



geared MOTORS



SIEMENS

Catalogs for "Standard Drives"

SINAMICS G110

Inverter Chassis Units
0.12 kW to 3 kW

D 11.1



Order No.:

E86060-K5511-A111-A1-7600

MICROMASTER

MICROMASTER 410/420/430/440

Inverters

0.12 kW to 250 kW

DA 51.2



Order No.:

E86060-K5151-A121-A4-7600

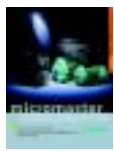
MICROMASTER/COMBIMASTER

MICROMASTER 411 Inverters

COMBIMASTER 411

Distributed Drive Solutions

DA 51.3

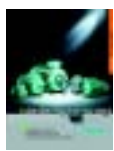


Order No.:

E86060-K5251-A131-A2-7600

Low-Voltage Motors

M 11



Order No.:

E86060-K1711-A101-A3-7600

Industrial Communication for Automation and Drives

IK PI



Order No.:

E86060-K6710-A101-B4-7600

BETA Modular Installation Devices

ET B1



Order No.:

E86060-K8220-A101-A6-7600

Catalog CA 01

the Offline Mall of Automation and Drives

CA 01



Order No.:

CD: E86060-D4001-A101-C3-7600

A&D Mall



Internet:

www.siemens.com/automation/mall

SGM Designer 5.0

Selection and configuration tool for geared motors

- Incl. dimension drawings
- 2D/3D CAD files
- Catalog
- Security and installation instructions

Hard and software requirements

- Windows PC with Pentium or comparable processor
- At least 128 Mbyte RAM
- Operation systems MS Windows 95/98/ME/NT 4.0/2000/XP
- 800 x 600 graphic with more than 256 colors
- CD ROM drive

Installation

You can either start the program directly from the CD ROM or install it as part or full version at your hard disk.

Online version on the Internet

- Direct selection and configuration via Internet access

You can order the CD ROM
at your responsible
sales representative.

Trademarks

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Geared motors

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SIEMENS

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Welcome to Automation and Drives

We would like to welcome you to Automation and Drives and our comprehensive range of products, systems, solutions and services for production and process automation and building technology worldwide.

With Totally Integrated Automation and Totally Integrated Power, we deliver solution platforms based on standards that offer you a considerable savings potential.

Discover the world of our technology now. If you need more detailed information, please contact one of your regional Siemens partners.

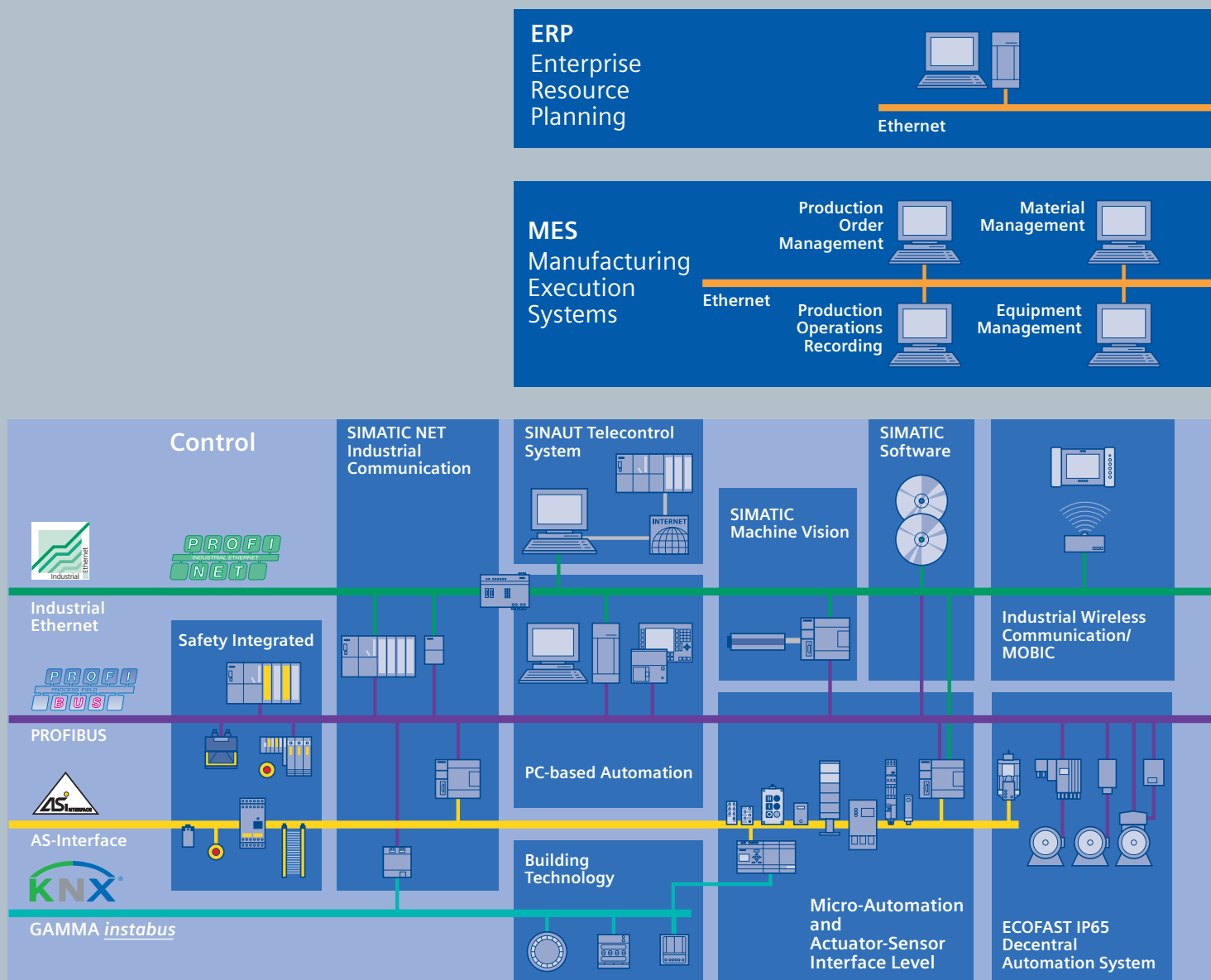
They will be glad to assist you.





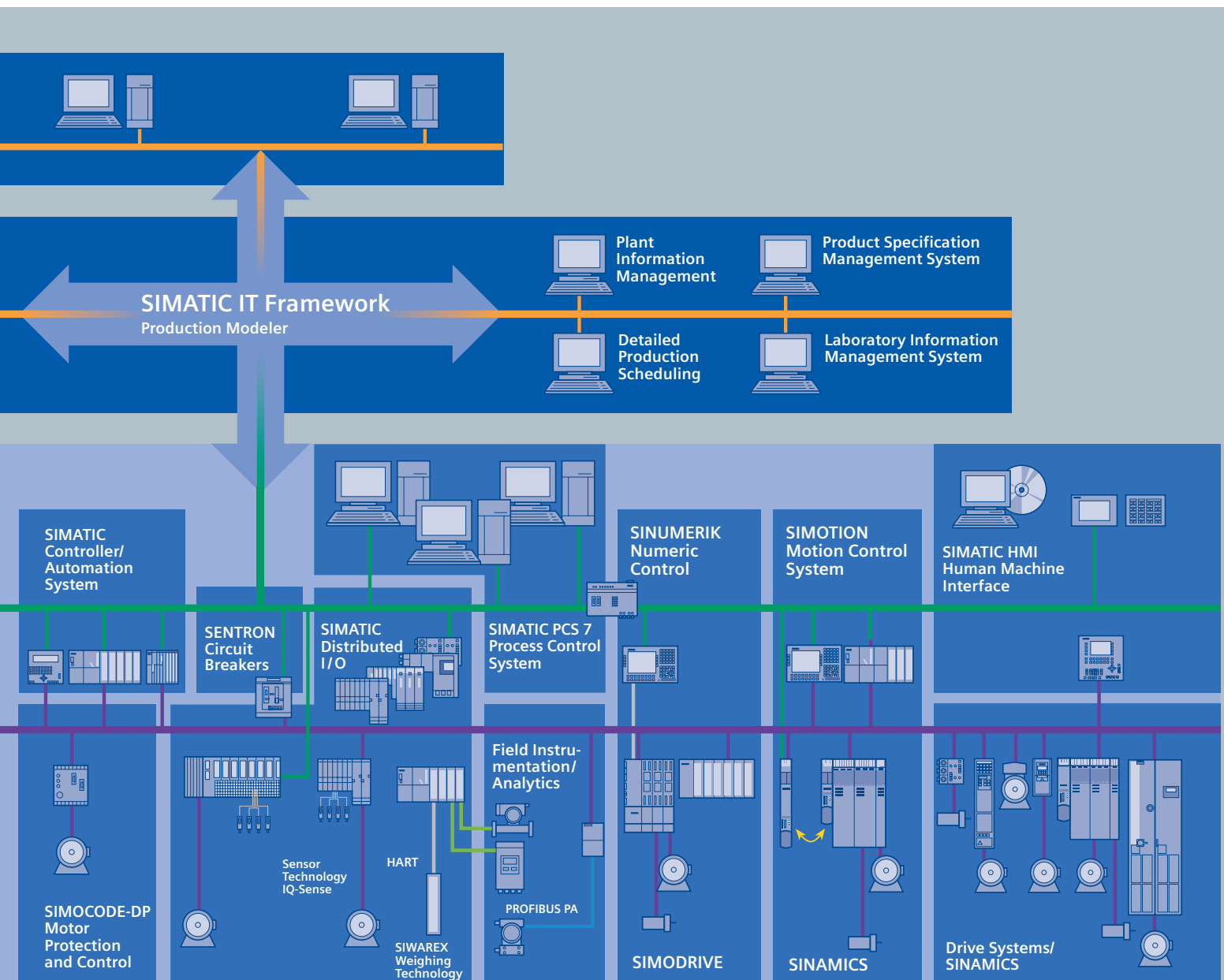
Totally Integrated Automation – innovations for more productivity

With the launch of Totally Integrated Automation, we were the first ones on the market to consistently implement the trend from equipment to an integrated automation solution, and have continuously improved the system ever since. Whether your industry is process- and production-oriented or a hybrid, Totally Integrated Automation is a unique "common solution" platform that covers all the sectors. Totally Integrated Automation is an integrated platform for the entire production line - from receiving to technical processing



and production areas to shipping. Thanks to the system-oriented engineering environment, integrated, open communications as well as intelligent diagnostics options, your plant now benefits in every phase of the life cycle.

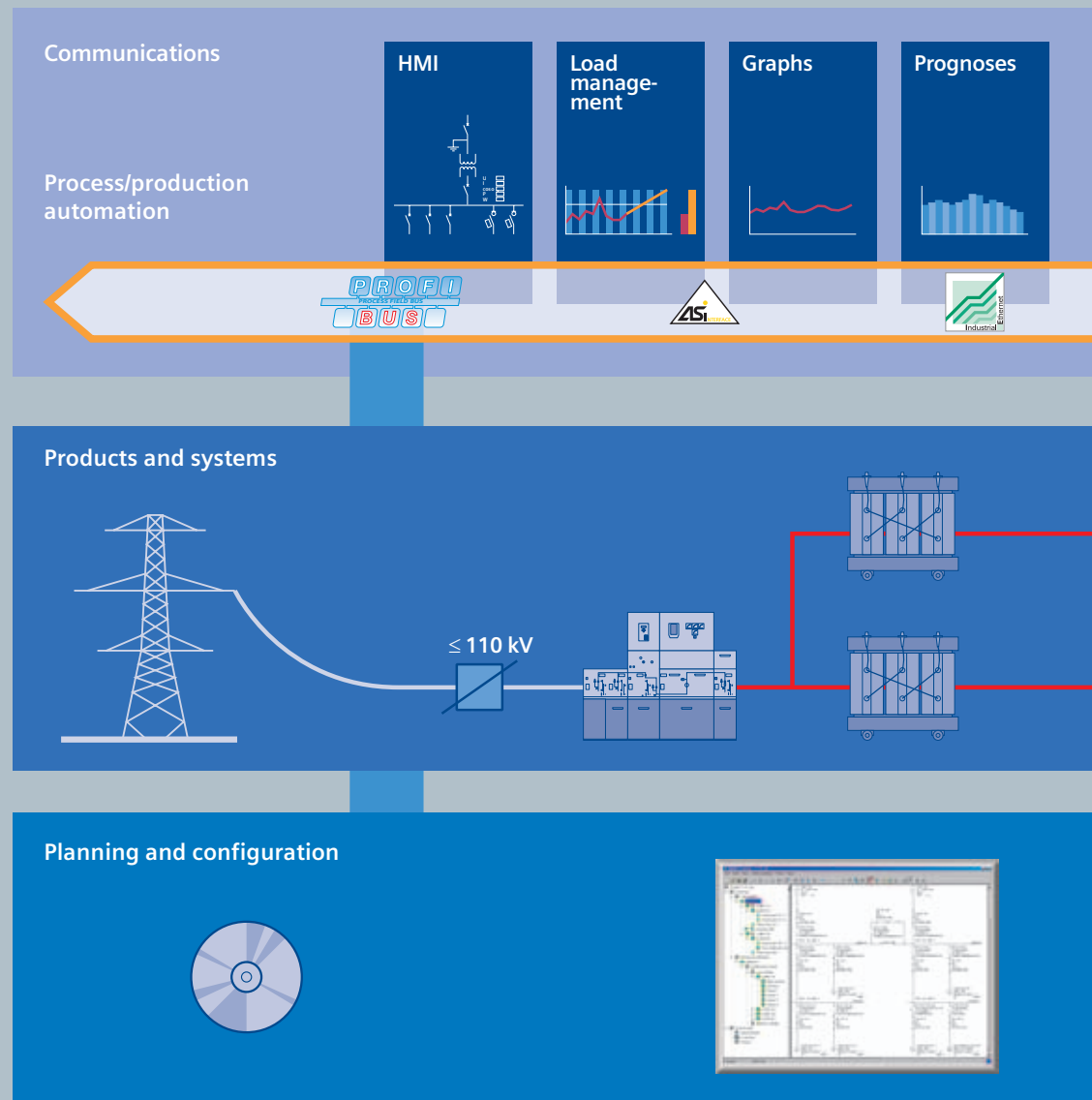
In fact, to this day we are the only company worldwide that can offer a control system based on an integrated platform for both the production and process industry.



Totally Integrated Power – energy distribution and management from one source

Totally Integrated Power™ by Siemens offers integrated solutions for energy distribution in functional and industrial buildings covering everything from medium-high voltage to power outlets.

Totally Integrated Power™ is based on integration in planning and configuration as well as coordinated products and systems. In addition, it features communications and software modules for connecting power distribution systems to industrial automation and building automation, thereby offering a substantial savings potential.



Maintenance

- Substation
- Distribution
- Maintenance task

Hall 1
Distribution 3
Infused II

Air conditioning system
checkup
Replacing circuit
breaker contacts
Replacing meters

Message/ error manage- ment



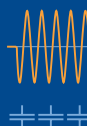
Selective protection



Protocols

Protocol	Address	Value	Unit	Comment
Modbus	1	100	V	Modbus
Modbus	2	200	V	Modbus
Modbus	3	300	V	Modbus
Modbus	4	400	V	Modbus
Modbus	5	500	V	Modbus
Modbus	6	600	V	Modbus
Modbus	7	700	V	Modbus
Modbus	8	800	V	Modbus
Modbus	9	900	V	Modbus
Modbus	10	1000	V	Modbus
Modbus	11	1100	V	Modbus
Modbus	12	1200	V	Modbus
Modbus	13	1300	V	Modbus
Modbus	14	1400	V	Modbus
Modbus	15	1500	V	Modbus
Modbus	16	1600	V	Modbus
Modbus	17	1700	V	Modbus
Modbus	18	1800	V	Modbus
Modbus	19	1900	V	Modbus
Modbus	20	2000	V	Modbus

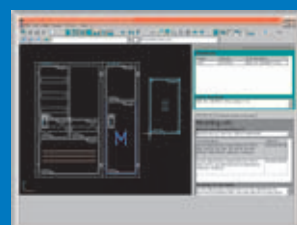
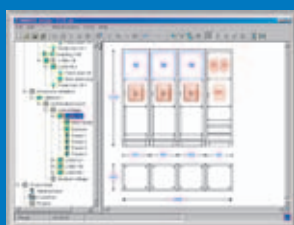
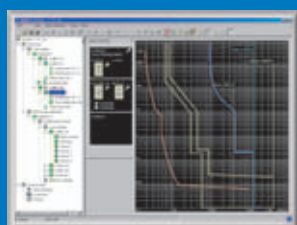
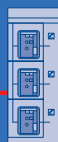
Power quality



Cost center



Building
automation



Geared motors

Introduction

Explanations

Siemens drive and automation engineering provides comprehensive solutions for the manufacturing and process industries.

Totally Integrated Automation is a new platform for integrated drive and automation solutions, with a cost-saving potential of up to 30%.

It is achieved by integrating the following three areas:

- Data management
- Communication
- Configuration and programming.

Totally Integrated Automation is only available from Siemens Automation and Drives.

SIMATIC® automation systems

From controlling a carousel to the automation of a high-performance packaging machine.

Operator control and monitoring using SIMATIC HMI®

From simple operating tasks to visualizing complex systems.

Systems engineering for all demands

This covers identification systems for controlling the flow of materials, for example, distribution and logistics and industrial microcomputers for the rapid and precise control of pick and place machines.

SIMATIC NET® industrial communication

Simple, secure connection of field devices, whether they are in individual machines, such as automatic bottling machines, or linking all of a manufacturer's automation systems, such as General Motors Europe.

SIRIUS NET® communication systems for switchgears

Switching and signaling with PROFIBUS DP and actuator-sensor interface (AS interface), for applications in high-bay warehouses or on board ships.

Individual solutions can be realized for diverse drive engineering tasks using Siemens geared motors.

These geared motors complete the drive engineering range, e.g. for the manufacturing and process industries, in particular in the beverage and automotive industries.

Siemens' experience with low-voltage motors has been transferred to a new program of geared motors, especially for general mechanical engineering applications.

Helical, offset, bevel-helical, helical-worm, and worm gearboxes are combined with Siemens IEC motors via special end shields.

With E/H helical gearboxes and O offset gearboxes, a preliminary stage can be used to significantly increase the ratio range. With H helical gearboxes and O offset gearboxes, the cases are designed for two-stage and three-stage models.

Siemens geared motors stand out thanks to their high ratio range, as well as all their market-oriented designs and mounting options. A modular mounting concept supports flexible installation, e.g. of incremental encoders, brakes or separately driven fans.

Here to help you:

- Comprehensive catalog range
- Software on CD-ROM and on the Internet, CAD Files, etc., with selection and design aids
- Qualified advice from local sales engineers
- Market-compliant delivery times achieved by means of stock-controlled availability and in-house production of components, as well as consistently pursuing a modular approach to system building.

The range contained in the catalog is under constant development.

Should you have a drive requirement which is not yet covered by the range contained in the catalog, please speak to your local Siemens sales representative in order to work out an individual solution.

General information



Description of the geared motor program

- 2/2 General information
- 2/2 2KG31, 2KG36, 2KG41, 2KG46 helical geared motors
- 2/3 2KG32, 2KG42 offset geared motors
- 2/3 2KG33, 2KG43 bevel-helical geared motors
- 2/4 2KG34 helical-worm geared motors
- 2/5 2KG35 worm geared motors
- 2/5 AC motors
- 2/5 Brakes

Selection guide

- 2/6 Drive design flow chart
- 2/8 Establishing the required service factor
- 2/11 Permissible radial and axial forces for the gearboxes
- 2/21 Lubricants, temperatures, paint finish
- 2/22 Ambient temperature and site altitude of the geared motors
- 2/22 Establishing the operating mode
- 2/24 Establishing the permissible switching frequency
- 2/25 Selecting the brake



Geared motors

General information

Description of the geared motor program

General information

Siemens geared motors stand out thanks to the numerous ways, in which they can be combined and, therefore, adjusted to suit many different drive applications. All geared motors can be supplied with a brake attached.

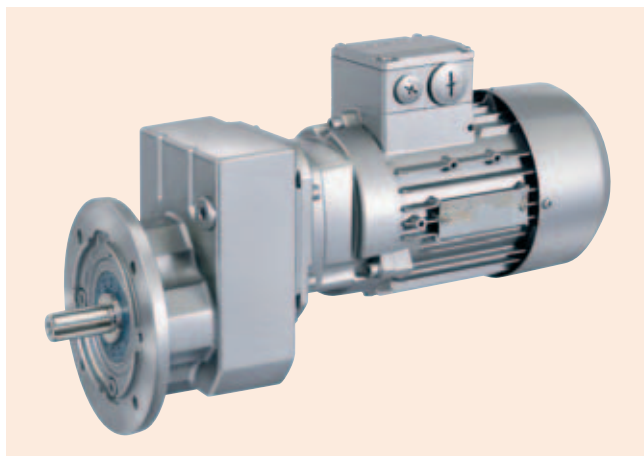
All usual built-on accessories and variations are also available.

Making your selection is simplified thanks to an electronic catalog containing CAD drawings. It is available as a CD or can be viewed on the Internet at: www.siemens.de/sgmdesigner.

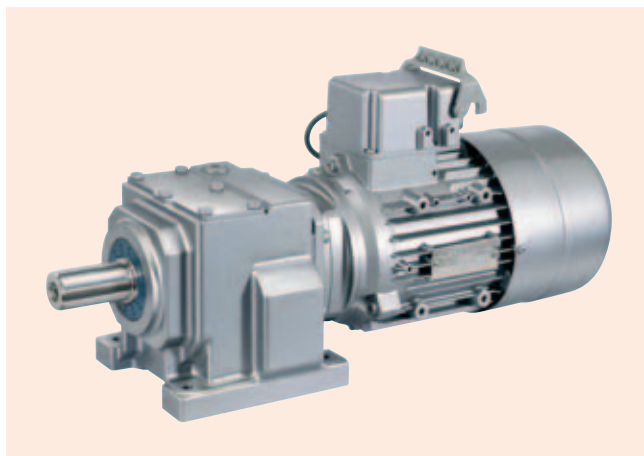
Various gearbox types - helical, offset, bevel-helical, helical-worm, and worm gearboxes - are combined with basic version motors or the variable-speed COMBIMASTER® in order to achieve tailored solutions to a wide range of drive engineering tasks.

- Helical gearboxes stand out thanks to their coaxial design.
- Offset gearboxes have a small mounting depth and the hollow design allows for variable installation. The cases are designed for two-stage and three-stage models.
- Bevel-helical gearboxes can also be used under difficult installation conditions.

2KG31, 2KG36, 2KG41, 2KG46 helical geared motors



Helical gearbox E



Helical gearbox H

Gearbox designation	Ratio range	Maximum output torque Nm
E31	1.59 – 9.33	82
E41	1.52 – 11.30	170
E61	1.41 – 12.40	250
E81	1.71 – 10.33	450
E101	1.81 – 5.46	745
E121	1.36 – 10.14	1000
E141	1.64 – 13.67	1550
H32, H33	4.77 – 191.75	220
H42, H43	4.28 – 208.77	450
H62, H63	3.49 – 281.01	800
H82, H83	3.11 – 270.90	1680
H102, H103	3.42 – 325.21	3100
H122, H123	3.07 – 268.16	5100
H142, H143	4.44 – 276.23	8000
H162, H163	4.46 – 341.61	14000
H182, H183	8.30 – 243.82	20000

E and H helical gearboxes are designed coaxially and their case design allows various mounting options as a flange-mounted or foot-mounted type.

The gray-cast-iron gear cases are stable and absorb vibrations.

Helical gearboxes are identified as follows:

1st position E/H = helical gearbox

2nd position = gearbox size

Final position = stages

The range currently comprises 9 frame sizes for H gearboxes and 7 frame sizes for E gearboxes.

E gearboxes are supplied as single-stage gearboxes, H gearboxes can be supplied as either two-stage or three-stage gearboxes.

2KG32, 2KG42 offset geared motors



O offset gearboxes provide an optimum solution for space-saving tasks, due to their compact design. The large number of output shafts (hollow or solid shafts) and the mounting option variations (shaft-mounted gearboxes with a torque arm, foot-mounted or flange-mounted types) provide you with an appropriate, low-cost solution. The gray-cast-iron gear cases are stable and absorb vibrations.

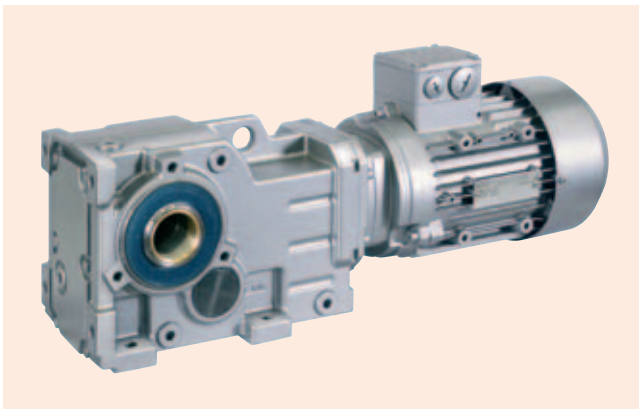
Offset gearboxes are identified as follows:

- 1st position O = offset gearbox
- 2nd position = gearbox size
- Final position = stages

The range currently comprises 9 gearbox frame sizes. In their basic version, the gearboxes can be supplied as two-stage or three-stage gearboxes.

Gearbox designation	Ratio range	Maximum output torque Nm
O32, O33	4.52 – 280.41	290
O42, O43	4.33 – 268.80	540
O62, O63	3.97 – 296.18	1000
O82, O83	4.77 – 404.92	1900
O102, O103	4.10 – 424.49	3400
O122, O123	3.80 – 447.96	6100
O142, O143	5.39 – 444.21	9000
O162, O163	5.28 – 369.26	14000
O182, O183	8.34 – 403.86	20000

2KG33, 2KG43 bevel-helical geared motors



K bevel-helical gearboxes provide the option of adding on output flanges or torque arms, in accordance with the requirements of the application.

Both solid and hollow output shafts, in various designs and with various diameters, are available.

The gray-cast-iron gear cases are stable and absorb vibrations.

Bevel-helical gearboxes are identified as follows:

- 1st position K = bevel-helical gearbox
- 2nd position = gearbox size
- Final position = stages

The range currently comprises 9 gearbox frame sizes.

Bevel-helical gearboxes are supplied as three-stage gearboxes.

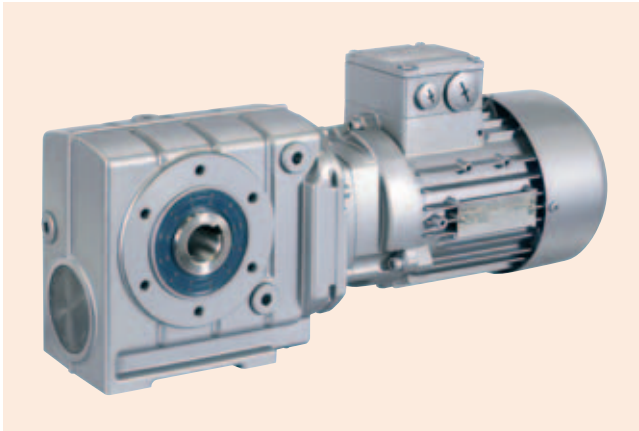
Gearbox designation	Ratio range	Maximum output torque Nm
K33	5.65 – 179.13	250
K43	7.22 – 169.53	450
K63	5.36 – 243.72	820
K83	5.54 – 302.68	1650
K103	7.68 – 278.10	3000
K123	7.10 – 295.38	4700
K143	4.83 – 306.08	8000
K163	6.61 – 287.95	13500
K183	12.10 – 191.34	20000

Geared motors

General information

Description of the geared motor program

2KG34 helical-worm geared motors



Gearbox designation	Ratio range	Maximum output torque Nm
C32	9.67 – 320.67	225
C42	9.67 – 320.67	370
C62	11.67 – 364.00	680
C82	11.15 – 440.70	1590

Helical-worm gearboxes can also be used under difficult installation conditions. Despite their extremely compact dimensions, they achieve high ratio ranges.

C range helical-worm gearboxes provide the option of adding on output flanges or torque arms, in accordance with the requirements of the application.

Both solid and hollow output shafts, in various designs and with various diameters, are available.

The gray-cast-iron gear cases are stable and absorb vibrations.

Helical-worm gearboxes are identified as follows:

1st position C = helical-worm gearbox

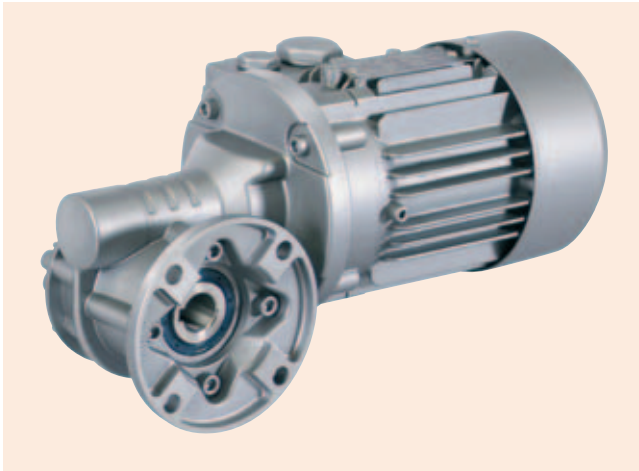
2nd position = gearbox size

3rd position = stages

The range currently comprises 4 gearbox frame sizes.

Helical-worm gearboxes are supplied as two-stage gearboxes.

2KG35 worm geared motors



Gearbox designation	Ratio range	Maximum output torque Nm
T31	7 – 60	50
T51	7 – 100	90
T61	7 – 100	185

Worm gearboxes stand out thanks to their high power throughput in a very small space and a large ratio in one step. Self-locking is possible at a standstill.

The compact design of T worm gearboxes provides an ideal solution in restricted installation conditions and their case design allows various mounting options as a flange-mounted, foot-mounted or torque arm model.

Both solid and hollow output shafts, in various designs and with various diameters, are available.

The aluminum pressure die cast gear cases, which have good thermal conductivity, are stable and absorb vibrations.

Worm gearboxes are identified as follows:

- 1st position T = worm gearbox
- 2nd position = gearbox size
- 3rd position = stages

The range currently comprises 3 gearbox frame sizes.

Worm gearboxes are supplied as single-stage gearboxes.

AC motors

The AC motors are designed to work perfectly with the gearbox systems and can be supplied with or without brakes.

The motor range currently comprises frame sizes of between 63 M and 225 M. The outputs of the 4-, 6- and 8-pole motors are graded in accordance with IEC.

Pole-changeable models are available on request.

The motor cases are made of high-quality aluminum alloy.

Brakes

The motors can be supplied complete with spring-operated disk brakes. These are double-disk brakes, which are spring-operated in an idle state.

The torque for each brake size can vary within a certain range.

Geared motors

General information

Selection guide

Drive design flow chart

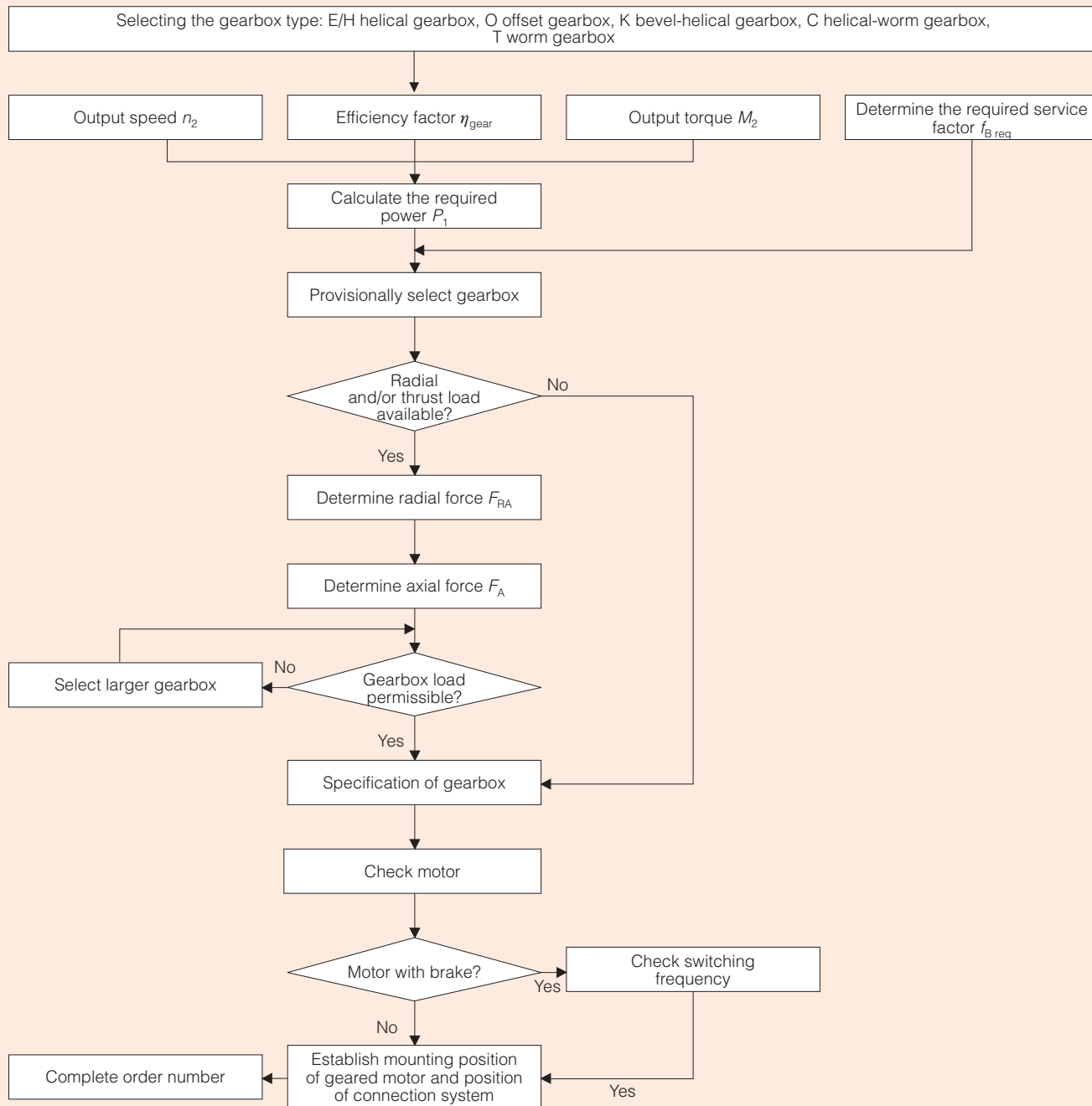
A geared motor should be selected according to the flow chart below.

In order to select the correct model, the following must be known:

- Selected gearbox type
- Required output speed

- Efficiency of the gearbox
- Required service factor

The drive can be chosen from the selection tables using this data.



Required drive power P_1

Chain, belt or tape drive, rotation

$$P_1 = \frac{P_2}{\eta_{\text{gear}}} = \frac{M_2 \cdot n_2}{9550 \cdot \eta_{\text{gear}}} = \frac{F \cdot r \cdot n_2}{9550 \cdot \eta_{\text{gear}}}$$

Required output torque M_2

$$M_2 = \frac{9550 \cdot P_2}{n_2}$$

$$M_2 = F \cdot r$$

Maximum speed

Usually, more noise should be expected at high speeds.
As a rule, the maximum input speed of the gearbox is 3600 rpm.
If you require higher speeds, please contact Siemens.

Designations for geared motors and gearboxes

Code	Description	Unit
P_1	Drive power of the motor	kW
P_2	Output power of the gearbox	kW
M_1	Input torque	Nm
M_2	Output torque	Nm
n_1	Input speed	rpm
n_2	Output speed	rpm
r	Radius of output element	m
F	Tensile force (chain, belt, tape)	N

Designations for AC motors and brakes

Code	Description	Unit
$\cos \varphi$	Power factor	–
ED	Relative ON duration	%
I_A/I_{rated}	Starting current ratio	–
I_{rated}	Rated current	A
J_B	Brake inertia	kgm ²
J_M	Motor inertia	kgm ²
J_{M+}	Additional inertia (e.g. centrifugal mass)	kgm ²
M_A	Tightening torque	Nm
M_B	Braking torque	Nm
W_B	Friction energy of the brake until adjustment	J

Efficiency

The efficiency of the gearbox is determined by the worm drive, the gear steps, the rolling-bearing friction, and the sealing element friction.

Generally, efficiency is impaired at high input speeds and ratios, if the oil capacity is relatively large (depends on the type of construction), if the gearbox is operated cold or if additional bearings and sealing elements are present.

For helical, offset and bevel-helical gearboxes, an efficiency of 98% per step can be expected.

For efficiency of helical-worm and worm gearboxes, see the selection and ordering data specifications.

The values specified in the selection and ordering data refer to an efficiency of 100% with helical, offset and bevel-helical gearboxes.

Code	Description	Unit
F_{RA}	Permissible radial force of output shaft, shaft center	N
f_B	Service factor	–
i	Gear ratio	–
η_{gear}	Gearbox efficiency	–
φ	Angle of action of radial force (facing the gearbox)	°

Code	Description	Unit
P_{rated}	Rated power	kW
P_{B20}	Power consumption of brake coil up to 20 °C	W
S1	Continuous operation (100% ED)	
S2 to S10	Operating modes	
t_1	Brake response time	s
$t_2 \text{ 1DC}$	Brake application time with switching on DC side	s
$t_2 \text{ 1AC}$	Brake application time with switching on AC side	s
M_{rated}	Rated torque	Nm
n_{rated}	Rated speed	rpm

Establishing the required service factor

The application conditions are crucial in establishing the drive. They are determined using service factor f_B .

In normal operation, i.e. uniform load from the driven machine, small masses to be accelerated and a low switching frequency, $f_B = 1$. In order that the drive corresponds to the actual application conditions, which deviate from this normal operation, a service factor is calculated. This factor determines the gearbox size, but not the power of the drive motor.

If the motor power and the gearbox output speed are known, a gearbox type is chosen from the types list with a (permissible) service factor of $f_B \geq f_{B \text{ req}}$.

We would be more than happy to assist you in designing a drive for use in special application conditions, such as frequent reversing, short-time and intermittent operation, abnormal temperature ratios, reversal braking, extreme transverse forces on the gearbox output shaft, etc.

If a braking torque exceeding 2.5 times the rated motor torque is selected when working with 3-phase regenerative braking or mechanical braking, the drive design must be verified by Siemens. This also applies if service factors of $f_B > 1.8$ occur when working with high mass acceleration factors (> 10), a large amount of play in the transmission elements or large transverse forces.

Service factor:

$$f_B \geq f_{B \text{ req}}$$

f_B = present service factor of the geared motor

$f_{B \text{ req}}$ = required service factor

With helical, bevel-helical, offset and helical-worm gearboxes

$$f_{B \text{ req}} = f_{B1} \cdot f_{B2} \cdot f_{B3}$$

With worm gearboxes, a service factor of f_{B4} must also be taken into account.

$$f_{B \text{ req}} = f_{B1} \cdot f_{B2} \cdot f_{B3} \cdot f_{B4}$$

Assessment of the expected application conditions according to the degree of shock (table) or mass acceleration factor (formula)

Degree of shock	Driven machine
I Almost shock-free	Mass acceleration factor ≤ 0.3 : Electric generators, belt conveyors, apron conveyors, screw conveyors, lightweight elevators, electric hoists, machine tool feed drives, turbo blowers, centrifugal compressors, agitators and mixers for uniform densities.
II Moderate shocks	Mass acceleration factor ≤ 3 : Machine tool main drives, heavyweight elevators, turning tools, cranes, shaft ventilators, agitators and mixers for non-uniform densities, reciprocating pumps with multiple cylinders, metering pumps.
III Heavy shocks	Mass acceleration factor ≤ 10 : Punching presses, shears, rubber kneaders, machinery used in rolling mills and the iron and steel industry, mechanical shovels, heavyweight centrifuges, heavyweight metering pumps, rotary drilling rigs, briquetting presses, pug mills.

$$\text{Mass acceleration factor} = \frac{\text{All external inertias}}{\text{Inertia of the drive motor}}$$

The inertias of built-on gearbox accessories and the driven machine are converted to the motor speed as "**all external inertias**". The formula below is used for the conversion:

$$J_{\text{load}} = J_2 \cdot (n_2/n_1)^2$$

J_{load} = all external inertias
(with reference to the motor shaft)

J_2 = inertia referring to the output speed of the gearbox

n_2 = output speed of the gearbox

n_1 = input speed (motor speed)

The **drive motor inertia** (motor side) comprises:

– J_M the inertia of the motor, see Section 8

– J_B the inertia of the brake, see Section 8

– J_{M+} additional inertia (e.g. centrifugal mass or heavyweight ventilator), see Section 8

Service factors of $f_B > 1.8$ can occur when working with high mass acceleration factors (> 10), a large amount of play in the transmission elements or large transverse forces. If this occurs, please contact Siemens.

Service factors f_{B1} for helical, bevel-helical, offset and helical-worm gearboxes:

Run time per day	4 hours			8 hours			16 hours			24 hours			
Switching operations*/h	< 10	10 – 200	> 200	< 10	10 – 200	> 200	< 10	10 – 200	> 200	< 10	10 – 200	> 200	
Degree of shock	I	0.8	0.9	1.0	0.9	1.0	1.1	1.0	1.1	1.2	1.2	1.3	1.5
	II	1.0	1.1	1.3	1.1	1.2	1.3	1.2	1.4	1.5	1.4	1.5	1.6
	III	1.3	1.4	1.5	1.4	1.5	1.6	1.5	1.6	1.7	1.6	1.7	1.8

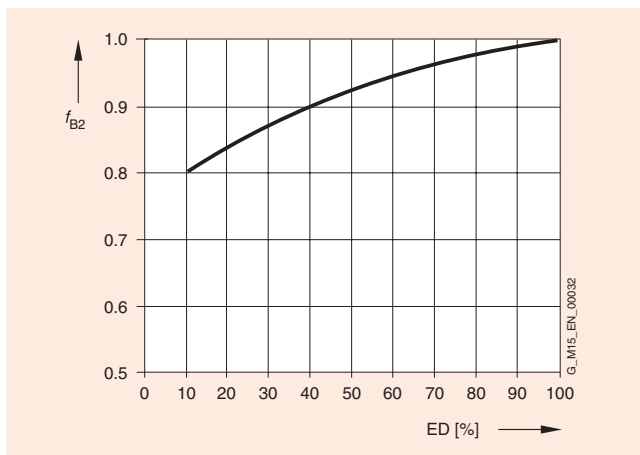
Service factors f_{B1} for worm gearboxes:

Run time per day	4 hours			8 hours			16 hours			24 hours			
Switching operations*/h	< 10	10 – 60	> 60 – 200	< 10	10 – 60	> 60 – 200	< 10	10 – 60	> 60 – 200	< 10	10 – 60	> 60 – 200	
Degree of shock	I	0.8	0.9	1.0	0.9	1.0	1.1	1.0	1.1	1.2	1.2	1.3	1.5
	II	1.0	1.1	1.3	1.1	1.2	1.3	1.2	1.4	1.5	1.4	1.5	1.6
	III	1.3	1.4	1.5	1.4	1.5	1.6	1.5	1.6	1.7	1.6	1.7	1.8

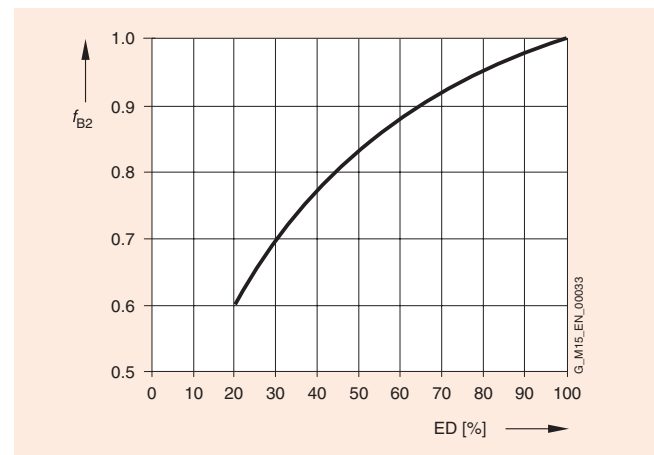
Smaller f_{B1} factors can be selected if run time is under 4 hours per day or if elastic couplings or belt drives are used. Please contact Siemens if using particularly difficult drive applications, such as reversing operation.

* Switching operations refers to the total number of making operations, braking operations and switchovers.

Service factors f_{B2} for short operation:



Helical, bevel-helical, offset and helical-worm gearboxes



Worm gearbox

$$ED (\%) = \frac{\text{In - service duration in min/h}}{60} \cdot 100$$

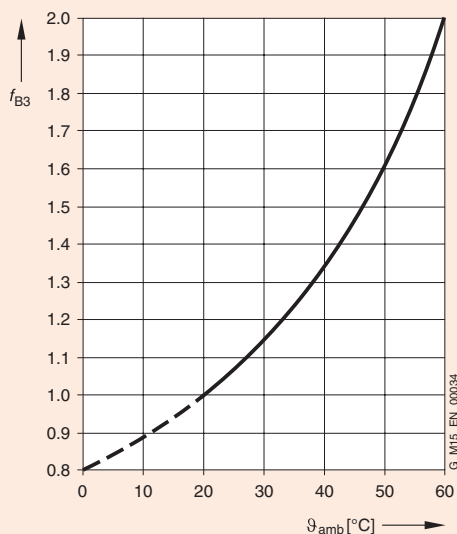
ED = ON duration

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Service factors f_{B3} for ambient temperature:



Helical, bevel-helical, offset and helical-worm gearboxes

The basic design gearboxes can be operated at an **ambient temperature of -10 °C to + 40 °C**. A prior contractual agreement must be made in order to use the gearboxes at higher or lower temperatures.

$f_{B3} < 1$ may only be used for temperatures under 20° following consultation with Siemens

ϑ_{amb} ambient temperature

Service factors f_{B4} for worm gearboxes:

$f_{B4} =$ 1 for constant load direction
1.2 for alternating load direction

Example:

Helical, bevel-helical, offset and helical-worm gearboxes:
Mass acceleration factor 2.5 (degree of shock II), run time 15 hours per day (read off at 16 hours) and 70 switching operations/h result in the service factor $f_{B1} = 1.4$, according to the table.

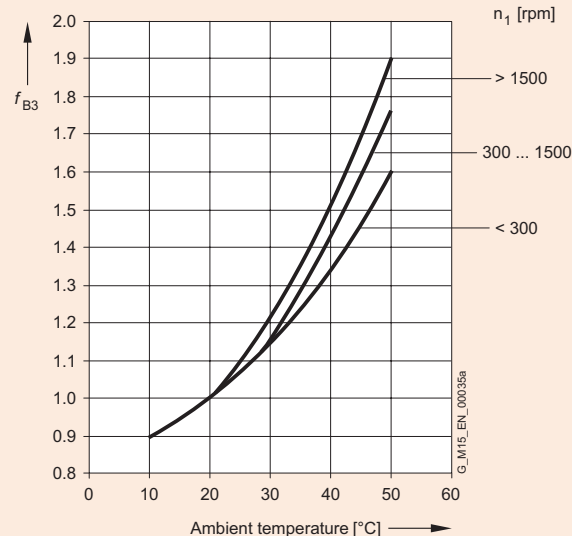
An in-service period of 36 minutes per hour produces an ON duration (ED) of 60%. The chart gives $f_{B2} = 0.94$.

At an ambient temperature of $\vartheta_{amb} = 20$ °C, the chart gives a result of $f_{B3} = 1.0$.

Thus, the required service factor is
 $f_{B req} = 1.4 \cdot 0.94 \cdot 1.0 = 2.32$

Selection:

The geared motor from the selection table is compared with the established required service factor. For this, $f_B \geq f_{B req}$ must be the case.



Worm gearbox

The basic design gearboxes can be operated at an **ambient temperature of 0 °C to + 40 °C**. A prior contractual agreement must be made in order to use the gearboxes at higher or lower temperatures.

n_1 = input speed (motor speed)

Example:

Worm gearbox:

Mass acceleration factor 2.3 (degree of shock II), run time 9 hours per day (read off at 16 hours) and 9 switching operations/h result in the service factor $f_{B1} = 1.2$, according to the table.

An in-service period of 48 minutes per hour produces an ON duration (ED) of 80%. The chart gives $f_{B2} = 0.95$.

At an ambient temperature of $\vartheta_{amb} = 30$ °C and a speed of 1400 rpm (300 to 1500), the chart gives a result of $f_{B3} = 1.15$.

With alternating load direction, $f_{B4} = 1.2$.

Thus, the required service factor is
 $f_{B req} = 1.2 \cdot 0.95 \cdot 1.15 \cdot 1.2 = 1.57$

Selection:

The geared motor from the selection table is compared with the established required service factor. For this, $f_B \geq f_{B req}$ must be the case.

Permissible radial and axial forces for the gearboxes

Present radial force

The present radial force at the shaft journal results from the present output torque of the geared motor, the diameter and the type of output element. The type of output element determines factor C (see table below), by which the present radial force must be increased.

$$F_{\text{pres}} = 2000 \cdot M / d_t$$

d_t = diameter of the output element in mm

M = present torque in Nm

The permissible radial force F_R for every geared motor is given in the selection table on the following pages.

These values refer to the point of load incidence at the center of the shaft extension ($x = l/2$) and are the minimum values which apply to unfavorable conditions (mounting position, direction of rotation) in the gearbox.

If the force of the output elements is applied at the center of the shaft extension, the following applies:

$$F_{\text{Rper}} \geq F_{\text{pres}} \cdot C$$

Code	Description	Unit
F_{pres}	Present radial force from the output torque and the diameter of the output element	N
F_A	Permissible axial force	N
F_{Rper}	Permissible radial force on center of shaft extension 1/2, see selection table	N
F_{xper1}	Permissible radial force, restricted by the bearing service life, at a distance of x from the shaft shoulder	N
F_{xper2}	Permissible radial force, restricted by the shaft strength, at a distance of x from the shaft shoulder	N
C	Factor for the type of output element	–
b, d, l, y, z	Gearbox constants	mm
a	Gearbox constants	kNm

Factor C for the type of output element

Driving element	Design (number of teeth)	C
Gear wheel	> 17	1.0
	≤ 17	1.15
Sprocket	÷ 20	1.0
	14 – 19	1.25
	≤ 13	1.4
Toothed belt		1.5
V belt ¹⁾		2.0
Flat belt ¹⁾		2.5

If the force is not applied at the center of the shaft extension, the permissible radial force must be converted according to the following:

Under consideration of bearing service life:

$$F_{\text{xper1}} = F_{\text{Rper}} \cdot y / (z+x) \geq F_{\text{pres}} \cdot C$$

Under consideration of shaft strength:

Required only for solid shafts; not required for hollow shafts.

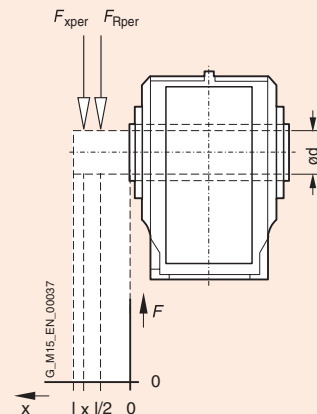
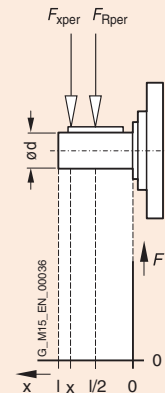
For helical and worm gearboxes:

$$F_{\text{xper2}} = a / (b+x) \geq F_{\text{pres}} \cdot C$$

For bevel-helical, offset and helical-worm gearboxes:

$$F_{\text{xper2}} = a / x \geq F_{\text{pres}} \cdot C$$

The smaller value of F_{xper1} and F_{xper2} is the permissible radial force. This calculation is valid without additional axial forces. If the direction of rotation of the output shaft and additional axial forces are known, or if the values contained in the table are insufficient, Siemens must carry out the calculation.



1) Bias according to the belt manufacturer's specifications.

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Gearbox constants for establishing permissible radial force F_{xper1} and F_{xper2}

Single-stage helical gearbox - standard bearing arrangement
(with solid shaft)

Type	d mm	l mm	y mm	z mm	a kNmm	b mm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm					
								≤ 183	≤ 229	≤ 287	≤ 358	≤ 448	≤ 502
E31	20	40	105	85	70.9	24	Left	4070	3722	3209	2978	2358	1918
					93.3		Right	4227	3805	2603	2423	1657	1152
E41	25	50	114	89	45.7	24	Left	3687	3174	2823	2283	1992	1744
					93.9		Right	3888	3437	2801	1352	854	441
E61	30	60	155	125	165	29.5	Left	7175	6052	4468	3606	2441	2055
					257		Right	6098	4813	2931	2021	713	327
E81	40	80	171	131	668	32.5	Left	8403	7543	6430	5764	4886	4645
					755		Right	8778	7976	6950	5635	3496	3080
E101	50	100	194	144	904	36.5	Left	11241	9759	7901	7118	5017	4933
					1063		Right	9104	7169	4979	4356	1797	1944
E121	60	120	228	168	2064	36.5	Left	15781	13912	12554	11239	10100	9566
					2277		Right	16567	14537	12052	9416	7235	6307
E141	70	140	260	190	2344	46.5	Left	19286	17125	15100	13777	10937	10977
					2688		Right	19631	15610	11864	10015	5915	6451

Type	d mm	l mm	y mm	z mm	a kNmm	b mm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm					
								≤ 562	≤ 629	≤ 705	≤ 789	≤ 884	≤ 990
E31	20	40	105	85	70.9	24	Left	1900	1641	1233	991	–	–
					93.3		Right	1199	942	455	221	–	–
E41	25	50	114	89	45.7	24	Left	1688	1663	1712	1752	1666	–
					93.9		Right	475	554	719	869	846	–
E61	30	60	155	125	165	29.5	Left	1948	1787	1662	1799	1811	1736
					257		Right	304	232	211	495	627	656
E81	40	80	171	131	668	32.5	Left	4424	4113	3911	3891	–	–
					755		Right	2756	2175	1879	2055	–	–
E101	50	100	194	144	904	36.5	Left	4350	3950	3921	–	–	–
					1063		Right	1331	1007	1213	–	–	–
E121	60	120	228	168	2064	36.5	Left	9171	8876	8586	8298	7980	7623
					2277		Right	5696	5443	5283	5191	4950	4681
E141	70	140	260	190	2344	46.5	Counterclockwise	10977	10156	9758	9587	–	–
					2688		Clockwise	6874	6079	5883	6028	–	–

– Not possible at present.

