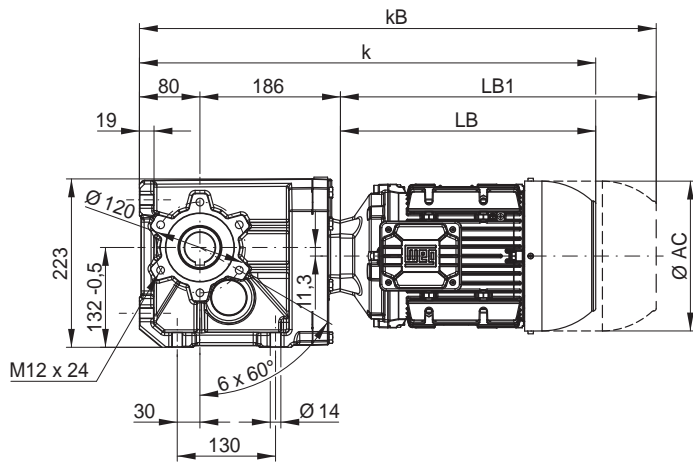
Dimensions in mm.

KU043 - Hollow shaft with shrink disc and torque arm **

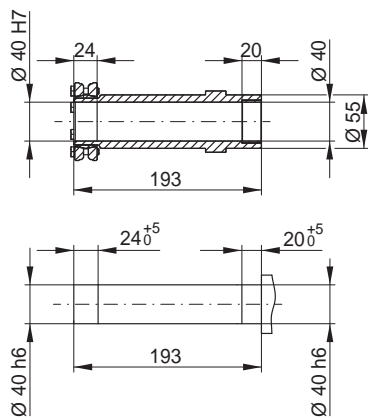
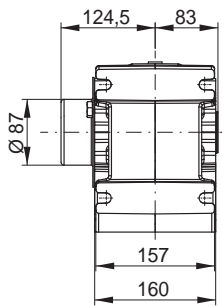


** Torque arm may be mounted on side A or side B.

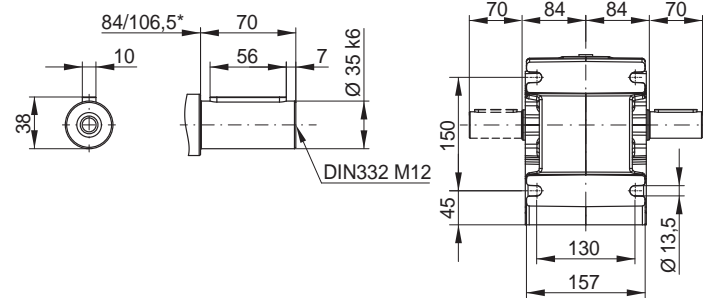
KH053 - Hollow shaft



KD053 - Shrink disc



KS053 - Output shaft KB053 - Output shaft on both sides

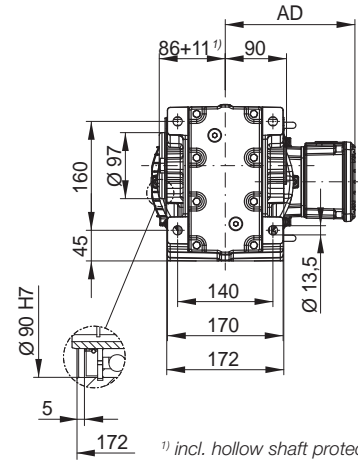
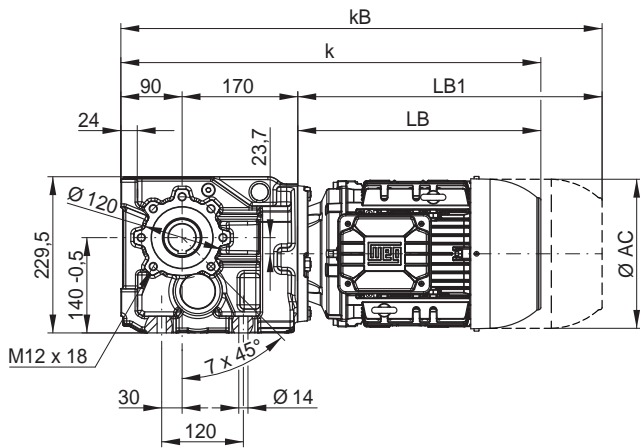


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|--------------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 470 | 504 | 512 | 536 | 554 | 604 | 642 | 614 | 679 | 717 |
| kB | 514 | 553 | 570 | 594 | 627 | 688 | 726 | 701 | 797 | 835 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

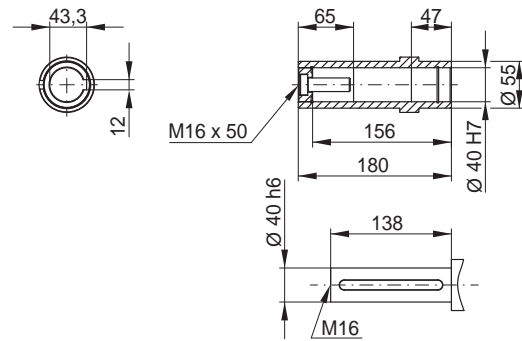
Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

*Design KS(KB)/KF

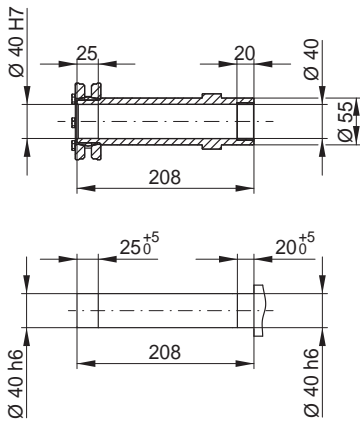
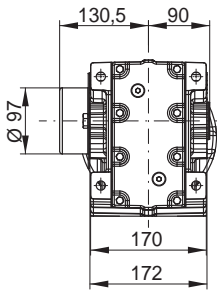
KH063 - Hollow shaft



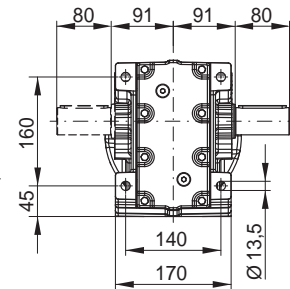
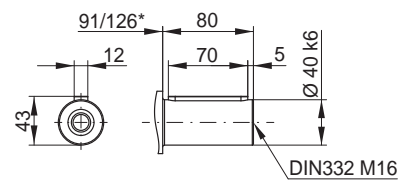
¹⁾ incl. hollow shaft protection cap



KD063 - Shrink disc



KS063 - Output shaft KB063 - Output shaft on both sides

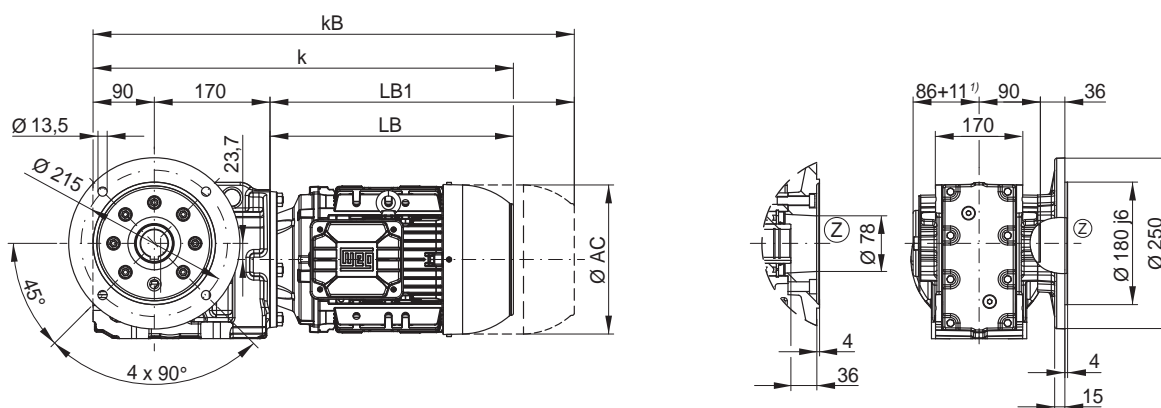


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 464 | 498 | 506 | 530 | 548 | 598 | 636 | 608 | 673 | 711 |
| kB | 508 | 547 | 564 | 588 | 621 | 682 | 720 | 695 | 791 | 829 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

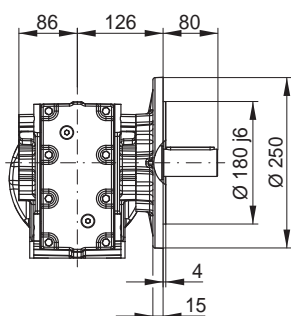
*Design KS(KB)/KF

KO063 - B5 flange execution with hollow shaft

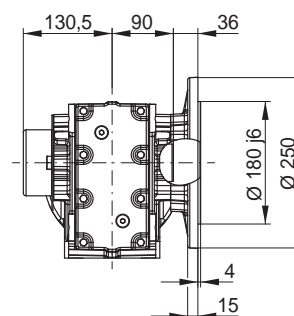


¹⁾ incl. hollow shaft protection cap

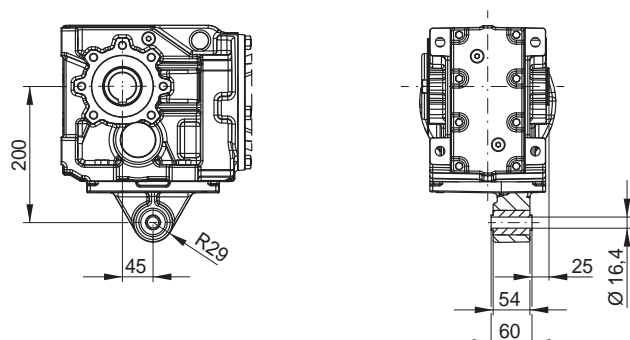
KF063 - B5 flange execution with output shaft



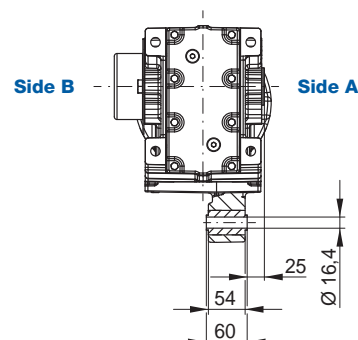
KP063 - B5 flange execution with hollow shaft and shrink disc



KT063 - Hollow shaft with torque arm **



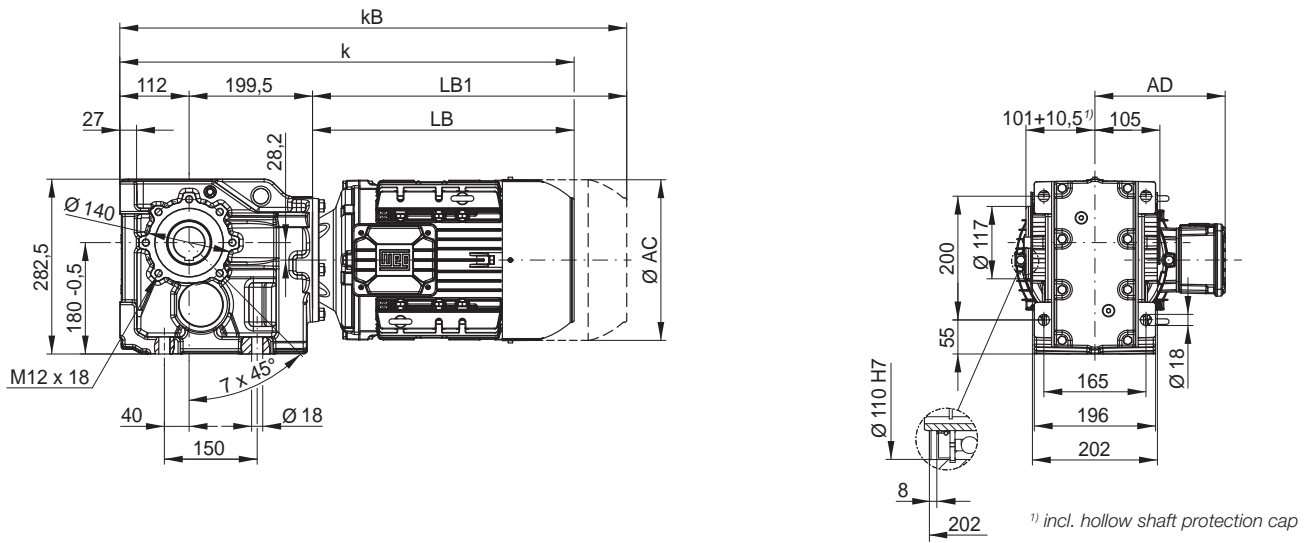
KU063 - Hollow shaft with shrink disc and torque arm **



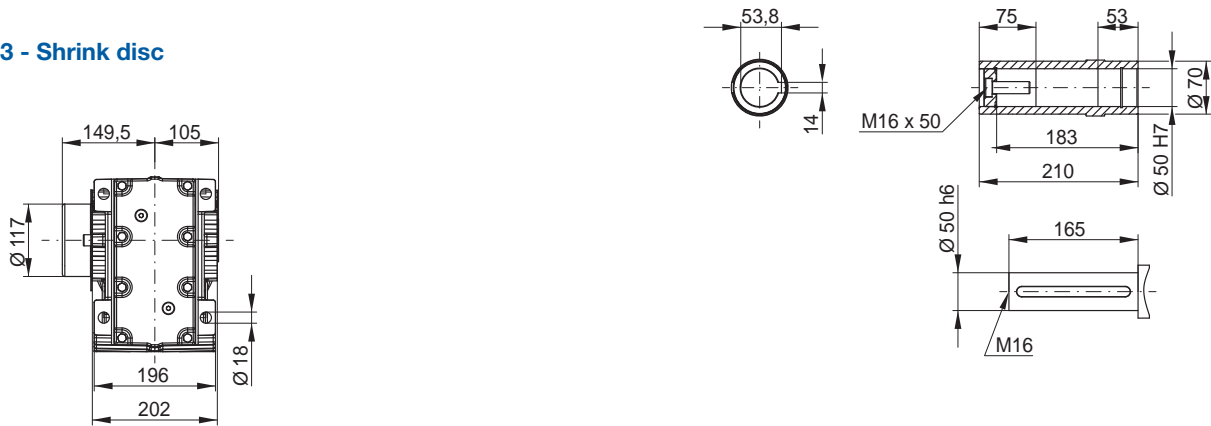
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

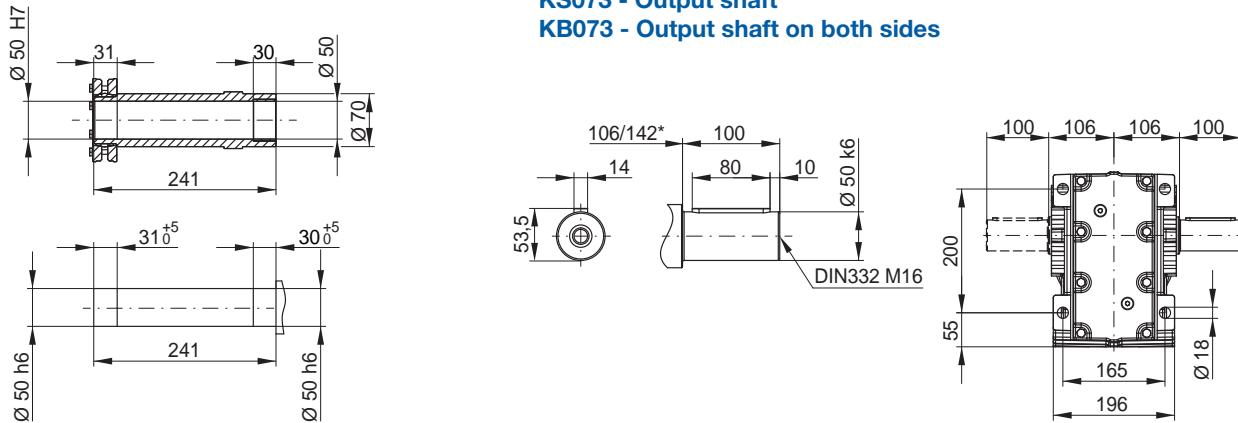
KH073 - Hollow shaft



KD073 - Shrink disc



KS073 - Output shaft KB073 - Output shaft on both sides

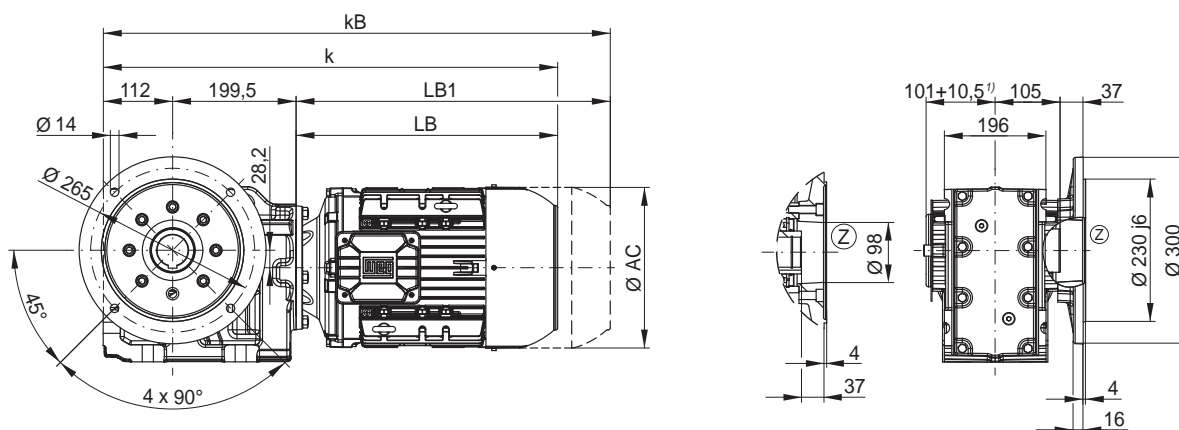


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 516 | 550 | 558 | 582 | 600 | 650 | 688 | 660 | 725 | 763 | 857 | 901 |
| kB | 560 | 599 | 616 | 640 | 673 | 734 | 772 | 747 | 843 | 881 | 981 | 1025 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496. Gear unit size K07 corresponds to motor flange FR-200. Description of motor lengths LB and LB1 see page 500.

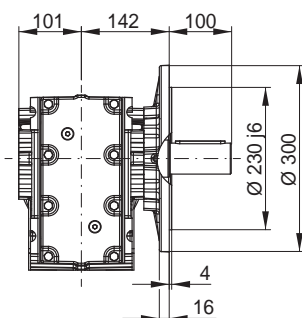
*Design KS(KB)/KF

KO073 - B5 flange execution with hollow shaft

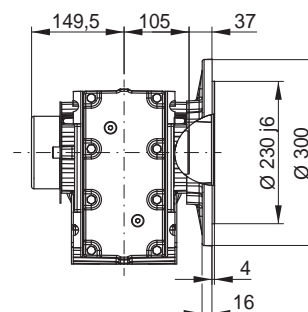


¹⁾ incl. hollow shaft protection cap

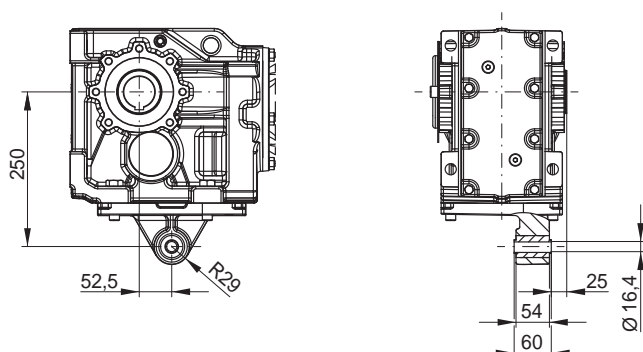
KF073 - B5 flange execution with output shaft



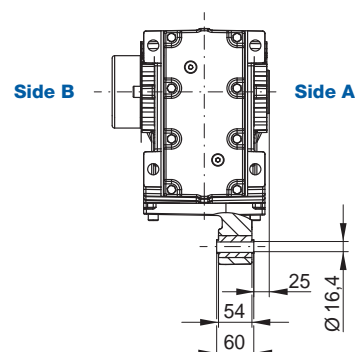
KP073 - B5 flange execution with hollow shaft and shrink disc



KT073 - Hollow shaft with torque arm **



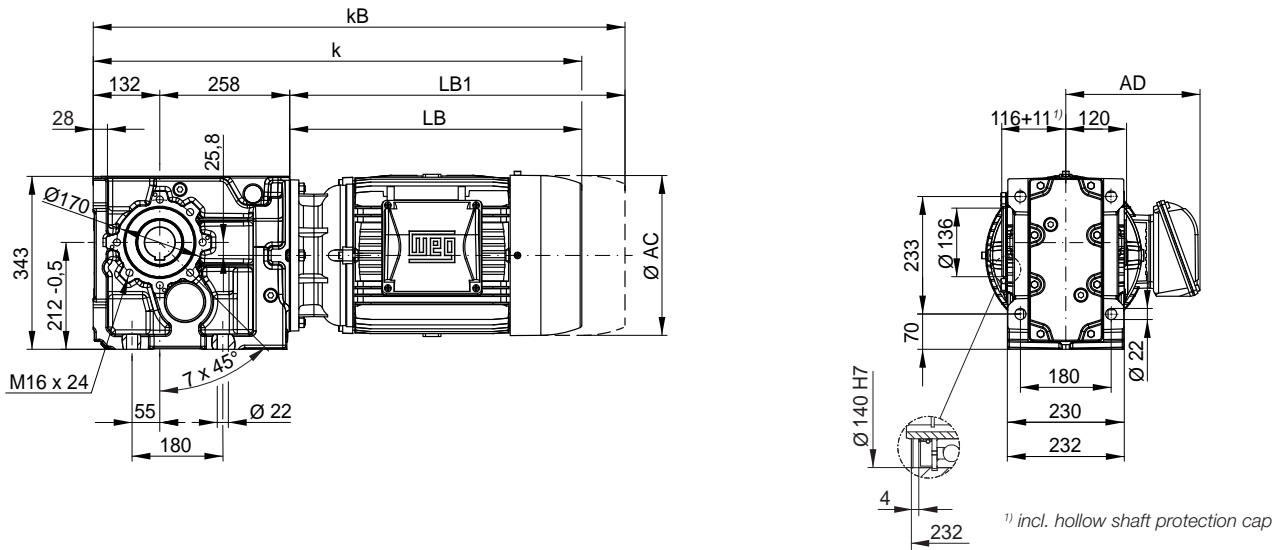
KU073 - Hollow shaft with shrink disc and torque arm **



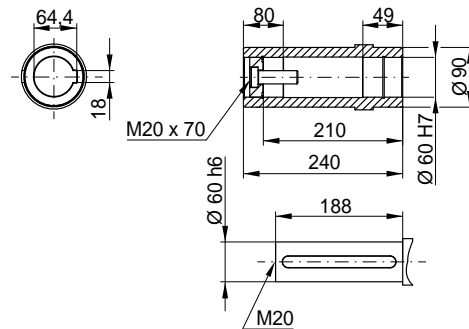
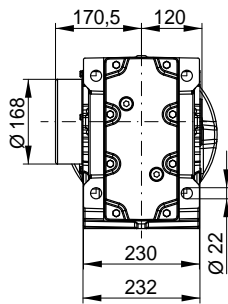
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

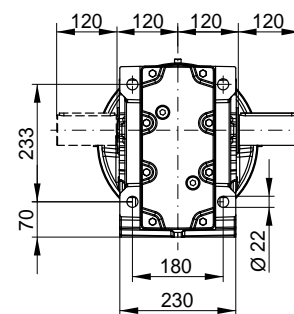
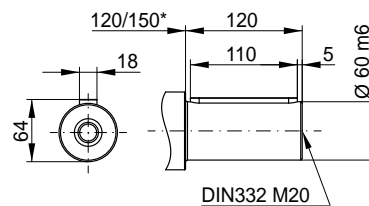
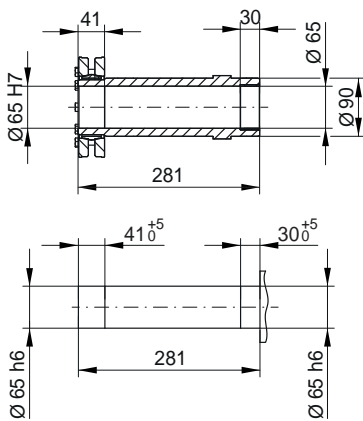
KH083 - Hollow shaft



KD083 - Shrink disc



KS083 - Output shaft KB083 - Output shaft on both sides

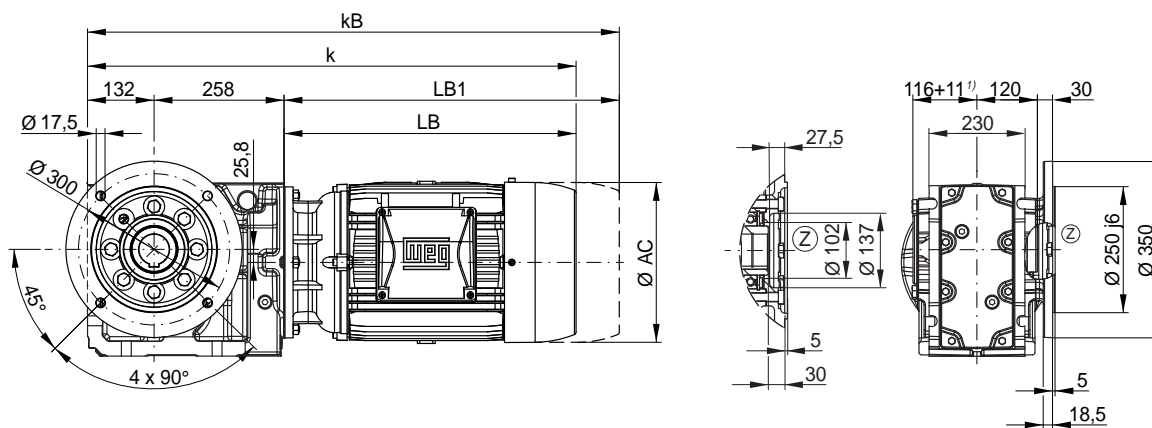


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 |
| k | 594 | 628 | 636 | 660 | 678 | 728 | 766 | 738 | 803 | 841 | 925 | 969 | 993 | 1031 |
| kB | 638 | 677 | 694 | 718 | 751 | 812 | 850 | 825 | 921 | 959 | 1049 | 1093 | 1111 | 1149 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 |

Motor dimension sheets see page 496. Gear unit size K08 corresponds to motor flange FR-300.
Description of motor lengths LB and LB1 see page 500.

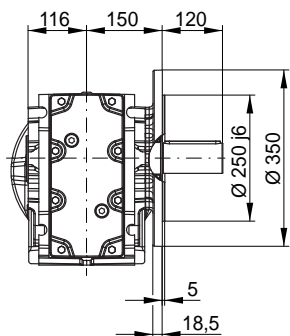
*Design KS(KB)/KF

KO083 - B5 flange execution with hollow shaft

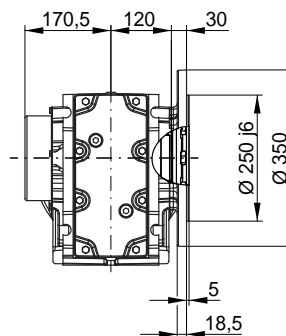


¹⁾ incl. hollow shaft protection cap

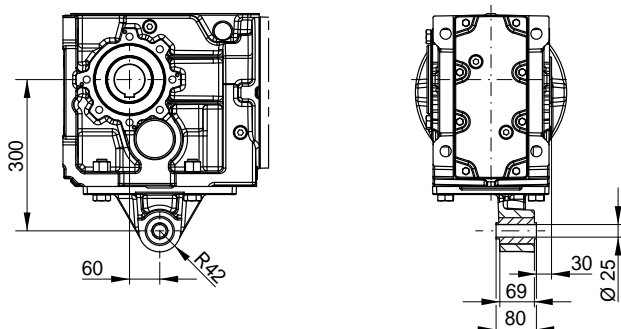
KF083 - B5 flange execution with output shaft



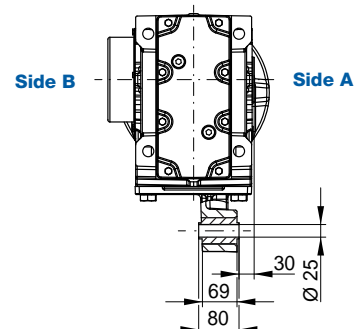
KP083 - B5 flange execution with hollow shaft and shrink disc



KT083 - Hollow shaft with torque arm **



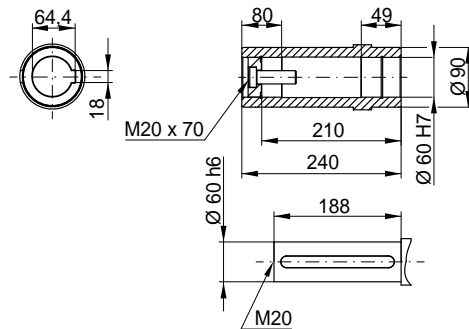
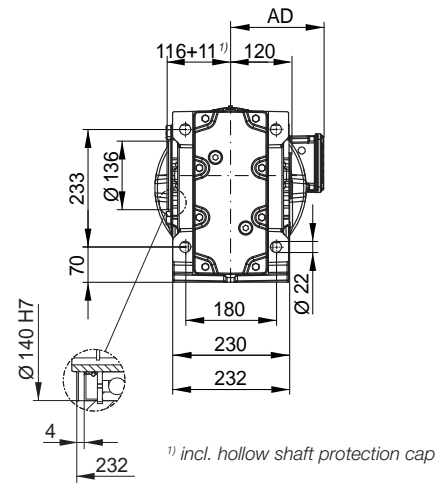
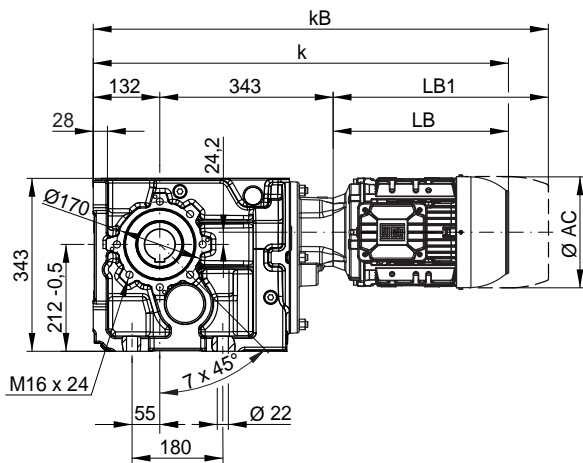
KU083 - Hollow shaft with shrink disc and torque arm **



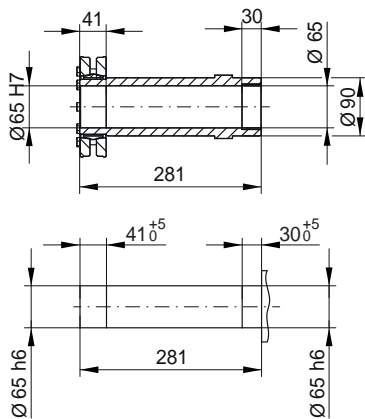
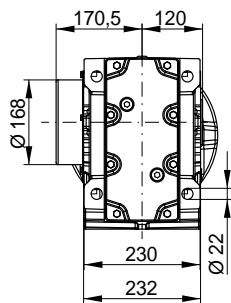
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

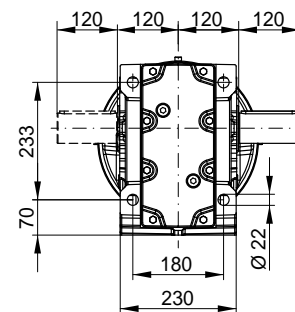
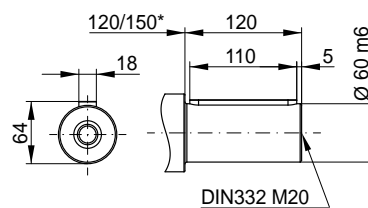
KH084 - Hollow shaft



KD084 - Shrink disc



KS084 - Output shaft KB084 - Output shaft on both sides

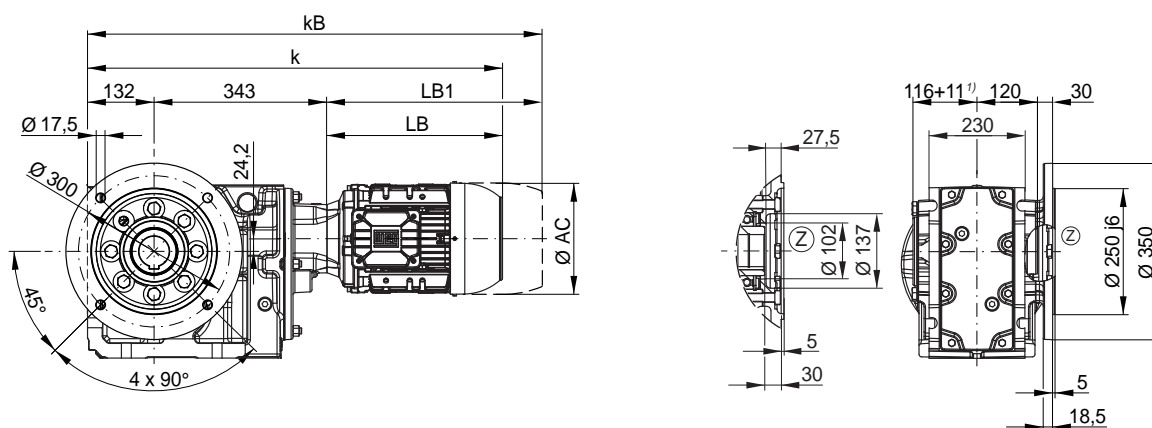


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 679 | 713 | 721 | 745 | 763 | 813 | 851 | 823 | 888 | 926 |
| kB | 723 | 762 | 779 | 803 | 836 | 897 | 935 | 910 | 1006 | 1044 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

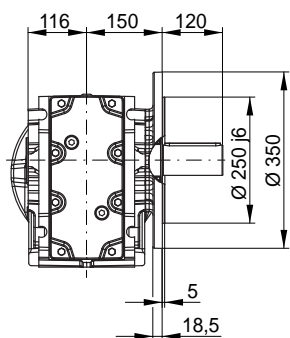
*Design KS(KB)/KF

KO084 - B5 flange execution with hollow shaft

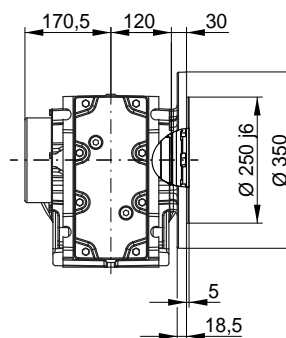


¹⁾ incl. hollow shaft protection cap

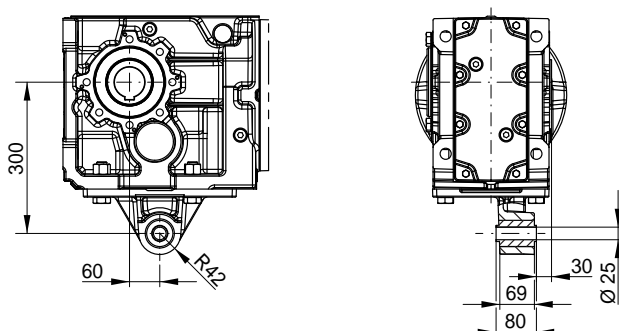
KF084 - B5 flange execution with output shaft



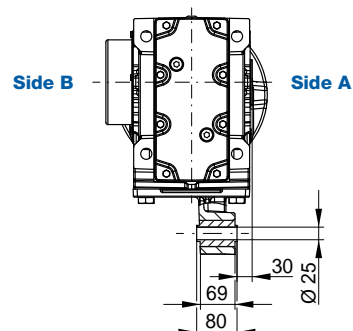
KP084 - B5 flange execution with hollow shaft and shrink disc



KT084 - Hollow shaft with torque arm **



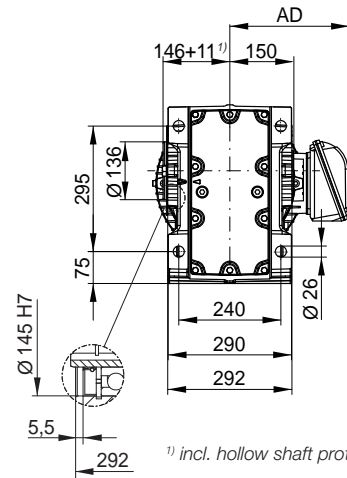
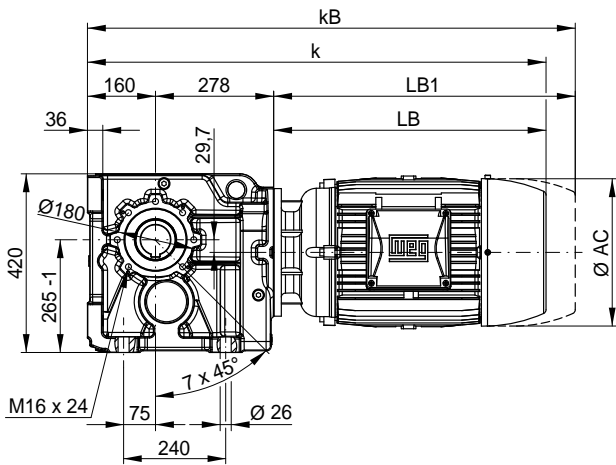
KU084 - Hollow shaft with shrink disc and torque arm **



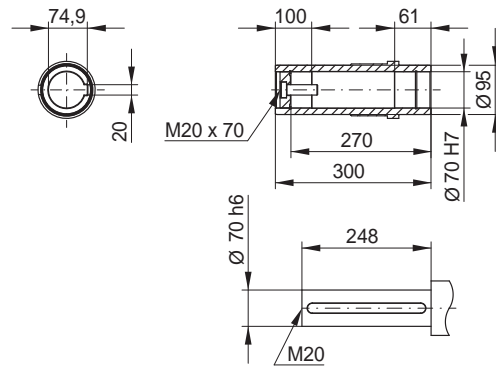
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

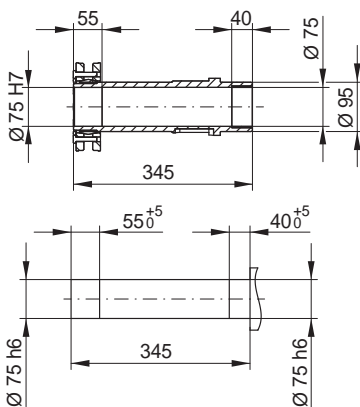
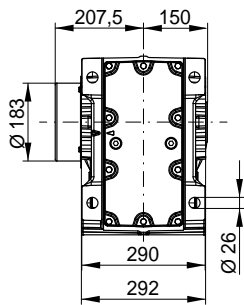
KH093 - Hollow shaft



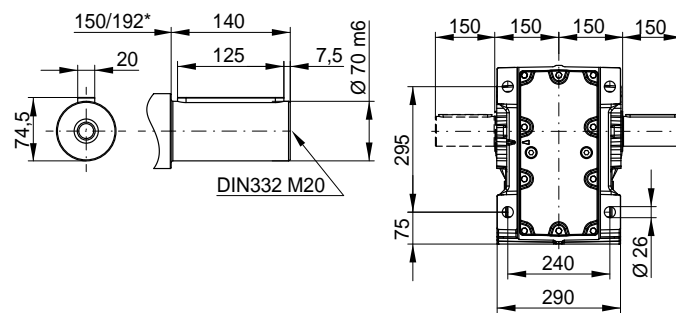
¹⁾ incl. hollow shaft protection cap



KD093 - Shrink disc



KS093 - Output shaft KB093 - Output shaft on both sides

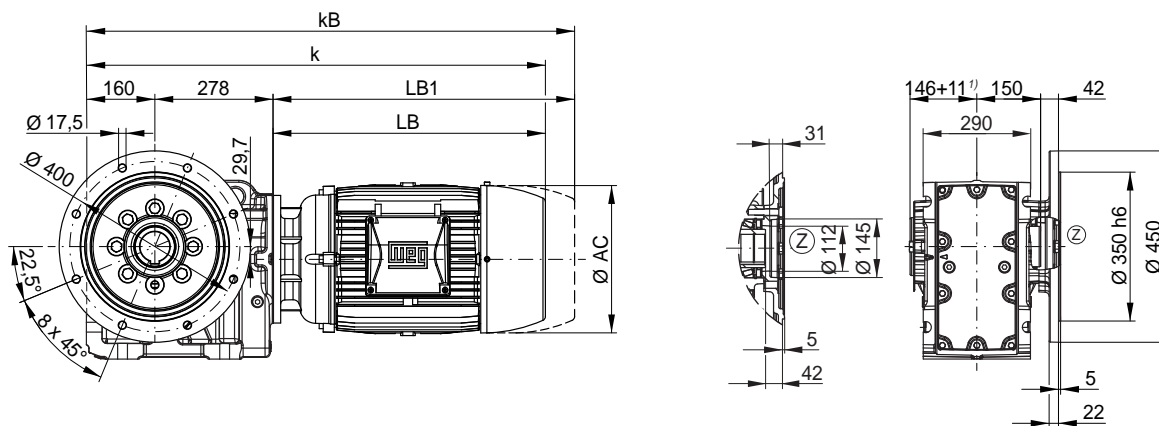


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 642 | 676 | 684 | 708 | 726 | 776 | 814 | 786 | 851 | 889 | 973 | 1017 | 1041 | 1079 | 1171 |
| kB | 686 | 725 | 742 | 766 | 799 | 860 | 898 | 873 | 969 | 1007 | 1097 | 1141 | 1159 | 1197 | 1297 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496. Gear unit size K09 corresponds to motor flange FR-300. Description of motor lengths LB and LB1 see page 500.