Two-stage and three-stage helical gearbox - standard bearing arrangement (with solid shaft)

Type	d mm	l mm	y mm	z mm	a kNmm	b mm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
								≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
H32/ H33	30	60	111	81	210	16	Left	7220	5870	4560	3230	1990	1580	1110	1020
							Right	6920	5730	4850	3880	2630	2200	1730	1560
	25	50	106	81	169	0	Left	7560	6319	5010	3570	2180	1740	1230	1110
							Right	7250	6010	5080	4140	2890	2430	1910	1710
H42/ H43	40	80	145	105	499	19	Left	11760	9690	7480	5470	4150	3400	3020	2350
							Right	11330	9230	7600	6300	5130	4280	3690	2950
	30	60	135	105	265	0	Left	12640	10410	8670	6450	4850	3970	3520	2740
							Right	12160	9910	8170	6760	5630	4860	4310	3460
H62/ H63	50	100	179.5	129.5	943	23	Left	18030	14360	10820	7690	4970	3670	3380	3010
							Right	19710	16070	12520	9380	6710	5270	4760	3880
	40	80	170	129.5	564	0	Left	20360	16270	12230	8650	5630	4180	3810	3390
							Right	22240	18130	14130	10600	7580	5960	5400	4380
H82/ H83	60	120	219	159	1533	21	Left	32920	27900	23590	20020	16330	14060	11770	11300
							Right	31670	26620	22240	18710	15100	12960	11310	10630
	50	100	209	159	1150	0	Left	34480	29250	24650	21010	17110	14700	12830	12000
							Right	33130	27900	23300	19630	15850	13600	11880	11140
H102/ H103	70	140	259	189	2328	29	Left	41420	34600	28950	24370	20860	15920	13780	14760
							Right	39400	32670	27020	22340	18830	14350	13280	13690
	60	120	249	189	2113	0	Left	43080	36060	30120	25340	21740	16980	15170	15400
							Right	41050	33940	28090	23210	19610	14940	13820	14220
H122/ H123	90	170	320.5	235.5	5181	30	Left	55890	46890	36770	31220	26070	22270	18010	19340
							Right	53170	44170	34000	28490	23260	19750	15860	18050
	70	140	305.5	235.5	3120	0	Left	58650	49210	38510	32740	27300	23360	18880	20280
							Right	55780	46200	35740	29790	24420	20690	16680	18920
H142/ H143	100	210	361	256	6900	33	Left	63860	54590	45040	38930	31140	27200	23760	21590
							Right	60210	51040	41490	35280	27600	23660	20600	19330
	90	170	341	256	6359	0	Left	67600	61030	47700	41090	32920	28780	25140	22870
							Right	63750	58650	43850	37450	29170	25030	21780	20410
H162/ H163	120	210	420.5	315.5	11652	0	Left	230790	202940	169960	143920	118410	104210	96940	91960
							Right	226260	198410	165340	139620	114440	99910	92970	89900
	100	210	420.5	315.5	7958	0	Left	230790	202940	169960	14920	118410	104210	96940	91960
							Right	226260	198410	165340	139620	114440	99910	92970	89900
H182/ H183	120	210	445.5	340.5	16920	36	Left	259150	189050	167130	155420	87920	101570	114610	–
							Right	272570	209840	184660	171280	106270	116020	123660	–

– Not possible at present.

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Two-stage and three-stage helical gearbox - strengthened bearing arrangement (with solid shaft)

Type	d mm	l mm	y mm	z mm	a kNmm	b mm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
								≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
H32/ H33	30	60	111	81	210	16	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
	25	50	106	81	169	0	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
H42/ H43	40	80	145	105	499	19	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
	30	60	135	105	265	0	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
H62/ H63	50	100	179.5	129.5	943	23	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
	40	80	170	129.5	564	0	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
H82/ H83	60	120	219	159	1533	21	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
	50	100	209	159	1150	0	Left	–	–	–	–	–	–	–	–
							Right	–	–	–	–	–	–	–	–
H102/ H103	70	140	259	189	2328	29	Left	63540	51130	40520	31550	24930	15970	13870	21240
							Right	68640	56020	45390	36470	29700	20780	18680	23930
	60	120	249	189	2113	0	Left	69570	56020	44330	34530	27240	17390	15080	23240
							Right	74910	61180	49560	39850	32630	22790	20350	26160
H122/ H123	90	170	320.5	235.5	5181	30	Left	134340	113640	88580	73560	59620	51020	42010	45510
							Right	131630	110830	87260	74060	61590	53220	44110	48510
	70	140	305.5	235.5	3120	0	Left	141150	119240	94400	80380	67170	57430	47210	51170
							Right	137960	11640	91400	77470	64510	55900	46300	50940
H142/ H143	100	210	361	256	6900	33	Left	161060	150800	115590	100260	80610	70670	62650	57460
							Right	157520	148730	112070	96740	77310	67270	59280	55040
	90	170	341	256	6359	0	Left	170800	159570	122410	106100	85480	74890	66220	60710
							Right	166610	157170	118560	102480	81530	71170	62530	58280
H162/ H163	120	210	420.5	315.5	11652	0	Left	230790	202940	169960	143920	118410	104210	96940	91960
							Right	226260	198410	165340	139620	114440	99910	92970	89900
	100	210	420.5	315.5	7958	0	Left	230790	202940	169960	143920	118410	104210	96940	91960
							Right	226260	198410	165340	139620	114440	99910	92970	89900
H182/ H183	120	210	445.5	340.5	16920	36	Left	259150	189050	167130	155420	87920	101570	114610	–
							Right	272570	209840	184660	171280	106270	116020	123660	–

– Not possible at present.

Two-stage and three-stage offset gearbox - standard bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Torque arm (2), type B3/B14 (8).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
O32/ O33	25	50	122	97	158	Left	6330	6850	5760	4560	3560	3430	3100	2970
						Right	6280	6280	5210	3980	2990	2970	2930	2830
O42/ O43	30	60	151	121	250	Left	10150	9390	7740	6150	5640	5280	4740	4400
						Right	9500	8740	7090	5500	5130	4990	4540	4260
O62/ O63	40	80	190	150	545	Left	11150	8810	7090	5580	4320	5430	4270	4160
						Right	10190	7850	6130	4620	3360	3810	3800	3920
O82/ O83	50	100	225	175	966	Left	18210	14530	11690	9260	8170	7670	7360	7140
						Right	16690	13020	10170	7740	6750	6940	6890	6760
O102/ O103	60	120	262	202	1723	Left	20390	15490	12230	9320	6900	7520	7780	8050
						Right	18040	13140	9870	6960	4600	5640	6580	7260
O122/ O123	70	140	330	260	2515	Left	28780	22460	16390	11560	10270	12250	12230	11670
						Right	26100	19780	13710	8890	7590	10460	11170	11040
O142/ O143	90	170	393	308	5735	Left	25830	23640	14570	9410	10860	12900	13030	12870
						Right	22510	21050	11250	6210	8150	11070	11630	11960
O162/ O163	110	210	467	362	9564	Left	39320	30220	23130	15240	14380	19090	18190	18250
						Right	34960	25850	19080	10870	10290	16890	16180	17010
O182/ O183	120	210	538	433	11897	Left	–	–	133340	118220	98750	86960	–	–
						Right	–	–	128380	114310	93680	83470	–	–

– Not possible at present.

Two-stage and three-stage offset gearbox - strengthened bearing arrangement (with solid and hollow shaft)

The values specified only apply for these case types (8th position in the order number)

Torque arm (2), type B3/B14 (8).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
O32/ O33	25	50	122	97	158	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
O42/ O43	30	60	151	121	250	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
O62/ O63	40	80	190	150	545	Left	30150	25540	22120	19060	15910	15030	13510	12030
						Right	29110	24500	21080	18020	15000	14390	13080	11780
O82/ O83	50	100	225	175	966	Left	51310	43560	37470	32180	28370	25000	22480	21400
						Right	49700	41950	35870	30580	27100	24210	21980	20990
O102/ O103	60	120	262	202	1723	Left	62110	51860	44920	38660	33070	29970	27800	26950
						Right	59570	49330	42390	36130	30590	28480	26820	26100
O122/ O123	70	140	330	260	2515	Left	98790	84340	70230	58850	53410	49380	43420	39130
						Right	95900	81470	67360	55970	51270	47980	42390	38450
O142/ O143	90	170	393	308	5735	Left	101440	89700	74890	61370	58130	52200	48980	46050
						Right	97890	86910	713430	57950	55840	50490	47700	45080
O162/ O163	110	210	467	362	9564	Left	157710	135500	114670	98150	87960	80170	73120	69380
						Right	153030	130780	110310	93430	84940	78310	71430	68040
O182/ O183	120	210	538	433	11897	Left	–	–	133340	118220	98750	86960	–	–
						Right	–	–	128380	114310	93680	83470	–	–

– Not possible at present.

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Two-stage and three-stage offset gearbox - standard bearing arrangement (with solid shaft)
The values specified only apply for these case types (8th position in the order number):

Flange-mounted type B35 (4).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
O32/ O33	25	50	146	121	153	Left	5730	5730	4950	3810	2980	2700	2530	2390
						Right	5250	5250	4530	3330	2500	2330	2350	2260
O42/ O43	30	60	176	146	255	Left	8710	8060	6640	5270	4630	4320	3970	3660
						Right	8150	7500	6080	4720	4180	4020	3780	3510
O62/ O63	40	80	213	173	440	Left	9750	7680	6160	4830	3270	3390	3370	3400
						Right	8900	6830	5310	3980	2420	2640	2950	3100
O82/ O83	50	100	262	212	845	Left	15640	12480	10040	7950	6390	6100	6000	5800
						Right	14340	11180	8740	6650	5170	5370	5510	5400
O102/ O103	60	120	298	238	1350	Left	17930	13620	10750	8190	5860	5220	6020	6510
						Right	15860	11550	8680	6120	3790	3190	4800	5710
O122/ O123	70	140	372	302	2247	Left	25570	19950	14560	10270	8090	9780	9750	9420
						Right	23190	17570	12180	7900	5710	8010	8580	8680
O142/ O143	90	170	434	349	2873	Left	23390	22430	13810	7890	7100	9820	10820	10340
						Right	20390	20260	10900	4880	4190	7940	9370	9260
O162/ O163	110	210	518	413	5891	Left	35450	27240	23610	13740	11360	13540	14240	14750
						Right	31510	23300	20380	9800	7420	11000	12430	13340
O182/ O183	120	210	598	493	8159	Left	162570	140910	119310	96410	86870	73800	71810	–
						Right	157490	135840	114860	91340	82080	70000	68200	–

– Not possible at present.

Two-stage and three-stage offset gearbox - strengthened bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Flange-mounted type B35 (4).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
O32/ O33	25	50	146	121	153	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
O42/ O43	30	60	176	146	255	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
O62/ O63	40	80	213	173	440	Left	20460	20460	19510	16820	13610	12820	11600	10410
						Right	20460	20460	18600	15900	12700	12140	11150	10140
O82/ O83	50	100	262	212	845	Left	35120	35120	31750	27280	23440	20780	18780	17860
						Right	35120	35120	30390	25910	22160	20010	18290	17440
O102/ O103	60	120	298	238	1350	Left	43080	43080	39030	33590	28550	25540	23770	22930
						Right	43080	42860	36830	31390	26360	24120	22790	22070
O122/ O123	70	140	372	302	2247	Left	53880	53880	53880	51770	45460	42510	37510	33610
						Right	53880	53880	53880	49240	43250	41070	36440	32820
O142/ O143	90	170	434	349	2873	Left	91160	81490	67830	54590	50720	46210	43140	40240
						Right	87970	79180	64750	51400	48360	44460	41800	39100
O162/ O163	110	210	518	413	5891	Left	136650	121100	104880	87720	76260	69340	63290	60500
						Right	136650	116890	101440	83520	73110	67230	61350	59010
O182/ O183	120	210	598	493	8159	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–

– Not possible at present.

Three-stage bevel gearbox - standard bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Foot-mounted type B3 (0), torque arm (2), flange-mounted type (3).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 320
K33	25	50	122	97	160	Left	6610	6470	5170	4560	3840	3160	2580	2490
						Right	6960	6820	5510	4850	4090	3380	2790	2700
K43	30	60	151	121	255	Left	9700	8970	7180	5870	4810	4630	4530	–
						Right	10210	9480	7690	6380	5300	4870	4710	–
K63	40	80	190	150	555	Left	10640	8500	6870	4960	3980	3560	3890	3790
						Right	11270	9130	7500	5590	4610	4140	4170	4040
K83	50	100	225	175	977	Left	16000	12700	10500	7340	6460	6190	6620	6590
						Right	17240	13950	11740	8590	7590	7240	7050	6940
K103	60	120	262	202	1743	Left	18430	13720	10220	7360	6510	6030	6800	–
						Right	20670	15960	12340	9420	8380	7650	7640	–
K123	70	140	330	260	2545	Left	27440	21580	15930	12150	7870	8920	10080	–
						Right	29880	24010	18370	14580	10190	10910	11160	–
K143	90	170	393	308	5786	Left	21670	15380	10110	4000	5040	9110	10490	11360
						Right	24640	18350	13080	6970	7720	10860	11470	11900
K163	110	210	467	362	9588	Left	34600	23330	17820	7990	7960	14110	15910	–
						Right	38100	26820	21320	11490	11320	15910	17240	–
K183	120	210	538	433	10967	Left	175680	150720	129080	105870	86320	83490	–	–
						Right	180400	155450	133800	110590	90810	86730	–	–

– Not possible at present.

Three-stage bevel gearbox - strengthened bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Foot-mounted type B3 (0), torque arm (2), flange-mounted type (3).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 320
K33	25	50	122	97	160	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
K43	30	60	151	121	255	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
K63	40	80	190	150	555	Left	29460	25250	21990	18130	16120	14600	13040	12470
						Right	30140	25930	22670	18820	16800	15010	13350	12740
K83	50	100	225	175	977	Left	48550	41600	36880	30030	27140	24720	22440	21550
						Right	49890	42940	38220	31370	28360	25260	22900	21930
K103	60	120	262	202	1743	Left	60490	50670	42370	35830	32550	28870	27720	–
						Right	62900	53080	44640	38040	34570	29930	28630	–
K123	70	140	330	260	2545	Left	96120	82700	69590	60670	49300	45520	43550	–
						Right	98740	85320	72200	63290	51790	46820	44550	–
K143	90	170	393	308	5786	Left	97350	82620	70110	55350	53030	50080	46250	43570
						Right	100550	85810	73300	58530	55200	51500	47020	44150
K163	110	210	467	362	9588	Left	154740	127220	113590	88870	84270	77590	71550	–
						Right	158530	131000	117360	92650	86960	79280	72650	–
K183	120	210	538	433	10967	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–

– Not possible at present.

Geared motors

General information

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Three-stage bevel gearbox - standard bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Flange-mounted type (1 or 6).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 320
K33	25	50	146	121	153	Left	5530	5400	4320	3810	3210	2640	2160	2080
						Right	5820	5700	4610	4060	3420	2820	2330	2250
K43	30	60	176	146	255	Left	8280	7660	6120	4990	3850	3490	3420	–
						Right	8720	8090	6560	5430	4280	3900	3630	–
K63	40	80	213	173	440	Left	9490	7590	6130	4430	3550	2970	3470	–
						Right	10050	8140	6690	4990	4110	3490	3720	–
K83	50	100	262	212	845	Left	13740	10910	9010	6300	5550	4840	5560	5210
						Right	14810	11980	10080	7370	6520	5710	5950	5570
K103	60	120	298	238	1350	Left	16210	12070	8990	6470	5730	5310	5450	–
						Right	18170	14030	10850	8290	7370	6730	6260	–
K123	70	140	372	302	2247	Left	24380	19170	14150	10790	6550	6160	7250	–
						Right	26540	21330	16320	12960	8680	8200	8310	–
K143	90	170	434	349	2873	Left	19620	13920	9150	3620	1240	840	6360	5700
						Right	22310	16620	11840	6310	3800	3080	7370	6630
K163	110	210	518	413	5891	Left	31190	21030	16060	7200	6020	5300	10160	–
						Right	34350	24180	19220	10350	8810	7880	11530	–
K183	120	210	598	493	8159	Left	57190	134850	115490	94720	77240	70580	–	–
						Right	161410	139090	119710	98950	81250	73960	–	–

– Not possible at present.

Three-stage bevel gearbox - strengthened bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Flange-mounted type (1 or 6).

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 16 rpm	≤ 25 rpm	≤ 40 rpm	≤ 63 rpm	≤ 100 rpm	≤ 160 rpm	≤ 250 rpm	≤ 320 rpm
K33	25	50	146	121	153	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
K43	30	60	176	146	255	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–
K63	40	80	213	173	555	Left	20800	20800	19400	16000	14220	12690	11510	–
						Right	20800	20800	20010	16600	14820	13240	11780	–
K83	50	100	262	212	1182	Left	35450	35250	31250	25450	23000	20590	18910	17880
						Right	35450	35450	32390	26590	24030	21400	19320	18270
K103	60	120	298	238	1743	Left	43570	43570	36810	31130	28280	25080	23640	–
						Right	43570	43570	38780	33060	30030	26010	24500	–
K123	70	140	372	302	2893	Left	55270	55270	55270	53370	42970	39430	36540	–
						Right	55270	55270	55270	55270	45230	40660	37680	–
K143	90	170	434	349	4225	Left	87480	74250	63000	49730	42240	37130	38240	35110
						Right	90360	77110	65870	52600	44970	39520	39320	36100
K163	110	210	518	413	8059	Left	136980	113700	101520	79420	70560	65140	59690	–
						Right	136980	117080	104890	82800	73550	67890	61160	–
K183	120	210	598	493	8159	Left	–	–	–	–	–	–	–	–
						Right	–	–	–	–	–	–	–	–

– Not possible at present.

Two-stage helical-worm gearbox - standard bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Foot-mounted type IM B3 (0), torque arm (2 or 9 H1D), flange-mounted type (3).

The values for the flange-mounted type B5 (1, 6 or 9 H6F) case model (8th position in the order number) are available on request.

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 6	≤ 10	≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 140
C32	25	50	122	97	194	Left	5070	5050	5040	5040	4960	4540	3710	3250
						Right	4890	4880	4870	4780	4400	4070	3280	2860
C42	30	60	151	121	408	Left	7940	7920	7900	7900	7900	7080	5700	4970
						Right	7690	7680	7670	7670	7630	6590	5240	4520
C62	40	80	190	150	706	Left	9590	9580	9580	9580	8770	7440	6480	5900
						Right	9220	9220	9220	9030	8090	6850	5870	5330
C82	50	100	225	175	1269	Left	14260	14260	14260	14260	13870	11920	10220	9150
						Right	13640	13640	13640	13640	13140	11290	9320	8380

– Not possible at present.

Two-stage helical-worm gearbox - strengthened bearing arrangement (with solid shaft)

The values specified only apply for these case types (8th position in the order number):

Foot-mounted type IM B3 (0), torque arm (2 or 9 H1D), flange-mounted type (3).

The values for the flange-mounted type B5 (1, 6 or 9 H6F) case model (8th position in the order number) are available on request.

Type	d mm	l mm	y mm	z mm	a kNmm	Direction of rotation when facing the output shaft	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm							
							≤ 6	≤ 10	≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 140
C62	40	80	190	150	705	Left	44000	36560	32560	27020	23810	20610	18140	16780
						Right	43590	36220	32110	26180	23080	19980	17510	16180
C82	50	100	225	175	1269	Left	71110	61410	52080	45710	39720	34650	30530	27590
						Right	70540	60930	51110	44790	38930	33980	29600	26780

– Not possible at present.

Worm gearbox

Type	d mm	l mm	y mm	z mm	a kNmm	b mm	F_{Rper} in N with $x = l/2$ for input speeds n_2 in rpm					
							≤ 25	≤ 40	≤ 63	≤ 100	≤ 163	≤ 250
T31	18	40	81.5	61.5	48.5	2	3000	3000	2600	2100	1700	1400
T51	25	50	98	73	110	2.5	4400	4100	3300	2700	2100	1600
T61	25	60	134	104	120	2.5	5000	4500	3400	2800	2200	1700

With worm gearboxes, the values referring to "clockwise" or "counterclockwise" direction of rotation are taken when facing the output shaft.

This calculation is valid without additional axial forces. If the direction of rotation of the output shaft and additional axial forces are known, or if the values contained in the table are insufficient, Siemens can carry out the calculation.

Geared motors

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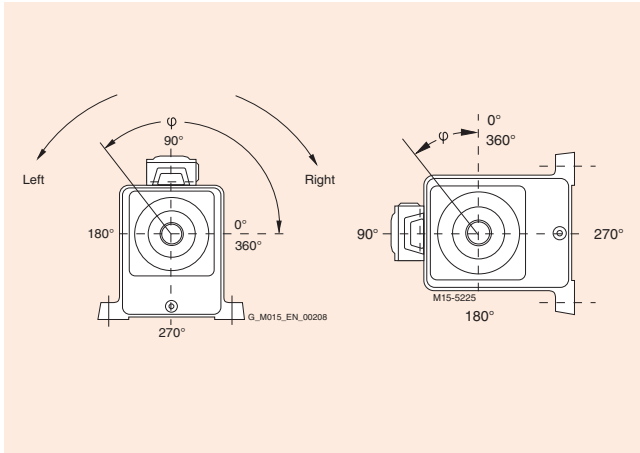
Selection guide

Higher permissible radial force

If radial forces higher than those listed are required, please contact us.

For an exact calculation, the following variables must be known:

- Frame size of the gearbox
- Ratio
- Present output torque
- Input speed
- Direction of rotation of the output shaft
- Angle of action φ and point of application x of the radial force
- Type and diameter of the output element (for direction of rotation, angle of action see diagram)



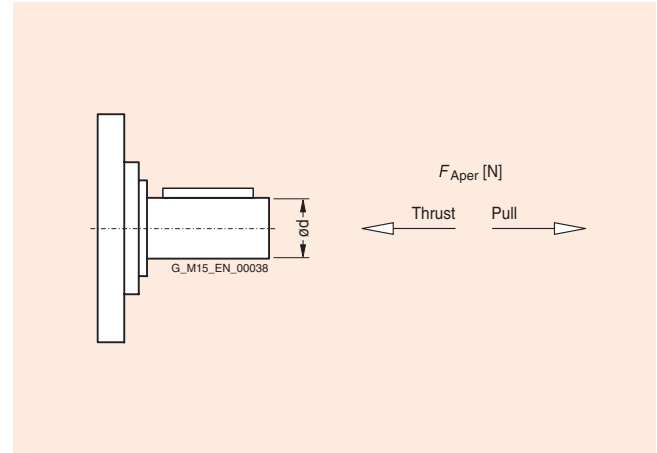
Direction of rotation, angle of action

Permissible axial force F_A

Worm gearbox:

Permissible axial forces on output shafts with service factor $f_B = 1$.

Maximum permissible force with pull or thrust lateral load. This calculation is valid without additional radial forces. If the direction of rotation of the output shaft and additional radial forces are known, or if the values contained in the table are insufficient, Siemens must carry out the calculation.



Type	d mm	F_{Aper} for thrust or pull with output speed n_2 N
T 31	18	1000
T 51	25	1500
T 61	25	2000

Helical, offset, bevel-helical and helical-worm gearboxes:

Should axial forces occur in addition to the radial force, the calculation must be carried out by Siemens.

Lubricants, temperatures, paint finish

Lubricants, temperatures

All gearboxes are filled with lubricant at the factory. The lubricants used meet the requirements of DIN 51502. The gearboxes are filled with varying oil quantities, depending on the mounting position (see the operating instructions and the rating plate). If no specifications are made to the contrary, the standard lubricant is used. Please contact us if

- the area of application lies outside the specified operating temperature
- the lubricant has special requirements to fulfill, e.g. it is to be used in the food industry, it must not endanger drinking water, it is to be biodegradable, silicon-free, etc.
- the cases of application take place in harsh environmental conditions.

Paint finish

The geared motors are painted with the RAL 7030 (stone gray) shade, which has a synthetic resin base. They are thus protected against corrosion and can be installed in a temperate open-air climate. Bare parts are provided with perishable anti-corrosion protection so that they can be transported.

Recommended lubricants:

Designation according to DIN 51502	Mineral oil	Synthetic oil/polyglycol (PG)	
	CLP ISO VG 220	CLP PG ISO VG 220	CLP ISO VG 460
Gearbox types	Helical, offset and bevel-helical gearboxes	Helical, offset, bevel-helical and helical-worm gearboxes	Helical, offset, bevel-helical, helical-worm and worm gearboxes
Ambient temperatures	-10 to +40 °C	-20 to +50 °C	0 to +60 °C
ADDINOL	CLP 220 S		
ARAL	Degol BG 220	Degol GS 220	Degol GS 460
BP	Energol GR-XP 220	Enersyn SG-XP 220	Enersyn SG-XP 460
CASTROL	Alpha SP 220 Optigear BM 220 Tribol 1100/220	Optiflex A 220 Tribol 800/220	Optiflex A 460 Tribol 800/460
DEA	Falcon CLP 220	Polydea PGLP 220	Polydea PGLP 460
ESSO	Spartan EP 220	Glycolube 220	Glycolube 460
FUCHS	Renolin CLP 220	Renolin PG 220	Renolin PG 460
KLÜBER Lubrication	Klüberoil GEM 1-220	Syntheso D 220 EP	Syntheso D 460 EP
MOBIL	Mobilgear XMP 220		
SHELL	Omala 220	Trivela S220	Tivela S460

Geared motors

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Ambient temperature and site altitude of the geared motors

If no specifications are made to the contrary, the rated outputs specified in the "Technical data" table in Section 8 apply to continuous operation S1, in accordance with EN 60034-1 (IEC 34-1), for a coolant temperature of 40 °C and a site altitude of up to 1000 m above sea level.

The specified motor power must be reduced by a factor of k_{HT} for an approximate selection at higher coolant temperatures and/or at site altitudes over 1000 m above sea level.

Depending on the motor frame size or the number of poles, the motors may be subject to special winding under non-standard operating conditions.

This results in a permissible motor power of:

$$P_{per} = P_{rated} \cdot k_{HT}$$

If the permissible motor power is no longer sufficient for the drive, the motor with the next larger rated output should be tested, to see if it meets the requirements.

Code	Description	Unit
P_{per}	Permissible motor power	kW
P_{rated}	Rated power	kW
k_{HT}	Factor for abnormal CT and/or SA	

Factor k_{HT} for non-standard site altitude and/or coolant temperature

Site altitude (SA) m	Coolant temperature (CT)					
	< 30 °C	30–40 °C	45 °C	50 °C	55 °C	60 °C
1000	1.07	1.00	0.96	0.92	0.87	0.82
1500	1.04	0.97	0.93	0.89	0.84	0.79
2000	1.00	0.94	0.90	0.86	0.82	0.77
2500	0.96	0.90	0.86	0.83	0.78	0.74
3000	0.92	0.86	0.82	0.79	0.75	0.70
3500	0.88	0.82	0.79	0.75	0.71	0.67
4000	0.82	0.77	0.74	0.71	0.67	0.63

Establishing the operating mode

The motors in the catalog are rated for continuous operation S1. In practice, the motors can also be used in an operating mode which deviates from this continuous operation.

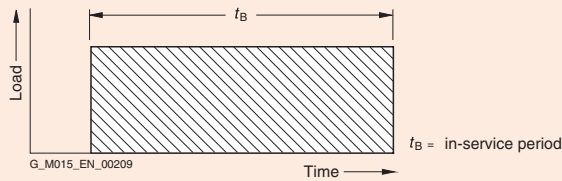
An exact description of the operating mode is required for configuration, since the power to be achieved can differ drastically from the continuous operation power.

In accordance with the definitions, the designation of the motor operating mode is selected from the table of operating modes in accordance with EN 60034-1 (IEC 34-1).

The most common operating modes S1, S2, S3 and S4 are displayed on the following page.

The load characteristics over time must be used to determine an equivalent load for other operating modes.

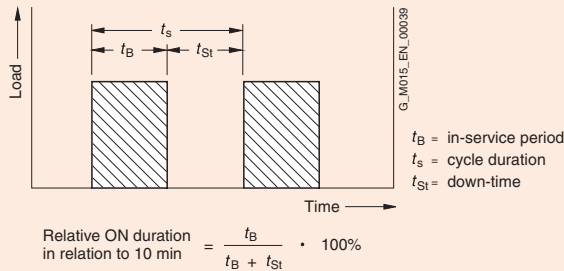
The operating mode must be defined, along with the associated specification, when ordering.



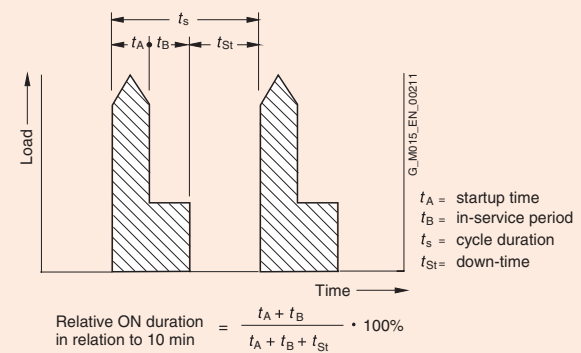
S1 operating mode · continuous operation



S2 operating mode · short operation



S3 operating mode · intermittent periodic operation



S4 operating mode · intermittent periodic operation influenced by startup

Operating modes according to EN 60034 (IEC 34-1)

Code	Description	Required specifications
S1	Continuous operation with 100% ED	–
S2	Constant load for short period, e.g. S2, 30 min	In-service period
S3	Intermittent periodic duty not influenced by startup (duty cycle mode), e.g. S3, 40%	Relative ON duration ED as % (related to 10 min)
S4	Intermittent periodic operation influenced by startup	Relative ON duration ED as %, making operations per hour, load and moment of inertia

Performance enhancement on changing operating mode

With S1, S2 and S3 operating modes, the listed motor powers must be converted to the lower ON duration using the corresponding factors k_{ED} , in accordance with the table below.

When enhancing performance, you must ensure that stalling torque

$$\frac{M_K}{M_{ED}}$$

does not fall below 1.6.

$$P_{ED} = P_{rated} \cdot k_{ED}; \quad M_{ED} \sim M_{rated} \cdot k_{ED}$$

Code	Description
P_{ED}	Power for the new ON duration
P_{rated}	Rated power of the motor
k_{ED}	Performance enhancement factor
M_{ED}	Torque for the new ON duration
M_K	Stalling torque
M_{rated}	Rated torque

Operating mode	Explanation	k_{ED}
S1	Continuous operation with 100% ED	1.0
S2	In-service period	60 min 1.1
		30 min 1.2
		10 min 1.4
S3	Relative ON duration	60% 1.1
		40% 1.15
		25% 1.3
		15% 1.4
S4 – S10	The operating mode and the motor power can be determined by specifying the number of switching operations per hour, startup time, in-service period, type of brake, braking time, idle time, cycle time, down-time, and the power required for each.	Available on request

Geared motors

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Establishing the permissible switching frequency

The no-load operating frequency of the motor is specified in the power tables as z_0 . The no-load operating frequency indicates how many times an hour a motor can accelerate the inertia of its rotor to its no-load speed without generating counter-torque at 50% ED.

The permissible switching frequency z takes the counter-torque, the additional inertia and the ON duration into consideration.

Permissible switching frequency z can be defined using this formula:

$$z = z_0 \cdot k_M \cdot k_{FI} \cdot k_P$$

Code	Description	Unit
J_M	Motor inertia	kgm^2
J_{add}	Additional moment of inertia, referring to the motor shaft	kgm^2
k_M	Factor for taking the counter-torque into consideration during run-up time	–
k_{FI}	Factor for taking the additional moment of inertia into consideration	–
k_P	Factor for taking the required power and ON duration into consideration	–
M_1	Input torque of the motor	Nm
M_A	Tightening torque of the motor	Nm
P_1	Drive power of the motor	kW
P_{rated}	Rated power of the motor	kW
z	Permissible switching frequency	h^{-1}
z_0	No-load operating frequency from the list at 50 Hz	h^{-1}

In calculating the permissible switching frequency, mechanical braking or running down the motor without braking is required. If electric braking is used, the motor suffers greater losses.

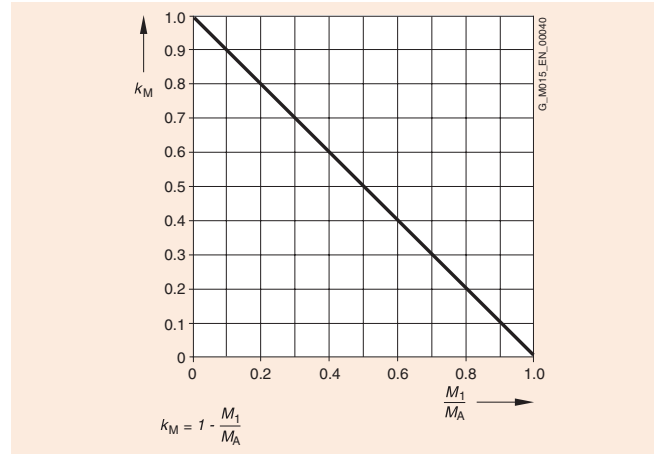
With reversal braking, which is to be avoided in practice, the calculated switching frequency corresponds to approximately one quarter of the number of permissible startups without electric braking.

The calculation of the switching frequencies is an estimate and should be used as a configuration aid.

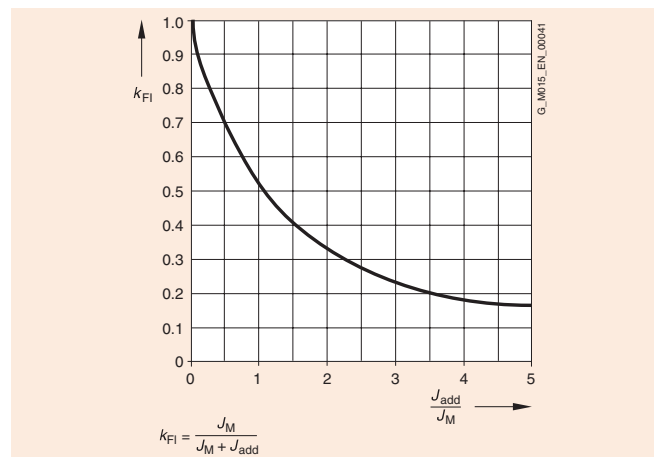
If the calculated switching frequency is close to the required value, we recommend that you contact us.

After establishing the permissible switching frequency of the motor, the suitability of the brakes should be checked.

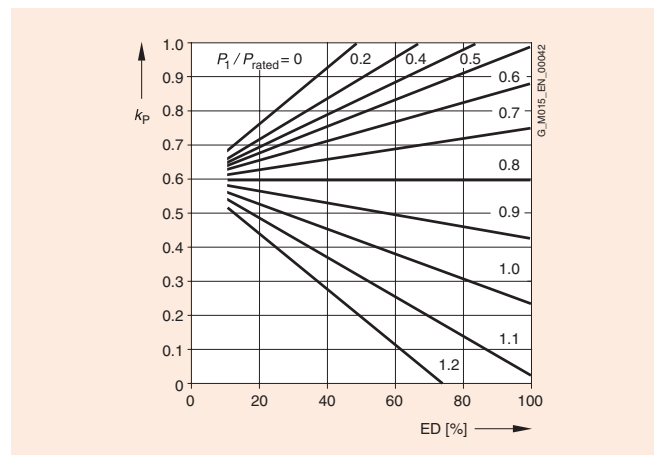
Please use the charts in Section 8 for this.



Torque during run-up



Additional moment of inertia



Power requirement and ON duration

Selecting the brake

All geared motors can be supplied with spring-operated disk brakes.

For assignment to the motor frame sizes, see Section 8.

The braking torque of the assigned brake is approximately twice the motor rated torque.

The brake should be checked according to the application (hoist drive, switching frequency, etc.).

The following specifications are needed to select and check the brake:

- Speed
 - Load torque
 - Moments of inertia
 - Switching frequency
- See Section 8.

The switching times of the brakes can be adjusted depending on the trigger type of the application case.

Brakes are described in detail in Section 8.

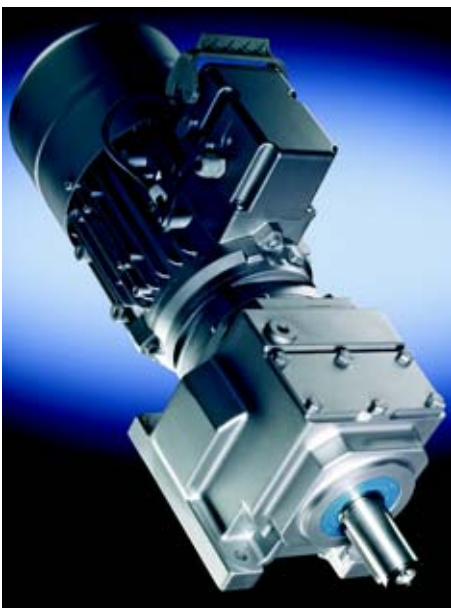
Geared motors

General information

Notes

2

Helical geared motors



Structure of the order number and how to complete it

3/2	Structure of the order number for helical geared motors
3/3	Completing the order number
3/8	Mounting positions and position of the connection system
3/9	Selection example

Selection and ordering

3/10	Preliminary selection of the geared motor according to power, speed and torque
3/11	Selection and ordering data
3/66	Ratios and maximum torques

Dimensions

3/76	E31 gearbox
3/79	E41 gearbox
3/82	E61 gearbox
3/85	E81 gearbox
3/88	E101 gearbox
3/91	E121 gearbox
3/94	E141 gearbox
3/97	H32/H33 gearbox
3/100	H42/H43 gearbox
3/103	H62/H63 gearbox
3/106	H82/H83 gearbox
3/109	H102/H103 gearbox
3/112	H122/H123 gearbox
3/115	H142/H143 gearbox
3/118	H162/H163 gearbox
3/121	H182/H183 gearbox

Geared motors

Helical geared motors

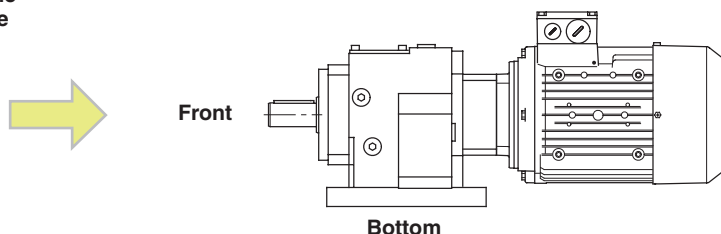
Structure of the order number and how to complete it

Structure of the order number for helical geared motors

Order number	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
		2	K	G	□	1	□	1	-	□	□	□	□	-	□	□	□	- Z
Generation		3 or 4																
E, H helical gearbox		1 or 6																
Gearbox size		0 to 8																
Basic version motor																		
Gear case type		0, 1, 3, or 9																
Shaft design		M to V																
Motor frame size		A to Y																
Ratio code		01 to 62																
Number of poles on the motor		4, 6 or 8																
Mounting position of the gearbox		A to F																
Position of the connection system		A to D																
Voltage and frequency		1, 3, 5, 6, or 9																
Special versions																		

Definition of sides

Facing the gear case

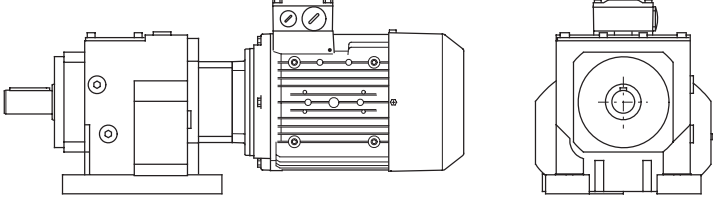
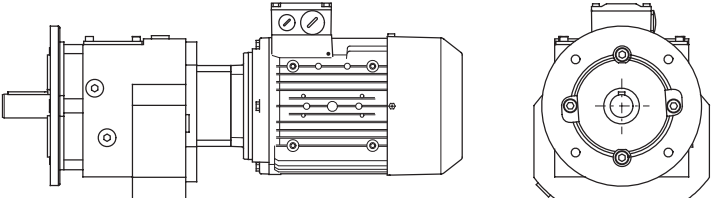
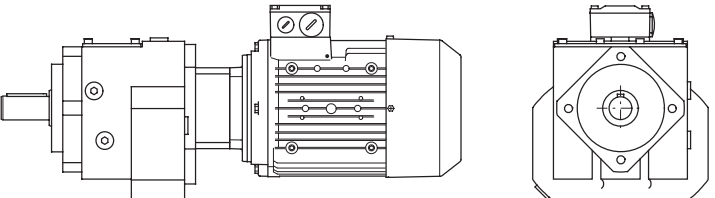


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The **order number of the helical geared motor** is shown in the selection and ordering data, but must be completed in certain places.

Completing the order number

8th position: Gear case type

Gear case models	8 th position of order number	
Foot-mounted type	0	
Flange-mounted type B5 model	1 or 9	
Flange-mounted type B14 model	3	

G_M015_EN_00002a

Geared motors

Helical geared motors

Structure of the order number and how to complete it

Single-stage helical gearbox (E)

Type	5th position of the order number	8th position of the order number	Order code	E31		E41		E61		E81	
				Flange size	Sur- charges	Flange size	Sur- charges	Flange size	Sur- charges	Flange size	Sur- charges
Foot-mounted type B3	6	0	—		✓		✓		✓		✓
Flange-mounted type B5		1	—	A160	✓	A160	✓	A200	✓	A250	✓
Flange-mounted type B14		3	—		✓		✓		✓		✓
Flange-mounted type B5		9	H1F	A200	✓	A200	✓	A250	✓	A300	✓
			H2F	A250	✓	A250	✓	A300	✓	A350	✓

Type	5th position	8th position	Order code	E101		E121		E141		
	of the order number	of the order number		Flange size	Sur-charges	Flange size	Sur-charges	Flange size	Sur-charges	
Foot-mounted type B3	6	0	—		✓		✓		✓	
Flange-mounted type B5		1	—	A300	✓	A350	✓	A350	✓	
Flange-mounted type B14		3	—		✓		✓		✓	
Flange-mounted type B5		9		H1F	A350	✓	—	—	A450	✓
				H2F	A400	✓	A450	✓	A550	✓

Two-stage and three-stage helical gearbox (H)

Type	5th position of the order number	8th position of the order number	Order code	H32/H33		H42/H43		H62/H63		H82/H83		H102/H103		
				Flange size	Sur- charge s	Flange size	Sur- charge s	Flange size	Sur- charge s	Flange size	Sur- charge s	Flange size	Sur- charge s	
Foot-mounted type B3	1	0	–		✓		✓		✓		✓		✓	
Flange-mounted type B5		1	–	A200	✓	A200	✓	A250	✓	A300	✓	A350	✓	
Flange-mounted type B14		3	–		✓		✓		✓		✓		✓	
Flange-mounted type B5		9	H1F	A160	✓	A250	✓	–	–	–	–	–	–	–
			H2F	A250	✓	A300	✓	A300	✓	A350	✓	A450	✓	

Type	5th position of the order number	8th position of the order number	Order code	H122/H123		H142/H143		H162/H163		H182/H183	
				Flange size	Sur- charges	Flange size	Sur- charges	Flange size	Sur- charges	Flange size	Sur- charges
Foot-mounted type B3	1	0	—		✓		✓		✓		✓
Flange-mounted type B5		1	—	A350	✓	A450	✓	A450	✓	A550	✓
Flange-mounted type B14		3	—		✓		✓		✓		✓
Flange-mounted type B5		9	H1F	—	—	—	—	—	—	—	—
				H2F	A450	✓	A550	✓	A550	✓	A660

– Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

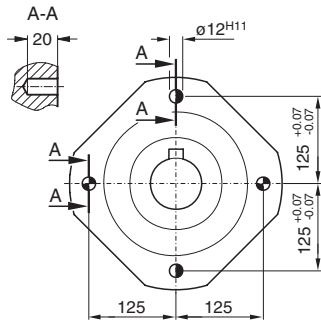
Pin holes

With frame sizes E121 to E141 and H102/H103 to H182/183, the customer interface can be pinned to the case flange (flange-mounted type B14).

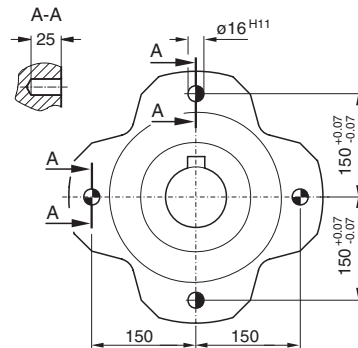
The output flanges are designed to ensure that the permissible torques and radial forces are transferred from the bolted joints.

If an additional safeguard is desired, e.g. with reversing operation or a high impact load, the existing pin holes can be used. The gearbox can also be drilled and pinned together with the machine. The listed dimensions must be adhered to.

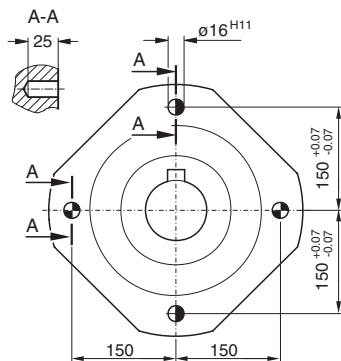
E121, H102 / H103



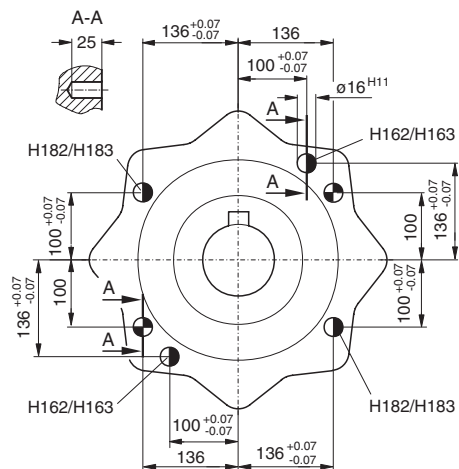
E141, H122 / H123



H142 / H143



H162 / H163, H182 / H183



- Dowel pins, heavyweight model to DIN 1481 (use available pin holes on the case flange)
- Full length parallel grooved dowel pins with chamfer to DIN EN 28740/ISO 8740 (note: drill connecting part together with the case)

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Geared motors

Helical geared motors

Structure of the order number and how to complete it

9th position: Shaft design

Single-stage helical gearbox (E)

Shaft design	9th position of the order number	E31		E41		E61		E81	
		d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge
Solid shaft with feather-key (basic version)	V	20 x 40	✓	25 x 50	✓	30 x 60	✓	40 x 80	✓
Plain solid shaft	M	20 x 40	•	25 x 50	•	30 x 60	•	40 x 80	•
Inch solid shaft with featherkey		•		•		•		•	

Shaft design	9th position of the order number	E101		E121		E141	
		d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge
Solid shaft with feather-key (basic version)	V	50 x 100	✓	60 x 120	✓	70 x 140	✓
Plain solid shaft	M	50 x 100	•	60 x 120	•	70 x 140	•
Inch solid shaft with featherkey		•		•		•	

Two-stage and three-stage helical gearbox (H)

Shaft design	9th position of the order number	H32/H33		H42/H43		H62/H63		H82/H83		H102/H103	
		d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge
Solid shaft with feather-key (basic version)	V	25 x 50	✓	30 x 60	✓	50 x 100	✓	60 x 120	✓	60 x 120	✓
Solid shaft with feather-key	S	30 x 60	✓	40 x 80	✓	40 x 80	✓	50 x 100	✓	70 x 140	✓
Plain solid shaft	M	25 x 50	•	30 x 60	•	50 x 100	•	60 x 120	•	60 x 120	•
Plain solid shaft	P	30 x 60	•	40 x 80	•	40 x 80	•	50 x 100	•	70 x 140	•
Inch solid shaft with featherkey		•		•		•		•		•	

Shaft design	9th position of the order number	H122/H123		H142/H143		H162/H163		H182/H183	
		d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge	d x l mm	Surcharge
Solid shaft with feather-key (basic version)	V	70 x 140	✓	90 x 170	✓	100 x 210	✓	120 x 210	✓
Solid shaft with feather-key	S	90 x 170	✓	100 x 210	✓	120 x 210	✓	–	–
Plain solid shaft	M	70 x 140	•	90 x 170	•	100 x 210	•	120 x 210	•
Plain solid shaft	P	90 x 170	•	100 x 210	•	120 x 210	•	–	–
Inch solid shaft with featherkey		•		•		•		•	

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

14th position: Mounting position of helical geared motor

The letters from **A to F** correspond to the figures on page 3/8, and must be inserted into the 14th position of the order number (without surcharge).

15th position: Position of the connection system

The motor terminal box can be mounted in four different positions (position of connection system). When facing the gearbox, the positions are defined by **A, B, C**, or **D**, see figures on page 3/8 (without surcharge). This letter must be inserted into the 15th position of the order number.

16th position: Voltage and frequency

The last position of the order number contains the voltage and frequency of the geared motor.

1 = 230 VΔ/400 VΥ, 50 Hz

3 = 500 VΥ, 50 Hz

5 = 500 VΔ, 50 Hz

6 = 400 VΔ/690 VΥ, 50 Hz

9 = other voltages, see Section 8, "Other voltages and/or frequencies".

1, 3, 5, 6 without surcharge, **9** with surcharge.

-Z: Special versions

Special gearbox and/or motor designs should be ordered using the order number addition **-Z** and the order code, and are usually subject to a surcharge.

For a description of the options, see Sections 8, 9 and 10; for ordering data, see Section 11.

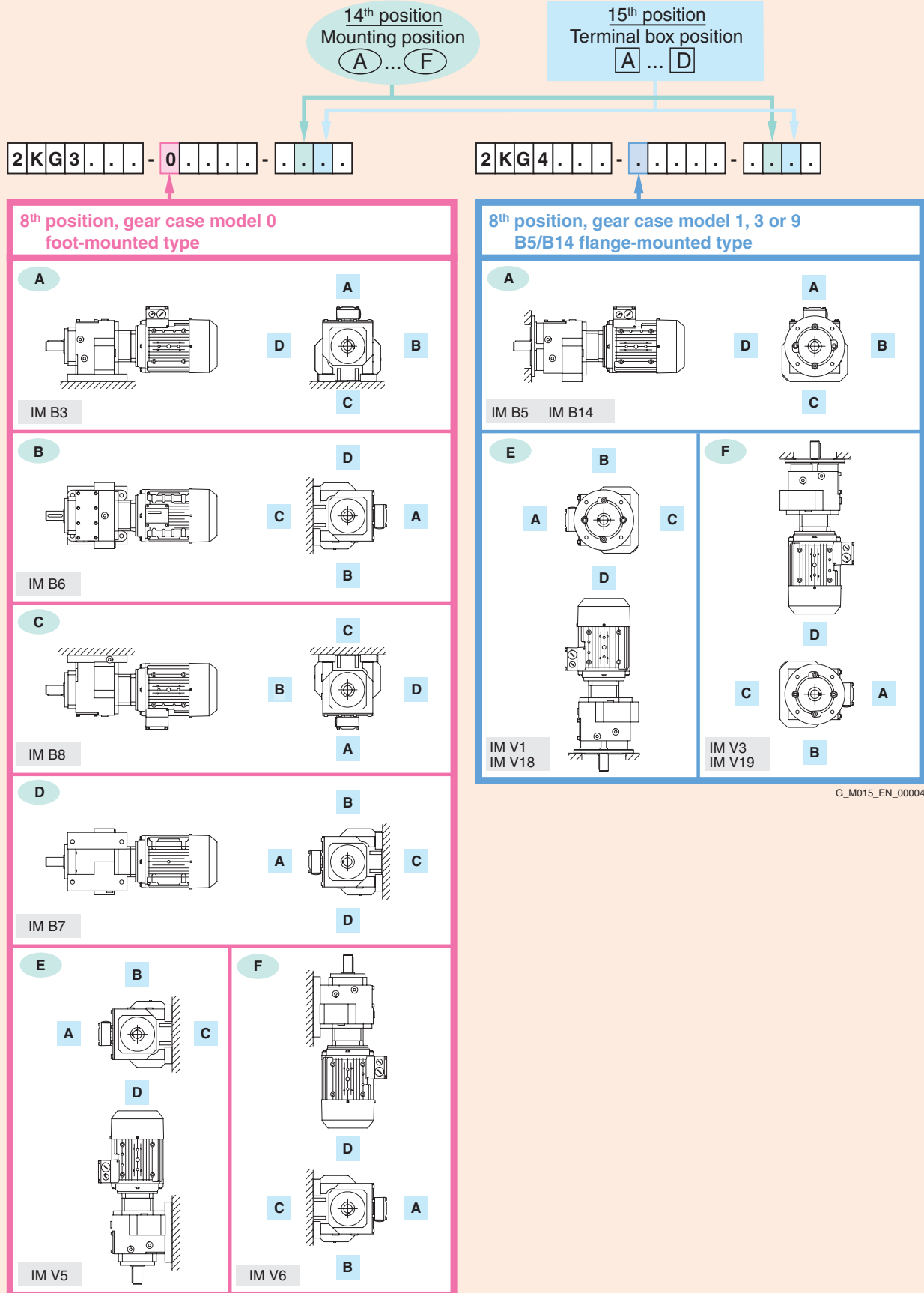
Geared motors

Helical geared motors

Structure of the order number
and how to complete it

Mounting positions and position of the connection system

3



Selection example

A geared motor with 0.18 kW, an output speed of around 11 rpm and a service factor of approximately 1.4 is needed.