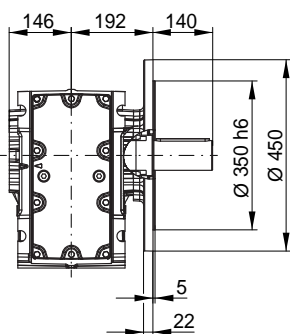
*Design KS(KB)/KF

KO093 - B5 flange execution with hollow shaft

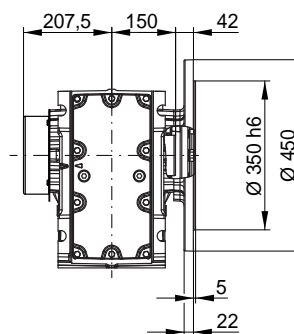


¹⁾ incl. hollow shaft protection cap

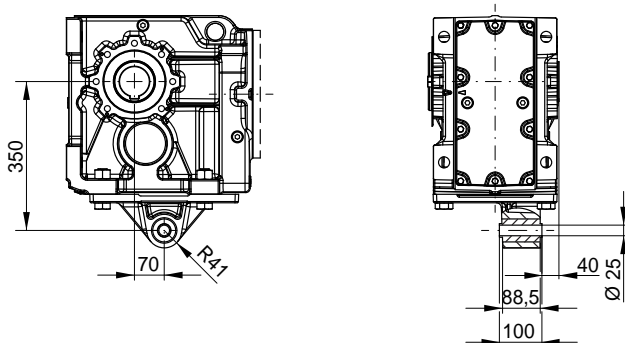
KF093 - B5 flange execution with output shaft



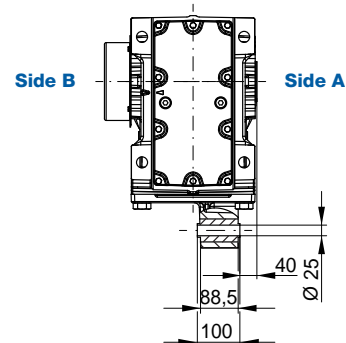
KP093 - B5 flange execution with hollow shaft and shrink disc



KT093 - Hollow shaft with torque arm **



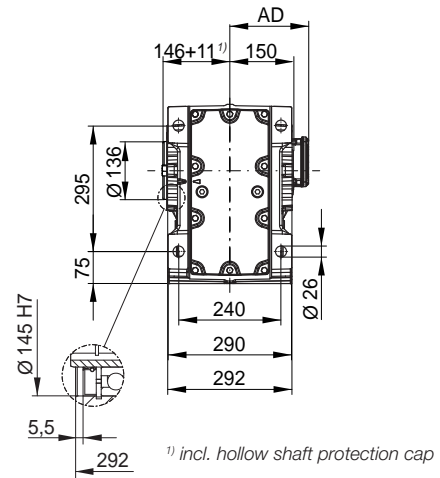
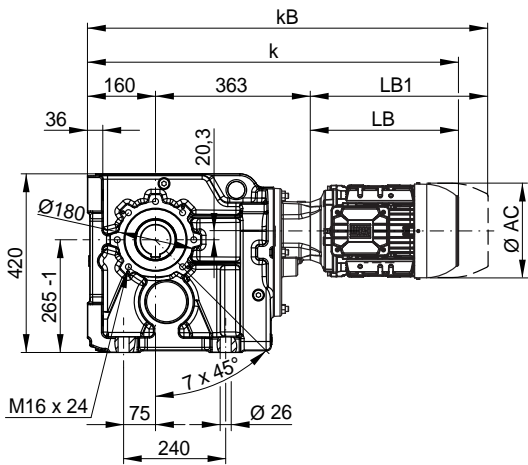
KU093 - Hollow shaft with shrink disc and torque arm **



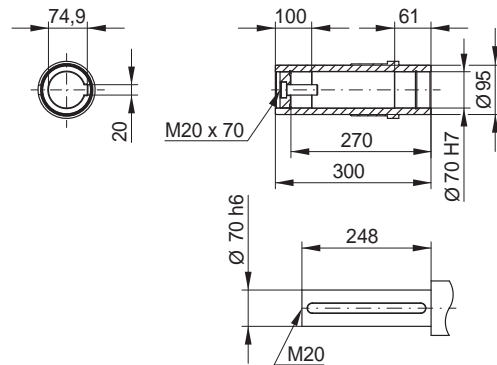
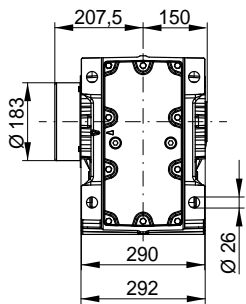
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

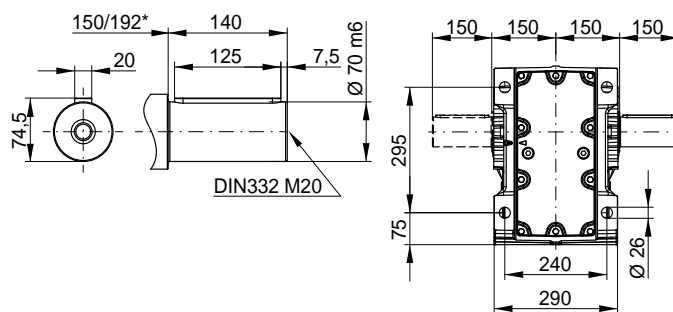
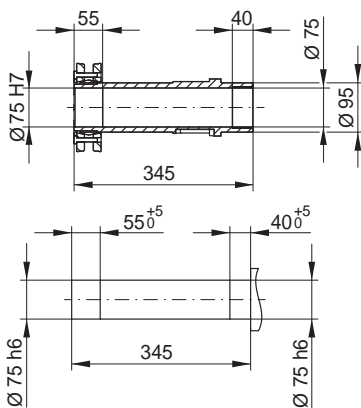
KH094 - Hollow shaft



KD094 - Shrink disc



KS094 - Output shaft KB094 - Output shaft on both sides

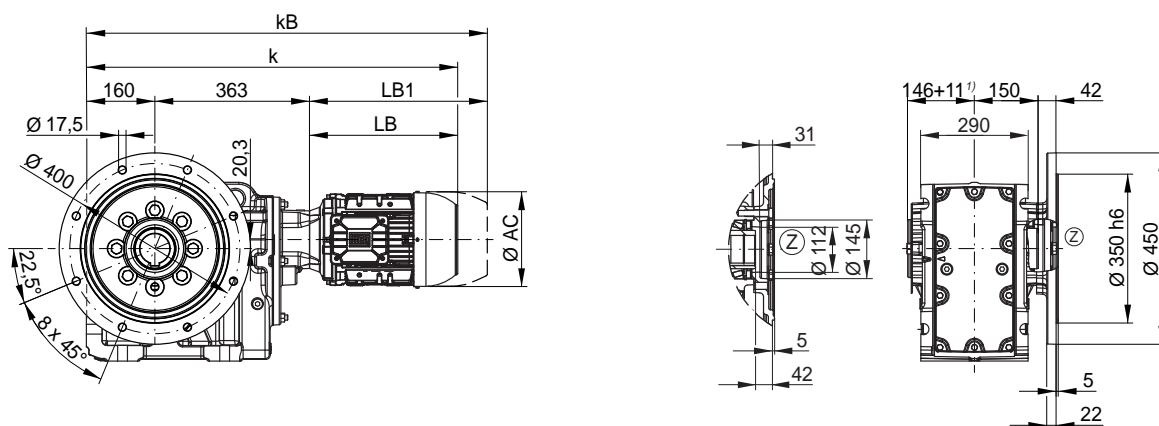


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|
| Dimension | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 727 | 761 | 769 | 793 | 811 | 861 | 899 | 871 | 936 | 974 |
| kB | 771 | 810 | 827 | 851 | 884 | 945 | 983 | 958 | 1054 | 1092 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

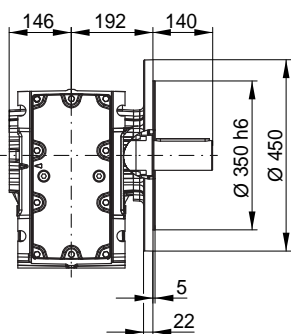
*Design KS(KB)/KF

KO094 - B5 flange execution with hollow shaft

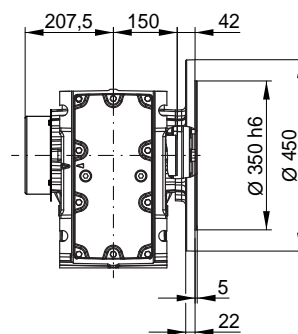


¹⁾ incl. hollow shaft protection cap

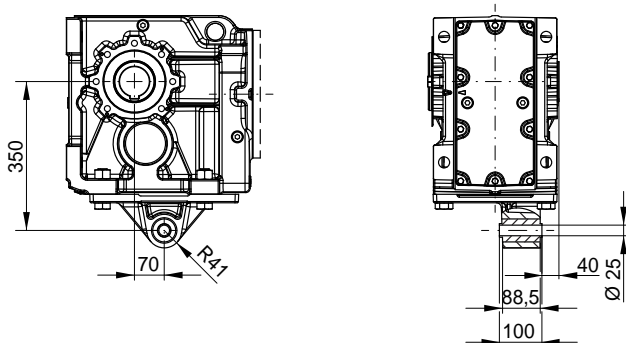
KF094 - B5 flange execution with output shaft



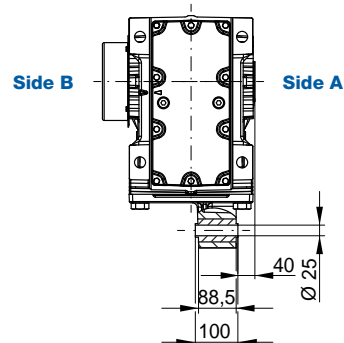
KP094 - B5 flange execution with hollow shaft and shrink disc



KT094 - Hollow shaft with torque arm **



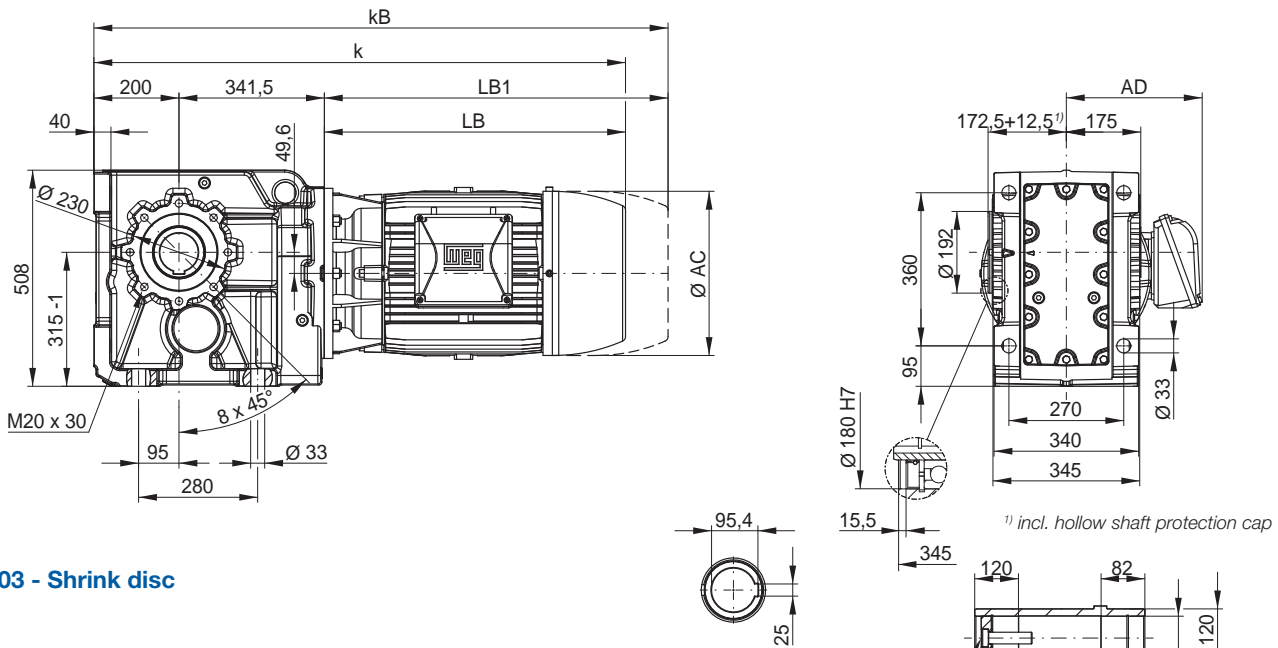
KU094 - Hollow shaft with shrink disc and torque arm **



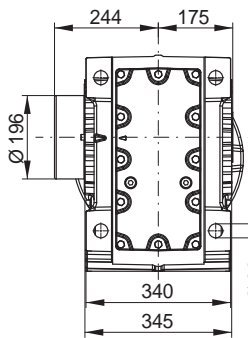
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

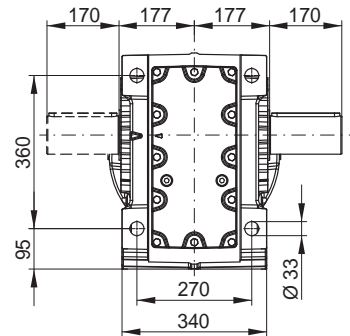
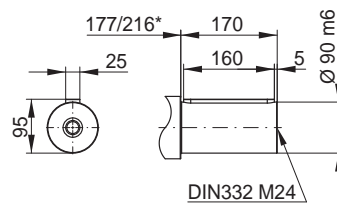
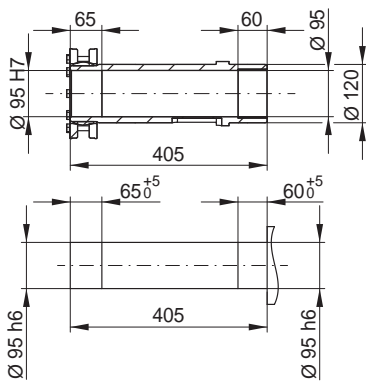
KH103 - Hollow shaft



KD103 - Shrink disc



KS103 - Output shaft KB103 - Output shaft on both sides

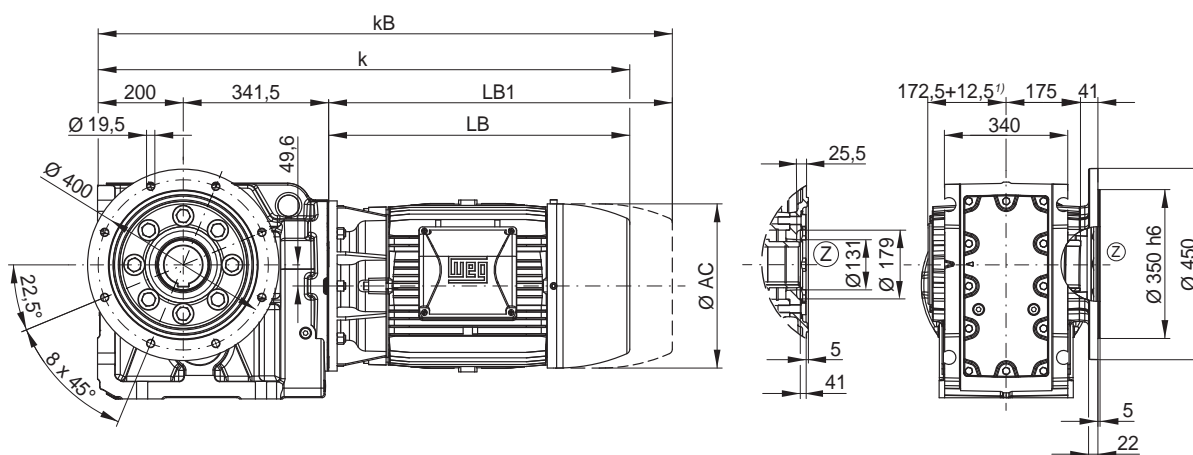


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|
| AC | - | - | - | - | - | - | - | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 | 453 |
| AD | - | - | - | - | - | - | - | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 | 385 |
| k | - | - | - | - | - | - | - | 890 | 955 | 993 | 1064 | 1108 | 1132 | 1170 | 1262 | 1370 |
| kB | - | - | - | - | - | - | - | 977 | 1073 | 1111 | 1188 | 1232 | 1250 | 1288 | 1388 | 1488 |
| LB | - | - | - | - | - | - | - | 348 | 413 | 451 | 522 | 566 | 590 | 628 | 720 | 828 |
| LB1 | - | - | - | - | - | - | - | 435 | 531 | 569 | 646 | 690 | 708 | 746 | 846 | 946 |

Motor dimension sheets see page 496. Gear unit size K103 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500.

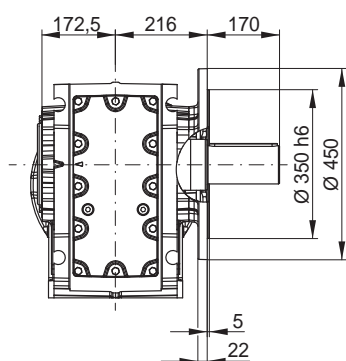
*Design KS(KB)/KF

KO103 - B5 flange execution with hollow shaft

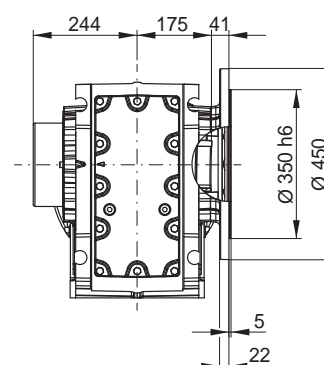


¹) incl. hollow shaft protection cap

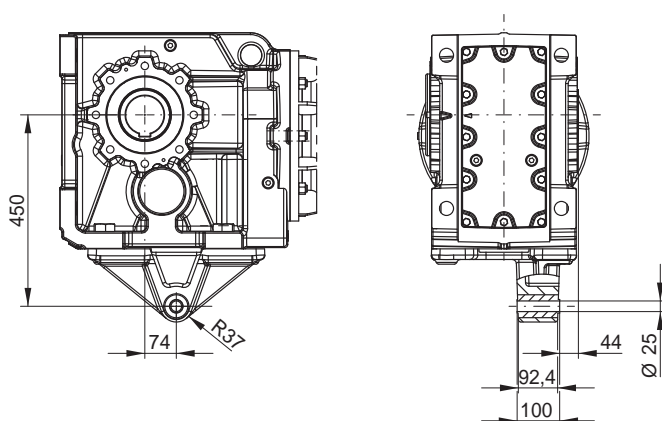
KF103 - B5 flange execution with output shaft



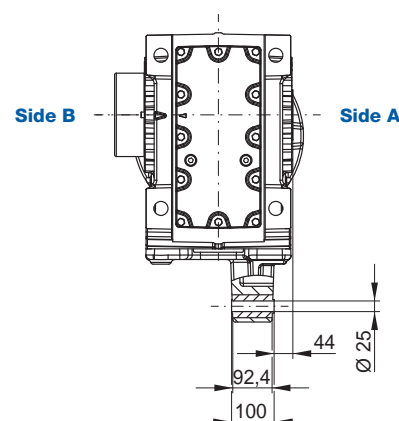
KP103 - B5 flange execution with hollow shaft and shrink disc



KT103 - Hollow shaft with torque arm **



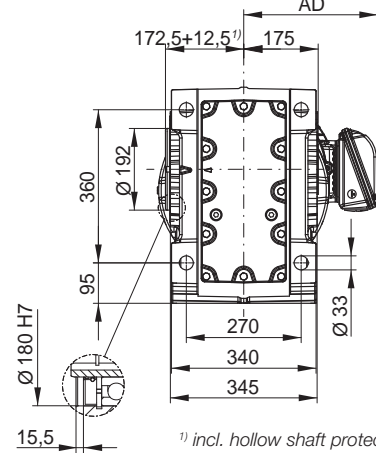
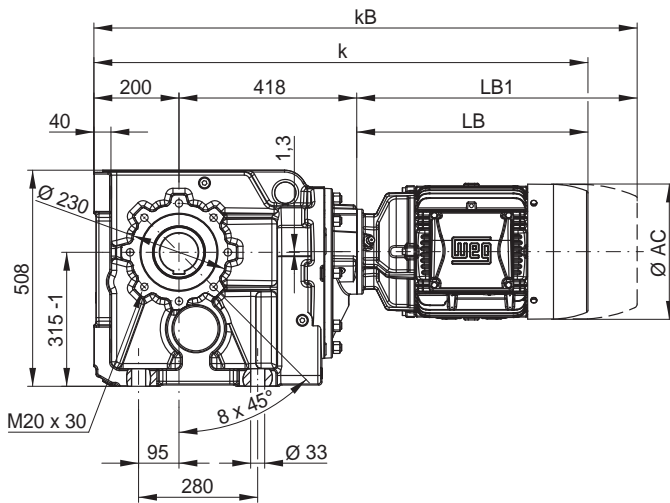
KU103 - Hollow shaft with shrink disc and torque arm **



Dimensions in mm.

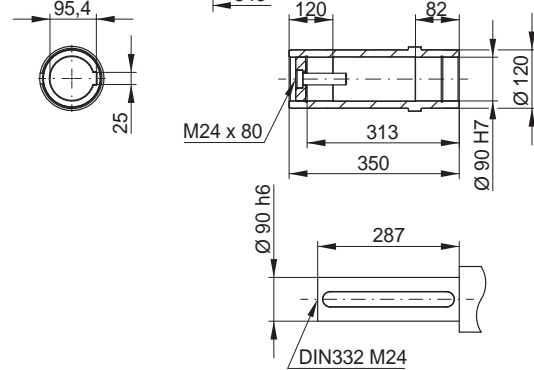
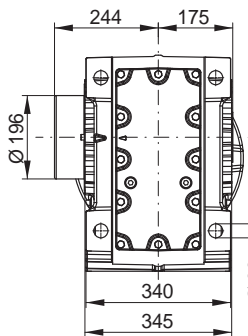
** Torque arm may be mounted on side A or side B.

KH104 - Hollow shaft

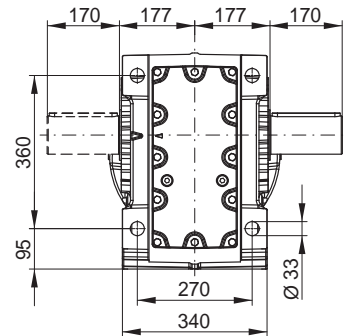
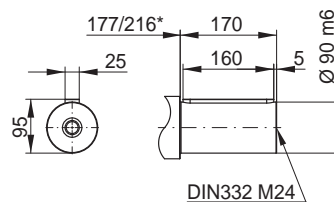
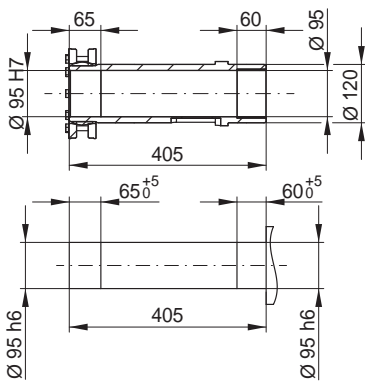


¹) incl. hollow shaft protection cap

KD104 - Shrink disc



KS104 - Output shaft KB104 - Output shaft on both sides

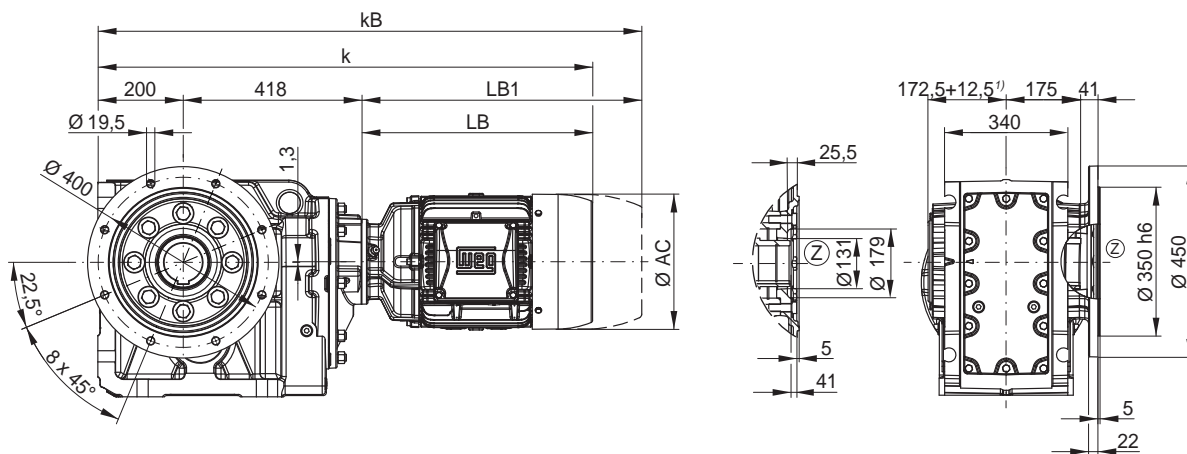


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|-----|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 822 | 856 | 864 | 888 | 906 | 956 | 994 | 966 | 1031 | 1069 | 1163 | 1207 |
| kB | 866 | 905 | 922 | 946 | 979 | 1040 | 1078 | 1053 | 1149 | 1187 | 1287 | 1331 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496. Gear unit size K104 corresponds to motor flange FR-200. Description of motor lengths LB and LB1 see page 500.

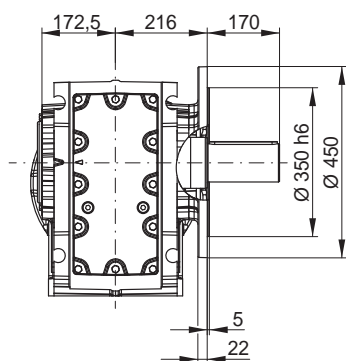
*Design KS(KB)/KF

KO104 - B5 flange execution with hollow shaft

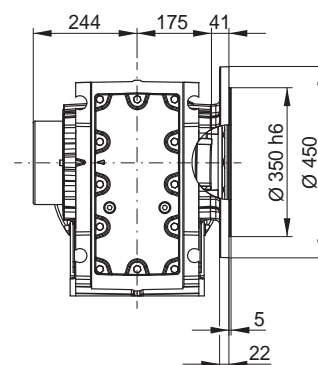


¹⁾ incl. hollow shaft protection cap

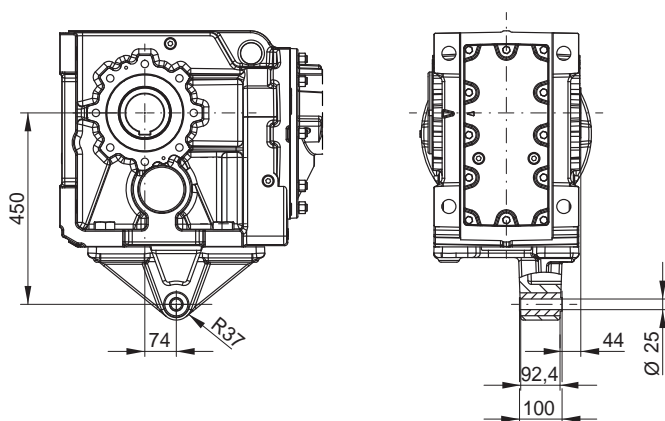
KF104 - B5 flange execution with output shaft



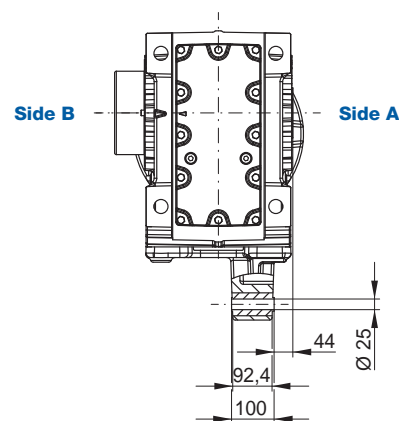
KP104 - B5 flange execution with hollow shaft and shrink disc



KT104 - Hollow shaft with torque arm **



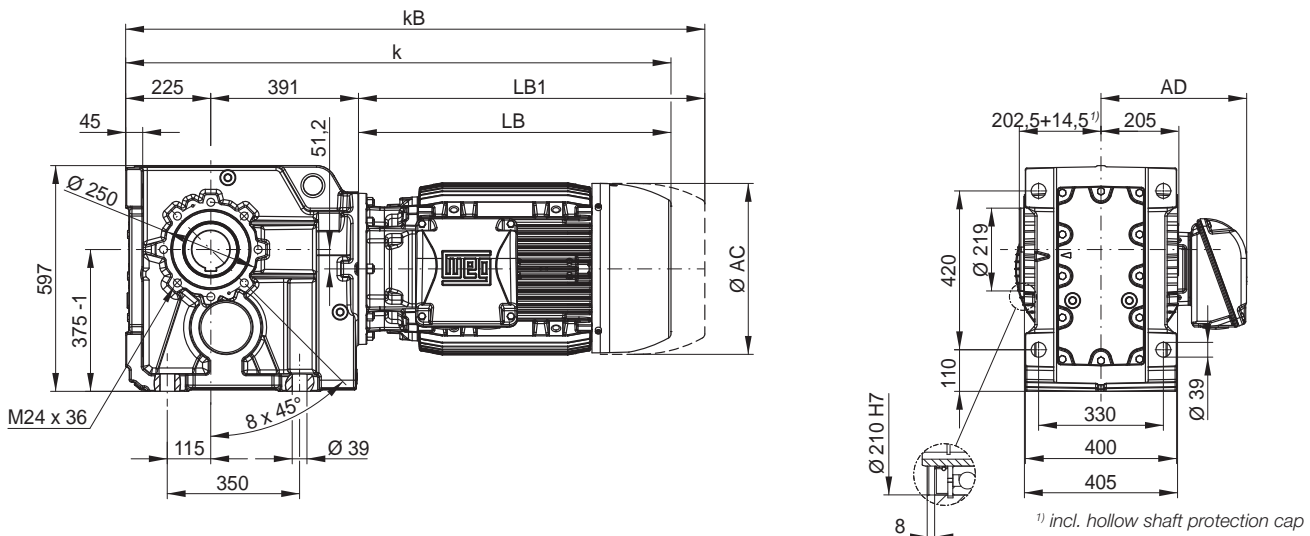
KU104 - Hollow shaft with shrink disc and torque arm **



Dimensions in mm.

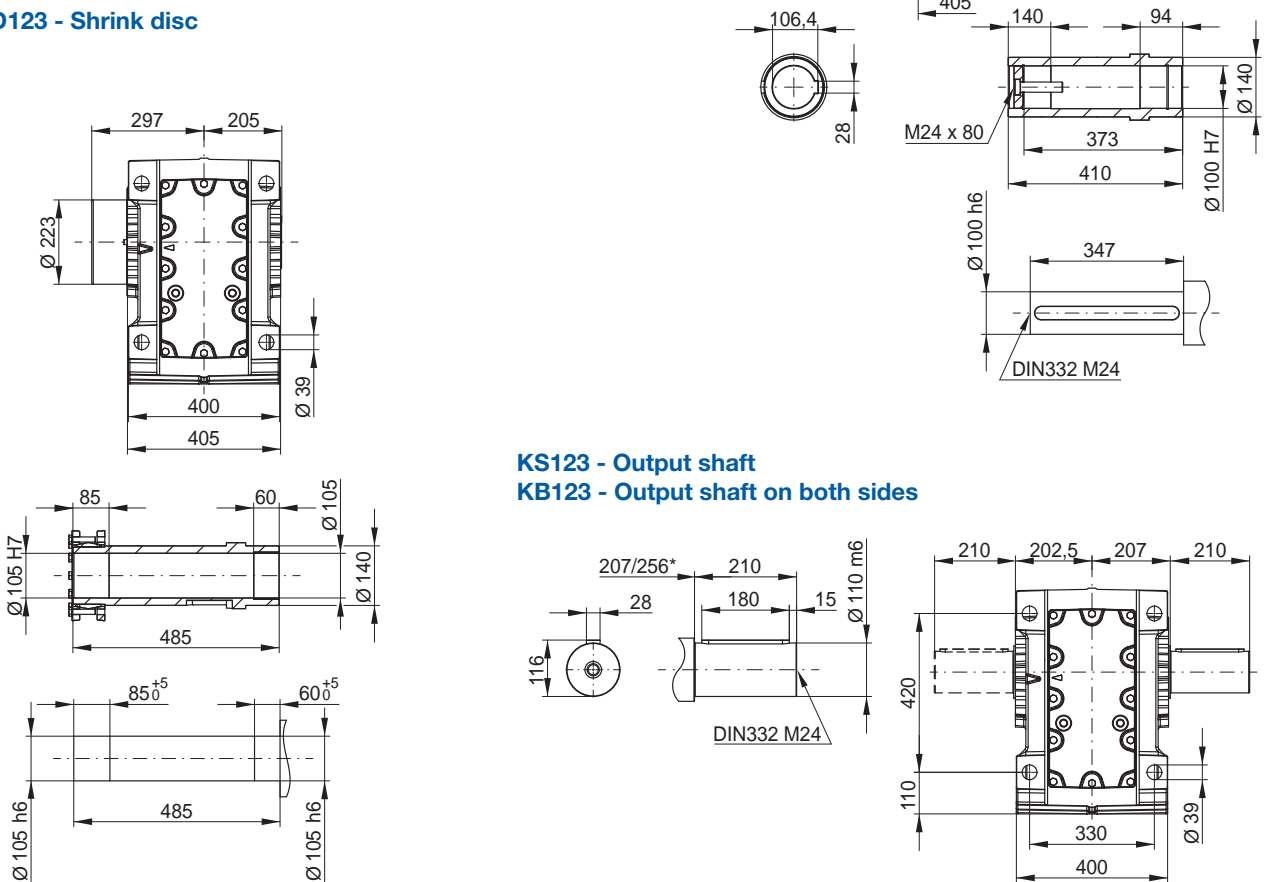
** Torque arm may be mounted on side A or side B.

KH123 - Hollow shaft

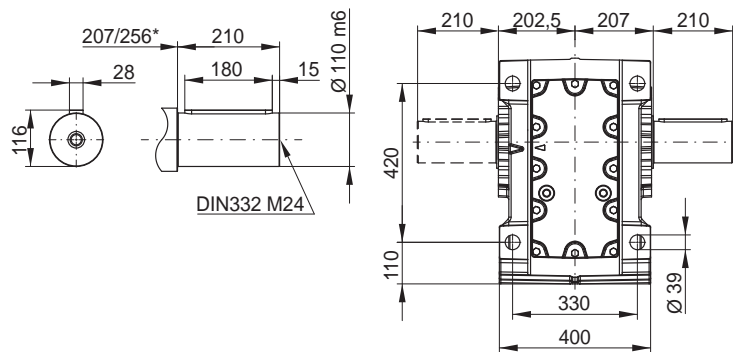


KD123 - Shrink disc

K



KS123 - Output shaft KB123 - Output shaft on both sides

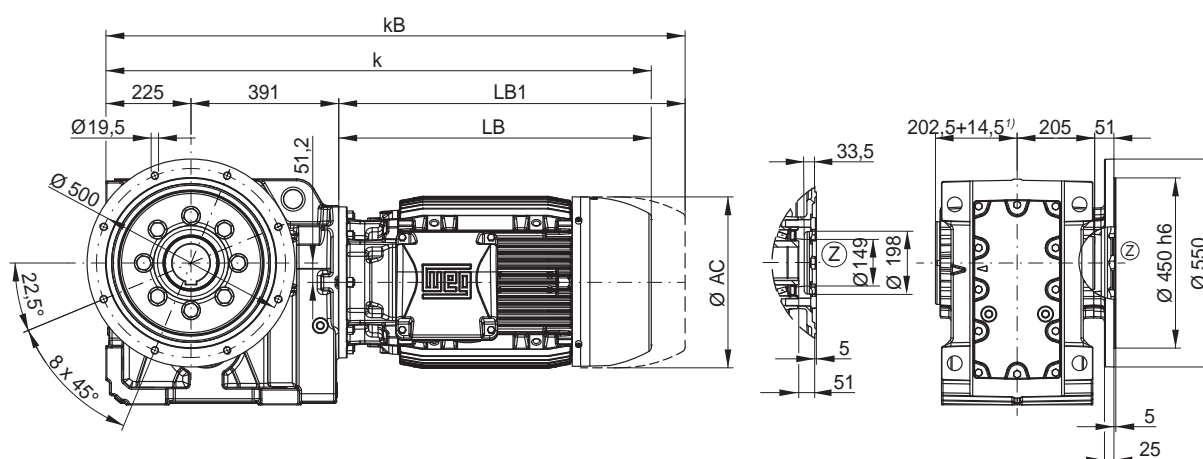


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M |
|--------------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|
| Dimension AC | - | - | - | - | - | - | - | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 | 453 |
| AD | - | - | - | - | - | - | - | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 | 385 |
| k | - | - | - | - | - | - | - | 964 | 1029 | 1067 | 1138 | 1182 | 1206 | 1244 | 1336 | 1444 |
| kB | - | - | - | - | - | - | - | 1051 | 1147 | 1185 | 1262 | 1306 | 1324 | 1362 | 1462 | 1562 |
| LB | - | - | - | - | - | - | - | 348 | 413 | 451 | 522 | 566 | 590 | 628 | 720 | 828 |
| LB1 | - | - | - | - | - | - | - | 435 | 531 | 569 | 646 | 690 | 708 | 746 | 846 | 946 |

Motor dimension sheets see page 496. Gear unit size K123 corresponds to motor flange FR-400.
Description of motor lengths LB and LB1 see page 500.

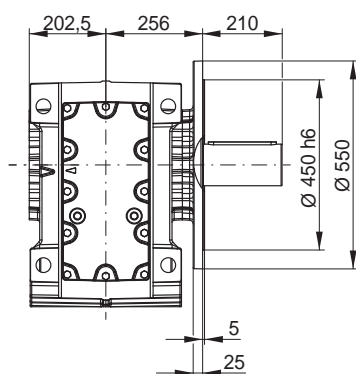
*Design KS(KB)/KF

KO123 - B5 flange execution with hollow shaft

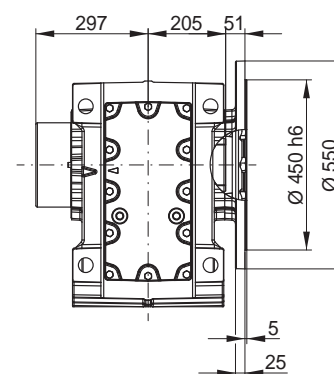


¹⁾ incl. hollow shaft protection cap

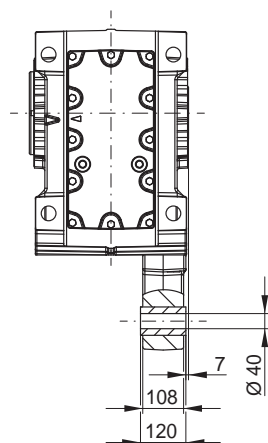
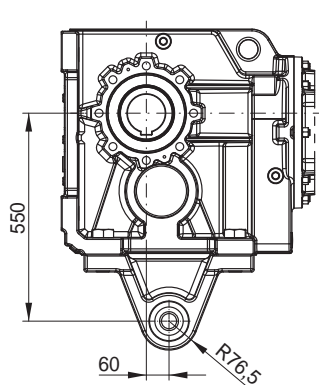
KF123 - B5 flange execution with output shaft



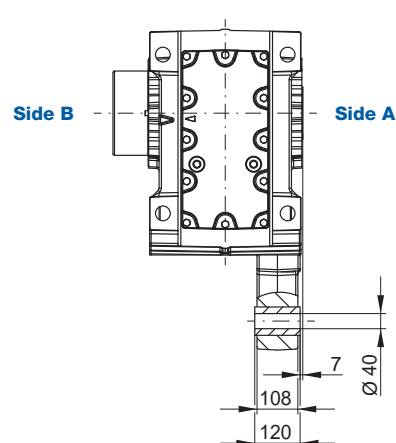
KP123 - B5 flange execution with hollow shaft and shrink disc



KT123 - Hollow shaft with torque arm **



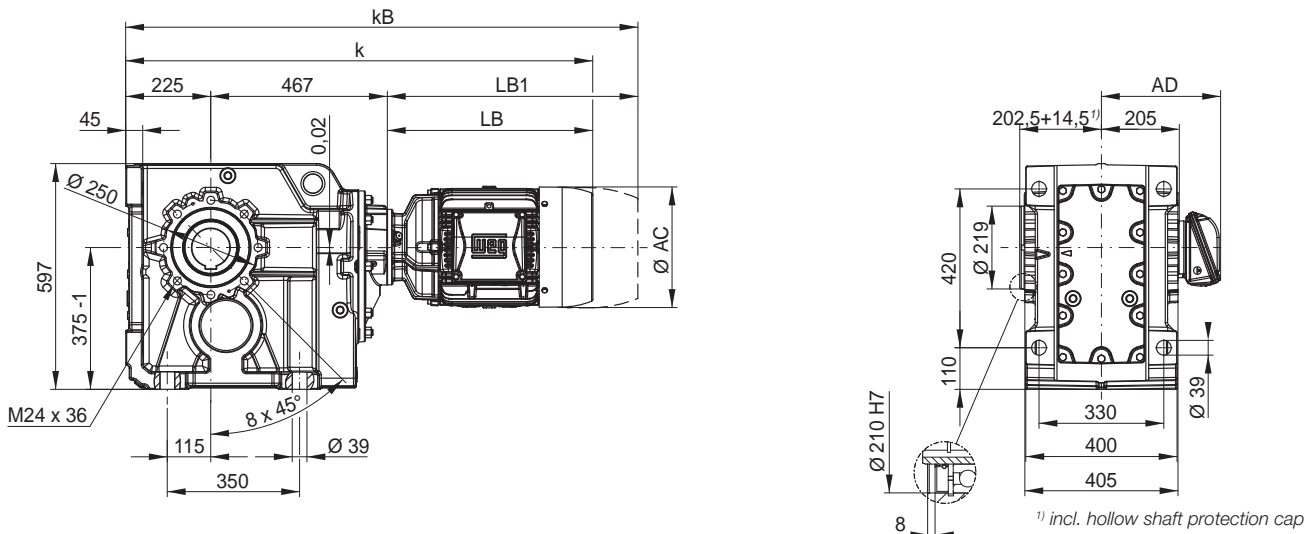
KU123 - Hollow shaft with shrink disc and torque arm **



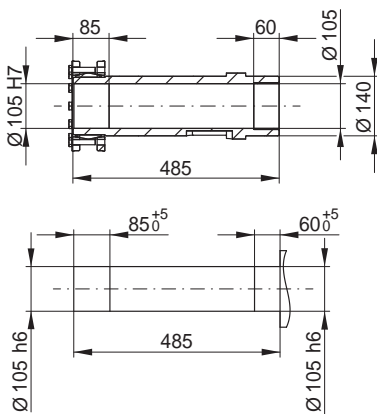
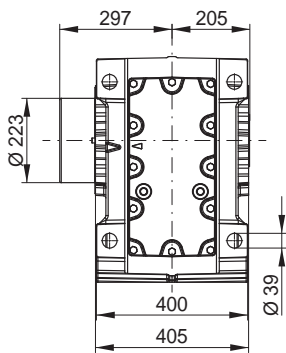
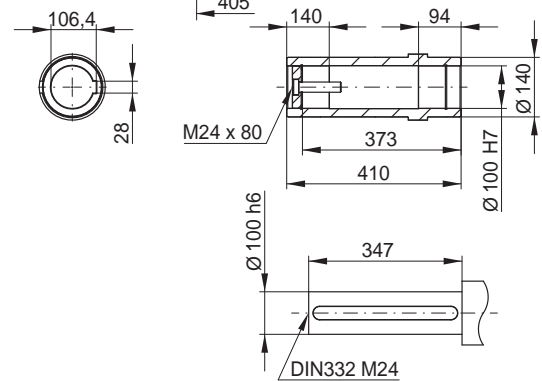
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

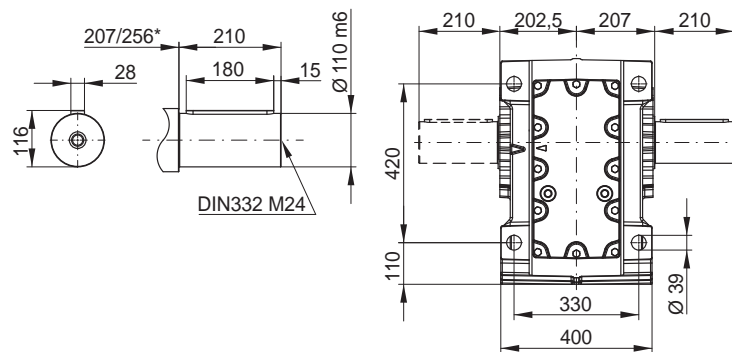
KH124 - Hollow shaft



KD124 - Shrink disc



KS124 - Output shaft KB124 - Output shaft on both sides

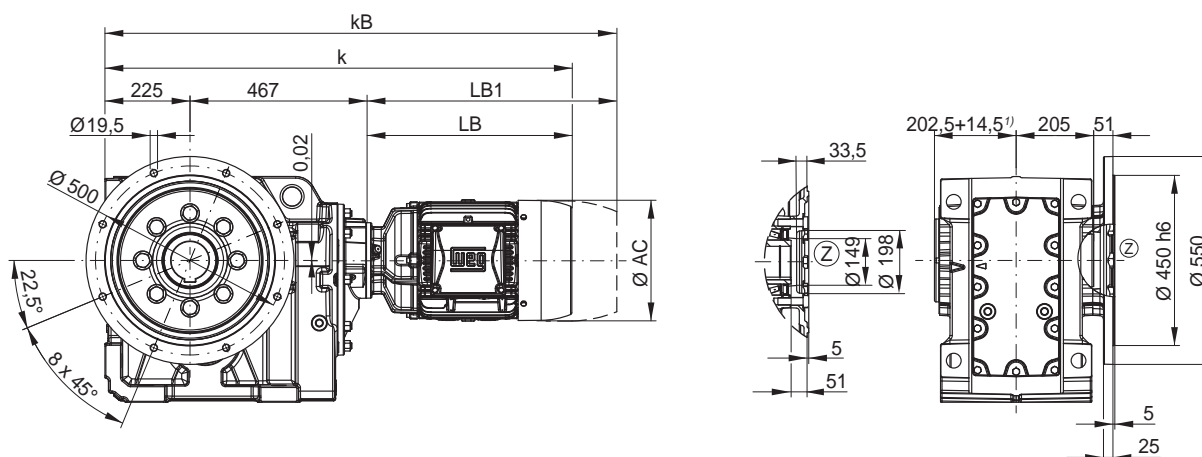


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L |
|-----------|-----|-----|-----|------|-------|------|-------|------|--------|-------|------|------|
| Dimension | | | | | | | | | | | | |
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 |
| k | 896 | 930 | 938 | 962 | 980 | 1030 | 1068 | 1040 | 1105 | 1143 | 1237 | 1281 |
| kB | 940 | 979 | 996 | 1020 | 1053 | 1114 | 1152 | 1127 | 1223 | 1261 | 1361 | 1405 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 545 | 589 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 669 | 713 |

Motor dimension sheets see page 496. Gear unit size K124 corresponds to motor flange FR-200. Description of motor lengths LB and LB1 see page 500.

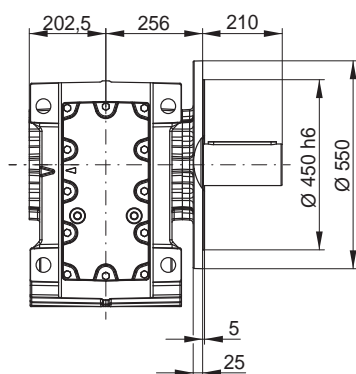
*Design KS(KB)/KF

KO124 - B5 flange execution with hollow shaft

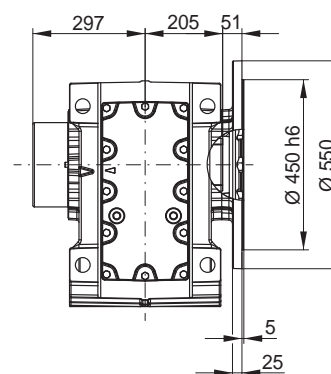


¹⁾ incl. hollow shaft protection cap

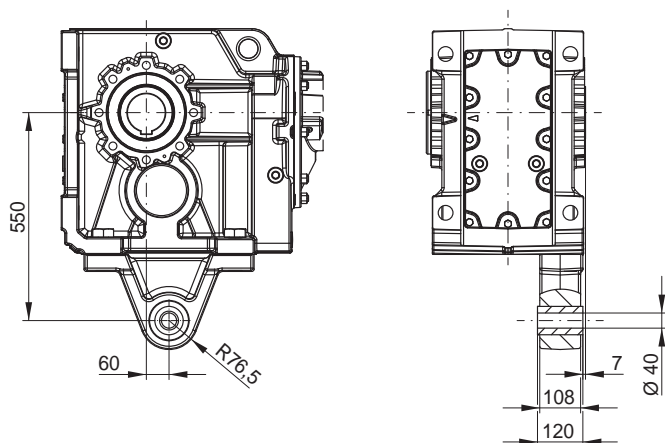
KF124 - B5 flange execution with output shaft



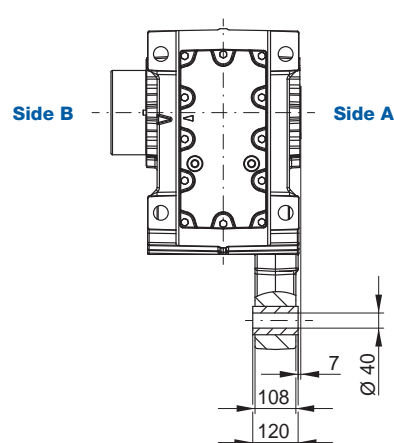
KP124 - B5 flange execution with hollow shaft and shrink disc



KT124 - Hollow shaft with torque arm **



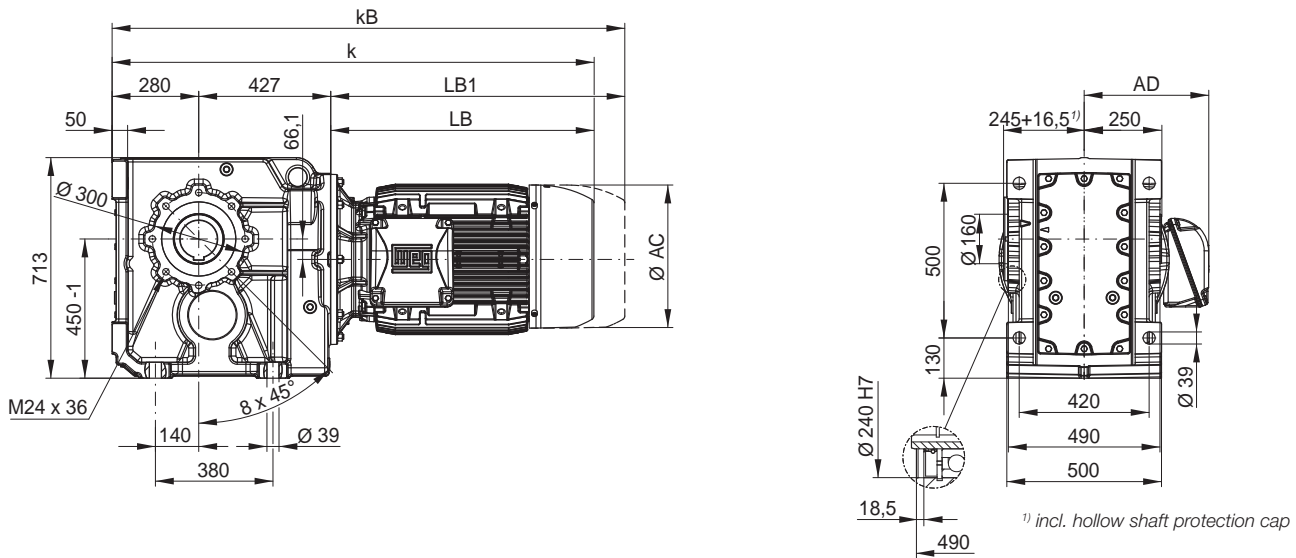
KU124 - Hollow shaft with shrink disc and torque arm **



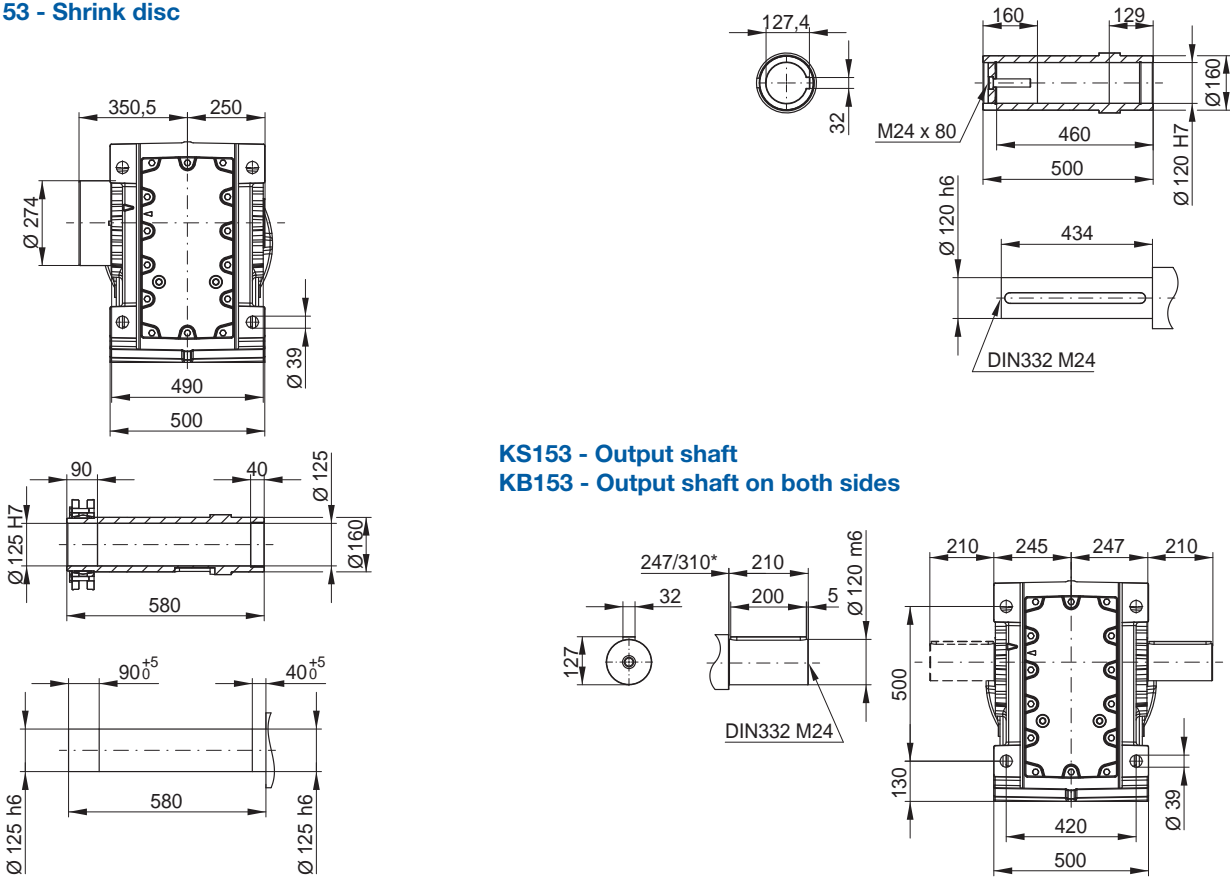
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

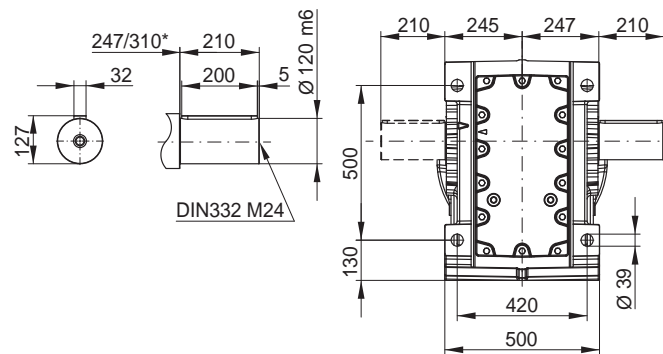
KH153 - Hollow shaft



KD153 - Shrink disc



KS153 - Output shaft KB153 - Output shaft on both sides

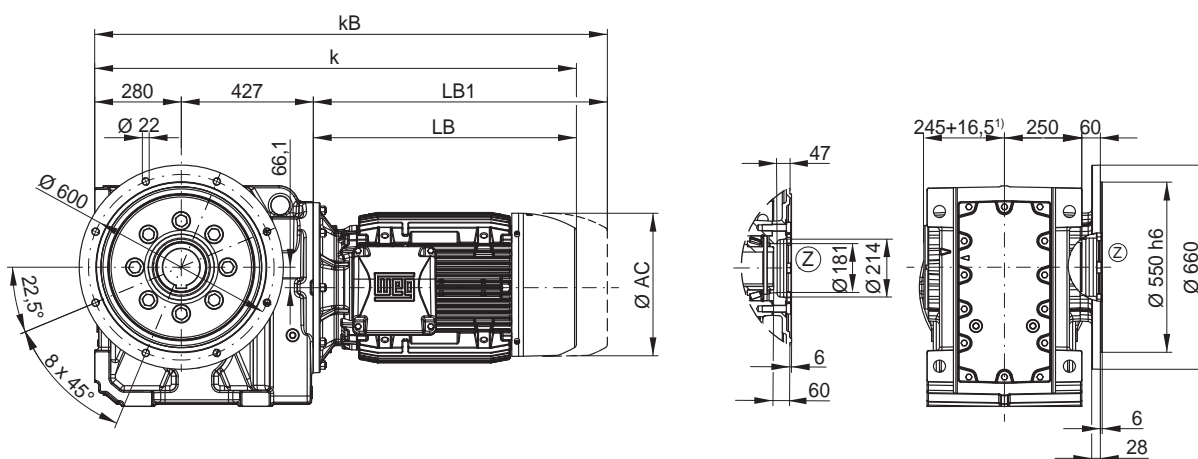


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L | 225S/M | 250S/M |
|-----------|----|----|----|-----|-------|------|-------|------|--------|-------|------|------|------|------|------|--------|--------|
| Dimension | | | | | | | | | | | | | | | | | |
| AC | - | - | - | - | - | - | - | - | - | - | 329 | 329 | 347 | 347 | 386 | 453 | 482 |
| AD | - | - | - | - | - | - | - | - | - | - | 266 | 266 | 281 | 281 | 317 | 385 | 403 |
| k | - | - | - | - | - | - | - | - | - | - | 1213 | 1257 | 1281 | 1319 | 1411 | 1519 | 1558 |
| kB | - | - | - | - | - | - | - | - | - | - | 1337 | 1381 | 1399 | 1437 | 1537 | 1637 | 1676 |
| LB | - | - | - | - | - | - | - | - | - | - | 506 | 550 | 574 | 612 | 704 | 812 | 851 |
| LB1 | - | - | - | - | - | - | - | - | - | - | 630 | 674 | 692 | 730 | 830 | 930 | 969 |

Motor dimension sheets see page 496. Gear unit size K153 corresponds to motor flange FR-550.
Description of motor lengths LB and LB1 see page 500.

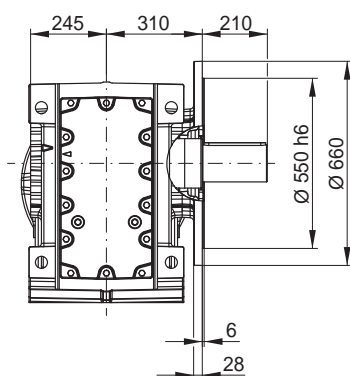
*Design KS(KB)/KF

KO153 - B5 flange execution with hollow shaft

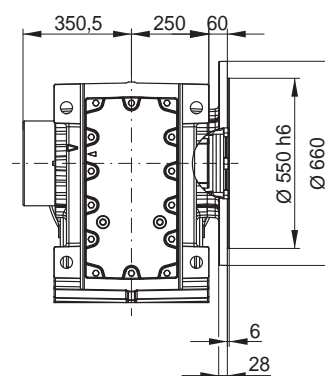


¹⁾ incl. hollow shaft protection cap

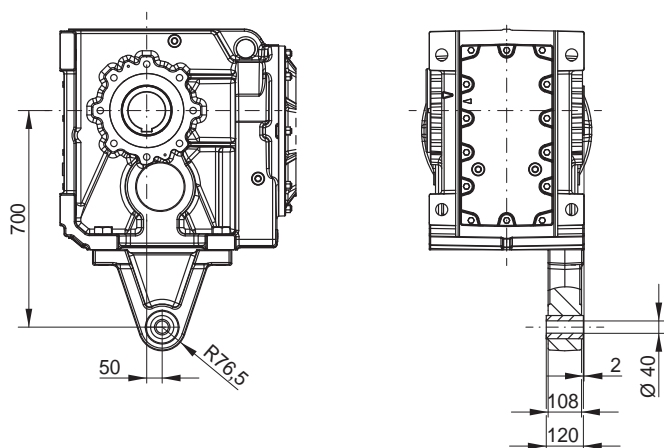
KF153 - B5 flange execution with output shaft



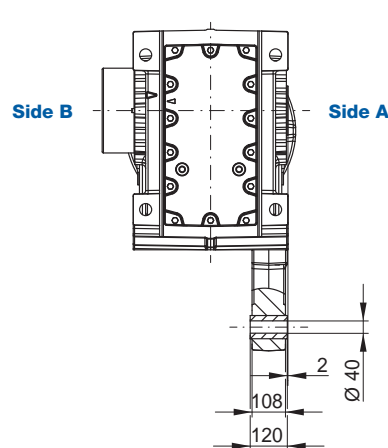
KP153 - B5 flange execution with hollow shaft and shrink disc



KT153 - Hollow shaft with torque arm **



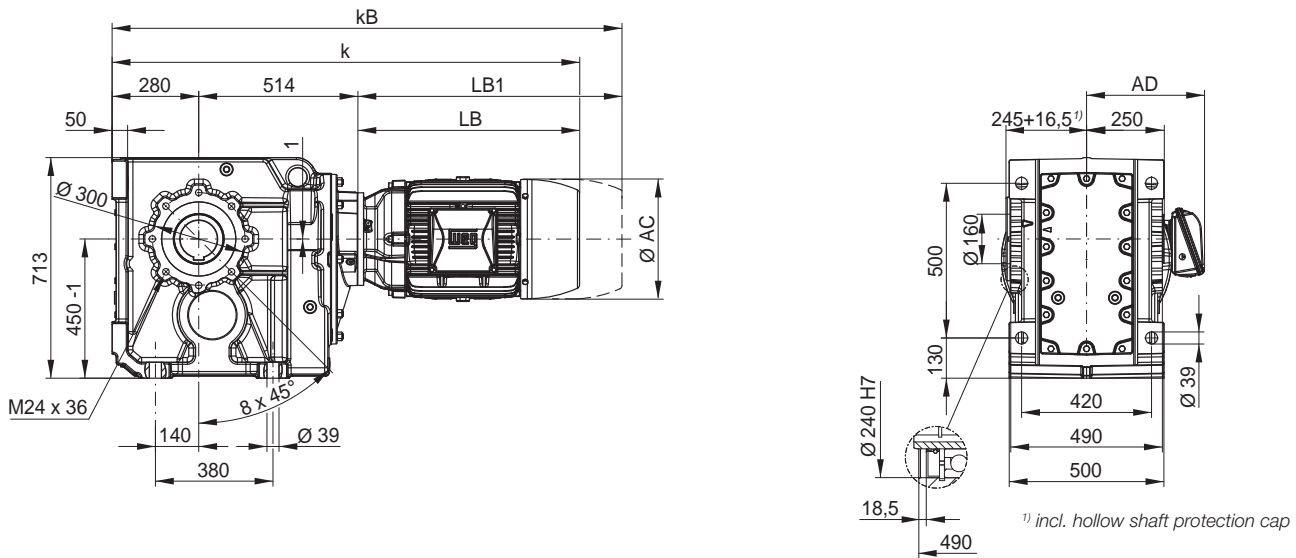
KU153 - Hollow shaft with shrink disc and torque arm **



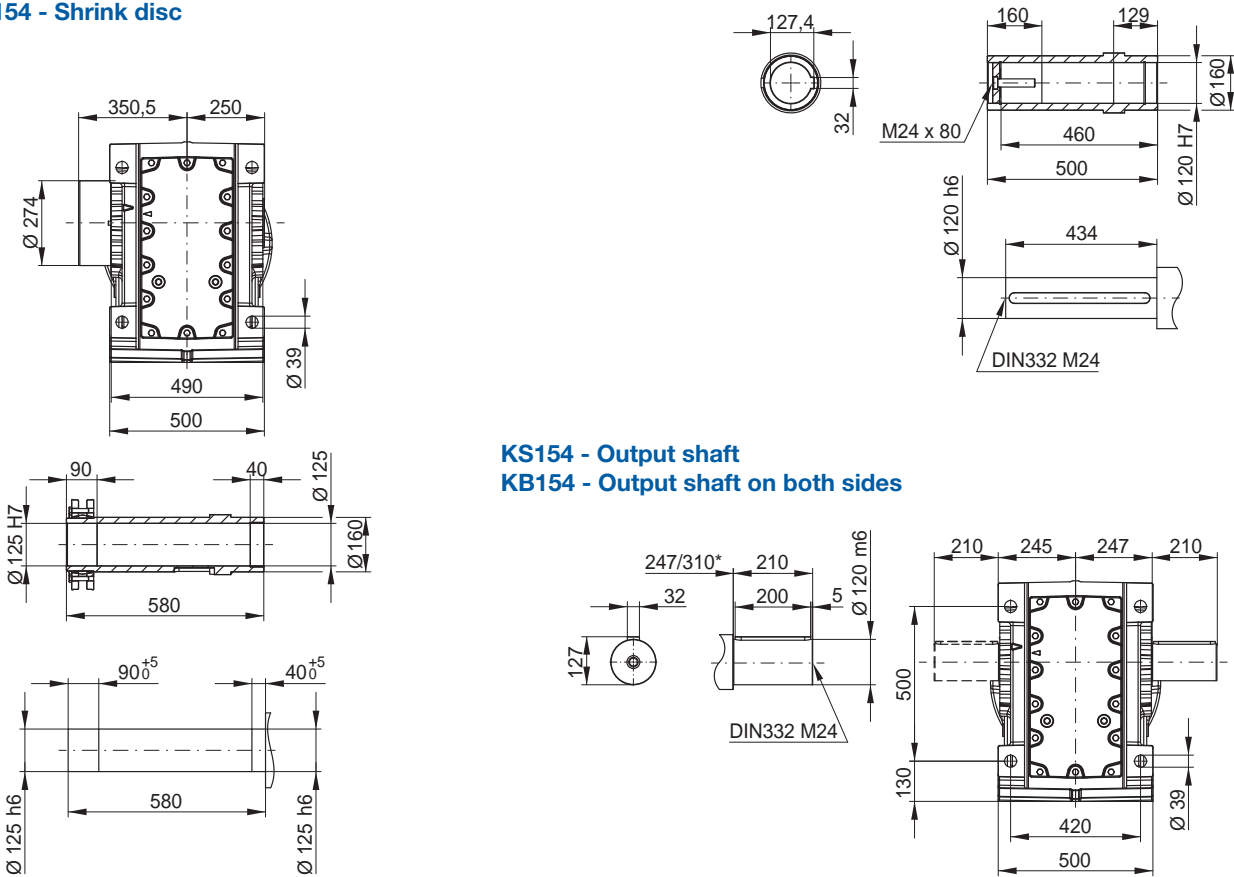
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

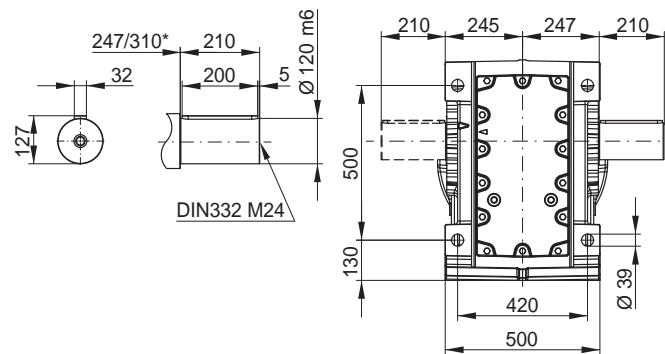
KH154 - Hollow shaft



KD154 - Shrink disc



KS154 - Output shaft KB154 - Output shaft on both sides

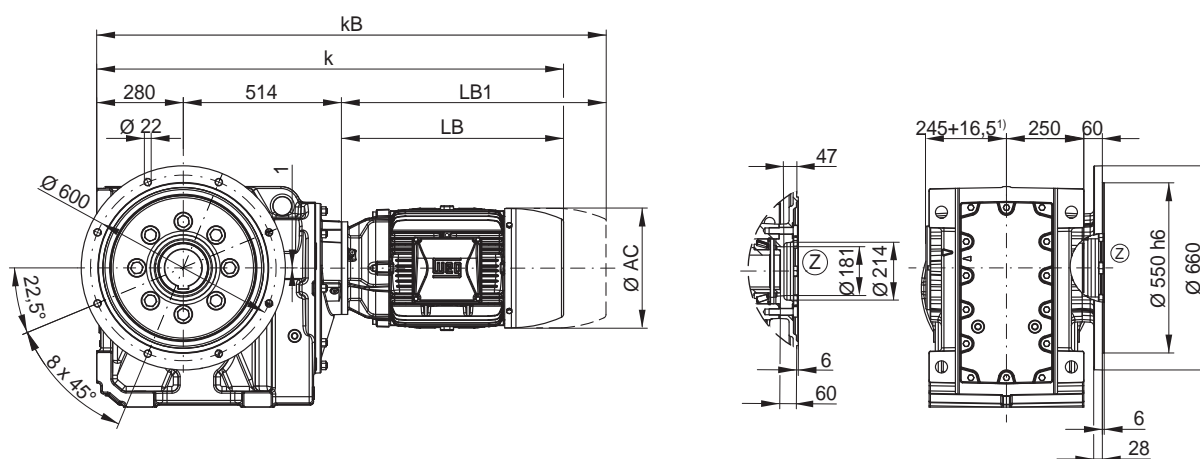


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M | 160M | 160L | 180M | 180L | 200L |
|-----------|------|------|------|------|-------|------|-------|------|--------|-------|------|------|------|------|------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 | 329 | 329 | 347 | 347 | 386 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 | 266 | 266 | 281 | 281 | 317 |
| k | 998 | 1032 | 1040 | 1064 | 1082 | 1132 | 1170 | 1142 | 1207 | 1245 | 1329 | 1373 | 1397 | 1435 | 1527 |
| kB | 1042 | 1081 | 1098 | 1122 | 1155 | 1216 | 1254 | 1229 | 1325 | 1363 | 1453 | 1497 | 1515 | 1553 | 1653 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 | 535 | 579 | 603 | 641 | 733 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 | 659 | 703 | 721 | 759 | 859 |

Motor dimension sheets see page 496. Gear unit size K154 corresponds to motor flange FR-300.
Description of motor lengths LB and LB1 see page 500.

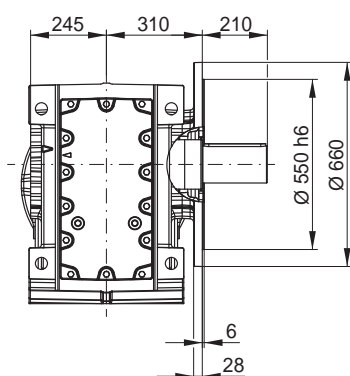
*Design KS(KB)/KF

KO154 - B5 flange execution with hollow shaft

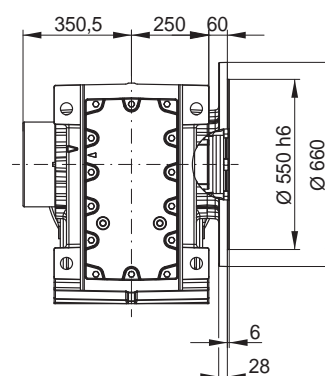


¹) incl. hollow shaft protection cap

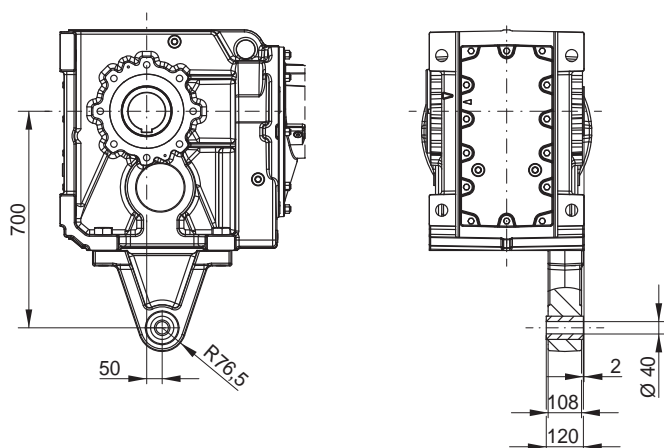
KF154 - B5 flange execution with output shaft



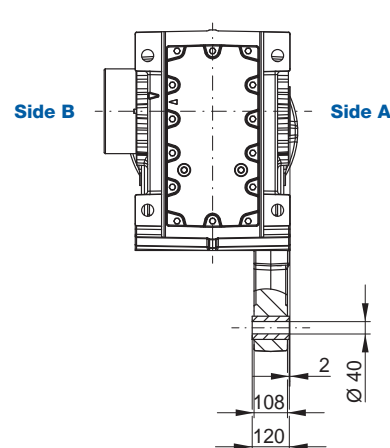
KP154 - B5 flange execution with hollow shaft and shrink disc



KT154 - Hollow shaft with torque arm **



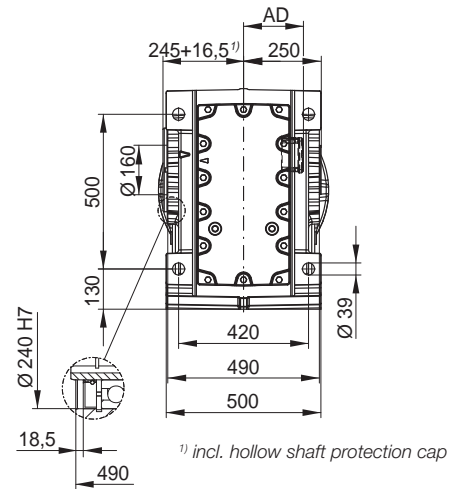
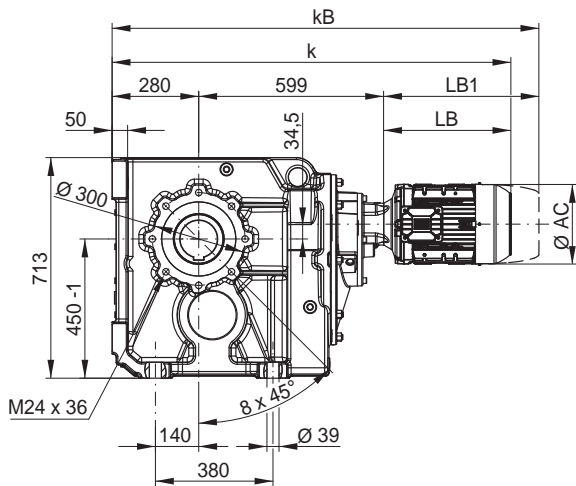
KU154 - Hollow shaft with shrink disc and torque arm **



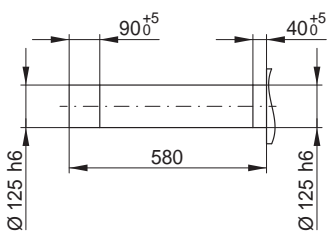
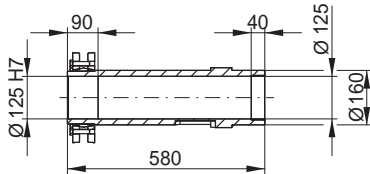
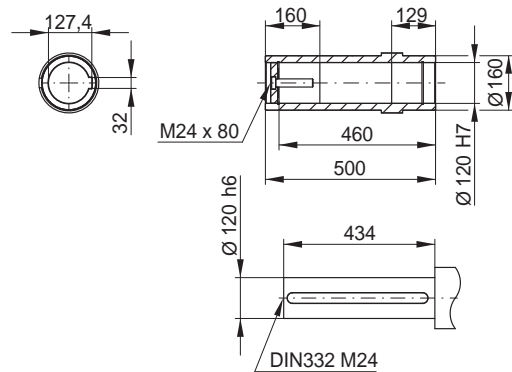
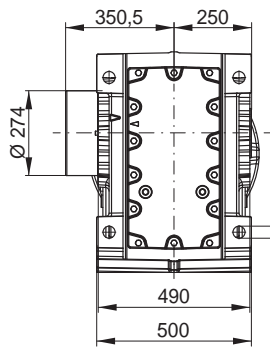
Dimensions in mm.

** Torque arm may be mounted on side A or side B.

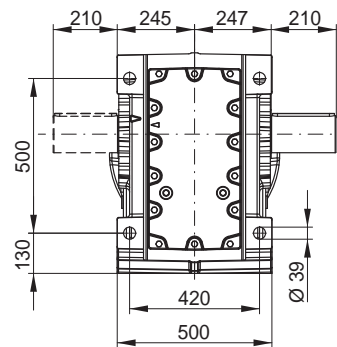
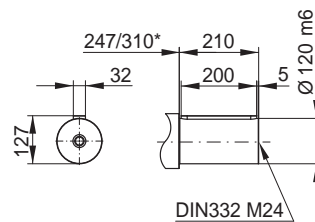
KH155 - Hollow shaft



KD155 - Shrink disc



KS155 - Output shaft KB155 - Output shaft on both sides

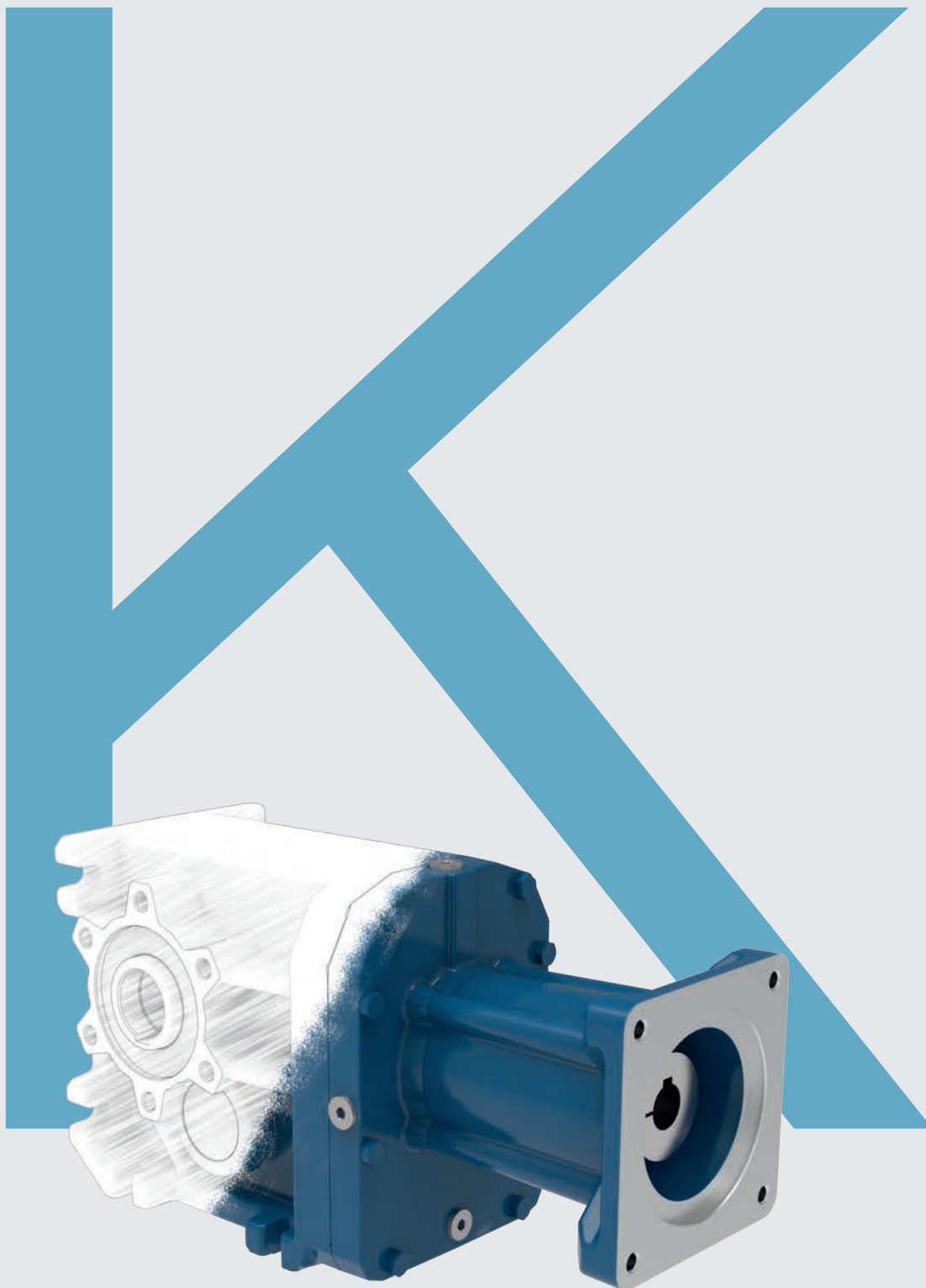


| Motor fr. | 63 | 71 | 80 | L80 | 90S/L | 100L | L100L | 112M | 132S,M | L132M |
|-----------|------|------|------|------|-------|------|-------|------|--------|-------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| k | 1083 | 1117 | 1125 | 1149 | 1167 | 1217 | 1255 | 1227 | 1292 | 1330 |
| kB | 1127 | 1166 | 1183 | 1207 | 1240 | 1301 | 1339 | 1314 | 1410 | 1448 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |

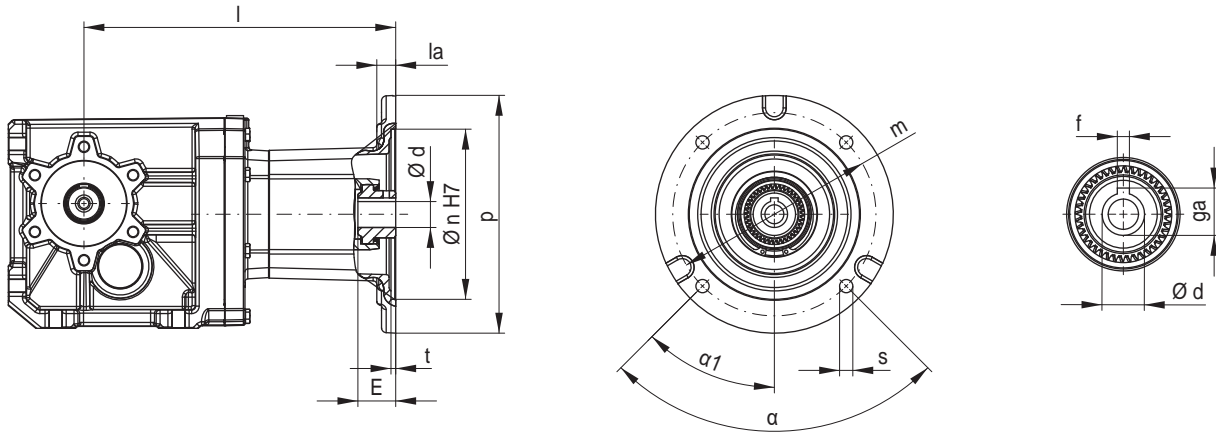
Motor dimension sheets see page 496. Description of motor lengths LB and LB1 see page 500.

*Design KS(KB)/KF

Dimension sheets Input types



IEC Adapter I63 to I280



K

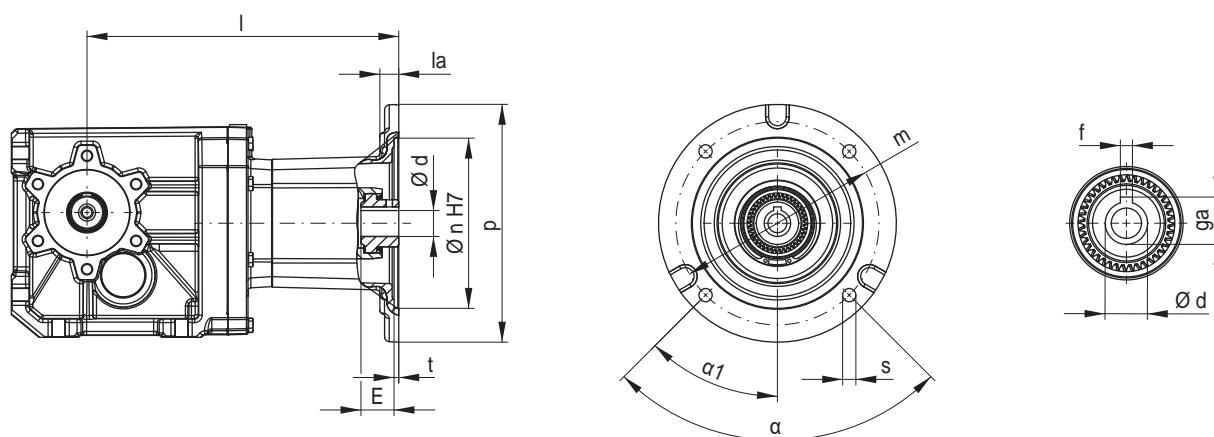
| Type | I63 | I71 | I80 | I90 | I100 | I112 | I132 | I160 | I180 | I200 | I225 | I250 | I280 |
|-----------------|-------|-------|------|------|------|------|------|-------|-------|-------|------|------|------|
| p | 154 | 154 | 200 | 200 | 250 | 250 | 300 | 350 | 350 | 400 | 450 | 550 | 550 |
| n | 95 | 110 | 130 | 130 | 180 | 180 | 230 | 250 | 250 | 300 | 350 | 450 | 450 |
| la | 22.5 | 10 | 13 | 13 | 15 | 20 | 15 | 35 | 35 | 20 | 20 | 20 | 20 |
| m | 115 | 130 | 165 | 165 | 215 | 215 | 265 | 300 | 300 | 350 | 400 | 500 | 500 |
| t | 4.5 | 4.5 | 4.5 | 4.5 | 5 | 5 | 5 | 5 | 5 | 5.5 | 5 | 5 | 5 |
| s | M8x16 | M8x10 | 11 | 11 | 13.5 | 13.5 | 13.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 |
| α | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 45 | 45 | 45 |
| α ₁ | 35 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| d | 11 | 14 | 19 | 24 | 28 | 28 | 38 | 42 | 48 | 55 | 60 | 65 | 75 |
| f | 4 | 5 | 6 | 8 | 8 | 8 | 10 | 12 | 14 | 16 | 18 | 18 | 20 |
| ga | 12.8 | 16.3 | 21.8 | 27.3 | 31.3 | 31.3 | 41.3 | 45.3 | 51.8 | 59.3 | 64.4 | 69.4 | 79.9 |
| E ¹⁾ | 25 | 32 | 43 | 47.5 | 63 | 100 | 85.5 | 111.5 | 111.5 | 114.5 | 140 | 146 | 146 |

¹⁾ Maximum motor shaft length for motors with key

| Gear unit size | I63 | I71 | I80 | I90 | I100 | I112 | I132 | I160 | I180 | I200 | I225 | I250 | I280 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| | l | | | | | | | | | | | | |
| K02 | 163.5 | 163.5 | 191.5 | 191.5 | - | - | - | - | - | - | - | - | - |
| K03 | 190 | 190 | 218 | 218 | 249 | - | - | - | - | - | - | - | - |
| K04 | 207.5 | 207.5 | 235.5 | 235.5 | 266.5 | 319.5 | - | - | - | - | - | - | - |
| K05 | 218 | 218 | 246 | 246 | 277 | 330 | 341 | - | - | - | - | - | - |
| K06 | 202.5 | 202.5 | 230.5 | 230.5 | 261.5 | 314.5 | 325.5 | - | - | - | - | - | - |
| K07 | 232.5 | 232.5 | 260.5 | 260.5 | 291.5 | 344.5 | 355.5 | 441.5 | - | - | - | - | - |
| K08 | 281.5 | 281.5 | 309.5 | 309.5 | 340.5 | 393.5 | 404.5 | 489 | 489 | - | - | - | - |
| K09 | 301.5 | 301.5 | 329.5 | 329.5 | 360.5 | 413.5 | 424.5 | 509 | 509 | 537.5 | - | - | - |
| K10 | - | - | - | - | - | 467.5 | 478.5 | 560.5 | 560.5 | 589 | 619 | - | - |
| K12 | - | - | - | - | - | 516.5 | 527.5 | 609.5 | 609.5 | 638 | 668 | 757 | 757 |
| K15 | - | - | - | - | - | - | - | 629.5 | 629.5 | 658 | 688 | 777 | 777 |

Dimensions in mm.