From the table on page 3/13:

Order no.: **2KG3131-□□B53-4□□□**

With the H33 gearbox, the output speed is 11.4 rpm, the service factor 1.5, the motor frame size 63 M and there are four poles.

Foot-mounted helical geared motor with solid shaft and feather-key, type IM B3 with terminal box at top (for figure, see page 3/8) and a voltage of 230 VΔ / 400 VY, 50 Hz (see page 3/7)

Order no.: **2KG3131-0VB53-4AA1**

Standard B5 flange-mounted type with solid shaft and feather-key

Order no.: **2KG3131-1VB53-4AA1**

Surcharge (for flange-mounted type B5 only), see page 3/4.

With standard brake for connection 1 AC 50 Hz 230 V (see Section 8)

Order no.: **2KG3131-1VB53-4AA1-ZG21**

Surcharges have to be considered.

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.18 Gearbox size H33 – motor frame size 63M – 4 poles						
7.9	217	170	1	1	2KG3131 - ■■ B56-4 ■■ ■■	13
9	190	149	1.2	1.2	2KG3131 - ■■ B55-4 ■■ ■■	
10.1	170	134	1.3	1.3	2KG3131 - ■■ B54-4 ■■ ■■	
11.4	151	119	1.5	1.5	2KG3131 - ■■ B53-4 ■■ ■■	
13	132	104	1.7	1.7	2KG3131 - ■■ B52-4 ■■ ■■	
14.8	116	91.3	1.9	1.9	2KG3131 - ■■ B51-4 ■■ ■■	
16.4	105	82.5	2.1	2.1	2KG3131 - ■■ B50-4 ■■ ■■	
18.8	92	71.9	2.4	2.4	2KG3131 - ■■ B48-4 ■■ ■■	
20.9	82	64.6	2.7	2.7	2KG3131 - ■■ B47-4 ■■ ■■	
23.2	74	58.3	3	3	2KG3131 - ■■ B46-4 ■■ ■■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

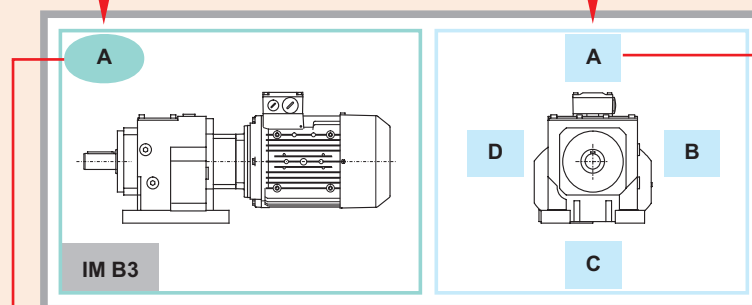
For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

IM B3 model

Terminal box at top



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Order no. **2KG3131-0VB53-4AA1**

Geared motors

Helical geared motors

Selection and ordering

Preliminary selection of the geared motor according to power, speed and torque

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Detailed selection and ordering data Page
0.09	2.1 – 36.4	410 – 24	300 – 17.3	0.95 – 9.3	3/11
0.12	2.1 – 201	534 – 5.7	300 – 6.73	1.4 – 9.4	3/12
0.18	1.9 – 228	915 – 7.5	359 – 5.92	1.0 – 10	3/13 – 3/14
0.25	1.9 – 325	1252 – 7.3	359 – 4.15	0.93 – 9.6	3/14 – 3/16
0.37	1.9 – 414	1881 – 8.5	359 – 3.31	0.93 – 9.8	3/16 – 3/18
0.55	1.9 – 623	2769 – 8.4	359 – 2.24	0.94 – 8.9	3/18 – 3/21
0.75	2 – 877	3540 – 8.2	359 – 1.59	0.94 – 8.8	3/21 – 3/24
1.1	2 – 890	5192 – 12	359 – 1.59	0.93 – 6.1	3/24 – 3/27
1.5	2.1 – 893	6829 – 16	336 – 1.59	0.93 – 4.5	3/27 – 3/31
2.2	2 – 893	10253 – 24	342 – 1.59	0.91 – 4.2	3/31 – 3/35
3	2 – 893	13982 – 32	342 – 1.59	0.92 – 4.3	3/35 – 3/39
4	2.8 – 947	13521 – 40	301 – 1.52	0.92 – 9.1	3/39 – 3/42
5.5	2.9 – 1032	18038 – 51	342 – 1.41	0.94 – 3.8	3/42 – 3/45
7.5	3.5 – 1032	20670 – 69	313 – 1.41	0.91 – 3.7	3/45 – 3/48
11	6 – 854	17543 – 123	244 – 1.71	0.91 – 4.5	3/49 – 3/51
15	7.1 – 1074	20245 – 133	206 – 1.36	0.91 – 5.1	3/51 – 3/53
18.5	8.2 – 1074	21447 – 165	177 – 1.36	0.91 – 4.1	3/54 – 3/56
22	9.5 – 1074	22035 – 196	153 – 1.36	0.91 – 4.6	3/56 – 3/58
30	14.5 – 1077	19744 – 266	101 – 1.36	0.91 – 3.8	3/59 – 3/61
37	18.2 – 1081	19415 – 327	80.8 – 1.36	0.92 – 3.8	3/61 – 3/63
45	21.2 – 1081	20292 – 398	69.4 – 1.36	0.92 – 3.5	3/63 – 3/65

Selection and ordering data

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.09	Gearbox size H83 – motor frame size 71M – 8 poles					
	2.1	410	300	4.1	2KG3181 -   C61-8  	85
	Gearbox size H63 – motor frame size 71M – 8 poles					
	2.2	383	281	2.1	2KG3161 -   C60-8  	49
	2.5	339	249	2.4	2KG3161 -   C58-8  	
	2.8	308	226	2.6	2KG3161 -   C57-8  	
	3.1	277	203	2.9	2KG3161 -   C56-8  	
	3.6	237	174	3.4	2KG3161 -   C55-8  	
	Gearbox size H43 – motor frame size 71M – 8 poles					
	3	285	209	1.6	2KG3141 -   C57-8  	30
	3.4	253	186	1.8	2KG3141 -   C56-8  	
	3.9	220	161	2	2KG3141 -   C55-8  	
	4.2	205	150	2.2	2KG3141 -   C54-8  	
	4.8	181	132	2.5	2KG3141 -   C53-8  	
	5.4	158	116	2.8	2KG3141 -   C52-8  	
	6.1	140	103	3.2	2KG3141 -   C51-8  	
	6.8	127	92.9	3.6	2KG3141 -   C50-8  	
	Gearbox size H33 – motor frame size 71M – 8 poles					
	3.7	232	170	0.95	2KG3131 -   C56-8  	19
	4.2	204	149	1.1	2KG3131 -   C55-8  	
	4.7	182	134	1.2	2KG3131 -   C54-8  	
	5.3	162	119	1.4	2KG3131 -   C53-8  	
	6.1	142	104	1.6	2KG3131 -   C52-8  	
	6.9	125	91.3	1.8	2KG3131 -   C51-8  	
	7.6	113	82.5	2	2KG3131 -   C50-8  	
	8.8	98	71.9	2.2	2KG3131 -   C48-8  	
	9.8	88	64.6	2.5	2KG3131 -   C47-8  	
	10.8	80	58.3	2.8	2KG3131 -   C46-8  	
	11.9	72	52.9	3.1	2KG3131 -   C45-8  	
	13.1	66	48.1	3.4	2KG3131 -   C44-8  	
	Gearbox size H32 – motor frame size 71M – 8 poles					
	14.3	60	44.1	3	2KG3131 -   C35-8  	18
	16.1	54	39.2	3.9	2KG3131 -   C34-8  	
	18.5	46	34	4.7	2KG3131 -   C33-8  	
	19.8	43	31.8	5.1	2KG3131 -   C32-8  	
	22.5	38	28	5.8	2KG3131 -   C31-8  	
	25.7	33	24.5	6.6	2KG3131 -   C30-8  	
	29.1	30	21.7	7.4	2KG3131 -   C28-8  	
	32.1	27	19.6	8.2	2KG3131 -   C27-8  	
	36.4	24	17.3	9.3	2KG3131 -   C26-8  	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.12	Gearbox size H83 – motor frame size 71M – 8 poles					85
	2.1	534	300	3.1	2KG3181 - ■■■ D61-8 ■■■	
	2.4	481	271	3.5	2KG3181 - ■■■ D60-8 ■■■	
	2.6	434	244	3.9	2KG3181 - ■■■ D58-8 ■■■	
	3	380	214	4.4	2KG3181 - ■■■ D57-8 ■■■	
	3.4	341	192	4.9	2KG3181 - ■■■ D56-8 ■■■	
	3.7	311	175	5.4	2KG3181 - ■■■ D55-8 ■■■	
	4.1	276	155	6.1	2KG3181 - ■■■ D54-8 ■■■	
	Gearbox size H83 – motor frame size 63M – 4 poles					79
	4.5	255	300	6.6	2KG3181 - ■■■ A61-4 ■■■	
	Gearbox size H63 – motor frame size 63M – 4 poles					43
	4.8	239	281	3.4	2KG3161 - ■■■ A60-4 ■■■	
	5.4	211	249	3.8	2KG3161 - ■■■ A58-4 ■■■	
	6	192	226	4.2	2KG3161 - ■■■ A57-4 ■■■	
	Gearbox size H43 – motor frame size 63M – 4 poles					23
	6.5	177	209	2.5	2KG3141 - ■■■ A57-4 ■■■	
	7.3	158	186	2.9	2KG3141 - ■■■ A56-4 ■■■	
	8.4	137	161	3.3	2KG3141 - ■■■ A55-4 ■■■	
	9	128	150	3.5	2KG3141 - ■■■ A54-4 ■■■	
	Gearbox size H33 – motor frame size 63M – 4 poles					13
	7	163	192	1.4	2KG3131 - ■■■ A57-4 ■■■	
	7.9	145	170	1.5	2KG3131 - ■■■ A56-4 ■■■	
	9	127	149	1.7	2KG3131 - ■■■ A55-4 ■■■	
	10.1	113	134	1.9	2KG3131 - ■■■ A54-4 ■■■	
	11.4	101	119	2.2	2KG3131 - ■■■ A53-4 ■■■	
	13	88	104	2.5	2KG3131 - ■■■ A52-4 ■■■	
	14.8	78	91.3	2.8	2KG3131 - ■■■ A51-4 ■■■	
	16.4	70	82.5	3.1	2KG3131 - ■■■ A50-4 ■■■	
	18.8	61	71.9	3.6	2KG3131 - ■■■ A48-4 ■■■	
	20.9	55	64.6	4	2KG3131 - ■■■ A47-4 ■■■	
	23.2	50	58.3	4.4	2KG3131 - ■■■ A46-4 ■■■	
	25.5	45	52.9	4.9	2KG3131 - ■■■ A45-4 ■■■	
	28.1	41	48.1	5.4	2KG3131 - ■■■ A44-4 ■■■	
	Gearbox size H32 – motor frame size 63M – 4 poles					12
	30.6	38	44.1	4.9	2KG3131 - ■■■ A35-4 ■■■	
	34.4	33	39.2	6.2	2KG3131 - ■■■ A34-4 ■■■	
	39.7	29	34	7.6	2KG3131 - ■■■ A33-4 ■■■	
	42.5	27	31.8	8.1	2KG3131 - ■■■ A32-4 ■■■	
	48.3	24	28	9.3	2KG3131 - ■■■ A31-4 ■■■	
	Gearbox size E61 – motor frame size 63M – 4 poles					21
	109	11	12.4	7.7	2KG3661 - ■■■ A22-4 ■■■	
	Gearbox size E41 – motor frame size 63M – 4 poles					11
	119	9.6	11.3	5.7	2KG3641 - ■■■ A21-4 ■■■	
	135	8.5	10	9.4	2KG3641 - ■■■ A22-4 ■■■	
	Gearbox size E31 – motor frame size 63M – 4 poles					7
	145	7.9	9.33	4	2KG3631 - ■■■ A18-4 ■■■	
	163	7	8.3	4.5	2KG3631 - ■■■ A17-4 ■■■	
	188	6.1	7.2	6.2	2KG3631 - ■■■ A16-4 ■■■	
	201	5.7	6.73	8.4	2KG3631 - ■■■ A15-4 ■■■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9
 For shaft designs, see page 3/6 — M, P, S, V
 For gearbox mounting positions acc. to the fig., see page 3/8 — A to F
 For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D
 For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output speed P_1 kW	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg	
0.18	Gearbox size H103 – motor frame size 80M – 8 poles					
	1.9	915	359	3.4	2KG4101 - ■ ■ E61-8 ■ ■ ■	139
	2.1	828	325	3.7	2KG4101 - ■ ■ E60-8 ■ ■ ■	
	Gearbox size H83 – motor frame size 80M – 8 poles					
	2.2	765	300	2.2	2KG3181 - ■ ■ E31-8 ■ ■ ■	86
	2.5	690	271	2.4	2KG3181 - ■ ■ E60-8 ■ ■ ■	
	2.8	622	244	2.7	2KG3181 - ■ ■ E58-8 ■ ■ ■	
	3.2	544	214	3.1	2KG3181 - ■ ■ E57-8 ■ ■ ■	
	3.5	488	192	3.4	2KG3181 - ■ ■ E56-8 ■ ■ ■	
	3.9	446	175	3.8	2KG3181 - ■ ■ E55-8 ■ ■ ■	
	4.3	396	155	4.2	2KG3181 - ■ ■ E54-8 ■ ■ ■	
	Gearbox size H83 – motor frame size 63M – 4 poles					
	4.5	383	300	4.4	2KG3181 - ■ ■ B61-4 ■ ■ ■	79
	Gearbox size H63 – motor frame size 63M – 4 poles					
	4.8	358	281	2.2	2KG3161 - ■ ■ B60-4 ■ ■ ■	43
	5.4	317	249	2.5	2KG3161 - ■ ■ B58-4 ■ ■ ■	
	6	288	226	2.8	2KG3161 - ■ ■ B57-4 ■ ■ ■	
	6.6	259	203	3.1	2KG3161 - ■ ■ B56-4 ■ ■ ■	
	7.8	222	174	3.6	2KG3161 - ■ ■ B55-4 ■ ■ ■	
	Gearbox size H43 – motor frame size 63M – 4 poles					
	6.5	266	209	1.7	2KG3141 - ■ ■ B57-4 ■ ■ ■	23
	7.3	236	186	1.9	2KG3141 - ■ ■ B56-4 ■ ■ ■	
	8.4	205	161	2.2	2KG3141 - ■ ■ B55-4 ■ ■ ■	
	9	192	150	2.3	2KG3141 - ■ ■ B54-4 ■ ■ ■	
	10.2	169	132	2.7	2KG3141 - ■ ■ B53-4 ■ ■ ■	
	11.6	148	116	3	2KG3141 - ■ ■ B52-4 ■ ■ ■	
	13.2	131	103	3.4	2KG3141 - ■ ■ B51-4 ■ ■ ■	
	14.5	118	92.9	3.8	2KG3141 - ■ ■ B50-4 ■ ■ ■	
	Gearbox size H33 – motor frame size 63M – 4 poles					
	7.9	217	170	1	2KG3131 - ■ ■ B56-4 ■ ■ ■	13
	9	190	149	1.2	2KG3131 - ■ ■ B55-4 ■ ■ ■	
	10.1	170	134	1.3	2KG3131 - ■ ■ B54-4 ■ ■ ■	
	11.4	151	119	1.5	2KG3131 - ■ ■ B53-4 ■ ■ ■	
	13	132	104	1.7	2KG3131 - ■ ■ B52-4 ■ ■ ■	
	14.8	116	91.3	1.9	2KG3131 - ■ ■ B51-4 ■ ■ ■	
	16.4	105	82.5	2.1	2KG3131 - ■ ■ B50-4 ■ ■ ■	
	18.8	92	71.9	2.4	2KG3131 - ■ ■ B48-4 ■ ■ ■	
	20.9	82	64.6	2.7	2KG3131 - ■ ■ B47-4 ■ ■ ■	
	23.2	74	58.3	3	2KG3131 - ■ ■ B46-4 ■ ■ ■	
	25.5	67	52.9	3.3	2KG3131 - ■ ■ B45-4 ■ ■ ■	
	28.1	61	48.1	3.6	2KG3131 - ■ ■ B44-4 ■ ■ ■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.18	Gearbox size H32 – motor frame size 63M – 4 poles					12
	30.6	56	44.1	3.2	2KG3131 - ■■■ B35-4 ■■■	
	34.4	50	39.2	4.2	2KG3131 - ■■■ B34-4 ■■■	
	39.7	43	34	5.1	2KG3131 - ■■■ B33-4 ■■■	
	42.5	41	31.8	5.4	2KG3131 - ■■■ B32-4 ■■■	
	48.3	36	28	6.2	2KG3131 - ■■■ B31-4 ■■■	
	55.1	31	24.5	7.1	2KG3131 - ■■■ B30-4 ■■■	
	62.3	28	21.7	8	2KG3131 - ■■■ B28-4 ■■■	
	68.7	25	19.6	8.8	2KG3131 - ■■■ B27-4 ■■■	
	77.9	22	17.3	10	2KG3131 - ■■■ B26-4 ■■■	
	Gearbox size E61 – motor frame size 63M – 4 poles					21
	109	16	12.4	5.1	2KG3661 - ■■■ B22-4 ■■■	
	121	14	11.2	6.5	2KG3661 - ■■■ B21-4 ■■■	
	134	13	10.1	7.4	2KG3661 - ■■■ B20-4 ■■■	
	Gearbox size E31 – motor frame size 63M – 4 poles					7
	145	12	9.33	2.7	2KG3631 - ■■■ B18-4 ■■■	
	163	11	8.3	3	2KG3631 - ■■■ B17-4 ■■■	
	188	9.2	7.2	4.1	2KG3631 - ■■■ B16-4 ■■■	
	201	8.6	6.73	5.6	2KG3631 - ■■■ B15-4 ■■■	
	228	7.5	5.92	7	2KG3631 - ■■■ B14-4 ■■■	
0.25	Gearbox size H103 – motor frame size 80M – 8 poles					141
	1.9	1252	359	2.5	2KG4101 - ■■■ F61-8 ■■■	
	2.1	1133	325	2.7	2KG4101 - ■■■ F60-8 ■■■	
	2.4	992	285	3.1	2KG4101 - ■■■ F58-8 ■■■	
	2.7	895	257	3.5	2KG4101 - ■■■ F57-8 ■■■	
	Gearbox size H83 – motor frame size 80M – 8 poles					88
	2.3	1047	300	1.6	2KG3181 - ■■■ F61-8 ■■■	
	2.5	944	271	1.8	2KG3181 - ■■■ F60-8 ■■■	
	2.8	851	244	2	2KG3181 - ■■■ F58-8 ■■■	
	3.2	745	214	2.3	2KG3181 - ■■■ F57-8 ■■■	
	3.6	668	192	2.5	2KG3181 - ■■■ F56-8 ■■■	
	3.9	611	175	2.8	2KG3181 - ■■■ F55-8 ■■■	
	4.4	542	155	3.1	2KG3181 - ■■■ F54-8 ■■■	
	Gearbox size H83 – motor frame size 71M – 4 poles					83
	4.5	531	300	3.2	2KG3181 - ■■■ C61-4 ■■■	
	5	479	271	3.5	2KG3181 - ■■■ C60-4 ■■■	
	5.5	432	244	3.9	2KG3181 - ■■■ C58-4 ■■■	
	Gearbox size H63 – motor frame size 71M – 4 poles					48
	4.8	497	281	1.6	2KG3161 - ■■■ C60-4 ■■■	
	5.4	440	249	1.8	2KG3161 - ■■■ C58-4 ■■■	
	6	400	226	2	2KG3161 - ■■■ C57-4 ■■■	
	6.6	359	203	2.2	2KG3161 - ■■■ C56-4 ■■■	
	7.8	308	174	2.6	2KG3161 - ■■■ C55-4 ■■■	
	8.6	279	158	2.9	2KG3161 - ■■■ C54-4 ■■■	
	9.3	257	145	3.1	2KG3161 - ■■■ C53-4 ■■■	
	10.7	224	126	3.6	2KG3161 - ■■■ C52-4 ■■■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1	n_2	M_2	i	f_B		kg	
kW	rpm	Nm					
0.25	Gearbox size H43 – motor frame size 71M – 4 poles						
	6.5	369	209	1.2	2KG3141 - ■■ C57-4 ■■■	28	
	7.3	328	186	1.4	2KG3141 - ■■ C56-4 ■■■		
	8.4	285	161	1.6	2KG3141 - ■■ C55-4 ■■■		
	9	266	150	1.7	2KG3141 - ■■ C54-4 ■■■		
	10.2	234	132	1.9	2KG3141 - ■■ C53-4 ■■■		
	11.6	205	116	2.2	2KG3141 - ■■ C52-4 ■■■		
	13.2	181	103	2.5	2KG3141 - ■■ C51-4 ■■■		
	14.5	164	92.9	2.7	2KG3141 - ■■ C50-4 ■■■		
	16.5	145	82	3.1	2KG3141 - ■■ C48-4 ■■■		
	18.2	131	74	3.4	2KG3141 - ■■ C47-4 ■■■		
	20.1	119	67.1	3.8	2KG3141 - ■■ C46-4 ■■■		
	22.1	108	61.1	4.2	2KG3141 - ■■ C45-4 ■■■		
	Gearbox size H33 – motor frame size 71M – 4 poles						
	10.1	236	134	0.93	2KG3131 - ■■ C54-4 ■■■	18	
	11.4	210	119	1	2KG3131 - ■■ C53-4 ■■■		
	13	184	104	1.2	2KG3131 - ■■ C52-4 ■■■		
	14.8	162	91.3	1.4	2KG3131 - ■■ C51-4 ■■■		
	16.4	146	82.5	1.5	2KG3131 - ■■ C50-4 ■■■		
	18.8	127	71.9	1.7	2KG3131 - ■■ C48-4 ■■■		
	20.9	114	64.6	1.9	2KG3131 - ■■ C47-4 ■■■		
	23.2	103	58.3	2.1	2KG3131 - ■■ C46-4 ■■■		
	25.5	94	52.9	2.4	2KG3131 - ■■ C45-4 ■■■		
	28.1	85	48.1	2.6	2KG3131 - ■■ C44-4 ■■■		
	Gearbox size H32 – motor frame size 71M – 4 poles						
	30.6	78	44.1	2.3	2KG3131 - ■■ C35-4 ■■■		17
	34.4	69	39.2	3	2KG3131 - ■■ C34-4 ■■■		
	39.7	60	34	3.7	2KG3131 - ■■ C33-4 ■■■		
	42.5	56	31.8	3.9	2KG3131 - ■■ C32-4 ■■■		
	48.3	50	28	4.4	2KG3131 - ■■ C31-4 ■■■		
	55.1	43	24.5	5.1	2KG3131 - ■■ C30-4 ■■■		
	62.3	38	21.7	5.7	2KG3131 - ■■ C28-4 ■■■		
	68.7	35	19.6	6.3	2KG3131 - ■■ C27-4 ■■■		
	77.9	31	17.3	7.2	2KG3131 - ■■ C26-4 ■■■		
	86.3	28	15.6	8	2KG3131 - ■■ C25-4 ■■■		
	95.2	25	14.2	8.8	2KG3131 - ■■ C24-4 ■■■		
	104	23	12.9	9.6	2KG3131 - ■■ C23-4 ■■■		
	Gearbox size E61 – motor frame size 71M – 4 poles						
	109	22	12.4	3.7	2KG3661 - ■■ C22-4 ■■■	26	
	Gearbox size E41 – motor frame size 71M – 4 poles						
	119	20	11.3	2.8	2KG3641 - ■■ C21-4 ■■■	16	
	135	18	10	4.5	2KG3641 - ■■ C20-4 ■■■		

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.25	Gearbox size E31 – motor frame size 71M – 4 poles					
	145	17	9.33	1.9	2KG3631 - ■■ C18-4 ■■■	12
	163	15	8.3	2.2	2KG3631 - ■■ C17-4 ■■■	
	188	13	7.2	3	2KG3631 - ■■ C16-4 ■■■	
	201	12	6.73	4	2KG3631 - ■■ C15-4 ■■■	
	228	11	5.92	5.1	2KG3631 - ■■ C14-4 ■■■	
	261	9.2	5.18	7.6	2KG3631 - ■■ C13-4 ■■■	
	295	8.1	4.58	9.6	2KG3631 - ■■ C12-4 ■■■	
	325	7.3	4.15	8.4	2KG3631 - ■■ C11-4 ■■■	
0.37	Gearbox size H123 – motor frame size 90S – 8 poles					
	2.5	1404	268	3.6	2KG4121 - ■■ G60-8 ■■■	225
	2.7	1287	246	4	2KG4121 - ■■ G58-8 ■■■	
	Gearbox size H103 – motor frame size 90S – 8 poles					
	1.9	1881	359	1.6	2KG4101 - ■■ G61-8 ■■■	142
	2.1	1702	325	1.8	2KG4101 - ■■ G60-8 ■■■	
	2.4	1491	285	2.1	2KG4101 - ■■ G58-8 ■■■	
	2.6	1345	257	2.3	2KG4101 - ■■ G57-8 ■■■	
	2.9	1231	235	2.5	2KG4101 - ■■ G56-8 ■■■	
	3.2	1095	209	2.8	2KG4101 - ■■ G55-8 ■■■	
	3.5	1001	191	3.1	2KG4101 - ■■ G54-8 ■■■	
	3.8	920	176	3.4	2KG4101 - ■■ G53-8 ■■■	
	4.2	850	162	3.6	2KG4101 - ■■ G52-8 ■■■	
	4.5	789	151	3.9	2KG4101 - ■■ G51-8 ■■■	
	Gearbox size H83 – motor frame size 90S – 8 poles					
	2.2	1573	300	1.1	2KG3181 - ■■ G61-8 ■■■	89
	2.5	1418	271	1.2	2KG3181 - ■■ G60-8 ■■■	
	2.8	1279	244	1.3	2KG3181 - ■■ G58-8 ■■■	
	3.2	1118	214	1.5	2KG3181 - ■■ G57-8 ■■■	
	3.5	1004	192	1.7	2KG3181 - ■■ G56-8 ■■■	
	3.9	917	175	1.8	2KG3181 - ■■ G55-8 ■■■	
	Gearbox size H83 – motor frame size 71M – 4 poles					
	4.6	775	300	2.2	2KG3181 - ■■ D61-4 ■■■	85
	5.1	699	271	2.4	2KG3181 - ■■ D60-4 ■■■	
	5.6	630	244	2.7	2KG3181 - ■■ D58-4 ■■■	
	6.4	551	214	3	2KG3181 - ■■ D57-4 ■■■	
	7.1	495	192	3.4	2KG3181 - ■■ D56-4 ■■■	
	7.8	452	175	3.7	2KG3181 - ■■ D55-4 ■■■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1	n_2	M_2	i	f_B		
kW	rpm	Nm				kg
0.37	Gearbox size H63 – motor frame size 71M – 4 poles					
	4.9	725	281	1.1	2KG3161 -   D60-4  	49
	5.5	641	249	1.2	2KG3161 -   D58-4  	
	6.1	583	226	1.4	2KG3161 -   D57-4  	
	6.7	524	203	1.5	2KG3161 -   D56-4  	
	7.9	449	174	1.8	2KG3161 -   D55-4  	
	8.7	406	158	2	2KG3161 -   D54-4  	
	9.4	375	145	2.1	2KG3161 -   D53-4  	
	10.8	326	126	2.5	2KG3161 -   D52-4  	
	11.9	296	115	2.7	2KG3161 -   D51-4  	
	13.1	270	105	3	2KG3161 -   D50-4  	
	14.2	248	96.2	3.2	2KG3161 -   D48-4  	
	15.5	228	88.6	3.5	2KG3161 -   D47-4  	
	17	208	80.5	3.9	2KG3161 -   D46-4  	
	Gearbox size H43 – motor frame size 71M – 4 poles					
	7.4	479	186	0.94	2KG3141 -   D56-4  	29
	8.5	415	161	1.1	2KG3141 -   D55-4  	
	9.1	388	150	1.2	2KG3141 -   D54-4  	
	10.4	341	132	1.3	2KG3141 -   D53-4  	
	11.8	299	116	1.5	2KG3141 -   D52-4  	
	13.4	264	103	1.7	2KG3141 -   D51-4  	
	14.7	240	92.9	1.9	2KG3141 -   D50-4  	
	16.7	212	82	2.1	2KG3141 -   D48-4  	
	18.5	191	74	2.4	2KG3141 -   D47-4  	
	20.4	173	67.1	2.6	2KG3141 -   D46-4  	
	22.4	158	61.1	2.9	2KG3141 -   D45-4  	
	24.5	144	55.9	3.1	2KG3141 -   D44-4  	
	Gearbox size H42 – motor frame size 71M – 4 poles					
	26.7	132	51.3	2.2	2KG3141 -   D35-4  	28
	30.2	117	45.4	3.8	2KG3141 -   D34-4  	
	33.2	106	41.3	4.2	2KG3141 -   D33-4  	
	Gearbox size H33 – motor frame size 71M – 4 poles					
	15	236	91.3	0.93	2KG3131 -   D51-4  	19
	16.6	213	82.5	1	2KG3131 -   D50-4  	
	19.1	185	71.9	1.2	2KG3131 -   D48-4  	
	21.2	167	64.6	1.3	2KG3131 -   D47-4  	
	23.5	150	58.3	1.5	2KG3131 -   D46-4  	
	25.9	136	52.9	1.6	2KG3131 -   D45-4  	
	28.5	124	48.1	1.8	2KG3131 -   D44-4  	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 ——— A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.37	Gearbox size H32 – motor frame size 71M – 4 poles					18
	31.1	114	44.1	1.6	2KG3131 - ■■■D35-4■■■	
	34.9	101	39.2	2.1	2KG3131 - ■■■D34-4■■■	
	40.2	88	34	2.5	2KG3131 - ■■■D33-4■■■	
	43.1	82	31.8	2.7	2KG3131 - ■■■D32-4■■■	
	49	72	28	3	2KG3131 - ■■■D31-4■■■	
	55.9	63	24.5	3.5	2KG3131 - ■■■D30-4■■■	
	63.2	56	21.7	3.9	2KG3131 - ■■■D28-4■■■	
	69.8	51	19.6	4.3	2KG3131 - ■■■D27-4■■■	
	79.1	45	17.3	4.9	2KG3131 - ■■■D26-4■■■	
	87.6	40	15.6	5.5	2KG3131 - ■■■D25-4■■■	
	96.6	37	14.2	6	2KG3131 - ■■■D24-4■■■	
	106	33	12.9	6.6	2KG3131 - ■■■D23-4■■■	
	116	31	11.8	7.2	2KG3131 - ■■■D22-4■■■	
	130	27	10.6	7.7	2KG3131 - ■■■D21-4■■■	
	141	25	9.7	8	2KG3131 - ■■■D20-4■■■	
	157	23	8.75	8.6	2KG3131 - ■■■D18-4■■■	
	182	19	7.52	9.8	2KG3131 - ■■■D17-4■■■	
	183	19	7.5	9.6	2KG3131 - ■■■D16-4■■■	
	Gearbox size E41 – motor frame size 71M – 4 poles					17
	121	29	11.3	1.9	2KG3641 - ■■■D21-4■■■	
	137	26	10	3.1	2KG3641 - ■■■D20-4■■■	
	151	23	9.09	2.7	2KG3641 - ■■■D18-4■■■	
	168	21	8.17	4	2KG3641 - ■■■D17-4■■■	
	Gearbox size E31 – motor frame size 71M – 4 poles					13
	147	24	9.33	1.3	2KG3631 - ■■■D18-4■■■	
	165	21	8.3	1.5	2KG3631 - ■■■D17-4■■■	
	190	19	7.2	2	2KG3631 - ■■■D16-4■■■	
	204	17	6.73	2.8	2KG3631 - ■■■D15-4■■■	
	231	15	5.92	3.5	2KG3631 - ■■■D14-4■■■	
	264	13	5.18	5.2	2KG3631 - ■■■D13-4■■■	
	299	12	4.58	6.6	2KG3631 - ■■■D12-4■■■	
	330	11	4.15	5.8	2KG3631 - ■■■D11-4■■■	
	373	9.5	3.67	7.4	2KG3631 - ■■■D10-4■■■	
	414	8.5	3.31	7.6	2KG3631 - ■■■D08-4■■■	
0.55	Gearbox size H123 – motor frame size 90L – 8 poles					228
	2.5	2087	268	2.4	2KG4121 - ■■■H60-8■■■	
	2.7	1914	246	2.7	2KG4121 - ■■■H58-8■■■	
	3.1	1710	220	3	2KG4121 - ■■■H57-8■■■	
	3.4	1566	201	3.3	2KG4121 - ■■■H56-8■■■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1	n_2	M_2	i	f_B		
kW	rpm	Nm				kg
0.55	Gearbox size H103 – motor frame size 90L – 8 poles					
	1.9	2796	359	1.1	2KG4101 - ■ ■ H61-8 ■ ■ ■	145
	2.1	2531	325	1.2	2KG4101 - ■ ■ H60-8 ■ ■ ■	
	2.4	2216	285	1.4	2KG4101 - ■ ■ H58-8 ■ ■ ■	
	2.6	1999	257	1.6	2KG4101 - ■ ■ H57-8 ■ ■ ■	
	2.9	1830	235	1.7	2KG4101 - ■ ■ H56-8 ■ ■ ■	
	3.2	1628	209	1.9	2KG4101 - ■ ■ H55-8 ■ ■ ■	
	3.5	1488	191	2.1	2KG4101 - ■ ■ H54-8 ■ ■ ■	
	3.8	1368	176	2.3	2KG4101 - ■ ■ H53-8 ■ ■ ■	
	Gearbox size H103 – motor frame size 80M – 4 poles					
	3.9	1353	359	2.3	2KG4101 - ■ ■ E61-4 ■ ■ ■	140
	4.3	1224	325	2.5	2KG4101 - ■ ■ E60-4 ■ ■ ■	
	4.9	1072	285	2.9	2KG4101 - ■ ■ E58-4 ■ ■ ■	
	5.4	967	257	3.2	2KG4101 - ■ ■ E57-4 ■ ■ ■	
	5.9	886	235	3.5	2KG4101 - ■ ■ E56-4 ■ ■ ■	
	Gearbox size H83 – motor frame size 80M – 4 poles					
	4.6	1131	300	1.5	2KG3181 - ■ ■ E61-4 ■ ■ ■	87
	5.1	1020	271	1.6	2KG3181 - ■ ■ E60-4 ■ ■ ■	
	5.7	920	244	1.8	2KG3181 - ■ ■ E58-4 ■ ■ ■	
	6.5	804	214	2.1	2KG3181 - ■ ■ E57-4 ■ ■ ■	
	7.3	722	192	2.3	2KG3181 - ■ ■ E56-4 ■ ■ ■	
	8	660	175	2.5	2KG3181 - ■ ■ E55-4 ■ ■ ■	
	9	585	155	2.9	2KG3181 - ■ ■ E54-4 ■ ■ ■	
	9.7	540	144	3.1	2KG3181 - ■ ■ E53-4 ■ ■ ■	
	10.7	489	130	3.4	2KG3181 - ■ ■ E52-4 ■ ■ ■	
	11.7	450	120	3.7	2KG3181 - ■ ■ E51-4 ■ ■ ■	
	12.6	416	111	4	2KG3181 - ■ ■ E50-4 ■ ■ ■	
	Gearbox size H63 – motor frame size 80M – 4 poles					
	6.2	851	226	0.94	2KG3161 - ■ ■ E57-4 ■ ■ ■	51
	6.9	765	203	1	2KG3161 - ■ ■ E56-4 ■ ■ ■	
	8	655	174	1.2	2KG3161 - ■ ■ E55-4 ■ ■ ■	
	8.9	593	158	1.3	2KG3161 - ■ ■ E54-4 ■ ■ ■	
	9.6	547	145	1.5	2KG3161 - ■ ■ E53-4 ■ ■ ■	
	11	476	126	1.7	2KG3161 - ■ ■ E52-4 ■ ■ ■	
	12.2	432	115	1.9	2KG3161 - ■ ■ E51-4 ■ ■ ■	
	13.3	395	105	2	2KG3161 - ■ ■ E50-4 ■ ■ ■	
	14.5	362	96.2	2.2	2KG3161 - ■ ■ E48-4 ■ ■ ■	
	15.7	334	88.6	2.4	2KG3161 - ■ ■ E47-4 ■ ■ ■	
	17.3	303	80.5	2.6	2KG3161 - ■ ■ E46-4 ■ ■ ■	
	19	276	73.3	2.9	2KG3161 - ■ ■ E45-4 ■ ■ ■	
	20.8	253	67.1	3.2	2KG3161 - ■ ■ E44-4 ■ ■ ■	
	23.3	226	59.9	3.5	2KG3161 - ■ ■ E43-4 ■ ■ ■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.55	Gearbox size H43 – motor frame size 80M – 4 poles					
	12	436	116	1	2KG3141 - ■ ■ E52-4 ■ ■ ■	31
	13.6	386	103	1.2	2KG3141 - ■ ■ E51-4 ■ ■ ■	
	15	350	92.9	1.3	2KG3141 - ■ ■ E50-4 ■ ■ ■	
	17	309	82	1.5	2KG3141 - ■ ■ E48-4 ■ ■ ■	
	18.9	279	74	1.6	2KG3141 - ■ ■ E47-4 ■ ■ ■	
	20.8	253	67.1	1.8	2KG3141 - ■ ■ E46-4 ■ ■ ■	
	22.8	230	61.1	2	2KG3141 - ■ ■ E45-4 ■ ■ ■	
	24.9	211	55.9	2.1	2KG3141 - ■ ■ E44-4 ■ ■ ■	
	Gearbox size H42 – motor frame size 80M – 4 poles					
	27.2	193	51.3	1.5	2KG3141 - ■ ■ E35-4 ■ ■ ■	30
	30.7	171	45.4	2.6	2KG3141 - ■ ■ E34-4 ■ ■ ■	
	33.8	155	41.3	2.9	2KG3141 - ■ ■ E33-4 ■ ■ ■	
	37.6	140	37.1	3.2	2KG3141 - ■ ■ E32-4 ■ ■ ■	
	43.9	120	31.8	3.8	2KG3141 - ■ ■ E31-4 ■ ■ ■	
	Gearbox size H33 – motor frame size 80M – 4 poles					
	23.9	220	58.3	1	2KG3131 - ■ ■ E46-4 ■ ■ ■	21
	26.4	199	52.9	1.1	2KG3131 - ■ ■ E45-4 ■ ■ ■	
	29	181	48.1	1.2	2KG3131 - ■ ■ E44-4 ■ ■ ■	
	Gearbox size H32 – motor frame size 80M – 4 poles					
	31.6	166	44.1	1.1	2KG3131 - ■ ■ E35-4 ■ ■ ■	20
	35.6	148	39.2	1.4	2KG3131 - ■ ■ E34-4 ■ ■ ■	
	41	128	34	1.7	2KG3131 - ■ ■ E33-4 ■ ■ ■	
	43.9	120	31.8	1.8	2KG3131 - ■ ■ E32-4 ■ ■ ■	
	49.9	105	28	2.1	2KG3131 - ■ ■ E31-4 ■ ■ ■	
	56.9	92	24.5	2.4	2KG3131 - ■ ■ E30-4 ■ ■ ■	
	64.4	82	21.7	2.7	2KG3131 - ■ ■ E28-4 ■ ■ ■	
	71	74	19.6	3	2KG3131 - ■ ■ E27-4 ■ ■ ■	
	80.5	65	17.3	3.4	2KG3131 - ■ ■ E26-4 ■ ■ ■	
	89.2	59	15.6	3.7	2KG3131 - ■ ■ E25-4 ■ ■ ■	
	98.4	53	14.2	4.1	2KG3131 - ■ ■ E24-4 ■ ■ ■	
	108	49	12.9	4.5	2KG3131 - ■ ■ E23-4 ■ ■ ■	
	118	45	11.8	4.9	2KG3131 - ■ ■ E22-4 ■ ■ ■	
	132	40	10.6	5.3	2KG3131 - ■ ■ E21-4 ■ ■ ■	
	144	37	9.7	5.5	2KG3131 - ■ ■ E20-4 ■ ■ ■	
	159	33	8.75	5.9	2KG3131 - ■ ■ E18-4 ■ ■ ■	
	186	28	7.5	6.6	2KG3131 - ■ ■ E16-4 ■ ■ ■	
	186	28	7.52	6.7	2KG3131 - ■ ■ E17-4 ■ ■ ■	
	208	25	6.71	7.1	2KG3131 - ■ ■ E15-4 ■ ■ ■	
	226	23	6.16	7.3	2KG3131 - ■ ■ E14-4 ■ ■ ■	
	251	21	5.55	7.9	2KG3131 - ■ ■ E13-4 ■ ■ ■	
	292	18	4.77	8.9	2KG3131 - ■ ■ E12-4 ■ ■ ■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.55	Gearbox size E41 – motor frame size 80M – 4 poles					
	123	43	11.3	1.3	2KG3641 - ■■■ E21-4 ■■■	19
	140	38	10	2.1	2KG3641 - ■■■ E20-4 ■■■	
	153	34	9.09	1.9	2KG3641 - ■■■ E18-4 ■■■	
	171	31	8.17	2.8	2KG3641 - ■■■ E17-4 ■■■	
	199	26	7	3.7	2KG3641 - ■■■ E16-4 ■■■	
	Gearbox size E31 – motor frame size 80M – 4 poles					
	168	31	8.3	1	2KG3631 - ■■■ E17-4 ■■■	15
	194	27	7.2	1.4	2KG3631 - ■■■ E16-4 ■■■	
	207	25	6.73	1.9	2KG3631 - ■■■ E15-4 ■■■	
	236	22	5.92	2.4	2KG3631 - ■■■ E14-4 ■■■	
	269	20	5.18	3.6	2KG3631 - ■■■ E13-4 ■■■	
	305	17	4.58	4.5	2KG3631 - ■■■ E12-4 ■■■	
	336	16	4.15	4	2KG3631 - ■■■ E11-4 ■■■	
	380	14	3.67	5.1	2KG3631 - ■■■ E10-4 ■■■	
	421	13	3.31	5.2	2KG3631 - ■■■ E08-4 ■■■	
	465	11	3	7.1	2KG3631 - ■■■ E07-4 ■■■	
	511	10	2.73	7.8	2KG3631 - ■■■ E06-4 ■■■	
	558	9.4	2.5	7.8	2KG3631 - ■■■ E05-4 ■■■	
	623	8.4	2.24	8.5	2KG3631 - ■■■ E04-4 ■■■	

0.75	Gearbox size H143 – motor frame size 100L – 8 poles					
	2	3540	336	2.3	2KG4141 -   J62-8  	330
	2.3	3174	301	2.5	2KG4141 -   J61-8  	
	Gearbox size H123 – motor frame size 100L – 8 poles					
	2.5	2825	268	1.8	2KG4121 -   J60-8  	234
	2.8	2590	246	2	2KG4121 -   J58-8  	
	3.1	2314	220	2.2	2KG4121 -   J57-8  	
	3.4	2119	201	2.4	2KG4121 -   J56-8  	
	3.7	1952	185	2.6	2KG4121 -   J55-8  	
	4	1808	172	2.8	2KG4121 -   J54-8  	
	4.3	1681	160	3	2KG4121 -   J53-8  	
	4.6	1569	149	3.2	2KG4121 -   J52-8  	
	Gearbox size H103 – motor frame size 80M – 4 poles					
	3.9	1845	359	1.7	2KG4101 -   F61-4  	141
	4.3	1670	325	1.9	2KG4101 -   F60-4  	
	4.9	1462	285	2.1	2KG4101 -   F58-4  	
	5.4	1319	257	2.4	2KG4101 -   F57-4  	
	5.9	1208	235	2.6	2KG4101 -   F56-4  	
	6.7	1074	209	2.9	2KG4101 -   F55-4  	
	7.3	982	191	3.2	2KG4101 -   F54-4  	
7.9	903	176	3.4	2KG4101 -   F53-4  		
8.6	834	162	3.7	2KG4101 -   F52-4  		
9.3	774	151	4	2KG4101 -   F51-4  		

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.75	Gearbox size H83 – motor frame size 80M – 4 poles					
	4.6	1542	300	1.1	2KG3181 - ■ ■ F61-4 ■ ■ ■	88
	5.1	1391	271	1.2	2KG3181 - ■ ■ F60-4 ■ ■ ■	
	5.7	1254	244	1.3	2KG3181 - ■ ■ F58-4 ■ ■ ■	
	6.5	1097	214	1.5	2KG3181 - ■ ■ F57-4 ■ ■ ■	
	7.3	985	192	1.7	2KG3181 - ■ ■ F56-4 ■ ■ ■	
	8	899	175	1.9	2KG3181 - ■ ■ F55-4 ■ ■ ■	
	9	798	155	2.1	2KG3181 - ■ ■ F54-4 ■ ■ ■	
	9.7	737	144	2.3	2KG3181 - ■ ■ F53-4 ■ ■ ■	
	10.7	666	130	2.5	2KG3181 - ■ ■ F52-4 ■ ■ ■	
	11.7	614	120	2.7	2KG3181 - ■ ■ F51-4 ■ ■ ■	
	12.6	568	111	3	2KG3181 - ■ ■ F50-4 ■ ■ ■	
	13.6	527	103	3.2	2KG3181 - ■ ■ F48-4 ■ ■ ■	
	15.4	465	90.5	3.6	2KG3181 - ■ ■ F47-4 ■ ■ ■	
	16.7	429	83.6	3.9	2KG3181 - ■ ■ F46-4 ■ ■ ■	
	18.6	384	74.9	4.4	2KG3181 - ■ ■ F45-4 ■ ■ ■	
	Gearbox size H63 – motor frame size 80M – 4 poles					
	8.9	809	158	0.99	2KG3161 - ■ ■ F54-4 ■ ■ ■	52
	9.6	746	145	1.1	2KG3161 - ■ ■ F53-4 ■ ■ ■	
	11	649	126	1.2	2KG3161 - ■ ■ F52-4 ■ ■ ■	
	12.2	589	115	1.4	2KG3161 - ■ ■ F51-4 ■ ■ ■	
	13.3	538	105	1.5	2KG3161 - ■ ■ F50-4 ■ ■ ■	
	14.5	494	96.2	1.6	2KG3161 - ■ ■ F48-4 ■ ■ ■	
	15.7	455	88.6	1.8	2KG3161 - ■ ■ F47-4 ■ ■ ■	
	17.3	413	80.5	1.9	2KG3161 - ■ ■ F46-4 ■ ■ ■	
	19	376	73.3	2.1	2KG3161 - ■ ■ F45-4 ■ ■ ■	
	20.8	345	67.1	2.3	2KG3161 - ■ ■ F44-4 ■ ■ ■	
	23.3	308	59.9	2.6	2KG3161 - ■ ■ F43-4 ■ ■ ■	
	26.1	275	53.5	2.9	2KG3161 - ■ ■ F42-4 ■ ■ ■	
	Gearbox size H62 – motor frame size 80M – 4 poles					
	29	247	48.1	2.2	2KG3161 - ■ ■ F31-4 ■ ■ ■	50
	33.2	216	42.1	3.7	2KG3161 - ■ ■ F30-4 ■ ■ ■	
	Gearbox size H43 – motor frame size 80M – 4 poles					
	15	477	92.9	0.94	2KG3141 - ■ ■ F50-4 ■ ■ ■	33
	17	421	82	1.1	2KG3141 - ■ ■ F48-4 ■ ■ ■	
	18.9	380	74	1.2	2KG3141 - ■ ■ F47-4 ■ ■ ■	
	20.8	345	67.1	1.3	2KG3141 - ■ ■ F46-4 ■ ■ ■	
	22.8	314	61.1	1.4	2KG3141 - ■ ■ F45-4 ■ ■ ■	
	24.9	287	55.9	1.6	2KG3141 - ■ ■ F44-4 ■ ■ ■	
	Gearbox size H42 – motor frame size 80M – 4 poles					
	27.2	263	51.3	1.1	2KG3141 - ■ ■ F35-4 ■ ■ ■	32
	30.7	233	45.4	1.9	2KG3141 - ■ ■ F34-4 ■ ■ ■	
	33.8	212	41.3	2.1	2KG3141 - ■ ■ F33-4 ■ ■ ■	
	37.6	190	37.1	2.4	2KG3141 - ■ ■ F32-4 ■ ■ ■	
	43.9	163	31.8	2.8	2KG3141 - ■ ■ F31-4 ■ ■ ■	
	48.5	148	28.7	3	2KG3141 - ■ ■ F30-4 ■ ■ ■	
52.6	136	26.5	3.3	2KG3141 - ■ ■ F28-4 ■ ■ ■		
60.5	118	23.1	3.8	2KG3141 - ■ ■ F27-4 ■ ■ ■		

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.75	Gearbox size H32 – motor frame size 80M – 4 poles					21
	35.6	201	39.2	1	2KG3131 - ■■■ F34-4 ■■■	
	41	175	34	1.3	2KG3131 - ■■■ F33-4 ■■■	
	43.9	163	31.8	1.3	2KG3131 - ■■■ F32-4 ■■■	
	49.9	144	28	1.5	2KG3131 - ■■■ F31-4 ■■■	
	56.9	126	24.5	1.7	2KG3131 - ■■■ F30-4 ■■■	
	64.4	111	21.7	2	2KG3131 - ■■■ F28-4 ■■■	
	71	101	19.6	2.2	2KG3131 - ■■■ F27-4 ■■■	
	80.5	89	17.3	2.5	2KG3131 - ■■■ F26-4 ■■■	
	89.2	80	15.6	2.7	2KG3131 - ■■■ F25-4 ■■■	
	98.4	73	14.2	3	2KG3131 - ■■■ F24-4 ■■■	
	108	66	12.9	3.3	2KG3131 - ■■■ F23-4 ■■■	
	118	61	11.8	3.6	2KG3131 - ■■■ F22-4 ■■■	
	132	54	10.6	3.9	2KG3131 - ■■■ F21-4 ■■■	
	144	50	9.7	4	2KG3131 - ■■■ F20-4 ■■■	
	159	45	8.75	4.3	2KG3131 - ■■■ F18-4 ■■■	
	186	39	7.5	4.8	2KG3131 - ■■■ F16-4 ■■■	
	186	39	7.52	4.9	2KG3131 - ■■■ F17-4 ■■■	
	208	35	6.71	5.2	2KG3131 - ■■■ F15-4 ■■■	
	226	32	6.16	5.4	2KG3131 - ■■■ F14-4 ■■■	
	251	29	5.55	5.8	2KG3131 - ■■■ F13-4 ■■■	
	292	25	4.77	6.5	2KG3131 - ■■■ F12-4 ■■■	
Gearbox size E61 – motor frame size 80M – 4 poles						31
112	64	12.4	1.3	2KG3661 - ■■■ F22-4 ■■■		
125	57	11.2	1.6	2KG3661 - ■■■ F21-4 ■■■		
138	52	10.1	1.8	2KG3661 - ■■■ F20-4 ■■■		
158	45	8.82	3.3	2KG3661 - ■■■ F18-4 ■■■		
Gearbox size E41 – motor frame size 80M – 4 poles						20
123	58	11.3	0.95	2KG3641 - ■■■ F21-4 ■■■		
140	51	10	1.6	2KG3641 - ■■■ F20-4 ■■■		
153	47	9.09	1.4	2KG3641 - ■■■ F18-4 ■■■		
171	42	8.17	2	2KG3641 - ■■■ F17-4 ■■■		
199	36	7	2.7	2KG3641 - ■■■ F16-4 ■■■		
220	33	6.33	3.5	2KG3641 - ■■■ F15-4 ■■■		