NEMA Adapter N56 to N364

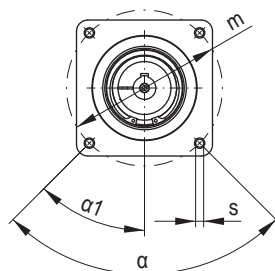
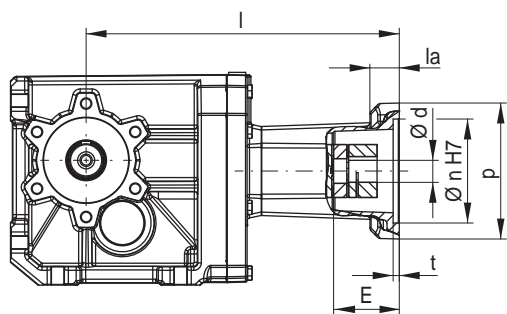


| Type | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 |
|------------|---------|----------|--------|--------|----------|----------|----------|----------|--------|
| p | 170 | 170 | 250 | 250 | 300 | 225 | 280 | 350 | 400 |
| n | 114.3 | 114.3 | 215.9 | 215.9 | 215.9 | 215.9 | 266.7 | 317.5 | 317.5 |
| la | 13 | 13 | 10 | 16.8 | 10 | 30 | 35 | 15 | 15 |
| m | 149.225 | 149.225 | 184.15 | 184.15 | 184.15 | 184.15 | 228.6 | 279.4 | 279.4 |
| t | 4.5 | 4.5 | 5 | 3.2 | 5 | 5 | 3 | 5 | 5 |
| s | 11 | 11 | 14 | 14 | 14 | 14 | 14 | 16 | 16 |
| α | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| α_1 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| d | 15.875 | 22.225 | 28.575 | 28.575 | 34.925 | 41.275 | 47.625 | 53.975 | 60.325 |
| f | 4.775 | 4.775 | 6.350 | 6.350 | 7.950 | 9.525 | 12.700 | 12.700 | 15.875 |
| ga | 18.008 | 24.486 | 31.521 | 31.521 | 38.557 | 45.618 | 53.238 | 59.690 | 67.335 |
| E | 55 | 55 | 67.5 | 96.8 | 80.5 | 105.5 | 111.5 | 109.5 | 109.5 |

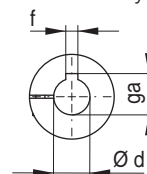
¹⁾ Maximum motor shaft length for motors with key

| Gear unit size | N56 | N143/145 | N182 | N184 | N213/215 | N254/256 | N284/286 | N324/326 | N364 |
|----------------|-------|----------|-------|-------|----------|----------|----------|----------|-------|
| | l | | | | | | | | |
| K02 | 191.5 | 191.5 | - | - | - | - | - | - | - |
| K03 | 218 | 218 | 249 | - | - | - | - | - | - |
| K04 | 235.5 | 235.5 | 266.5 | 319.5 | - | - | - | - | - |
| K05 | 246 | 246 | 277 | 330 | 341 | - | - | - | - |
| K06 | 230.5 | 230.5 | 261.5 | 314.5 | 325.5 | - | - | - | - |
| K07 | 260.5 | 260.5 | 291.5 | 344.5 | 355.5 | 441.5 | - | - | - |
| K08 | 309.5 | 309.5 | 340.5 | 393.5 | 404.5 | 489 | 492 | - | - |
| K09 | 329.5 | 329.5 | 360.5 | 413.5 | 424.5 | 509 | 512 | 559.5 | - |
| K10 | - | - | - | 467.5 | 478.5 | 560.5 | 563.5 | 611 | 626.5 |
| K12 | - | - | - | 516.5 | 527.5 | 609.5 | 612.5 | 660 | 675.5 |
| K15 | - | - | - | - | - | 629.5 | 632.5 | 695.5 | 695.5 |

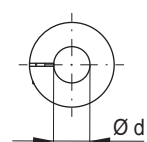
SERVO Adapter S92 to S190



Shaft with key



Smooth shaft



| Typ | S92 | S105 | S114 | S115 | S130 | | | | S141 | S142 | S180 | S189 | S190 | | | | | | |
|-----------------|-------|------|-------|-------|-------|------|------|------|-------|-------|-------|------|------|------|------|------|------|----|----|
| p | 101 | 144 | 144 | 144 | 144 | | | | 144 | 144 | 197 | 197 | 197 | | | | | | |
| n | 80 | 95 | 95 | 110 | 110 | | | | 110 | 130 | 114,3 | 130 | 180 | | | | | | |
| la | 17,5 | 31 | 31 | 31 | 31 | | | | 31 | 31 | 35 | 32 | 38 | | | | | | |
| m | 100 | 115 | 130 | 130 | 145 | | | | 165 | 165 | 200 | 215 | 215 | | | | | | |
| t | 6,5 | 6,5 | 6,5 | 6,5 | 6,5 | | | | 6,5 | 6,5 | 6,5 | 6,5 | 6,5 | | | | | | |
| s | M6x12 | | M8x16 | M8x16 | M8x16 | | | | M8x16 | M8x16 | 13,5 | 15 | 15 | | | | | | |
| α | 90° | | 90° | 90° | 90° | | | | 90° | 90° | 90° | 90° | 90° | | | | | | |
| α ₁ | 45° | | 45° | 45° | 45° | | | | 45° | 45° | 45° | 45° | 45° | | | | | | |
| d ¹⁾ | 14 | 16 | 19 | 19 | 19 | 24 | 19 | 22 | 24 | 28 | 24 | 24 | 32 | 35 | 32 | 38 | 38 | | |
| f | 5 | 5 | 6 | 6 | 6 | 8 | 6 | 6 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | | |
| ga | 16,3 | 18,3 | 21,8 | 21,8 | 21,8 | 27,3 | 21,8 | 24,8 | 27,3 | 31,3 | 27,3 | 27,3 | 35,3 | 38,3 | 35,3 | 41,3 | 41,3 | | |
| E ²⁾ | 46 | 46 | 34 | 67 | 67 | 54 | 67 | 54 | 76 | 63 | 63 | 63 | 54 | 63 | 63 | 66 | 74 | 60 | 87 |
| E ³⁾ | 46 | 46 | 46 | 67 | 67 | 67 | 67 | 67 | 76 | 76 | 76 | 63 | 67 | 76 | 63 | 87 | 74 | 60 | 87 |

¹⁾ Other shaft diameters on request

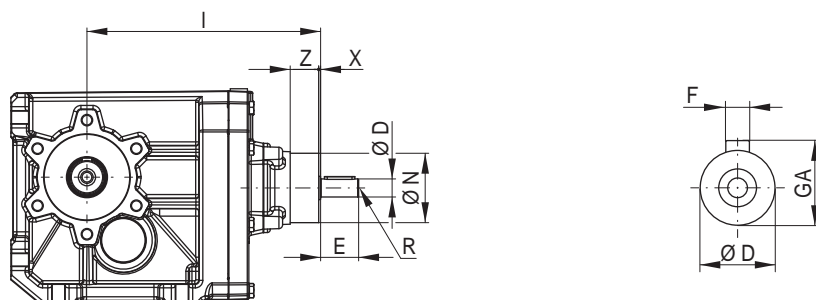
²⁾ Maximum motor shaft length for motors with key

³⁾ Maximum motor shaft length for motors with smooth shaft

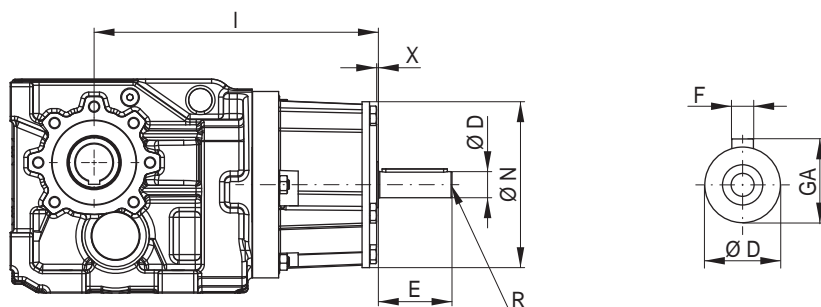
| Gear unit size | S92 | S105 | S114 | S115 | S130 | S141 | S142 | S180 | S189 | S190 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | I | | | | | | | | | |
| K02 | 229 | 277 | 277 | 277 | 277 | 277 | 277 | - | - | - |
| K03 | 255.5 | 303.5 | 303.5 | 303.5 | 303.5 | 303.5 | 303.5 | - | - | - |
| K04 | 273 | 321 | 321 | 321 | 321 | 321 | 321 | 391.5 | 385.5 | 412.5 |
| K05 | 283.5 | 331.5 | 331.5 | 331.5 | 331.5 | 331.5 | 331.5 | 402 | 396 | 423 |
| K06 | 268 | 316 | 316 | 316 | 316 | 316 | 316 | 386.5 | 380.5 | 407.5 |
| K07 | 298 | 346 | 346 | 346 | 346 | 346 | 346 | 416.5 | 410.5 | 437.5 |
| K08 | 347 | 395 | 395 | 395 | 395 | 395 | 395 | 465.5 | 459.5 | 486.5 |
| K09 | 367 | 415 | 415 | 415 | 415 | 415 | 415 | 485.5 | 479.5 | 506.5 |
| K10 | - | - | - | - | - | - | - | 539.5 | 533.5 | 560.5 |
| K12 | - | - | - | - | - | - | - | 588.5 | 582.5 | 609.5 |
| K15 | - | - | - | - | - | - | - | - | - | - |

Dimensions in mm.

Input Unit U2, U3



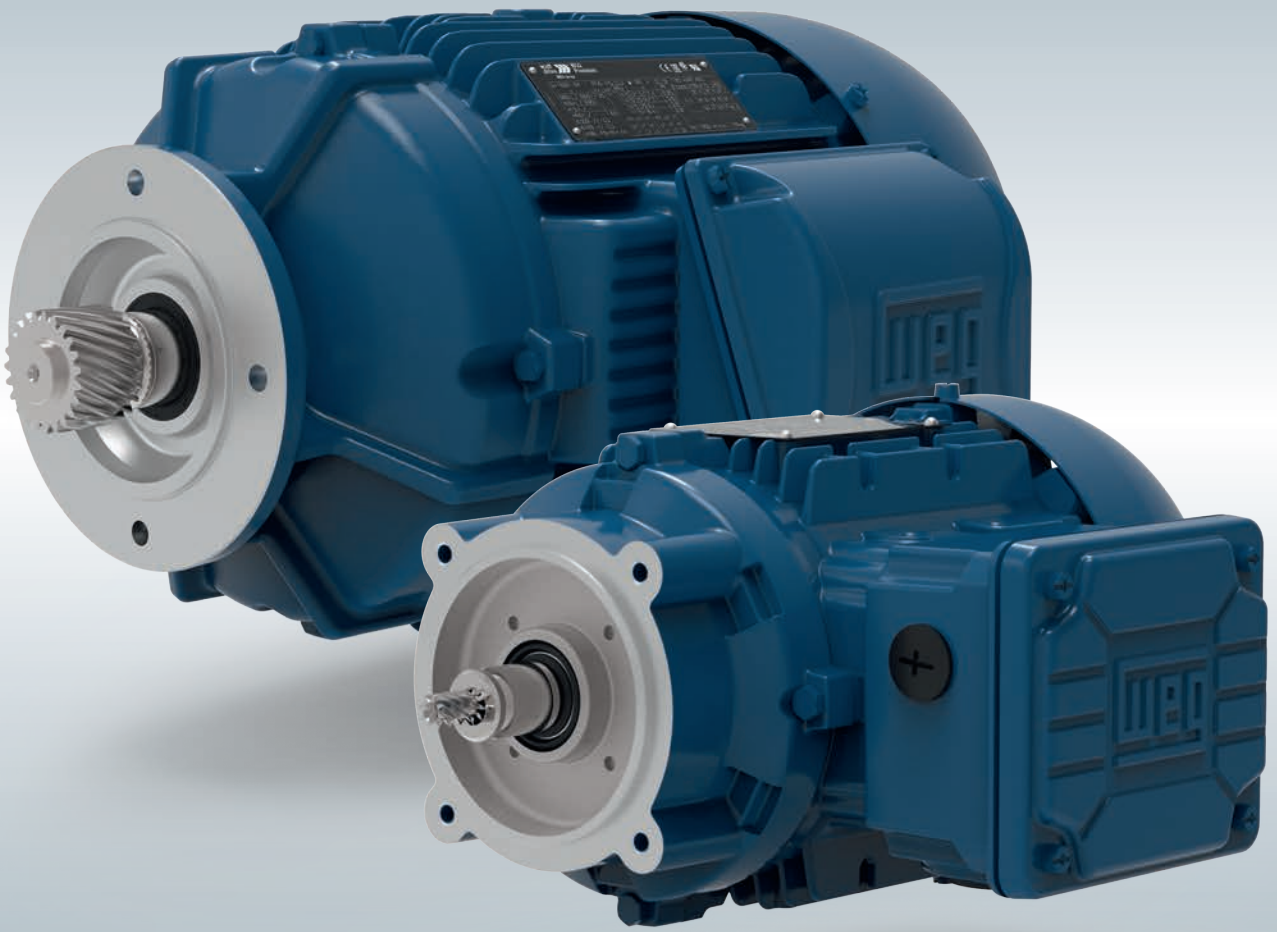
Input Unit U5, U6, U7



| Type | Input shaft [mm] | | | | | | |
|------|------------------|-------|-------|-------|--------|--------|--------|
| | 19x40 | 24x50 | 28x60 | 38x80 | 42x110 | 48x110 | 55x110 |
| | U2 | U3 | U5 | | | U6 | U7 |
| D | 19 | 24 | 28 | 38 | 42 | 48 | 55 |
| F | 6 | 8 | 8 | 10 | 12 | 14 | 16 |
| GA | 21.5 | 27 | 31 | 41 | 45 | 51.5 | 59 |
| E | 40 | 50 | 60 | 80 | 110 | 110 | 110 |
| N | 73 | 101 | 178 | | | 235 | 290 |
| X | 2 | 2.5 | 1.9 | | | 6.5 | 4 |
| Z | 3 | 35 | - | | | - | - |
| R | M6 | M10 | M10 | M12 | M16 | M16 | M20 |

| Tolerances | | |
|----------------|--------------------------------|----|
| Dimension name | ISO tolerance DIN EN ISO 286-2 | |
| D | < Ø 55 mm | k6 |
| | ≥ Ø 55 mm | m6 |

| Gear unit size | Input shaft [mm] | | | | |
|----------------|------------------|-------|--------------------------|--------|--------|
| | 19x40 | 24x50 | 28x60 38x80 42x110 | 48x110 | 55x110 |
| | U2 | U3 | U5 | U6 | U7 |
| | I | | | | |
| K02 | 191.5 | - | - | - | - |
| K03 | 218 | - | - | - | - |
| K04 | 235.5 | 267.5 | - | - | - |
| K05 | 246 | 278 | - | - | - |
| K06 | 230.5 | 262.5 | 305 | - | - |
| K07 | 260.5 | 292.5 | 335 | - | - |
| K08 | 309.5 | 341.5 | 382.5 | 404.5 | - |
| K09 | 329.5 | 361.5 | 402.5 | 424.5 | - |
| K10 | - | 415.5 | 454 | 476 | 545 |
| K12 | - | 464.5 | 503 | 525 | 594 |
| K15 | - | - | 523 | 545 | 614 |



Modular System Motor





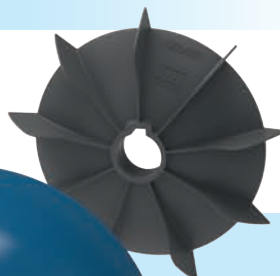
Terminal box designs
page 502



Brake systems
and back stops
page 505



Encoder systems
page 516



Ventilation systems
page 519

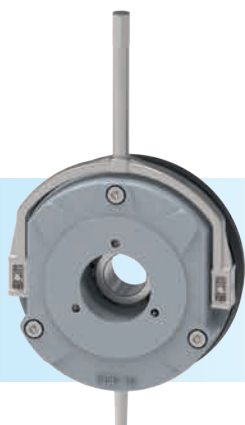




Motor series 14 and 11
with aluminium housing
(frame sizes 63 - 132)



Motor series 22
with cast iron housing
(frame sizes 160 - 250)



The modular motor system

Our motor system is an optimised and modularly designed kit. It includes harmonised modules like brakes, encoders, forced ventilation and connecting systems which are combined to the customer's requirements.

The significant advantage of this concept offers fast and reliable delivery times, not only to our local customers but also internationally, because WEG's competent sales network and assembling centres guarantee the availability of components worldwide.

Detailed description of the motor modules see from page 501.

The modular system motor

Three motor series are used for the modular system motor:

Multi-Voltage-Motor:

Motor series 14P (Aluminium), IEC frame sizes 63 to 80 (up to 0.55 kW)

Advantages

- Efficiency class: IE3
- Voltages:
 - 230/400 V - 50 Hz
 - 265/460 V - 60 Hz
- Frequency inverter operation up to 87/105 Hz
- Ambient temperature -20 bis +40 °C
- Nameplate with 50/60 Hz data
- Flexible adjustment of the terminal box
- Reinforced bearings (integral motor)
- Shaft system for immediate assembling of motor modules, like encoders, brakes, back stop, etc.
- Standard degree of protection IP55
- Thermal protection with bimetal switch and PTC thermistor
- Thermal class F
- System motor, prepared for flexible assembling of motor modules
- Certified for worldwide distribution: CE, UKCA, CSA, UL, EAC, CCC

EUSAS®-Motor:

Motor series 11P (Aluminium), IEC frame sizes 80 to 132 (0.75 - 9.2 kW)

Motor series 22P (Cast iron), IEC frame sizes 160 and 250 (11-75 kW)

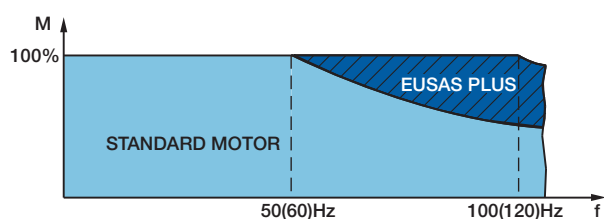
Advantages

- Efficiency class: IE3
- Wide-range winding
- Voltage switchable to all common world voltages (rated voltage):
 - 115-460 V - 50/60 Hz up to frame size 100
 - 200-690 V - 50/60 Hz frame sizes 112 to 250
- Frequency inverter operation 100/120 Hz
- Ambient temperature -20 bis +40 °C
- Nameplate with 50/60 Hz data
- Flexible adjustment of the terminal box
- Reinforced bearings (integral motor)
- Shaft system for immediate assembling of motor modules, like encoders, brakes, back stop, etc.
- Standard degree of protection IP55
- Thermal protection with bimetal switch and/or PTC thermistor
- Thermal class F
- System motor, prepared for flexible assembling of motor modules
- Certified for worldwide distribution: CE, UKCA, CSA, UL, EAC

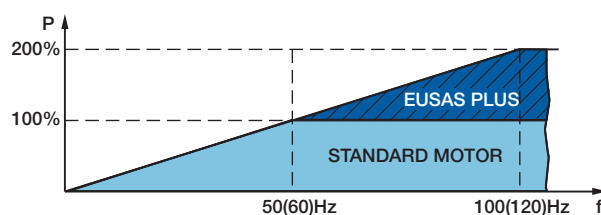
The ideal motor for frequency inverter operation

Switchable to 100/120 Hz. Simply switch over and use the double output.

The excellent combination of the modular system motor and variable speed drives by WEG (type CFW for various applications and decentralised motor drive MW500) enables drive systems with wide speed range.



Rated torque up to double rated speed



Two times rated power at double rated speed

Type code

11P-EX-L100L-04F-LT-TH-SH-K1-KB-MIP-BR..-SG-FL-SD

1
2
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16

- 1** Motor series: 14P = Aluminium motor in energy efficiency class IE3, frame sizes 63 - 80 (up to 0.55 kW)
 11P = Aluminium motor in energy efficiency class IE3, frame sizes 80 - 132 (0.75 - 9.2 kW)
 22P = Cast iron motor in energy efficiency class IE3, frame sizes 160 - 250 (11 - 75 kW)
- 2** ATEX execution: when operated in explosive atmospheres, see page 484
- 3** Stator length: L.
 .S
 .S/L
 .S/M
 .M
 .L
- 4** IEC frame size: 63 132
 71 160
 80 180
 90 200
 100 225
 112 250
- 5** Number of poles: 04 = 4 poles
 06 = 6 poles
- 6** Power indicator: D
 E
 F
 G
- 7** High/Low temperature execution: see page 501
- 8** Temperature control: see page 501
- 9** Anti-condensation heating: see page 501
- 10** Climatic protection: see page 502
- 11** Drain: see page 502
- 12** Terminal box designs: see page 502
- 13** Brake systems, back stop: see page 505
- 14** Encoder systems: see page 516
- 15** Ventilation systems: see page 519
- 16** Additional modules: see page 521



Options

1. Basic execution

| Description | Key | Page | IEC frame size | | | | | | | | | | | | | | |
|--|-----|------|----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|
| | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | | | |
| Switchable voltage (4 connections) | - | 484 | | | | | | | | | | | | | | | |
| Temperature controller for switch off (+155 °C) | TH | 501 | | | | | | | | | | | | | | | |
| PTC thermistor protection for switch off (+155 °C) | TF | 501 | | | | | | | | | | | | | | | |
| Thermal class F (up to +155 °C) | - | 484 | | | | | | | | | | | | | | | |
| Fixed bearing NDE | - | - | | | | | | | | | | | | | | | |
| Fixed bearing DE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Degree of protection IP55 | - | 17 | | | | | | | | | | | | | | | |
| Certifications (CE, UKCA, EAC, UL, CSA: all / *CCC: up to 0.55 kW) | - | - | * | * | * | | | | | | | | | | | | |

2. Electrical options

| Description | Key | Page | IEC frame size | | | | | | | | | | | | | | |
|--|-----|------|----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | | | |
| Special voltage SPECI-Volt | - | 484 | | | | | | | | | | | | | | | |
| Temperature controller for warning and switch off | 2TH | 501 | | | | | | | | | | | | | | | |
| PTC thermistor protection for warning and switch off | 2TF | 501 | | | | | | | | | | | | | | | |
| Temperature sensor KTY | KTY | 501 | | | | | | | | | | | | | | | |
| Temperature sensor Pt100 | - | - | | | | | | | | | | | | | | | |
| Anti-condensation heating 230 V | SH | 501 | - | | | | | | | | | | | | | | |
| Thermal class H (up to +180 °C) | - | - | | | | | | | | | | | | | | | |

3. Mechanical options

| Description | Key | Page | IEC frame size | | | | | | | | | | | | | | |
|--|----------|------|----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|
| | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | | | |
| Degree of protection IP56 | - | 17 | | | | | | | | | | | | | | | |
| Degree of protection IP65 | - | 17 | | | | | | | | | | | | | | | |
| Degree of protection IP66 | - | 17 | | | | | | | | | | | | | | | |
| Degree of protection IP67 | - | 17 | | | | | | | | | | | | | | | |
| High temperature execution (max. +80 °C ambient temperature) | HT | 501 | | | | | | | | | | | | | | | |
| Low temperature execution | LT | 501 | | | | | | | | | | | | | | | |
| ATEX zone 2+22: II 3G Ex ec IIC T3 Gc / II 3D Ex tc IIIC T125°C Dc | EX | 484 | | | | | | | | | | | | | | | |
| Humidity protection K1 | K1 | 502 | | | | | | | | | | | | | | | |
| Corrosion protection K2 | K2 | 502 | | | | | | | | | | | | | | | |
| Drain | KB | 502 | | | | | | | | | | | | | | | |
| Multipin box | MIP | 502 | | | | | | | | | | | | | | | |
| Multi-plug-connect systems | MIG.. | 503 | | | | | | | | | | | | | | | |
| Multi-plug-connect system for forced ventilation | MIG10-FL | 503 | | | | | | | | | | | | | | | |
| Non-ventilated without NDE shaft end | U | 520 | | | | | | | | | | | | | | | |
| Non-ventilated with NDE shaft end | UW | 520 | | | | | | | | | | | | | | | |
| Different position of the terminal box | - | - | | | | | | | | | | | | | | | |
| Relubrication | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| | | | |
|--|----------|--|--------------------------------|
| | Standard | | Special execution (on request) |
| | Optional | | Not available |

4. Options - motor modules

| Description | Key | Page | IEC frame size | | | | | | | | | | | | | | |
|---|----------|------|----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|-------|
| | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | | | |
| Spring loaded brake - IP55, 24 V | BR.. | 509 | | | | | | | | | | | | | | | |
| Spring loaded brake - IP55, 102 V | BR.. | 509 | | | | | | | | | | | | | | | |
| Spring loaded brake - IP55, 190 V, 195 V | BR.. | 509 | | | | | | | | | | | | | | | |
| Double spring loaded brake in low noise execution | BBRHGD.. | 510 | - | | | | | | | | | | | | | | |
| Totally closed spring loaded brake - IP66 | BRGH.. | 511 | - | | | | | | | | | | | | | | |
| Manual release for brake | (BR)H.. | 509 | 1) | | | | | | | | | | | | | | |
| Locking device for manual release | (BR)HA.. | 509 | 1) | | | | | | | | | | | | | | |
| Corrosion protection IP55 for brake | (BR)R.. | 509 | | | | | | | | | | | | | | | |
| Dust protection IP65 for brake | (BR)S.. | 509 | 1) | | | | | | | | | | | | | | |
| Corrosion and dust protection IP65 for brake | (BR)SR.. | 509 | 1) | | | | | | | | | | | | | | |
| Brake in low noise execution | (BR)GD.. | 509 | - | | | | | | | | | | | | | | |
| Micro switch | (BR)M | 509 | 2) | 2) | 2) | | | | | | | | | | | | |
| Anti-condensation heating for brakes | - | 511 | - | - | | | | | | | | | | | | | |
| Fast excitation rectifier | - | 513 | | | | | | | | | | | | | | | |
| Back stop KKM | KKM | 516 | | | | | - | - | - | - | - | - | - | - | - | - | - |
| Back stop RSM | RSM | 516 | - | - | - | - | | | | | | | | | | | |
| Encoder outside the fan cover | I. | 516 | | | | | | | | | | | | | | | |
| Encoder inside the fan cover | S. | 516 | - | | | | | | | | | | | | | | |
| Encoder (1024 pulses, HTL/TTL, IP66) | .G | 517 | I. | S. | | | | | | | | | | | | | |
| Mating plug for encoder without cable | - | - | I. | S. | | | | | | | | | | | | | |
| Mating plug for encoder with cable | - | - | I. | S. | | | | | | | | | | | | | |
| SINCOS encoder | .C | 517 | - | - | | | | | | | | | | | | | I. S. |
| Resolver | .R | 517 | - | | | | | | | | | | | | | - | - |
| Special encoder | .A | 518 | | | | | | | | | | | | | | | |
| SSI multiturn encoder | SS | 517 | - | | | | | | | | | | | | | | |
| Heavy Duty encoder | SV | 518 | - | - | - | | | | | | | | | | | | |
| Forced ventilation (TEFV) | FL | 519 | | | | | | | | | | | | | | | |
| Fly wheel fan | ZL | 520 | - | | | | | | | | | - | - | - | - | - | - |
| Hand wheel | HR | 521 | - | | | | | | | | | | | | | | |
| Protection cap | SD | 521 | | | | | | | | | | | | | | | |
| Protection cap for encoders | ID | 521 | - | - | - | | | | | | | | | | | | |
| Second shaft end - module shaft | ZWM | 522 | - | | | | | | | | | | | | | | |
| Second shaft end - solid shaft | ZWV | 522 | | | | | | | | | | | | | | - | - |

5. Additional options

| Description | Key | Page | IEC frame size | | | | | | | | | | | | | | |
|--|-----|------|----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| | | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | | | |
| Special nameplate (aluminium) | - | - | | | | | | | | | | | | | | | |
| Second nameplate (not fixed, aluminium or stainless steel) | - | - | | | | | | | | | | | | | | | |
| Metal fan | ZM | 520 | | | | | | | | | | | | | | | |
| Vibration severity grade "B" (reduced) according to DIN IEC 60034-14 | - | 484 | | | | | | | | | | | | | | | |
| Wide range grease (-40 °C to +175 °C) | - | - | | | | | | | | | | | | | | | |

1) not possible with 2 Nm brake

2) Micro switch not possible for totally closed brakes at 2 and 5 Nm

| | | | |
|--|----------|--|--------------------------------|
| | Standard | | Special execution (on request) |
| | Optional | | Not available |

General information

| Frame size | | 63 | 71 | (L)80 | 90S/L | (L)100L | 112M | (L)132M,S | 160M,L | 180M,L | 200L | 225S/M | 250S/M | |
|----------------------------|------------------|---|-------------|-------------|-----------|-------------|---------|---------------------------------------|-------------|--|--|---|------------------|-------------|
| Mechanical features | | | | | | | | | | | | | | |
| Mounting form | | B14R | | | | | | B5R | | | | | | |
| Housing material | | aluminium EN AC-46100 | | | | | | cast iron EN GJL-200 | | | | | | |
| Degree of protection | | IP55 | | | | | | | | | | | | |
| Grounding | | simple grounding - one inside the terminal box | | | | | | | | | | double - in the terminal box and on the frame | | |
| Cooling method | | fan - IC411 (TEFC) | | | | | | | | | | | | |
| Fan material | | polypropylen | | | | | | | | | | aluminium | | |
| Fan cover material | | sheet steel | | | | | | | | | | | | |
| Endshields material | | aluminium EN AC-46100 * | | | | | | cast iron EN GJL-200 | | | | | | |
| Drain | | rubber drain plug | | | | | | | | | | | | |
| Bearings | Locking | without bearing cap with circlip - NDE | | | | | | without bearing cap with circlip - DE | | | internal + external bearing cap and spring washers - NDE | | | |
| | DE | 6203 ZZ | 6204 ZZ | 6205 ZZ | 6305 ZZ | 6207 ZZ | 6307 ZZ | 6309 ZZ | 6309 ZZ-C3 | 6312 ZZ-C3 | 6314 ZZ-C3 | 6314 ZZ-C3 | 6316 ZZ-C3 | |
| | NDE | 6201 ZZ | 6203 ZZ | 6203 ZZ | 6205 ZZ | 6206 ZZ | 6206 ZZ | 6308 ZZ | 6209 ZZ-C3 | 6211 ZZ-C3 | 6212 ZZ-C3 | 6314 ZZ-C3 | 6314 ZZ-C3 | |
| Shaft seal | Type | radial shaft seal | | | | | | | | | | | | |
| | DE | 17x30x7 | 20x30x7 | 25x40x7 | 25x40x7 | 35x52x7 | 35x52x7 | 45x60x8 | 45x60x8 | 60x90x10 | 60x90x10 | 70x90x10 | 70x90x10 | |
| | NDE | 12x22x7 | 17x28x5 | 17x28x5 | 25x35x7 | 30x40x4 | 30x40x4 | 40x56x8 | 45x62x7 | 55x70x8 | 60x75x8 | 70x85x8 | 70x85x8 | |
| | Material | NBR | | | | | | | | | | | | |
| Lubrication | Type of grease | Mobil Polyrex EM | | | | | | | | | | | | |
| | Grease fitting | without grease fitting | | | | | | | | | | | | |
| Terminal block | | 6 poles | | | | | | 9 poles | | | | | | |
| Terminal box material | | aluminium EN AC 47000 | | | | | | cast iron EN GJL-200 | | | | | | |
| Cable entry | Main | 2 x M25x1.5 | | | | 2 x M32x1.5 | | 2 x M40x1.5 | | 2 x M50x1,5 | | 2 x M50x1,5 | | 2 x M63x1,5 |
| | Accessory | 2 x M16x1.5 | | | | | | | | | | | | |
| | Plug | threaded plug for transport and storage; cable gland optional | | | | | | | | | | | | |
| Shaft material | | 1.0511/1.1191 – C40/C45E – AISI 1040/45 | | | | | | | | | | 1.7225 - 42CrMo4 - AISI 4140 | | |
| Direction of rotation | | both directions | | | | | | | | | | | | |
| Vibration | | class A | | | | | | | | | | | | |
| Nameplate material | | stainless steel 1.4301 (AISI 304) | | | | | | | | | | | | |
| Flange | | FC-120 | | | | FC-160 | | | | FR-200 FR-250 FR-300 FR-400 FR-550 | FR-250 FR-300 FR-400 FR-550 | FR-300 FR-400 FR-550 | FR-400 FR-550 | FR-550 |
| Electrical features | | | | | | | | | | | | | | |
| Power [kW] 4 poles | | 0.12 - 0.18 | 0.25 - 0.37 | 0.55 - 0.75 | 1.1 - 1.5 | 2.2 - 3.0 | 4.0 | 5.5 - 9.2 | 11.0 - 15.0 | 18.5 - 22 | 30 | 45 - 55 | 75 | |
| Power [kW] 6 poles | | 0.12 | 0.18 | 0.25 - 0.55 | 0.75 | 1.1 - 1.5 | 2.2 | 3.0 - 5.5 | - | - | - | - | - | |
| Efficiency class | | IE3 | | | | | | | | | | | | |
| Design | | N | | | | | | | | | | | | |
| Voltage / Frequency | Δ | 230 V (50Hz) 265 V (60Hz) | | | | | | 400 V (50 Hz) 460 V (60 Hz) | | | | | | |
| | ΔΔ | 115 V (50 Hz) ¹⁾ 132 V (60Hz) ¹⁾ | | | | | | 200 V (50 Hz) 230 V (60 Hz) | | | | | | |
| | Y | 400 V (50 Hz) 460 V (60 Hz) | | | | | | 690 V (50 Hz) - | | | | | | |
| | YY | 200 V (50 Hz) ¹⁾ 230 V (60 Hz) ¹⁾ | | | | | | 346 V (50 Hz) 400 V (60 Hz) | | | | | | |
| Winding | Impregnation | dip | | | | | | | | | | continuous flow impregnation | | |
| | Insulation class | F (DT 80K) | | | | | | | | | | | | |

* Except frame sizes L100L and L132M: endshield (NDE) made from cast iron EN GJL-200

¹⁾ Not possible for motors up to 0.55 kW

1. Nameplate

The stainless steel plate is fixed on the frame and bears data for 50 Hz and 60 Hz. The information on the nameplate contains all relevant specifications of the product (see examples for motor frame sizes 80, 132 and 180).

| | | | | | |
|--|----|---|------|----------------|------|
| W21 | | EFF(100%) 80Hz 0918113-2020 80.8 Q/230499001-0020 | | 15687478 | |
| W21 | | Electric Motor | | CCC | |
| ~ 3 W21-AL80-04 | | IP55 INS CL F ΔT 80 K S1 SF 1.00 AMB 40°C | | | |
| V | Hz | kW | RPM | A | PF |
| 220 Δ / 380 Y | 50 | 0.55 | 1430 | 2.16 / 1.25 | 0.83 |
| 230 Δ / 400 Y | | | 1440 | 2.14 / 1.23 | 0.80 |
| 240 Δ / 415 Y | | | 1445 | 2.13 / 1.23 | 0.77 |
| - / 460 Y | 60 | | 1745 | - / 1.09 | 0.78 |
| | | IEC 60034-1 | | 100% 75% 50% | |
| | | | | 80.8 79.1 78.0 | |
| | | | | 80.8 79.0 77.0 | |
| | | | | 80.8 78.9 76.0 | |
| | | | | 81.1 77.8 73.6 | |
| CE EAC | | UL 3PT9 US LISTED | | IEC 60034-1 | |
| NEMA Eff 81.1% 0.75HP 460 V 60Hz 1745 RPM | | 1.09 A PF 0.78 DES A CODE M SF 1.00 | | | |
| 6205-ZZ MOBIL POLYREX EM | | 6203-ZZ | | 11 kg | |
| 2753 Markt Piesting, Austria MOD.TE01A0X0\$0000300344 | | | | | |

| | | | |
|--|----|--|------|
| W21 | | 14447191 | |
| W21 | | Electric Motor | |
| ~ 3 AL132S-04 | | IP55 INS CL F ΔT 80 K S1 SF 1.00 AMB 40°C | |
| V | Hz | kW | RPM |
| 200 Δ / 346 Y Y | 50 | 5.5 | 1465 |
| 400 Δ / 690 Y | | | |
| 230 Δ / 400 Y Y | 60 | 1765 | 1765 |
| 460 Δ / - | | | |
| 50Hz | | IE3 | |
| 60Hz | | IE3 | |
| | | 90.7 (100%) 90.7 (75%) 90.0 (50%) | |
| | | 91.7 (100%) 91.0 (75%) 88.5 (50%) | |
| CE EAC | | UL 3PT9 US LISTED | |
| IEC 60034-1 | | MOD.TE01A0X0\$0000302360 | |
| NEMA Eff 91.7% 7.5HP 460 V 60Hz 1765 RPM | | 9.07 A PF 0.83 DES A CODE K SF 1.15 CC029A | |
| 6309-ZZ MOBIL POLYREX EM | | 6308-ZZ | |
| | | 53 kg | |
| 2753 Markt Piesting, Austria | | | |

| | | | |
|------------------------------|----|--|------|
| W22 Premium | | MODEL M430220018G48R30010G | |
| W22 Premium | | UL 3PT9 US LISTED CE EAC UL 3PT9 US LISTED | |
| ~ 3 180L-04 | | IP55 INS CL F ΔT 80 K S1 SF 1.00 AMB 40°C | |
| V | Hz | kW | RPM |
| 200 Δ / 346 Y Y | 50 | | 1470 |
| 400 Δ / 690 Y | | | |
| 230 Δ / 400 Y Y | 60 | | 1775 |
| 460 Δ / - | | | |
| | | IE3 | |
| | | 82.1 / 47.5 | |
| | | 41.0 / 23.8 | |
| | | 72.0 / 41.4 | |
| | | 36.0 / - | |
| 6312-ZZ-C3 | | 6211-ZZ-C3 | |
| MOBIL POLYREX EM | | MOBIL POLYREX EM | |
| 2753 Markt Piesting, Austria | | NEMA Eff 93.6% 30HP 460 V 60Hz 1775 RPM | |
| | | 36.0 A PFO.82 Des A Code K SF 1.00 CC029A | |
| | | Alt 1000 m.a.s.l. 192 kg | |

2. Voltage and frequency fluctuations

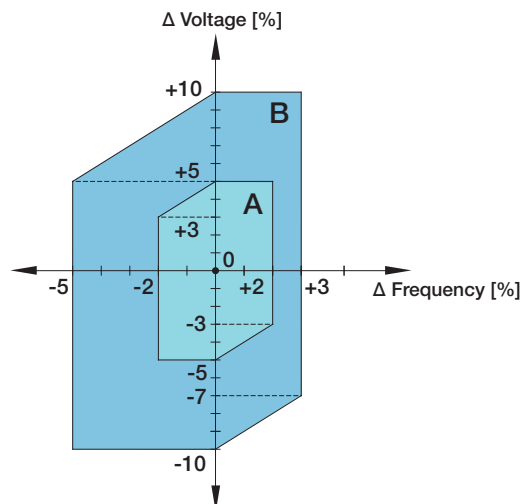
According to DIN EN 60034-1, a distinction is made between range A and range B (outside A) for voltage and frequency fluctuations. Range A and range B describe the permissible range in which frequency and voltage levels are permitted to deviate from the relevant measurement point (see illustration). The coordinate mean point "0" identifies the measurement point for the frequency and voltage in each case. The motor must be able to issue the rated torque in both ranges A and B.

Range A

In continuous operation in range A, the characteristics are permitted to vary from the rated operation, and the heating at the limits of range A can be around 10 K higher.

Range B

The deviations from the characteristics are permitted to be greater than in range A, the heating levels can be higher than at the measurement point. Duration and frequency of operation in range B should be limited. Corrective measures, e.g. power reduction, should be provided. If a machine has multiple rated voltages or a rated voltage range, the permissible voltage and frequency fluctuations apply for each individual value of the rated voltage.



Ranges A and B according to DIN EN 60034-1

3. Modes of operation

Duty type according to DIN EN 60034-1 and VDE 0530-1.

The duty type is designated by the abbreviations S1 to S10. For the duty types S4, S5 and S7 the duty cycles/hour (c/h) and the factor of inertia F_I should also be stated at the bottom.

The factor of inertia F_I is the ratio of the total load moment of inertia (referred to the motor shaft) and the motor moment of inertia, to the motor moment of inertia, i.e.

$$F_I = \frac{\sum J_{ex.red} + J_{mot}}{J_{mot}}$$

| Definition | | Example |
|------------|--|---|
| S1 | Continuous running duty with constant load | S1 |
| S2 | Short-time duty with constant load Duration of operation under rated conditions (recommended values: 10, 30, 60 or 90 min) | S2 10 min |
| S3 | Intermittent periodic duty. Motor temperature not affected by starting operation Cyclic duration factor (recommended values: 15, 25, 40 or 60 %): Cycle duration (10 min unless otherwise stated) | S3 25 % 60 min |
| S4 | Intermittent periodic duty. Motor temperature affected by starting operation Cyclic duration factor (recommended values: 15, 25, 40 or 60 %): Indication of the duty cycles per hour and of the factor of inertia F_I | S4 40 % 200, $F_I=2$ |
| S5 | Intermittent periodic duty. Motor temperature affected by starting operation and electric braking Cyclic duration factor (recommended values: 15, 25, 40 or 60 %): Indication of the duty cycles per hour and of the factor of inertia F_I | S5 15 % 300, $F_I=1$ |
| S6 | Continuous operation periodic duty. Cyclic duration factor (recommended values: 15, 25, 40 or 60 %): Cycle duration (10 min unless otherwise stated) | S6 25 % 60 min |
| S7 | Continuous operation with starting and electric braking Indication of the duty cycles per hour and of the factor of inertia F_I | S7 200, $F_I=1$ |
| S8 | Continuous operation with related load/speed changes (Sequence of similar cycles) Speeds during the duty cycle Periods for which these speeds are maintained during the duty cycle Indication of the factor of inertia F_I | S8 3000 ^{min-1} , 10 min 1500 ^{min-1} , 15 min $F_I=1.5$ |
| S9 | Continuous operation duty with unrelated load/speed changes | S9 |
| S10 | Duty with discrete constant loads and speed | S10 $F_I=0.6$ |

Legend see page 512.

4. Rated power according to VDE 0530-1

The listed rated power of the motor corresponds to the output power according to VDE 0530-1 for continuous operation S1, frequency 50/60 Hz, max. ambient temperature +40 °C, max. altitude 1000 m above sea level.

According to this standard at rated values (voltage and frequency) the motors may be overloaded for two minutes by 1.5 times the rated current, without damage of the winding.

The motors are calculated by rated values according to thermal class B, but produced in class F and by operation with rated values fit for higher loads:

- At rated power and rated voltage the ambient temperature may be increased from +40 °C to +60 °C.
- Provided that ambient temperature does not exceed +40 °C, the normal capacity in continuous operation can be increased by appr. 10 %.

All technical data stated applies to rated frequency of 50 Hz and supply voltage of 400 V rated voltage at rated power. If the load changes, the stated values will deviate to higher or lower.

5. Power correction factors

| S2 | | | |
|------------|------------------|-------|------|
| Time [min] | Motor frame size | Poles | |
| | | 2 | 4-8 |
| 15 | 63 - 132 | 1.20 | 1.25 |
| 30 | | 1.05 | 1.10 |
| 60 | | 1.00 | 1.00 |
| 15 | 160 - 200 | 1.40 | 1.45 |
| 30 | | 1.20 | 1.25 |
| 60 | | 1.10 | 1.10 |
| 15 | 225 - 250 | 1.45 | 1.45 |
| 30 | | 1.30 | 1.30 |
| 60 | | 1.15 | 1.15 |

- Factors for low voltage safe area motors with insulation class F/B (ΔT_{80K})
 - The breakdown torque should be at least 30 % higher than factors

| S3 | | | |
|--------|------------------|-------|------|
| DC [%] | Motor frame size | Poles | |
| | | 2 | 4-8 |
| 15 | 63 - 132 | 1.15 | 1.40 |
| 25 | | 1.10 | 1.30 |
| 40 | | 1.05 | 1.20 |
| 60 | | 1.03 | 1.10 |
| 15 | 160 - 200 | 1.30 | 1.40 |
| 25 | | 1.20 | 1.30 |
| 40 | | 1.10 | 1.20 |
| 60 | | 1.05 | 1.10 |
| 15 | 225 - 250 | 1.35 | 1.40 |
| 25 | | 1.25 | 1.30 |
| 40 | | 1.15 | 1.20 |
| 60 | | 1.05 | 1.10 |

| S6 | | | |
|--------|------------------|-------|------|
| DC [%] | Motor frame size | Poles | |
| | | 2 | 4-8 |
| 15 | 63 - 132 | 1.20 | 1.30 |
| 25 | | 1.15 | 1.25 |
| 40 | | 1.10 | 1.20 |
| 60 | | 1.05 | 1.15 |
| 15 | 160 - 200 | 1.25 | 1.30 |
| 25 | | 1.20 | 1.25 |
| 40 | | 1.15 | 1.20 |
| 60 | | 1.10 | 1.15 |
| 15 | 225 - 250 | 1.30 | 1.35 |
| 25 | | 1.25 | 1.30 |
| 40 | | 1.15 | 1.25 |
| 60 | | 1.10 | 1.15 |

6. Torque

The motors are fitted with squirrel-cage rotors suitable for direct online starting. The values of starting torque and breakdown torque, expressed as a multiple of the rated torque, are given in the performance data. A deviation in the voltage from rated value changes the torques as an approximate function of the square of the voltages.

7. Efficiency class

Standard IEC 60034-30 defines uniform efficiency classes, valid for 2, 4, 6 and 8 pole asynchronous motors (50/60 Hz) with output powers of 0.12 kW to 1,000 kW. This standard divides 3-phase induction motors with cage rotor in efficiency classes IE1=standard efficiency, IE2=high efficiency, IE3=premium efficiency and IE4=super premium efficiency. Our motors are labelled with efficiency class and factor on the nameplate.

8. Motor protection

The correct selection of protective equipment determines essentially the operation reliability and service life of motors. Current dependent protection and thermal protective devices are available. Fuses do not protect the motor against overloads, they only protect the supply cables or switchboards against short circuits.

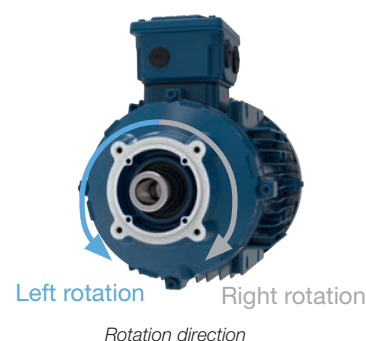
9. Overload protection (protection relay)

It is recommended to use starters with thermal overload protection. The overloads should be adjusted to the rated current shown on the nameplate. Thermal protective devices (thermistors in windings) see page 501.

10. Speed and rotation direction

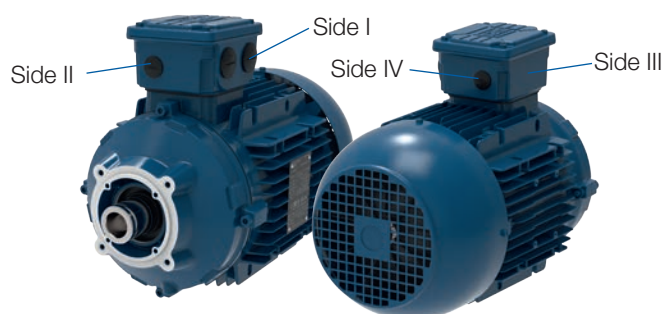
The rated speed is valid for the rated dates (voltage, frequency). The synchronous speed depends on the line frequency.

The motors are able for operation in both directions. By connection of U1, V1, W1 to L1, L2, L3 the rotation will be to the right if you look at the shaft from the drive-side. Left direction can be easily made by changing of two wires.



11. Cable entry

For all frames, the terminal box can be rotated in 90° increments. Terminal boxes are not delivered with cable glands in standard. Motors are supplied with plastic threaded plugs in the cable entries to maintain the degree of protection during transport and storage. In order to guarantee the degree of protection, cable entries must comply with at least the same degree of protection indicated on the motor nameplate.



Side designation for cable entries

12. Motors for the Ex area according to Directive 2014/34/EU

The modular integral motors can be used in both safe area applications and explosion-proof areas. The motors are certified for category 3, zone 2+22.

Zone 2: II 3G Ex ec IIC T3 Gc
 Zone 22: II 3D Ex tc IIIC T125°C Dc

The protection types in this case are increased safety (Ex ec) and protection by means of housing (Ex tc). The motors can be used in a temperature range of -20 to +40°C.

If temperatures deviate or additional motor options (brakes, encoders, etc.) are required, please contact us beforehand.

13. Cooling

The motors are totally enclosed fan cooled (TEFC) by means of external surface ventilation (IC411, as per IEC 60034-6). Maximum ambient temperature +40°C. Please check the minimum distance "Y" (see dimension sheets from page 496) between cover and wall by mounting the motor.

▪ Integral fans (TEFC, IC411)

Particular attention has been dedicated to the shape in order to reduce noise and improve the efficiency of the motor. Radial construction has been selected to allow rotation in both directions.

▪ Fan cover

In treated steel plate, properly profiled to improve efficiency and reduce the noise produced by the fan.

▪ Forced ventilation (TEFV, IC416) see also page 519

For special operating conditions, e.g. increased permissible number of operations per hour or variable speed operation, the motors of IEC sizes 63 to 200 can be supplied with forced ventilation by means of a separately fitted fan motor.

14. Insulation

The motors in this catalogue comply with the requirements of thermal class F. All windings are impregnated with varnish with a high mechanical strength. The maximum temperature of the insulation is, according to thermal class F, at +155 °C. The motors are utilised at rated values according to thermal class B (+130 °C). Copper wire insulation and the impregnation varnish have a temperature index class F and therefore there is a large margin of safety in addition to high overload capacity. Motors from frame size 160 are equipped with the WISE® insulation system of the new W22 motor range by WEG.

15. Noise levels

Noise measurements were taken in accordance with standard IEC 60034-9 (see table to the right).

| Frame size | Noise level - dB(A), Distance: 1 meter | | | |
|------------|--|----|-------|----|
| | 50 Hz | | 60 Hz | |
| | 4p | 6p | 4p | 6p |
| 63 | 44 | 43 | 48 | 47 |
| 71 | 43 | 43 | 47 | 47 |
| 80 | 44 | 43 | 48 | 47 |
| 90 | 49 | 45 | 51 | 49 |
| 100 | 53 | 44 | 54 | 53 |
| 112 | 56 | 52 | 56 | 52 |
| 132 | 56 | 53 | 58 | 55 |
| 160 | 61 | 56 | - | - |
| 180 | 61 | 56 | - | - |
| 200 | 63 | 60 | - | - |
| 225 | 63 | 61 | - | - |
| 250 | 64 | 61 | - | - |

16. Balancing of rotors

Motors comply with vibration strength level "A" according to standard IEC 60034-14. On request, motors may also be balanced according to level "B".

17. Shaft ends

Shaft ends of motors in frame sizes 63 up to 132 are equipped with a conical bore and do not have a key, while the frame sizes 160 to 250 have a shaft with closed end keyway. On the non-driven side, modular motors have a system shaft to mount motor modules, such as brakes, encoders, back stops, etc.

18. Voltage, current and frequency

In standard execution the motors are delivered with following rated voltages: see chapter 19 (basic connection).

Special voltages

Motors for special voltages and/or frequencies are available on request.

Speed and connection

Tolerance of the motor speed according to IEC 60034. Terminal board connection see page 485.

Connection

▪ Direct connection




The starting torque in direct connection amounts to 160 to 330 % of the rated torque, depending on power and number of poles. The starting current is about 2.5 to 8 times of the rated current.

▪ Star-delta starting









The star-delta (Y-D) starting is an easy way to reduce the starting current and starting torque. Motors can be started with this starting method whenever the supply voltage corresponds to the rated voltage of the motors in delta connections. Up from frame size 112 the standard modular motors are supplied with windings designed for this starting method (e.g. 400 V D / 690 V Y). A Y-D-starting is only possible with delta service connection (this shall be considered when selecting a motor!), as the motor is first Y-connected and is changed over to D-connection after the run-up phase. At Y-D-starting, the starting currents and torques will be reduced to about 1/3 of the values produced in case of direct-online starting. Attention should be paid to the fact that a current impulse is produced when changing over to D-connection.

19. Electrical connection







Motor series 14P (IEC frame sizes 63 to 80)

| Possible connection | | Rated voltage* | | Frequency inverter operation | |
|---|----------------------------|----------------------------------|--|---|--------------|
| | | Rated power P_N | Increased rated power $1,2 \times P_N$ | | |
|  | Delta | 230 V at 50 Hz 265 V at 60 Hz | - 265 V at 60 Hz |  | 400 V, 87 Hz |
|  | Star (basic connection) | 400 V at 50 Hz 460 V at 60 Hz | - 460 V at 60 Hz | - | - |

Motor series 11P (IEC frame sizes 80 to 100)

| Possible connection | | Rated voltage* | | Frequency inverter operation | |
|---|-----------------------------|----------------------------------|--|---|---------------|
| | | Rated power P_N | Increased rated power $1,2 \times P_N$ | | |
|  | Delta | 230 V at 50 Hz 265 V at 60 Hz | - 265 V at 60 Hz |  | 400 V, 87 Hz |
|  | Delta - Delta | 115 V at 50 Hz 132 V at 60 Hz | - 132 V at 60 Hz |  | 230 V, 100 Hz |
|  | Star (basic connection)) | 400 V at 50 Hz 460 V at 60 Hz | - 460 V at 60 Hz |  | 400 V, 100 Hz |
|  | Star - Star | 200 V at 50 Hz 230 V at 60 Hz | - 230 V at 60 Hz |  | 460 V, 120 Hz |

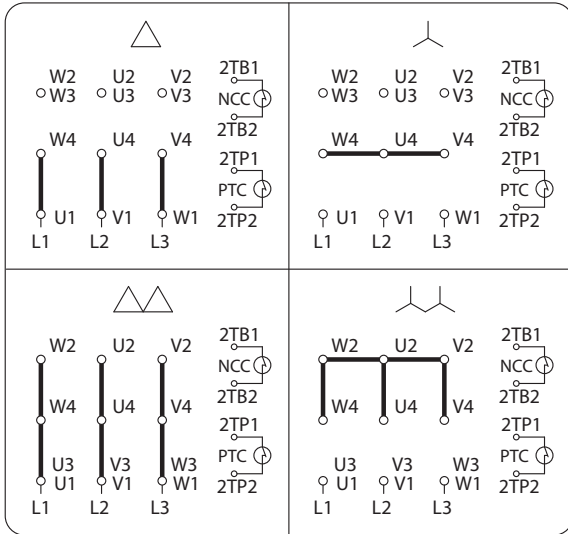
Motor series 11P and 22P (IEC frame sizes 112 to 250)

| Possible connection | | Rated voltage* | | Frequency inverter operation | |
|---|-----------------------------|----------------------------------|--|---|---------------|
| | | Rated power P_N | Increased rated power $1,2 \times P_N$ | | |
|  | Delta (basic connection) | 400 V at 50 Hz 460 V at 60 Hz | - 460 V at 60 Hz |  | 400 V, 100 Hz |
|  | Delta - Delta | 200 V at 50 Hz 230 V at 60 Hz | - 230 V at 60 Hz |  | 460 V, 120 Hz |
|  | Star | 690 V at 50 Hz - | - | - | - |
|  | Star - Star | 346 V at 50 Hz 400 V at 60 Hz | - 400 V at 60 Hz | - | - |

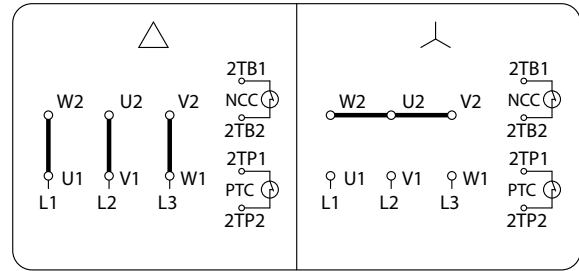
* Tolerances of rated voltages in compliance with range A according to DIN EN 60034-1 (see page 481)

Terminal board connection

Motor series 11P and 22P



Motor series 14P



Bimetal switch (2TB1/2TB2) only available for motor series 11

20. Variable speed drive application

The stator windings of the motors are wound with class F insulation (class H optional) and are suitable for either DOL starting or - regarding the limits shown in the table below - via a variable speed drive.

| Rated voltage | | | | |
|--|----------------------------------|-----------------------------------|------------------------|----------------------|
| 220-240/380-415 V (50 Hz) 400-460 V (60 Hz) | | | | |
| Motor rated voltage | Voltage spikes | dV/dt * | Rise time * | Time between pulses |
| | At motor terminals (phase-phase) | At motor terminals (phase-phase) | | |
| $V_{rated} < 460 \text{ V}$ | $\leq 1600 \text{ V}$ | $\leq 5200 \text{ V}/\mu\text{s}$ | $\geq 0.1 \mu\text{s}$ | $\geq 6 \mu\text{s}$ |
| $460 \text{ V} \leq V_{rated} < 575 \text{ V}$ | $\leq 2000 \text{ V}$ | $\leq 6500 \text{ V}/\mu\text{s}$ | | |
| $575 \text{ V} \leq V_{rated} \leq 1000 \text{ V}$ | $\leq 2400 \text{ V}$ | $\leq 7800 \text{ V}/\mu\text{s}$ | | |

* dV/dt and rise time definition according to NEMA MG1 - part 30

Notes:

- In order to protect the motor insulation system, the maximum recommended switching frequency is 5 kHz.
- If one or more of the above conditions is not attended, a filter (load reactor or dV/dt filter) must be installed in the output of the VSD.
- General purpose motors with rated voltage greater than 575 V, which at the time of purchase did not have any indication of operation with VSD, are able to withstand the electrical limits set in the table above for rated voltage up to 575 V. If such conditions are not fully satisfied, output filters must be used.
- General purpose motors of the dual voltage type, for example 400/690 V or 380/660 V, which at the time of purchase did not have any indication of operation with VSD, are able to be driven by a VSD in the higher voltage only if the limits set in the table above for rated voltage up to 460 V are fully attended in the application. Otherwise, a load reactor or a dV/dt filter must be installed in the VSD output.

Electrical basic data

Notes for electrical basic data

The technical data according to selection tables (starting current, torques, power factor, etc.) are valid for the rated values, that means for the rated voltage and rated frequency.

If the motors are running on higher or lower voltage within the wide range voltage, the stator winding will be utilised according to thermal class F. In these cases a power increase in accordance to a. and b. on page 482 is not possible.

The design of the wide range winding permits supply voltage deviations in the indicated wide range voltage of $\pm 5\%$ without reduction of the power.

| Series | IEC frame size | Type | 1 | 2 | 3 | | | | | 4 | 5 | 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
|--------|----------------|------|---------------|-------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------------|----------|----------------------|----------------------|----------------------|---------------|---------------|-------------------|-------------------|----------------------------------|-------------|
| | | | P_N [kW] | n_N [min ⁻¹] | I_N at 115 V [A] | I_N at 200 V [A] | I_N at 230 V [A] | I_N at 400 V [A] | I_N at 690 V [A] | $\frac{I_A}{I_N}$ at 400 V | IE class | η 4/4 [%] | η 3/4 [%] | η 1/2 [%] | $\cos\varphi$ | M_N [Nm] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | J_{mot} [kgm ²] | m [kg] |

| Type | P_N [kW] | at 380 V | | | | | | at 420 V | | | | | | Frequency inverter operation | | | | | | Brake | | |
|------|---------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|---------------|-------------------------------|---------------|---------------|-------------------------------|----------------|------------------------------|---|-------------|-------|-----|--|-------|--|--|
| | | at 380 V | | at 380 V | | at 420 V | | at 420 V | | 400 V / 87 Hz | | | 400 V / 100 Hz | | | M_B | J_B | m | | | | |
| | | I_N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | I_N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | P_N [kW] | n_N [min ⁻¹] | I_N [A] | P_N [kW] | n_N [min ⁻¹] | I_N [A] | M_B [Nm] | J_B x10 ⁻³ [kgm ²] | m [kg] | | | | | | |

- 1 P_N = Rated power
- 2 n_N = Rated speed
- 3 I_N = Rated current
- 4 I_A/I_N = Ratio of starting current to rated current
- 5 IE class = Efficiency class
- 6 η 4/4 (3/4, 1/2) = Efficiency at rated power, voltage and frequency
- 7 $\cos\varphi$ = Power factor
- 8 M_N = Rated torque
- 9 M_A/M_N = Ratio of starting torque to rated torque
- 10 M_K/M_N = Ratio of sweeping torque to rated torque
- 11 J_{mot} = Motor moment of inertia
- 12 m = Weight of the motor
- 13 M_B = Braking torque
- 14 J_B = Brake moment of inertia
- 15 m = Weight of the motor brake

4 Poles, 1500 min⁻¹, 50 Hz

| Series | IEC frame size | Type | P_N | n_N | I_N | I_N | I_N | I_N | I_N | $\frac{I_A}{I_N}$ | IE class | η | η | η | $\cos\varphi$ | M_N | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | J_{mot} | m |
|--------------|----------------|----------------|--------------|----------------------|--------------|--------------|--------------|--------------|--------------|-------------------|----------|---------|---------|---------|---------------|-------|-------------------|-------------------|-----------|--------|
| | | | [kW] | [min ⁻¹] | at 115 V [A] | at 200 V [A] | at 230 V [A] | at 400 V [A] | at 690 V [A] | at 400 V | | 4/4 [%] | 3/4 [%] | 1/2 [%] | | | | | | |
| 14P | 63 | 14P-63-04E | 0.12 | 1405 | - | - | 0.68 | 0.39 | - | 5.5 | IE3 | 64.8 | 60.0 | 53.0 | 0.68 | 0.83 | 2.8 | 3.5 | 0.0004 | 5.8 |
| | | 14P-63-04F | 0.18 | 1380 | - | - | 0.90 | 0.52 | - | 4.3 | IE3 | 69.9 | 67.0 | 65.0 | 0.72 | 1.25 | 2.2 | 2.2 | 0.0006 | 6.0 |
| | 71 | 14P-71-04E | 0.25 | 1380 | - | - | 1.19 | 0.68 | - | 4.8 | IE3 | 73.5 | 72.0 | 69.0 | 0.72 | 1.76 | 2.3 | 2.3 | 0.0007 | 6.9 |
| | | 14P-71-04F | 0.37 | 1395 | - | - | 1.74 | 1.00 | - | 4.8 | IE3 | 77.3 | 76.8 | 76.3 | 0.69 | 2.53 | 2.9 | 3.0 | 0.0008 | 7.8 |
| | 80 | 14P-80-04E | 0.55 | 1420 | - | - | 2.14 | 1.23 | - | 6.6 | IE3 | 80.8 | 79.0 | 77.0 | 0.80 | 3.70 | 2.8 | 3.0 | 0.0026 | 10.1 |
| 11P | 80 | 11P-80-04F | 0.75 | 1430 | 5.70 | 3.28 | 2.85 | 1.64 | - | 7.0 | IE3 | 82.5 | 82.0 | 80.0 | 0.80 | 5.01 | 3.2 | 3.4 | 0.0032 | 11.6 |
| | 90 | 11P-90S/L-04E | 1.1 | 1455 | 8.35 | 4.80 | 4.17 | 2.40 | - | 7.6 | IE3 | 84.8 | 84.5 | 83.0 | 0.78 | 7.22 | 2.5 | 3.3 | 0.0055 | 15.8 |
| | | 11P-90S/L-04F | 1.5 | 1455 | 11.2 | 6.42 | 5.58 | 3.21 | - | 7.4 | IE3 | 85.5 | 85.0 | 84.0 | 0.79 | 9.88 | 2.6 | 3.4 | 0.0066 | 17.4 |
| | 100 | 11P-100L-04E | 2.2 | 1435 | 16.3 | 9.40 | 8.15 | 4.70 | - | 7.6 | IE3 | 86.7 | 86.5 | 85.0 | 0.78 | 14.6 | 2.5 | 3.0 | 0.0090 | 27.0 |
| | | 11P-L100L-04F | 3 | 1440 | 21.9 | 12.6 | 10.9 | 6.30 | - | 7.8 | IE3 | 88.0 | 88.0 | 87.0 | 0.78 | 19.9 | 3.5 | 3.7 | 0.0120 | 33.6 |
| | 112 | 11P-112M-04E | 4 | 1450 | - | 16.4 | - | 8.20 | 4.75 | 7.0 | IE3 | 89.1 | 89.1 | 88.7 | 0.79 | 26.4 | 2.3 | 3.1 | 0.0182 | 34.5 |
| | 132 | 11P-132S-04E | 5.5 | 1465 | - | 20.6 | - | 10.3 | 5.97 | 8.5 | IE3 | 90.7 | 90.7 | 90.0 | 0.85 | 35.9 | 2.4 | 3.4 | 0.0528 | 53.4 |
| | | 11P-L132M-04F | 7.5 | 1465 | - | 28.4 | - | 14.2 | 8.22 | 8.5 | IE3 | 90.6 | 90.0 | 87.5 | 0.84 | 48.9 | 2.5 | 3.4 | 0.0638 | 67.0 |
| | | 11P-L132M-04G | 9.2 | 1460 | - | 34.7 | - | 17.4 | 10.1 | 8.5 | IE3 | 91.0 | 91.0 | 90.1 | 0.84 | 60.2 | 2.5 | 3.3 | 0.0730 | 72.0 |
| | 22P | 160 | 22P-160M-04E | 11 | 1470 | - | 41.8 | - | 20.9 | 12.0 | 7.5 | IE3 | 91.6 | 91.8 | 91.1 | 0.83 | 71.5 | 2.8 | 3.2 | 0.1191 |
| 22P-160L-04F | | | 15 | 1465 | - | 55.8 | - | 27.9 | 16.2 | 7.2 | IE3 | 92.3 | 92.5 | 92.2 | 0.84 | 97.8 | 2.8 | 3.1 | 0.1534 | 157 |
| 180 | | 22P-180M-04E | 18.5 | 1470 | - | 70.2 | - | 35.1 | 20.4 | 7.4 | IE3 | 92.8 | 92.8 | 92.2 | 0.82 | 120 | 3.0 | 3.2 | 0.1740 | 171 |
| | | 22P-180L-04F | 22 | 1470 | - | 82.1 | - | 41.0 | 23.8 | 7.3 | IE3 | 93.2 | 93.0 | 92.3 | 0.83 | 143 | 3.4 | 3.4 | 0.2097 | 192 |
| 200 | | 22P-200L-04E | 30 | 1480 | - | 114 | - | 57.1 | 33.1 | 7.5 | IE3 | 93.7 | 93.6 | 92.9 | 0.81 | 194 | 2.8 | 3.1 | 0.3202 | 250 |
| | | 22P-200L-04F | 37 | 1480 | - | 144 | - | 72.0 | 41.7 | 8.3 | IE3 | 93.9 | 93.5 | 92.5 | 0.79 | 239 | 3.0 | 3.3 | 0.3869 | 277 |
| 225 | | 22P-225S/M-04F | 45 | 1480 | - | 162 | - | 80.9 | 46.9 | 7.5 | IE3 | 94.4 | 94.1 | 93.7 | 0.85 | 291 | 2.8 | 3.1 | 0.6733 | 414 |
| | | 22P-225S/M-04G | 55 | 1480 | - | 205 | - | 102 | 59.3 | 8.3 | IE3 | 94.6 | 94.0 | 93.5 | 0.82 | 355 | 3.1 | 3.4 | 0.7347 | 462 |
| 250 | 22P-250S/M-04F | 75 | 1480 | - | 262 | - | 131 | 75.9 | 7.8 | IE3 | 95.0 | 94.8 | 94.5 | 0.87 | 484 | 2.8 | 3.3 | 1.2200 | 566 | |

Legend see page 487

4 Poles, 1500 min⁻¹, 50 Hz

| Type | P _N [kW] | at 380 V | | | at 420 V | | | Frequency inverter operation | | | | | | Brake | | |
|----------------|------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|----------------------------------|------------------------------|--|-----------------------|------------------------|--|-----------------------|------------------------|--|-----------|
| | | I _N [A] | M _A M _N | M _K M _N | I _N [A] | M _A M _N | M _K M _N | 400 V / 87 Hz | | | 400 V / 100 Hz | | | M _B [Nm] | J _B x10 ⁻³ [kgm ²] | m [kg] |
| | | | | | | | | P _N [kW] | n _N [min ⁻¹] | I _N [A] | P _N [kW] | n _N [min ⁻¹] | I _N [A] | | | |
| 14P-63-04E | 0.12 | 0.41 | 2.5 | 3.2 | 0.37 | 3.1 | 3.9 | 0.21 | 2445 | 0.72 | - | - | - | 2 | 0.015 | 1.1 |
| 14P-63-04F | 0.18 | 0.54 | 2.0 | 2.0 | 0.49 | 2.4 | 2.4 | 0.31 | 2401 | 0.94 | - | - | - | 4 | 0.015 | 1.0 |
| 14P-71-04E | 0.25 | 0.72 | 2.1 | 2.1 | 0.65 | 2.5 | 2.5 | 0.44 | 2401 | 1.25 | - | - | - | 4 | 0.015 | 1.0 |
| 14P-71-04F | 0.37 | 1.05 | 2.6 | 2.7 | 0.95 | 3.2 | 3.3 | 0.64 | 2427 | 1.83 | - | - | - | 2 | 0.015 | 1.1 |
| 14P-80-04E | 0.55 | 1.29 | 2.5 | 2.7 | 1.17 | 3.1 | 3.3 | 0.96 | 2471 | 2.25 | - | - | - | 8 | 0.061 | 1.6 |
| 11P-80-04F | 0.75 | 1.73 | 2.9 | 3.1 | 1.56 | 3.5 | 3.7 | 1.3 | 2488 | 2.99 | 1.5 | 2860 | 3.44 | 4 | 0.015 | 1.0 |
| 11P-90S/L-04E | 1.1 | 2.53 | 2.3 | 3.0 | 2.29 | 2.8 | 3.6 | 1.9 | 2532 | 4.38 | 2.2 | 2910 | 5.04 | 16 | 0.20 | 3.1 |
| 11P-90S/L-04F | 1.5 | 3.38 | 2.3 | 3.1 | 3.06 | 2.9 | 3.7 | 2.6 | 2523 | 5.86 | 3 | 2900 | 6.74 | 8 | 0.061 | 1.6 |
| 11P-100L-04E | 2.2 | 4.95 | 2.3 | 2.7 | 4.48 | 2.8 | 3.3 | 3.8 | 2497 | 8.56 | 4.4 | 2870 | 9.87 | 32 | 0.45 | 4.2 |
| 11P-L100L-04F | 3 | 6.63 | 3.2 | 3.3 | 6.00 | 3.9 | 4.1 | 5.2 | 2506 | 11.4 | 6 | 2880 | 13.2 | 16 | 0.20 | 3.1 |
| 11P-112M-04E | 4 | 8.63 | 2.1 | 2.8 | 7.81 | 2.5 | 3.4 | - | - | - | 8 | 2900 | 17.2 | 60 | 0.86 | 6.3 |
| 11P-112M-04F | 4 | 8.63 | 2.1 | 2.8 | 7.81 | 2.5 | 3.4 | - | - | - | 8 | 2900 | 17.2 | 32 | 0.45 | 4.2 |
| 11P-132S-04E | 5.5 | 10.8 | 2.2 | 3.1 | 9.81 | 2.6 | 3.7 | - | - | - | 11 | 2930 | 21.6 | 100 | 1.22 | 10.0 |
| 11P-L132M-04F | 7.5 | 14.9 | 2.3 | 3.1 | 13.5 | 2.8 | 3.7 | - | - | - | 15 | 2930 | 29.8 | 60 | 0.86 | 6.3 |
| 11P-L132M-04G | 9.2 | 18.3 | 2.3 | 3.0 | 16.6 | 2.8 | 3.6 | - | - | - | 18.4 | 2920 | 36.5 | 100 | 1.22 | 10.0 |
| 22P-160M-04E | 11 | 22.0 | 2.5 | 2.9 | 19.9 | 3.1 | 3.5 | - | - | - | 22 | 2940 | 43.9 | 150 | 2.85 | 14.7 |
| 22P-160L-04F | 15 | 29.4 | 2.5 | 2.8 | 26.6 | 3.1 | 3.4 | - | - | - | 30 | 2930 | 58.6 | 100 | 6.65 | 10.0 |
| 22P-180M-04E | 18.5 | 36.9 | 2.7 | 2.9 | 33.4 | 3.3 | 3.5 | - | - | - | 37 | 2940 | 73.7 | 250 | 6.65 | 21.5 |
| 22P-180L-04F | 22 | 43.2 | 3.1 | 3.1 | 39.0 | 3.7 | 3.7 | - | - | - | 44 | 2940 | 86.1 | 150 | 2.85 | 14.7 |
| 22P-200L-04E | 30 | 60.1 | 2.5 | 2.8 | 54.4 | 3.1 | 3.4 | - | - | - | 60 | 2960 | 120 | 400 | 19.5 | 35 |
| 22P-200L-04F | 37 | 75.8 | 2.7 | 3.0 | 68.6 | 3.3 | 3.6 | - | - | - | 74 | 2960 | 151 | 250 | 6.65 | 21.5 |
| 22P-225S/M-04F | 45 | 85.2 | 2.5 | 2.8 | 77.0 | 3.1 | 3.4 | - | - | - | 90 | 2960 | 170 | 400 | 19.5 | 35 |
| 22P-225S/M-04G | 55 | 107 | 2.8 | 3.1 | 97.1 | 3.4 | 3.7 | - | - | - | 110 | 2960 | 214 | 250 | 6.65 | 21.5 |
| 22P-250S/M-04F | 75 | 138 | 2.5 | 3.0 | 125 | 3.1 | 3.6 | - | - | - | 150 | 2960 | 275 | 1000 | 45 | 73 |

Legend see page 487



4 Poles, 1800 min⁻¹, 60 Hz

| Series | IEC frame size | Type | P_N | n_N | I_N | I_N | I_N | I_N | I_N | $\frac{I_A}{I_N}$ | IE class | η | η | η | $\cos\varphi$ | M_N | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | J_{mot} | m |
|--------------|----------------|----------------|--------------|----------------------|--------------|--------------|--------------|--------------|--------------|-------------------|----------|--------|--------|--------|---------------|-------|-------------------|-------------------|-----------|--------|
| | | | [kW] | [min ⁻¹] | at 132 V [A] | at 230 V [A] | at 400 V [A] | at 265 V [A] | at 460 V [A] | at 460 V [A] | | [%] | [%] | [%] | | | | | | |
| 14P | 63 | 14P-63-04E | 0.12 | 1720 | - | - | - | 0.63 | 0.36 | 6.5 | IE3 | 66.0 | 61.0 | 53.0 | 0.63 | 0.68 | 3.2 | 4.2 | 0.0004 | 5.8 |
| | | 14P-63-04F | 0.18 | 1700 | - | - | - | 0.81 | 0.47 | 5.2 | IE3 | 70.0 | 66.0 | 62.0 | 0.69 | 1.01 | 2.7 | 2.8 | 0.0006 | 6.0 |
| | 71 | 14P-71-04E | 0.25 | 1700 | - | - | - | 1.07 | 0.62 | 5.3 | IE3 | 74.0 | 72.0 | 70.0 | 0.69 | 1.43 | 2.6 | 2.8 | 0.0007 | 6.9 |
| | | 14P-71-04F | 0.37 | 1710 | - | - | - | 1.53 | 0.88 | 5.6 | IE3 | 78.5 | 78.0 | 77.5 | 0.67 | 2.07 | 3.5 | 3.7 | 0.0008 | 7.8 |
| | 80 | 14P-80-04E | 0.55 | 1720 | - | - | - | 1.89 | 1.09 | 7.3 | IE3 | 81.5 | 80.0 | 77.0 | 0.78 | 3.06 | 3.4 | 3.8 | 0.0026 | 10.1 |
| 11P | 80 | 11P-80-04F | 0.75 | 1740 | 5.16 | 2.96 | 1.71 | 2.57 | 1.48 | 8.3 | IE3 | 83.5 | 80.0 | 78.5 | 0.76 | 4.12 | 3.8 | 4.3 | 0.0032 | 11.6 |
| | 90 | 11P-90S/L-04E | 1.1 | 1760 | 7.32 | 4.20 | 2.42 | 3.65 | 2.10 | 8.5 | IE3 | 86.5 | 84.0 | 80.0 | 0.76 | 5.97 | 2.9 | 3.9 | 0.0055 | 15.8 |
| | | 11P-90S/L-04F | 1.5 | 1755 | 9.86 | 5.66 | 3.27 | 4.91 | 2.83 | 8.3 | IE3 | 86.5 | 85.5 | 82.5 | 0.77 | 8.17 | 3.0 | 3.8 | 0.0066 | 17.4 |
| | 100 | 11P-100L-04E | 2.2 | 1745 | 14.1 | 8.12 | 4.66 | 7.02 | 4.04 | 9.0 | IE3 | 89.5 | 88.0 | 85.0 | 0.76 | 12.0 | 2.8 | 3.5 | 0.0090 | 27.0 |
| | | 11P-L100L-04F | 3 | 1740 | 19.0 | 10.9 | 6.27 | 9.46 | 5.43 | 8.6 | IE3 | 89.5 | 86.5 | 84.0 | 0.77 | 16.5 | 4.6 | 4.8 | 0.0120 | 33.6 |
| | 112 | 11P-112M-04E | 4 | 1755 | - | 14.6 | 8.41 | - | 7.28 | 8.0 | IE3 | 89.5 | 89.5 | 87.5 | 0.77 | 21.8 | 2.5 | 3.5 | 0.0182 | 34.5 |
| | 132 | 11P-132S-04E | 5.5 | 1765 | - | 18.1 | 10.5 | - | 9.07 | 8.9 | IE3 | 91.7 | 91.0 | 88.5 | 0.83 | 29.8 | 2.6 | 4.3 | 0.0528 | 53.4 |
| | | 11P-L132M-04F | 7.5 | 1770 | - | 24.8 | 14.3 | - | 12.4 | 9.0 | IE3 | 91.7 | 91.5 | 91.0 | 0.83 | 40.5 | 2.7 | 4.3 | 0.0638 | 67.0 |
| | | 11P-L132M-04G | 9.2 | 1765 | - | 30.7 | 17.8 | - | 15.4 | 9.0 | IE3 | 91.7 | 91.5 | 90.4 | 0.82 | 49.8 | 2.6 | 3.8 | 0.0730 | 72.0 |
| | 22P | 160 | 22P-160M-04E | 11 | 1775 | - | 36.9 | 21.2 | - | 18.4 | 8.2 | IE3 | 92.4 | 92.2 | 91.0 | 0.81 | 59.2 | 3.0 | 3.7 | 0.1191 |
| 22P-160L-04F | | | 15 | 1775 | - | 49.4 | 28.4 | - | 24.7 | 7.6 | IE3 | 93.0 | 92.9 | 92.0 | 0.82 | 80.7 | 2.9 | 3.5 | 0.1534 | 157 |
| 180 | | 22P-180M-04E | 18.5 | 1775 | - | 61.3 | 35.2 | - | 30.6 | 7.7 | IE3 | 93.6 | 93.0 | 92.0 | 0.81 | 99.6 | 3.4 | 3.6 | 0.1740 | 171 |
| | | 22P-180L-04F | 22 | 1775 | - | 72.0 | 41.4 | - | 36.0 | 8.5 | IE3 | 93.6 | 93.2 | 92.1 | 0.82 | 118 | 3.5 | 3.8 | 0.2097 | 192 |
| 200 | | 22P-200L-04E | 30 | 1780 | - | 100 | 57.5 | - | 50.0 | 8.3 | IE3 | 94.1 | 93.7 | 92.6 | 0.80 | 161 | 2.9 | 3.5 | 0.3202 | 250 |
| | | 22P-200L-04F | 37 | 1782 | - | 124 | 71.5 | - | 62.2 | 9.3 | IE3 | 94.5 | 94.0 | 93.0 | 0.79 | 198 | 3.5 | 3.6 | 0.3869 | 277 |
| 225 | | 22P-225S/M-04F | 45 | 1782 | - | 142 | 81.4 | - | 70.8 | 8.6 | IE3 | 95.0 | 94.5 | 93.0 | 0.84 | 241 | 3.2 | 3.5 | 0.6733 | 414 |
| | | 22P-225S/M-04G | 55 | 1785 | - | 179 | 103 | - | 89.3 | 9.6 | IE3 | 95.4 | 94.5 | 93.8 | 0.81 | 294 | 3.7 | 4.2 | 0.7347 | 462 |
| 250 | 22P-250S/M-04F | 75 | 1780 | - | 229 | 132 | - | 115 | 8.2 | IE3 | 95.4 | 95.0 | 94.1 | 0.86 | 403 | 3.2 | 4.1 | 1.2200 | 566 | |