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.75	Gearbox size E31 – motor frame size 80M – 4 poles					16
	194	37	7.2	1	2KG3631 - ■ ■ F16-4 ■ ■ ■	
	207	35	6.73	1.4	2KG3631 - ■ ■ F15-4 ■ ■ ■	
	236	30	5.92	1.7	2KG3631 - ■ ■ F14-4 ■ ■ ■	
	269	27	5.18	2.6	2KG3631 - ■ ■ F13-4 ■ ■ ■	
	305	24	4.58	3.3	2KG3631 - ■ ■ F12-4 ■ ■ ■	
	336	21	4.15	2.9	2KG3631 - ■ ■ F11-4 ■ ■ ■	
	380	19	3.67	3.7	2KG3631 - ■ ■ F10-4 ■ ■ ■	
	421	17	3.31	3.8	2KG3631 - ■ ■ F08-4 ■ ■ ■	
	465	15	3	5.2	2KG3631 - ■ ■ F07-4 ■ ■ ■	
	511	14	2.73	5.7	2KG3631 - ■ ■ F06-4 ■ ■ ■	
	558	13	2.5	5.7	2KG3631 - ■ ■ F05-4 ■ ■ ■	
	623	12	2.24	6.3	2KG3631 - ■ ■ F04-4 ■ ■ ■	
	680	11	2.05	7.6	2KG3631 - ■ ■ F03-4 ■ ■ ■	
754	9.5	1.85	8.6	2KG3631 - ■ ■ F02-4 ■ ■ ■		
877	8.2	1.59	8.8	2KG3631 - ■ ■ F01-4 ■ ■ ■		
1.1	Gearbox size H143 – motor frame size 100L – 8 poles					332
	2	5192	336	1.5	2KG4141 - ■ ■ K62-8 ■ ■ ■	
	2.3	4655	301	1.7	2KG4141 - ■ ■ K61-8 ■ ■ ■	
	2.5	4267	276	1.9	2KG4141 - ■ ■ K60-8 ■ ■ ■	
	2.7	3935	255	2	2KG4141 - ■ ■ K58-8 ■ ■ ■	
	2.9	3647	236	2.2	2KG4141 - ■ ■ K57-8 ■ ■ ■	
	3	3467	224	2.3	2KG4141 - ■ ■ K56-8 ■ ■ ■	
	3.2	3240	210	2.5	2KG4141 - ■ ■ K55-8 ■ ■ ■	
	3.7	2858	185	2.8	2KG4141 - ■ ■ K54-8 ■ ■ ■	
	3.9	2696	175	3	2KG4141 - ■ ■ K53-8 ■ ■ ■	
	4.3	2416	156	3.3	2KG4141 - ■ ■ K52-8 ■ ■ ■	
	Gearbox size H123 – motor frame size 100L – 8 poles					236
	2.5	4143	268	1.2	2KG4121 - ■ ■ K60-8 ■ ■ ■	
	2.8	3799	246	1.3	2KG4121 - ■ ■ K58-8 ■ ■ ■	
	3.1	3394	220	1.5	2KG4121 - ■ ■ K57-8 ■ ■ ■	
	3.4	3109	201	1.6	2KG4121 - ■ ■ K56-8 ■ ■ ■	
	3.7	2864	185	1.8	2KG4121 - ■ ■ K55-8 ■ ■ ■	
	4	2651	172	1.9	2KG4121 - ■ ■ K54-8 ■ ■ ■	
	4.3	2466	160	2.1	2KG4121 - ■ ■ K53-8 ■ ■ ■	
	4.6	2302	149	2.2	2KG4121 - ■ ■ K52-8 ■ ■ ■	
	Gearbox size H123 – motor frame size 90S – 4 poles					227
	5.3	1991	268	2.6	2KG4121 - ■ ■ G60-4 ■ ■ ■	
	5.8	1826	246	2.8	2KG4121 - ■ ■ G58-4 ■ ■ ■	
	6.4	1631	220	3.1	2KG4121 - ■ ■ G57-4 ■ ■ ■	

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.1	Gearbox size H103 – motor frame size 90S – 4 poles					
	3.9	2667	359	1.2	2KG4101 - ■■ G61-4 ■■■	144
	4.4	2414	325	1.3	2KG4101 - ■■ G60-4 ■■■	
	5	2114	285	1.5	2KG4101 - ■■ G58-4 ■■■	
	5.5	1907	257	1.6	2KG4101 - ■■ G57-4 ■■■	
	6	1746	235	1.8	2KG4101 - ■■ G56-4 ■■■	
	6.8	1553	209	2	2KG4101 - ■■ G55-4 ■■■	
	7.4	1420	191	2.2	2KG4101 - ■■ G54-4 ■■■	
	8	1305	176	2.4	2KG4101 - ■■ G53-4 ■■■	
	8.7	1206	162	2.6	2KG4101 - ■■ G52-4 ■■■	
	9.4	1119	151	2.8	2KG4101 - ■■ G51-4 ■■■	
	10.1	1042	140	3	2KG4101 - ■■ G50-4 ■■■	
	11.2	942	127	3.3	2KG4101 - ■■ G48-4 ■■■	
	12.1	867	117	3.6	2KG4101 - ■■ G47-4 ■■■	
	Gearbox size H83 – motor frame size 90S – 4 poles					
	5.8	1814	244	0.93	2KG3181 - ■■ G58-4 ■■■	91
	6.6	1586	214	1.1	2KG3181 - ■■ G57-4 ■■■	
	7.4	1424	192	1.2	2KG3181 - ■■ G56-4 ■■■	
	8.1	1301	175	1.3	2KG3181 - ■■ G55-4 ■■■	
	9.1	1154	155	1.5	2KG3181 - ■■ G54-4 ■■■	
	9.9	1065	144	1.6	2KG3181 - ■■ G53-4 ■■■	
	10.9	964	130	1.7	2KG3181 - ■■ G52-4 ■■■	
	11.8	887	120	1.9	2KG3181 - ■■ G51-4 ■■■	
	12.8	821	111	2	2KG3181 - ■■ G50-4 ■■■	
	13.8	762	103	2.2	2KG3181 - ■■ G48-4 ■■■	
	15.6	672	90.5	2.5	2KG3181 - ■■ G47-4 ■■■	
	16.9	621	83.6	2.7	2KG3181 - ■■ G46-4 ■■■	
	18.9	556	74.9	3	2KG3181 - ■■ G45-4 ■■■	
	20.5	513	69.1	3.3	2KG3181 - ■■ G44-4 ■■■	
	24.4	430	57.9	3.9	2KG3181 - ■■ G43-4 ■■■	
	Gearbox size H82 – motor frame size 90S – 4 poles					
	27.9	377	50.7	3.9	2KG3181 - ■■ G31-4 ■■■	89
	30.9	340	45.8	4.9	2KG3181 - ■■ G30-4 ■■■	
	Gearbox size H63 – motor frame size 90S – 4 poles					
	12.3	852	115	0.94	2KG3161 - ■■ G51-4 ■■■	55
	13.5	778	105	1	2KG3161 - ■■ G50-4 ■■■	
	14.7	714	96.2	1.1	2KG3161 - ■■ G48-4 ■■■	
	16	658	88.6	1.2	2KG3161 - ■■ G47-4 ■■■	
	17.6	597	80.5	1.3	2KG3161 - ■■ G46-4 ■■■	
	19.3	544	73.3	1.5	2KG3161 - ■■ G45-4 ■■■	
	21.1	498	67.1	1.6	2KG3161 - ■■ G44-4 ■■■	
	23.6	445	59.9	1.8	2KG3161 - ■■ G43-4 ■■■	
26.5	397	53.5	2	2KG3161 - ■■ G42-4 ■■■		

All values apply at 50 Hz

For types, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For position of the connection syst. acc. to the fig., see p. 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.1	Gearbox size H62 – motor frame size 90S – 4 poles					53
	29.4	357	48.1	1.5	2KG3161 - ■■ G31-4 ■■■	
	33.6	312	42.1	2.6	2KG3161 - ■■ G30-4 ■■■	
	37.5	280	37.8	2.9	2KG3161 - ■■ G28-4 ■■■	
	41	256	34.5	3.1	2KG3161 - ■■ G27-4 ■■■	
	46.2	227	30.6	3.5	2KG3161 - ■■ G26-4 ■■■	36
	Gearbox size H43 – motor frame size 90S – 4 poles					
	23.1	454	61.1	0.99	2KG3141 - ■■ G45-4 ■■■	
	25.3	415	55.9	1.1	2KG3141 - ■■ G44-4 ■■■	
	28.3	371	50	1.2	2KG3141 - ■■ G43-4 ■■■	35
	30.8	341	45.9	1.3	2KG3141 - ■■ G42-4 ■■■	
	Gearbox size H42 – motor frame size 90S – 4 poles					
	31.2	337	45.4	1.3	2KG3141 - ■■ G34-4 ■■■	
	34.3	306	41.3	1.5	2KG3141 - ■■ G33-4 ■■■	
	38.2	275	37.1	1.6	2KG3141 - ■■ G32-4 ■■■	
	44.5	236	31.8	1.9	2KG3141 - ■■ G31-4 ■■■	
	49.2	213	28.7	2.1	2KG3141 - ■■ G30-4 ■■■	
	53.3	197	26.5	2.3	2KG3141 - ■■ G28-4 ■■■	
	61.3	171	23.1	2.6	2KG3141 - ■■ G27-4 ■■■	
	67.5	156	21	2.9	2KG3141 - ■■ G26-4 ■■■	
	74	142	19.1	3.2	2KG3141 - ■■ G25-4 ■■■	
	80.6	130	17.6	3.5	2KG3141 - ■■ G24-4 ■■■	
	87.5	120	16.2	3.6	2KG3141 - ■■ G23-4 ■■■	
	96.4	109	14.7	3.9	2KG3141 - ■■ G22-4 ■■■	24
	Gearbox size H32 – motor frame size 90S – 4 poles					
	44.5	236	31.8	0.93	2KG3131 - ■■ G32-4 ■■■	
	50.6	208	28	1.1	2KG3131 - ■■ G31-4 ■■■	
	57.8	182	24.5	1.2	2KG3131 - ■■ G30-4 ■■■	
	65.3	161	21.7	1.4	2KG3131 - ■■ G28-4 ■■■	
	72	146	19.6	1.5	2KG3131 - ■■ G27-4 ■■■	
	81.7	129	17.3	1.7	2KG3131 - ■■ G26-4 ■■■	
	90.5	116	15.6	1.9	2KG3131 - ■■ G25-4 ■■■	
	99.8	105	14.2	2.1	2KG3131 - ■■ G24-4 ■■■	
	110	96	12.9	2.3	2KG3131 - ■■ G23-4 ■■■	
	120	88	11.8	2.5	2KG3131 - ■■ G22-4 ■■■	
	134	79	10.6	2.7	2KG3131 - ■■ G21-4 ■■■	
	146	72	9.7	2.8	2KG3131 - ■■ G20-4 ■■■	
	162	65	8.75	3	2KG3131 - ■■ G18-4 ■■■	
	188	56	7.52	3.4	2KG3131 - ■■ G17-4 ■■■	
	189	56	7.5	3.3	2KG3131 - ■■ G16-4 ■■■	
	211	50	6.71	3.6	2KG3131 - ■■ G15-4 ■■■	
	230	46	6.16	3.7	2KG3131 - ■■ G14-4 ■■■	
	255	41	5.55	4	2KG3131 - ■■ G13-4 ■■■	
	297	35	4.77	4.5	2KG3131 - ■■ G12-4 ■■■	51
	Gearbox size E81 – motor frame size 90S – 4 poles					
	137	77	10.3	3	2KG3681 - ■■ G18-4 ■■■	
	150	70	9.46	3	2KG3681 - ■■ G17-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg	
1.1	Gearbox size E61 – motor frame size 90S – 4 poles						
	127	83	11.2	1.1	2KG3661 - ■■ G21-4 ■■■	34	
	140	75	10.1	1.3	2KG3661 - ■■ G20-4 ■■■		
	160	66	8.82	2.3	2KG3661 - ■■ G18-4 ■■■		
	179	59	7.92	2.9	2KG3661 - ■■ G17-4 ■■■		
	196	54	7.23	2.8	2KG3661 - ■■ G16-4 ■■■		
	Gearbox size E41 – motor frame size 90S – 4 poles						
	142	74	10	1.1	2KG3641 - ■■ G22-4 ■■■	23	
	156	68	9.09	0.95	2KG3641 - ■■ G18-4 ■■■		
	173	61	8.17	1.4	2KG3641 - ■■ G17-4 ■■■		
	202	52	7	1.9	2KG3641 - ■■ G16-4 ■■■		
	224	47	6.33	2.4	2KG3641 - ■■ G15-4 ■■■		
	242	43	5.85	2.8	2KG3641 - ■■ G14-4 ■■■		
	279	38	5.08	3.2	2KG3641 - ■■ G13-4 ■■■		
	306	34	4.62	3.8	2KG3641 - ■■ G12-4 ■■■		
	336	31	4.21	4.8	2KG3641 - ■■ G11-4 ■■■		
	Gearbox size E31 – motor frame size 90S – 4 poles						
	210	50	6.73	0.96	2KG3631 - ■■ G15-4 ■■■	19	
	239	44	5.92	1.2	2KG3631 - ■■ G14-4 ■■■		
	273	39	5.18	1.8	2KG3631 - ■■ G13-4 ■■■		
	309	34	4.58	2.3	2KG3631 - ■■ G12-4 ■■■		
	341	31	4.15	2	2KG3631 - ■■ G11-4 ■■■		
	386	27	3.67	2.6	2KG3631 - ■■ G10-4 ■■■		
	427	25	3.31	2.6	2KG3631 - ■■ G08-4 ■■■		
	472	22	3	3.6	2KG3631 - ■■ G07-4 ■■■		
	518	20	2.73	3.9	2KG3631 - ■■ G06-4 ■■■		
	566	19	2.5	3.9	2KG3631 - ■■ G05-4 ■■■		
	632	17	2.24	4.3	2KG3631 - ■■ G04-4 ■■■		
	690	15	2.05	5.3	2KG3631 - ■■ G03-4 ■■■		
	765	14	1.85	6	2KG3631 - ■■ G02-4 ■■■		
	890	12	1.59	6.1	2KG3631 - ■■ G01-4 ■■■		
	1.5	Gearbox size H143 – motor frame size 112M – 8 poles					
		2.1	6829	336	1.2	2KG4141 - ■■ L62-8 ■■■	334
2.3		6123	301	1.3	2KG4141 - ■■ L61-8 ■■■		
2.6		5613	276	1.4	2KG4141 - ■■ L60-8 ■■■		
2.8		5175	255	1.5	2KG4141 - ■■ L58-8 ■■■		
3		4796	236	1.7	2KG4141 - ■■ L57-8 ■■■		
3.1		4560	224	1.8	2KG4141 - ■■ L56-8 ■■■		
3.4		4262	210	1.9	2KG4141 - ■■ L55-8 ■■■		
3.8		3760	185	2.1	2KG4141 - ■■ L54-8 ■■■		
4		3546	175	2.3	2KG4141 - ■■ L53-8 ■■■		
4.5		3178	156	2.5	2KG4141 - ■■ L52-8 ■■■		
4.9		2934	144	2.7	2KG4141 - ■■ L51-8 ■■■		
5.7		2507	123	3.2	2KG4141 - ■■ L50-8 ■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.5	Gearbox size H123 – motor frame size 112M – 8 poles					238
	2.6	5449	268	0.94	2KG4121 - L60-8	
	2.9	4997	246	1	2KG4121 - L58-8	
	3.2	4465	220	1.1	2KG4121 - L57-8	
	3.5	4089	201	1.2	2KG4121 - L56-8	
	3.8	3766	185	1.4	2KG4121 - L55-8	
	4.1	3487	172	1.5	2KG4121 - L54-8	
	4.4	3243	160	1.6	2KG4121 - L53-8	
	4.7	3027	149	1.7	2KG4121 - L52-8	
	Gearbox size H123 – motor frame size 90L – 4 poles					230
	5.3	2705	268	1.9	2KG4121 - H60-4	
	5.8	2481	246	2.1	2KG4121 - H58-4	
	6.5	2217	220	2.3	2KG4121 - H57-4	
	7.1	2030	201	2.5	2KG4121 - H56-4	
	7.7	1870	185	2.7	2KG4121 - H55-4	
	8.3	1731	172	2.9	2KG4121 - H54-4	
	8.9	1610	160	3.2	2KG4121 - H53-4	
	Gearbox size H103 – motor frame size 90L – 4 poles					147
	4.4	3281	325	0.94	2KG4101 - H60-4	
	5	2872	285	1.1	2KG4101 - H58-4	
	5.5	2591	257	1.2	2KG4101 - H57-4	
	6	2373	235	1.3	2KG4101 - H56-4	
	6.8	2111	209	1.5	2KG4101 - H55-4	
	7.4	1929	191	1.6	2KG4101 - H54-4	
	8.1	1773	176	1.7	2KG4101 - H53-4	
	8.7	1638	162	1.9	2KG4101 - H52-4	
	9.4	1520	151	2	2KG4101 - H51-4	
	10.1	1416	140	2.2	2KG4101 - H50-4	
	11.2	1280	127	2.4	2KG4101 - H48-4	
	12.2	1179	117	2.6	2KG4101 - H47-4	
	13.5	1060	105	2.9	2KG4101 - H46-4	
	14.6	978	96.9	3.2	2KG4101 - H45-4	
	17.3	829	82.1	3.7	2KG4101 - H44-4	
	Gearbox size H83 – motor frame size 90L – 4 poles					94
	8.1	1767	175	0.95	2KG3181 - H55-4	
	9.1	1568	155	1.1	2KG3181 - H54-4	
	9.9	1448	144	1.2	2KG3181 - H53-4	
	10.9	1309	130	1.3	2KG3181 - H52-4	
	11.9	1206	120	1.4	2KG3181 - H51-4	
	12.8	1115	111	1.5	2KG3181 - H50-4	
	13.8	1035	103	1.6	2KG3181 - H48-4	
	15.7	913	90.5	1.8	2KG3181 - H47-4	
	17	843	83.6	2	2KG3181 - H46-4	
	19	755	74.9	2.2	2KG3181 - H45-4	
	20.6	697	69.1	2.4	2KG3181 - H44-4	
	24.5	584	57.9	2.9	2KG3181 - H43-4	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.5	Gearbox size H82 – motor frame size 90L – 4 poles					92
	28	512	50.7	2.9	2KG3181 - H31-4	
	31	462	45.8	3.6	2KG3181 - H30-4	
	33.9	423	41.9	4	2KG3181 - H28-4	
	Gearbox size H63 – motor frame size 90L – 4 poles					58
	17.6	812	80.5	0.99	2KG3161 - H46-4	
	19.4	739	73.3	1.1	2KG3161 - H45-4	
	21.1	677	67.1	1.2	2KG3161 - H44-4	
	23.7	604	59.9	1.3	2KG3161 - H43-4	
	26.6	539	53.5	1.5	2KG3161 - H42-4	
	Gearbox size H62 – motor frame size 90L – 4 poles					56
	29.5	485	48.1	1.1	2KG3161 - H31-4	
	33.8	424	42.1	1.9	2KG3161 - H30-4	
	37.6	381	37.8	2.1	2KG3161 - H28-4	
	41.2	348	34.5	2.3	2KG3161 - H27-4	
	46.4	309	30.6	2.6	2KG3161 - H26-4	
	50.3	285	28.3	2.8	2KG3161 - H25-4	
	55.6	258	25.6	3.1	2KG3161 - H24-4	
	60.3	237	23.5	3.4	2KG3161 - H23-4	
	65.3	220	21.8	3.6	2KG3161 - H22-4	
	Gearbox size H42 – motor frame size 90L – 4 poles					38
	31.3	458	45.4	0.98	2KG3141 - H34-4	
	34.4	416	41.3	1.1	2KG3141 - H33-4	
	38.3	374	37.1	1.2	2KG3141 - H32-4	
	44.7	320	31.8	1.4	2KG3141 - H31-4	
	49.4	290	28.7	1.6	2KG3141 - H30-4	
	53.5	268	26.5	1.7	2KG3141 - H28-4	
	61.6	233	23.1	1.9	2KG3141 - H27-4	
	67.8	211	21	2.1	2KG3141 - H26-4	
	74.2	193	19.1	2.3	2KG3141 - H25-4	
	80.9	177	17.6	2.5	2KG3141 - H24-4	
	87.8	163	16.2	2.6	2KG3141 - H23-4	
	96.7	148	14.7	2.8	2KG3141 - H22-4	
	106	135	13.4	3	2KG3141 - H21-4	
	116	124	12.3	3.2	2KG3141 - H20-4	
	130	110	10.9	3.5	2KG3141 - H18-4	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.5	Gearbox size H32 – motor frame size 90L – 4 poles					
	65.5	219	21.7	1	2KG3131 - ■■■ H28-4 ■■■	28
	72.3	198	19.6	1.1	2KG3131 - ■■■ H27-4 ■■■	
	81.9	175	17.3	1.3	2KG3131 - ■■■ H26-4 ■■■	
	90.8	158	15.6	1.4	2KG3131 - ■■■ H25-4 ■■■	
	100	143	14.2	1.5	2KG3131 - ■■■ H24-4 ■■■	
	110	130	12.9	1.7	2KG3131 - ■■■ H23-4 ■■■	
	120	119	11.8	1.8	2KG3131 - ■■■ H22-4 ■■■	
	134	107	10.6	2	2KG3131 - ■■■ H21-4 ■■■	
	146	98	9.7	2	2KG3131 - ■■■ H20-4 ■■■	
	162	88	8.75	2.2	2KG3131 - ■■■ H18-4 ■■■	
	189	76	7.5	2.4	2KG3131 - ■■■ H16-4 ■■■	
	189	76	7.52	2.5	2KG3131 - ■■■ H17-4 ■■■	
	212	68	6.71	2.7	2KG3131 - ■■■ H15-4 ■■■	
	231	62	6.16	2.7	2KG3131 - ■■■ H14-4 ■■■	
	256	56	5.55	2.9	2KG3131 - ■■■ H13-4 ■■■	
	298	48	4.77	3.3	2KG3131 - ■■■ H12-4 ■■■	
	Gearbox size E81 – motor frame size 90L – 4 poles					
	137	104	10.3	2.2	2KG3681 - ■■■ H18-4 ■■■	55
	150	95	9.46	2.2	2KG3681 - ■■■ H17-4 ■■■	
	169	85	8.42	2.9	2KG3681 - ■■■ H16-4 ■■■	
	185	78	7.69	3.2	2KG3681 - ■■■ H15-4 ■■■	
	Gearbox size E61 – motor frame size 90L – 4 poles					
	141	102	10.1	0.93	2KG3661 - ■■■ H20-4 ■■■	37
	161	89	8.82	1.7	2KG3661 - ■■■ H18-4 ■■■	
	179	80	7.92	2.1	2KG3661 - ■■■ H17-4 ■■■	
	196	73	7.23	2.1	2KG3661 - ■■■ H16-4 ■■■	
	221	65	6.42	2.6	2KG3661 - ■■■ H15-4 ■■■	
	240	60	5.92	3.2	2KG3661 - ■■■ H14-4 ■■■	
	Gearbox size E41 – motor frame size 90L – 4 poles					
	174	82	8.17	1	2KG3641 - ■■■ H17-4 ■■■	26
	203	71	7	1.4	2KG3641 - ■■■ H16-4 ■■■	
	224	64	6.33	1.8	2KG3641 - ■■■ H15-4 ■■■	
	243	59	5.85	2	2KG3641 - ■■■ H14-4 ■■■	
	280	51	5.08	2.3	2KG3641 - ■■■ H13-4 ■■■	
	307	47	4.62	2.8	2KG3641 - ■■■ H12-4 ■■■	
337	43	4.21	3.5	2KG3641 - ■■■ H11-4 ■■■		
367	39	3.87	4.1	2KG3641 - ■■■ H10-4 ■■■		
399	36	3.56	3.9	2KG3641 - ■■■ H08-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output speed P_1 kW	Output torque n_2 rpm	Gear ratio M_2 Nm	Service factor i	Order No.	Weight kg
1.5 Gearbox size E31 – motor frame size 90L – 4 poles					
274	52	5.18	1.3	2KG3631 - ■■■H13-4■■■	23
310	46	4.58	1.7	2KG3631 - ■■■H12-4■■■	
342	42	4.15	1.5	2KG3631 - ■■■H11-4■■■	
387	37	3.67	1.9	2KG3631 - ■■■H10-4■■■	
429	33	3.31	1.9	2KG3631 - ■■■H08-4■■■	
473	30	3	2.6	2KG3631 - ■■■H07-4■■■	
520	28	2.73	2.9	2KG3631 - ■■■H06-4■■■	
568	25	2.5	2.9	2KG3631 - ■■■H05-4■■■	
634	23	2.24	3.2	2KG3631 - ■■■H04-4■■■	
693	21	2.05	3.9	2KG3631 - ■■■H03-4■■■	
768	19	1.85	4.4	2KG3631 - ■■■H02-4■■■	
893	16	1.59	4.5	2KG3631 - ■■■H01-4■■■	
2.2 Gearbox size H183 – motor frame size 132S – 8 poles					
2.9	7318	244	2.7	2KG4181 - ■■■M53-8■■■	697
4.6	4596	153	4.4	2KG4181 - ■■■M48-8■■■	
Gearbox size H163 – motor frame size 132S – 8 poles					
2	10253	342	1.4	2KG4161 - ■■■M60-8■■■	537
2.2	9407	313	1.5	2KG4161 - ■■■M58-8■■■	
2.4	8681	289	1.6	2KG4161 - ■■■M57-8■■■	
2.6	8053	268	1.7	2KG4161 - ■■■M56-8■■■	
2.8	7596	253	1.8	2KG4161 - ■■■M55-8■■■	
3	7105	237	2	2KG4161 - ■■■M54-8■■■	
3.3	6318	210	2.2	2KG4161 - ■■■M53-8■■■	
3.5	5964	199	2.3	2KG4161 - ■■■M52-8■■■	
3.9	5354	178	2.6	2KG4161 - ■■■M51-8■■■	
4.3	4914	164	2.8	2KG4161 - ■■■M50-8■■■	
5	4240	141	3.3	2KG4161 - ■■■M48-8■■■	
Gearbox size H143 – motor frame size 132S – 8 poles					
2.5	8291	276	0.96	2KG4141 - ■■■M60-8■■■	351
2.7	7645	255	1	2KG4141 - ■■■M58-8■■■	
3	7085	236	1.1	2KG4141 - ■■■M57-8■■■	
3.1	6736	224	1.2	2KG4141 - ■■■M56-8■■■	
3.3	6296	210	1.3	2KG4141 - ■■■M55-8■■■	
3.8	5554	185	1.4	2KG4141 - ■■■M54-8■■■	
Gearbox size H143 – motor frame size 100L – 4 poles					
4.2	4973	336	1.6	2KG4141 - ■■■J62-4■■■	332
4.7	4459	301	1.8	2KG4141 - ■■■J61-4■■■	
5.1	4087	276	2	2KG4141 - ■■■J60-4■■■	
5.6	3768	255	2.1	2KG4141 - ■■■J58-4■■■	
6	3493	236	2.3	2KG4141 - ■■■J57-4■■■	
6.3	3321	224	2.4	2KG4141 - ■■■J56-4■■■	
6.8	3104	210	2.6	2KG4141 - ■■■J55-4■■■	
7.7	2738	185	2.9	2KG4141 - ■■■J54-4■■■	
8.1	2582	175	3.1	2KG4141 - ■■■J53-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size H123 – motor frame size 100L – 4 poles					236
	5.3	3968	268	1.3	2KG4121 - ■■■ J60-4 ■■■	
	5.8	3639	246	1.4	2KG4121 - ■■■ J58-4 ■■■	
	6.5	3251	220	1.6	2KG4121 - ■■■ J57-4 ■■■	
	7.1	2977	201	1.7	2KG4121 - ■■■ J56-4 ■■■	
	7.7	2743	185	1.9	2KG4121 - ■■■ J55-4 ■■■	
	8.3	2539	172	2	2KG4121 - ■■■ J54-4 ■■■	
	8.9	2361	160	2.2	2KG4121 - ■■■ J53-4 ■■■	
	9.5	2204	149	2.3	2KG4121 - ■■■ J52-4 ■■■	
	10.7	1972	133	2.6	2KG4121 - ■■■ J51-4 ■■■	
	11.5	1828	124	2.8	2KG4121 - ■■■ J50-4 ■■■	
	12.5	1675	113	3	2KG4121 - ■■■ J48-4 ■■■	
	13.7	1536	104	3.3	2KG4121 - ■■■ J47-4 ■■■	
	Gearbox size H103 – motor frame size 100L – 4 poles					154
	6.8	3095	209	1	2KG4101 - ■■■ J55-4 ■■■	
	7.4	2829	191	1.1	2KG4101 - ■■■ J54-4 ■■■	
	8.1	2601	176	1.2	2KG4101 - ■■■ J53-4 ■■■	
	8.7	2403	162	1.3	2KG4101 - ■■■ J52-4 ■■■	
	9.4	2230	151	1.4	2KG4101 - ■■■ J51-4 ■■■	
	10.1	2077	140	1.5	2KG4101 - ■■■ J50-4 ■■■	
	11.2	1878	127	1.7	2KG4101 - ■■■ J48-4 ■■■	
	12.2	1729	117	1.8	2KG4101 - ■■■ J47-4 ■■■	
	13.5	1555	105	2	2KG4101 - ■■■ J46-4 ■■■	
	14.6	1434	96.9	2.2	2KG4101 - ■■■ J45-4 ■■■	
	17.3	1215	82.1	2.6	2KG4101 - ■■■ J44-4 ■■■	
	19.8	1059	71.6	2.9	2KG4101 - ■■■ J43-4 ■■■	
	23.3	901	60.9	3.4	2KG4101 - ■■■ J42-4 ■■■	
	Gearbox size H102 – motor frame size 100L – 4 poles					149
	24	874	59.1	2.7	2KG4101 - ■■■ J34-4 ■■■	
	26.2	801	54.2	2.9	2KG4101 - ■■■ J33-4 ■■■	
	Gearbox size H83 – motor frame size 100L – 4 poles					101
	11.9	1768	120	0.95	2KG3181 - ■■■ J51-4 ■■■	
	12.8	1636	111	1	2KG3181 - ■■■ J50-4 ■■■	
	13.8	1518	103	1.1	2KG3181 - ■■■ J48-4 ■■■	
	15.7	1339	90.5	1.3	2KG3181 - ■■■ J47-4 ■■■	
	17	1237	83.6	1.4	2KG3181 - ■■■ J46-4 ■■■	
	19	1108	74.9	1.5	2KG3181 - ■■■ J45-4 ■■■	
	20.6	1022	69.1	1.6	2KG3181 - ■■■ J44-4 ■■■	
	24.5	857	57.9	2	2KG3181 - ■■■ J43-4 ■■■	
	Gearbox size H82 – motor frame size 100L – 4 poles					99
	28	751	50.7	2	2KG3181 - ■■■ J31-4 ■■■	
	31	677	45.8	2.5	2KG3181 - ■■■ J30-4 ■■■	
33.9	620	41.9	2.7	2KG3181 - ■■■ J28-4 ■■■		
38.1	551	37.3	3	2KG3181 - ■■■ J27-4 ■■■		
41.7	504	34.1	3.3	2KG3181 - ■■■ J26-4 ■■■		
45.3	463	31.3	3.6	2KG3181 - ■■■ J25-4 ■■■		
49.1	428	28.9	3.9	2KG3181 - ■■■ J24-4 ■■■		
52.9	397	26.9	4.2	2KG3181 - ■■■ J23-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size H63 – motor frame size 100L – 4 poles					
	26.6	791	53.5	1	2KG3161 - ■■■ J42-4 ■■■	65
	31.3	672	45.4	1.2	2KG3161 - ■■■ J41-4 ■■■	
	Gearbox size H62 – motor frame size 100L – 4 poles					
	33.8	622	42.1	1.3	2KG3161 - ■■■ J30-4 ■■■	63
	37.6	559	37.8	1.4	2KG3161 - ■■■ J28-4 ■■■	
	41.2	510	34.5	1.6	2KG3161 - ■■■ J27-4 ■■■	
	46.4	453	30.6	1.8	2KG3161 - ■■■ J26-4 ■■■	
	50.3	418	28.3	1.9	2KG3161 - ■■■ J25-4 ■■■	
	55.6	378	25.6	2.1	2KG3161 - ■■■ J24-4 ■■■	
	60.3	348	23.5	2.3	2KG3161 - ■■■ J23-4 ■■■	
	65.3	322	21.8	2.5	2KG3161 - ■■■ J22-4 ■■■	
	70.3	299	20.2	2.7	2KG3161 - ■■■ J21-4 ■■■	
	79.7	264	17.8	3	2KG3161 - ■■■ J20-4 ■■■	
	86.3	243	16.5	3.3	2KG3161 - ■■■ J18-4 ■■■	
	96.3	218	14.7	3.7	2KG3161 - ■■■ J17-4 ■■■	
	104	201	13.6	4	2KG3161 - ■■■ J16-4 ■■■	
	Gearbox size H42 – motor frame size 100L – 4 poles					
	44.7	470	31.8	0.96	2KG3141 - ■■■ J31-4 ■■■	44
	49.4	425	28.7	1.1	2KG3141 - ■■■ J30-4 ■■■	
	53.5	393	26.5	1.1	2KG3141 - ■■■ J28-4 ■■■	
	61.6	341	23.1	1.3	2KG3141 - ■■■ J27-4 ■■■	
	67.8	310	21	1.5	2KG3141 - ■■■ J26-4 ■■■	
	74.2	283	19.1	1.6	2KG3141 - ■■■ J25-4 ■■■	
	80.9	260	17.6	1.7	2KG3141 - ■■■ J24-4 ■■■	
	87.8	239	16.2	1.8	2KG3141 - ■■■ J23-4 ■■■	
	96.7	217	14.7	1.9	2KG3141 - ■■■ J22-4 ■■■	
	106	198	13.4	2.1	2KG3141 - ■■■ J21-4 ■■■	
	116	181	12.3	2.2	2KG3141 - ■■■ J20-4 ■■■	
	130	162	10.9	2.4	2KG3141 - ■■■ J18-4 ■■■	
	145	144	9.76	2.6	2KG3141 - ■■■ J17-4 ■■■	
	171	123	8.29	2.9	2KG3141 - ■■■ J16-4 ■■■	
	206	102	6.9	3.3	2KG3141 - ■■■ J15-4 ■■■	
209	100	6.79	2.7	2KG3141 - ■■■ J14-4 ■■■		
234	90	6.06	3	2KG3141 - ■■■ J13-4 ■■■		
276	76	5.15	3.5	2KG3141 - ■■■ J12-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5	0, 1, 3, or 9	↑
For shaft designs, see page 3/6	M, P, S, V	↑
For gearbox mounting positions acc. to the fig., see page 3/8	A to F	↑
For pos. of the connection system acc. to fig., see pages 3/7 to 3/8	A to D	↑
For voltage/frequency, see page 3/7	1, 3, 5, 6, or 9	↑

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size H32 – motor frame size 100L – 4 poles					34
	90.8	231	15.6	0.95	2KG3131 - ■■■J25-4■■■	
	100	210	14.2	1	2KG3131 - ■■■J24-4■■■	
	110	191	12.9	1.2	2KG3131 - ■■■J23-4■■■	
	120	175	11.8	1.3	2KG3131 - ■■■J22-4■■■	
	134	156	10.6	1.3	2KG3131 - ■■■J21-4■■■	
	146	144	9.7	1.4	2KG3131 - ■■■J20-4■■■	
	162	129	8.75	1.5	2KG3131 - ■■■J18-4■■■	
	189	111	7.52	1.7	2KG3131 - ■■■J17-4■■■	
	189	111	7.5	1.7	2KG3131 - ■■■J16-4■■■	
	212	99	6.71	1.8	2KG3131 - ■■■J15-4■■■	
	231	91	6.16	1.9	2KG3131 - ■■■J14-4■■■	
	256	82	5.55	2	2KG3131 - ■■■J13-4■■■	
	298	71	4.77	2.3	2KG3131 - ■■■J12-4■■■	
	Gearbox size E81 – motor frame size 100L – 4 poles					61
	137	153	10.3	1.5	2KG3681 - ■■■J18-4■■■	
	150	140	9.46	1.5	2KG3681 - ■■■J17-4■■■	
	169	125	8.42	2	2KG3681 - ■■■J16-4■■■	
	185	114	7.69	2.2	2KG3681 - ■■■J15-4■■■	
	201	105	7.07	2.8	2KG3681 - ■■■J14-4■■■	
	217	97	6.53	3.1	2KG3681 - ■■■J13-4■■■	
	234	90	6.06	3.1	2KG3681 - ■■■J12-4■■■	
	Gearbox size E61 – motor frame size 100L – 4 poles					43
	161	130	8.82	1.1	2KG3661 - ■■■J18-4■■■	
	179	117	7.92	1.5	2KG3661 - ■■■J17-4■■■	
	196	107	7.23	1.4	2KG3661 - ■■■J16-4■■■	
	221	95	6.42	1.8	2KG3661 - ■■■J15-4■■■	
	240	88	5.92	2.2	2KG3661 - ■■■J14-4■■■	
	265	79	5.36	2.8	2KG3661 - ■■■J13-4■■■	
	288	73	4.93	3.1	2KG3661 - ■■■J12-4■■■	
	311	68	4.56	3.3	2KG3661 - ■■■J11-4■■■	
	Gearbox size E41 – motor frame size 100L – 4 poles					
	203	104	7	0.94	2KG3641 - ■■■J16-4■■■	
	224	94	6.33	1.2	2KG3641 - ■■■J15-4■■■	
	243	87	5.85	1.4	2KG3641 - ■■■J14-4■■■	
	280	75	5.08	1.6	2KG3641 - ■■■J13-4■■■	
307	68	4.62	1.9	2KG3641 - ■■■J12-4■■■		
337	62	4.21	2.4	2KG3641 - ■■■J11-4■■■		
367	57	3.87	2.8	2KG3641 - ■■■J10-4■■■		
399	53	3.56	2.7	2KG3641 - ■■■J08-4■■■		
438	48	3.24	3.1	2KG3641 - ■■■J07-4■■■		
481	44	2.95	3.9	2KG3641 - ■■■J06-4■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
2.2 Gearbox size E31 – motor frame size 100L – 4 poles						
	274	77	5.18	0.91	2KG3631 - ■■■J13-4■■■	29
	310	68	4.58	1.2	2KG3631 - ■■■J12-4■■■	
	342	61	4.15	1	2KG3631 - ■■■J11-4■■■	
	387	54	3.67	1.3	2KG3631 - ■■■J10-4■■■	
	429	49	3.31	1.3	2KG3631 - ■■■J08-4■■■	
	473	44	3	1.8	2KG3631 - ■■■J07-4■■■	
	520	40	2.73	2	2KG3631 - ■■■J06-4■■■	
	568	37	2.5	2	2KG3631 - ■■■J05-4■■■	
	634	33	2.24	2.2	2KG3631 - ■■■J04-4■■■	
	693	30	2.05	2.6	2KG3631 - ■■■J03-4■■■	
	768	27	1.85	3	2KG3631 - ■■■J02-4■■■	
	893	24	1.59	3.1	2KG3631 - ■■■J01-4■■■	