Legend see page 487

4 Poles, 1800 min⁻¹, 60 Hz

| Type | P _N [kW] | Frequency inverter operation | | | | | | | | | | | | Brake | | | | | | | | |
|----------------|------------------------|------------------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|------------------------|--|-----------------------|------------------------|--|-----------------------|------------------------|--|-----------|
| | | at 380 V | | | at 420 V | | | at 440 V | | | at 480 V | | | 460 V / 105 Hz | | | 460 V / 120 Hz | | | M _B [Nm] | J _B x10 ⁻³ [kgm ²] | m [kg] |
| | | I _N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | I _N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | I _N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | I _N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | P _N [kW] | n _N [min ⁻¹] | I _N [A] | P _N [kW] | n _N [min ⁻¹] | I _N [A] | | | |
| 14P-63-04E | 0.12 | 0.44 | 2.2 | 2.9 | 0.40 | 2.7 | 3.5 | 0.38 | 2.9 | 3.8 | 0.35 | 3.5 | 4.6 | 0.21 | 3010 | 0.66 | - | - | - | 2 | 0.015 | 1.1 |
| 14P-63-04F | 0.18 | 0.57 | 1.8 | 1.9 | 0.51 | 2.3 | 2.3 | 0.49 | 2.5 | 2.6 | 0.45 | 2.9 | 3.0 | 0.32 | 2975 | 0.85 | - | - | - | 4 | 0.015 | 1.0 |
| 14P-71-04E | 0.25 | 0.74 | 1.8 | 1.9 | 0.67 | 2.2 | 2.3 | 0.64 | 2.4 | 2.6 | 0.59 | 2.8 | 3.0 | 0.44 | 2975 | 1.12 | - | - | - | 4 | 0.015 | 1.0 |
| 14P-71-04F | 0.37 | 1.07 | 2.4 | 2.5 | 0.97 | 2.9 | 3.1 | 0.92 | 3.2 | 3.4 | 0.85 | 3.8 | 4.0 | 0.65 | 2993 | 1.61 | - | - | - | 2 | 0.015 | 1.1 |
| 14P-80-04E | 0.55 | 1.32 | 2.3 | 2.6 | 1.19 | 2.8 | 3.2 | 1.14 | 3.1 | 3.5 | 1.04 | 3.7 | 4.1 | 0.96 | 3010 | 1.98 | - | - | - | 8 | 0.061 | 1.6 |
| 11P-80-04F | 0.75 | 1.79 | 2.6 | 2.9 | 1.62 | 3.2 | 3.6 | 1.55 | 3.5 | 3.9 | 1.42 | 4.1 | 4.7 | 1.3 | 3045 | 2.70 | 1.5 | 3480 | 3.11 | 4 | 0.015 | 1.0 |
| 11P-90S/L-04E | 1.1 | 2.54 | 2.0 | 2.7 | 2.30 | 2.4 | 3.3 | 2.20 | 2.7 | 3.6 | 2.01 | 3.2 | 4.2 | 1.9 | 3080 | 3.83 | 2.2 | 3520 | 4.41 | 16 | 0.20 | 3.1 |
| 11P-90S/L-04F | 1.5 | 3.43 | 2.0 | 2.6 | 3.10 | 2.5 | 3.2 | 2.96 | 2.7 | 3.5 | 2.71 | 3.3 | 4.1 | 2.6 | 3071 | 5.16 | 3 | 3510 | 5.94 | 8 | 0.061 | 1.6 |
| 11P-100L-04E | 2.2 | 4.89 | 1.9 | 2.4 | 4.42 | 2.3 | 2.9 | 4.22 | 2.6 | 3.2 | 3.87 | 3.0 | 3.8 | 3.9 | 3054 | 7.37 | 4.4 | 3490 | 8.48 | 32 | 0.45 | 4.2 |
| 11P-L100L-04F | 3 | 6.57 | 3.1 | 3.3 | 5.95 | 3.8 | 4.0 | 5.68 | 4.2 | 4.4 | 5.20 | 5.0 | 5.2 | 5.3 | 3045 | 9.93 | 6 | 3480 | 11.4 | 16 | 0.20 | 3.1 |
| 11P-112M-04E | 4 | 8.81 | 2.3 | 3.2 | 7.97 | 2.8 | 3.9 | 7.61 | 2.3 | 3.2 | 6.98 | 2.7 | 3.8 | - | - | - | 8 | 3510 | 15.3 | 60 | 0.86 | 6.3 |
| 11P-112M-04F | 4 | 8.81 | 2.3 | 3.2 | 7.97 | 2.8 | 3.9 | 7.61 | 2.3 | 3.2 | 6.98 | 2.7 | 3.8 | - | - | - | 8 | 3510 | 15.3 | 32 | 0.45 | 4.2 |
| 11P-132S-04E | 5.5 | 10.9 | 2.3 | 3.9 | 9.90 | 2.9 | 4.7 | 9.48 | 2.4 | 3.9 | 8.69 | 2.8 | 4.7 | - | - | - | 11 | 3530 | 19.0 | 60 | 0.86 | 6.3 |
| 11P-L132M-04F | 7.5 | 15.1 | 2.4 | 3.9 | 13.6 | 3.0 | 4.7 | 13.0 | 2.5 | 3.9 | 11.9 | 2.9 | 4.7 | - | - | - | 15 | 3540 | 26.0 | 100 | 1.22 | 10.0 |
| 11P-L132M-04G | 9.2 | 18.6 | 2.3 | 3.4 | 16.9 | 2.9 | 4.2 | 16.1 | 2.4 | 3.5 | 14.8 | 2.8 | 4.1 | - | - | - | 18.4 | 3530 | 32.3 | 60 | 0.86 | 6.3 |
| 22P-160M-04E | 11 | 22.3 | 2.7 | 3.3 | 20.2 | 3.3 | 4.1 | 19.2 | 2.7 | 3.4 | 17.6 | 3.3 | 4.0 | - | - | - | 22 | 3550 | 38.6 | 150 | 2.85 | 14.7 |
| 22P-160L-04F | 15 | 29.9 | 2.6 | 3.2 | 27.0 | 3.2 | 3.9 | 25.8 | 2.7 | 3.2 | 23.7 | 3.2 | 3.8 | - | - | - | 30 | 3550 | 51.9 | 100 | 6.65 | 10.0 |
| 22P-180M-04E | 18.5 | 37.1 | 3.1 | 3.2 | 33.5 | 3.7 | 4.0 | 32.0 | 3.1 | 3.3 | 29.3 | 3.7 | 3.9 | - | - | - | 37 | 3550 | 64.3 | 250 | 6.65 | 21.5 |
| 22P-180L-04F | 22 | 43.6 | 3.2 | 3.4 | 39.4 | 3.9 | 4.2 | 37.6 | 3.2 | 3.5 | 34.5 | 3.8 | 4.1 | - | - | - | 44 | 3550 | 75.6 | 150 | 2.85 | 14.7 |
| 22P-200L-04E | 30 | 60.5 | 2.6 | 3.2 | 54.8 | 3.2 | 3.9 | 52.3 | 2.7 | 3.2 | 47.9 | 3.2 | 3.8 | - | - | - | 60 | 3560 | 105 | 400 | 19.5 | 35 |
| 22P-200L-04F | 37 | 75.3 | 3.2 | 3.2 | 68.1 | 3.9 | 4.0 | 65.0 | 3.2 | 3.3 | 59.6 | 3.8 | 3.9 | - | - | - | 74 | 3564 | 131 | 250 | 6.65 | 21.5 |
| 22P-225S/M-04F | 45 | 85.7 | 2.9 | 3.2 | 77.5 | 3.5 | 3.9 | 74.0 | 2.9 | 3.2 | 67.9 | 3.5 | 3.8 | - | - | - | 90 | 3564 | 149 | 400 | 19.5 | 35 |
| 22P-225S/M-04G | 55 | 108 | 3.3 | 3.8 | 98.1 | 4.1 | 4.6 | 93.4 | 3.4 | 3.8 | 85.6 | 4.0 | 4.6 | - | - | - | 110 | 3570 | 188 | 250 | 6.65 | 21.5 |
| 22P-250S/M-04F | 75 | 139 | 2.9 | 3.7 | 126 | 3.5 | 4.5 | 120 | 2.9 | 3.8 | 110 | 3.5 | 4.5 | - | - | - | 150 | 3560 | 242 | 1000 | 45 | 73 |

Legend see page 487



6 Poles, 1000 min⁻¹, 50 Hz

| Series | IEC frame size | Type | P_N | n_N | I_N | I_N | I_N | I_N | I_N | $\frac{I_A}{I_N}$ | IE class | η | η | η | $\cos\varphi$ | M_N | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | J_{mot} | m |
|--------|----------------|---------------|-------|----------------------|--------------|--------------|--------------|--------------|--------------|-------------------|----------|---------|---------|---------|---------------|-------|-------------------|-------------------|-----------|------|
| | | | [kW] | [min ⁻¹] | at 115 V [A] | at 200 V [A] | at 230 V [A] | at 400 V [A] | at 690 V [A] | at 400 V | | 4/4 [%] | 3/4 [%] | 1/2 [%] | | | | | | |
| 14P | 63 | 14P-63-06F | 0.12 | 925 | - | - | 0.89 | 0.51 | - | 3.1 | IE3 | 57.7 | 55.0 | 50.0 | 0.59 | 1.24 | 2.1 | 2.3 | 0.00070 | 6.2 |
| | 71 | 14P-71-06E | 0.18 | 900 | - | - | 1.24 | 0.71 | - | 3.2 | IE3 | 63.9 | 62.0 | 56.0 | 0.57 | 1.91 | 2.0 | 2.1 | 0.00090 | 8.5 |
| | | 14P-80-06D | 0.25 | 955 | - | - | 1.29 | 0.74 | - | 4.3 | IE3 | 68.8 | 68.5 | 63.6 | 0.71 | 2.50 | 1.7 | 2.4 | 0.00290 | 9.2 |
| | 80 | 14P-80-06E | 0.37 | 925 | - | - | 1.69 | 0.97 | - | 4.5 | IE3 | 73.5 | 69.5 | 66.0 | 0.75 | 3.82 | 1.9 | 2.1 | 0.00250 | 11.0 |
| | | 14P-L80-06F | 0.55 | 945 | - | - | 2.59 | 1.49 | - | 5.1 | IE3 | 77.2 | 75.2 | 70.5 | 0.69 | 5.56 | 2.9 | 3.1 | 0.00340 | 12.4 |
| 11P | 90 | 11P-90S/L-06E | 0.75 | 940 | 6.71 | 3.86 | 3.35 | 1.93 | - | 5.2 | IE3 | 79.0 | 79.0 | 76.5 | 0.71 | 7.62 | 2.5 | 2.8 | 0.00660 | 17.8 |
| | 100 | 11P-100L-06D | 1.1 | 960 | 9.74 | 5.60 | 4.87 | 2.80 | - | 6.0 | IE3 | 81.0 | 80.0 | 77.0 | 0.70 | 10.9 | 2.1 | 3.2 | 0.01100 | 21.6 |
| | | 11P-100L-06E | 1.5 | 950 | 12.9 | 7.40 | 6.45 | 3.70 | - | 5.5 | IE3 | 82.5 | 82.5 | 81.5 | 0.71 | 15.1 | 2.3 | 2.8 | 0.01430 | 25.4 |
| | 112 | 11P-112M-06E | 2.2 | 960 | - | 10.4 | - | 5.22 | 3.03 | 6.4 | IE3 | 84.5 | 84.5 | 83.0 | 0.72 | 21.9 | 2.4 | 2.9 | 0.02570 | 34.4 |
| | 132 | 11P-132S-06E | 3 | 970 | - | 13.8 | - | 6.91 | 4.01 | 6.0 | IE3 | 85.8 | 85.8 | 85.0 | 0.73 | 29.6 | 1.9 | 2.5 | 0.05660 | 55.0 |
| | | 11P-132M-06F | 4 | 960 | - | 18.0 | - | 8.99 | 5.21 | 6.5 | IE3 | 86.8 | 86.8 | 86.0 | 0.74 | 39.8 | 2.2 | 2.5 | 0.05660 | 56.0 |
| | | 11P-L132M-06G | 5.5 | 970 | - | 25.0 | - | 12.5 | 7.25 | 7.3 | IE3 | 88.0 | 87.0 | 86.0 | 0.72 | 54.2 | 2.1 | 2.5 | 0.07550 | 71.8 |

Legend see page 487

6 Poles, 1000 min⁻¹, 50 Hz

| Type | P _N [kW] | at 380 V | | | | | | at 420 V | | | | | | Frequency inverter operation | | | | | | Brake | | |
|---------------|------------------------|-----------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|------------------------|--|-----------------------|------------------------|--|-----------------------|------------------------------|--|-------------|--|--|--|-------|--|--|
| | | at 380 V | | | at 420 V | | | 400 V / 87 Hz | | | 400 V / 100 Hz | | | M _B [Nm] | J _B x10 ⁻³ [kgm ²] | m [kg] | | | | | | |
| | | I _N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | I _N [A] | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | P _N [kW] | n _N [min ⁻¹] | I _N [A] | P _N [kW] | n _N [min ⁻¹] | I _N [A] | | | | | | | | | |
| 14P-63-06F | 0.12 | 0.54 | 1.9 | 2.1 | 0.48 | 2.3 | 2.5 | 0.21 | 1609.5 | 0.93 | - | - | - | 2 4 | 0.015 0.015 | 1.1 1.0 | | | | | | |
| 14P-71-06E | 0.18 | 0.75 | 1.8 | 1.9 | 0.68 | 2.2 | 2.3 | 0.31 | 1566 | 1.30 | - | - | - | 4 2 | 0.015 0.015 | 1.0 1.1 | | | | | | |
| 14P-80-06D | 0.25 | 0.78 | 1.5 | 2.2 | 0.70 | 1.9 | 2.6 | 0.44 | 1661.7 | 1.35 | - | - | - | | | | | | | | | |
| 14P-80-06E | 0.37 | 1.02 | 1.7 | 1.9 | 0.92 | 2.1 | 2.3 | 0.64 | 1609.5 | 1.77 | - | - | - | 8 4 | 0.061 0.015 | 1.6 1.0 | | | | | | |
| 14P-L80-06F | 0.55 | 1.57 | 2.6 | 2.8 | 1.42 | 3.2 | 3.4 | 0.96 | 1644.3 | 2.72 | - | - | - | | | | | | | | | |
| 11P-90S/L-06E | 0.75 | 2.03 | 2.3 | 2.5 | 1.84 | 2.8 | 3.1 | 1.3 | 1635.6 | 3.52 | 1.5 | 1880 | 4.05 | 16 8 | 0.20 0.061 | 3.1 1.6 | | | | | | |
| 11P-100L-06D | 1.1 | 2.95 | 1.9 | 2.9 | 2.67 | 2.3 | 3.5 | 1.9 | 1670.4 | 5.11 | 2.2 | 1920 | 5.88 | 32 16 | 0.45 0.20 | 4.2 3.1 | | | | | | |
| 11P-100L-06E | 1.5 | 3.89 | 2.1 | 2.5 | 3.52 | 2.5 | 3.1 | 2.6 | 1653 | 6.77 | 3.0 | 1900 | 7.77 | | | | | | | | | |
| 11P-112M-06E | 2.2 | 5.49 | 2.2 | 2.6 | 4.97 | 2.6 | 3.2 | - | - | - | 4.4 | 1920 | 11.0 | 60 32 | 0.86 0.45 | 6.3 4.2 | | | | | | |
| 11P-132S-06E | 3.0 | 7.27 | 1.7 | 2.3 | 6.58 | 2.1 | 2.8 | - | - | - | 6 | 1940 | 14.5 | | | | | | | | | |
| 11P-132M-06F | 4.0 | 9.46 | 2.0 | 2.3 | 8.56 | 2.4 | 2.8 | - | - | - | 8 | 1920 | 18.9 | 100 60 | 1.22 0.86 | 10.0 6.3 | | | | | | |
| 11P-L132M-06G | 5.5 | 13.2 | 1.9 | 2.3 | 11.90 | 2.3 | 2.8 | - | - | - | 11 | 1940 | 26.3 | | | | | | | | | |

Legend see page 487



6 Poles, 1200 min⁻¹, 60 Hz

| Series | IEC frame size | Type | P_N | n_N | I_N | I_N | I_N | I_N | I_N | $\frac{I_A}{I_N}$ | IE class | η | η | η | $\cos\varphi$ | M_N | $\frac{M_A}{M_N}$ | $\frac{M_K}{M_N}$ | J_{mot} | m |
|--------|----------------|---------------|-------|----------------------|--------------|--------------|--------------|--------------|--------------|-------------------|----------|--------|--------|--------|---------------|-------|-------------------|-------------------|-----------|------|
| | | | [kW] | [min ⁻¹] | at 132 V [A] | at 230 V [A] | at 400 V [A] | at 265 V [A] | at 460 V [A] | at 460 V [A] | | [%] | [%] | [%] | | | | | | |
| 14P | 63 | 14P-63-06F | 0.12 | 1140 | 1.57 | 0.91 | 0.52 | 0.78 | 0.45 | 3.5 | IE3 | 64.0 | 59.0 | 52.0 | 0.52 | 1.01 | 2.5 | 2.8 | 0.00070 | 6.2 |
| | 71 | 14P-71-06E | 0.18 | 1110 | 2.17 | 1.25 | 0.72 | 1.09 | 0.63 | 3.7 | IE3 | 68.0 | 59.5 | 57.5 | 0.53 | 1.55 | 2.3 | 2.7 | 0.00090 | 8.5 |
| | | 14P-80-06D | 0.25 | 1165 | 2.32 | 1.34 | 0.77 | 1.16 | 0.67 | 5.1 | IE3 | 72.0 | 70.5 | 64.1 | 0.65 | 2.05 | 2.1 | 3.1 | 0.00290 | 9.2 |
| | 80 | 14P-80-06E | 0.37 | 1140 | 3.05 | 1.76 | 1.02 | 1.53 | 0.88 | 4.9 | IE3 | 75.3 | 70.0 | 66.0 | 0.70 | 3.10 | 2.4 | 2.8 | 0.00250 | 11.0 |
| | | 14P-L80-06F | 0.55 | 1155 | 4.68 | 2.70 | 1.56 | 2.34 | 1.35 | 6.1 | IE3 | 80.0 | 77.0 | 71.9 | 0.64 | 4.55 | 3.5 | 3.9 | 0.00340 | 12.4 |
| 11P | 90 | 11P-90S/L-06E | 0.75 | 1145 | 5.82 | 3.34 | - | 2.90 | 1.66 | 6.2 | IE3 | 82.5 | 80.0 | 77.0 | 0.69 | 6.26 | 2.9 | 3.4 | 0.00660 | 17.8 |
| | 100 | 11P-100L-06D | 1.1 | 1165 | 8.22 | 4.72 | - | 4.10 | 2.36 | 7.9 | IE3 | 87.5 | 81.0 | 76.0 | 0.67 | 9.02 | 2.4 | 3.8 | 0.01100 | 21.6 |
| | | 11P-100L-06E | 1.5 | 1155 | 11.0 | 6.30 | - | 5.48 | 3.14 | 6.3 | IE2 | 86.5 | 85.5 | 82.5 | 0.69 | 12.4 | 2.5 | 3.2 | 0.01430 | 25.4 |
| | 112 | 11P-112M-06E | 2.2 | 1165 | - | 8.88 | 5.11 | - | 4.44 | 7.6 | IE2 | 87.5 | 85.5 | 82.5 | 0.71 | 18.0 | 2.6 | 3.4 | 0.02570 | 34.4 |
| | 132 | 11P-132S-06E | 3 | 1165 | - | 12.0 | 6.91 | - | 6.00 | 6.3 | IE3 | 89.5 | 88.5 | 85.5 | 0.70 | 24.6 | 1.8 | 2.9 | 0.05660 | 55.0 |
| | | 11P-132M-06F | 4 | 1165 | - | 15.8 | 9.09 | - | 7.90 | 6.6 | IE3 | 89.5 | 88.5 | 85.5 | 0.71 | 32.8 | 1.9 | 3.0 | 0.05660 | 56.0 |
| | | 11P-L132M-06G | 5.5 | 1175 | - | 21.6 | 12.4 | - | 10.8 | 8.0 | IE3 | 91.0 | 88.5 | 85.5 | 0.70 | 44.7 | 2.2 | 2.8 | 0.07550 | 71.8 |

Legend see page 487

6 Poles, 1200 min⁻¹, 60 Hz

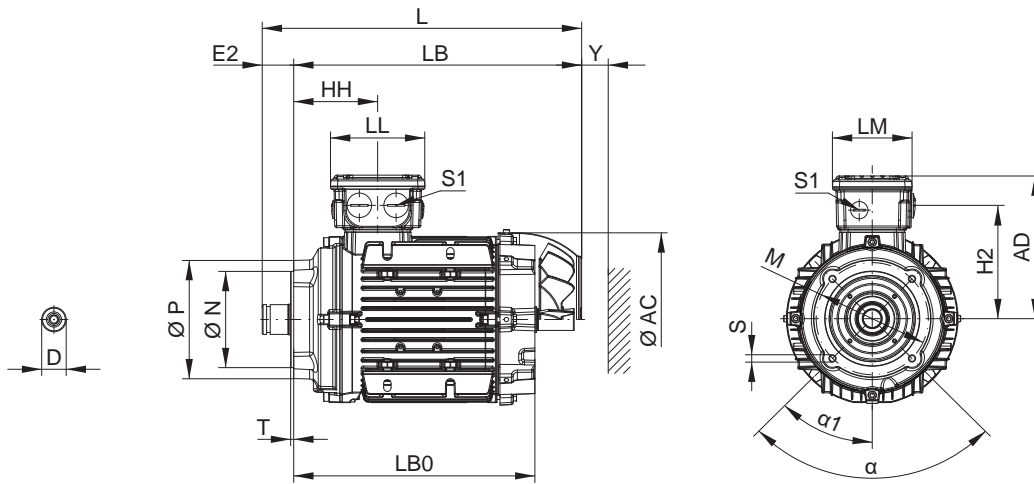
| Type | P _N [kW] | at 380 V | | | | | | | | | at 420 V | | | | | | | | | at 440 V | | | | | | | | | at 480 V | | | | | | | | | Frequency inverter operation | | | | | | Brake | | |
|---------------|------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|----------------------------------|------------------------|--|-----------------------|------------------------|--|-----------------------|------|--|------|--|--|--|----------|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|-------|--|--|
| | | at 380 V | | | at 420 V | | | at 440 V | | | at 480 V | | | 460 V / 105 Hz | | | 460 V / 120 Hz | | | M _B | J _B | m | | | | | | | | | | | | | | | | | | | | | | | | |
| | | I _N [A] | M _A M _N | M _K M _N | I _N [A] | M _A M _N | M _K M _N | I _N [A] | M _A M _N | M _K M _N | I _N [A] | M _A M _N | M _K M _N | I _N [A] | M _A M _N | M _K M _N | P _N [kW] | n _N [min ⁻¹] | I _N [A] | P _N [kW] | n _N [min ⁻¹] | I _N [A] | [Nm] | x10 ⁻³ [kgm ²] | [kg] | | | | | | | | | | | | | | | | | | | | | |
| 14P-63-06F | 0.12 | 0.55 | 1.7 | 1.9 | 0.50 | 2.1 | 2.3 | 0.47 | 2.3 | 2.6 | 0.43 | 2.7 | 3.0 | 0.21 | 1995 | 0.82 | - | - | - | 2 | 0.015 | 1.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 14P-71-06E | 0.18 | 0.76 | 1.6 | 1.8 | 0.69 | 1.9 | 2.3 | 0.66 | 2.1 | 2.5 | 0.60 | 2.5 | 2.9 | 0.32 | 1943 | 1.14 | - | - | - | 4 | 0.015 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 14P-80-06D | 0.25 | 0.81 | 1.4 | 2.1 | 0.73 | 1.8 | 2.6 | 0.70 | 1.9 | 2.8 | 0.64 | 2.3 | 3.4 | 0.44 | 2039 | 1.22 | - | - | - | 2 | 0.015 | 1.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 14P-80-06E | 0.37 | 1.07 | 1.6 | 1.9 | 0.96 | 2.0 | 2.3 | 0.92 | 2.2 | 2.6 | 0.84 | 2.6 | 3.0 | 0.65 | 1995 | 1.60 | - | - | - | 8 | 0.061 | 1.6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 14P-L80-06F | 0.55 | 1.63 | 2.4 | 2.7 | 1.48 | 2.9 | 3.3 | 1.41 | 3.2 | 3.6 | 1.29 | 3.8 | 4.2 | 0.96 | 2021 | 2.46 | - | - | - | 4 | 0.015 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-90S/L-06E | 0.75 | 2.01 | 2.0 | 2.3 | 1.82 | 2.4 | 2.8 | 1.74 | 2.7 | 3.1 | 1.59 | 3.2 | 3.7 | 1.31 | 2004 | 3.05 | 1.5 | 2290 | 3.49 | 16 | 0.20 | 3.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-100L-06D | 1.1 | 2.86 | 1.6 | 2.6 | 2.58 | 2.0 | 3.2 | 2.47 | 2.2 | 3.5 | 2.26 | 2.6 | 4.1 | 1.93 | 2039 | 4.31 | 2.2 | 2330 | 4.96 | 8 | 0.061 | 1.6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-100L-06E | 1.5 | 3.80 | 1.7 | 2.2 | 3.44 | 2.1 | 2.7 | 3.28 | 2.3 | 2.9 | 3.01 | 2.7 | 3.5 | 2.63 | - | 5.75 | 3 | 2310 | 6.59 | 32 | 0.45 | 4.2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-112M-06E | 2.2 | 5.38 | 2.3 | 3.1 | 4.87 | 2.9 | 3.7 | 4.64 | 2.4 | 3.1 | 4.26 | 2.8 | 3.7 | - | - | - | 4.4 | 2330 | 9.32 | 16 | 0.20 | 3.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-132S-06E | 3 | 7.27 | 1.6 | 2.6 | 6.58 | 2.0 | 3.2 | 6.27 | 1.6 | 2.7 | 5.75 | 2.0 | 3.2 | - | - | - | 6 | 2330 | 12.6 | 60 | 0.86 | 6.3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-132M-06F | 4 | 9.57 | 1.7 | 2.7 | 8.66 | 2.1 | 3.3 | 8.26 | 1.7 | 2.7 | 7.57 | 2.1 | 3.3 | - | - | - | 8 | 2330 | 16.6 | 32 | 0.45 | 4.2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11P-L132M-06G | 5.5 | 13.1 | 2.0 | 2.5 | 11.8 | 2.4 | 3.1 | 11.3 | 2.0 | 2.6 | 10.4 | 2.4 | 3.0 | - | - | - | 11 | 2350 | 22.7 | 100 | 1.22 | 10.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | 60 | 0.86 | 6.3 | | | | | | | | | | | | | | | | | | | | | | | | |

Legend see page 487

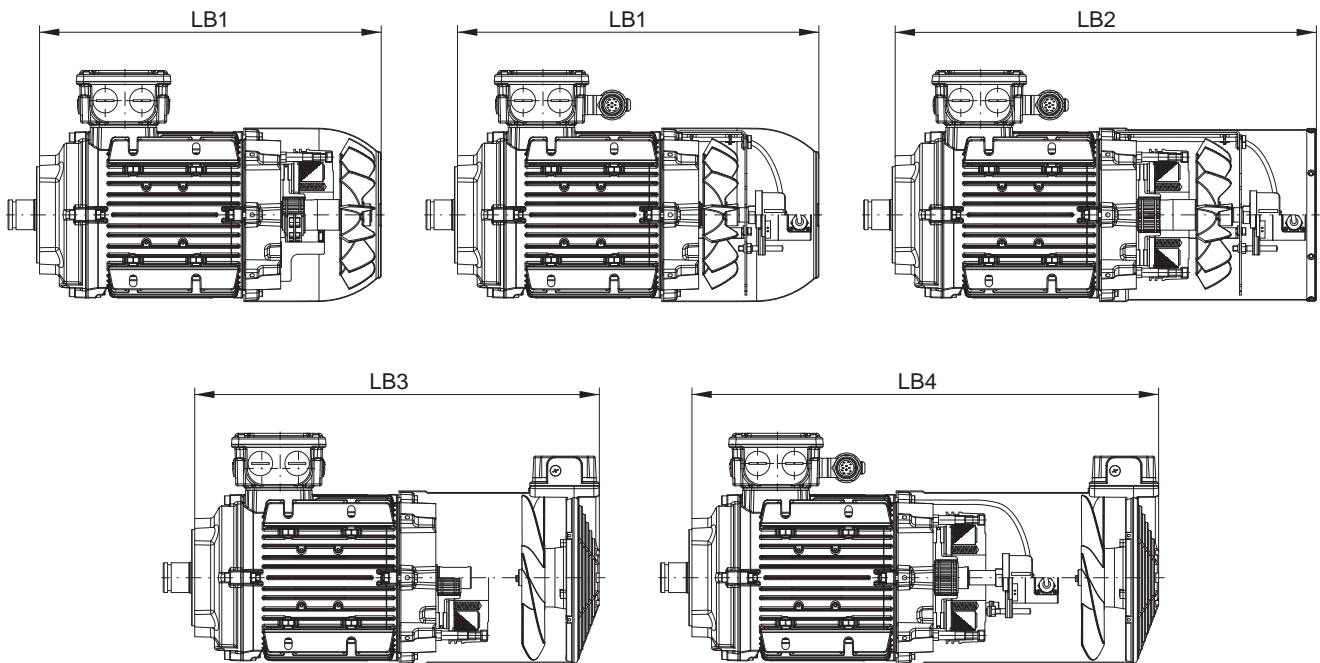


Dimension sheets

Integral motor frame sizes 63 - 132



M



Description of the dimensions L, LB, LB0,... see page 500

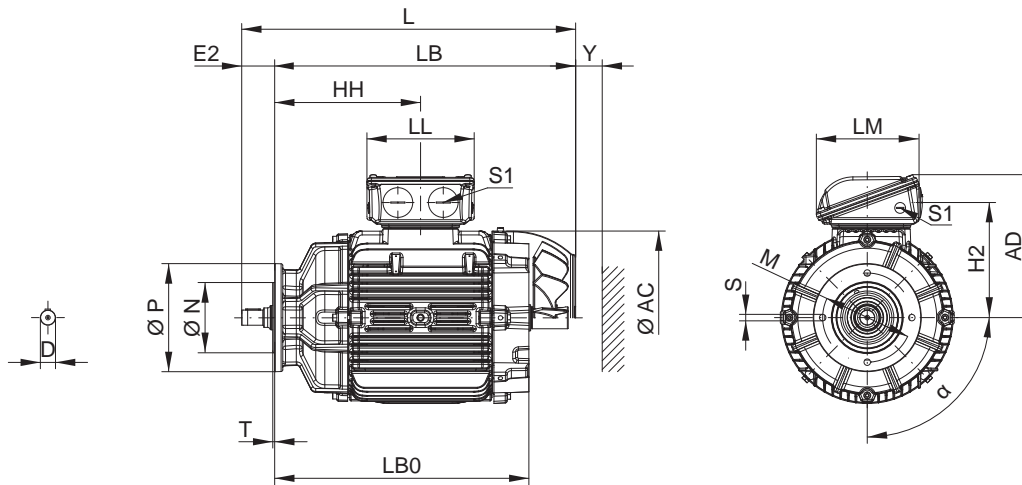
| Tolerances | | |
|----------------|--------------------------------|----|
| Dimension name | ISO tolerance DIN EN ISO 286-2 | |
| D | ≤ Ø 30 mm | j6 |
| | > Ø 30 mm to Ø 50 mm | k6 |
| | > Ø 50 mm | m6 |
| N | ≤ Ø 250 mm | j6 |
| | > Ø 250 mm | h6 |

| Dimension tolerances | | |
|----------------------|----------------------------|-----------------------|
| Dimension name | Dimensions | Permissible deviation |
| M | up to 200 mm | ± 0.25 mm |
| | more than 200 up to 500 mm | ± 0.5 mm |
| | ore than 500 mm | ± 1.0 mm |

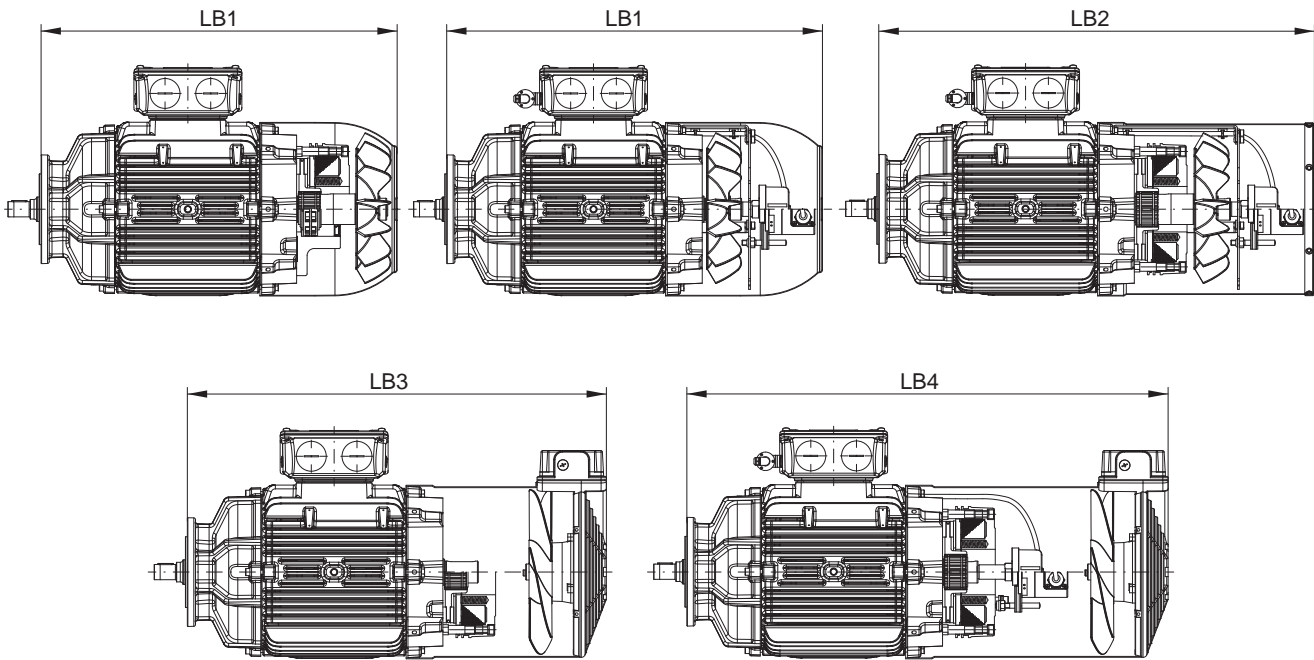
Dimensions in mm. Motor dimensions are typical values.
Subject to change.

| IEC frame size | 63 | 71 | 80 | L80 | 90 | 100 | L100 | 112 | 132 | L132 |
|----------------|-------------------------------|---------|---------|---------|---------|---------|-------------------------------|---------|---------|---------|
| AC | 126 | 141 | 159 | 159 | 178 | 199 | 199 | 221 | 261 | 261 |
| AD | 128 | 136 | 145 | 145 | 155 | 165 | 165 | 185 | 205 | 205 |
| D | 16 | 19 | 24 | 24 | 24 | 34 | 34 | 34 | 42 | 42 |
| E2 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 36 | 36 | 36 |
| HH | 83 | 91 | 88 | 88 | 88 | 107 | 107 | 117 | 122 | 122 |
| H2 | 91 | 99 | 108 | 108 | 118 | 128 | 128 | 144 | 164 | 164 |
| LL | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 137 | 137 | 137 |
| LM | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 118 | 118 | 118 |
| M | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 130 | 130 | 130 |
| N | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 110 | 110 | 110 |
| P | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 135 | 135 | 135 |
| S | M6 | M6 | M6 | M6 | M6 | M6 | M6 | M8 | M8 | M8 |
| S1 | 2 x M25 x 1.5 + 2 x M16 x 1.5 | | | | | | 2 x M32 x 1.5 + 2 x M16 x 1.5 | | | |
| T | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| Y | 25 | 26 | 30 | 30 | 33 | 36 | 36 | 41 | 50 | 50 |
| α | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° | 4 x 90° |
| α_1 | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° |
| L | 230 | 264 | 272 | 296 | 314 | 364 | 402 | 384 | 449 | 487 |
| LB | 204 | 238 | 246 | 270 | 288 | 338 | 376 | 348 | 413 | 451 |
| LB0 | 173 | 196 | 205 | 229 | 242 | 285 | 323 | 290 | 359 | 397 |
| LB1 | 248 | 287 | 304 | 328 | 361 | 422 | 460 | 435 | 531 | 569 |
| LB2 | - | 358 | 381 | 405 | 437 | 500 | 538 | 511 | 614 | 652 |
| LB3 | 322 | 347 | 365 | 389 | 422 | 476 | 514 | 493 | 598 | 636 |
| LB4 | 392 | 417 | 435 | 459 | 485 | 532 | 570 | 549 | 650 | 688 |

Integral motor frame sizes 160 to 250



M



Description of the dimensions L, LB, LB0,... see page 500

| Tolerances | | |
|----------------|--------------------------------|----|
| Dimension name | ISO tolerance DIN EN ISO 286-2 | |
| D | ≥ Ø 28 mm | n6 |
| N | ≤ Ø 250 mm | j6 |
| | > Ø 250 mm | h6 |

| Dimension tolerances | | |
|----------------------|----------------------------|-----------------------|
| Dimension name | Dimensions | Permissible deviation |
| M | up to 200 mm | ± 0.25 mm |
| | more than 200 up to 500 mm | ± 0.5 mm |
| | more than 500 mm | ± 1.0 mm |

Dimensions in mm. Motor dimensions are typical values. Subject to change.

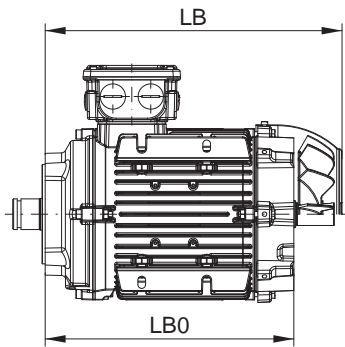
| IEC frame size | 160M | | | | | 160L | | | | |
|----------------|-------------------------------|--------|--------|--------|--------|-------------------------------|--------|--------|--------|--------|
| Motor flange | FR-200 | FR-250 | FR-300 | FR-400 | FR-550 | FR-200 | FR-250 | FR-300 | FR-400 | FR-550 |
| AC | 329 | | | | | 329 | | | | |
| AD | 266 | | | | | 266 | | | | |
| D | 28 | | | | | 28 | | | | |
| E2 | 61 | 66 | 71 | 84 | 100 | 61 | 66 | 71 | 84 | 100 |
| HH | 270 | 265 | 260 | 257 | 241 | 270 | 265 | 260 | 257 | 241 |
| H2 | 213 | | | | | 213 | | | | |
| LL | 199 | | | | | 199 | | | | |
| LM | 190 | | | | | 190 | | | | |
| M | 165 | 215 | 265 | 300 | 400 | 165 | 215 | 265 | 300 | 400 |
| N | 130 | 180 | 230 | 300 | 450 | 130 | 180 | 230 | 300 | 450 |
| P | 200 | 250 | 300 | 400 | 550 | 200 | 250 | 300 | 400 | 550 |
| S | 12 | 15 | 15 | 19 | 19 | 12 | 15 | 15 | 19 | 19 |
| S1 | 2 x M40 x 1,5 + 2 x M16 x 1,5 | | | | | 2 x M40 x 1,5 + 2 x M16 x 1,5 | | | | |
| T | 3,5 | 4 | 4 | 5 | 5 | 3,5 | 4 | 4 | 5 | 5 |
| Y | 65 | | | | | 65 | | | | |
| α | 4 x 90° | | | | | 4 x 90° | | | | |
| L | 606 | | | | | 650 | | | | |
| LB | 545 | 540 | 535 | 522 | 506 | 589 | 584 | 579 | 566 | 550 |
| LB0 | 480 | 475 | 470 | 457 | 441 | 524 | 519 | 514 | 501 | 485 |
| LB1 | 669 | 664 | 659 | 646 | 630 | 713 | 708 | 703 | 690 | 674 |
| LB2 | 747 | 742 | 737 | 724 | 708 | 791 | 786 | 781 | 768 | 752 |
| LB3 | 757 | 752 | 747 | 734 | 718 | 801 | 796 | 791 | 778 | 762 |
| LB4 | 823 | 818 | 813 | 800 | 784 | 867 | 862 | 857 | 844 | 828 |

| IEC frame size | 180M | | | | 180L | | | |
|----------------|-------------------------------|--------|--------|--------|-------------------------------|--------|--------|--------|
| Motor flange | FR-250 | FR-300 | FR-400 | FR-550 | FR-250 | FR-300 | FR-400 | FR-550 |
| AC | 347 | | | | 347 | | | |
| AD | 281 | | | | 281 | | | |
| D | 32 | | | | 32 | | | |
| E2 | 66 | 71 | 84 | 100 | 66 | 71 | 84 | 100 |
| HH | 303 | 298 | 285 | 269 | 303 | 298 | 285 | 269 |
| H2 | 228 | | | | 228 | | | |
| LL | 199 | | | | 199 | | | |
| LM | 190 | | | | 190 | | | |
| M | 215 | 265 | 300 | 400 | 215 | 265 | 300 | 400 |
| N | 180 | 230 | 300 | 450 | 180 | 230 | 300 | 450 |
| P | 250 | 300 | 400 | 550 | 250 | 300 | 400 | 550 |
| S | 15 | 15 | 19 | 19 | 15 | 15 | 19 | 19 |
| S1 | 2 x M40 x 1,5 + 2 x M16 x 1,5 | | | | 2 x M40 x 1,5 + 2 x M16 x 1,5 | | | |
| T | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 |
| Y | 68 | | | | 68 | | | |
| α | 4 x 90° | | | | 4 x 90° | | | |
| L | 674 | | | | 712 | | | |
| LB | 608 | 603 | 590 | 574 | 646 | 641 | 628 | 612 |
| LB0 | 531 | 526 | 513 | 497 | 569 | 564 | 551 | 535 |
| LB1 | 726 | 721 | 708 | 692 | 764 | 759 | 746 | 730 |
| LB2 | 839 | 834 | 821 | 805 | 877 | 872 | 859 | 843 |
| LB3 | 828 | 823 | 810 | 794 | 866 | 861 | 848 | 832 |
| LB4 | 893 | 888 | 875 | 859 | 931 | 926 | 913 | 897 |

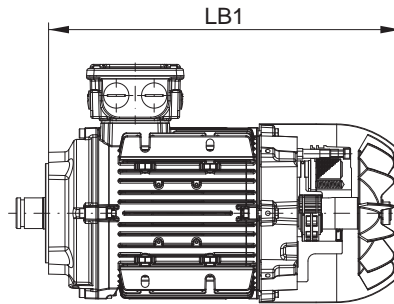
| IEC frame size | 200L | | | 225S/M | | 250S/M |
|----------------|-------------------------------|--------|--------|-------------------------------|--------|-------------------------------|
| Motor flange | FR-300 | FR-400 | FR-550 | FR-400 | FR-550 | FR-550 |
| AC | 386 | | | 453 | | 482 |
| AD | 317 | | | 385 | | 403 |
| D | 38 | | | 38 | | 48 |
| E2 | 71 | 84 | 100 | 84 | 100 | 100 |
| HH | 348 | 335 | 319 | 286 | 270 | 261 |
| H2 | 260 | | | 304 | | 321 |
| LL | 230 | | | 269 | | 268 |
| LM | 218 | | | 286 | | 286 |
| M | 265 | 300 | 400 | 300 | 400 | 400 |
| N | 230 | 300 | 450 | 300 | 450 | 450 |
| P | 300 | 400 | 550 | 400 | 550 | 550 |
| S | 15 | 19 | 19 | 19 | 19 | 19 |
| S1 | 2 x M50 x 1,5 + 2 x M16 x 1,5 | | | 2 x M50 x 1,5 + 2 x M16 x 1,5 | | 2 x M63 x 1,5 + 2 x M16 x 1,5 |
| T | 4 | 5 | 5 | 5 | 5 | 5 |
| Y | 78 | | | 85 | | 85 |
| α | 4 x 90° | | | 8 x 45° | | 8 x 45° |
| L | 804 | | | 912 | | 951 |
| LB | 733 | 720 | 704 | 828 | 812 | 851 |
| LB0 | 629 | 616 | 600 | 714 | 698 | 737 |
| LB1 | 859 | 846 | 830 | 946 | 930 | 969 |
| LB2 | 977 | 964 | 948 | 1062 | 1046 | 1085 |
| LB3 | 929 | 916 | 900 | 1100 | 1084 | 1123 |
| LB4 | 1009 | 996 | 980 | 1100 | 1084 | 1123 |



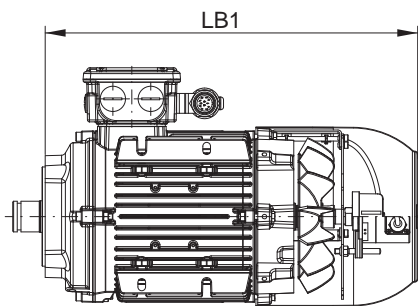
Length description motor modules



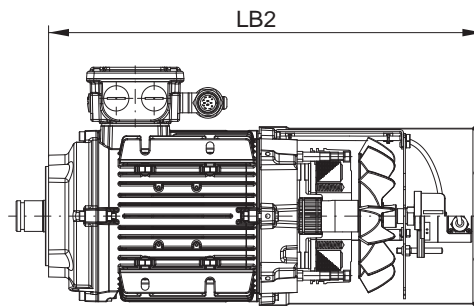
LB Self ventilated
LB0 Non-ventilated



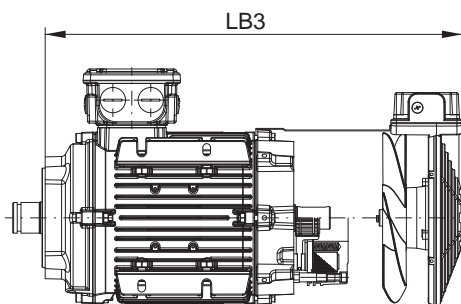
LB1 Self ventilated with brake
 or back stop type RSM



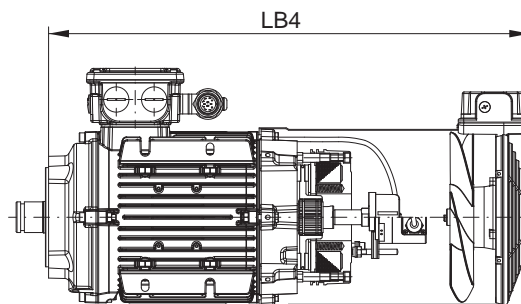
LB1 Self ventilated with standard encoder,
 SSI multiturn encoder or resolver



LB2 Self ventilated with brake and standard encoder,
 SSI multiturn encoder or resolver



LB3 Forced ventilation with or without brake



LB4 Forced ventilation with/without brake and standard encoder,
 SSI multiturn encoder or resolver

M

Motor modules

High / Low temperature execution

| | |
|-----------|----------------------------|
| HT | High temperature execution |
| LT | Low temperature execution |

To ensure steady operation even at increased or very low ambient temperatures, we offer specially adjusted motor executions with more resistant components.

Temperature control

| | |
|------------|---|
| TH | Bimetal switch for switch off |
| 2TH | Bimetal switch for warning and switch off |
| TF | PTC thermistor for switch off |
| 2TF | PTC thermistor for warning and switch off |
| KTY | Temperature sensor |

In the standard version, the motors are designed with motor protection in the motor winding. In order to protect the winding of a three-phase induction motor against thermal overloads, resulting for example from overloading and operation with only two phases, one of the following devices can be provided:

TH - Bimetal switch „NC contact“ (+155°C)

The contact is normally closed (NC); the disc opens when the winding's temperature reaches limits dangerous for the insulation system. When a limit temperature is reached, these bimetal switches (NC contacts) can deactivate an auxiliary circuit. The circuit can only be reclosed following a considerable fall in temperature. When the motor current rises quickly (e.g. with a locked rotor), these switches are not suitable due to their large thermal time constants.

TF - PTC thermistor (+155°C)

The most comprehensive protection against thermal overloading caused in starting against heavy masses, heavy alternating load and high frequency starting resp. brake operation or high ambient temperatures of the motor is provided by PTC thermistors installed in the motor winding.

The sensors are temperature sensitive resistors (PTC) which change value almost instantaneously at their response temperature. The switch off level corresponds to the thermal class of the insulation. This characteristic is used in combination with tripping devices (on request) to monitor the temperature of the motor. For warning purposes additional bimetal switches or PTC thermistors with lower switch off temperature can be fitted. These correspond to the key **2TH** and **2TF**.

KTY - Temperature sensor

This sensor is a semiconductor that changes its resistance depending on temperature in accordance with a defined characteristic. The evaluation is made by an extra tripping device (on request). The temperature sensor is embedded in the winding head of the motor in the same manner as a PTC thermistor. Evaluation is performed, for example, in the frequency inverter.

Anti-condensation heating

| | |
|-----------|---------------------------|
| SH | Anti-condensation heating |
|-----------|---------------------------|

Windings of motors, which are operating at conditions of extreme temperature changes or extreme climatic conditions, are endangered of condensation water. The built in anti-condensation heating warms up the motor windings after switching off and prevents the motor inside from condensation water.

During motor operation the anti-condensation heating must not be switched on. The limit temperature of the winding (+155°C in thermal class F) must not be exceeded! Temperature control is advisable!

| IEC frame size | Heating performance [W] |
|----------------|-------------------------|
| 71 | 13 |
| 80 | 25 |
| 90 | |
| 100 | |
| 112 | 50 |
| 132 | |
| 160 | 75 |
| 180 | |
| 200 | |
| 225 | 100 |
| 250 | |

The anti-condensation heating must be supplied with a separate voltage.

Supply voltage: 230 V (1~) - Voltage range for IEC frame sizes: 71 to 200: 220 - 240 V, 50/60 Hz

Climatic protection

| | |
|-----------|----------------------|
| K1 | Humidity protection |
| K2 | Corrosion protection |

The following standardised climatic protection executions are available for motors exposed to extreme climatic conditions:

K1 - Humidity protection

Humid warm climate or humid variable climate with max. relative air humidity of 92 %, also for areas on the seaside

K2 - Corrosion protection

Relative air humidity of more than 92 % (extreme formation of condensation water), furthermore against chemically aggressive gases and vapours of increased concentration

Drain

| | |
|-----------|-------|
| KB | Drain |
|-----------|-------|

In cases of increased air humidity, periodic duty, installation in the open air or when subject to extreme climatic conditions, the motors are endangered by the formation of condensation. The endshields have holes for drainage of water that may condense inside the frame. These holes are supplied with rubber drain plugs, which leave the factory in closed position and must be opened periodically to allow the exit of condensed water.

To determine the correct position of the hole the exact mounting position of the motor must be defined.

M

Terminal box designs

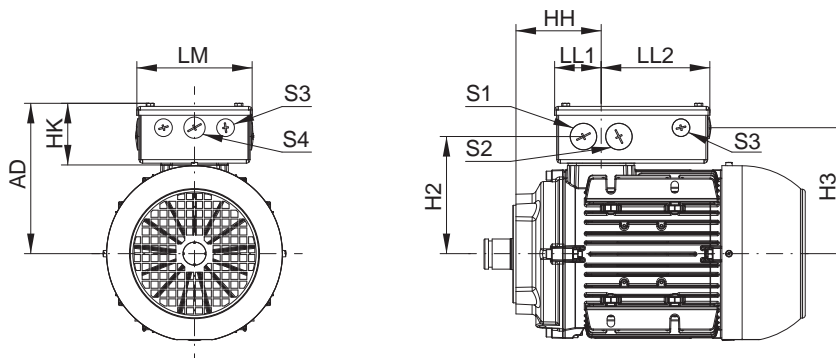
| | |
|--------------|-----------------------|
| MIP | Multipin box |
| MIG.. | MIG - connect systems |

MIP - Multipin box

IEC frame sizes: 63 to 250

This extended terminal box was designed to permit additional options, such as brakes, incremental encoders, thermal elements, anti-condensation heating and the like, to be connected in an orderly fashion in the box.

The terminal box can be equipped with up to 22 sockets, including a brake rectifier. The terminal used are two-wire terminals fitted with cage clamp connectors. These are suitable for single-wire, multi-wire and fine-wire lines with diameters up to 4 mm².



| IEC frame size | MIP box | | | | | | | | | | | | |
|----------------|---------|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|
| | AD | HH | HK | H2 | H3 | LM | LL1 | LL2 | S1 | S2 | S3 | S4 | |
| 63 | 132 | 90 | 69 | 95 | 99 | 130 | 52 | 122 | 2xM25 | 2xM25 | 4xM16 | 1xM20 | |
| 71 | 140 | 99 | 69 | 103 | 107 | 130 | 52 | 122 | 2xM25 | 2xM25 | 4xM16 | 1xM20 | |
| 80 | 149 | 95 | 69 | 112 | 116 | 130 | 52 | 122 | 2xM25 | 2xM25 | 4xM16 | 1xM20 | |
| 90 | 159 | 96 | 69 | 122 | 126 | 130 | 52 | 122 | 2xM25 | 2xM25 | 4xM16 | 1xM20 | |
| 100 | 169 | 109 | 69 | 132 | 136 | 130 | 52 | 122 | 2xM25 | 2xM25 | 4xM16 | 1xM20 | |
| 112 | 182 | 130 | 70 | 144 | 154 | 140 | 68 | 138 | 2xM32 | 2xM32 | 4xM16 | 1xM25 | |
| 132 | 202 | 123 | 70 | 164 | 174 | 140 | 68 | 138 | 2xM32 | 2xM32 | 4xM16 | 1xM25 | |
| 160 | FR-200 | 269 | 270 | 104 | 211 | 220 | 205 | 105 | 171 | 2xM50 | 2xM40 | 4xM16 | 1xM25 |
| | FR-250 | | 265 | | | | | | | | | | |
| | FR-300 | | 260 | | | | | | | | | | |
| | FR-400 | | 257 | | | | | | | | | | |
| | FR-550 | | 241 | | | | | | | | | | |
| 180 | FR-250 | 284 | 303 | 104 | 231 | 240 | 205 | 105 | 171 | 2xM50 | 2xM40 | 4xM16 | 1xM25 |
| | FR-300 | | 298 | | | | | | | | | | |
| | FR-400 | | 285 | | | | | | | | | | |
| | FR-550 | | 269 | | | | | | | | | | |
| 200 | FR-300 | 300 | 348 | 104 | 250 | 256 | 205 | 105 | 177 | 2xM50 | 2xM40 | 4xM16 | 1xM25 |
| | FR-400 | | 335 | | | | | | | | | | |
| | FR-550 | | 319 | | | | | | | | | | |
| 225 | FR-400 | 344 | 286 | 104 | 289 | 295 | 205 | 105 | 177 | 2xM50 | 2xM40 | 4xM16 | 1xM25 |
| | FR-550 | | 270 | | | | | | | | | | |
| 250 | FR-550 | 361 | 261 | 104 | 306 | 312 | 205 | 105 | 177 | 2xM50 | 2xM40 | 4xM16 | 1xM25 |

Dimensions in mm

MIG - connect system

Models: MIG10B, MIG16, MIG40, MIG10-FL
IEC frame sizes: 63 to 180 (MIG10-FL up to 250)

The MIG (Multiplug) - connect system is a standardised distributed connection system. It is used for the integration of power and control cabling into a single motor connector. The plug is assembled in-house and replaces the terminal box.

Most important advantages:

- Quick installation and service at site
- Avoiding wiring faults
- Motor replacement without electrical manipulation

For motor frame sizes 63 to 180 three MIG types of different power ratings are used. For each MIG model mating connectors are available:

MIG10B:

With 18 PINs and ground this most compact plug enables connection to motors up to a rated current of 10 A with voltages up to 400/690 V and protection degrees up to IP67. Beside the power wires a variety of auxiliary wires can be connected as well.

MIG16:

This MIG for mid-sized motors supports a maximum current of 16 A at 500 V with 10 PINs in total. In case a wider variety of auxiliary PINs is necessary a mixed holding can be offered (6 PINs - 16 A; 12 PINs - auxiliary).

MIG40:

To achieve all contacts to be connected with one plug a mixed holding of PINs has to be used in this case. 6 PINs for 40 A at 400/690 V together with 12 PINs auxiliary guarantees full contactability.

For motor frame sizes 63 to 250 with forced ventilation the following MIG type is available:

MIG10-FL:

On demand this MIG can replace the normal forced ventilation connection. Thereby this motor module has all advantages of a MIG - connect plug system. The plug is equipped with 3 PINs and grounding and can be mounted on every forced ventilation size.

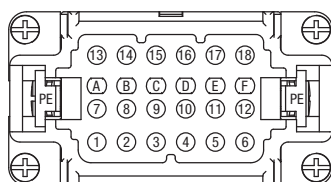


MIG40 execution

MIG - connect system overview table

| IEC frame size | | 63 | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 |
|------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 400 V, 50 Hz | 4p | 10B | 10B | 10B | 10B | 10B | 16 | 16 | 40 | 40 |
| | 6p | 10B | 10B | 10B | 10B | 10B | 16 | 16 | 40 | 40 |
| 230 V, 50 Hz | 4p | 10B | 10B | 10B | 10B | 16 | - | - | - | - |
| | 6p | 10B | 10B | 10B | 10B | 16 | - | - | - | - |
| 400 V, 100 Hz | 4p | 10B | 10B | 10B | 10B | 16 | 40 | 40 | - | - |
| | 6p | 10B | 10B | 10B | 10B | 10B | 16 | 40 | - | - |
| 460 V, 60 Hz | 4p | 10B | 10B | 10B | 10B | 10B | 16 | 16 | 40 | 40 |
| | 6p | 10B | 10B | 10B | 10B | 10B | 16 | 16 | 40 | 40 |
| 460 V, 120 Hz | 4p | 10B | 10B | 10B | 10B | 16 | 16 | 40 | - | - |
| | 6p | 10B | 10B | 10B | 10B | 10B | 16 | 40 | - | - |

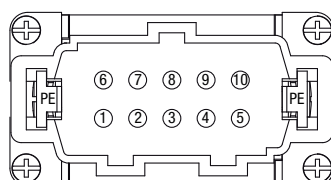
PIN assignment MIG10B



| PIN | Assignment |
|-----|---------------------------|
| PE | Grounding terminal |
| 1 | Winding connection U1 |
| 2 | Winding connection V1 |
| 3 | Winding connection W1 |
| 4* | Bimetal release 1 TH1 |
| 5 | Brake heating tape |
| 6 | Anti-condensation heating |
| 7 | Winding connection W4 |
| 8 | Winding connection U4 |
| 9 | Winding connection V4 |
| 10* | Bimetal release 1 TH1 |
| 11 | Brake heating tape |
| 12 | Anti-condensation heating |

| PIN | Assignment |
|----------------|------------------------------|
| 13 | Brake |
| 14 | Brake |
| 15 | Brake microswitch |
| 16 | Brake microswitch |
| 17* | Bimetal release 2 TH2 |
| 18* | Bimetal release 2 TH2 |
| *alternatively | |
| 4 | PTC thermistor 1 TF1 |
| 10 | PTC thermistor 1 TF1 |
| 17 | PTC thermistor 2 TF2 |
| 17 | Resistance thermometer KTY1 |
| 18 | PTC thermistor 2 TF2 |
| 18 | Resistance thermometer KTY 1 |

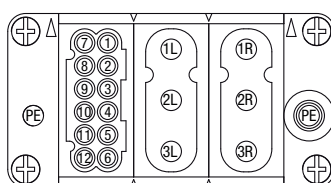
PIN assignment MIG16



| PIN | Assignment |
|-----|-----------------------|
| PE | Grounding terminal |
| 1 | Winding connection U1 |
| 2 | Winding connection V1 |
| 3 | Winding connection W1 |
| 4* | Brake |
| 5* | Brake |
| 6 | Winding connection W4 |
| 7 | Winding connection U4 |

| PIN | Assignment |
|----------------|---------------------------|
| 8 | Winding connection V4 |
| 9* | Temperature sensor 1 |
| 10* | Temperature sensor 1 |
| *alternatively | |
| 9 | Anti-condensation heating |
| 10 | Anti-condensation heating |
| 4 | Temperature sensor 2 |
| 5 | Temperature sensor 2 |

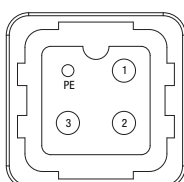
PIN assignment MIG40



| PIN | Assignment |
|-----|-----------------------|
| PE | Grounding terminal |
| 1R | Winding connection U1 |
| 2R | Winding connection V1 |
| 3R | Winding connection W1 |
| 1L | Winding connection W4 |
| 2L | Winding connection U4 |
| 3L | Winding connection V4 |
| 1 | Brake |
| 2 | Temperature sensor 1 |
| 3 | Temperature sensor 2 |

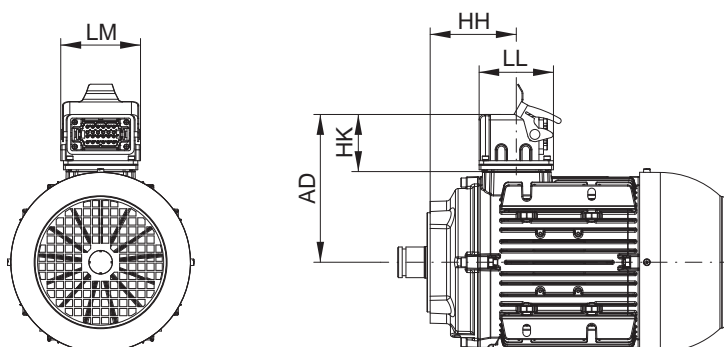
| PIN | Assignment |
|-----|---------------------------|
| 4 | Temperature sensor 3 |
| 5 | Anti-condensation heating |
| 6 | |
| 7 | Brake |
| 8 | Temperature sensor 1 |
| 9 | Temperature sensor 2 |
| 10 | Temperature sensor 3 |
| 11 | Anti-condensation heating |
| 12 | |

PIN assignment MIG10-FL



| PIN | Assignment |
|-----|---------------------|
| PE | Grounding terminal |
| 1 | Power connection L1 |
| 2 | Power connection L2 |
| 3 | Power connection L3 |

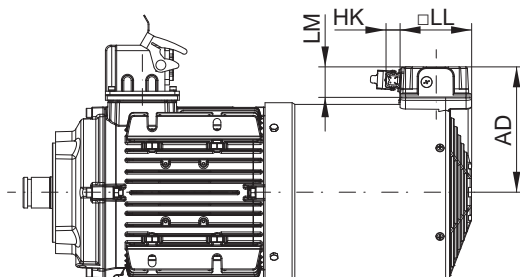
Dimension sheet MIG10B, MIG16, MIG40



| IEC frame size | MIG - connect system | | | | | | |
|----------------|----------------------|-----|-----|-----|----|----|----|
| | MIG Type | AD | HH | HK | LL | LM | |
| 63 | 10B | 124 | 90 | 61 | 82 | 86 | |
| 71 | 10B | 132 | 99 | 61 | 82 | 86 | |
| 80 | 10B | 141 | 95 | 61 | 82 | 86 | |
| 90 | 10B | 151 | 96 | 61 | 82 | 86 | |
| 100 | 10B / 16 | 161 | 109 | 61 | 82 | 86 | |
| 112 | 16 / 40 | 173 | 130 | 61 | 82 | 86 | |
| 132 | 16 / 40 | 193 | 123 | 61 | 82 | 86 | |
| 160 | FR-200 | 40 | 226 | 270 | 61 | 82 | 86 |
| | FR-250 | | | 265 | | | |
| | FR-300 | | | 260 | | | |
| | FR-400 | | | 257 | | | |
| | FR-550 | | | 241 | | | |
| 180 | FR-250 | 40 | 241 | 303 | 61 | 82 | 86 |
| | FR-300 | | | 298 | | | |
| | FR-400 | | | 285 | | | |
| | FR-550 | | | 269 | | | |

Dimensions in mm

Dimension sheet MIG10-FL



| IEC frame size | MIG10-FL | | | |
|----------------|----------|----|-----|----|
| | AD | HK | □LL | LM |
| 63 | 118 | 28 | 107 | 32 |
| 71 | 124 | | | |
| 80 | 134 | | | |
| 90 | 143 | | | |
| 100 | 152 | | | |
| 112 | 164 | | | |
| 132 | 185 | | | |
| 160 | 211 | | | |
| 180 | 211 | | | |
| 200 | 211 | | | |
| 225 | 211 | | | |
| 250 | 211 | | | |

Dimensions in mm

M

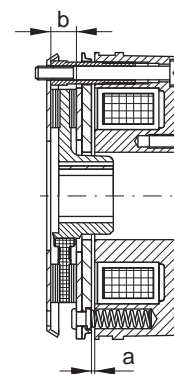
Brake system and Back stop

- BR..** Spring loaded brake
- BBRHGD..** Double spring loaded brake
- BRGH..** Totally closed spring loaded brake (Heavy Duty)
- KKM** Back stop (frame sizes 63 to 90)
- RSM** Back stop (frame sizes 100 to 250)

The mounted spring loaded brake is a single-disc brake with two friction surfaces. It is released electromagnetically and brakes by spring pressure, when the brake is de-energised. The DC-brake coil is supplied from a rectifier which is located in the motor terminal box and will be delivered as standard for AC-side connection.

Product information

- Voltages: Standard: 190 V DC (BR4, 8, 16, 32) or 195 V DC (BR2, 5, 10, 20, 40, 60, 100, 150, 250, 400, 1000)
Optional: 24 V DC
Special execution: 102/103 V DC
- All bare parts corrosion protected
- Short switching times
- Large reserve for abrasion
- Designed for 100 % duty cycle and max. admissible temperature limit of +145 °C
- Degree of protection IP55 (standard)



a air gap
b brake lining thickness

On motors with brake-endshield on the non-driven side subsequent installation of brakes is possible (brake-motor-set available).

Function and adjustment (see illustration below)

When the brake is de-energised, the springs are pressing the armature disc (9) against the brake disc (7) and the friction plate (5). The motor shaft (3) is braked via the brake disc (7) and the gear hub (6). When the brake is energised, a magnetic field is built up and the armature disc (9) is pulled against the magnetic case with the coil (10). When the motor is running, the brake disc (7) can rotate freely from the brake surfaces. In the case of power failure, the brake functions automatically by spring force. A manual release (11) is optionally available (subsequent assembling is also possible).

Braking torque adjustment

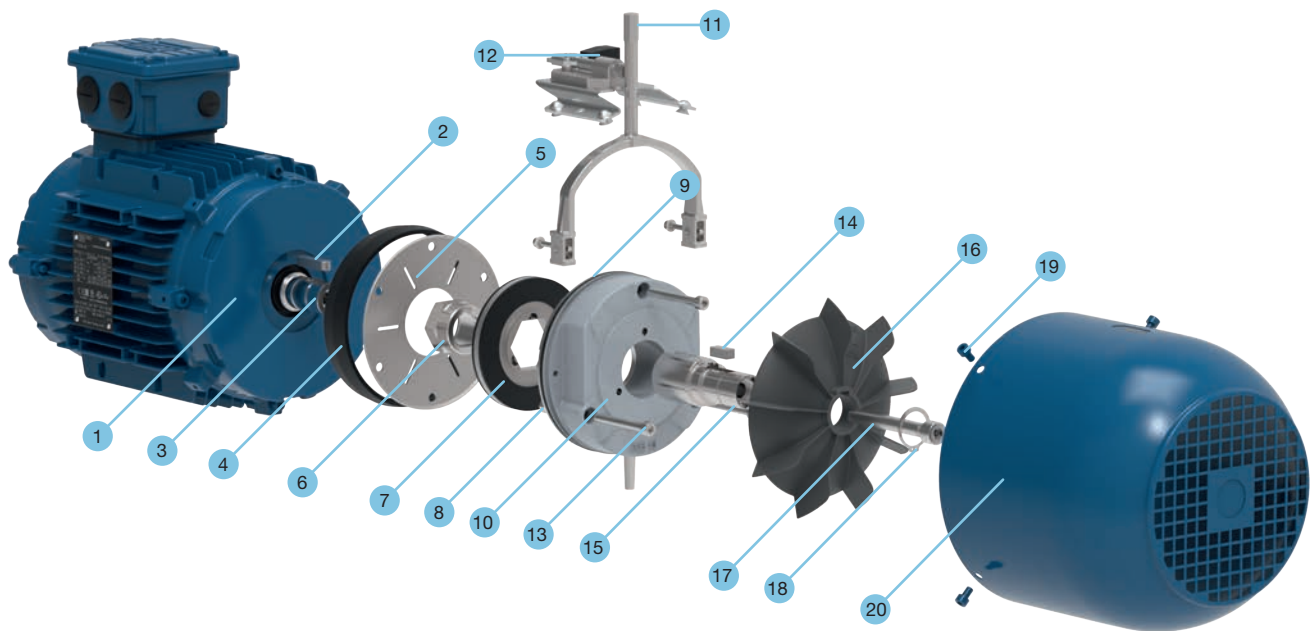
At delivering, the brakes and the brake motors are adjusted to the brake torque M_B . Brake torque reduction is done by removing of springs. Reduced brake torque on request.

Maintenance

Due to abrasion of the friction linings (7) the air gap "a" (see page 389) between magnetic case (10) and armature disc (9) expands. It is necessary to check and readjust the air gap in certain intervals or replace the brake disc (7).

Readjustment of the air gap

First of all the three fixing screws (13) must be loosened half a turn. Now the sleeve screws (8) can be screwed into the magnetic case (10) by turning counter-clockwise. By turning the three fixing screws (13) clockwise, the magnetic case (10) can be moved in direction to the armature disc (9), as long as the nominal air gap a_{normal} (see table on page 508) is obtained. Now the three sleeve screws (8) will be unscrewed clockwise from the magnetic case (10) and the fixing screws (13) will be fixed. Please check the air gap "a" with a feeler gauge, if it is symmetrical and adjust it if necessary.



- | | |
|------------------------------------|------------------------------------|
| 1 Brake endshield | 11 Manual release lever (optional) |
| 2 Key | 12 Locking device |
| 3 Motor shaft | 13 Socket cap screw |
| 4 Dust protection ring | 14 Key |
| 5 Friction plate | 15 Brake shaft extension |
| 6 Gear hub | 16 Fan |
| 7 Brake disc with friction linings | 17 Socket cap screw |
| 8 Sleeve screws | 18 Retaining ring |
| 9 Armature disc | 19 Fan cover screws |
| 10 Magnetic case | 20 Fan cover (brake execution) |

Exploded view: Brake with manual release and locking device, frame size 100

Brake selection

As shown in the following selection table, it is possible to supply brake motors with different brake torques to correspond to the most possible applications. It is also possible to achieve an optimal adaption, by means of the mode of connection of the brake. If exact values about the application are available, we recommend to calculate the braking torque according to the following formulas on page 512, otherwise the proportion between motor rated torque (M_N) and braking torque (M_B) can be taken as an indication for the dimensioning of the brake and check, if the safety factor is sufficient.

For normal applications we recommend sizing the brake 1.5 - 2 times the motor rated torque (M_N), for special applications (lifting gears, switching operation, etc.) 2 - 3 times the motor torque and as holding brake approx. 1 time the rated torque.

Reduced brake torques on request.

- **Execution A - working brake**

M_B approx. 1.5 - 2 times M_N , or applications with medium masses to be accelerated and medium number of starts

- **Execution B - holding brake**

M_B approx. 1 time M_N for drives with small masses to be accelerated and number of starts resp. for keeping the drive stopped

Brake selection table

| IEC frame size | BR.. Standard brake | | BBRHGD.. Double brake | | BRGH.. Totally closed brake | |
|----------------|----------------------------|-------------------|----------------------------|-------------------|-----------------------------|-------------------|
| | Standard Execution A M_B | Execution B M_B | Standard Execution A M_B | Execution B M_B | Standard Execution A M_B | Execution B M_B |
| 63 | 2 Nm | 4 Nm | - | - | - | - |
| 71 | 4 Nm | 2 Nm | 2 x 6 Nm | - | 5 Nm | - |
| 80 | 8 Nm | 4 Nm | 2 x 12,5 Nm | 2 x 6 Nm | 10 Nm | 5 Nm |
| 90 | 16 Nm | 8 Nm | 2 x 25 Nm | 2 x 12,5 Nm | 20 Nm | 10 Nm |
| 100 | 32 Nm | 16 Nm | 2 x 50 Nm | 2 x 25 Nm | 40 Nm | 20 Nm |
| 112 | 60 Nm | 32 Nm | 2 x 75 Nm | 2 x 50 Nm | 60 Nm | 40 Nm |
| 132 | 100 Nm | 60 Nm | 2 x 125 Nm | 2 x 75 Nm | 100 Nm | 60 Nm |
| 160 | 150 Nm | 100 Nm | 2 x 187 Nm | 2 x 125 Nm | 150 Nm | 100 Nm |
| 180 | 250 Nm | 150 Nm | 2 x 300 Nm | 2 x 187 Nm | 250 Nm | 150 Nm |
| 200 | 400 Nm | 250 Nm | 2 x 500 Nm | 2 x 300 Nm | 400 Nm | 250 Nm |
| 225 | 400 Nm | 250 Nm | 2 x 500 Nm | 2 x 300 Nm | 400 Nm | 250 Nm |
| 250 | 1000 Nm | - | 2 x 1200 Nm | - | 1000 Nm | - |

| Spring loaded brake: electrical characteristics | | | | | | | | | | | | | | | | | | |
|---|--------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|--------|
| U_{2nenn} | U_2 | Brake size | | 2** | 4* | 5** | 8* | 10** | 16* | 20** | 32* | 40** | 60** | 100** | 150** | 250** | 400** | 1000** |
| [V] | [V] | M_B | [Nm] | 2 | 4 | 5 | 8 | 10 | 16 | 20 | 32 | 40 | 60 | 100 | 150 | 250 | 400 | 1000 |
| 190* 195** | 170-210 162-236 | Coil current | [A] | 0.13 | 0.11 | 0.13 | 0.13 | 0.18 | 0.16 | 0.20 | 0.21 | 0.26 | 0.32 | 0.42 | 0.50 | 0.65 | 0.85 | 0.83 |
| | | Power | [W] | 26 | 20 | 26 | 25 | 36 | 30 | 38 | 40 | 50 | 63 | 82 | 99 | 127 | 165 | 162 |
| | | Resistance | [Ω] | 1475 | 1805 | 1475 | 1444 | 1070 | 1203 | 990 | 903 | 754 | 600 | 464 | 385 | 300 | 230 | 235 |
| 24 | 19-28 | Coil current | [A] | 1.14 | 0.83 | 1.14 | 1.04 | 1.44 | 1.25 | 1.70 | 1.66 | 2.10 | 2.70 | 3.30 | 4.00 | 5.20 | 7.30 | - |
| | | Power | [W] | 27 | 20 | 27 | 25 | 34 | 30 | 41 | 40 | 50 | 65 | 80 | 96 | 125 | 175 | - |
| | | Resistance | [Ω] | 21 | 29 | 21 | 23 | 17 | 19 | 14 | 14 | 12 | 8.9 | 7.2 | 6.0 | 4.6 | 3.3 | - |
| 102 ¹⁾ ** 103 ¹⁾ * | 85-133 93-113 | Coil current | [A] | 0.30 | 0.19 | 0.30 | 0.24 | 0.38 | 0.31 | 0.45 | 0.39 | 0.53 | 0.60 | 0.85 | 0.94 | 1.23 | 1.76 | - |
| | | Power | [W] | 31 | 20 | 31 | 25 | 38 | 32 | 46 | 40 | 54 | 60 | 87 | 95 | 125 | 179 | - |
| | | Resistance | [Ω] | 340 | 531 | 340 | 424 | 271 | 332 | 228 | 265 | 192 | 174 | 120 | 109 | 83 | 58 | - |

 standard brake

¹⁾ special execution (on demand)

| Spring loaded brake: mechanical characteristics | | | | | | | | | | | | | | | | |
|---|---------------------------------------|--------|------------|------------|--------|--------|---------|---------|----------|----------|----------|----------|----------|---------------|----------|------|
| Brake size | | 2 | 4 | 5 | 8 | 10 | 16 | 20 | 32 | 40 | 60 | 100 | 150 | 250 | 400 | 1000 |
| M_B | [Nm] | 2 | 4 | 5 | 8 | 10 | 16 | 20 | 32 | 40 | 60 | 100 | 150 | 250 | 400 | 1000 |
| M_{BS} | [Nm] | - | 6 | 7.5 | 12 | 15 | 24 | 30 | 48 | 60 | 90 | 150 | 225 | 375 | 600 | 1500 |
| P_{20} | [W] | 26 | 20 | 26 | 25 | 36 | 30 | 38 | 40 | 50 | 63 | 82 | 100 | 127 | 165 | 162 |
| J_B | [kgm ² x10 ⁻³] | 0.015 | 0.015 | 0.015 | 0.061 | 0.045 | 0.20 | 0.172 | 0.45 | 0.45 | 0.86 | 1.22 | 2.85 | 6.65 | 19.5 | 45 |
| P_R | [J/s] | 80 | * | 80 | * | 100 | * | 130 | * | 160 | 200 | 250 | 300 | 350 | 400 | 450 |
| W_{Rmax} | [Jx10 ³] | 3 | 3 | 3 | 7.5 | 6 | 12 | 12 | 24 | 25 | 35 | 50 | 75 | 105 | 150 | 200 |
| W_{RN} | [Jx10 ⁷] | 5 | 8.5 | 5 | 15.8 | 12 | 26.4 | 20 | 53 | 35 | 60 | 125 | 200 | 340 | 420 | 450 |
| a_{normal} | [mm] | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 |
| a_{max} | [mm] | 0.6 | 0.5 | 0.6 | 0.5 | 0.7 | 0.5 | 0.8 | 0.75 | 0.9 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.7 |
| b_{min} | [mm] | 4.5 | 4.5 | 4.5 | 5.5 | 5.5 | 7.5 | 7.5 | 8.0 | 9.5 | 11.5 | 12.5 | 14.5 | 16.5 | 16.5 | 21 |
| m | [kg] | 1.1 | 1.0 | 1.1 | 1.6 | 1.9 | 3.1 | 3.1 | 4.2 | 4.6 | 6.3 | 10 | 14.7 | 21.5 | 35 | 73 |
| $t_{2=}$ | [ms] | 35 | 45 | 35 | 57 | 45 | 76 | 60 | 115 | 80 | 120 | 160 | 200 | 220 | 300 | 320 |
| $t_{1≈}$ | [ms] | 70 | * | 70 | * | 95 | * | 140 | * | 175 | 210 | 280 | 350 | 500 | 800 | 3000 |
| $t_{1=}$ | [ms] | 30 | 28 | 30 | 31 | 45 | 47 | 60 | 53 | 75 | 90 | 120 | 150 | 180 | 200 | 160 |
| Fits on IEC motor frame size | | 63, 71 | 63, 71, 80 | 63, 71, 80 | 80, 90 | 80, 90 | 90, 100 | 90, 100 | 100, 112 | 100, 112 | 112, 132 | 132, 160 | 160, 180 | 180, 200, 225 | 200, 225 | 250 |

* on request

| | Designation | Unit |
|---|-------------|---------------------|
| Rated torque of spring loaded brake | M_B | [Nm] |
| Holding torque of the spring loaded brake | M_{BS} | [Nm] |
| Brake coil power consumption | P_{20} | [W] |
| Brake moment of inertia | J_B | [kgm ²] |
| Friction performance | P_R | [J/s] |
| Friction per switch cycle | W_{Rmax} | [J] |
| Friction until readjustment | W_{RN} | [J] |
| Air gap | a | [mm] |

| | Designation | Unit |
|-------------------------------|-------------|------|
| Minimum brake rotor thickness | b | [mm] |
| Mass of moved machine parts | m | [kg] |
| Engaging time | t_1 | [ms] |
| Release time of brake | t_2 | [ms] |
| Output voltage DC rectifier | $U_{2=}$ | [V] |
| For DC switching | = | - |
| For AC switching | ≈ | - |

BR.. - Spring loaded brake

Degree of protection IP55.

BR.. Spring loaded brake without additional options

Possible options:

- BRH..** With manual release
- BRHA..** With manual release and locking device
- BRR..** With corrosion protection IP55
- BRS..** With dust protection IP65
- BRSR..** With dust and corrosion protection IP65
- BRGD..** Low noise execution

Ordering examples:

- BR5** Brake 4 Nm
- BRHASRGD32** Brake 32 Nm with manual release, locking device, dust and corrosion protection and low noise execution

BRM - Micro switch

When brake release monitoring is necessary, a micro switch (5) can be fitted to indicate brake release. This signal can be used to start the electric motor. When air gap "a" (see page 505) is at its maximum and the armature is no longer attracted to the magnet body the motor will not start and air gap "a" must be adjusted.

The installation of the micro switch is possible for brake sizes 5, 10, 20, 40, 60, 100, 150, 250, 400 and 1000.

BRH.. - Manual release

The installation of the manual release is possible for brakes > 4 Nm. The manual release (1) is necessary for manually releasing the brake in cases of power failure. Brakes will be supplied with manual releases fitted by factory. The adjustment of the manual release may not be changed, not even when air gap "a" (see page 505) is readjusted, as safety can be adversely affected.

BRHA.. - Manual release with locking device

In case of service the manual release can be fastened with a locking device. Take care that in rated condition the brake is released (see illustration on page 510). The 0° position of the manual release with locking device is **only possible** with motor frame sizes 225 and 250.

BRR.. - Corrosion protection

Protection class IP55. Consists of painted brake endshield and friction plate (3), which is made of non-corrosive material.

BRS.. - Dust protection

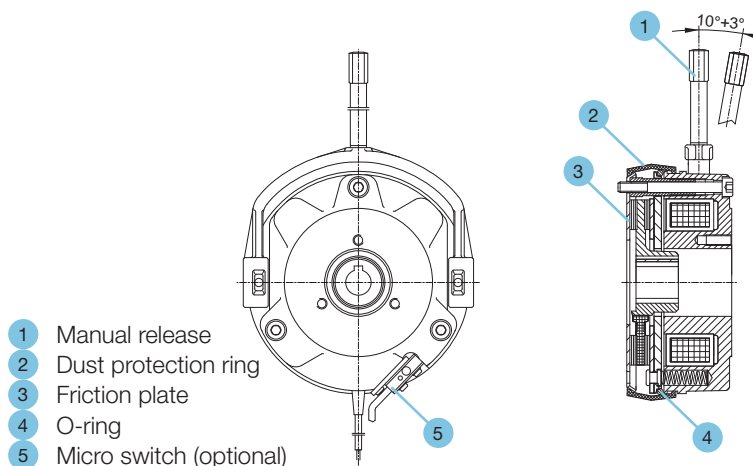
Protection class IP65. Consists of friction plate (3), which is made of non-corrosive material, dust protection ring (2) and shaft seal.

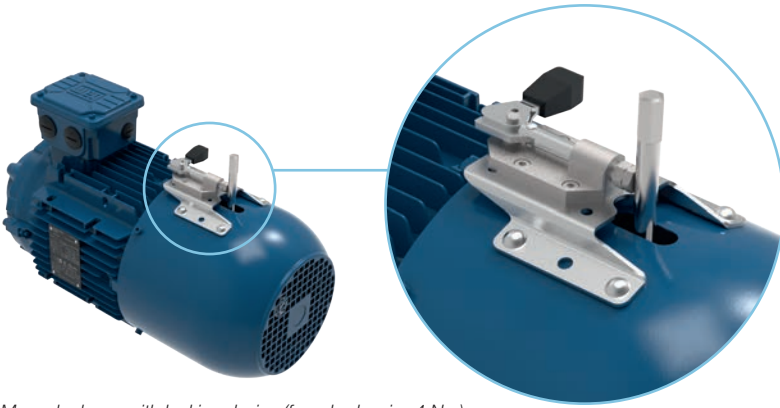
BRSR.. - Corrosion and dust protection

Protection class IP65. Consists of painted brake endshield, friction plate (3), which is made of a non-corrosive material, dust protection ring (2) and shaft seal.

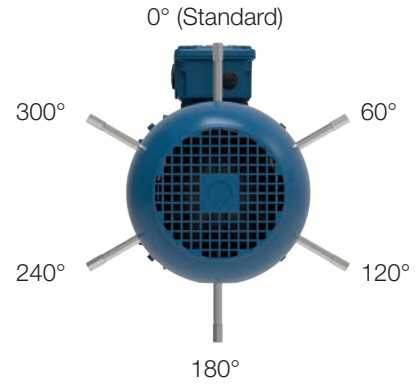
BRGD.. - Low noise execution

To reduce the switching noises of the spring loaded brake, the o-ring (4) can be inserted between armature plate and brake body.





Manual release with locking device (from brake size 4 Nm)



Possible positions of the manual release at the view of the motor fan cover. (The 0° position of the manual release with locking device is only possible with motor frame sizes 225 and 250.)

BBRHGD.. - Double spring loaded brake

Double brakes (from motor frame size 71) are two specially designed low noise brakes working independently of each other meeting high demands on safety.

As option a micro switch (5) is monitoring the function of the brakes. The brakes are executed per default in low noise execution and with manual release.

BBRHGD.. Double brake in low noise execution with manual release (standard)

Possible options:

BBRHSGD.. With dust protection IP65

BBRGD.. Without manual release

Ordering examples:

BBRHGD6 Double brake 2 x 6 Nm in low noise execution with manual release

BBRHSGD187 Double brake 2 x 187 Nm in low noise exec. with man. release and dust protection

BBRM - Micro switch

When brake release monitoring is necessary, a micro switch (5) can be fitted to indicate brake release. This signal can be used to start the electric motor. When air gap "a" (see page 505) is at its maximum and the armature is no longer attracted to the magnet body the motor will not start and air gap "a" must be re-adjusted.

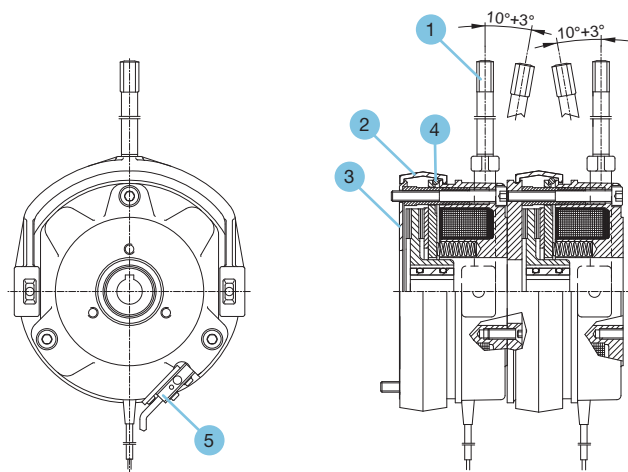
BBRHSGD.. - Dust protection

Protection class IP65. Consists of friction plate (3), which is made of non-corrosive material, dust protection ring (2) and shaft seal.

BBRHGD.. - Manual release

The manual release (1) for manually releasing of the brake in cases of power failure. Brakes will be supplied in standard with manual release fitted by factory. The adjustment of the manual release may not be changed, not even when air gap "a" (see page 505) is readjusted, as security can be adversely affected.

Possible positions of the manual release see on page 510.



- 1 Manual release
- 2 Dust protection ring
- 3 Friction plate

- 4 O-ring
- 5 Micro switch (optional)

BRGH - Totally closed spring loaded brake „heavy duty“

The fully capsulated brake design with dust and waterproof cable glands is in accordance with protection degree IP66. On ventilated motor executions IC411 the shaft passage is sealed by sealings. The brake is executed with manual release in standard. On the brake disc a lining for high loads is fitted. Brake selection table see page 507.

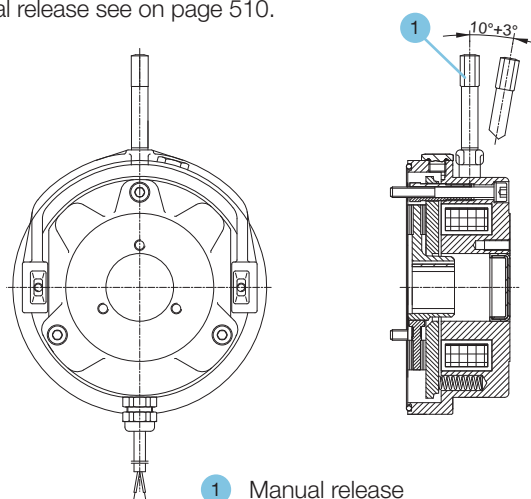
| | | |
|--|--|---|
| BRGH.. Totally closed spring loaded brake with manual release Possible options: BRGHA.. With manual release and locking device BRG.. Without manual release | | Ordering examples: BRGH10 Brake 10 Nm with manual release BRGHA150 Brake 150 Nm with manual release and locking device |
|--|--|---|

BRGH.. - Manual release

The manual release (1) is necessary for manually releasing the brake in cases of power failure. Brakes will be supplied in standard with manual release fitted by factory.

The adjustment of the manual release may not be changed, not even when air gap "a" (see page 505) is readjusted, as safety can be adversely affected.

Possible positions of the manual release see on page 510.



1 Manual release

Anti-condensation heating for brakes

When operating at conditions of extreme temperature changes or extreme climatic conditions, the windings are endangered of condensation water. The built in anti-condensation heater warms up the magnet windings after switching off and prevents the brakes inside from condensation water.

The anti-condensation heating must be supplied with a separate voltage.