3

Gearbox size H183 – motor frame size 132M – 8 poles					
2.9	9979	244	2	2KG4181 -   N53-8  	705
4.6	6267	153	3.2	2KG4181 -   N48-8  	
Gearbox size H163 – motor frame size 132M – 8 poles					
2	13982	342	1	2KG4161 -   N60-8  	545
2.2	12827	313	1.1	2KG4161 -   N58-8  	
2.4	11838	289	1.2	2KG4161 -   N57-8  	
2.6	10981	268	1.3	2KG4161 -   N56-8  	
2.8	10358	253	1.4	2KG4161 -   N55-8  	
3	9689	237	1.4	2KG4161 -   N54-8  	
3.3	8615	210	1.6	2KG4161 -   N53-8  	
3.5	8133	199	1.7	2KG4161 -   N52-8  	
3.9	7301	178	1.9	2KG4161 -   N51-8  	
4.3	6701	164	2.1	2KG4161 -   N50-8  	
5	5782	141	2.4	2KG4161 -   N48-8  	
5.7	5058	124	2.8	2KG4161 -   N47-8  	
6.5	4399	107	3.2	2KG4161 -   N46-8  	
7.4	3860	94.3	3.6	2KG4161 -   N45-8  	
Gearbox size H143 – motor frame size 100L – 4 poles					
4.2	6781	336	1.2	2KG4141 -   K62-4  	335
4.7	6080	301	1.3	2KG4141 -   K61-4  	
5.1	5573	276	1.4	2KG4141 -   K60-4  	
5.6	5139	255	1.6	2KG4141 -   K58-4  	
6	4763	236	1.7	2KG4141 -   K57-4  	
6.3	4528	224	1.8	2KG4141 -   K56-4  	
6.8	4232	210	1.9	2KG4141 -   K55-4  	
7.7	3733	185	2.1	2KG4141 -   K54-4  	
8.1	3521	175	2.3	2KG4141 -   K53-4  	
9.1	3155	156	2.5	2KG4141 -   K52-4  	
9.8	2913	144	2.7	2KG4141 -   K51-4  	
11.5	2489	123	3.2	2KG4141 -   K50-4  	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
3	Gearbox size H123 – motor frame size 100L – 4 poles					239
	5.3	5410	268	0.94	2KG4121 - ■ ■ K60-4 ■ ■ ■	
	5.8	4962	246	1	2KG4121 - ■ ■ K58-4 ■ ■ ■	
	6.5	4433	220	1.2	2KG4121 - ■ ■ K57-4 ■ ■ ■	
	7.1	4060	201	1.3	2KG4121 - ■ ■ K56-4 ■ ■ ■	
	7.7	3740	185	1.4	2KG4121 - ■ ■ K55-4 ■ ■ ■	
	8.3	3463	172	1.5	2KG4121 - ■ ■ K54-4 ■ ■ ■	
	8.9	3220	160	1.6	2KG4121 - ■ ■ K53-4 ■ ■ ■	
	9.5	3006	149	1.7	2KG4121 - ■ ■ K52-4 ■ ■ ■	
	10.7	2689	133	1.9	2KG4121 - ■ ■ K51-4 ■ ■ ■	
	11.5	2492	124	2	2KG4121 - ■ ■ K50-4 ■ ■ ■	
	12.5	2285	113	2.2	2KG4121 - ■ ■ K48-4 ■ ■ ■	
	13.7	2094	104	2.4	2KG4121 - ■ ■ K47-4 ■ ■ ■	
	16.1	1785	88.5	2.9	2KG4121 - ■ ■ K46-4 ■ ■ ■	
	18.2	1575	78.1	3.2	2KG4121 - ■ ■ K45-4 ■ ■ ■	
	21.4	1340	66.4	3.8	2KG4121 - ■ ■ K44-4 ■ ■ ■	
	Gearbox size H103 – motor frame size 100L – 4 poles					157
	8.7	3277	162	0.95	2KG4101 - ■ ■ K52-4 ■ ■ ■	
	9.4	3041	151	1	2KG4101 - ■ ■ K51-4 ■ ■ ■	
	10.1	2832	140	1.1	2KG4101 - ■ ■ K50-4 ■ ■ ■	
	11.2	2560	127	1.2	2KG4101 - ■ ■ K48-4 ■ ■ ■	
	12.2	2357	117	1.3	2KG4101 - ■ ■ K47-4 ■ ■ ■	
	13.5	2120	105	1.5	2KG4101 - ■ ■ K46-4 ■ ■ ■	
	14.6	1956	96.9	1.6	2KG4101 - ■ ■ K45-4 ■ ■ ■	
	17.3	1657	82.1	1.9	2KG4101 - ■ ■ K44-4 ■ ■ ■	
	19.8	1444	71.6	2.1	2KG4101 - ■ ■ K43-4 ■ ■ ■	
	23.3	1229	60.9	2.5	2KG4101 - ■ ■ K42-4 ■ ■ ■	
	Gearbox size H102 – motor frame size 100L – 4 poles					152
	24	1191	59.1	2	2KG4101 - ■ ■ K34-4 ■ ■ ■	
	26.2	1093	54.2	2.1	2KG4101 - ■ ■ K33-4 ■ ■ ■	
	29.4	976	48.4	3.2	2KG4101 - ■ ■ K32-4 ■ ■ ■	
	32	894	44.3	3.5	2KG4101 - ■ ■ K31-4 ■ ■ ■	
	Gearbox size H83 – motor frame size 100L – 4 poles					104
	15.7	1827	90.5	0.92	2KG3181 - ■ ■ K47-4 ■ ■ ■	
	17	1686	83.6	1	2KG3181 - ■ ■ K46-4 ■ ■ ■	
	19	1511	74.9	1.1	2KG3181 - ■ ■ K45-4 ■ ■ ■	
	20.6	1393	69.1	1.2	2KG3181 - ■ ■ K44-4 ■ ■ ■	
	24.5	1169	57.9	1.4	2KG3181 - ■ ■ K43-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to the fig., see page 3/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output speed P_1 kW	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg	
3	Gearbox size H82 – motor frame size 100L – 4 poles					
	28	1024	50.7	1.4	2KG3181 - ■■■ K31-4 ■■■	102
	31	923	45.8	1.8	2KG3181 - ■■■ K30-4 ■■■	
	33.9	845	41.9	2	2KG3181 - ■■■ K28-4 ■■■	
	38.1	752	37.3	2.2	2KG3181 - ■■■ K27-4 ■■■	
	41.7	687	34.1	2.4	2KG3181 - ■■■ K26-4 ■■■	
	45.3	632	31.3	2.7	2KG3181 - ■■■ K25-4 ■■■	
	49.1	584	28.9	2.9	2KG3181 - ■■■ K24-4 ■■■	
	52.9	542	26.9	3.1	2KG3181 - ■■■ K23-4 ■■■	
	56.8	505	25	3.3	2KG3181 - ■■■ K22-4 ■■■	
	62.8	456	22.6	3.7	2KG3181 - ■■■ K21-4 ■■■	
	68.2	420	20.8	4	2KG3181 - ■■■ K20-4 ■■■	
	Gearbox size H62 – motor frame size 100L – 4 poles					
	33.8	849	42.1	0.94	2KG3161 - ■■■ K30-4 ■■■	66
	37.6	762	37.8	1.1	2KG3161 - ■■■ K28-4 ■■■	
	41.2	696	34.5	1.1	2KG3161 - ■■■ K27-4 ■■■	
	46.4	617	30.6	1.3	2KG3161 - ■■■ K26-4 ■■■	
	50.3	570	28.3	1.4	2KG3161 - ■■■ K25-4 ■■■	
	55.6	515	25.6	1.6	2KG3161 - ■■■ K24-4 ■■■	
	60.3	475	23.5	1.7	2KG3161 - ■■■ K23-4 ■■■	
	65.3	439	21.8	1.8	2KG3161 - ■■■ K22-4 ■■■	
	70.3	408	20.2	2	2KG3161 - ■■■ K21-4 ■■■	
	79.7	360	17.8	2.2	2KG3161 - ■■■ K20-4 ■■■	
	86.3	332	16.5	2.4	2KG3161 - ■■■ K18-4 ■■■	
	96.3	297	14.7	2.7	2KG3161 - ■■■ K17-4 ■■■	
	104	274	13.6	2.9	2KG3161 - ■■■ K16-4 ■■■	
	125	230	11.4	3.4	2KG3161 - ■■■ K15-4 ■■■	
	146	196	9.73	3.8	2KG3161 - ■■■ K14-4 ■■■	
	175	164	8.11	4.3	2KG3161 - ■■■ K13-4 ■■■	
	Gearbox size H42 – motor frame size 100L – 4 poles					
	61.6	465	23.1	0.97	2KG3141 - ■■■ K27-4 ■■■	47
	67.8	423	21	1.1	2KG3141 - ■■■ K26-4 ■■■	
	74.2	386	19.1	1.2	2KG3141 - ■■■ K25-4 ■■■	
	80.9	354	17.6	1.3	2KG3141 - ■■■ K24-4 ■■■	
	87.8	326	16.2	1.3	2KG3141 - ■■■ K23-4 ■■■	
	96.7	296	14.7	1.4	2KG3141 - ■■■ K22-4 ■■■	
	106	270	13.4	1.5	2KG3141 - ■■■ K21-4 ■■■	
	116	247	12.3	1.6	2KG3141 - ■■■ K20-4 ■■■	
	130	221	10.9	1.8	2KG3141 - ■■■ K18-4 ■■■	
	145	197	9.76	1.9	2KG3141 - ■■■ K17-4 ■■■	
	171	167	8.29	2.2	2KG3141 - ■■■ K16-4 ■■■	
	206	139	6.9	2.4	2KG3141 - ■■■ K15-4 ■■■	
	209	137	6.79	2	2KG3141 - ■■■ K14-4 ■■■	
	234	122	6.06	2.2	2KG3141 - ■■■ K13-4 ■■■	
	276	104	5.15	2.6	2KG3141 - ■■■ K12-4 ■■■	
	332	86	4.28	3	2KG3141 - ■■■ K11-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3	Gearbox size H32 – motor frame size 100L – 4 poles					
	120	238	11.8	0.92	2KG3131 - ■■■ K22-4 ■■■	37
	134	213	10.6	0.98	2KG3131 - ■■■ K21-4 ■■■	
	146	196	9.7	1	2KG3131 - ■■■ K20-4 ■■■	
	162	177	8.75	1.1	2KG3131 - ■■■ K18-4 ■■■	
	189	152	7.52	1.3	2KG3131 - ■■■ K17-4 ■■■	
	189	151	7.5	1.2	2KG3131 - ■■■ K16-4 ■■■	
	212	135	6.71	1.3	2KG3131 - ■■■ K15-4 ■■■	
	231	124	6.16	1.4	2KG3131 - ■■■ K14-4 ■■■	
	256	112	5.55	1.5	2KG3131 - ■■■ K13-4 ■■■	
	298	96	4.77	1.7	2KG3131 - ■■■ K12-4 ■■■	
	Gearbox size E81 – motor frame size 100L – 4 poles					
	137	208	10.3	1.1	2KG3681 - ■■■ K18-4 ■■■	64
	150	191	9.46	1.1	2KG3681 - ■■■ K17-4 ■■■	
	169	170	8.42	1.4	2KG3681 - ■■■ K16-4 ■■■	
	185	155	7.69	1.6	2KG3681 - ■■■ K15-4 ■■■	
	201	143	7.07	2	2KG3681 - ■■■ K14-4 ■■■	
	217	132	6.53	2.3	2KG3681 - ■■■ K13-4 ■■■	
	234	122	6.06	2.3	2KG3681 - ■■■ K12-4 ■■■	
	251	114	5.65	2.8	2KG3681 - ■■■ K11-4 ■■■	
	Gearbox size E61 – motor frame size 100L – 4 poles					
	179	160	7.92	1.1	2KG3661 - ■■■ K17-4 ■■■	46
	196	146	7.23	1	2KG3661 - ■■■ K16-4 ■■■	
	221	130	6.42	1.3	2KG3661 - ■■■ K15-4 ■■■	
	240	119	5.92	1.6	2KG3661 - ■■■ K14-4 ■■■	
	265	108	5.36	2	2KG3661 - ■■■ K13-4 ■■■	
	288	100	4.93	2.3	2KG3661 - ■■■ K12-4 ■■■	
	311	92	4.56	2.4	2KG3661 - ■■■ K11-4 ■■■	
	335	86	4.24	2.7	2KG3661 - ■■■ K10-4 ■■■	
	Gearbox size E41 – motor frame size 100L – 4 poles					
	243	118	5.85	1	2KG3641 - ■■■ K14-4 ■■■	36
	280	102	5.08	1.2	2KG3641 - ■■■ K13-4 ■■■	
	307	93	4.62	1.4	2KG3641 - ■■■ K12-4 ■■■	
	337	85	4.21	1.8	2KG3641 - ■■■ K11-4 ■■■	
	367	78	3.87	2	2KG3641 - ■■■ K10-4 ■■■	
	399	72	3.56	1.9	2KG3641 - ■■■ K08-4 ■■■	
	438	65	3.24	2.3	2KG3641 - ■■■ K07-4 ■■■	
	481	60	2.95	2.9	2KG3641 - ■■■ K06-4 ■■■	
	526	55	2.7	2.9	2KG3641 - ■■■ K05-4 ■■■	
	589	49	2.41	3.1	2KG3641 - ■■■ K04-4 ■■■	
	660	43	2.15	3.1	2KG3641 - ■■■ K03-4 ■■■	
	776	37	1.83	3.1	2KG3641 - ■■■ K02-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Output speed P_1 kW	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3 Gearbox size E31 – motor frame size 100L – 4 poles					
387	74	3.67	0.95	2KG3631 - ■■■ K10-4 ■■■	32
429	67	3.31	0.97	2KG3631 - ■■■ K08-4 ■■■	
473	61	3	1.3	2KG3631 - ■■■ K07-4 ■■■	
520	55	2.73	1.5	2KG3631 - ■■■ K06-4 ■■■	
568	50	2.5	1.4	2KG3631 - ■■■ K05-4 ■■■	
634	45	2.24	1.6	2KG3631 - ■■■ K04-4 ■■■	
693	41	2.05	1.9	2KG3631 - ■■■ K03-4 ■■■	
768	37	1.85	2.2	2KG3631 - ■■■ K02-4 ■■■	
893	32	1.59	2.2	2KG3631 - ■■■ K01-4 ■■■	
4 Gearbox size H183 – motor frame size 160M – 8 poles					
2.9	13026	244	1.5	2KG4181 - ■■■ Q53-8 ■■■	717
3.5	11024	206	1.8	2KG4181 - ■■■ Q51-8 ■■■	
4	9469	177	2.1	2KG4181 - ■■■ Q50-8 ■■■	
4.7	8181	153	2.4	2KG4181 - ■■■ Q48-8 ■■■	
5.9	6500	122	3.1	2KG4181 - ■■■ Q46-8 ■■■	
Gearbox size H163 – motor frame size 160M – 8 poles					
2.8	13521	253	1	2KG4161 - ■■■ Q55-8 ■■■	557
3	12647	237	1.1	2KG4161 - ■■■ Q54-8 ■■■	
3.4	11246	210	1.2	2KG4161 - ■■■ Q53-8 ■■■	
3.6	10616	199	1.3	2KG4161 - ■■■ Q52-8 ■■■	
4	9530	178	1.5	2KG4161 - ■■■ Q51-8 ■■■	
4.4	8747	164	1.6	2KG4161 - ■■■ Q50-8 ■■■	
5.1	7548	141	1.9	2KG4161 - ■■■ Q48-8 ■■■	
5.8	6603	124	2.1	2KG4161 - ■■■ Q47-8 ■■■	
6.7	5742	107	2.4	2KG4161 - ■■■ Q46-8 ■■■	
7.6	5038	94.3	2.8	2KG4161 - ■■■ Q45-8 ■■■	
9	4261	79.8	3.3	2KG4161 - ■■■ Q44-8 ■■■	
9.9	3866	72.4	3.6	2KG4161 - ■■■ Q43-8 ■■■	
Gearbox size H143 – motor frame size 112M – 4 poles					
4.8	7994	301	1	2KG4141 - ■■■ L61-4 ■■■	341
5.2	7328	276	1.1	2KG4141 - ■■■ L60-4 ■■■	
5.7	6757	255	1.2	2KG4141 - ■■■ L58-4 ■■■	
6.1	6262	236	1.3	2KG4141 - ■■■ L57-4 ■■■	
6.4	5954	224	1.3	2KG4141 - ■■■ L56-4 ■■■	
6.9	5564	210	1.4	2KG4141 - ■■■ L55-4 ■■■	
7.8	4908	185	1.6	2KG4141 - ■■■ L54-4 ■■■	
8.3	4630	175	1.7	2KG4141 - ■■■ L53-4 ■■■	
9.2	4148	156	1.9	2KG4141 - ■■■ L52-4 ■■■	
10	3830	144	2.1	2KG4141 - ■■■ L51-4 ■■■	
11.7	3273	123	2.4	2KG4141 - ■■■ L50-4 ■■■	
12.9	2958	112	2.7	2KG4141 - ■■■ L48-4 ■■■	
13.4	2850	107	2.8	2KG4141 - ■■■ L47-4 ■■■	
15.5	2465	92.9	3.2	2KG4141 - ■■■ L46-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3	Gearbox size H123 – motor frame size 112M – 4 poles					
	7.2	5338	201	0.96	2KG4121 - ■■■L56-4■■■	245
	7.8	4917	185	1	2KG4121 - ■■■L55-4■■■	
	8.4	4553	172	1.1	2KG4121 - ■■■L54-4■■■	
	9	4234	160	1.2	2KG4121 - ■■■L53-4■■■	
	9.7	3952	149	1.3	2KG4121 - ■■■L52-4■■■	
	10.8	3536	133	1.4	2KG4121 - ■■■L51-4■■■	
	11.7	3277	124	1.6	2KG4121 - ■■■L50-4■■■	
	12.7	3004	113	1.7	2KG4121 - ■■■L48-4■■■	
	13.9	2754	104	1.9	2KG4121 - ■■■L47-4■■■	
	16.3	2347	88.5	2.2	2KG4121 - ■■■L46-4■■■	
	18.4	2071	78.1	2.5	2KG4121 - ■■■L45-4■■■	
	21.7	1762	66.4	2.9	2KG4121 - ■■■L44-4■■■	
	25	1527	57.6	3.3	2KG4121 - ■■■L43-4■■■	
	Gearbox size H103 – motor frame size 112M – 4 poles					
	11.3	3366	127	0.92	2KG4101 - ■■■L48-4■■■	163
	12.3	3099	117	1	2KG4101 - ■■■L47-4■■■	
	13.7	2788	105	1.1	2KG4101 - ■■■L46-4■■■	
	14.9	2572	96.9	1.2	2KG4101 - ■■■L45-4■■■	
	17.5	2179	82.1	1.4	2KG4101 - ■■■L44-4■■■	
	20.1	1899	71.6	1.6	2KG4101 - ■■■L43-4■■■	
	23.6	1616	60.9	1.9	2KG4101 - ■■■L42-4■■■	
	Gearbox size H102 – motor frame size 112M – 4 poles					
	24.4	1566	59.1	1.5	2KG4101 - ■■■L34-4■■■	158
	26.6	1436	54.2	1.6	2KG4101 - ■■■L33-4■■■	
	29.8	1283	48.4	2.4	2KG4101 - ■■■L32-4■■■	
	32.5	1175	44.3	2.6	2KG4101 - ■■■L31-4■■■	
	35.3	1083	40.8	2.9	2KG4101 - ■■■L30-4■■■	
	38.1	1002	37.8	3.1	2KG4101 - ■■■L28-4■■■	
	41	932	35.1	3.3	2KG4101 - ■■■L27-4■■■	
	43.9	870	32.8	3.6	2KG4101 - ■■■L26-4■■■	
	Gearbox size H83 – motor frame size 112M – 4 poles					
	20.9	1832	69.1	0.92	2KG3181 - ■■■L44-4■■■	110
	24.9	1537	57.9	1.1	2KG3181 - ■■■L43-4■■■	
	29.1	1311	49.4	1.3	2KG3181 - ■■■L42-4■■■	
	Gearbox size H82 – motor frame size 112M – 4 poles					
	31.5	1214	45.8	1.4	2KG3181 - ■■■L30-4■■■	108
	34.4	1112	41.9	1.5	2KG3181 - ■■■L28-4■■■	
	38.6	989	37.3	1.7	2KG3181 - ■■■L27-4■■■	
	42.3	904	34.1	1.9	2KG3181 - ■■■L26-4■■■	
	46	831	31.3	2	2KG3181 - ■■■L25-4■■■	
	49.8	767	28.9	2.2	2KG3181 - ■■■L24-4■■■	
	53.6	712	26.9	2.4	2KG3181 - ■■■L23-4■■■	
	57.6	663	25	2.5	2KG3181 - ■■■L22-4■■■	
	63.7	600	22.6	2.8	2KG3181 - ■■■L21-4■■■	
	69.2	552	20.8	3	2KG3181 - ■■■L20-4■■■	
	76.9	497	18.7	3.4	2KG3181 - ■■■L18-4■■■	
	83.4	458	17.3	3.7	2KG3181 - ■■■L17-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to the fig., see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
4	Gearbox size H62 – motor frame size 112M – 4 poles					72
	47.1	812	30.6	0.99	2KG3161 - ■■■L26-4■■■	
	51	749	28.3	1.1	2KG3161 - ■■■L25-4■■■	
	56.4	678	25.6	1.2	2KG3161 - ■■■L24-4■■■	
	61.2	624	23.5	1.3	2KG3161 - ■■■L23-4■■■	
	66.2	577	21.8	1.4	2KG3161 - ■■■L22-4■■■	
	71.3	536	20.2	1.5	2KG3161 - ■■■L21-4■■■	
	80.8	473	17.8	1.7	2KG3161 - ■■■L20-4■■■	
	87.5	436	16.5	1.8	2KG3161 - ■■■L18-4■■■	
	97.7	391	14.7	2	2KG3161 - ■■■L17-4■■■	
	106	361	13.6	2.2	2KG3161 - ■■■L16-4■■■	
	126	302	11.4	2.6	2KG3161 - ■■■L15-4■■■	
	148	258	9.73	2.9	2KG3161 - ■■■L14-4■■■	
	178	215	8.11	3.3	2KG3161 - ■■■L13-4■■■	
	214	178	6.72	3.6	2KG3161 - ■■■L12-4■■■	
	243	157	5.93	3.1	2KG3161 - ■■■L11-4■■■	
	285	134	5.06	3.6	2KG3161 - ■■■L10-4■■■	
	341	112	4.22	4.2	2KG3161 - ■■■L08-4■■■	
	413	93	3.49	4.5	2KG3161 - ■■■L07-4■■■	
	Gearbox size H42 – motor frame size 112M – 4 poles					53
	82.1	466	17.6	0.97	2KG3141 - ■■■L24-4■■■	
	89.1	429	16.2	1	2KG3141 - ■■■L23-4■■■	
	98.1	389	14.7	1.1	2KG3141 - ■■■L22-4■■■	
	108	355	13.4	1.2	2KG3141 - ■■■L21-4■■■	
	118	325	12.3	1.2	2KG3141 - ■■■L20-4■■■	
	132	290	10.9	1.3	2KG3141 - ■■■L18-4■■■	
	148	259	9.76	1.5	2KG3141 - ■■■L17-4■■■	
	174	220	8.29	1.6	2KG3141 - ■■■L16-4■■■	
	209	183	6.9	1.9	2KG3141 - ■■■L15-4■■■	
	212	180	6.79	1.5	2KG3141 - ■■■L14-4■■■	
	238	161	6.06	1.7	2KG3141 - ■■■L13-4■■■	
	280	137	5.15	2	2KG3141 - ■■■L12-4■■■	
	336	114	4.28	2.3	2KG3141 - ■■■L11-4■■■	
	Gearbox size E121 – motor frame size 112M – 4 poles					132
	142	269	10.14	2	2KG4621 - ■■■L20-4■■■	
	153	249	9.4	2.3	2KG4621 - ■■■L18-4■■■	
	161	237	8.94	2.7	2KG4621 - ■■■L17-4■■■	
	172	222	8.35	3.2	2KG4621 - ■■■L16-4■■■	
	195	196	7.37	4.2	2KG4621 - ■■■L15-4■■■	
	207	184	6.95	4.8	2KG4621 - ■■■L14-4■■■	93
	Gearbox size E101 – motor frame size 112M – 4 poles					
	264	145	5.46	4.6	2KG4601 - ■■■L09-4■■■	
	288	133	5	5.1	2KG4601 - ■■■L08-4■■■	
	338	113	4.26	6.4	2KG4601 - ■■■L07-4■■■	
	383	100	3.76	6	2KG4601 - ■■■L06-4■■■	
	450	85	3.2	8.8	2KG4601 - ■■■L05-4■■■	
	520	74	2.77	9.1	2KG4601 - ■■■L04-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3	Gearbox size E81 – motor frame size 112M – 4 poles					70
	171	223	8.42	1.1	2KG3681 - ■■■L16-4■■■	
	187	204	7.69	1.2	2KG3681 - ■■■L15-4■■■	
	204	188	7.07	1.5	2KG3681 - ■■■L14-4■■■	
	221	173	6.53	1.7	2KG3681 - ■■■L13-4■■■	
	238	161	6.06	1.7	2KG3681 - ■■■L12-4■■■	
	255	150	5.65	2.1	2KG3681 - ■■■L11-4■■■	
	282	136	5.11	2.7	2KG3681 - ■■■L10-4■■■	
	306	125	4.7	3.1	2KG3681 - ■■■L08-4■■■	
	340	112	4.23	3.6	2KG3681 - ■■■L07-4■■■	
	Gearbox size E61 – motor frame size 112M – 4 poles					52
	224	170	6.42	1	2KG3661 - ■■■L15-4■■■	
	243	157	5.92	1.2	2KG3661 - ■■■L14-4■■■	
	269	142	5.36	1.5	2KG3661 - ■■■L13-4■■■	
	292	131	4.93	1.7	2KG3661 - ■■■L12-4■■■	
	316	121	4.56	1.8	2KG3661 - ■■■L11-4■■■	
	340	112	4.24	2	2KG3661 - ■■■L10-4■■■	
	385	99	3.74	2.3	2KG3661 - ■■■L08-4■■■	
	417	92	3.45	2.6	2KG3661 - ■■■L07-4■■■	
	466	82	3.09	3	2KG3661 - ■■■L06-4■■■	
	Gearbox size E41 – motor frame size 112M – 4 poles					42
	312	123	4.62	1.1	2KG3641 - ■■■L12-4■■■	
	342	112	4.21	1.3	2KG3641 - ■■■L11-4■■■	
	372	103	3.87	1.6	2KG3641 - ■■■L10-4■■■	
	404	94	3.56	1.5	2KG3641 - ■■■L08-4■■■	
	444	86	3.24	1.7	2KG3641 - ■■■L07-4■■■	
	488	78	2.95	2.2	2KG3641 - ■■■L06-4■■■	
	533	72	2.7	2.2	2KG3641 - ■■■L05-4■■■	
	598	64	2.41	2.3	2KG3641 - ■■■L04-4■■■	
	670	57	2.15	2.4	2KG3641 - ■■■L03-4■■■	
	787	49	1.83	2.4	2KG3641 - ■■■L02-4■■■	
	947	40	1.52	2.5	2KG3641 - ■■■L01-4■■■	
5.5	Gearbox size H183 – motor frame size 160M – 8 poles					726
	2.9	18038	244	1.1	2KG4181 - ■■■R53-8■■■	
	3.4	15265	206	1.3	2KG4181 - ■■■R51-8■■■	
	4	13111	177	1.5	2KG4181 - ■■■R50-8■■■	
	4.6	11328	153	1.8	2KG4181 - ■■■R48-8■■■	
	5.8	9001	122	2.2	2KG4181 - ■■■R46-8■■■	
	Gearbox size H183 – motor frame size 132S – 4 poles					699
	6	8802	244	2.3	2KG4181 - ■■■M53-4■■■	
	9.5	5528	153	3.6	2KG4181 - ■■■M48-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
5.5	Gearbox size H163 – motor frame size 132S – 4 poles					
	4.3	12332	342	1.1	2KG4161 - ■■■ M60-4 ■■■	539
	4.6	11314	313	1.2	2KG4161 - ■■■ M58-4 ■■■	
	5	10441	289	1.3	2KG4161 - ■■■ M57-4 ■■■	
	5.4	9685	268	1.4	2KG4161 - ■■■ M56-4 ■■■	
	5.7	9136	253	1.5	2KG4161 - ■■■ M55-4 ■■■	
	6.1	8546	237	1.6	2KG4161 - ■■■ M54-4 ■■■	
	6.9	7599	210	1.8	2KG4161 - ■■■ M53-4 ■■■	
	7.3	7173	199	2	2KG4161 - ■■■ M52-4 ■■■	
	8.2	6439	178	2.2	2KG4161 - ■■■ M51-4 ■■■	
	8.9	5910	164	2.4	2KG4161 - ■■■ M50-4 ■■■	
	10.3	5100	141	2.7	2KG4161 - ■■■ M48-4 ■■■	
	11.8	4462	124	3.1	2KG4161 - ■■■ M47-4 ■■■	
	13.5	3880	107	3.6	2KG4161 - ■■■ M46-4 ■■■	
	Gearbox size H143 – motor frame size 132S – 4 poles					
	6.2	8521	236	0.94	2KG4141 - ■■■ M57-4 ■■■	353
	6.5	8102	224	0.99	2KG4141 - ■■■ M56-4 ■■■	
	6.9	7572	210	1.1	2KG4141 - ■■■ M55-4 ■■■	
	7.9	6680	185	1.2	2KG4141 - ■■■ M54-4 ■■■	
	8.3	6300	175	1.3	2KG4141 - ■■■ M53-4 ■■■	
	9.3	5645	156	1.4	2KG4141 - ■■■ M52-4 ■■■	
	10.1	5212	144	1.5	2KG4141 - ■■■ M51-4 ■■■	
	11.8	4454	123	1.8	2KG4141 - ■■■ M50-4 ■■■	
	13	4025	112	2	2KG4141 - ■■■ M48-4 ■■■	
	13.5	3878	107	2.1	2KG4141 - ■■■ M47-4 ■■■	
	15.7	3354	92.9	2.4	2KG4141 - ■■■ M46-4 ■■■	
	18	2926	81	2.7	2KG4141 - ■■■ M45-4 ■■■	
	21	2504	69.4	3.2	2KG4141 - ■■■ M44-4 ■■■	
	23.4	2243	62.1	3.6	2KG4141 - ■■■ M43-4 ■■■	
	Gearbox size H123 – motor frame size 132S – 4 poles					
	9.8	5378	149	0.95	2KG4121 - ■■■ M52-4 ■■■	257
	10.9	4812	133	1.1	2KG4121 - ■■■ M51-4 ■■■	
	11.8	4459	124	1.1	2KG4121 - ■■■ M50-4 ■■■	
	12.8	4088	113	1.2	2KG4121 - ■■■ M48-4 ■■■	
	14	3747	104	1.4	2KG4121 - ■■■ M47-4 ■■■	
	16.4	3193	88.5	1.6	2KG4121 - ■■■ M46-4 ■■■	
	18.6	2818	78.1	1.8	2KG4121 - ■■■ M45-4 ■■■	
	21.9	2398	66.4	2.1	2KG4121 - ■■■ M44-4 ■■■	
	25.3	2078	57.6	2.5	2KG4121 - ■■■ M43-4 ■■■	
	30	1749	48.4	2.9	2KG4121 - ■■■ M42-4 ■■■	
	Gearbox size H122 – motor frame size 132S – 4 poles					
	32.9	1595	44.2	2.1	2KG4121 - ■■■ M34-4 ■■■	247
	35.5	1479	41	2.2	2KG4121 - ■■■ M33-4 ■■■	
	Gearbox size H103 – motor frame size 132S – 4 poles					
	17.7	2965	82.1	1	2KG4101 - ■■■ M44-4 ■■■	175
	20.3	2584	71.6	1.2	2KG4101 - ■■■ M43-4 ■■■	
	23.9	2198	60.9	1.4	2KG4101 - ■■■ M42-4 ■■■	
	28	1876	52	1.7	2KG4101 - ■■■ M41-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

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Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
5.5	Gearbox size H102 – motor frame size 132S – 4 poles					170
	30.1	1747	48.4	1.8	2KG4101 - ■■■M32-4■■■	
	32.8	1600	44.3	1.9	2KG4101 - ■■■M31-4■■■	
	35.6	1474	40.8	2.1	2KG4101 - ■■■M30-4■■■	
	38.5	1364	37.8	2.3	2KG4101 - ■■■M28-4■■■	
	41.4	1269	35.1	2.4	2KG4101 - ■■■M27-4■■■	
	44.3	1184	32.8	2.6	2KG4101 - ■■■M26-4■■■	
	49.6	1060	29.4	2.9	2KG4101 - ■■■M25-4■■■	
	53.5	982	27.2	3.2	2KG4101 - ■■■M24-4■■■	
	58.3	900	24.9	3.4	2KG4101 - ■■■M23-4■■■	
	63.6	825	22.9	3.8	2KG4101 - ■■■M22-4■■■	
	Gearbox size H83 – motor frame size 132S – 4 poles					122
	29.4	1784	49.4	0.94	2KG3181 - ■■■M42-4■■■	
	35.3	1487	41.2	1.1	2KG3181 - ■■■M41-4■■■	
	Gearbox size H82 – motor frame size 132S – 4 poles					120
	39	1345	37.3	1.2	2KG3181 - ■■■M27-4■■■	
	42.7	1230	34.1	1.4	2KG3181 - ■■■M26-4■■■	
	46.5	1131	31.3	1.5	2KG3181 - ■■■M25-4■■■	
	50.3	1044	28.9	1.6	2KG3181 - ■■■M24-4■■■	
	54.2	969	26.9	1.7	2KG3181 - ■■■M23-4■■■	
	58.2	903	25	1.9	2KG3181 - ■■■M22-4■■■	
	64.4	816	22.6	2.1	2KG3181 - ■■■M21-4■■■	
	69.9	751	20.8	2.2	2KG3181 - ■■■M20-4■■■	
	77.7	676	18.7	2.5	2KG3181 - ■■■M18-4■■■	
	84.3	623	17.3	2.7	2KG3181 - ■■■M17-4■■■	
	99.5	528	14.6	3.1	2KG3181 - ■■■M16-4■■■	
	114	460	12.8	3.4	2KG3181 - ■■■M15-4■■■	
	134	392	10.9	3.8	2KG3181 - ■■■M14-4■■■	
	Gearbox size H62 – motor frame size 132S – 4 poles					84
	61.8	849	23.5	0.94	2KG3161 - ■■■M23-4■■■	
	66.9	786	21.8	1	2KG3161 - ■■■M22-4■■■	
	72	729	20.2	1.1	2KG3161 - ■■■M21-4■■■	
	81.6	643	17.8	1.2	2KG3161 - ■■■M20-4■■■	
88.4	594	16.5	1.3	2KG3161 - ■■■M18-4■■■		
98.7	532	14.7	1.5	2KG3161 - ■■■M17-4■■■		
107	491	13.6	1.6	2KG3161 - ■■■M16-4■■■		
128	412	11.4	1.9	2KG3161 - ■■■M15-4■■■		
150	351	9.73	2.1	2KG3161 - ■■■M14-4■■■		
179	293	8.11	2.4	2KG3161 - ■■■M13-4■■■		
217	243	6.72	2.7	2KG3161 - ■■■M12-4■■■		
245	214	5.93	2.3	2KG3161 - ■■■M11-4■■■		
288	183	5.06	2.6	2KG3161 - ■■■M10-4■■■		
345	152	4.22	3.1	2KG3161 - ■■■M08-4■■■		
417	126	3.49	3.3	2KG3161 - ■■■M07-4■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

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For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
5.5	Gearbox size E141 – motor frame size 132S – 4 poles					
	106	493	13.67	1.2	2KG4641 - ■ ■ M20-4 ■ ■ ■	171
	116	453	12.54	1.3	2KG4641 - ■ ■ M19-4 ■ ■ ■	
	126	418	11.57	1.6	2KG4641 - ■ ■ M18-4 ■ ■ ■	
	136	387	10.73	2	2KG4641 - ■ ■ M17-4 ■ ■ ■	
	144	366	10.13	2.2	2KG4641 - ■ ■ M16-4 ■ ■ ■	
	154	342	9.47	2.7	2KG4641 - ■ ■ M15-4 ■ ■ ■	
	Gearbox size E121 – motor frame size 132S – 4 poles					
	143	366	10.14	1.5	2KG4621 - ■ ■ M20-4 ■ ■ ■	144
	155	339	9.4	1.7	2KG4621 - ■ ■ M18-4 ■ ■ ■	
	163	323	8.94	2	2KG4621 - ■ ■ M17-4 ■ ■ ■	
	174	301	8.35	2.4	2KG4621 - ■ ■ M16-4 ■ ■ ■	
	197	266	7.37	3.1	2KG4621 - ■ ■ M15-4 ■ ■ ■	
	Gearbox size E101 – motor frame size 132S – 4 poles					
	266	197	5.46	3.3	2KG4601 - ■ ■ M09-4 ■ ■ ■	105
	291	180	5	3.8	2KG4601 - ■ ■ M08-4 ■ ■ ■	
	Gearbox size E81 – motor frame size 132S – 4 poles					
	206	255	7.07	1.1	2KG3681 - ■ ■ M14-4 ■ ■ ■	82
	223	236	6.53	1.3	2KG3681 - ■ ■ M13-4 ■ ■ ■	
	240	219	6.06	1.3	2KG3681 - ■ ■ M12-4 ■ ■ ■	
	258	204	5.65	1.6	2KG3681 - ■ ■ M11-4 ■ ■ ■	
	285	184	5.11	2	2KG3681 - ■ ■ M10-4 ■ ■ ■	
	310	170	4.7	2.3	2KG3681 - ■ ■ M08-4 ■ ■ ■	
	344	153	4.23	2.6	2KG3681 - ■ ■ M07-4 ■ ■ ■	
	373	141	3.9	2.7	2KG3681 - ■ ■ M06-4 ■ ■ ■	
	Gearbox size E61 – motor frame size 132S – 4 poles					
	271	193	5.36	1.1	2KG3661 - ■ ■ M13-4 ■ ■ ■	64
	295	178	4.93	1.3	2KG3661 - ■ ■ M12-4 ■ ■ ■	
	319	165	4.56	1.3	2KG3661 - ■ ■ M11-4 ■ ■ ■	
	343	153	4.24	1.5	2KG3661 - ■ ■ M10-4 ■ ■ ■	
	389	135	3.74	1.7	2KG3661 - ■ ■ M08-4 ■ ■ ■	
	422	125	3.45	1.9	2KG3661 - ■ ■ M07-4 ■ ■ ■	
	471	112	3.09	2.2	2KG3661 - ■ ■ M06-4 ■ ■ ■	
511	103	2.85	2.4	2KG3661 - ■ ■ M05-4 ■ ■ ■		
609	86	2.39	2.7	2KG3661 - ■ ■ M04-4 ■ ■ ■		
713	74	2.04	2.9	2KG3661 - ■ ■ M03-4 ■ ■ ■		
856	61	1.7	2.9	2KG3661 - ■ ■ M02-4 ■ ■ ■		
1032	51	1.41	2.9	2KG3661 - ■ ■ M01-4 ■ ■ ■		

7.5	Gearbox size H183 – motor frame size 160L – 8 poles					
	3.5	20670	206	0.97	2KG4181 -  S51-8 	747
	4	17754	177	1.1	2KG4181 -  S50-8 	
	4.7	15339	153	1.3	2KG4181 -  S48-8 	
	Gearbox size H183 – motor frame size 132M – 4 poles					
	6	12002	244	1.7	2KG4181 -  N53-4 	705
	9.5	7538	153	2.7	2KG4181 -  N48-4 	
	12	5989	122	3.3	2KG4181 -  N46-4 	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
7.5	Gearbox size H163 – motor frame size 132M – 4 poles					
	4.6	15428	313	0.91	2KG4161 - ■■■N58-4 ■■■	545
	5	14238	289	0.98	2KG4161 - ■■■N57-4 ■■■	
	5.4	13207	268	1.1	2KG4161 - ■■■N56-4 ■■■	
	5.7	12458	253	1.1	2KG4161 - ■■■N55-4 ■■■	
	6.1	11653	237	1.2	2KG4161 - ■■■N54-4 ■■■	
	6.9	10362	210	1.4	2KG4161 - ■■■N53-4 ■■■	
	7.3	9782	199	1.4	2KG4161 - ■■■N52-4 ■■■	
	8.2	8781	178	1.6	2KG4161 - ■■■N51-4 ■■■	
	8.9	8059	164	1.7	2KG4161 - ■■■N50-4 ■■■	
	10.3	6955	141	2	2KG4161 - ■■■N48-4 ■■■	
	11.8	6084	124	2.3	2KG4161 - ■■■N47-4 ■■■	
	13.5	5291	107	2.6	2KG4161 - ■■■N46-4 ■■■	
	15.4	4642	94.3	3	2KG4161 - ■■■N45-4 ■■■	
	Gearbox size H143 – motor frame size 132M – 4 poles					
	8.3	8592	175	0.93	2KG4141 - ■■■N53-4 ■■■	359
	9.3	7698	156	1	2KG4141 - ■■■N52-4 ■■■	
	10.1	7108	144	1.1	2KG4141 - ■■■N51-4 ■■■	
	11.8	6073	123	1.3	2KG4141 - ■■■N50-4 ■■■	
	13	5489	112	1.5	2KG4141 - ■■■N48-4 ■■■	
	13.5	5288	107	1.5	2KG4141 - ■■■N47-4 ■■■	
	15.7	4574	92.9	1.7	2KG4141 - ■■■N46-4 ■■■	
	18	3989	81	2	2KG4141 - ■■■N45-4 ■■■	
	21	3414	69.4	2.3	2KG4141 - ■■■N44-4 ■■■	
	23.4	3058	62.1	2.6	2KG4141 - ■■■N43-4 ■■■	
	Gearbox size H142 – motor frame size 132M – 4 poles					
	25.3	2831	57.5	1.6	2KG4141 - ■■■N33-4 ■■■	345
	26.8	2670	54.2	3	2KG4141 - ■■■N32-4 ■■■	
	28.7	2498	50.7	3.2	2KG4141 - ■■■N31-4 ■■■	
	Gearbox size H123 – motor frame size 132M – 4 poles					
	12.8	5574	113	0.91	2KG4121 - ■■■N48-4 ■■■	263
	14	5110	104	1	2KG4121 - ■■■N47-4 ■■■	
	16.4	4355	88.5	1.2	2KG4121 - ■■■N46-4 ■■■	
	18.6	3843	78.1	1.3	2KG4121 - ■■■N45-4 ■■■	
	21.9	3270	66.4	1.6	2KG4121 - ■■■N44-4 ■■■	
	25.3	2833	57.6	1.8	2KG4121 - ■■■N43-4 ■■■	
	30	2385	48.4	2.1	2KG4121 - ■■■N42-4 ■■■	
	Gearbox size H122 – motor frame size 132M – 4 poles					
	32.9	2175	44.2	1.5	2KG4121 - ■■■N34-4 ■■■	253
	35.5	2016	41	1.6	2KG4121 - ■■■N33-4 ■■■	
	37.4	1917	38.9	2.7	2KG4121 - ■■■N32-4 ■■■	
	40	1791	36.4	2.8	2KG4121 - ■■■N31-4 ■■■	
	45.3	1581	32.1	3.2	2KG4121 - ■■■N30-4 ■■■	
	48.1	1491	30.3	3.4	2KG4121 - ■■■N28-4 ■■■	
	Gearbox size H103 – motor frame size 132M – 4 poles					
	23.9	2998	60.9	1	2KG4101 - ■■■N42-4 ■■■	181
	28	2558	52	1.2	2KG4101 - ■■■N41-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
7.5	Gearbox size H102 – motor frame size 132M – 4 poles					176
	30.1	2382	48.4	1.3	2KG4101 - ■■■N32-4■■■	
	32.8	2181	44.3	1.4	2KG4101 - ■■■N31-4■■■	
	35.6	2009	40.8	1.5	2KG4101 - ■■■N30-4■■■	
	38.5	1860	37.8	1.7	2KG4101 - ■■■N28-4■■■	
	41.4	1730	35.1	1.8	2KG4101 - ■■■N27-4■■■	
	44.3	1615	32.8	1.9	2KG4101 - ■■■N26-4■■■	
	49.6	1445	29.4	2.1	2KG4101 - ■■■N25-4■■■	
	53.5	1339	27.2	2.3	2KG4101 - ■■■N24-4■■■	
	58.3	1228	24.9	2.5	2KG4101 - ■■■N23-4■■■	
	63.6	1125	22.9	2.8	2KG4101 - ■■■N22-4■■■	
	74.7	959	19.5	3.2	2KG4101 - ■■■N21-4■■■	
	84.6	846	17.2	3.7	2KG4101 - ■■■N20-4■■■	
	Gearbox size H82 – motor frame size 132M – 4 poles					126
	39	1835	37.3	0.92	2KG3181 - ■■■N27-4■■■	
	42.7	1677	34.1	1	2KG3181 - ■■■N26-4■■■	
	46.5	1542	31.3	1.1	2KG3181 - ■■■N25-4■■■	
	50.3	1424	28.9	1.2	2KG3181 - ■■■N24-4■■■	
	54.2	1322	26.9	1.3	2KG3181 - ■■■N23-4■■■	
	58.2	1231	25	1.4	2KG3181 - ■■■N22-4■■■	
	64.4	1113	22.6	1.5	2KG3181 - ■■■N21-4■■■	
	69.9	1024	20.8	1.6	2KG3181 - ■■■N20-4■■■	
	77.7	922	18.7	1.8	2KG3181 - ■■■N18-4■■■	
	84.3	850	17.3	2	2KG3181 - ■■■N17-4■■■	
	99.5	720	14.6	2.2	2KG3181 - ■■■N16-4■■■	
	114	628	12.8	2.5	2KG3181 - ■■■N15-4■■■	
	134	534	10.9	2.8	2KG3181 - ■■■N14-4■■■	
	157	456	9.26	3	2KG3181 - ■■■N13-4■■■	
	192	374	7.59	3.5	2KG3181 - ■■■N12-4■■■	
	209	343	6.96	3.7	2KG3181 - ■■■N11-4■■■	
	Gearbox size H62 – motor frame size 132M – 4 poles					90
	81.6	877	17.8	0.91	2KG3161 - ■■■N20-4■■■	
	88.4	810	16.5	0.99	2KG3161 - ■■■N18-4■■■	
	98.7	726	14.7	1.1	2KG3161 - ■■■N17-4■■■	
	107	669	13.6	1.2	2KG3161 - ■■■N16-4■■■	
	128	561	11.4	1.4	2KG3161 - ■■■N15-4■■■	
150	479	9.73	1.6	2KG3161 - ■■■N14-4■■■		
179	399	8.11	1.8	2KG3161 - ■■■N13-4■■■		
217	331	6.72	2	2KG3161 - ■■■N12-4■■■		
245	292	5.93	1.7	2KG3161 - ■■■N11-4■■■		
288	249	5.06	1.9	2KG3161 - ■■■N10-4■■■		
345	208	4.22	2.3	2KG3161 - ■■■N08-4■■■		
417	172	3.49	2.4	2KG3161 - ■■■N07-4■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
7.5	Gearbox size E141 – motor frame size 132M – 4 poles					
	116	617	12.54	0.97	2KG4641 - ■■■N19-4■■■	177
	126	570	11.57	1.2	2KG4641 - ■■■N18-4■■■	
	136	528	10.73	1.4	2KG4641 - ■■■N17-4■■■	
	144	499	10.13	1.6	2KG4641 - ■■■N16-4■■■	
	154	466	9.47	2	2KG4641 - ■■■N15-4■■■	
	173	414	8.42	2.4	2KG4641 - ■■■N14-4■■■	
	183	391	7.95	2.7	2KG4641 - ■■■N13-4■■■	
	Gearbox size E121 – motor frame size 132M – 4 poles					
	143	499	10.14	1.1	2KG4621 - ■■■N20-4■■■	150
	155	463	9.4	1.3	2KG4621 - ■■■N18-4■■■	
	163	440	8.94	1.5	2KG4621 - ■■■N17-4■■■	
	174	411	8.35	1.7	2KG4621 - ■■■N16-4■■■	
	197	363	7.37	2.2	2KG4621 - ■■■N15-4■■■	
	209	342	6.95	2.6	2KG4621 - ■■■N14-4■■■	
	234	307	6.23	3	2KG4621 - ■■■N13-4■■■	
	253	283	5.75	3.4	2KG4621 - ■■■N12-4■■■	
	Gearbox size E101 – motor frame size 132M – 4 poles					
	266	269	5.46	2.5	2KG4601 - ■■■N09-4■■■	111
	291	246	5	2.8	2KG4601 - ■■■N08-4■■■	
	342	210	4.26	3.4	2KG4601 - ■■■N07-4■■■	
	387	185	3.76	3.2	2KG4601 - ■■■N06-4■■■	
	Gearbox size E81 – motor frame size 132M – 4 poles					
	223	321	6.53	0.93	2KG3681 - ■■■N13-4■■■	88
	240	298	6.06	0.94	2KG3681 - ■■■N12-4■■■	
	258	278	5.65	1.2	2KG3681 - ■■■N11-4■■■	
	285	252	5.11	1.5	2KG3681 - ■■■N10-4■■■	
	310	231	4.7	1.7	2KG3681 - ■■■N08-4■■■	
	344	208	4.23	1.9	2KG3681 - ■■■N07-4■■■	
	373	192	3.9	2	2KG3681 - ■■■N06-4■■■	
	441	162	3.3	2.8	2KG3681 - ■■■N05-4■■■	
	505	142	2.88	3.1	2KG3681 - ■■■N04-4■■■	
	594	121	2.45	3.5	2KG3681 - ■■■N03-4■■■	
Gearbox size E61 – motor frame size 132M – 4 poles						
295	243	4.93	0.93	2KG3661 - ■■■N12-4■■■	70	
319	224	4.56	0.98	2KG3661 - ■■■N11-4■■■		
343	209	4.24	1.1	2KG3661 - ■■■N10-4■■■		
389	184	3.74	1.2	2KG3661 - ■■■N08-4■■■		
422	170	3.45	1.4	2KG3661 - ■■■N07-4■■■		
471	152	3.09	1.6	2KG3661 - ■■■N06-4■■■		
511	140	2.85	1.8	2KG3661 - ■■■N05-4■■■		
609	118	2.39	2	2KG3661 - ■■■N04-4■■■		
713	100	2.04	2.1	2KG3661 - ■■■N03-4■■■		
856	84	1.7	2.1	2KG3661 - ■■■N02-4■■■		
1032	69	1.41	2.2	2KG3661 - ■■■N01-4■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
11	Gearbox size H183 – motor frame size 160M – 4 poles					
	6	17543	244	1.1	2KG4181 - ■■ Q53-4 ■■■	724
	7.1	14847	206	1.3	2KG4181 - ■■ Q51-4 ■■■	
	8.2	12752	177	1.6	2KG4181 - ■■ Q50-4 ■■■	
	9.5	11017	153	1.8	2KG4181 - ■■ Q48-4 ■■■	
	12	8754	122	2.3	2KG4181 - ■■ Q46-4 ■■■	
	14.5	7264	101	2.8	2KG4181 - ■■ Q45-4 ■■■	
	15.9	6624	92.1	3	2KG4181 - ■■ Q44-4 ■■■	
	Gearbox size H163 – motor frame size 160M – 4 poles					
	6.9	15145	210	0.92	2KG4161 - ■■ Q53-4 ■■■	564
	7.3	14298	199	0.98	2KG4161 - ■■ Q52-4 ■■■	
	8.2	12835	178	1.1	2KG4161 - ■■ Q51-4 ■■■	
	8.9	11780	164	1.2	2KG4161 - ■■ Q50-4 ■■■	
	10.3	10165	141	1.4	2KG4161 - ■■ Q48-4 ■■■	
	11.8	8893	124	1.6	2KG4161 - ■■ Q47-4 ■■■	
	13.6	7733	107	1.8	2KG4161 - ■■ Q46-4 ■■■	
	15.5	6785	94.3	2.1	2KG4161 - ■■ Q45-4 ■■■	
	18.3	5738	79.8	2.4	2KG4161 - ■■ Q44-4 ■■■	
	20.2	5206	72.4	2.7	2KG4161 - ■■ Q43-4 ■■■	
	23.1	4539	63.1	3.1	2KG4161 - ■■ Q42-4 ■■■	
	27.3	3854	53.6	3.6	2KG4161 - ■■ Q41-4 ■■■	
	Gearbox size H143 – motor frame size 160M – 4 poles					
	13.1	8023	112	1	2KG4141 - ■■ Q48-4 ■■■	378
	13.6	7729	107	1	2KG4141 - ■■ Q47-4 ■■■	
	15.7	6685	92.9	1.2	2KG4141 - ■■ Q46-4 ■■■	
	18	5831	81	1.4	2KG4141 - ■■ Q45-4 ■■■	
	21	4991	69.4	1.6	2KG4141 - ■■ Q44-4 ■■■	
	23.5	4470	62.1	1.8	2KG4141 - ■■ Q43-4 ■■■	
	Gearbox size H142 – motor frame size 160M – 4 poles					
	26.9	3903	54.2	2	2KG4141 - ■■ Q32-4 ■■■	364
	28.8	3651	50.7	2.2	2KG4141 - ■■ Q31-4 ■■■	
	32.4	3246	45.1	2.5	2KG4141 - ■■ Q30-4 ■■■	
	34.3	3064	42.6	2.6	2KG4141 - ■■ Q28-4 ■■■	
	38.2	2751	38.2	2.9	2KG4141 - ■■ Q27-4 ■■■	
	41.6	2525	35.1	3.2	2KG4141 - ■■ Q26-4 ■■■	
	Gearbox size H123 – motor frame size 160M – 4 poles					
	18.7	5617	78.1	0.91	2KG4121 - ■■ Q45-4 ■■■	282
	22	4780	66.4	1.1	2KG4121 - ■■ Q44-4 ■■■	
	25.4	4142	57.6	1.2	2KG4121 - ■■ Q43-4 ■■■	
	30.1	3485	48.4	1.5	2KG4121 - ■■ Q42-4 ■■■	
	33.4	3145	43.7	1.6	2KG4121 - ■■ Q41-4 ■■■	
	Gearbox size H122 – motor frame size 160M – 4 poles					
	37.5	2802	38.9	1.8	2KG4121 - ■■ Q32-4 ■■■	272
	40.1	2618	36.4	1.9	2KG4121 - ■■ Q31-4 ■■■	
	45.5	2310	32.1	2.2	2KG4121 - ■■ Q30-4 ■■■	
	48.2	2179	30.3	2.3	2KG4121 - ■■ Q28-4 ■■■	
	53.8	1952	27.1	2.6	2KG4121 - ■■ Q27-4 ■■■	
	58.3	1802	25.1	2.8	2KG4121 - ■■ Q26-4 ■■■	
	68.2	1540	21.4	3.3	2KG4121 - ■■ Q25-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
11	Gearbox size H103 – motor frame size 160M – 4 poles					
	34.3	3066	42.6	1	2KG4101 - ■■ Q40-4 ■■■	200
	Gearbox size H102 – motor frame size 160M – 4 poles					
	41.5	2528	35.1	1.2	2KG4101 - ■■ Q27-4 ■■■	195
	44.5	2361	32.8	1.3	2KG4101 - ■■ Q26-4 ■■■	
	49.7	2112	29.4	1.5	2KG4101 - ■■ Q25-4 ■■■	
	53.7	1957	27.2	1.6	2KG4101 - ■■ Q24-4 ■■■	
	58.5	1794	24.9	1.7	2KG4101 - ■■ Q23-4 ■■■	
	63.9	1645	22.9	1.9	2KG4101 - ■■ Q22-4 ■■■	
	74.9	1402	19.5	2.2	2KG4101 - ■■ Q21-4 ■■■	
	84.9	1237	17.2	2.5	2KG4101 - ■■ Q20-4 ■■■	
	99.8	1053	14.6	2.9	2KG4101 - ■■ Q18-4 ■■■	
	115	912	12.7	3.4	2KG4101 - ■■ Q17-4 ■■■	
	137	768	10.7	4	2KG4101 - ■■ Q16-4 ■■■	
	152	692	9.62	4.5	2KG4101 - ■■ Q15-4 ■■■	
	Gearbox size H82 – motor frame size 160M – 4 poles					
	58.4	1800	25	0.93	2KG3181 - ■■ Q22-4 ■■■	145
	64.6	1627	22.6	1	2KG3181 - ■■ Q21-4 ■■■	
	70.2	1497	20.8	1.1	2KG3181 - ■■ Q20-4 ■■■	
	78	1347	18.7	1.2	2KG3181 - ■■ Q18-4 ■■■	
	84.5	1243	17.3	1.4	2KG3181 - ■■ Q17-4 ■■■	
	99.8	1053	14.6	1.5	2KG3181 - ■■ Q16-4 ■■■	
	115	917	12.8	1.7	2KG3181 - ■■ Q15-4 ■■■	
	135	781	10.9	1.9	2KG3181 - ■■ Q14-4 ■■■	
	158	666	9.26	2.1	2KG3181 - ■■ Q13-4 ■■■	
	192	546	7.59	2.4	2KG3181 - ■■ Q12-4 ■■■	
	210	501	6.96	2.5	2KG3181 - ■■ Q11-4 ■■■	
	246	427	5.94	2.8	2KG3181 - ■■ Q10-4 ■■■	
	300	350	4.87	3.2	2KG3181 - ■■ Q08-4 ■■■	
	328	320	4.45	2.5	2KG3181 - ■■ Q07-4 ■■■	
	385	273	3.79	2.7	2KG3181 - ■■ Q06-4 ■■■	
	469	224	3.11	2.9	2KG3181 - ■■ Q05-4 ■■■	
	Gearbox size E141 – motor frame size 160M – 4 poles					
	144	729	10.13	1.1	2KG4641 - ■■ Q16-4 ■■■	196
	154	681	9.47	1.4	2KG4641 - ■■ Q15-4 ■■■	
	173	606	8.42	1.7	2KG4641 - ■■ Q14-4 ■■■	
	184	572	7.95	1.9	2KG4641 - ■■ Q13-4 ■■■	
	204	514	7.14	2.2	2KG4641 - ■■ Q12-4 ■■■	
	Gearbox size E121 – motor frame size 160M – 4 poles					
	163	643	8.94	0.99	2KG4621 - ■■ Q17-4 ■■■	169
	175	601	8.35	1.2	2KG4621 - ■■ Q16-4 ■■■	
	198	530	7.37	1.5	2KG4621 - ■■ Q15-4 ■■■	
	210	500	6.95	1.8	2KG4621 - ■■ Q14-4 ■■■	
	234	448	6.23	2.1	2KG4621 - ■■ Q13-4 ■■■	
	254	414	5.75	2.3	2KG4621 - ■■ Q12-4 ■■■	
	297	353	4.91	2.7	2KG4621 - ■■ Q11-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
11	Gearbox size E101 – motor frame size 160M – 4 poles					130
	267	393	5.46	1.7	2KG4601 - ■■ Q09-4 ■■■	
	292	360	5	1.9	2KG4601 - ■■ Q08-4 ■■■	
	343	307	4.26	2.3	2KG4601 - ■■ Q07-4 ■■■	
	388	271	3.76	2.2	2KG4601 - ■■ Q06-4 ■■■	
	456	230	3.2	3.2	2KG4601 - ■■ Q05-4 ■■■	
	Gearbox size E81 – motor frame size 160M – 4 poles					107
	286	368	5.11	1	2KG3681 - ■■ Q10-4 ■■■	
	311	338	4.7	1.1	2KG3681 - ■■ Q08-4 ■■■	
	345	304	4.23	1.3	2KG3681 - ■■ Q07-4 ■■■	
	374	281	3.9	1.4	2KG3681 - ■■ Q06-4 ■■■	
	442	237	3.3	1.9	2KG3681 - ■■ Q05-4 ■■■	
	507	207	2.88	2.1	2KG3681 - ■■ Q04-4 ■■■	
	596	176	2.45	2.4	2KG3681 - ■■ Q03-4 ■■■	
	699	150	2.09	2.8	2KG3681 - ■■ Q02-4 ■■■	
	854	123	1.71	2.9	2KG3681 - ■■ Q01-4 ■■■	
15	Gearbox size H183 – motor frame size 160L – 4 poles					749
	7.1	20245	206	0.99	2KG4181 - ■■ S51-4 ■■■	
	8.2	17389	177	1.2	2KG4181 - ■■ S50-4 ■■■	
	9.5	15024	153	1.3	2KG4181 - ■■ S48-4 ■■■	
	12	11938	122	1.7	2KG4181 - ■■ S46-4 ■■■	
	14.5	9906	101	2	2KG4181 - ■■ S45-4 ■■■	
	15.9	9033	92.1	2.2	2KG4181 - ■■ S44-4 ■■■	
	18.1	7925	80.8	2.5	2KG4181 - ■■ S43-4 ■■■	
	21	6810	69.4	2.9	2KG4181 - ■■ S42-4 ■■■	
	Gearbox size H163 – motor frame size 160L – 4 poles					589
	10.3	13862	141	1	2KG4161 - ■■ S48-4 ■■■	
	11.8	12126	124	1.2	2KG4161 - ■■ S47-4 ■■■	
	13.6	10546	107	1.3	2KG4161 - ■■ S46-4 ■■■	
	15.5	9252	94.3	1.5	2KG4161 - ■■ S45-4 ■■■	
	18.3	7825	79.8	1.8	2KG4161 - ■■ S44-4 ■■■	
	20.2	7100	72.4	2	2KG4161 - ■■ S43-4 ■■■	
	23.1	6189	63.1	2.3	2KG4161 - ■■ S42-4 ■■■	
	27.3	5255	53.6	2.7	2KG4161 - ■■ S41-4 ■■■	
	35.6	4022	41	3.5	2KG4161 - ■■ S40-4 ■■■	
	Gearbox size H143 – motor frame size 160L – 4 poles					403
	18	7951	81	1	2KG4141 - ■■ S45-4 ■■■	
	21	6805	69.4	1.2	2KG4141 - ■■ S44-4 ■■■	
	23.5	6095	62.1	1.3	2KG4141 - ■■ S43-4 ■■■	
	Gearbox size H142 – motor frame size 160L – 4 poles					389
	26.9	5322	54.2	1.5	2KG4141 - ■■ S32-4 ■■■	
	28.8	4978	50.7	1.6	2KG4141 - ■■ S31-4 ■■■	
	32.4	4426	45.1	1.8	2KG4141 - ■■ S30-4 ■■■	
	34.3	4179	42.6	1.9	2KG4141 - ■■ S28-4 ■■■	
	38.2	3751	38.2	2.1	2KG4141 - ■■ S27-4 ■■■	
	41.6	3443	35.1	2.3	2KG4141 - ■■ S26-4 ■■■	
	48.2	2971	30.3	2.7	2KG4141 - ■■ S25-4 ■■■	
	55.1	2599	26.5	3.1	2KG4141 - ■■ S24-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
15	Gearbox size H123 – motor frame size 160L – 4 poles					
	30.1	4753	48.4	1.1	2KG4121 - ■■ S42-4 ■■■	307
	33.4	4289	43.7	1.2	2KG4121 - ■■ S41-4 ■■■	
	Gearbox size H122 – motor frame size 160L – 4 poles					
	37.5	3821	38.9	1.3	2KG4121 - ■■ S32-4 ■■■	297
	40.1	3570	36.4	1.4	2KG4121 - ■■ S31-4 ■■■	
	45.5	3151	32.1	1.6	2KG4121 - ■■ S30-4 ■■■	
	48.2	2971	30.3	1.7	2KG4121 - ■■ S28-4 ■■■	
	53.8	2662	27.1	1.9	2KG4121 - ■■ S27-4 ■■■	
	58.3	2458	25.1	2.1	2KG4121 - ■■ S26-4 ■■■	
	68.2	2101	21.4	2.4	2KG4121 - ■■ S25-4 ■■■	
	75.5	1899	19.4	2.7	2KG4121 - ■■ S24-4 ■■■	
	78.3	1829	18.6	2.8	2KG4121 - ■■ S23-4 ■■■	
	90.6	1582	16.1	3.2	2KG4121 - ■■ S22-4 ■■■	
	104	1380	14.1	3.5	2KG4121 - ■■ S21-4 ■■■	
	Gearbox size H102 – motor frame size 160L – 4 poles					
	44.5	3219	32.8	0.96	2KG4101 - ■■ S26-4 ■■■	220
	49.7	2880	29.4	1.1	2KG4101 - ■■ S25-4 ■■■	
	53.7	2669	27.2	1.2	2KG4101 - ■■ S24-4 ■■■	
	58.5	2447	24.9	1.3	2KG4101 - ■■ S23-4 ■■■	
	63.9	2243	22.9	1.4	2KG4101 - ■■ S22-4 ■■■	
	74.9	1911	19.5	1.6	2KG4101 - ■■ S21-4 ■■■	
	84.9	1687	17.2	1.8	2KG4101 - ■■ S20-4 ■■■	
	99.8	1435	14.6	2.2	2KG4101 - ■■ S18-4 ■■■	
	115	1244	12.7	2.5	2KG4101 - ■■ S17-4 ■■■	
	137	1047	10.7	3	2KG4101 - ■■ S16-4 ■■■	
	152	944	9.62	3.3	2KG4101 - ■■ S15-4 ■■■	
	177	811	8.27	3.8	2KG4101 - ■■ S14-4 ■■■	
	206	697	7.1	2.6	2KG4101 - ■■ S13-4 ■■■	
	228	629	6.41	2.8	2KG4101 - ■■ S12-4 ■■■	
	265	541	5.51	3.1	2KG4101 - ■■ S11-4 ■■■	
	279	514	5.24	2.2	2KG4101 - ■■ S10-4 ■■■	
	331	433	4.41	2.6	2KG4101 - ■■ S08-4 ■■■	
	367	391	3.98	2.9	2KG4101 - ■■ S07-4 ■■■	
	427	336	3.42	3.2	2KG4101 - ■■ S06-4 ■■■	
	Gearbox size H82 – motor frame size 160L – 4 poles					
	78	1837	18.7	0.91	2KG3181 - ■■ S18-4 ■■■	170
	84.5	1694	17.3	0.99	2KG3181 - ■■ S17-4 ■■■	
	99.8	1435	14.6	1.1	2KG3181 - ■■ S16-4 ■■■	
	115	1251	12.8	1.2	2KG3181 - ■■ S15-4 ■■■	
	135	1065	10.9	1.4	2KG3181 - ■■ S14-4 ■■■	
	158	909	9.26	1.5	2KG3181 - ■■ S13-4 ■■■	
	192	745	7.59	1.7	2KG3181 - ■■ S12-4 ■■■	
	210	683	6.96	1.8	2KG3181 - ■■ S11-4 ■■■	
	246	583	5.94	2	2KG3181 - ■■ S10-4 ■■■	
	300	478	4.87	2.3	2KG3181 - ■■ S08-4 ■■■	
	328	437	4.45	1.8	2KG3181 - ■■ S07-4 ■■■	
	385	372	3.79	2	2KG3181 - ■■ S06-4 ■■■	
	469	305	3.11	2.2	2KG3181 - ■■ S05-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9
 For shaft designs, see page 3/6 — M, P, S, V
 For gearbox mounting positions acc. to figure, see page 3/8 — A to F
 For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D
 For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B	kg	
15	Gearbox size E141 – motor frame size 160L – 4 poles					
	154	929	9.47	0.99	2KG4641 - ■■S15-4■■■	221
	173	826	8.42	1.2	2KG4641 - ■■S14-4■■■	
	184	780	7.95	1.4	2KG4641 - ■■S13-4■■■	
	204	701	7.14	1.6	2KG4641 - ■■S12-4■■■	
	223	643	6.55	1.8	2KG4641 - ■■S11-4■■■	
	258	554	5.65	2.5	2KG4641 - ■■S10-4■■■	
	296	485	4.94	2.9	2KG4641 - ■■S08-4■■■	
	Gearbox size E121 – motor frame size 160L – 4 poles					
	198	723	7.37	1.1	2KG4621 - ■■S15-4■■■	194
	210	682	6.95	1.3	2KG4621 - ■■S14-4■■■	
	234	611	6.23	1.5	2KG4621 - ■■S13-4■■■	
	254	564	5.75	1.7	2KG4621 - ■■S12-4■■■	
	297	482	4.91	2	2KG4621 - ■■S11-4■■■	
	329	436	4.44	2.3	2KG4621 - ■■S10-4■■■	
	341	420	4.28	2.4	2KG4621 - ■■S08-4■■■	
	395	363	3.7	2.8	2KG4621 - ■■S07-4■■■	
	452	317	3.23	3.2	2KG4621 - ■■S06-4■■■	
	529	271	2.76	3.7	2KG4621 - ■■S05-4■■■	
	591	242	2.47	3.9	2KG4621 - ■■S04-4■■■	
	695	206	2.1	4.2	2KG4621 - ■■S03-4■■■	
	807	178	1.81	4.5	2KG4621 - ■■S02-4■■■	
	1074	133	1.36	5.1	2KG4621 - ■■S01-4■■■	
	Gearbox size E101 – motor frame size 160L – 4 poles					
	267	536	5.46	1.2	2KG4601 - ■■S09-4■■■	155
	292	491	5	1.4	2KG4601 - ■■S08-4■■■	
	343	418	4.26	1.7	2KG4601 - ■■S07-4■■■	
	388	369	3.76	1.6	2KG4601 - ■■S06-4■■■	
	456	314	3.2	2.4	2KG4601 - ■■S05-4■■■	
	527	272	2.77	2.5	2KG4601 - ■■S04-4■■■	
	627	229	2.33	3	2KG4601 - ■■S03-4■■■	
	692	207	2.11	3	2KG4601 - ■■S02-4■■■	
	807	178	1.81	3.1	2KG4601 - ■■S01-4■■■	
Gearbox size E81 – motor frame size 160L – 4 poles						
345	415	4.23	0.96	2KG3681 - ■■S07-4■■■	132	
374	383	3.9	1	2KG3681 - ■■S06-4■■■		
442	324	3.3	1.4	2KG3681 - ■■S05-4■■■		
507	283	2.88	1.5	2KG3681 - ■■S04-4■■■		
596	240	2.45	1.7	2KG3681 - ■■S03-4■■■		
699	205	2.09	2	2KG3681 - ■■S02-4■■■		
854	168	1.71	2.1	2KG3681 - ■■S01-4■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to figure, see page 3/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
18.5	Gearbox size H183 – motor frame size 180M – 4 poles					
	8.2	21447	177	0.93	2KG4181 - ■ ■ T50-4 ■ ■ ■	768
	9.5	18529	153	1.1	2KG4181 - ■ ■ T48-4 ■ ■ ■	
	12	14723	122	1.4	2KG4181 - ■ ■ T46-4 ■ ■ ■	
	14.5	12217	101	1.6	2KG4181 - ■ ■ T45-4 ■ ■ ■	
	15.9	11140	92.1	1.8	2KG4181 - ■ ■ T44-4 ■ ■ ■	
	18.1	9774	80.8	2	2KG4181 - ■ ■ T43-4 ■ ■ ■	
	21	8399	69.4	2.4	2KG4181 - ■ ■ T42-4 ■ ■ ■	
	27	6542	54.1	3.1	2KG4181 - ■ ■ T41-4 ■ ■ ■	
	Gearbox size H182 – motor frame size 180M – 4 poles					
	27.9	6335	52.4	2.5	2KG4181 - ■ ■ T27-4 ■ ■ ■	736
	30.3	5835	48.2	2.7	2KG4181 - ■ ■ T26-4 ■ ■ ■	
	Gearbox size H163 – motor frame size 180M – 4 poles					
	11.8	14956	124	0.94	2KG4161 - ■ ■ T47-4 ■ ■ ■	608
	13.6	13006	107	1.1	2KG4161 - ■ ■ T46-4 ■ ■ ■	
	15.5	11411	94.3	1.2	2KG4161 - ■ ■ T45-4 ■ ■ ■	
	18.3	9651	79.8	1.5	2KG4161 - ■ ■ T44-4 ■ ■ ■	
	20.2	8756	72.4	1.6	2KG4161 - ■ ■ T43-4 ■ ■ ■	
	23.1	7633	63.1	1.8	2KG4161 - ■ ■ T42-4 ■ ■ ■	
	27.3	6481	53.6	2.2	2KG4161 - ■ ■ T41-4 ■ ■ ■	
	Gearbox size H162 – motor frame size 180M – 4 poles					
	31.3	5640	46.6	1.8	2KG4161 - ■ ■ T27-4 ■ ■ ■	586
	34.7	5093	42.1	2.7	2KG4161 - ■ ■ T26-4 ■ ■ ■	
	37	4774	39.5	2.9	2KG4161 - ■ ■ T25-4 ■ ■ ■	
	43.1	4100	33.9	3.4	2KG4161 - ■ ■ T24-4 ■ ■ ■	
	Gearbox size H143 – motor frame size 180M – 4 poles					
	21	8393	69.4	0.95	2KG4141 - ■ ■ T44-4 ■ ■ ■	422
	23.5	7517	62.1	1.1	2KG4141 - ■ ■ T43-4 ■ ■ ■	
	27.8	6366	52.6	1.3	2KG4141 - ■ ■ T42-4 ■ ■ ■	
	Gearbox size H142 – motor frame size 180M – 4 poles					
	32.4	5459	45.1	1.5	2KG4141 - ■ ■ T30-4 ■ ■ ■	408
	34.3	5154	42.6	1.6	2KG4141 - ■ ■ T28-4 ■ ■ ■	
	38.2	4626	38.2	1.7	2KG4141 - ■ ■ T27-4 ■ ■ ■	
	41.6	4246	35.1	1.9	2KG4141 - ■ ■ T26-4 ■ ■ ■	
	48.2	3664	30.3	2.2	2KG4141 - ■ ■ T25-4 ■ ■ ■	
	55.1	3206	26.5	2.5	2KG4141 - ■ ■ T24-4 ■ ■ ■	
	63.4	2788	23	2.9	2KG4141 - ■ ■ T23-4 ■ ■ ■	
	Gearbox size H123 – motor frame size 180M – 4 poles					
	33.4	5289	43.7	0.96	2KG4121 - ■ ■ T41-4 ■ ■ ■	326
	38.9	4546	37.6	1.1	2KG4121 - ■ ■ T40-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
18.5	Gearbox size H122 – motor frame size 180M – 4 poles					316
	45.5	3886	32.1	1.3	2KG4121 - ■■■ T30-4 ■■■	
	48.2	3664	30.3	1.4	2KG4121 - ■■■ T28-4 ■■■	
	53.8	3283	27.1	1.6	2KG4121 - ■■■ T27-4 ■■■	
	58.3	3031	25.1	1.7	2KG4121 - ■■■ T26-4 ■■■	
	68.2	2591	21.4	2	2KG4121 - ■■■ T25-4 ■■■	
	75.5	2342	19.4	2.2	2KG4121 - ■■■ T24-4 ■■■	
	78.3	2256	18.6	2.3	2KG4121 - ■■■ T23-4 ■■■	
	90.6	1951	16.1	2.6	2KG4121 - ■■■ T22-4 ■■■	239
	104	1701	14.1	2.9	2KG4121 - ■■■ T21-4 ■■■	
	Gearbox size H102 – motor frame size 180M – 4 poles					
	53.7	3291	27.2	0.94	2KG4101 - ■■■ T24-4 ■■■	
	58.5	3018	24.9	1	2KG4101 - ■■■ T23-4 ■■■	
	63.9	2766	22.9	1.1	2KG4101 - ■■■ T22-4 ■■■	
	74.9	2357	19.5	1.3	2KG4101 - ■■■ T21-4 ■■■	
	84.9	2080	17.2	1.5	2KG4101 - ■■■ T20-4 ■■■	
	99.8	1770	14.6	1.8	2KG4101 - ■■■ T18-4 ■■■	
	115	1534	12.7	2	2KG4101 - ■■■ T17-4 ■■■	
	137	1291	10.7	2.4	2KG4101 - ■■■ T16-4 ■■■	
	152	1164	9.62	2.7	2KG4101 - ■■■ T15-4 ■■■	
	177	1001	8.27	3.1	2KG4101 - ■■■ T14-4 ■■■	
	206	859	7.1	2.1	2KG4101 - ■■■ T13-4 ■■■	
	228	776	6.41	2.3	2KG4101 - ■■■ T12-4 ■■■	
	265	667	5.51	2.5	2KG4101 - ■■■ T11-4 ■■■	
	279	634	5.24	1.8	2KG4101 - ■■■ T10-4 ■■■	
	331	534	4.41	2.1	2KG4101 - ■■■ T08-4 ■■■	
	367	482	3.98	2.3	2KG4101 - ■■■ T07-4 ■■■	
	427	414	3.42	2.6	2KG4101 - ■■■ T06-4 ■■■	
	Gearbox size E141 – motor frame size 180M – 4 poles					240
	173	1019	8.42	0.98	2KG4641 - ■■■ T14-4 ■■■	
	184	962	7.95	1.1	2KG4641 - ■■■ T13-4 ■■■	
	204	864	7.14	1.3	2KG4641 - ■■■ T12-4 ■■■	
	223	793	6.55	1.5	2KG4641 - ■■■ T11-4 ■■■	
	258	684	5.65	2	2KG4641 - ■■■ T10-4 ■■■	
	296	598	4.94	2.3	2KG4641 - ■■■ T08-4 ■■■	
	340	520	4.3	2.6	2KG4641 - ■■■ T07-4 ■■■	
387	456	3.77	3	2KG4641 - ■■■ T06-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — **0, 1, 3, or 9**

For shaft designs, see page 3/6 — **M, P, S, V**

For gearbox mounting positions acc. to figure, see page 3/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — **A to D**

For voltage/frequency, see page 3/7 — **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
18.5	Gearbox size E121 – motor frame size 180M – 4 poles					213
	198	892	7.37	0.91	2KG4621 - ■■■T15-4■■■	
	210	841	6.95	1	2KG4621 - ■■■T14-4■■■	
	234	754	6.23	1.2	2KG4621 - ■■■T13-4■■■	
	254	696	5.75	1.4	2KG4621 - ■■■T12-4■■■	
	297	594	4.91	1.6	2KG4621 - ■■■T11-4■■■	
	329	537	4.44	1.9	2KG4621 - ■■■T10-4■■■	
	341	518	4.28	1.9	2KG4621 - ■■■T08-4■■■	
	395	448	3.7	2.2	2KG4621 - ■■■T07-4■■■	
	452	391	3.23	2.6	2KG4621 - ■■■T06-4■■■	
	529	334	2.76	3	2KG4621 - ■■■T05-4■■■	
	591	299	2.47	3.2	2KG4621 - ■■■T04-4■■■	
	695	254	2.1	3.4	2KG4621 - ■■■T03-4■■■	
	807	219	1.81	3.7	2KG4621 - ■■■T02-4■■■	
	1074	165	1.36	4.1	2KG4621 - ■■■T01-4■■■	
	Gearbox size E101 – motor frame size 180M – 4 poles					174
	267	661	5.46	1	2KG4601 - ■■■T09-4■■■	
	292	605	5	1.1	2KG4601 - ■■■T08-4■■■	
	343	516	4.26	1.4	2KG4601 - ■■■T07-4■■■	
	388	455	3.76	1.3	2KG4601 - ■■■T06-4■■■	
	456	387	3.2	1.9	2KG4601 - ■■■T05-4■■■	
	527	335	2.77	2	2KG4601 - ■■■T04-4■■■	
	627	282	2.33	2.4	2KG4601 - ■■■T03-4■■■	
	692	255	2.11	2.4	2KG4601 - ■■■T02-4■■■	
	807	219	1.81	2.5	2KG4601 - ■■■T01-4■■■	
22	Gearbox size H183 – motor frame size 180L – 4 poles					782
	9.5	22035	153	0.91	2KG4181 - ■■■U48-4■■■	
	12	17509	122	1.1	2KG4181 - ■■■U46-4■■■	
	14.5	14529	101	1.4	2KG4181 - ■■■U45-4■■■	
	15.9	13248	92.1	1.5	2KG4181 - ■■■U44-4■■■	
	18.1	11623	80.8	1.7	2KG4181 - ■■■U43-4■■■	
	21	9988	69.4	2	2KG4181 - ■■■U42-4■■■	
	27	7779	54.1	2.6	2KG4181 - ■■■U41-4■■■	
	Gearbox size H182 – motor frame size 180L – 4 poles					750
	27.9	7533	52.4	2.1	2KG4181 - ■■■U27-4■■■	
	30.3	6939	48.2	2.3	2KG4181 - ■■■U26-4■■■	
	34.9	6022	41.9	2.7	2KG4181 - ■■■U25-4■■■	
	Gearbox size H163 – motor frame size 180L – 4 poles					622
	13.6	15467	107	0.91	2KG4161 - ■■■U46-4■■■	
	15.5	13570	94.3	1	2KG4161 - ■■■U45-4■■■	
	18.3	11476	79.8	1.2	2KG4161 - ■■■U44-4■■■	
	20.2	10413	72.4	1.3	2KG4161 - ■■■U43-4■■■	
	23.1	9077	63.1	1.5	2KG4161 - ■■■U42-4■■■	
	27.3	7708	53.6	1.8	2KG4161 - ■■■U41-4■■■	
	35.6	5899	41	2.4	2KG4161 - ■■■U40-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
22	Gearbox size H162 – motor frame size 180L – 4 poles					
	31.3	6707	46.6	1.5	2KG4161 - ■■■U27-4■■■	600
	34.7	6057	42.1	2.3	2KG4161 - ■■■U26-4■■■	
	37	5677	39.5	2.5	2KG4161 - ■■■U25-4■■■	
	43.1	4875	33.9	2.9	2KG4161 - ■■■U24-4■■■	
	49.9	4212	29.3	3.3	2KG4161 - ■■■U23-4■■■	
	Gearbox size H143 – motor frame size 180L – 4 poles					
	27.8	7571	52.6	1.1	2KG4141 - ■■■U42-4■■■	436
	Gearbox size H142 – motor frame size 180L – 4 poles					
	32.4	6492	45.1	1.2	2KG4141 - ■■■U30-4■■■	422
	34.3	6129	42.6	1.3	2KG4141 - ■■■U28-4■■■	
	38.2	5501	38.2	1.5	2KG4141 - ■■■U27-4■■■	
	41.6	5050	35.1	1.6	2KG4141 - ■■■U26-4■■■	
	48.2	4357	30.3	1.8	2KG4141 - ■■■U25-4■■■	
	55.1	3812	26.5	2.1	2KG4141 - ■■■U24-4■■■	
	63.4	3316	23	2.4	2KG4141 - ■■■U23-4■■■	
	72.2	2908	20.2	2.8	2KG4141 - ■■■U22-4■■■	
	85.4	2459	17.1	3.3	2KG4141 - ■■■U21-4■■■	
	Gearbox size H123 – motor frame size 180L – 4 poles					
	38.9	5406	37.6	0.94	2KG4121 - ■■■U40-4■■■	340
	Gearbox size H122 – motor frame size 180L – 4 poles					
	45.5	4621	32.1	1.1	2KG4121 - ■■■U30-4■■■	330
	48.2	4357	30.3	1.2	2KG4121 - ■■■U28-4■■■	
	53.8	3904	27.1	1.3	2KG4121 - ■■■U27-4■■■	
	58.3	3605	25.1	1.4	2KG4121 - ■■■U26-4■■■	
	68.2	3081	21.4	1.7	2KG4121 - ■■■U25-4■■■	
	75.5	2785	19.4	1.8	2KG4121 - ■■■U24-4■■■	
	78.3	2682	18.6	1.9	2KG4121 - ■■■U23-4■■■	
	90.6	2320	16.1	2.2	2KG4121 - ■■■U22-4■■■	
	104	2023	14.1	2.4	2KG4121 - ■■■U21-4■■■	
	121	1731	12	2.7	2KG4121 - ■■■U20-4■■■	
	135	1551	10.8	3	2KG4121 - ■■■U18-4■■■	
	160	1314	9.13	3.4	2KG4121 - ■■■U17-4■■■	
	185	1134	7.88	3.8	2KG4121 - ■■■U16-4■■■	
	200	1049	7.29	2.4	2KG4121 - ■■■U15-4■■■	
	234	898	6.24	2.8	2KG4121 - ■■■U14-4■■■	
	246	853	5.93	4.6	2KG4121 - ■■■U13-4■■■	
	261	804	5.59	3.2	2KG4121 - ■■■U12-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
22	Gearbox size H102 – motor frame size 180L – 4 poles					
	63.9	3290	22.9	0.94	2KG4101 - ■■■U22-4 ■■■	253
	74.9	2803	19.5	1.1	2KG4101 - ■■■U21-4 ■■■	
	84.9	2474	17.2	1.3	2KG4101 - ■■■U20-4 ■■■	
	99.8	2105	14.6	1.5	2KG4101 - ■■■U18-4 ■■■	
	115	1825	12.7	1.7	2KG4101 - ■■■U17-4 ■■■	
	137	1535	10.7	2	2KG4101 - ■■■U16-4 ■■■	
	152	1384	9.62	2.2	2KG4101 - ■■■U15-4 ■■■	
	177	1190	8.27	2.6	2KG4101 - ■■■U14-4 ■■■	
	206	1022	7.1	1.8	2KG4101 - ■■■U13-4 ■■■	
	228	922	6.41	1.9	2KG4101 - ■■■U12-4 ■■■	
	265	793	5.51	2.1	2KG4101 - ■■■U11-4 ■■■	
	279	754	5.24	1.5	2KG4101 - ■■■U10-4 ■■■	
	331	635	4.41	1.8	2KG4101 - ■■■U08-4 ■■■	
	367	573	3.98	2	2KG4101 - ■■■U07-4 ■■■	
	427	492	3.42	2.2	2KG4101 - ■■■U06-4 ■■■	
	Gearbox size E141 – motor frame size 180L – 4 poles					
	184	1144	7.95	0.93	2KG4641 - ■■■U13-4 ■■■	254
	204	1027	7.14	1.1	2KG4641 - ■■■U12-4 ■■■	
	223	943	6.55	1.2	2KG4641 - ■■■U11-4 ■■■	
	258	813	5.65	1.7	2KG4641 - ■■■U10-4 ■■■	
	296	711	4.94	2	2KG4641 - ■■■U08-4 ■■■	
	340	619	4.3	2.1	2KG4641 - ■■■U07-4 ■■■	
	387	543	3.77	2.5	2KG4641 - ■■■U06-4 ■■■	
	Gearbox size E121 – motor frame size 180L – 4 poles					
	234	897	6.23	1	2KG4621 - ■■■U13-4 ■■■	227
	254	827	5.75	1.2	2KG4621 - ■■■U12-4 ■■■	
	297	707	4.91	1.4	2KG4621 - ■■■U11-4 ■■■	
	329	639	4.44	1.6	2KG4621 - ■■■U10-4 ■■■	
	341	616	4.28	1.6	2KG4621 - ■■■U08-4 ■■■	
	395	532	3.7	1.9	2KG4621 - ■■■U07-4 ■■■	
	452	465	3.23	2.2	2KG4621 - ■■■U06-4 ■■■	
	529	397	2.76	2.5	2KG4621 - ■■■U05-4 ■■■	
	591	355	2.47	2.7	2KG4621 - ■■■U04-4 ■■■	
	695	302	2.1	2.8	2KG4621 - ■■■U03-4 ■■■	
	807	260	1.81	3.1	2KG4621 - ■■■U02-4 ■■■	
	1074	196	1.36	3.5	2KG4621 - ■■■U01-4 ■■■	
	Gearbox size E101 – motor frame size 180L – 4 poles					
	292	720	5	0.95	2KG4601 - ■■■U08-4 ■■■	188
	343	613	4.26	1.2	2KG4601 - ■■■U07-4 ■■■	
	388	541	3.76	1.1	2KG4601 - ■■■U06-4 ■■■	
	456	460	3.2	1.6	2KG4601 - ■■■U05-4 ■■■	
527	399	2.77	1.7	2KG4601 - ■■■U04-4 ■■■		
627	335	2.33	2	2KG4601 - ■■■U03-4 ■■■		
692	304	2.11	2	2KG4601 - ■■■U02-4 ■■■		
807	260	1.81	2.1	2KG4601 - ■■■U01-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— 0, 1, 3, or 9

For shaft designs, see page 3/6 ——— M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— A to D

For voltage/frequency, see page 3/7 ——— 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
30	Gearbox size H183 – motor frame size 200L – 4 poles					826
	14.5	19744	101	1	2KG4181 - ■■ W45-4 ■■■	
	15.9	18004	92.1	1.1	2KG4181 - ■■ W44-4 ■■■	
	18.1	15796	80.8	1.3	2KG4181 - ■■ W43-4 ■■■	
	21.1	13574	69.4	1.5	2KG4181 - ■■ W42-4 ■■■	
	27.1	10572	54.1	1.9	2KG4181 - ■■ W41-4 ■■■	
	Gearbox size H182 – motor frame size 200L – 4 poles					794
	28	10238	52.4	1.5	2KG4181 - ■■ W27-4 ■■■	
	30.4	9430	48.2	1.7	2KG4181 - ■■ W26-4 ■■■	
	35	8184	41.9	2	2KG4181 - ■■ W25-4 ■■■	
	39.7	7214	36.9	2.3	2KG4181 - ■■ W24-4 ■■■	
	45.3	6330	32.4	2.9	2KG4181 - ■■ W23-4 ■■■	
	Gearbox size H163 – motor frame size 200L – 4 poles					666
	20.2	14151	72.4	0.99	2KG4161 - ■■ W43-4 ■■■	
	23.2	12336	63.1	1.1	2KG4161 - ■■ W42-4 ■■■	
	27.4	10474	53.6	1.3	2KG4161 - ■■ W41-4 ■■■	
	Gearbox size H162 – motor frame size 200L – 4 poles					644
	31.4	9115	46.6	1.1	2KG4161 - ■■ W27-4 ■■■	
	34.8	8231	42.1	1.7	2KG4161 - ■■ W26-4 ■■■	
	37.1	7715	39.5	1.8	2KG4161 - ■■ W25-4 ■■■	
	43.2	6626	33.9	2.1	2KG4161 - ■■ W24-4 ■■■	
	50.1	5724	29.3	2.4	2KG4161 - ■■ W23-4 ■■■	
	56.7	5053	25.8	2.8	2KG4161 - ■■ W22-4 ■■■	
	63	4549	23.3	3.1	2KG4161 - ■■ W21-4 ■■■	
	Gearbox size H142 – motor frame size 200L – 4 poles					466
	32.5	8822	45.1	0.91	2KG4141 - ■■ W30-4 ■■■	
	34.4	8329	42.6	0.96	2KG4141 - ■■ W28-4 ■■■	
	38.3	7476	38.2	1.1	2KG4141 - ■■ W27-4 ■■■	
	41.7	6862	35.1	1.2	2KG4141 - ■■ W26-4 ■■■	
	48.4	5922	30.3	1.4	2KG4141 - ■■ W25-4 ■■■	
	55.3	5180	26.5	1.5	2KG4141 - ■■ W24-4 ■■■	
	63.6	4506	23	1.8	2KG4141 - ■■ W23-4 ■■■	
	72.5	3952	20.2	2	2KG4141 - ■■ W22-4 ■■■	
	85.7	3342	17.1	2.4	2KG4141 - ■■ W21-4 ■■■	
	94.5	3033	15.5	2.6	2KG4141 - ■■ W20-4 ■■■	
	108	2644	13.5	3	2KG4141 - ■■ W18-4 ■■■	
	128	2245	11.5	3.6	2KG4141 - ■■ W17-4 ■■■	
	167	1719	8.79	4.7	2KG4141 - ■■ W16-4 ■■■	
	170	1690	8.64	2.8	2KG4141 - ■■ W15-4 ■■■	
	187	1533	7.84	3.1	2KG4141 - ■■ W14-4 ■■■	
	194	1480	7.57	3.8	2KG4141 - ■■ W13-4 ■■■	
	214	1338	6.84	3.6	2KG4141 - ■■ W12-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
30	Gearbox size H122 – motor frame size 200L – 4 poles					374
	54	5306	27.1	0.96	2KG4121 - ■ ■ W27-4 ■ ■ ■	
	58.5	4899	25.1	1	2KG4121 - ■ ■ W26-4 ■ ■ ■	
	68.4	4187	21.4	1.2	2KG4121 - ■ ■ W25-4 ■ ■ ■	
	75.7	3784	19.4	1.3	2KG4121 - ■ ■ W24-4 ■ ■ ■	
	78.6	3645	18.6	1.4	2KG4121 - ■ ■ W23-4 ■ ■ ■	
	90.9	3152	16.1	1.6	2KG4121 - ■ ■ W22-4 ■ ■ ■	
	104	2750	14.1	1.8	2KG4121 - ■ ■ W21-4 ■ ■ ■	
	122	2353	12	2	2KG4121 - ■ ■ W20-4 ■ ■ ■	
	136	2108	10.8	2.2	2KG4121 - ■ ■ W18-4 ■ ■ ■	
	160	1785	9.13	2.5	2KG4121 - ■ ■ W17-4 ■ ■ ■	
	186	1541	7.88	2.8	2KG4121 - ■ ■ W16-4 ■ ■ ■	
	201	1426	7.29	1.8	2KG4121 - ■ ■ W15-4 ■ ■ ■	
	235	1220	6.24	2.1	2KG4121 - ■ ■ W14-4 ■ ■ ■	
	247	1160	5.93	3.4	2KG4121 - ■ ■ W13-4 ■ ■ ■	
	262	1093	5.59	2.4	2KG4121 - ■ ■ W12-4 ■ ■ ■	
	303	945	4.83	2.7	2KG4121 - ■ ■ W11-4 ■ ■ ■	
	310	925	4.73	2.6	2KG4121 - ■ ■ W10-4 ■ ■ ■	
	358	800	4.09	3	2KG4121 - ■ ■ W08-4 ■ ■ ■	
	404	710	3.63	3.3	2KG4121 - ■ ■ W07-4 ■ ■ ■	
	477	600	3.07	3.7	2KG4121 - ■ ■ W06-4 ■ ■ ■	
	Gearbox size H102 – motor frame size 200L – 4 poles					297
	85.2	3362	17.2	0.92	2KG4101 - ■ ■ W20-4 ■ ■ ■	
	100	2861	14.6	1.1	2KG4101 - ■ ■ W18-4 ■ ■ ■	
	116	2480	12.7	1.3	2KG4101 - ■ ■ W17-4 ■ ■ ■	
	137	2087	10.7	1.5	2KG4101 - ■ ■ W16-4 ■ ■ ■	
	152	1881	9.62	1.6	2KG4101 - ■ ■ W15-4 ■ ■ ■	
	177	1617	8.27	1.9	2KG4101 - ■ ■ W14-4 ■ ■ ■	
	206	1388	7.1	1.3	2KG4101 - ■ ■ W13-4 ■ ■ ■	
	229	1254	6.41	1.4	2KG4101 - ■ ■ W12-4 ■ ■ ■	
	266	1078	5.51	1.6	2KG4101 - ■ ■ W11-4 ■ ■ ■	
	280	1025	5.24	1.1	2KG4101 - ■ ■ W10-4 ■ ■ ■	
	332	862	4.41	1.3	2KG4101 - ■ ■ W08-4 ■ ■ ■	
	368	778	3.98	1.4	2KG4101 - ■ ■ W07-4 ■ ■ ■	
	428	669	3.42	1.6	2KG4101 - ■ ■ W06-4 ■ ■ ■	
	Gearbox size E141 – motor frame size 200L – 4 poles					298
	259	1105	5.65	1.2	2KG4641 - ■ ■ W10-4 ■ ■ ■	
	297	966	4.94	1.4	2KG4641 - ■ ■ W08-4 ■ ■ ■	
	341	841	4.3	1.6	2KG4641 - ■ ■ W07-4 ■ ■ ■	
	389	737	3.77	1.8	2KG4641 - ■ ■ W06-4 ■ ■ ■	
	459	624	3.19	2.5	2KG4641 - ■ ■ W05-4 ■ ■ ■	
	505	567	2.9	2.5	2KG4641 - ■ ■ W04-4 ■ ■ ■	
	581	493	2.52	2.5	2KG4641 - ■ ■ W03-4 ■ ■ ■	
	685	419	2.14	2.9	2KG4641 - ■ ■ W02-4 ■ ■ ■	
	893	321	1.64	3	2KG4641 - ■ ■ W01-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
30	Gearbox size E121 – motor frame size 200L – 4 poles					
	298	960	4.91	1	2KG4621 - ■ ■ W11-4 ■ ■ ■	271
	330	868	4.44	1.2	2KG4621 - ■ ■ W10-4 ■ ■ ■	
	342	837	4.28	1.2	2KG4621 - ■ ■ W08-4 ■ ■ ■	
	396	724	3.7	1.4	2KG4621 - ■ ■ W07-4 ■ ■ ■	
	454	632	3.23	1.6	2KG4621 - ■ ■ W06-4 ■ ■ ■	
	531	540	2.76	1.9	2KG4621 - ■ ■ W05-4 ■ ■ ■	
	593	483	2.47	2	2KG4621 - ■ ■ W04-4 ■ ■ ■	
	698	411	2.1	2.1	2KG4621 - ■ ■ W03-4 ■ ■ ■	
	809	354	1.81	2.3	2KG4621 - ■ ■ W02-4 ■ ■ ■	
	1077	266	1.36	2.6	2KG4621 - ■ ■ W01-4 ■ ■ ■	
	Gearbox size E101 – motor frame size 200L – 4 poles					
	458	626	3.2	1.2	2KG4601 - ■ ■ W05-4 ■ ■ ■	232
	529	542	2.77	1.2	2KG4601 - ■ ■ W04-4 ■ ■ ■	
	629	456	2.33	1.5	2KG4601 - ■ ■ W03-4 ■ ■ ■	
	694	413	2.11	1.5	2KG4601 - ■ ■ W02-4 ■ ■ ■	
	809	354	1.81	1.6	2KG4601 - ■ ■ W01-4 ■ ■ ■	

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Gearbox size H183 – motor frame size 225S – 4 poles						
18.2	19415	80.8	1	2KG4181 -   X43-4  	871	
21.2	16684	69.4	1.2	2KG4181 -   X42-4  		
27.2	12995	54.1	1.5	2KG4181 -   X41-4  		
Gearbox size H182 – motor frame size 225S – 4 poles						
28.1	12584	52.4	1.2	2KG4181 -   X27-4  	839	
30.5	11591	48.2	1.4	2KG4181 -   X26-4  		
35.1	10060	41.9	1.6	2KG4181 -   X25-4  		
39.8	8867	36.9	1.9	2KG4181 -   X24-4  		
45.4	7781	32.4	2.4	2KG4181 -   X23-4  		
50.4	7014	29.2	2.9	2KG4181 -   X22-4  		
Gearbox size H163 – motor frame size 225S – 4 poles						
23.3	15163	63.1	0.92	2KG4161 -   X42-4  	711	
27.4	12874	53.6	1.1	2KG4161 -   X41-4  		
Gearbox size H162 – motor frame size 225S – 4 poles						
34.9	10117	42.1	1.4	2KG4161 -   X26-4  	689	
37.3	9483	39.5	1.5	2KG4161 -   X25-4  		
43.4	8144	33.9	1.7	2KG4161 -   X24-4  		
50.2	7036	29.3	2	2KG4161 -   X23-4  		
56.9	6211	25.8	2.3	2KG4161 -   X22-4  		
63.2	5591	23.3	2.5	2KG4161 -   X21-4  		
76.2	4639	19.3	3	2KG4161 -   X20-4  		
83.5	4231	17.6	3.3	2KG4161 -   X18-4  		
95.2	3711	15.4	3.6	2KG4161 -   X17-4  		

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5

For shaft designs, see page 3/6

For gearbox mounting positions acc. to figure, see page 3/8

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8

For voltage/frequency, see page 3/7

0, 1, 3, or 9

M, P, S, V

A to F

A to D

1, 3, 5, 6, or 9

Geared motors

Helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
37	Gearbox size H142 – motor frame size 225S – 4 poles					511
	41.9	8435	35.1	0.95	2KG4141 - ■■X26-4■■■	
	48.5	7279	30.3	1.1	2KG4141 - ■■X25-4■■■	
	55.5	6368	26.5	1.3	2KG4141 - ■■X24-4■■■	
	63.8	5538	23	1.4	2KG4141 - ■■X23-4■■■	
	72.7	4858	20.2	1.6	2KG4141 - ■■X22-4■■■	
	86	4108	17.1	1.9	2KG4141 - ■■X21-4■■■	
	94.8	3728	15.5	2.1	2KG4141 - ■■X20-4■■■	
	109	3250	13.5	2.5	2KG4141 - ■■X18-4■■■	
	128	2759	11.5	2.9	2KG4141 - ■■X17-4■■■	
	167	2113	8.79	3.8	2KG4141 - ■■X16-4■■■	
	Gearbox size H122 – motor frame size 225S – 4 poles					419
	68.7	5146	21.4	0.99	2KG4121 - ■■X25-4■■■	
	76	4651	19.4	1.1	2KG4121 - ■■X24-4■■■	
	78.9	4481	18.6	1.1	2KG4121 - ■■X23-4■■■	
	91.2	3875	16.1	1.3	2KG4121 - ■■X22-4■■■	
	105	3380	14.1	1.4	2KG4121 - ■■X21-4■■■	
	122	2892	12	1.6	2KG4121 - ■■X20-4■■■	
	136	2591	10.8	1.8	2KG4121 - ■■X18-4■■■	
	161	2195	9.13	2	2KG4121 - ■■X17-4■■■	
	187	1894	7.88	2.2	2KG4121 - ■■X16-4■■■	
	202	1752	7.29	1.4	2KG4121 - ■■X15-4■■■	
	236	1500	6.24	1.7	2KG4121 - ■■X14-4■■■	
	248	1425	5.93	2.7	2KG4121 - ■■X13-4■■■	
	263	1344	5.59	1.9	2KG4121 - ■■X12-4■■■	
	304	1161	4.83	2.2	2KG4121 - ■■X11-4■■■	
	311	1137	4.73	2.1	2KG4121 - ■■X10-4■■■	
	359	983	4.09	2.4	2KG4121 - ■■X08-4■■■	
	405	873	3.63	2.6	2KG4121 - ■■X07-4■■■	
	479	738	3.07	3	2KG4121 - ■■X06-4■■■	
	Gearbox size E141 – motor frame size 225S – 4 poles					343
	260	1358	5.65	1	2KG4641 - ■■X10-4■■■	
	298	1187	4.94	1.2	2KG4641 - ■■X08-4■■■	
	342	1034	4.3	1.3	2KG4641 - ■■X07-4■■■	
	390	906	3.77	1.5	2KG4641 - ■■X06-4■■■	
	461	767	3.19	2	2KG4641 - ■■X05-4■■■	
	507	697	2.9	2	2KG4641 - ■■X04-4■■■	
	583	606	2.52	2	2KG4641 - ■■X03-4■■■	
	687	514	2.14	2.3	2KG4641 - ■■X02-4■■■	
	896	394	1.64	2.4	2KG4641 - ■■X01-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
37	Gearbox size E121 – motor frame size 225S – 4 poles					316
	331	1067	4.44	0.94	2KG4621 - ■ ■ X10-4 ■ ■ ■	
	343	1029	4.28	0.97	2KG4621 - ■ ■ X08-4 ■ ■ ■	
	397	889	3.7	1.1	2KG4621 - ■ ■ X07-4 ■ ■ ■	
	455	776	3.23	1.3	2KG4621 - ■ ■ X06-4 ■ ■ ■	
	533	663	2.76	1.5	2KG4621 - ■ ■ X05-4 ■ ■ ■	
	595	594	2.47	1.6	2KG4621 - ■ ■ X04-4 ■ ■ ■	
	700	505	2.1	1.7	2KG4621 - ■ ■ X03-4 ■ ■ ■	
	812	435	1.81	1.8	2KG4621 - ■ ■ X02-4 ■ ■ ■	
1081	327	1.36	2.1	2KG4621 - ■ ■ X01-4 ■ ■ ■		
45	Gearbox size H183 – motor frame size 225M – 4 poles					891
	21.2	20292	69.4	0.99	2KG4181 - ■ ■ Y42-4 ■ ■ ■	
	27.2	15804	54.1	1.3	2KG4181 - ■ ■ Y41-4 ■ ■ ■	
	34.2	12556	43	1.6	2KG4181 - ■ ■ Y40-4 ■ ■ ■	
	Gearbox size H182 – motor frame size 225M – 4 poles					859
	28.1	15304	52.4	1	2KG4181 - ■ ■ Y27-4 ■ ■ ■	
	30.5	14097	48.2	1.1	2KG4181 - ■ ■ Y26-4 ■ ■ ■	
	35.1	12235	41.9	1.3	2KG4181 - ■ ■ Y25-4 ■ ■ ■	
	39.8	10785	36.9	1.5	2KG4181 - ■ ■ Y24-4 ■ ■ ■	
	45.4	9463	32.4	1.9	2KG4181 - ■ ■ Y23-4 ■ ■ ■	
	50.4	8531	29.2	2.3	2KG4181 - ■ ■ Y22-4 ■ ■ ■	
	59.3	7241	24.8	2.8	2KG4181 - ■ ■ Y21-4 ■ ■ ■	
	63.9	6727	23	3	2KG4181 - ■ ■ Y20-4 ■ ■ ■	
	Gearbox size H162 – motor frame size 225M – 4 poles					709
	34.9	12305	42.1	1.1	2KG4161 - ■ ■ Y26-4 ■ ■ ■	
	37.3	11533	39.5	1.2	2KG4161 - ■ ■ Y25-4 ■ ■ ■	
	43.4	9905	33.9	1.4	2KG4161 - ■ ■ Y24-4 ■ ■ ■	
	50.2	8557	29.3	1.6	2KG4161 - ■ ■ Y23-4 ■ ■ ■	
	56.9	7554	25.8	1.9	2KG4161 - ■ ■ Y22-4 ■ ■ ■	
	63.2	6800	23.3	2.1	2KG4161 - ■ ■ Y21-4 ■ ■ ■	
	76.2	5642	19.3	2.5	2KG4161 - ■ ■ Y20-4 ■ ■ ■	
	83.5	5145	17.6	2.7	2KG4161 - ■ ■ Y18-4 ■ ■ ■	
	95.2	4514	15.4	3	2KG4161 - ■ ■ Y17-4 ■ ■ ■	
	111	3879	13.3	3.4	2KG4161 - ■ ■ Y16-4 ■ ■ ■	
All values apply at 50 Hz						
For types of construction, see pages 3/3 to 3/5				0, 1, 3, or 9		
For shaft designs, see page 3/6				M, P, S, V		
For gearbox mounting positions acc. to figure, see page 3/8				A to F		
For pos. of the connection system acc. to fig., see pages 3/7 to 3/8				A to D		
For voltage/frequency, see page 3/7				1, 3, 5, 6, or 9		

Geared motors

Helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
45	Gearbox size H142 – motor frame size 225M – 4 poles					531
	55.5	7744	26.5	1	2KG4141 - ■■■Y24-4■■■	
	63.8	6736	23	1.2	2KG4141 - ■■■Y23-4■■■	
	72.7	5908	20.2	1.4	2KG4141 - ■■■Y22-4■■■	
	86	4996	17.1	1.6	2KG4141 - ■■■Y21-4■■■	
	94.8	4534	15.5	1.8	2KG4141 - ■■■Y20-4■■■	
	109	3953	13.5	2	2KG4141 - ■■■Y18-4■■■	
	128	3356	11.5	2.4	2KG4141 - ■■■Y17-4■■■	
	167	2570	8.79	3.1	2KG4141 - ■■■Y16-4■■■	
	170	2526	8.64	1.9	2KG4141 - ■■■Y15-4■■■	
	188	2292	7.84	2.1	2KG4141 - ■■■Y14-4■■■	
	194	2213	7.57	2.5	2KG4141 - ■■■Y13-4■■■	
	215	2000	6.84	2.4	2KG4141 - ■■■Y12-4■■■	
	229	1880	6.43	2.9	2KG4141 - ■■■Y11-4■■■	
	253	1696	5.8	2.5	2KG4141 - ■■■Y10-4■■■	
	299	1438	4.92	3.5	2KG4141 - ■■■Y08-4■■■	
	331	1298	4.44	3	2KG4141 - ■■■Y07-4■■■	
	Gearbox size H122 – motor frame size 225M – 4 poles					439
	78.9	5449	18.6	0.94	2KG4121 - ■■■Y23-4■■■	
	91.2	4713	16.1	1.1	2KG4121 - ■■■Y22-4■■■	
	105	4110	14.1	1.2	2KG4121 - ■■■Y21-4■■■	
	122	3517	12	1.3	2KG4121 - ■■■Y20-4■■■	
	136	3151	10.8	1.5	2KG4121 - ■■■Y18-4■■■	
	161	2669	9.13	1.7	2KG4121 - ■■■Y17-4■■■	
	187	2304	7.88	1.8	2KG4121 - ■■■Y16-4■■■	
	202	2131	7.29	1.2	2KG4121 - ■■■Y15-4■■■	
	236	1824	6.24	1.4	2KG4121 - ■■■Y14-4■■■	
	248	1734	5.93	2.3	2KG4121 - ■■■Y13-4■■■	
	263	1634	5.59	1.6	2KG4121 - ■■■Y12-4■■■	
	304	1412	4.83	1.8	2KG4121 - ■■■Y11-4■■■	
	311	1383	4.73	1.7	2KG4121 - ■■■Y10-4■■■	
	359	1196	4.09	2	2KG4121 - ■■■Y08-4■■■	
	405	1061	3.63	2.2	2KG4121 - ■■■Y07-4■■■	
	479	898	3.07	2.5	2KG4121 - ■■■Y06-4■■■	
	Gearbox size E141 – motor frame size 225M – 4 poles					363
	298	1444	4.94	0.97	2KG4641 - ■■■Y08-4■■■	
	342	1257	4.3	1.1	2KG4641 - ■■■Y07-4■■■	
	390	1102	3.77	1.2	2KG4641 - ■■■Y06-4■■■	
	461	933	3.19	1.7	2KG4641 - ■■■Y05-4■■■	
	507	848	2.9	1.7	2KG4641 - ■■■Y04-4■■■	
	583	737	2.52	1.7	2KG4641 - ■■■Y03-4■■■	
	687	626	2.14	1.9	2KG4641 - ■■■Y02-4■■■	
	896	479	1.64	2	2KG4641 - ■■■Y01-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 — 0, 1, 3, or 9

For shaft designs, see page 3/6 — M, P, S, V

For gearbox mounting positions acc. to figure, see page 3/8 — A to F

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 — A to D

For voltage/frequency, see page 3/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
45						
Gearbox size E121 – motor frame size 225M – 4 poles						
	397	1082	3.7	0.92	2KG4621 - ■■Y07-4■■■	336
	455	944	3.23	1.1	2KG4621 - ■■Y06-4■■■	
	533	807	2.76	1.2	2KG4621 - ■■Y05-4■■■	
	595	722	2.47	1.3	2KG4621 - ■■Y04-4■■■	
	700	614	2.1	1.4	2KG4621 - ■■Y03-4■■■	
	812	529	1.81	1.5	2KG4621 - ■■Y02-4■■■	
	1081	398	1.36	1.7	2KG4621 - ■■Y01-4■■■	

All values apply at 50 Hz

For types of construction, see pages 3/3 to 3/5 ——— **0, 1, 3, or 9**

For shaft designs, see page 3/6 ——— **M, P, S, V**

For gearbox mounting positions acc. to figure, see page 3/8 ——— **A to F**

For pos. of the connection system acc. to fig., see pages 3/7 to 3/8 ——— **A to D**

For voltage/frequency, see page 3/7 ——— **1, 3, 5, 6, or 9**

Geared motors

Helical geared motors

Selection and ordering

Ratios and maximum torques

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th position	12th position				<i>i</i>	<i>n</i> ₂ rpm	<i>M</i> ₂ Nm	63	71	80	90	100	112	132	160	180
Single-stage helical gearbox with 4-pole motors, 50 Hz (with service factor <i>f</i> _B = 1 and an ambient temperature of 20 °C)																		
E31	32 to 82	0 1		1.59	912	72		•	•	•	•							
		0 2		1.85	784	82		•	•	•	•							
		0 3		2.05	707	80		•	•	•	•							
		0 4		2.24	647	72		•	•	•	•							
		0 5		2.50	580	73		•	•	•	•							
		0 6		2.73	531	80		•	•	•	•							
		0 7		3.00	483	80		•	•	•	•							
		0 8		3.31	438	65		•	•	•	•							
		1 0		3.67	395	70		•	•	•	•							
		1 1		4.15	349	62		•	•	•	•							
		1 2		4.58	317	78		•	•	•	•							
		1 3		5.18	280	70		•	•	•	•							
		1 4		5.92	245	53	•	•	•	•								
		1 5		6.73	215	48	•	•	•	•								
		1 6		7.20	201	38	•	•	•									
		1 7		8.30	175	32	•	•	•									
1 8		9.33	155	32	•	•												
E41	55 to 170	0 1		1.52	954	100				•	•	•						
		0 2		1.83	792	115				•	•	•						
		0 3		2.15	674	135				•	•	•						
		0 4		2.41	602	150				•	•	•						
		0 5		2.70	537	160				•	•	•						
		0 6		2.95	492	170				•	•	•						
		0 7		3.24	448	150			•	•	•	•						
		0 8		3.56	407	140			•	•	•	•						
		1 0		3.87	375	160			•	•	•	•						
		1 1		4.21	344	150			•	•	•	•						
		1 2		4.62	314	130			•	•	•	•						
		1 3		5.08	285	120		•	•	•	•							
		1 4		5.85	248	120		•	•	•	•							
		1 5		6.33	229	115		•	•	•	•							
		1 6		7.00	207	97		•	•	•	•							
		1 7		8.17	177	85	•	•	•	•								
		1 8		9.09	160	64	•	•	•	•								
		2 0		10.0	145	80	•	•	•	•								
		2 1		11.3	128	55	•	•	•									
E61	81 to 250	0 1		1.41	1028	150					•	•	•					
		0 2		1.70	853	175					•	•	•					
		0 3		2.04	711	210					•	•	•					
		0 4		2.39	607	230				•	•	•	•					
		0 5		2.85	509	250				•	•	•	•					
		0 6		3.09	469	250				•	•	•	•					
		0 7		3.45	420	240				•	•	•	•					
		0 8		3.74	388	230				•	•	•	•					
		1 0		4.24	342	230				•	•	•	•					
		1 1		4.56	318	220			•	•	•	•	•					
		1 2		4.93	294	225			•	•	•	•	•					
		1 3		5.36	271	220			•	•	•	•	•					
		1 4		5.92	245	190			•	•	•	•	•					
		1 5		6.42	226	170			•	•	•	•						
		1 6		7.23	201	150		•	•	•	•							
		1 7		7.92	183	170		•	•	•	•							

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
E61	81 to 250	1	8	8.82	164	150		•	•	•	•						
		2	0	10.1	144	95	•	•	•	•							
		2	1	11.2	130	92	•	•	•	•							
		2	2	12.4	117	81	•	•	•								
E81	210 to 450	0	1	1.71	848	355						•	•	•			
		0	2	2.09	694	420					•	•	•	•			
		0	3	2.45	592	420					•	•	•	•			
		0	4	2.88	503	435					•	•	•	•			
		0	5	3.30	439	450					•	•	•	•			
		0	6	3.90	372	385				•	•	•	•	•			
		0	7	4.23	343	400				•	•	•	•	•			
		0	8	4.70	309	385				•	•	•	•	•			
		1	0	5.11	284	370				•	•	•	•	•			
		1	1	5.65	257	320				•	•	•	•				
		1	2	6.06	239	280				•	•	•	•				
		1	3	6.53	222	300				•	•	•	•				
		1	4	7.07	205	290				•	•	•	•				
		1	5	7.69	189	245				•	•	•					
		1	6	8.42	172	245				•	•	•					
		1	7	9.46	153	210				•	•						
		1	8	10.33	140	230				•	•						
E101	550 to 745	0	1	1.81	801	550							•	•	•	•	
		0	2	2.11	687	620							•	•	•	•	
		0	3	2.33	622	680							•	•	•	•	
		0	4	2.77	523	670						•	•	•	•	•	
		0	5	3.20	453	745						•	•	•	•	•	
		0	6	3.76	386	600					•	•	•	•	•		
		0	7	4.26	340	720					•	•	•	•	•		
		0	8	5.00	290	680					•	•	•	•	•		
		1	0	5.46	266	660					•	•	•	•	•		
E121	544 to 1000	0	1	1.4	1066	680								•	•	•	•
		0	2	1.81	801	800								•	•	•	•
		0	3	2.10	690	860							•	•	•	•	•
		0	4	2.47	587	950							•	•	•	•	•
		0	5	2.76	525	1000							•	•	•	•	•
		0	6	3.23	449	1000							•	•	•	•	•
		0	7	3.70	392	1000							•	•	•	•	•
		0	8	4.28	339	1000						•	•	•	•	•	•
		1	0	4.44	327	1000						•	•	•	•	•	•
		1	1	4.91	295	960					•	•	•	•	•	•	
		1	2	5.75	252	960					•	•	•	•	•		
		1	3	6.23	233	928					•	•	•	•	•		
		1	4	6.95	209	880					•	•	•	•	•		
		1	5	7.37	197	816					•	•	•	•	•		
		1	6	8.35	174	712					•	•	•	•			
		1	7	8.94	162	640					•	•	•	•			
		1	8	9.40	154	584					•	•	•				
		2	0	10.14	143	544					•	•	•				
E141	600 to 1550	0	1	1.64	884	960								•	•	•	•
		0	2	2.14	678	1200								•	•	•	•
		0	3	2.52	575	1220							•	•	•	•	•
		0	4	2.90	500	1400							•	•	•	•	•
		0	5	3.19	455	1550							•	•	•	•	•
		0	6	3.77	385	1350							•	•	•	•	•

Geared motors

Helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Output speed	Max. torque	Motor frame size											
	Nm	11th position 12th position	i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160	180	200	225	
E141	600 to 1550	0 7	4.30	337	1330							•	•	•	•	•	
		0 8	4.94	294	1400							•	•	•	•	•	
		1 0	5.65	257	1360							•	•	•	•	•	
		1 1	6.55	221	1150							•	•	•			
		1 2	7.14	203	1120							•	•	•			
		1 3	7.95	182	1060							•	•	•			
		1 4	8.42	172	1000							•	•	•			
		1 5	9.47	153	920							•	•				
		1 6	10.13	143	800							•	•				
		1 7	10.73	135	760							•					
		1 8	11.57	125	680							•					
		2 0	12.54	116	600							•					
		2 1	13.7	106	600							•					
Two-stage and three-stage helical gearbox with 4-pole motors, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)																	
H32	160 to 220	1 2	4.77	304	160			•	•	•							
		1 3	5.55	261	165			•	•	•							
		1 4	6.16	235	170			•	•	•							
		1 5	6.71	216	180			•	•	•							
		1 6	7.50	193	185		•	•	•	•							
		1 7	7.52	193	190		•	•	•	•							
		1 8	8.75	166	195		•	•	•	•							
		2 0	9.70	149	200		•	•	•	•							
		2 1	10.57	137	210		•	•	•	•							
		2 2	11.82	123	220		•	•	•	•							
		2 3	12.92	112	220		•	•	•	•							
		2 4	14.18	102	220		•	•	•	•							
		2 5	15.64	93.0	220		•	•	•	•							
		2 6	17.33	84.0	220	•	•	•	•								
		2 7	19.64	74.0	220	•	•	•	•								
		2 8	21.67	67.0	220	•	•	•	•								
		3 0	24.50	59.0	220	•	•	•	•								
		3 1	27.97	52.0	220	•	•	•	•								
		3 2	31.80	46.0	220	•	•	•	•								
		3 3	34.04	43.0	220	•	•	•									
3 4	39.24	37.0	208	•	•	•											
3 5	44.12	33.0	220	•	•	•											
H33	220	4 0	30.7	47.0	220	•	•	•	•								
		4 1	33.8	43.0	220	•	•	•									
		4 2	39.3	37.0	220	•	•	•									
		4 3	42.5	34.0	220	•	•	•									
		4 4	48.1	30.0	220	•	•	•									
		4 5	52.9	27.0	220	•	•	•									
		4 6	58.3	25.0	220	•	•	•									
		4 7	64.6	22.0	220	•	•										
		4 8	71.9	20.0	220	•	•										
		5 0	82.5	17.6	220	•	•										
		5 1	91.3	15.9	220	•	•										
		5 2	104	14.0	220	•	•										
		5 3	119	12.2	220	•	•										
		5 4	134	10.9	220	•	•										
		5 5	149	9.7	220	•											
		5 6	170	8.5	220	•											
		5 7	192	7.6	220	•											