Supply voltage 230 V (1~)

Voltage range: 220 - 230 V, 50/60 Hz

| Brake size* [Nm] | Performance [W] |
|------------------|-----------------|
| 10 | 16 |
| 20 | 29 |
| 40 | 33 |
| 60 | 35 |
| 100 | 48 |
| 150 | 53 |
| 250 | 70 |
| 400 | 128 |
| 1000 | 131 |

* The anti-condensation heating for brakes is only available for the brake sizes indicated in the table.

Calculation of the brake torque

If the mass moment of inertia, the rotation speed and the permissible braking time of the machine are known, the torque of the spring loaded brake can be calculated.

| | Formula | Unit |
|---|--|----------------------------|
| Load moment (static load) | $M_L = F \cdot r$ | [Nm] |
| Braking torque (dynamic load) There is a pure dynamic load if fly-wheels, rolls, etc. have to be slowed down and when the static load is very insignificant. | $M_a = 1,046 \cdot 10^2 \cdot J_{ZUS} \cdot \frac{n}{t - t_1}$ $M_{aerf} = M_a \cdot K \leq M_B$ | [Nm] |
| Braking torque (dynamic and static load) In most applications there is also dynamic load in addition to static load. | $M_{aerf} = (M_a \pm M_L) \cdot K$ $M_{aerf} = (1,046 \cdot 10^2 \cdot J_{ZUS} \cdot \frac{n}{t_b} \pm M_L) \cdot K$ $M_{aerf} \leq M_B$ | [Nm] |
| Estimated determination of braking torque | $M_{aerf} = 9,55 \cdot 10^3 \cdot \frac{P}{n} \cdot K$ $M_{aerf} \leq M_B$ | [Nm] |
| Deceleration time | $t = t_B + t_1$ | [ms] |
| Acceleration time | $t_A = \frac{J_{ges} \cdot n_1}{9,55 \cdot (M_A \pm M_L)} + t_2$ $J_{ges} = J_E + J_{ZUS}$ | [s] [kgm ²] |
| Braking time | $t_B = \frac{J_{ges} \cdot n_1}{9,55 \cdot (M_A \pm M_L)}$ $J_{ges} = J_E + J_{ZUS}$ | [s] [kgm ²] |
| The conversion of several mass moments of inertia with different rotation speeds in a mass moment of inertia reduced to the motor shaft | $J_{ZUS} = \frac{J_2 \cdot n_2^2 + J_3 \cdot n_3^2 \dots}{n_1^2}$ | [kgm ²] |
| Conversion of straight-line moved machine parts into a corresponding J on the motor shaft | $J = 91,2 \cdot m \cdot \frac{v^2}{n_1^2}$ | [kgm ²] |
| Friction per switch cycle | $W_R = \frac{J_{ZUS} \cdot n^2}{182,5} \cdot \frac{M_B}{M_B \pm M_L}$ $W_R < W_{Rmax}$ | [J] |
| Friction performance | $P_R = W_R \cdot S$ $P_R < P_{Rmax}$ | [J/s] |

| Designation | Unit | Description |
|------------------|---------------------|---|
| M_L | [Nm] | Load moment Sign + : when the load moment acts decelerating (lifts when going up) Sign - : when the load moment acts accelerating (lifts when going down) |
| M_{aerf} | [Nm] | Necessary braking torque |
| M_a | [Nm] | Braking torque |
| M_A | [Nm] | Starting torque of motor |
| M_B | [Nm] | Rated torque of spring loaded brake |
| K | - | Safety factor according to the operating conditions (1...3) |
| F | [N] | Force |
| F_I | - | Factor of inertia |
| r | [m] | Lever arm |
| m | [kg] | Mass of moved machine parts |
| J, J_1 , J_2 | [kgm ²] | Mass moment of inertia |
| J_E | [kgm ²] | Proper mass moment of inertia |
| J_{ges} | [kgm ²] | Total mass moment of inertia |
| J_{mot} | [kgm ²] | Mass moment of inertia of the motor |

| Designation | Unit | Description |
|-------------|----------------------|---------------------------------------|
| J_{ZUS} | [kgm ²] | Additional mass moment of inertia |
| K | - | Safety factor $K \geq 2$ |
| P | [kW] | Power |
| P_R | [J/s] | Friction performance |
| P_{Rmax} | [J/s] | Maximum friction performance |
| n | [min ⁻¹] | Rotation speed |
| n_1 | [min ⁻¹] | Rotation speed of motor |
| n_2, n_3 | [min ⁻¹] | Rotation speeds |
| t | [ms] | Deceleration time |
| t_A | [s] | Acceleration time |
| t_B | [s] | Braking time |
| t_1 | [ms] | Engaging time |
| t_2 | [ms] | Release time of brake |
| v | [m/s] | Speed |
| W_R | [J] | Friction work per switch cycle |
| W_{Rmax} | [J] | Permissible friction per switch cycle |
| S | [s ⁻¹] | Number of switch cycle per second |

Rectifier

Power supply

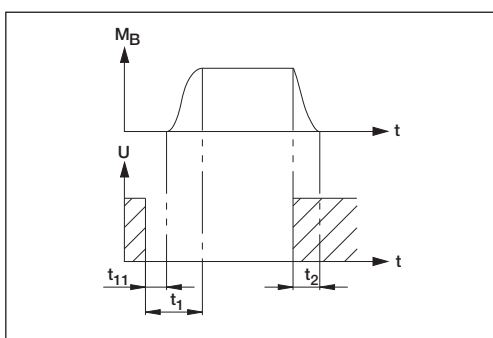
The DC-brake coil is normally supplied by a half wave rectifier incorporated in the motor terminal box and is also available for coil voltages 162-236 V DC, 85-133 V DC or 24 V DC (24 V with block terminal for external power supply!) Corresponding rectifiers and coil voltages are optionally available for all special voltages. The rectifiers are equipped with varistors to protect them against over-voltages.

At number of starts more than 1/s, please contact us for rectifier loading capacity.

Switching modes

By default brake motors will be delivered with connected rectifier for AC-side switching. For DC-side switching the bridge between terminals 5 and 6 must be removed and a switching contact must be connected. Start-up of motor only with connecting brake.

- **AC-side switching** is executed before the rectifier on AC-side. Here the magnetic field is de-energised slowly, the brake interrupts softly with delay. (Release time $t_1 \approx$)
- **DC-side switching** is executed between rectifier and coil. Thereby an extremely low degree of overrunning is achieved. For all gear units, which require exact braking, especially for lifting gears, a DC-side switching of the brake is absolutely required. (Release time $t_1 =$)



| | Designation | Unit |
|---|-------------|--------|
| Braking torque | M_B | [Nm] |
| Voltage | U | [V DC] |
| Engaging time | t_1 | [ms] |
| Response delay (time from switching power off until braking torque increases) | t_{11} | [ms] |
| Release time (time from switching power on until braking torque begins to decrease) | t_2 | [ms] |

Rectifier selection

- *Half-wave and bridge rectifier*

The half wave rectifier which halves the supply voltage is the most cost effective. The bridge rectifier produces 90 % DC voltage from the AC supply voltage. Both rectifiers are available for switching on AC or DC side. Varistors in the input and output protect the rectifiers against surge voltages.

Half-wave rectifier: $U_{2=} = 0.45 \times U_{1\sim}$ $I_{\max} = 1 \text{ A}$

Bridge rectifier: $U_{2=} = 0.9 \times U_{1\sim}$ $I_{\max} = 2 \text{ A}$

- *Fast excitation rectifier*

For motor frame sizes 63-132 this rectifier can't be installed in the standard terminal box.

The high-speed rectifier uses special connections to make different direct voltages available on the terminals. This means that the following brake operating modes can be selected:

1. Rapid response: Brake voltage level equal to the holding voltage of the fast excitation rectifier: The ventilation time of the brake is reduced.
2. Power reduction: Brake voltage level equal to overexcitation voltage of the fast excitation rectifier: reduced performance losses in the brake coil, engage time of the brake is reduced.

Max. connection voltage: $U_{1\sim} = 500 \text{ V AC}$

Max. permissible connections: 600 connections/h

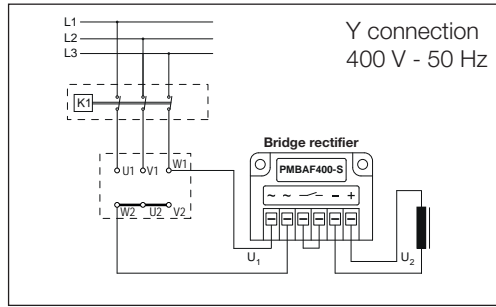
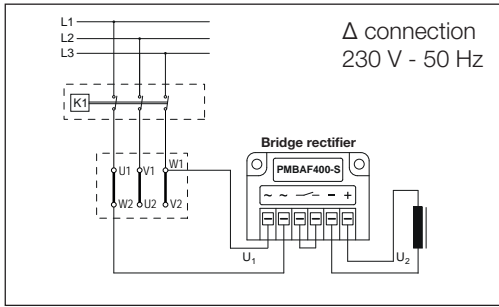
Max. permissible switching capacity: 210 W

| Rectifier type | System | U_N [V] | I_N [A] |
|----------------|---------------------------|-----------|-----------|
| PMEAF500-S | Half-wave rectifier | 500 | 1 |
| PMBAF400-S | Bridge rectifier | 400 | 2 |
| PMG480-S | Fast excitation rectifier | 500 | 2 |

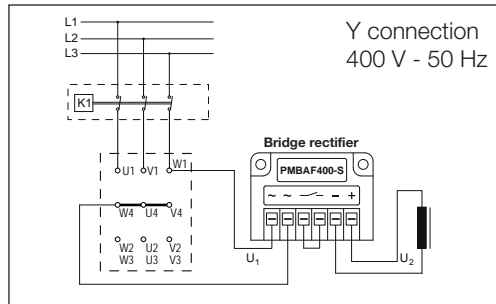
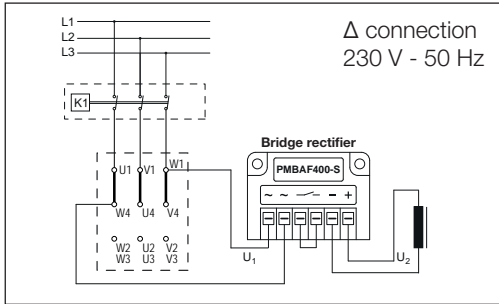
| | | | |
|--------------------------------|--|----------------------------------|---------------------|
| Overexcitation phase (voltage) | $T = 0 - 500 \text{ ms } (\pm 200 \text{ ms})$ | $U_{2=} = 0.9 \times U_{1\sim}$ | $I_N = 4 \text{ A}$ |
| Holding phase (voltage) | $T > 500 \text{ ms}$ | $U_{2=} = 0.45 \times U_{1\sim}$ | $I_N = 2 \text{ A}$ |

Switching diagram for braking motors

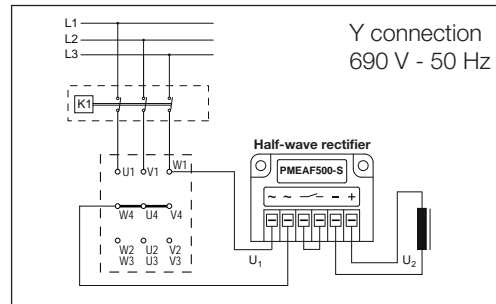
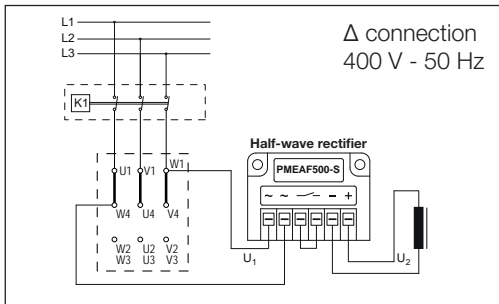
- AC switching - Motor frame sizes 63-80 (Multi-Voltage-Motor)



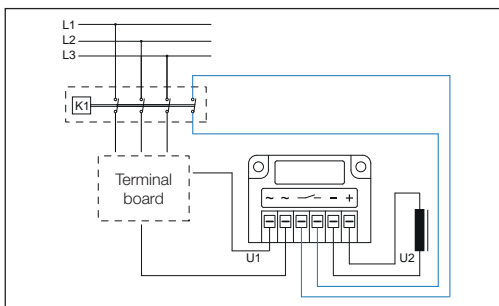
- AC switching - Motor frame sizes 80-100 (EUSAS-Motor)



- AC switching - Motor frame sizes 112-250 (EUSAS-Motor)



- DC switching



Connection examples

| Multi-Voltage-Motor | | | | | | | | | |
|---------------------|------------|-----------------------|---------------------|---------------------|-----------------------|---------------------|---------------------|-----------------|------------------------|
| Motor frame size | Connection | 50 Hz | | | 60 Hz | | | Rectifier model | Brake coil voltage [V] |
| | | 3~ U _N [V] | U _{1~} [V] | U ₂₌ [V] | 3~ U _N [V] | U _{1~} [V] | U ₂₌ [V] | | |
| 63-80 | | 230 | 230 | 207 | 265 | 265 | 239 | PMBAF400-S | 265 |
| | | 400 | 230 | 207 | 460 | 265 | 239 | PMBAF400-S | 265 |

| EUSAS-Motor | | | | | | | | | |
|------------------|------------|-----------------------|---------------------|---------------------|-----------------------|---------------------|---------------------|-----------------|------------------------|
| Motor frame size | Connection | 50 Hz | | | 60 Hz | | | Rectifier model | Brake coil voltage [V] |
| | | 3~ U _N [V] | U _{1~} [V] | U ₂₌ [V] | 3~ U _N [V] | U _{1~} [V] | U ₂₌ [V] | | |
| 80-100 | | 230 | 230 | 207 | 265 | 265 | 239 | PMBAF400-S | 265 |
| | | 400 | 230 | 207 | 460 | 265 | 239 | PMBAF400-S | 265 |
| 112-250 | | 400 | 400 | 180 | 460 | 460 | 207 | PMBAF500-S | 265 |
| | | 690 | 400 | 180 | - | - | - | PMBAF500-S | 265 |

| | Designation | Unit |
|---|----------------|------|
| Maximum rated output current DC rectifier | I _N | [A] |
| Maximum rated input voltage AC rectifier | U _N | [V] |

| | Designation | Unit |
|-----------------------------|-------------------|------|
| 3~ rated motor voltage | 3~ U _N | [V] |
| Supply voltage AC rectifier | U _{1~} | [V] |
| Output voltage DC rectifier | U ₂₌ | [V] |

Back stop

Installing a back stop guarantees that the motor

- can start only in one direction
- can't be turned in wrong direction from counteract torques

KKM Back stop (IEC frame size 63 to 90)

RSM Back stop (IEC frame size 100 to 250)

The applied free wheels of the clamping bodies are mounted on the motor endshield (NDE) in such a manner, that the standard motor dimension LB up to motor size 90 will not be lengthened. From motor size 100 the motor dimension LB1 is valid. The back stop has been largely dimensioned and corresponds approx. to the motor starting torque (M_Δ) to prevent a damage in case of short-time-starting against the back stop at switchings made by error. Nevertheless, the free direction of rotation must be determined first, especially at big motor powers and we recommend for the first starting the star connection and only then the delta connection at correct rotation.

Back stop overview

| IEC frame size | Back stop type | Torque [Nm] | Motor length dimension (see page 496) |
|----------------|----------------|-------------|---------------------------------------|
| 63 | KKM | 7.4 | LB |
| 71 | KKM | 13.5 | LB |
| 80 | KKM | 40 | LB |
| 90 | KKM | 68 | LB |
| 100 | RSM | 150 | LB1 |
| 112 | RSM | 150 | LB1 |
| 132 | RSM | 390 | LB1 |
| 160 | RSM | 580 | LB1 |
| 180 | RSM | 580 | LB1 |
| 200 | RSM | 1050 | LB1 |
| 225 | RSM | 1050 | LB1 |
| 250 | RSM | 2100 | LB1 |

Fields of application:

- Drives for elevators and inclined lifts
- Pumps and fans with backpressure ratchet
- Gearmotors for conveyors with non-reverse characteristic

KKM - Back stop (ball bearing free-wheelings)

The elements have bearing characteristics and are used instead of the bearing on the fan side. The outer dimensions are identical to the deep-groove ball bearings.

- *Function*

Rolling elements and spring loaded clamping bodies are built in between inner and outer ring. The rolling elements and ratchet elements are fixed in a plastic cage. Torque transmitting is made by tight fits on the inner and outer ring. The elements are grease prelubricated. They are maintenance-free for 10,000 to 20,000 hours under normal working conditions.

- *Mounting*

The KKM back stop will be mounted instead of the bearing on the non-driven side.

RSM - Back stop (with centrifugal mechanism)

Because the mounted back stops have no bearing properties, they are mounted directly near the non-drive bearing. Above the lifting speed the centrifugal elements are working contactless and so they are maintenance free under normal conditions.

- *Mounting*

The centrifugal elements are mounted directly near the non-driven side bearing between bearing and fan under the fan cover. The inner ring of the back stop is connected with the shaft with a key DIN 6885-1.

- *Direction of rotation*

The direction of rotation has to be given with the ordering.

- *Back stop direction*

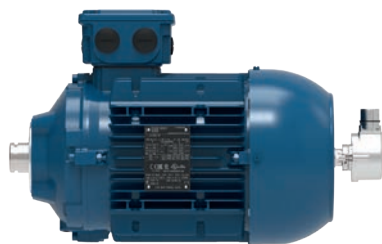
Back stop direction at a view on output shaft right or left. By turning the entire back stop system by 180°, the back stop direction can be reversed (applies only for RSM!).



M

Encoder systems

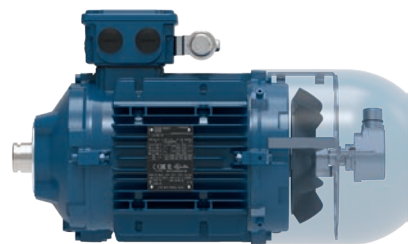
- I. Encoder outside the fan cover
- S. Encoder inside the fan cover



Encoder outside the fan cover



Standard position connector (M23)



Encoder inside the fan cover

Modular design

We are using encoders with hollow shaft (ø 12 mm) open at one end. The modular motor shafts are fit to attach an encoder set. The mounting of encoders therefore is easy and immediately possible. Add-on kits are easy to retrofit.

Mounting of encoders

The encoders are equipped with an integral bearing and connected directly on the non-driven motor shaft side. During angular acceleration of the shaft the stator coupling must absorb only the torque resulting from friction in the bearing.

IG, SG - Standard encoder

Available for IEC motor frame sizes 63 to 250 (IG) / 71 to 250 (SG)

Type: Kübler Sendix 5020

Pulses per revolution: 1024

Output signal: HTL or TTL

Voltage supply: 10-30 V at HTL, 5 V at TTL

Degree of protection: IP66

IG standard: with PIN connector (M23) on the encoder

SG standard: with PIN connector (M23) on the terminal box (mating connector not included in delivery)

Other numbers of pulses per revolution on request.

IC, SC - SINCOS encoder

Available for IEC motor frame sizes 80 to 225 (IC) / 80 to 250 (SC)

Pulses per revolution: 1024

Output signal: Sinus 1VSS

Voltage supply: 10-30 V or 5 V

IC standard: with PIN connector (M23) on the encoder

SC standard: with PIN connector (M23) on the terminal box (mating connector not included in delivery)

Other numbers of pulses per revolution on request.

Encoders in standard mechanical designs can also be implemented as electric SINCOS versions. In this case, signals A and B are available on the output as sinusoidal voltage signals with a signal level of 1 VSS or one 0 pulse once per rotation. These can be used in many different ways in the downstream electronics. Via interpolation of the two signals shifted by 90°, very high resolutions are achieved and can therefore also be used with very slow movements for speed control.

IR, SR - Resolver

Available for IEC motor frame sizes 71 to 200

Degree of protection: IP54 (IP66 on request)

IR standard: with 0.6 m cable (open one way, 6 strands)

SR standard: with 0.6 m cable (open one way, 6 strands)

Resolvers are primarily 2-pole, electromagnetic measuring transducers for converting the angle position of a rotor into an electrical value. Resolvers are wear-free and robust, as the most important elements for acquiring the information consist only of iron core and copper coils. Contamination therefore plays a lesser role.

The configuration consists of 2 stator coils positioned at an offset of 90° (S1/S3 and S2/S4) and a rotating rotor coil (R1/R2).

In this process, the rotor coil supply is inductive, in other words, brushless. The R1/R2 rotor coil is excited using a sinusoidal alternating voltage. The amplitudes of the voltages induced in stator coils S1/S3 and S2/S4 depend on the rotor angle.

Input voltage: $E_{(R1/R2)} = E \times \sin(\omega t)$

Output: $E_{(S1/S3)} = T_r \times E_{(R1/R2)} \times \cos(\varphi)$
 $E_{(S2/S4)} = T_r \times E_{(R1/R2)} \times \sin(\varphi)$

Standard input voltage: $E_{(R1/R2)} = 7 \text{ V}$

Standard transformation ratio: $T_r = 0.5$

SS - SSI multi turn encoder

Available for IEC motor frame sizes 71 to 250

Digits per revolution: 8192 at 4096 possible rotations

Output signal: TTL

Voltage supply: 5 V

Degree of protection: IP66

SS standard execution: with PIN connector on the terminal box

The SSI multiturn absolute encoder signals a single exactly defined position to the drive frequency controller. Maximum permissible number of motor revolutions can be 4096. The resolution is 8192 steps per revolution. The serial communication is corresponding to the specification of the SSI-protocol. SSI means Synchronous Serial Interface.

The permissible cable length is 100 m at least if EMC-compatible wiring is guaranteed.

SV - Heavy Duty encoder

Available for IEC motor frame sizes 90 to 250

Pulses per revolution: 1024

Output signal: HTL or TTL

Voltage supply: 10 - 30 V at HTL, 5 V at TTL

Degree of protection: IP65

Optional insulation inserts available to protect against shaft currents.

The Heavy Duty encoder boasts a high degree of ruggedness in a very compact design. Its special construction makes it perfect for all applications in very harsh environments.

IA, SA - Special encoder

The mounting of special encoders is possible on request.

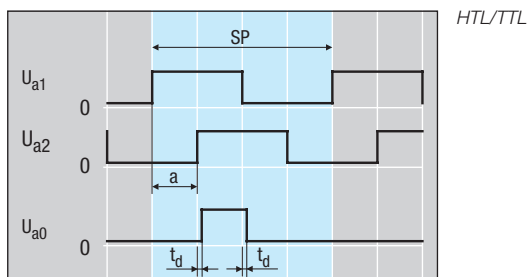
Type of signal

HTL-/TTL - output signal

Encoders with HTL/TTL square-wave output signals incorporate a circuit that digitises scanning signals, providing two 90° (el.) phase-shifted HTL-/TTL square-wave pulse trains U_{a1} and U_{a2} and a reference pulse U_{a0} , which is gated with the incremental signals U_{a1} and U_{a2} .

The integrated electronics also generate the inverse signals of all square-wave pulse trains. The distance between two successive edges of the combined pulse trains U_{a1} and U_{a2} is one measuring step. HTL/TTL square-wave signals can be transmitted to the subsequent electronics (without inverting; max. cable length 100 m; with inverting; 250 m), provided that the specified $5\text{ V} \pm 5\%$ supply voltage is maintained at the encoder.

Extended cable length is possible with fiber-optic cable.



HTL signal levels

$U_H \geq 2.1\text{ V}$ at $I_H = 20\text{ mA}$

$U_L \leq 2.8\text{ V}$ at $I_L = 20\text{ mA}$

with power supply +24 V, without cable

TTL signal levels

$U_H \geq 2.5\text{ V}$ at $I_H = 20\text{ mA}$

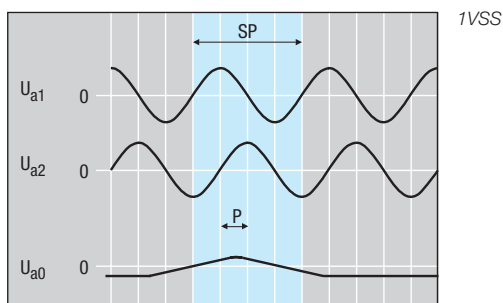
$U_L \leq 0.5\text{ V}$ at $I_L = 20\text{ mA}$

1VPP - output signals

The sinusoidal incremental signals U_{a1} and U_{a2} are phase-shifted by 90° and have signal levels of approximately 1VPP. The signal peaks from the reference mark signal have a usable component of approximately 0.5 V.

Signal interpolation and digitalisation can be performed by electronics, which output TTL-compatible signals.

Voltage signals can be transmitted to the subsequent electronics unit over cables as long as 50 m, provided that the specified $5\text{ V} \pm 5\%$ supply voltage is maintained at the encoder. Encoders that produce voltage signals have sensor line connections for detection of the supply voltage at the encoder; corresponding control systems in the subsequent electronics can then maintain the voltage tolerance.



| | Designation |
|------------------------------|------------------|
| Encoder signals | U_{a1}, U_{a2} |
| Reference pulse | U_{a0} |
| Signal level HIGH | U_H |
| Signal level LOW | U_L |
| Edge separation | a |
| Phase shift | P |
| Current at signal level HIGH | I_H |
| Current at signal level LOW | I_L |
| Signal period | SP |
| Delay time | t_d |

Ventilation systems

| | |
|-----------|--------------------------------------|
| FL | Forced ventilation |
| ZL | Fly wheel fan |
| ZM | Metal fan |
| U | Non-ventilated without NDE shaft end |
| UW | Non-ventilated with NDE shaft end |

FL - Forced ventilation (TEFV, IC416)

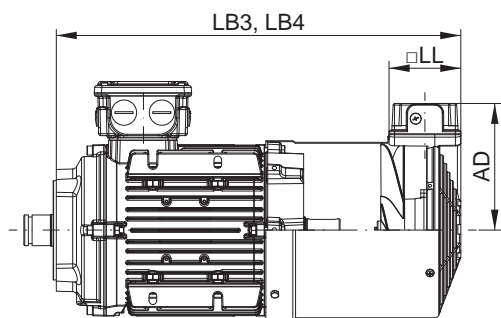
IEC frame sizes: 63 to 250

At applications with high starting frequencies, startings against heavy masses, heavy alternating load and operations with frequency inverters, self ventilation of the motor sometimes will not be sufficient and forced ventilation is necessary. At frequencies under 30 Hz forced ventilation is recommended in order not to thermally overstrain the motor.

Forced ventilation currents (2 pole ventilation motor)

| IEC frame size | Phases Connection | Capacitor μF | 50 Hz | | | | | 60 Hz | | | | |
|----------------|-------------------|-----------------|--------------------|----------------------------|--------------------------|------------------------------|----------------------|--------------------|----------------------------|--------------------------|------------------------------|----------------------|
| | | | Voltage range V | Current A ¹⁾ | Power W ¹⁾ | Air current capacity m³/h | Noise level dB(A) | Voltage range V | Current A ¹⁾ | Power W ¹⁾ | Air current capacity m³/h | Noise level dB(A) |
| 63 | 3~Y | - | 346-525 | 0.09 | 28 | 54 | 47 | 380-575 | 0.08 | 29 | 69 | 52 |
| | 3~Δ | - | 200-303 | 0.15 | 28 | | | 220-332 | 0.14 | 29 | | |
| | 1~⊥Δ | 1.5 | 230-277 | 0.18 | 46 | | | 230-277 | 0.21 | 54 | | |
| 71 | 3~Y | - | 346-525 | 0.09 | 29 | 78 | 51 | 380-575 | 0.07 | 28 | 99 | 56 |
| | 3~Δ | - | 200-303 | 0.15 | 29 | | | 220-332 | 0.13 | 28 | | |
| | 1~⊥Δ | 1.5 | 230-277 | 0.18 | 48 | | | 230-277 | 0.21 | 56 | | |
| 80 | 3~Y | - | 346-525 | 0.09 | 33 | 128 | 54 | 380-575 | 0.07 | 36 | 151 | 58 |
| | 3~Δ | - | 200-303 | 0.16 | 33 | | | 220-332 | 0.13 | 36 | | |
| | 1~⊥Δ | 1.5 | 230-277 | 0.19 | 48 | | | 230-277 | 0.22 | 59 | | |
| 90 | 3~Y | - | 346-525 | 0.22 | 78 | 216 | 59 | 380-575 | 0.18 | 71 | 258 | 63 |
| | 3~Δ | - | 200-303 | 0.39 | 78 | | | 220-332 | 0.32 | 71 | | |
| | 1~⊥Δ | 3.0 | 220-277 | 0.29 | 59 | | | 220-277 | 0.23 | 61 | | |
| 100 | 3~Y | - | 346-525 | 0.21 | 80 | 278 | 60 | 380-575 | 0.18 | 80 | 328 | 65 |
| | 3~Δ | - | 200-303 | 0.37 | 80 | | | 220-332 | 0.30 | 80 | | |
| | 1~⊥Δ | 3.0 | 220-277 | 0.29 | 62 | | | 220-277 | 0.28 | 73 | | |
| 112 | 3~Y | - | 346-525 | 0.20 | 87 | 355 | 62 | 380-575 | 0.17 | 93 | 418 | 66 |
| | 3~Δ | - | 200-303 | 0.35 | 87 | | | 220-332 | 0.29 | 93 | | |
| | 1~⊥Δ | 3.0 | 220-277 | 0.27 | 64 | | | 220-277 | 0.36 | 88 | | |
| 132 | 3~Y | - | 346-525 | 0.37 | 160 | 550 | 67 | 380-575 | 0.32 | 180 | 650 | 71 |
| | 3~Δ | - | 200-303 | 0.64 | 160 | | | 220-332 | 0.55 | 180 | | |
| | 1~⊥Δ | 6.0 | 230-277 | 0.52 | 125 | | | 230-277 | 0.61 | 163 | | |
| 160 | 3~Y | - | 346-525 | 0.74 | 314 | 980 | 73 | 380-575 | 0.62 | 391 | 1160 | 77 |
| | 3~Δ | - | 200-303 | 1.28 | 314 | | | 220-332 | 1.08 | 391 | | |
| | 1~⊥Δ | 12 | 230-277 | 1.05 | 246 | | | 230-277 | 1.52 | 390 | | |
| 180 | 3~Y | - | 346-525 | 0.74 | 314 | 1200 | 74 | 380-575 | 0.62 | 391 | 1379 | 80 |
| | 3~Δ | - | 200-303 | 1.28 | 314 | | | 220-332 | 1.08 | 391 | | |
| | 1~⊥Δ | 12 | 230-277 | 1.05 | 246 | | | 230-277 | 1.52 | 390 | | |
| 200 | 3~Y | - | 346-525 | 0.74 | 314 | 1324 | 74 | 380-575 | 0.62 | 391 | 1575 | 81 |
| | 3~Δ | - | 200-303 | 1.28 | 314 | | | 220-332 | 1.08 | 391 | | |
| | 1~⊥Δ | 12 | 230-277 | 1.05 | 246 | | | 230-277 | 1.52 | 390 | | |
| 225 | 3~Y | - | 346-525 | 0.74 | 314 | 1324 | 74 | 380-575 | 0.62 | 391 | 1575 | 81 |
| | 3~Δ | - | 200-303 | 1.28 | 314 | | | 220-332 | 1.08 | 391 | | |
| | 1~⊥Δ | 12 | 230-277 | 1.05 | 246 | | | 230-277 | 1.52 | 390 | | |
| 250 | 3~Y | - | 346-525 | 0.74 | 314 | 1324 | 74 | 380-575 | 0.62 | 391 | 1575 | 81 |
| | 3~Δ | - | 200-303 | 1.28 | 314 | | | 220-332 | 1.08 | 391 | | |
| | 1~⊥Δ | 12 | 230-277 | 1.05 | 246 | | | 230-277 | 1.52 | 390 | | |

1) maximum permissible values



| IEC frame size | AD | □LL |
|----------------|-----|-----|
| 63 | 118 | 107 |
| 71 | 124 | 107 |
| 80 | 134 | 107 |
| 90 | 143 | 107 |
| 100 | 152 | 107 |
| 112 | 164 | 107 |
| 132 | 185 | 107 |
| 160 | 211 | 107 |
| 180 | 211 | 107 |
| 200 | 211 | 107 |
| 225 | 211 | 107 |
| 250 | 211 | 107 |

Dimensions in mm. Dimensions LB3 and LB4 see drawings from page 496

ZL - Fly wheel fan

IEC frame sizes: 71 to 132 (special execution)

Fly wheel fans increase the inertial moment of the standard motors by a multiple and help to decrease the start up time of the motors. Motors with fly wheel fan often are used at crane drives or machine-systems where a soft start up is required. Available for motor sizes 71 to 132 on request, exchangeable without modification with standard fan, pay attention to the reduced starting frequency! Braking by reversal and driving up against a buffer stop is not permissible.

Motor without brake: $J_{ges} = J_{mot} + J_{ZL}$

Brake motor: $J_{ges} = J_{mot} + J_{ZL} + J_B$

| | Designation | Unit |
|------------------------------|-------------|---------------------|
| Total mass moment of inertia | J_{ges} | [kgm ²] |
| Mass moment of motor | J_{mot} | [kgm ²] |
| Mass moment of brake | J_B | [kgm ²] |
| Mass moment of fly wheel fan | J_{ZL} | [kgm ²] |
| Weight of fly wheel fan | m | [kg] |

| IEC frame size | J_{ZL} [kgm ²] x 10 ⁻³ | m [kg] |
|----------------|--|-----------|
| 71 | 2 | 1.3 |
| 80 | 2 | 1.3 |
| 90 | 3 | 1.6 |
| 100 | 10 | 3.3 |
| 112 | 10 | 3.3 |
| 132 | 14 | 3.8 |

ZM - Metal fan

IEC frame size: 63 to 250

For ambient temperatures which are lesser than or greater than the operation temperatures of the standard plastic fan wheels, the ventilation can be provided via metal fan wheels. These can be manufactured from aluminium, steel plate or cast iron. Using a metal fan can be appropriate in the event of difficult climatic conditions.

U - Non-ventilated without NDE shaft end (TENV)

IEC frame size: 63 to 250

In this version, there is no fan or fan cover. The NDE is completely enclosed. A cover plate is used as the sealing component. This prevents dirt, water, etc. from entering the motor.

UW - Non-ventilated with NDE shaft end (TENV)

IEC frame size: 63 to 250

This design is realised by omitting the fan. The standard fan cover is used as contact protection for the remaining NDE rotating shaft. Motors of these designs are intended for use in systems where fans or fan covers integrated into the motor are not appropriate due to the environmental conditions, for design reasons or at the customer's request.

The motors are therefore designed without integrated fans or fan covers.

In the non-ventilated version, the resulting reduction in nominal motor output must be observed!



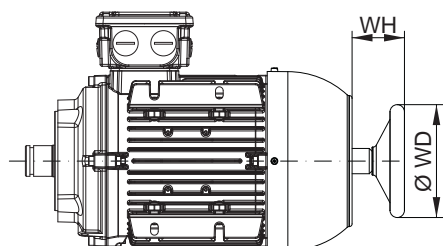
Additional modules

| | |
|------------|---------------------------------|
| HR | Hand wheel |
| SD | Protection cap |
| ID | Protection cap for encoders |
| ZWM | Second shaft end - module shaft |
| ZWV | Second shaft end - solid shaft |

HR - Hand wheel

IEC frame sizes: 71 to 250

By using a second shaft end it is possible to fit a hand wheel.



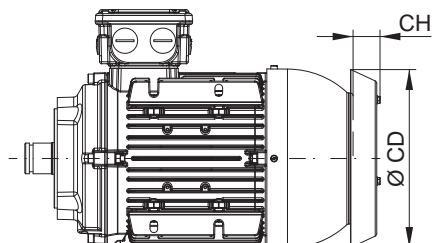
| IEC frame size | ØWD | WH |
|----------------|-----|----|
| 71 | 125 | 51 |
| 80 | 125 | 51 |
| 90 | 125 | 51 |
| 100 | 125 | 51 |
| 112 | 125 | 51 |
| 132 | 200 | 60 |
| 160 | 200 | 60 |
| 180 | 200 | 60 |
| 200 | 200 | 60 |
| 225 | 200 | 60 |
| 250 | 200 | 60 |

Dimensions in mm.

SD - Protection cap

IEC frame sizes: 63 to 250

When installed vertically with the shaft downward, e.g. IM V1, the air intake opening can be protected against water and foreign substance by means of a protective cap.



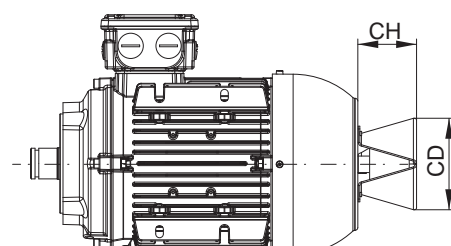
| IEC frame size | ØCD | CH |
|----------------|-----|----|
| 63 | 124 | 20 |
| 71 | 139 | 20 |
| 80 | 157 | 20 |
| 90 | 176 | 20 |
| 100 | 197 | 32 |
| 112 | 219 | 35 |
| 132 | 254 | 35 |
| 160 | 266 | 52 |
| 180 | 310 | 57 |
| 200 | 380 | 67 |
| 225 | 427 | 72 |
| 250 | 427 | 72 |

Dimensions in mm.

ID - Protection cap for encoders

IEC frame sizes: 90 to 250

If mounted outside the fan cover, the encoder may be protected against foreign matter and other external influence by a separate protection cap.



| Protection cap for | CD | CH |
|-----------------------|-----|-----|
| IG standard encoder | 74 | 116 |
| IV Heavy Duty encoder | 115 | 183 |

Dimensions in mm.

ZW. - Second shaft end

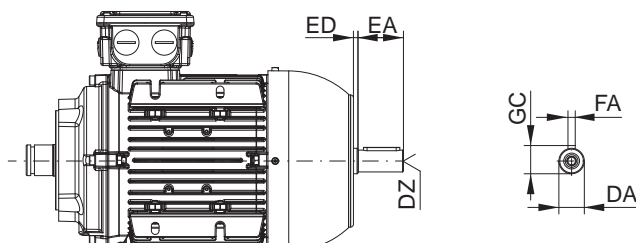
Motors with or without brake can be supplied with a second free shaft end.

ZWM: Module shaft

IEC frame sizes: 71 to 250. This shaft end can be used to transfer half the rated output of the motor.

ZWV: Solid shaft

IEC frame sizes: 63 to 200. Available on request.



| IEC frame size | DA | DZ ²⁾ | EA | ED | FA | GC |
|-------------------|----|------------------|----|----|----|------|
| 63 ¹⁾ | 11 | M4 | 23 | - | 4 | 12.5 |
| 71 | 14 | M5 | 30 | 5 | 5 | 16 |
| 80 | 14 | M5 | 30 | 5 | 5 | 16 |
| 90 | 19 | M6 | 40 | 5 | 6 | 21.5 |
| 100 | 24 | M8 | 50 | 5 | 8 | 27 |
| 112 | 24 | M8 | 50 | 5 | 8 | 27 |
| 132 | 28 | M10 | 60 | 5 | 8 | 31 |
| 160 | 38 | M12 | 80 | 5 | 10 | 41 |
| 180 | 38 | M12 | 80 | 5 | 10 | 41 |
| 200 | 38 | M12 | 80 | 5 | 10 | 41 |
| 225 ²⁾ | 38 | M12 | 80 | 5 | 10 | 41 |
| 250 ²⁾ | 38 | M12 | 80 | 5 | 10 | 41 |

| Tolerances | | |
|----------------|--------------------------------|----|
| Dimension name | ISO tolerance DIN EN ISO 286-2 | |
| DA | ≤ Ø 30 mm | j6 |
| | > Ø 30 mm up to Ø 50 mm | k6 |

Dimensions in mm. ¹⁾ ZWV only ²⁾ ZWM only ³⁾ centre hole with thread according to DIN 332-1

Standards

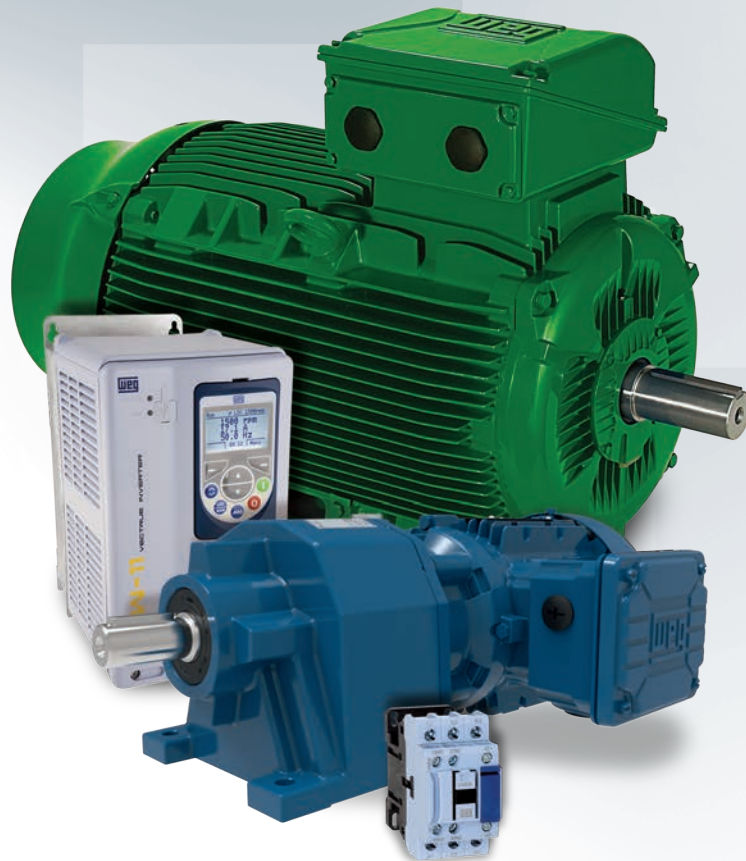
The motors comply with the competent standards and specifications, especially with the following:

| Title | IEC | DIN / EN / VDE |
|--|--------------------------|------------------|
| Rotating electrical machines Rating and performance | IEC 60034-1 IEC 60085 | DIN EN 60034-1 |
| Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles) | IEC 60034-2-1 | DIN EN 60034-2-1 |
| Degrees of protection provided by integral design of rotating electrical machines (IP Code) | IEC 60034-5 | DIN EN 60034-5 |
| Methods of cooling (IC Code) | IEC 60034-6 | DIN EN 60034-6 |
| Classification of types of construction, mounting arrangements and terminal box position (IM Code) | IEC 60034-7 | DIN EN 60034-7 |
| Terminal markings and direction of rotation | IEC 60034-8 | DIN EN 60034-8 |
| Noise limits | IEC 60034-9 | DIN EN 60034-9 |
| Starting performance of single-speed three-phase cage induction motors | IEC 60034-12 | DIN EN 60034-12 |
| Mechanical vibration of certain machines with shaft heights 56 mm and higher - measurement, evaluation and limits of vibration severity | IEC 60034-14 | DIN EN 60034-14 |
| Dimensions and output series for rotating electrical machines | IEC 60072-1 | DIN EN 50347 |
| Thermal protection | IEC 60034-11 | DIN EN 60034-11 |
| CENELEC standard voltages | IEC 60038 | DIN EN 60038 |

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