Geared motors

Helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque Nm	Ratio code order no.		Ratio i	Output speed n_2 rpm	Max. torque M_2 Nm	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
H42	260 to 450	1	1	4.28	339	260				•	•	•					
		1	2	5.15	282	270				•	•	•					
		1	3	6.06	239	270			•	•	•	•					
		1	4	6.79	214	270			•	•	•	•					
		1	5	6.90	210	340			•	•	•	•					
		1	6	8.29	175	360			•	•	•	•					
		1	7	9.76	149	380			•	•	•	•					
		1	8	10.9	133	390			•	•	•	•					
		2	0	12.3	118	400			•	•	•	•					
		2	1	13.4	108	410			•	•	•	•					
		2	2	14.7	99.0	420			•	•	•	•					
		2	3	16.2	90.0	430			•	•	•	•					
		2	4	17.6	83.0	450		•	•	•	•	•					
		2	5	19.1	76.0	450		•	•	•	•	•					
		2	6	21.0	69.0	450		•	•	•	•	•					
		2	7	23.1	63.0	450		•	•	•	•	•					
		2	8	26.5	55.0	450		•	•	•	•	•					
		3	0	28.7	50.0	450		•	•	•	•	•					
		3	1	31.8	46.0	450		•	•	•	•	•					
		3	2	37.1	39.0	450	•	•	•	•	•	•					
		3	3	41.3	35.0	450	•	•	•	•	•	•					
		3	4	45.4	32.0	450	•	•	•	•	•	•					
		3	5	51.3	28.0	292	•	•	•	•	•	•					
H43	450	4	0	35.6	41.0	450	•	•	•	•	•	•					
		4	1	41.4	35.0	450	•	•	•	•	•	•					
		4	2	45.9	32.0	450	•	•	•	•	•	•					
		4	3	50.0	29.0	450	•	•	•	•	•	•					
		4	4	55.9	26.0	450	•	•	•	•	•	•					
		4	5	61.1	24.0	450	•	•	•	•	•	•					
		4	6	67.1	22.0	450	•	•	•	•	•	•					
		4	7	74.0	19.6	450	•	•	•	•	•	•					
		4	8	82.0	17.7	450	•	•	•	•	•	•					
		5	0	92.9	15.6	450	•	•	•	•	•	•					
		5	1	103	14.1	450	•	•	•	•	•	•					
		5	2	116	12.5	450	•	•	•	•	•	•					
		5	3	132	11.0	450	•	•	•	•	•	•					
		5	4	150	9.6	450	•	•	•	•	•	•					
		5	5	161	9.0	450	•	•	•	•	•	•					
		5	6	186	7.8	450	•	•	•	•	•	•					
		5	7	209	6.9	450	•	•	•	•	•	•					
H62	420 to 800	0	7	3.49	415	420					•	•	•				
		0	8	4.22	344	470					•	•	•				
		1	0	5.06	287	480				•	•	•	•				
		1	1	5.93	245	490				•	•	•	•				
		1	2	6.72	216	650					•	•	•				
		1	3	8.11	179	700					•	•	•				
		1	4	9.73	149	745				•	•	•	•				
		1	5	11.4	127	785				•	•	•	•				
		1	6	13.6	107	800				•	•	•	•				
		1	7	14.7	98.0	800				•	•	•	•				
		1	8	16.5	88.0	800			•	•	•	•	•				
		2	0	17.8	81.0	800			•	•	•	•	•				
		2	1	20.2	72.0	800			•	•	•	•	•				
		2	2	21.8	67.0	800			•	•	•	•	•				

Geared motors

Helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
H62	420 to 800	2	3	23.5	62.0	800			•	•	•	•	•				
		2	4	25.6	57.0	800			•	•	•	•					
		2	5	28.3	51.0	800			•	•	•	•					
		2	6	30.6	47.0	800			•	•	•	•					
		2	7	34.5	42.0	800		•	•	•	•						
		2	8	37.8	38.0	800		•	•	•	•						
		3	0	42.1	34.0	800		•	•	•	•						
		3	1	48.1	30.0	535	•	•	•	•							
H63	800	4	0	37.8	38.0	800			•	•	•						
		4	1	45.4	32.0	800			•	•	•						
		4	2	53.5	27.0	800			•	•	•						
		4	3	59.9	24.0	800		•	•	•							
		4	4	67.1	22.0	800	•	•	•	•							
		4	5	73.3	19.8	800	•	•	•	•							
		4	6	80.5	18.0	800	•	•	•	•							
		4	7	88.59	16.4	800	•	•	•	•							
		4	8	96.16	15.1	800	•	•	•	•							
		5	0	105	13.8	800	•	•	•	•							
		5	1	115	12.6	800	•	•	•	•							
		5	2	126	11.5	800	•	•	•								
		5	3	145	10.0	800	•	•	•								
		5	4	158	9.2	800	•	•	•								
		5	5	174	8.3	800	•	•	•								
		5	6	203	7.1	800	•	•	•								
		5	7	226	6.4	800	•	•	•								
		5	8	249	5.8	800	•	•									
		6	0	281	5.2	800	•	•									
H82	660 to 1680	0	5	3.11	466	660						•	•	•			
		0	6	3.79	383	740					•	•	•	•			
		0	7	4.45	326	800					•	•	•	•			
		0	8	4.87	298	1110					•	•	•	•			
		1	0	5.94	244	1190					•	•	•	•			
		1	1	6.96	208	1260					•	•	•	•			
		1	2	7.59	191	1300					•	•	•	•			
		1	3	9.26	157	1390					•	•	•	•			
		1	4	10.9	134	1470					•	•	•	•			
		1	5	12.8	114	1550					•	•	•	•			
		1	6	14.6	99.0	1620					•	•	•	•			
		1	7	17.3	84.0	1680				•	•	•	•	•			
		1	8	18.7	77.0	1680				•	•	•	•	•			
		2	0	20.8	70.0	1680				•	•	•	•	•			
		2	1	22.6	64.0	1680				•	•	•	•	•			
		2	2	25.0	58.0	1680				•	•	•	•	•			
		2	3	26.9	54.0	1680				•	•	•	•				
		2	4	28.9	50.0	1680				•	•	•	•				
		2	5	31.3	46.0	1680				•	•	•	•				
		2	6	34.1	43.0	1680				•	•	•	•				
		2	7	37.3	39.0	1680				•	•	•	•				
		2	8	41.9	35.0	1680				•	•	•					
		3	0	45.8	32.0	1680				•	•	•					
		3	1	50.7	29.0	1468				•	•						
H83	1600	4	0	34.1	42.0	1680					•	•	•				
		4	1	41.2	35.0	1680					•	•	•				
		4	2	49.4	29.0	1680			•	•	•	•	•				

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
H83	1600	4	3	57.9	25.0	1680			•	•	•	•					
		4	4	69.1	21.0	1680			•	•	•	•					
		4	5	74.9	19.4	1680		•	•	•	•						
		4	6	83.6	17.3	1680		•	•	•	•						
		4	7	90.5	16.0	1680		•	•	•	•						
		4	8	103	14.1	1680		•	•	•	•						
		5	0	111	13.1	1680		•	•	•	•						
		5	1	120	12.1	1680		•	•	•	•						
		5	2	130	11.2	1680		•	•	•	•						
		5	3	144	10.1	1680	•	•	•	•							
		5	4	155	9.3	1680	•	•	•	•							
		5	5	175	8.3	1680	•	•	•	•							
		5	6	192	7.6	1680	•	•	•	•							
		5	7	214	6.8	1680	•	•	•	•							
		5	8	244	5.9	1680	•	•	•	•							
		6	0	271	5.4	1680	•	•	•								
		6	1	300	4.8	1680	•	•	•								
H102	1080 to 3100	0	6	3.42	424	1080							•	•	•	•	
		0	7	3.98	364	1120							•	•	•	•	
		0	8	4.41	329	1140						•	•	•	•	•	
		1	0	5.24	277	1140						•	•	•	•	•	
		1	1	5.51	263	1700							•	•	•	•	
		1	2	6.41	226	1760							•	•	•	•	
		1	3	7.10	204	1800						•	•	•	•	•	
		1	4	8.27	175	3100							•	•	•	•	
		1	5	9.62	151	3100							•	•	•	•	
		1	6	10.7	136	3100							•	•	•	•	
		1	7	12.7	114	3100						•	•	•	•	•	
		1	8	14.6	99.0	3100						•	•	•	•	•	
		2	0	17.2	84.0	3100					•	•	•	•	•	•	
		2	1	19.5	74.0	3100					•	•	•	•	•		
		2	2	22.9	63.0	3100					•	•	•	•	•		
		2	3	24.9	58.0	3100					•	•	•	•	•		
		2	4	27.2	53.0	3100					•	•	•	•	•		
		2	5	29.4	49.0	3100					•	•	•	•			
		2	6	32.8	44.0	3100				•	•	•	•	•			
		2	7	35.1	41.0	3100				•	•	•	•	•			
		2	8	37.8	38.0	3100				•	•	•	•				
		3	0	40.8	36.0	3100				•	•	•	•				
		3	1	44.3	33.0	3100				•	•	•	•				
		3	2	48.4	30.0	3100				•	•	•	•				
		3	3	54.2	27.0	2306				•	•	•					
		3	4	59.1	25.0	2368				•	•	•					
H103	3100	4	0	42.6	34.0	3100					•	•	•				
		4	1	52.0	28.0	3100					•	•	•				
		4	2	60.9	24.0	3100					•	•	•				
		4	3	71.6	20.0	3100			•	•	•	•	•				
		4	4	82.1	17.7	3100			•	•	•	•	•				
		4	5	96.9	15.0	3100			•	•	•	•					
		4	6	105	13.8	3100			•	•	•	•					
		4	7	117	12.4	3100			•	•	•	•					
		4	8	127	11.4	3100			•	•	•	•					
		5	0	140	10.3	3100			•	•	•						
		5	1	151	9.6	3100			•	•	•						

Geared motors

Helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
H103	3100	5	2	162	8.9	3100			•	•	•						
		5	3	176	8.2	3100			•	•	•						
		5	4	191	7.6	3100			•	•	•						
		5	5	209	6.9	3100			•	•	•						
		5	6	235	6.2	3100			•	•							
		5	7	257	5.6	3100			•	•							
		5	8	285	5.1	3100			•	•							
		6	0	325	4.5	3100			•	•							
		6	1	359	4.0	3100			•	•							
H122	2220 to 5100	0	6	3.07	472	2220								•	•	•	•
		0	7	3.63	399	2310								•	•	•	•
		0	8	4.09	355	2360								•	•	•	•
		1	0	4.73	307	2375								•	•	•	•
		1	1	4.83	300	2512								•	•	•	•
		1	2	5.59	259	2607								•	•	•	•
		1	3	5.93	245	3908								•	•	•	•
		1	4	6.24	232	2530							•	•	•	•	•
		1	5	7.29	199	2540							•	•	•	•	•
		1	6	7.88	184	4258								•	•	•	•
		1	7	9.13	159	4425							•	•	•	•	•
		1	8	10.8	135	4603							•	•	•	•	•
		2	0	12.0	121	4716							•	•	•	•	•
		2	1	14.1	103	4868							•	•	•	•	•
		2	2	16.1	90.0	4993							•	•	•	•	•
		2	3	18.6	78.0	5100							•	•	•	•	•
		2	4	19.4	75.0	5100							•	•	•	•	•
		2	5	21.4	68.0	5100						•	•	•	•	•	•
		2	6	25.1	58.0	5100					•	•	•	•	•	•	
		2	7	27.1	53.0	5100					•	•	•	•	•	•	
		2	8	30.3	48.0	5100					•	•	•	•	•		
		3	0	32.1	45.0	5100					•	•	•	•	•		
		3	1	36.4	40.0	5100					•	•	•	•			
		3	2	38.9	37.0	5100					•	•	•	•			
		3	3	41.0	35.0	3196					•	•	•				
		3	4	44.2	33.0	3275					•	•	•				
H123	5100	4	0	37.6	39.0	5100							•	•	•		
		4	1	43.7	33.0	5100							•	•	•		
		4	2	48.4	30.0	5100					•	•	•	•			
		4	3	57.6	25.0	5100					•	•	•	•			
		4	4	66.4	22.0	5100					•	•	•	•			
		4	5	78.1	18.6	5100				•	•	•	•	•			
		4	6	88.5	16.4	5100				•	•	•	•				
		4	7	104	14.0	5100				•	•	•	•				
		4	8	113	12.8	5100				•	•	•	•				
		5	0	124	11.7	5100				•	•	•	•				
		5	1	133	10.9	5100				•	•	•	•				
		5	2	149	9.7	5100				•	•	•	•				
		5	3	160	9.1	5100				•	•	•					
		5	4	172	8.4	5100				•	•	•					
		5	5	185	7.8	5100				•	•	•					
		5	6	201	7.2	5100				•	•	•					
		5	7	220	6.6	5100				•	•						
		5	8	246	5.9	5100				•	•						
		6	0	268	5.4	5100				•	•						

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th	12th				i	n_2	M_2	63	71	80	90	100	112	132	160	180
Nm	position	rpm	Nm															
H142	3850 to 8000	0	7	4.44	327	3850									•	•	•	•
		0	8	4.92	295	5050										•	•	•
		1	0	5.80	250	4200									•	•	•	•
		1	1	6.43	226	5400									•	•	•	•
		1	2	6.84	212	4800									•	•	•	•
		1	3	7.57	192	5600									•	•	•	•
		1	4	7.84	185	4800									•	•	•	•
		1	5	8.64	168	4800									•	•	•	•
		1	6	8.79	165	8000									•	•	•	•
		1	7	11.5	126	8000									•	•	•	•
		1	8	13.5	107	8000									•	•	•	•
		2	0	15.5	93.0	8000									•	•	•	•
		2	1	17.1	85.0	8000								•	•	•	•	•
		2	2	20.2	72.0	8000								•	•	•	•	•
		2	3	23.0	63.0	8000								•	•	•	•	•
		2	4	26.5	55.0	8000								•	•	•	•	•
		2	5	30.3	48.0	8000								•	•	•	•	•
		2	6	35.1	41.0	8000								•	•	•	•	•
		2	7	38.2	38.0	8000								•	•	•	•	
		2	8	42.6	34.0	8000								•	•	•	•	
		3	0	45.1	32.0	8000								•	•	•	•	
		3	1	50.7	29.0	8000								•	•			
		3	2	54.2	27.0	8000								•	•			
		3	3	57.5	25.0	4664								•				
H143	8000	4	0	34.2	42.0	8000									•	•	•	•
		4	1	45.4	32.0	8000									•	•		
		4	2	52.6	28.0	8000								•	•	•		
		4	3	62.1	23.0	8000								•	•	•		
		4	4	69.4	21.0	8000					•	•	•	•	•	•		
		4	5	81.0	17.9	8000					•	•	•	•	•			
		4	6	92.9	15.6	8000					•	•	•	•	•			
		4	7	107	13.5	8000						•	•	•	•			
		4	8	112	13.0	8000					•	•	•	•				
		5	0	123	11.8	8000					•	•	•					
		5	1	144	10.0	8000					•	•	•					
		5	2	156	9.3	8000					•	•	•					
		5	3	175	8.3	8000					•	•	•					
		5	4	185	7.8	8000					•	•	•					
		5	5	210	6.9	8000					•	•	•					
		5	6	224	6.5	8000					•	•	•					
		5	7	236	6.1	8000					•	•	•					
		5	8	255	5.7	8000					•	•						
		6	0	276	5.2	8000					•	•						
		6	1	301	4.8	8000					•	•						
6	2	336	4.3	8000						•								
H162	6470 to 14000	0	7	4.46	325	6470											•	•
		0	8	4.93	294	7064												•
		1	0	5.61	258	6780										•	•	•
		1	1	6.20	234	7507											•	•
		1	2	7.20	201	7100										•	•	•
		1	3	8.21	177	11622										•	•	•
		1	4	9.26	157	7850								•	•	•	•	
		1	5	10.3	140	12345									•	•	•	•
		1	6	13.3	109	13081									•	•	•	•

Geared motors

Helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
H162	6470 to 14000	1	7	15.4	94.0	13486								•	•	•	•
		1	8	17.6	82.0	13826								•	•	•	•
		2	0	19.3	75.0	14000								•	•	•	•
		2	1	23.3	62.0	14000								•	•	•	•
		2	2	25.8	56.0	14000								•	•	•	•
		2	3	29.3	50.0	14000							•	•	•	•	•
		2	4	33.9	43.0	14000								•	•	•	•
		2	5	39.5	37.0	14000									•	•	•
		2	6	42.1	34.0	14000									•	•	•
		2	7	46.6	31.0	10100							•	•	•	•	
H163	14000	4	0	41.0	35.0	14000								•	•	•	•
		4	1	53.6	27.0	14000								•	•	•	•
		4	2	63.1	23.0	14000							•	•	•	•	•
		4	3	72.4	20.0	14000							•	•	•	•	
		4	4	79.8	18.2	14000							•	•	•		
		4	5	94.3	15.4	14000							•	•	•		
		4	6	107	13.5	14000							•	•	•		
		4	7	124	11.7	14000							•	•	•		
		4	8	141	10.3	14000							•	•			
		5	0	164	8.9	14000							•	•			
		5	1	178	8.1	14000							•	•			
		5	2	199	7.3	14000							•	•			
		5	3	210	6.9	14000							•	•			
		5	4	237	6.1	14000							•				
		5	5	253	5.7	14000							•				
		5	6	268	5.4	14000							•				
		5	7	289	5.0	14000							•				
		5	8	313	4.6	14000							•				
		6	0	342	4.2	14000							•				
H182	13040 to 20000	1	3	8.30	175	13040											
		1	4	9.29	156	14310											•
		1	5	10.7	136	16170										•	•
		1	6	13.3	109	18820									•	•	•
		1	7	16.9	86.0	20000									•	•	•
		1	8	19.8	73.0	20000									•	•	•
		2	0	23.0	63.0	20000								•	•	•	•
		2	1	24.8	59.0	20000								•	•	•	•
		2	2	29.2	50.0	20000								•	•	•	•
		2	3	32.4	45.0	18450								•	•	•	•
		2	4	36.9	39.0	16600								•	•	•	•
		2	5	41.9	35.0	16110								•	•	•	•
		2	6	48.2	30.0	15920								•	•	•	•
		2	7	52.4	28.0	15710								•	•	•	•
H183	20000	4	0	43.0	34.0	20000									•	•	•
		4	1	54.1	27.0	20000								•	•	•	•
		4	2	69.4	21.0	20000								•	•	•	•
		4	3	80.8	18.0	20000							•	•	•	•	•
		4	4	92.1	15.8	20000							•	•	•	•	
		4	5	101	14.4	20000							•	•	•	•	
		4	6	122	11.9	20000							•	•	•		
		4	7	135	10.7	20000											
		4	8	153	9.5	20000							•	•	•		
		5	0	177	8.2	20000								•	•		
		5	1	206	7.0	20000								•			

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160
H183	20000	5	2	220	6.6	20000											
		5	3	244	5.9	20000								•	•		

Geared motors

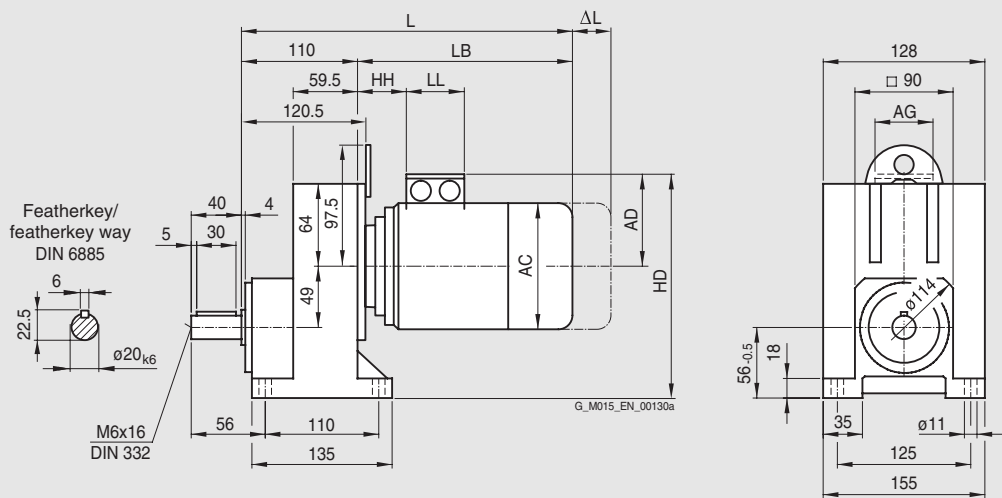
Helical geared motors

Dimensions

E31 gearbox (single-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	216	78	371	261	75
71	C or D	145	111	75	216	78	371	261	75
80	E or F	162	120	75	225	77	394	284	75
90	G or H	181	128	75	233	77	426	316	75
100	J or K	202	135	120	240	95	475	365	120

ΔL see Section 8, "Dimensions of built-on accessories".



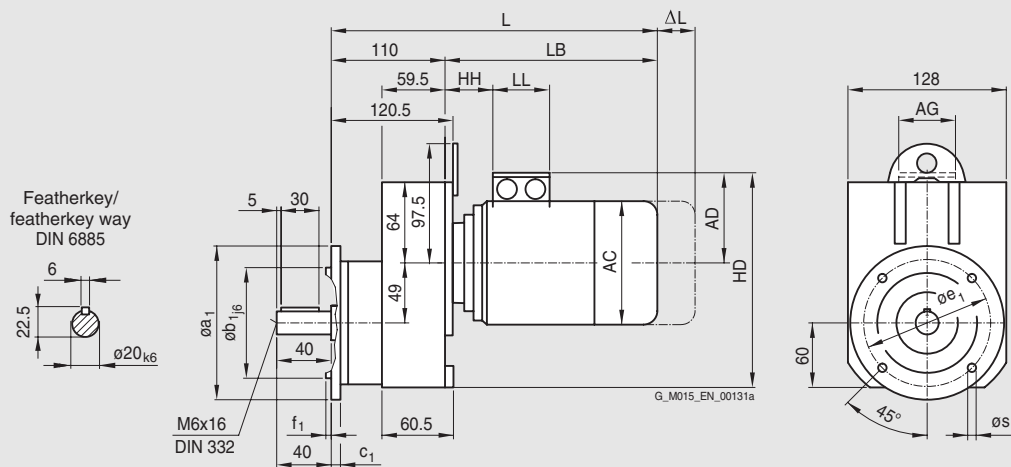
E31 gearbox (single-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	220	78	371	261	75
71	C or D	145	111	75	220	78	371	261	75
80	E or F	162	120	75	229	77	394	284	75
90	G or H	181	128	75	237	77	426	316	75
100	J or K	202	135	120	244	95	475	365	120

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

Flange	a_1	b_1	c_1	e_1	f_1	s_1
A160	160	110	10	130	3.5	9
A200	200	130	12	165	3.5	11
A250	250	180	15	215	4	13.5



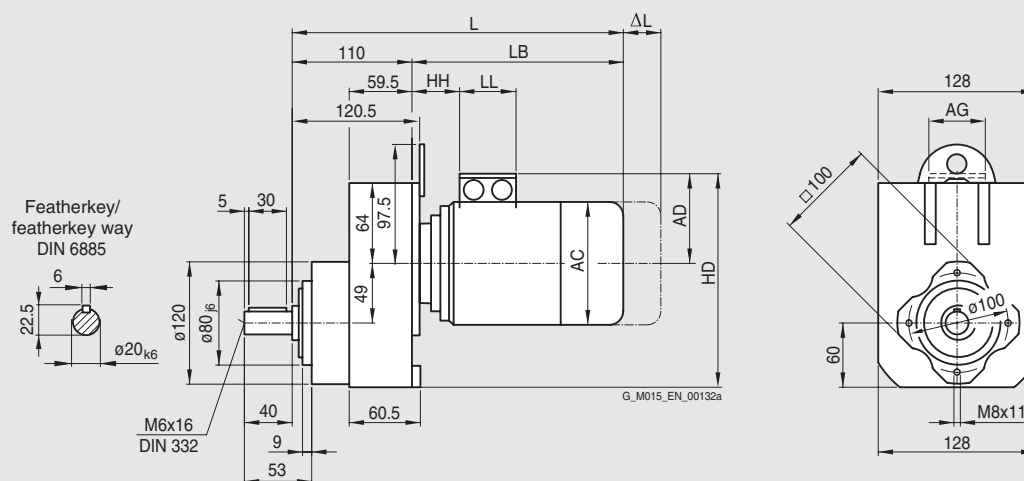
Helical geared motors

Dimensions

E31 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	220	78	371	261	75
71	C or D	145	111	75	220	78	371	261	75
80	E or F	162	120	75	229	77	394	284	75
90	G or H	181	128	75	237	77	426	316	75
100	J or K	202	135	120	244	95	475	365	120

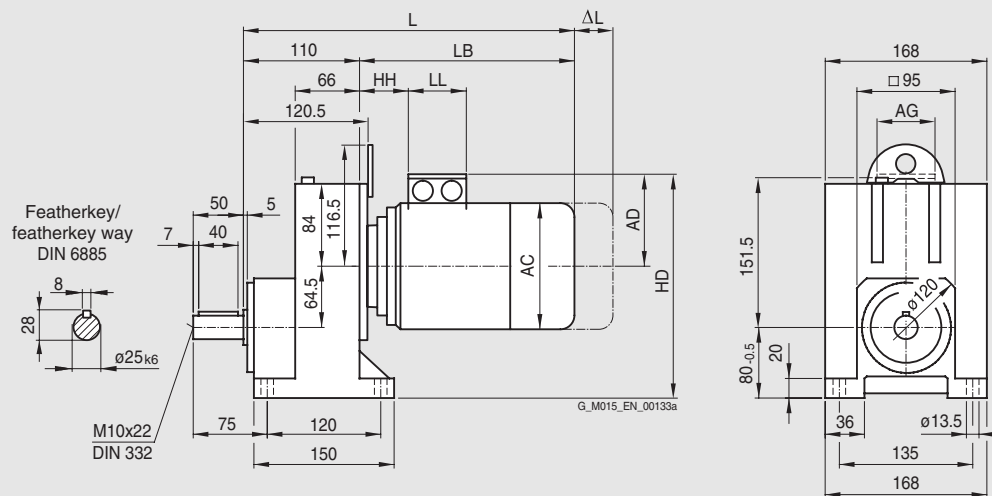
ΔL see Section 8, "Dimensions of built-on accessories".



E41 gearbox (single-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	256	72	366	256	75
71	C or D	145	111	75	256	72	366	256	75
80	E or F	162	120	75	265	72	389	279	75
90	G or H	181	128	75	273	72	421	311	75
100	J or K	202	135	120	280	89	469	359	120
112	L	227	148	120	293	94	495	385	120

ΔL see Section 8, "Dimensions of built-on accessories".



Helical geared motors

Dimensions

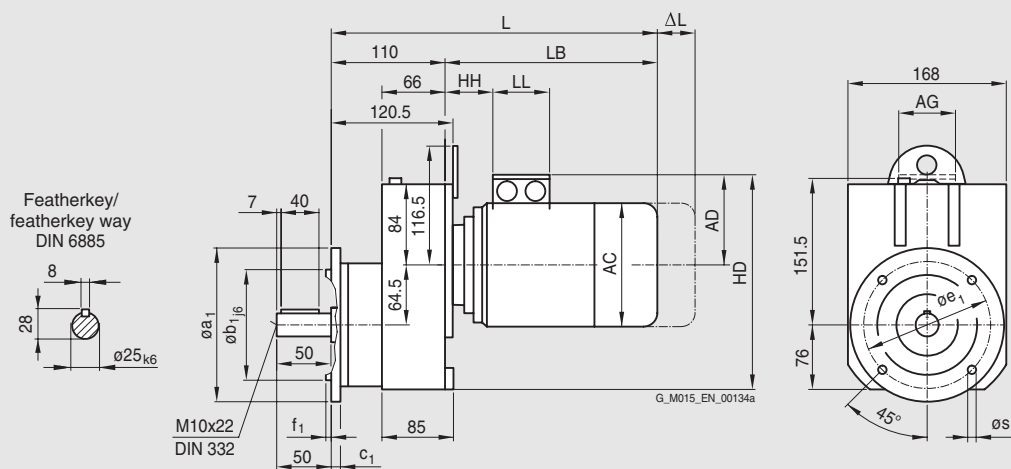
E41 gearbox (single-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	C or D	145	111	75	252	72	366	256	75
71	C or D	145	111	75	252	72	366	256	75
80	E or F	162	120	75	261	72	389	279	75
90	G or H	181	128	75	269	72	421	311	75
100	J or K	202	135	120	276	89	469	359	120
112	L	227	148	120	289	94	495	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

Flange	a_1	b_1	c_1	e_1	f_1	s_1
A160	160	110	10	130	3.5	9
A200	200	130	12	165	3.5	11
A250	250	180	15	215	4	13.5



3

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

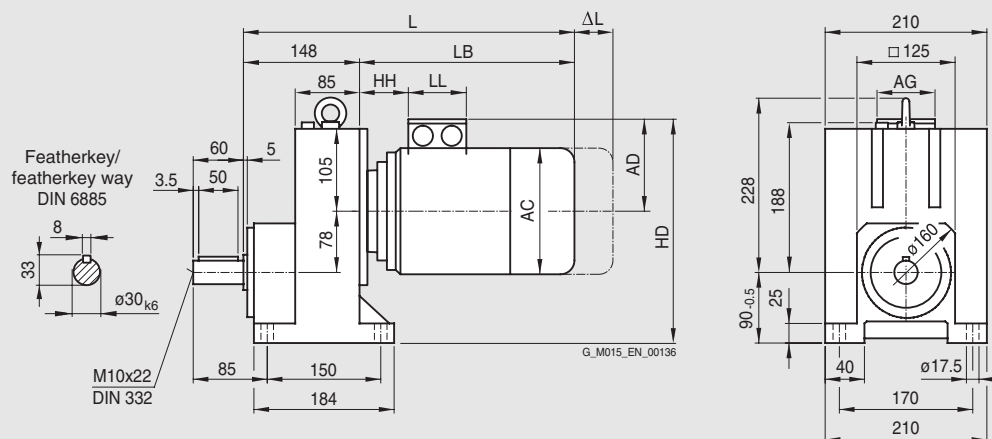
Helical geared motors

Dimensions

E61 gearbox (single-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	C or D	145	111	75	279	66	398	250	75
71	C or D	145	111	75	279	66	398	250	75
80	E or F	162	120	75	288	66	421	273	75
90	G or H	181	128	75	296	66	453	305	75
100	J or K	202	135	120	303	83	501	353	120
112	L	227	148	120	316	86	525	377	120
132	M or N or P	266	167	140	335	117	579	431	140

ΔL see Section 8, "Dimensions of built-on accessories".

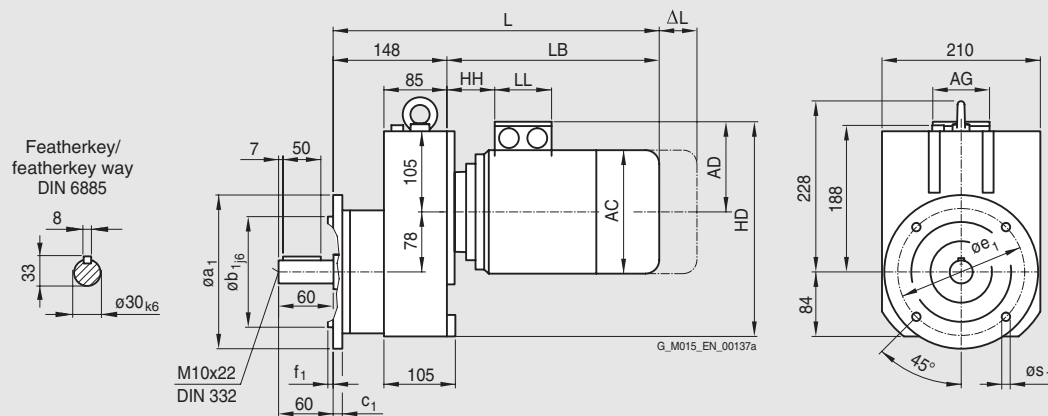


3

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

Flange	a_1	b_1	c_1	e_1	f_1	s_1
A200	200	130	12	165	3.5	11
A250	250	180	15	215	4	13.5
A300	300	230	16	265	4	13.5



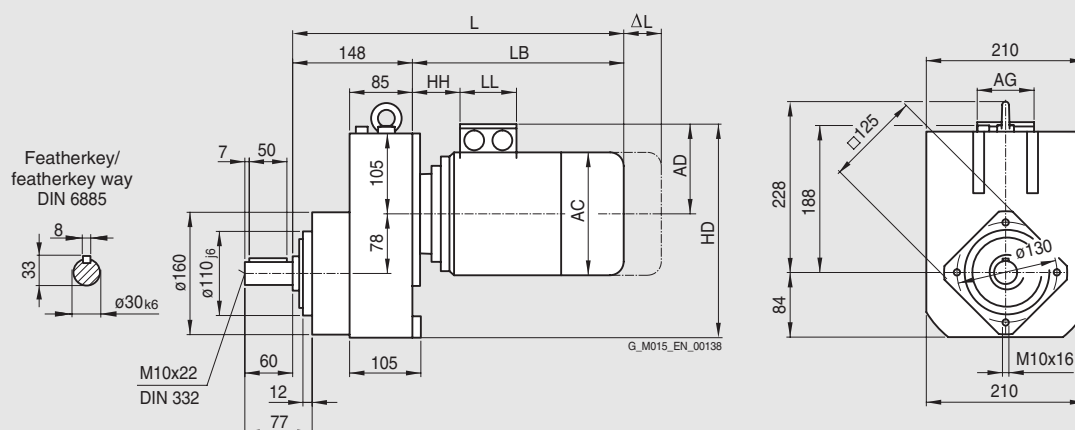
Helical geared motors

Dimensions

E61 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	C or D	145	111	75	273	66	398	250	75
71	C or D	145	111	75	273	66	398	250	75
80	E or F	162	120	75	282	66	421	273	75
90	G or H	181	128	75	290	66	453	305	75
100	J or K	202	135	120	297	83	501	353	120
112	L	227	148	120	310	86	525	377	120
132	M or N or P	266	167	140	329	117	579	431	140

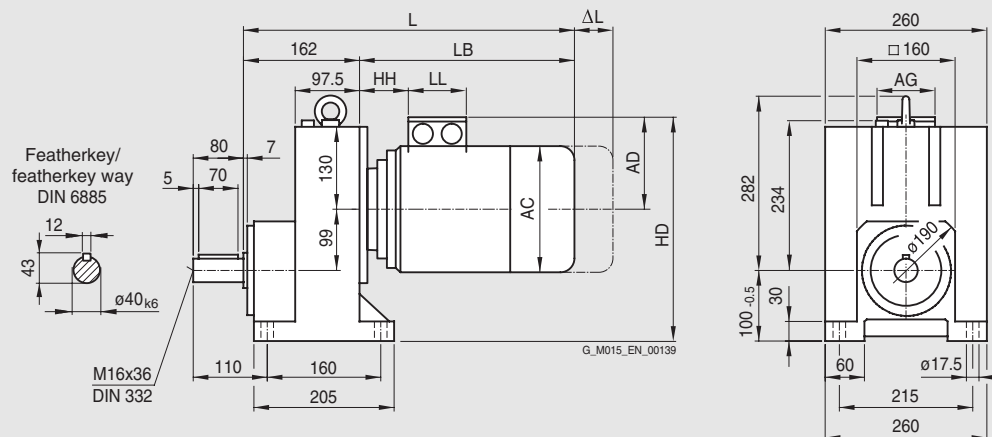
ΔL see Section 8, "Dimensions of built-on accessories".



E81 gearbox (single-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
90	G or H	181	128	75	327	51	452	290	75
100	J or K	202	135	120	334	73	505	343	120
112	L	227	148	120	347	68	521	359	120
132	M or N or P	266	167	140	366	98	575	413	140
160	Q or R or S	319	197	165	396	113	675	513	165

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

Helical geared motors

Dimensions

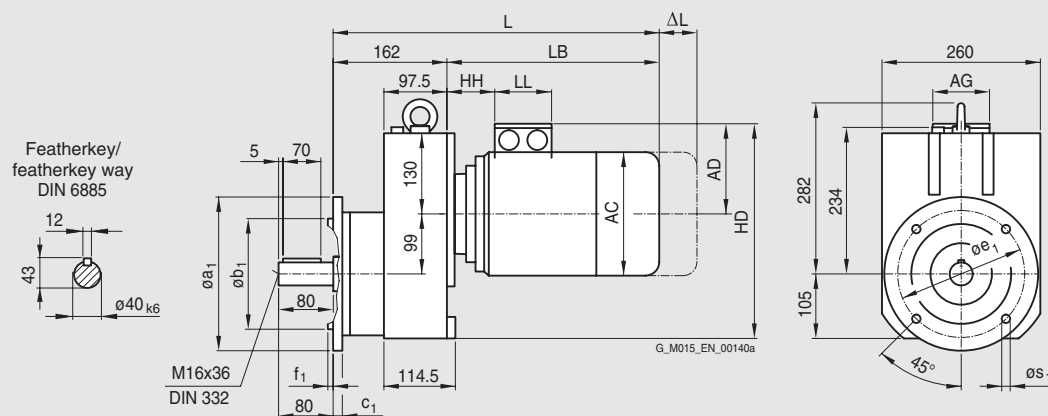
E81 gearbox (single-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
90	G or H	181	128	75	332	51	452	290	75
100	J or K	202	135	120	339	73	505	343	120
112	L	227	148	120	352	68	521	359	120
132	M or N or P	266	167	140	371	98	575	413	140
160	Q or R or S	319	197	165	401	113	675	513	165

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

Flange	a_1	b_1	c_1	e_1	f_1	s_1
A250	250	180	15	215	4	13.5
A300	300	230	16	265	4	13.5
A350	350	250	18	300	5	17.5



3

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

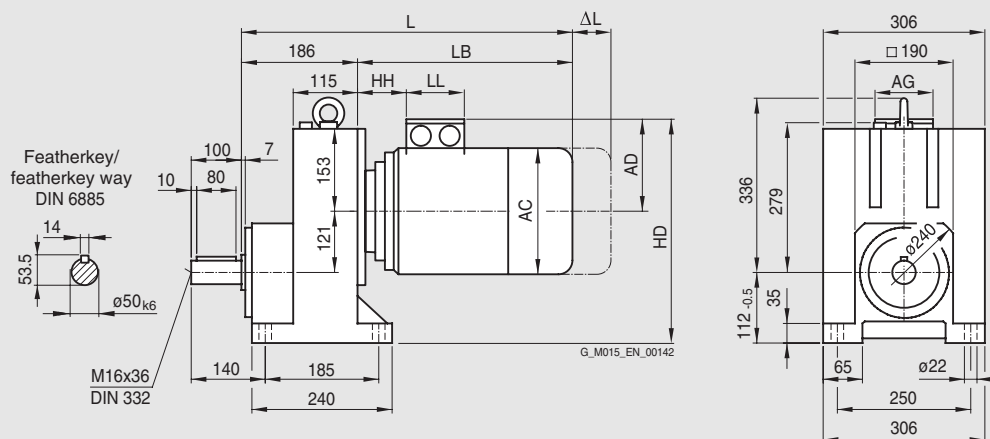
Helical geared motors

Dimensions

E101 gearbox (single-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	368	85	541	355	120
112	L	227	148	120	381	56	533	347	120
132	M or N or P	266	167	140	400	86	586	400	140
160	Q or R or S	319	197	165	430	102	688	502	165
180	T or U	358	259	152	492	147	829	643	132
200	V or W	398	306	260	539	124	878	692	192

ΔL see Section 8, "Dimensions of built-on accessories".



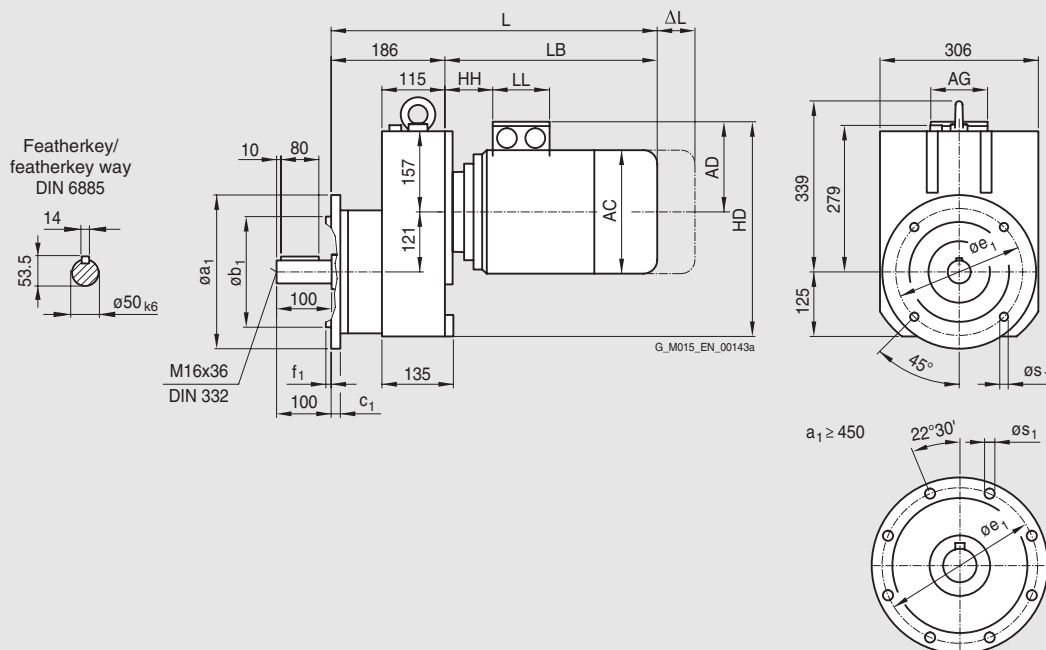
E101 gearbox (single-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	381	85	541	355	120
112	L	227	148	120	394	56	533	347	120
132	M or N or P	266	167	140	413	86	586	400	140
160	Q or R or S	319	197	165	443	102	688	502	165
180	T or U	358	259	152	505	147	829	643	132
200	V or W	398	306	260	552	124	878	692	192

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

Flange	a_1	b_1	c_1	e_1	f_1	s_1
A300	300	230	16	265	4	13.5
A350	350	250	18	300	5	17.5
A400	400	350	22	400	5	17.5



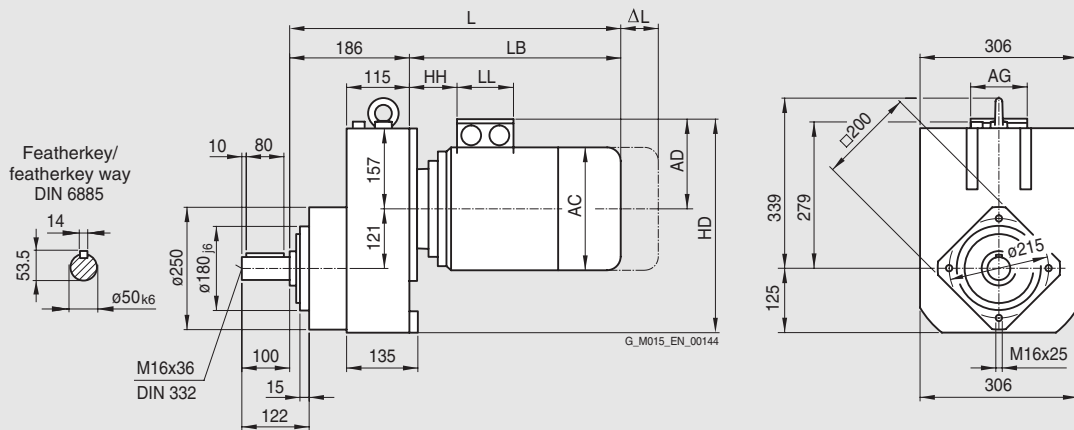
Helical geared motors

Dimensions

E101 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

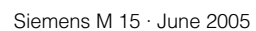
Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	381	85	541	355	120
112	L	227	148	120	394	56	533	347	120
132	M or N or P	266	167	140	413	86	586	400	140
160	Q or R or S	319	197	165	443	102	688	502	165
180	T or U	358	259	152	505	147	829	643	132
200	V or W	398	306	260	552	124	878	692	192

ΔL see Section 8, "Dimensions of built-on accessories".



3

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

Helical geared motors

Dimensions

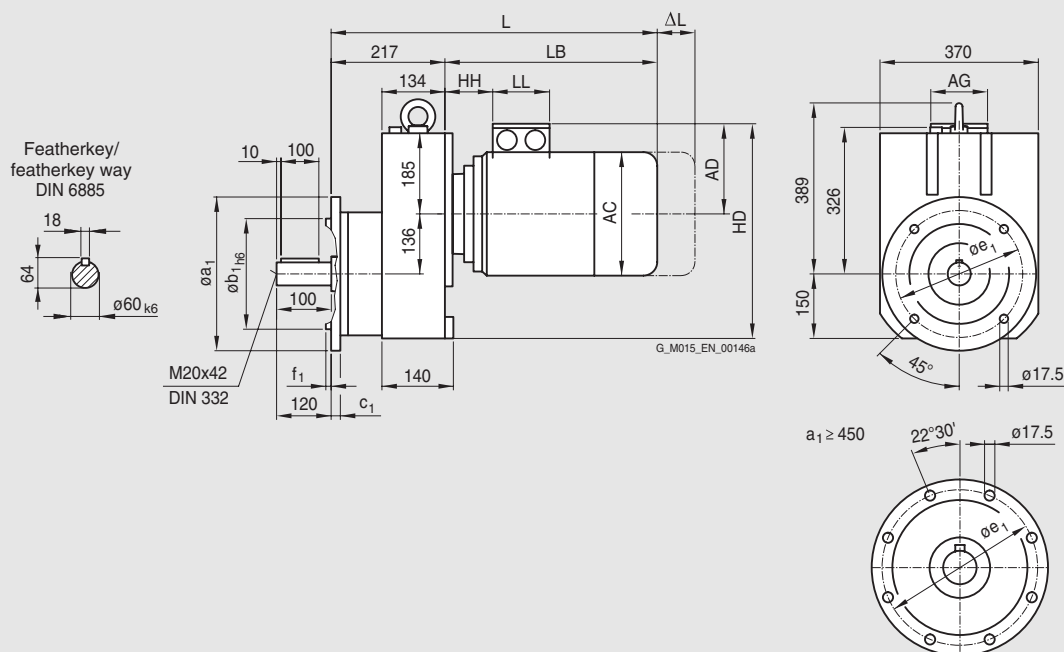
E121 gearbox (single-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	421	44	531	314	120
112	L	227	148	120	434	89	597	380	120
132	M or N or P	266	167	140	453	75	607	390	140
160	Q or R or S	319	197	165	483	85	702	485	165
180	T or U	358	259	152	545	134	847	630	132
200	V or W	398	306	260	592	111	895	678	192
225	X or Y	398	306	260	592	138	923	706	192

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

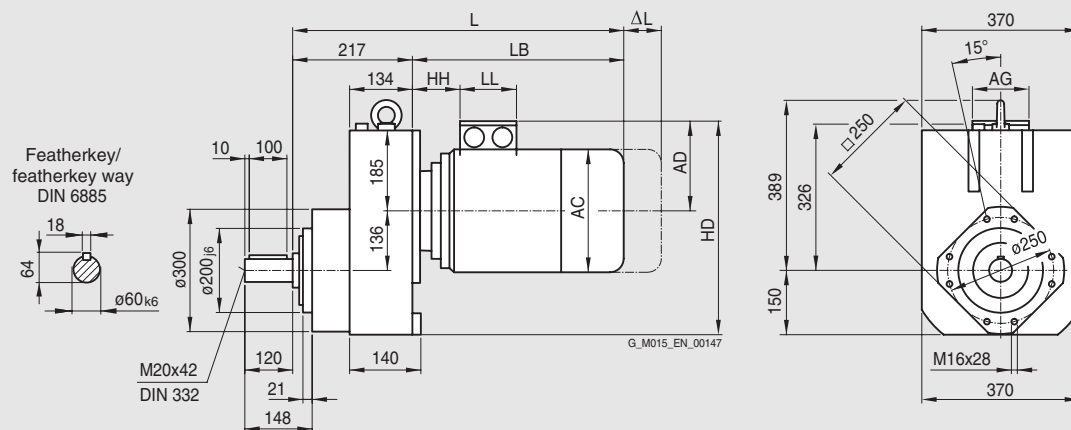
Flange	a_1	b_1	c_1	e_1	f_1
A350	350	250	18	300	5
A450	450	350	22	400	5



E121 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	421	44	531	314	120
112	L	227	148	120	434	89	597	380	120
132	M or N or P	266	167	140	453	75	607	390	140
160	Q or R or S	319	197	165	483	85	702	485	165
180	T or U	358	259	152	545	134	847	630	132
200	V or W	398	306	260	592	111	895	678	192
225	X or Y	398	306	260	592	138	923	706	192

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

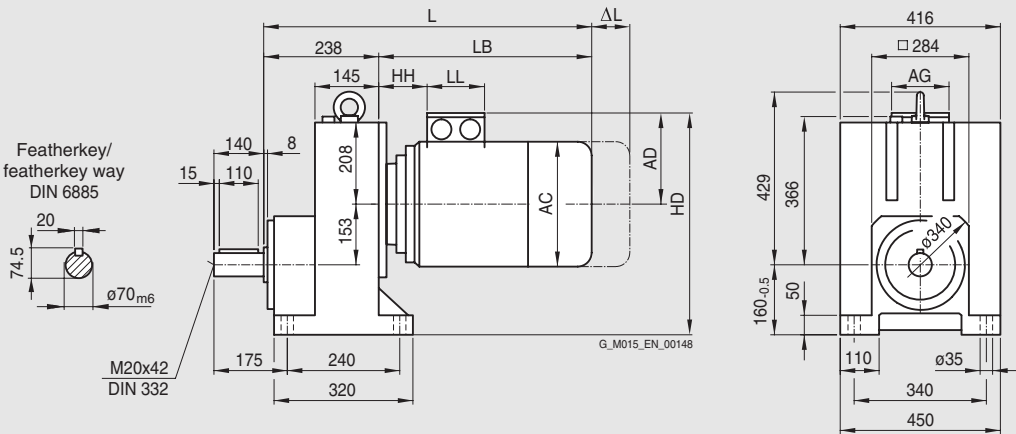
Helical geared motors

Dimensions

E141 gearbox (single-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	480	67	620	382	140
160	Q or R or S	319	197	165	510	78	716	478	165
180	T or U	358	259	152	572	126	860	622	132
200	V or W	398	306	260	619	103	909	671	192
225	X or Y	398	306	260	619	131	936	698	192

ΔL see Section 8, "Dimensions of built-on accessories".



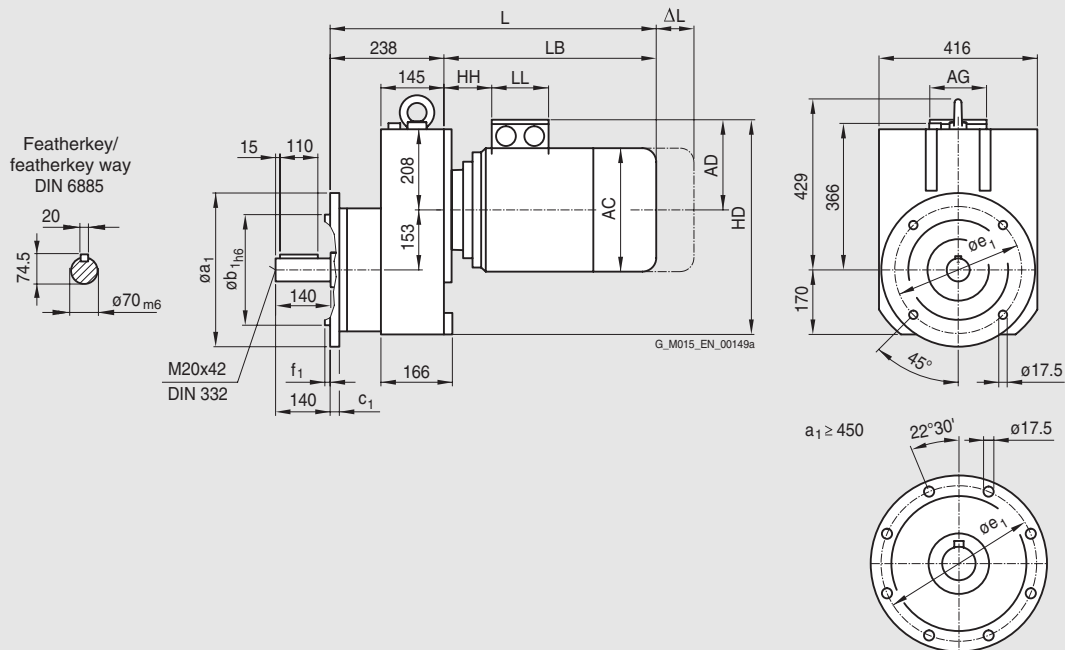
E141 gearbox (single-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	490	67	620	382	140
160	Q or R or S	319	197	165	520	78	716	478	165
180	T or U	358	259	152	582	126	860	622	132
200	V or W	398	306	260	629	103	909	671	192
225	X or Y	398	306	260	629	131	936	698	192

ΔL see Section 8, "Dimensions of built-on accessories".

Flange dimensions

Flange	a_1	b_1	c_1	e_1	f_1
A350	350	250	18	300	5
A450	450	350	22	400	5
A550	550	450	25	500	5



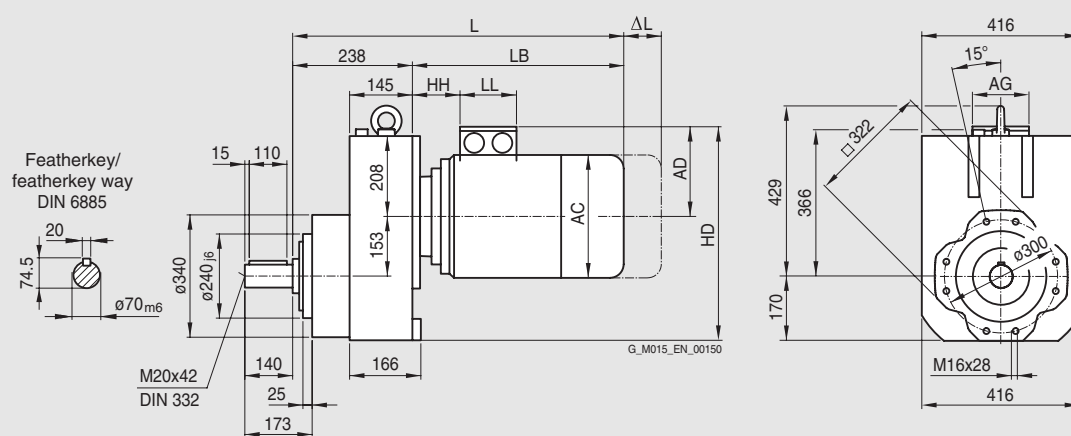
Helical geared motors

Dimensions

E141 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	490	67	620	382	140
160	Q or R or S	319	197	165	520	78	716	478	165
180	T or U	358	259	152	582	126	860	622	132
200	V or W	398	306	260	629	103	909	671	192
225	X or Y	398	306	260	629	131	936	698	192

ΔL see Section 8, "Dimensions of built-on accessories".



H32/H33 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H32 gearbox (two-stage)									
63	A or B	145	111	75	201	78	401	261	75
71	C or D	145	111	75	201	78	401	261	75
80	E or F	162	120	75	210	77	424	284	75
90	G or H	181	128	75	218	77	456	316	75
100	J or K	202	135	120	225	95	505	365	120
H33 gearbox (three-stage)									
63	A or B	145	111	75	201	93	416	276	75
71	C or D	145	111	75	201	93	416	276	75
80	E or F	162	120	75	210	92	439	299	75
90	G or H	181	128	75	218	92	471	331	75

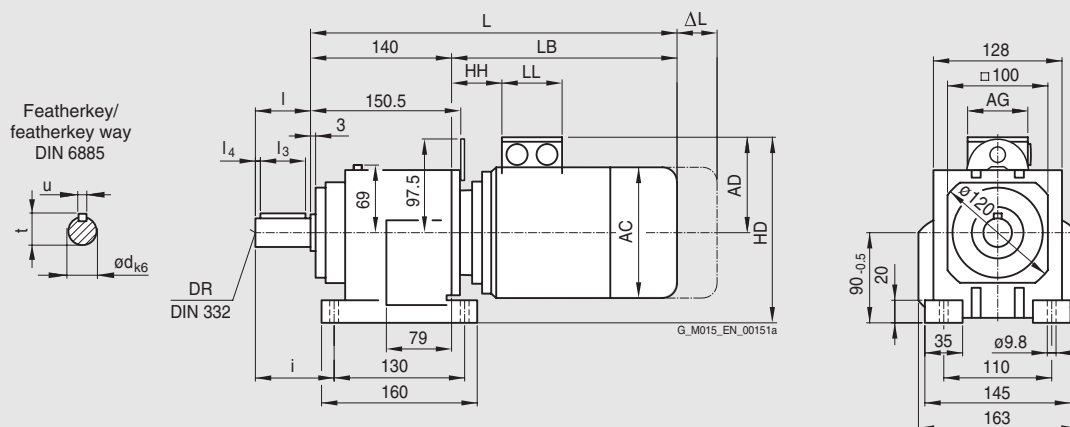
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
25	50	75	M10x22
30	60	85	M10x22

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
25	50	40	7	28	8	75	M10x22
30	60	50	7	33	8	85	M10x22



Geared motors

Helical geared motors

Dimensions

H32/H33 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H32 gearbox (two-stage)									
63	A or B	145	111	75	203	78	401	261	75
71	C or D	145	111	75	203	78	401	261	75
80	E or F	162	120	75	212	77	424	284	75
90	G or H	181	128	75	220	77	456	316	75
100	J or K	202	135	120	227	95	505	365	120
H33 gearbox (three-stage)									
63	A or B	145	111	75	203	93	416	276	75
71	C or D	145	111	75	203	93	416	276	75
80	E or F	162	120	75	212	92	439	299	75
90	G or H	181	128	75	220	92	471	331	75

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

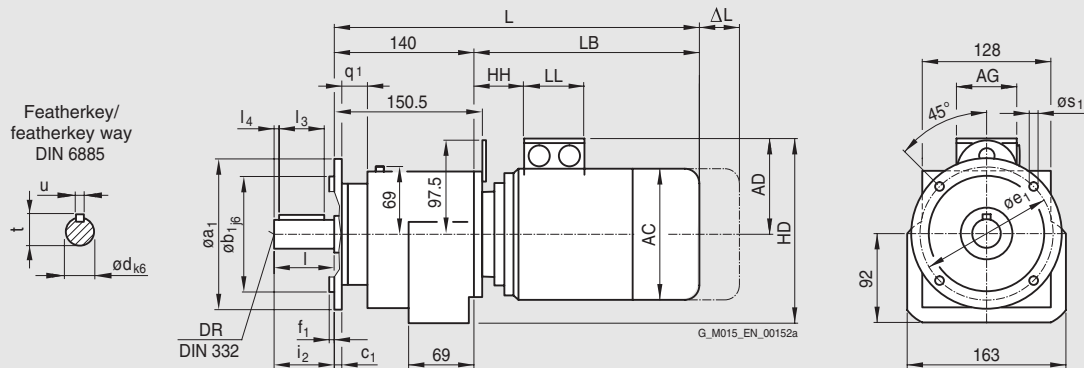
d	l	i ₂	DR	Flange
25	50	50	M10x22	A160, A200, A250
30	60	60	M10x22	A160, A200, A250

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
25	50	40	7	28	8	50	M10x22	A160, A200, A250
30	60	50	7	33	8	60	M10x22	A160, A200, A250

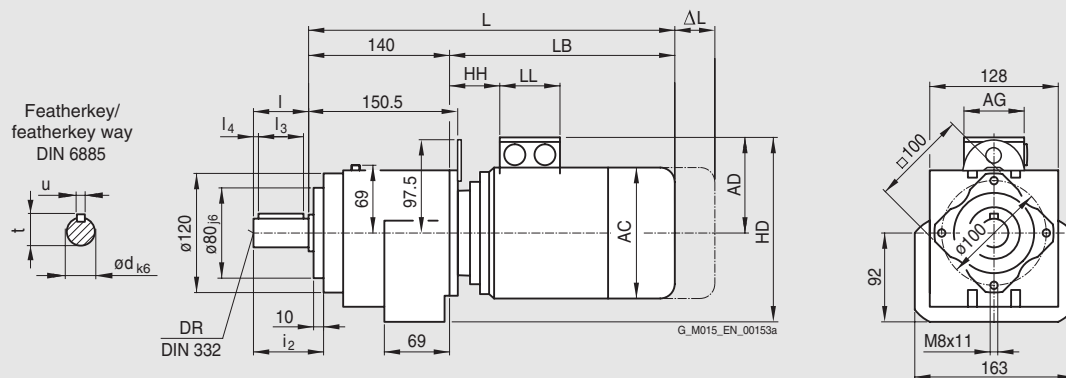
Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A160	160	110	10	130	3.5	26	9
A200	200	130	12	165	3.5	24	11
A250	250	180	15	215	4	21	13.5



3

d	l	l₃	l₄	t	u	i₂	DR
25	50	40	7	28	8	63	M10x22
30	60	50	7	33	8	73	M10x22



Geared motors

Helical geared motors

Dimensions

H42/H43 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H42 gearbox (two-stage)									
63	A or B	145	111	75	226	72	429	256	75
71	C or D	145	111	75	226	72	429	256	75
80	E or F	162	120	75	235	72	452	279	75
90	G or H	181	128	75	243	72	484	311	75
100	J or K	202	135	120	250	89	532	359	120
112	L	227	148	120	263	94	558	385	120
H43 gearbox (three-stage)									
63	A or B	145	111	75	226	89	446	273	75
71	C or D	145	111	75	226	89	446	273	75
80	E or F	162	120	75	235	89	469	296	75
90	G or H	181	128	75	243	89	501	328	75
100	J or K	202	135	120	250	106	549	376	120

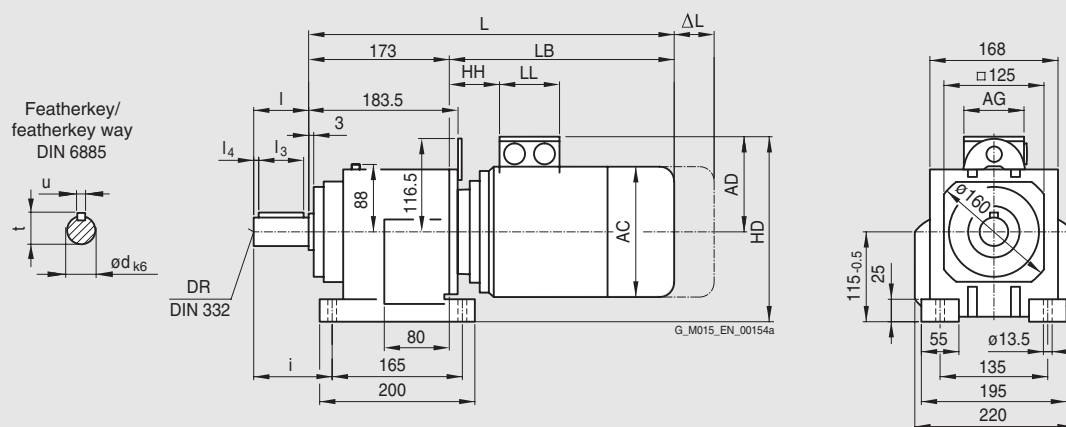
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
30	60	90.5	M10x22
40	80	110.5	M16x36

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
30	60	50	7	33	8	90.5	M10x22
40	80	70	5	43	12	110.5	M16x36



H42/H43 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H42 gearbox (two-stage)									
63	A or B	145	111	75	228	72	429	256	75
71	C or D	145	111	75	228	72	429	256	75
80	E or F	162	120	75	237	72	452	279	75
90	G or H	181	128	75	245	72	484	311	75
100	J or K	202	135	120	252	89	532	359	120
112	L	227	148	120	265	94	558	385	120
H43 gearbox (three-stage)									
63	A or B	145	111	75	228	89	446	273	75
71	C or D	145	111	75	228	89	446	273	75
80	E or F	162	120	75	237	89	469	296	75
90	G or H	181	128	75	245	89	501	328	75
100	J or K	202	135	120	252	106	549	376	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

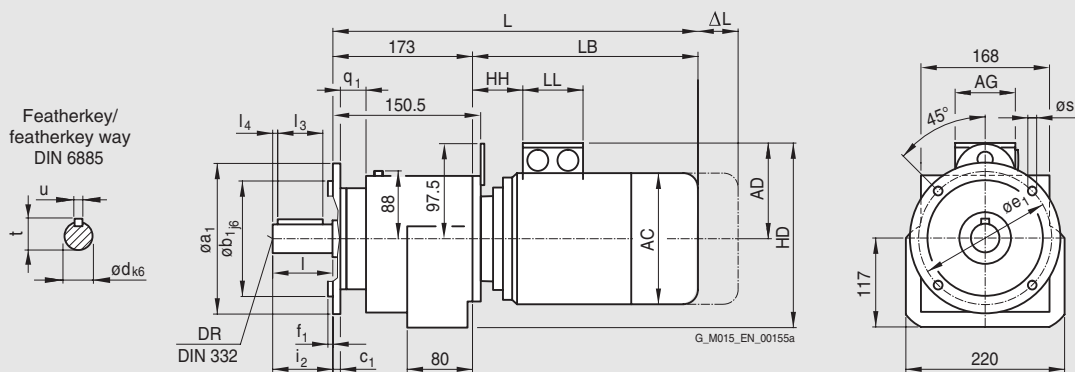
d	l	i ₂	DR	Flange
30	60	60	M10x22	A200, A250, A300
40	80	80	M16x36	A200, A250, A300

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
30	60	50	7	33	8	60	M10x22	A200, A250, A300
40	80	70	5	43	12	80	M16x36	A200, A250, A300

Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A200	200	130	12	165	3.5	29	11
A250	250	180	15	215	4	26	13.5
A300	300	230	15	265	4	26	13.5



Helical geared motors

Dimensions

H42/H43 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H42 gearbox (two-stage)									
63	A or B	145	111	75	228	72	429	256	75
71	C or D	145	111	75	228	72	429	256	75
80	E or F	162	120	75	237	72	452	279	75
90	G or H	181	128	75	245	72	484	311	75
100	J or K	202	135	120	252	89	532	359	120
112	L	227	148	120	265	94	558	385	120
H43 gearbox (three-stage)									
63	A or B	145	111	75	228	89	446	273	75
71	C or D	145	111	75	228	89	446	273	75
80	E or F	162	120	75	237	89	469	296	75
90	G or H	181	128	75	245	89	501	328	75
100	J or K	202	135	120	252	106	549	376	120

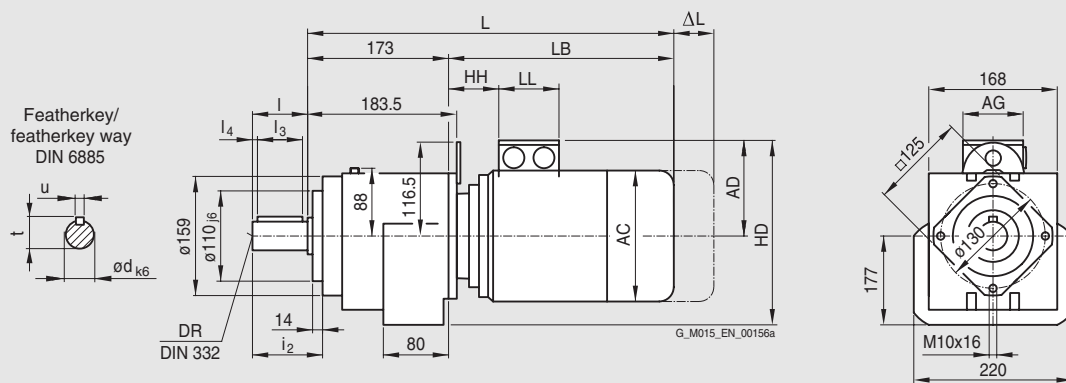
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft, solid shaft with featherkey

d	l	i ₂	DR
30	60	77	M10x22
40	80	97	M16x36

Solid shaft with featherkey

d	l	l₃	l₄	t	u	i₂	DR
30	60	50	7	33	8	77	M10x22
40	80	70	5	43	12	97	M16x36



H62/H63 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

3

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H62 gearbox (two-stage)									
63	A or B	145	111	75	251	66	459	250	75
71	C or D	145	111	75	251	66	459	250	75
80	E or F	162	120	75	260	66	482	273	75
90	G or H	181	128	75	268	66	514	305	75
100	J or K	202	135	120	275	83	562	353	120
112	L	227	148	120	288	86	586	377	120
132	M or N or P	266	167	140	307	117	640	431	140
H63 gearbox (three-stage)									
63	A or B	145	111	75	251	85	477	268	75
71	C or D	145	111	75	251	85	477	268	75
80	E or F	162	120	75	260	84	500	291	75
90	G or H	181	128	75	268	84	532	323	75
100	J or K	202	135	120	275	102	581	372	120

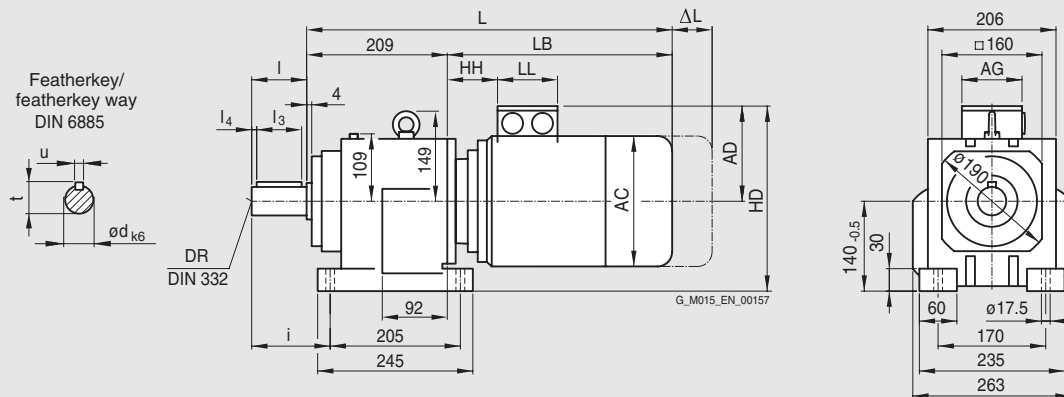
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
40	80	115	M16x36
50	100	135	M16x36

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
40	80	70	5	43	12	115	M16x36
50	100	80	10	53.5	14	135	M16x36



Geared motors

Helical geared motors

Dimensions

H62/H63 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H62 gearbox (two-stage)									
63	A or B	145	111	75	255	66	459	250	75
71	C or D	145	111	75	255	66	459	250	75
80	E or F	162	120	75	264	66	482	273	75
90	G or H	181	128	75	272	66	514	305	75
100	J or K	202	135	120	279	83	562	353	120
112	L	227	148	120	292	86	586	377	120
132	M or N or P	266	167	140	311	117	640	431	140
H63 gearbox (three-stage)									
63	A or B	145	111	75	255	85	477	268	75
71	C or D	145	111	75	255	85	477	268	75
80	E or F	162	120	75	264	84	500	291	75
90	G or H	181	128	75	272	84	532	323	75
100	J or K	202	135	120	279	102	581	372	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

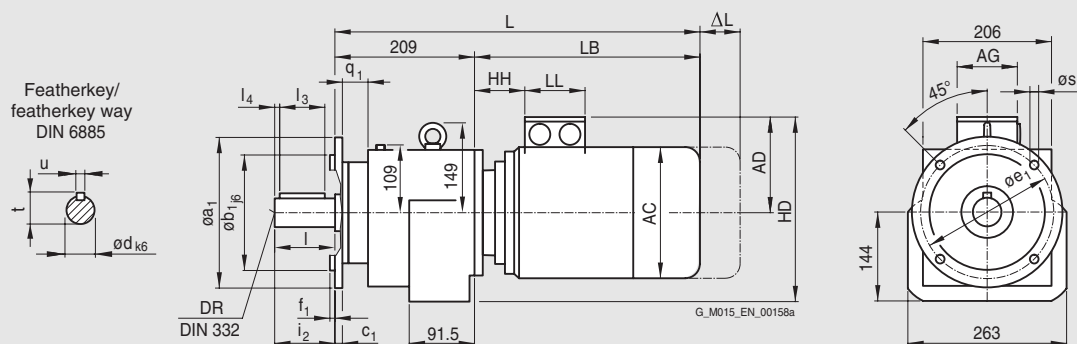
d	l	i ₂	DR	Flange
40	80	80	M16x36	A250, A300
50	100	100	M16x36	A250, A300

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
40	80	70	5	43	12	80	M16x36	A250, A300
50	100	80	10	53.5	14	100	M16x36	A250, A300

Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A250	250	180	15	215	4	43	13.5
A300	300	230	16	265	4	42	13.5



H62/H63 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H62 gearbox (two-stage)									
63	A or B	145	111	75	255	66	459	250	75
71	C or D	145	111	75	255	66	459	250	75
80	E or F	162	120	75	264	66	482	273	75
90	G or H	181	128	75	272	66	514	305	75
100	J or K	202	135	120	279	83	562	353	120
112	L	227	148	120	292	86	586	377	120
132	M or N or P	266	167	140	311	117	640	431	140
H63 gearbox (three-stage)									
63	A or B	145	111	75	255	85	477	268	75
71	C or D	145	111	75	255	85	477	268	75
80	E or F	162	120	75	264	84	500	291	75
90	G or H	181	128	75	272	84	532	323	75
100	J or K	202	135	120	279	102	581	372	120

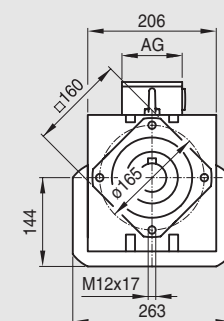
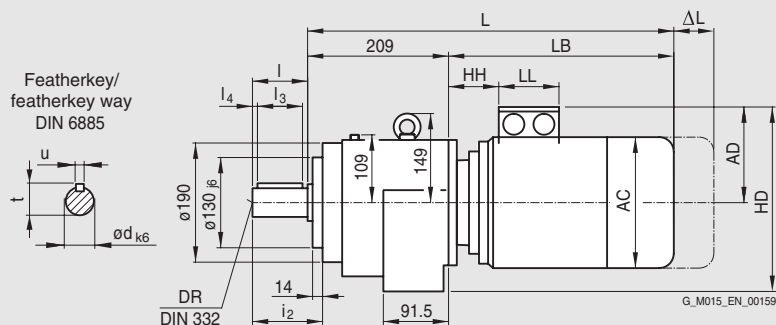
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR
40	80	98	M16x36
50	100	118	M16x36

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR
40	80	70	5	43	12	98	M16x36
50	100	80	10	53.5	14	118	M16x36



Geared motors

Helical geared motors

Dimensions

H82/H83 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H82 gearbox (two-stage)									
90	G or H	181	128	75	308	51	556	290	75
100	J or K	202	135	120	315	73	609	343	120
112	L	227	148	120	328	68	625	359	120
132	M or N or P	266	167	140	347	98	679	413	140
160	Q or R or S	319	197	165	377	113	779	513	165
H83 gearbox (three-stage)									
63	C or D	145	111	75	291	76	526	260	75
71	C or D	145	111	75	291	76	526	260	75
80	E or F	162	120	75	300	76	549	283	75
90	G or H	181	128	75	308	76	581	315	75
100	J or K	202	135	120	315	93	629	363	120
112	L	227	148	120	328	97	654	388	120
132	M or N or P	266	167	140	347	126	707	441	140

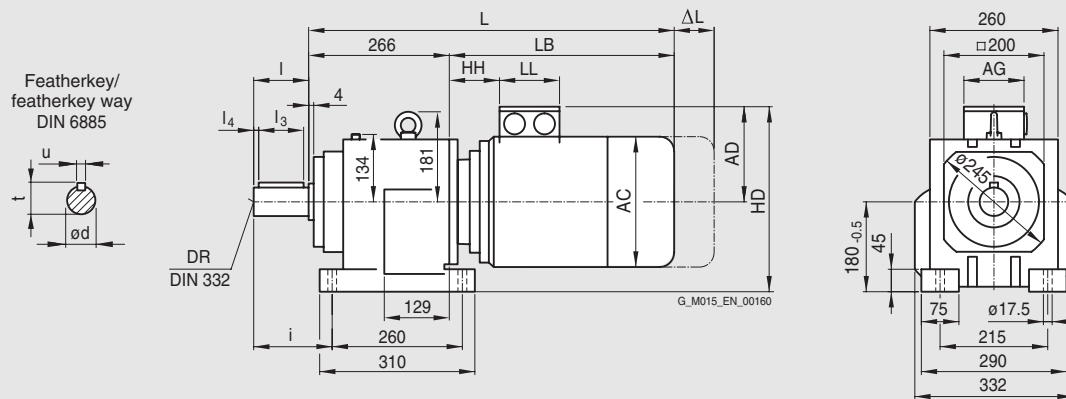
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
50_{k6}	100	140	M16x36
60_{m6}	120	160	M20x42

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
50_{k6}	100	80	10	53.5	14	140	M16x36
60_{m6}	120	100	10	64	18	160	M20x42



H82/H83 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

3

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H82 gearbox (two-stage)									
90	G or H	181	128	75	310	51	556	290	75
100	J or K	202	135	120	317	73	609	343	120
112	L	227	148	120	330	68	625	359	120
132	M or N or P	266	167	140	349	98	679	413	140
160	Q or R or S	319	197	165	379	113	779	513	165
H83 gearbox (three-stage)									
63	C or D	145	111	75	293	76	526	260	75
71	C or D	145	111	75	293	76	526	260	75
80	E or F	162	120	75	302	76	549	283	75
90	G or H	181	128	75	310	76	581	315	75
100	J or K	202	135	120	317	93	629	363	120
112	L	227	148	120	330	97	654	388	120
132	M or N or P	266	167	140	349	126	707	441	140

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

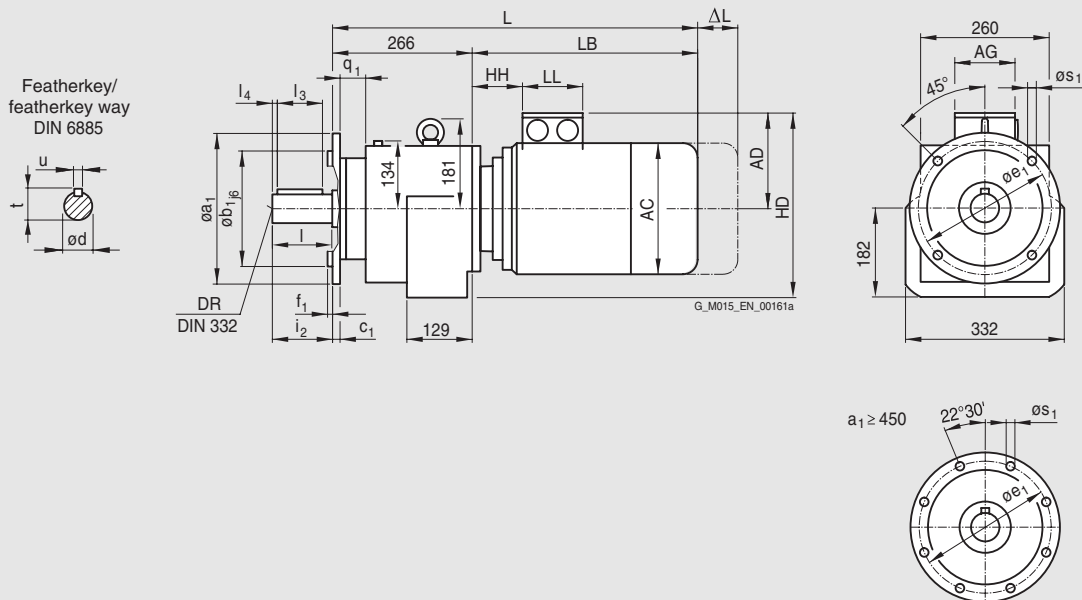
d	l	i ₂	DR	Flange
50_{k6}	100	100	M16x36	A300, A350
60_{m6}	120	120	M20x42	A300, A350

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
50_{k6}	100	80	10	53.5	14	100	M16x36	A300, A350
60_{m6}	120	100	10	64	18	120	M20x42	A300, A350

Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A300	300	230	16	265	4	54	13.5
A350	350	250	18	300	5	52	17.5



Geared motors

Helical geared motors

Dimensions

H82/H83 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H82 gearbox (two-stage)									
90	G or H	181	128	75	310	51	556	290	75
100	J or K	202	135	120	317	73	609	343	120
112	L	227	148	120	330	68	625	359	120
132	M or N or P	266	167	140	349	98	679	413	140
160	Q or R or S	319	197	165	379	113	779	513	165
H83 gearbox (three-stage)									
63	C or D	145	111	75	293	76	526	260	75
71	C or D	145	111	75	293	76	526	260	75
80	E or F	162	120	75	302	76	549	283	75
90	G or H	181	128	75	310	76	581	315	75
100	J or K	202	135	120	317	93	629	363	120
112	L	227	148	120	330	97	654	388	120
132	M or N or P	266	167	140	349	126	707	441	140

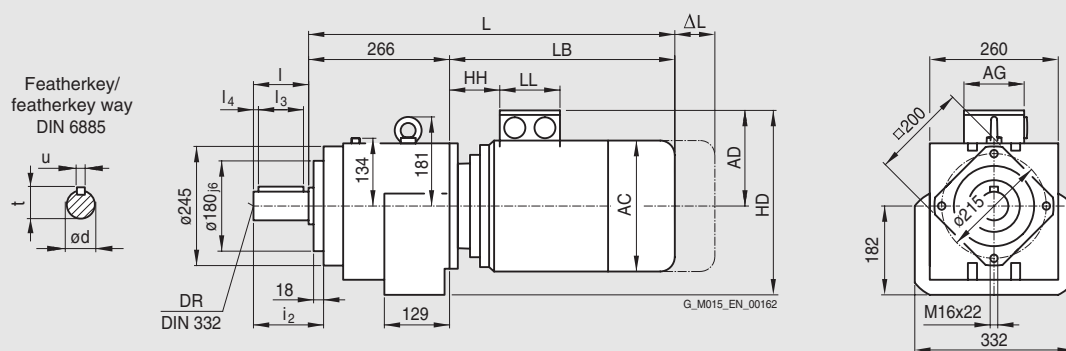
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR
50_{k6}	100	142	M16x36
60_{m6}	120	122	M20x42

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR
50_{k6}	100	80	10	53.5	14	142	M16x36
60_{m6}	120	100	10	64	18	122	M20x42



H102/H103 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H102 gearbox (two-stage)									
90	G or H	181	128	75	353	64	614	303	75
100	J or K	202	135	120	360	85	666	355	120
112	L	227	148	120	373	56	658	347	120
132	M or N or P	266	167	140	392	86	711	400	140
160	Q or R or S	319	197	165	422	102	813	502	165
180	T or U	358	259	152	484	147	954	643	132
200	V or W	398	306	260	531	124	1003	692	192
H103 gearbox (three-stage)									
80	E or F	162	120	75	345	70	588	277	75
90	G or H	181	128	75	353	70	620	309	75
100	J or K	202	135	120	360	87	668	357	120
112	L	227	148	120	373	88	690	379	120
132	M or N or P	266	167	140	392	118	744	433	140
160	Q or R or S	319	197	165	422	131	842	531	165

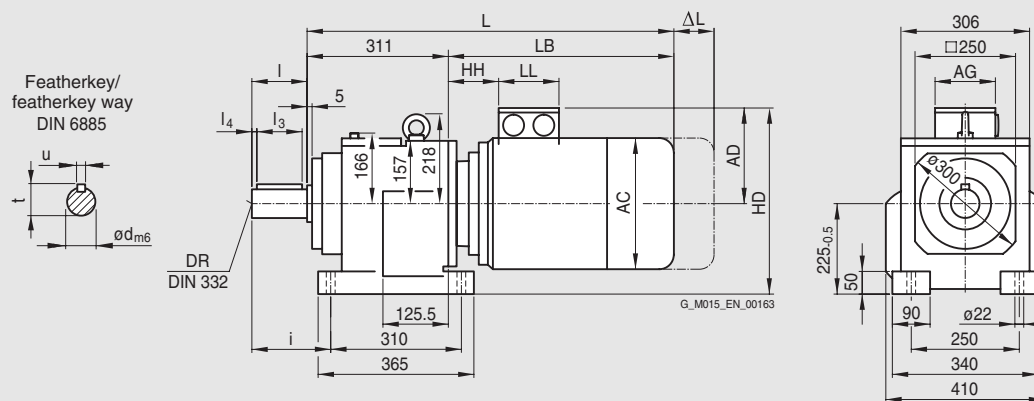
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
60	120	159.5	M20x42
70	140	179.5	M20x42

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
60	120	100	10	64	18	159.5	M20x42
70	140	110	15	74.5	20	179.5	M20x42



Geared motors

Helical geared motors

Dimensions

H102/H103 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H102 gearbox (two-stage)									
90	G or H	181	128	75	349	64	614	303	75
100	J or K	202	135	120	356	85	666	355	120
112	L	227	148	120	369	56	658	347	120
132	M or N or P	266	167	140	388	86	711	400	140
160	Q or R or S	319	197	165	418	102	813	502	165
180	T or U	358	259	152	480	147	954	643	132
200	V or W	398	306	260	527	124	1003	692	192
H103 gearbox (three-stage)									
80	E or F	162	120	75	341	70	588	277	75
90	G or H	181	128	75	349	70	620	309	75
100	J or K	202	135	120	356	87	668	357	120
112	L	227	148	120	369	88	690	379	120
132	M or N or P	266	167	140	388	118	744	433	140
160	Q or R or S	319	197	165	418	131	842	531	165

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

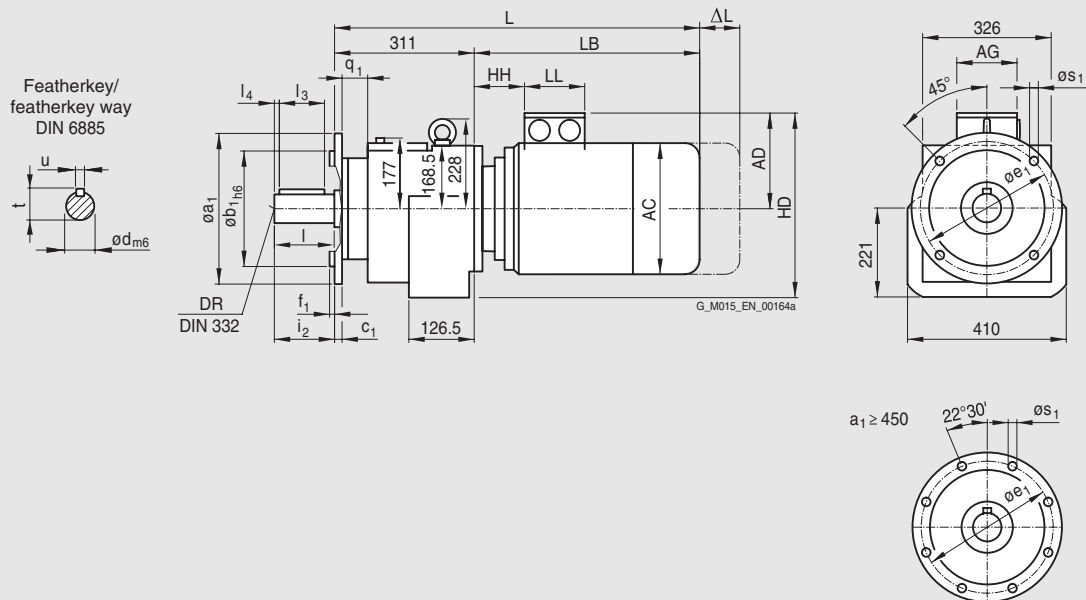
d	l	i ₂	DR	Flange
60	120	120	M20x42	A350, A400
70	140	140	M20x42	A350, A400

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
60	120	100	10	64	18	120	M20x42	A350, A400
70	140	110	15	74.5	20	140	M20x42	A350, A400

Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A350	350	250	18	300	5	41	17.5
A450	450	350	20	400	5	39	17.5



H102/H103 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H102 gearbox (two-stage)									
90	G or H	181	128	75	349	64	614	303	75
100	J or K	202	135	120	356	85	666	355	120
112	L	227	148	120	369	56	658	347	120
132	M or N or P	266	167	140	388	86	711	400	140
160	Q or R or S	319	197	165	418	102	813	502	165
180	T or U	358	259	152	480	147	954	643	132
200	V or W	398	306	260	527	124	1003	692	192
H103 gearbox (three-stage)									
80	E or F	162	120	75	341	70	588	277	75
90	G or H	181	128	75	349	70	620	309	75
100	J or K	202	135	120	356	87	668	357	120
112	L	227	148	120	369	88	690	379	120
132	M or N or P	266	167	140	388	118	744	433	140
160	Q or R or S	319	197	165	418	131	842	531	165

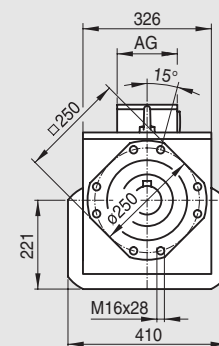
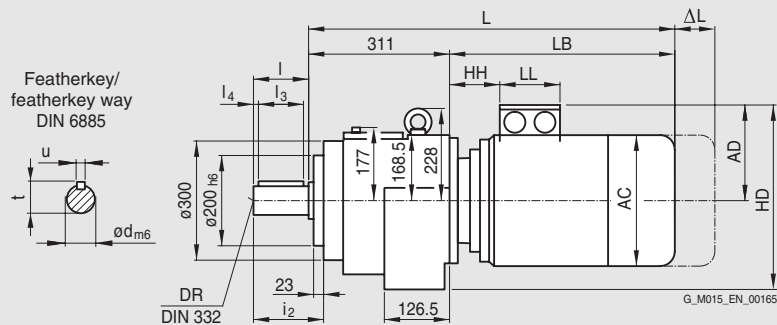
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR
60	120	148	M20x42
70	140	168	M20x42

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR
60	120	100	10	64	18	148	M20x42
70	140	110	15	74.5	20	168	M20x42



Geared motors

Helical geared motors

Dimensions

H122/H123 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H122 gearbox (two-stage)									
100	J or K	202	135	120	385	44	688	314	120
112	L	227	148	120	398	89	754	380	120
132	M or N or P	266	167	140	417	75	764	390	140
160	Q or R or S	319	197	165	447	85	859	485	165
180	T or U	358	259	152	509	134	1004	630	132
200	V or W	398	306	260	556	111	1052	678	192
225	X or Y	398	306	260	556	138	1080	706	192
H123 gearbox (three-stage)									
90	G or H	181	128	75	378	63	676	302	75
100	J or K	202	135	120	385	80	724	350	120
112	L	227	148	120	398	80	745	371	120
132	M or N or P	266	167	140	417	109	798	424	140
160	Q or R or S	319	197	165	447	122	896	522	165
180	T or U	358	259	152	509	171	1041	667	132

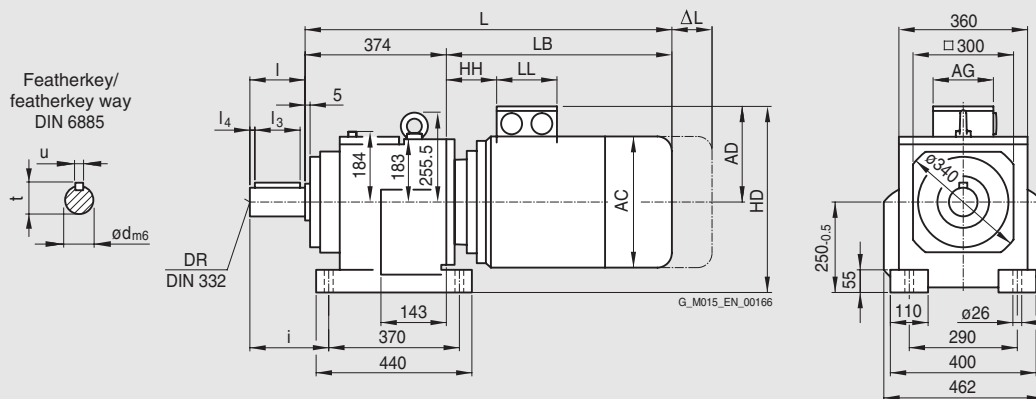
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
70	140	185	M20x42
90	170	215	M24x50

Solid shaft with featherkey

d	l	l_3	l_4	t	u	i	DR
70	140	110	15	74.5	20	185	M20x42
90	170	140	15	95	25	215	M24x50



H122/H123 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

3

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H122 gearbox (two-stage)									
100	J or K	202	135	120	385	44	688	314	120
112	L	227	148	120	398	89	754	380	120
132	M or N or P	266	167	140	417	75	764	390	140
160	Q or R or S	319	197	165	447	85	859	485	165
180	T or U	358	259	152	509	134	1004	630	132
200	V or W	398	306	260	556	111	1052	678	192
225	X or Y	398	306	260	556	138	1080	706	192
H123 gearbox (three-stage)									
90	G or H	181	128	75	378	63	676	302	75
100	J or K	202	135	120	385	80	724	350	120
112	L	227	148	120	398	80	745	371	120
132	M or N or P	266	167	140	417	109	798	424	140
160	Q or R or S	319	197	165	447	122	896	522	165
180	T or U	358	259	152	509	171	1041	667	132

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR	Flange
70	140	140	M20x42	A350, A450
90	170	170	M24x50	A350, A450

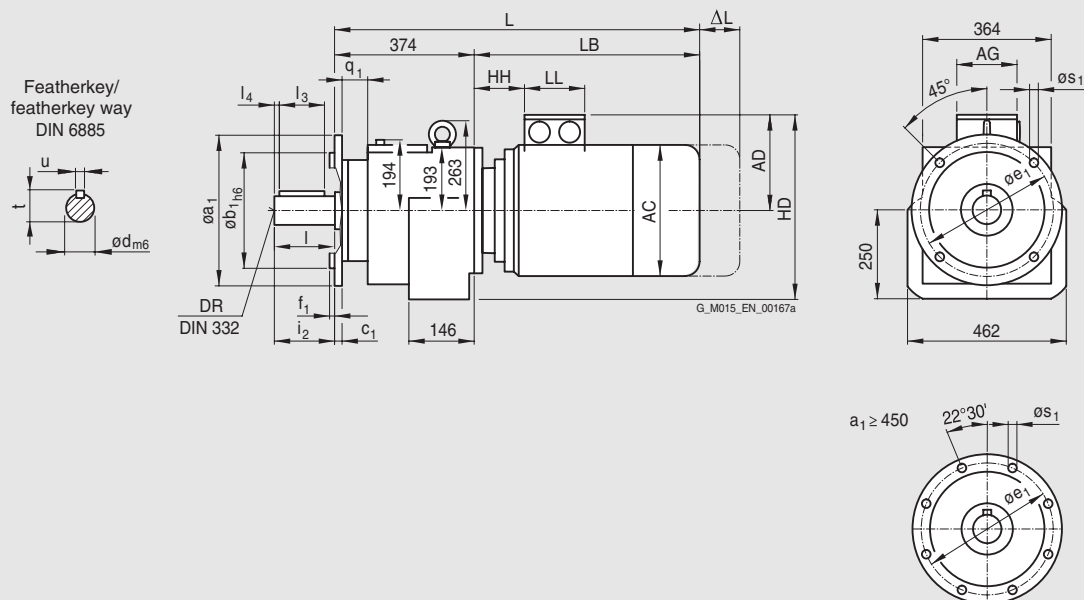
Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
70	140	110	15	74.5	20	140	M20x42	A350, A450
90	170	140	15	95	25	170	M24x50	A350, A450

Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A350 *	350	250	18	300	5	60	17.5
A450	450	350	22	400	5	56	17.5

* If torque > 3500 Nm, the flange must be pinned. It is recommended that 2 pins of 12 mm diameter are used.



Geared motors

Helical geared motors

Dimensions

H122/H123 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H122 gearbox (two-stage)									
100	J or K	202	135	120	385	44	688	314	120
112	L	227	148	120	398	89	754	380	120
132	M or N or P	266	167	140	417	75	764	390	140
160	Q or R or S	319	197	165	447	85	859	485	165
180	T or U	358	259	152	509	134	1004	630	132
200	V or W	398	306	260	556	111	1052	678	192
225	X or Y	398	306	260	556	138	1080	706	192
H123 gearbox (three-stage)									
90	G or H	181	128	75	378	63	676	302	75
100	J or K	202	135	120	385	80	724	350	120
112	L	227	148	120	398	80	745	371	120
132	M or N or P	266	167	140	417	109	798	424	140
160	Q or R or S	319	197	165	447	122	896	522	165
180	T or U	358	259	152	509	171	1041	667	132

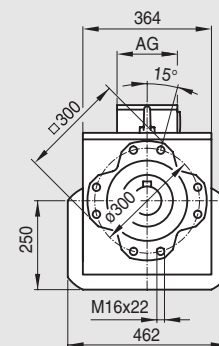
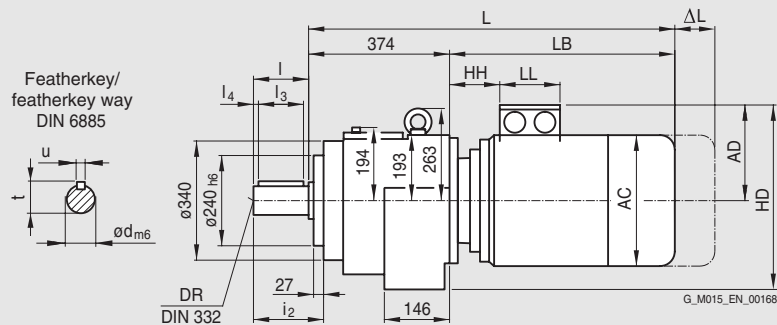
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR
70	140	173	M20x42
90	170	203	M24x50

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR
70	140	110	15	74.5	20	173	M20x42
90	170	140	15	95	25	203	M24x50



H142/H143 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

3

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H142 gearbox (two-stage)									
132	M or N or P	266	167	140	482	67	793	382	140
160	Q or R or S	319	197	165	512	78	889	478	165
180	T or U	358	259	152	574	126	1033	622	132
200	V or W	398	306	260	621	103	1082	671	192
225	X or Y	398	306	260	621	131	1109	698	192
H143 gearbox (three-stage)									
100	J or K	202	135	120	450	75	756	345	120
112	L	227	148	120	463	77	779	368	120
132	M or N or P	266	167	140	482	105	831	420	140
160	Q or R or S	319	197	165	512	116	927	516	165
180	T or U	358	259	152	574	164	1071	660	132
200	V or W	398	306	260	621	141	1120	709	192
225	X or Y	398	306	260	621	169	1147	736	192

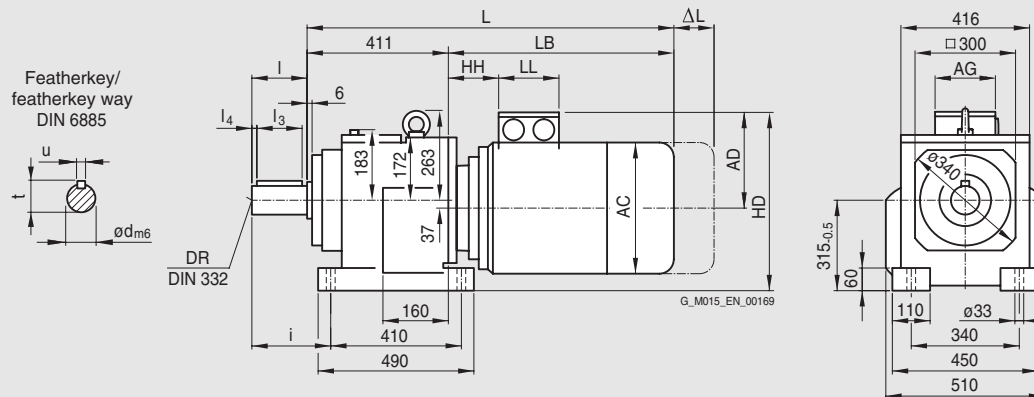
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
90	170	220	M24x50
100	210	260	M24x50

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
90	170	140	15	95	25	220	M24x50
100	210	180	15	106	28	260	M24x50



Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H142 gearbox (two-stage)									
132	M or N or P	266	167	140	484	67	793	382	140
160	Q or R or S	319	197	165	514	78	889	478	165
180	T or U	358	259	152	576	126	1033	622	132
200	V or W	398	306	260	623	103	1082	671	192
225	X or Y	398	306	260	623	131	1109	698	192
H143 gearbox (three-stage)									
100	J or K	202	135	120	452	75	756	345	120
112	L	227	148	120	465	77	779	368	120
132	M or N or P	266	167	140	484	105	831	420	140
160	Q or R or S	319	197	165	514	116	927	516	165
180	T or U	358	259	152	576	164	1071	660	132
200	V or W	398	306	260	623	141	1120	709	192
225	X or Y	398	306	260	623	169	1147	736	192

d	l	i ₂	DR	Flange
90	170	170	M24x50	A450, A550
100	210	210	M24x50	A450, A550

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
90	170	140	15	95	25	170	M24x50	A450, A550
100	210	180	15	106	28	210	M24x50	A450, A550

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A450	450	350	22	400	5	68	17.5
A550	550	450	25	500	5	65	17.5



H142/H143 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H142 gearbox (two-stage)									
132	M or N or P	266	167	140	484	67	793	382	140
160	Q or R or S	319	197	165	514	78	889	478	165
180	T or U	358	259	152	576	126	1033	622	132
200	V or W	398	306	260	623	103	1082	671	192
225	X or Y	398	306	260	623	131	1109	698	192
H143 gearbox (three-stage)									
100	J or K	202	135	120	452	75	756	345	120
112	L	227	148	120	465	77	779	368	120
132	M or N or P	266	167	140	484	105	831	420	140
160	Q or R or S	319	197	165	514	116	927	516	165
180	T or U	358	259	152	576	164	1071	660	132
200	V or W	398	306	260	623	141	1120	709	192
225	X or Y	398	306	260	623	169	1147	736	192

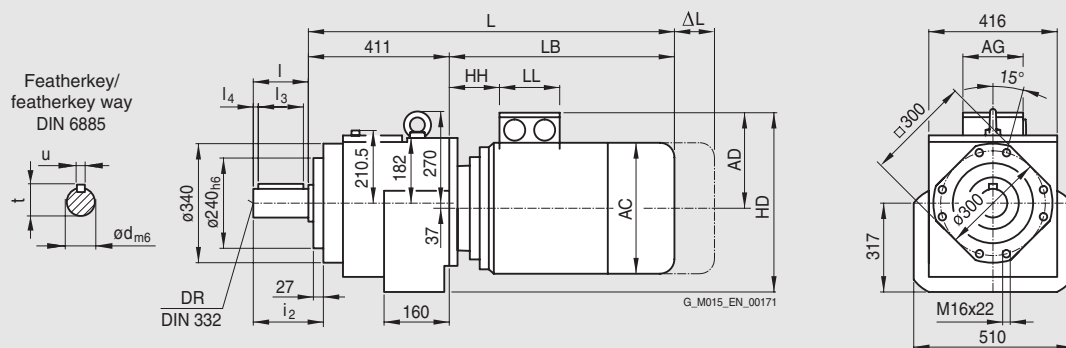
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR
90	170	203	M24x50
100	210	243	M24x50

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR
90	170	140	15	95	25	203	M24x50
100	210	180	15	106	28	243	M24x50



Geared motors

Helical geared motors

Dimensions

H162/H163 gearbox (two-/three-stage), foot-mounted type B3 (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H162 gearbox (two-stage)									
132	M or N or P	266	167	140	522	53	861	367	140
160	Q or R or S	319	197	165	552	63	957	463	165
180	T or U	358	259	152	614	112	1102	608	132
200	V or W	398	306	260	661	89	1150	656	192
225	X or Y	398	306	260	661	116	1178	684	192
H163 gearbox (three-stage)									
132	M or N or P	266	167	140	522	94	902	408	140
160	Q or R or S	319	197	165	552	104	998	504	165
180	T or U	358	259	152	614	153	1143	649	132
200	V or W	398	306	260	661	130	1191	697	192
225	X or Y	398	306	260	661	157	1219	725	192

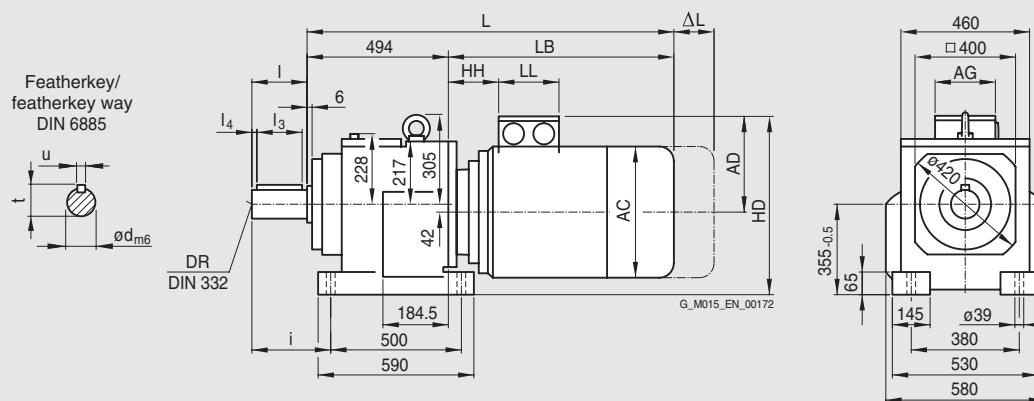
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	DR
100	210	260	M24x50
120	210	260	M24x50

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
100	210	180	15	106	28	260	M24x50
120	210	180	15	127	32	260	M24x50



H162/H163 gearbox (two-/three-stage), flange-mounted type B5 (1 or 9 in the 8th position of the order no.)

3

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H162 gearbox (two-stage)									
132	M or N or P	266	167	140	525	53	861	367	140
160	Q or R or S	319	197	165	555	63	957	463	165
180	T or U	358	259	152	617	112	1102	608	132
200	V or W	398	306	260	664	89	1150	656	192
225	X or Y	398	306	260	664	116	1178	684	192
H163 gearbox (three-stage)									
132	M or N or P	266	167	140	525	94	902	408	140
160	Q or R or S	319	197	165	555	104	998	504	165
180	T or U	358	259	152	617	153	1143	649	132
200	V or W	398	306	260	664	130	1191	697	192
225	X or Y	398	306	260	664	157	1219	725	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

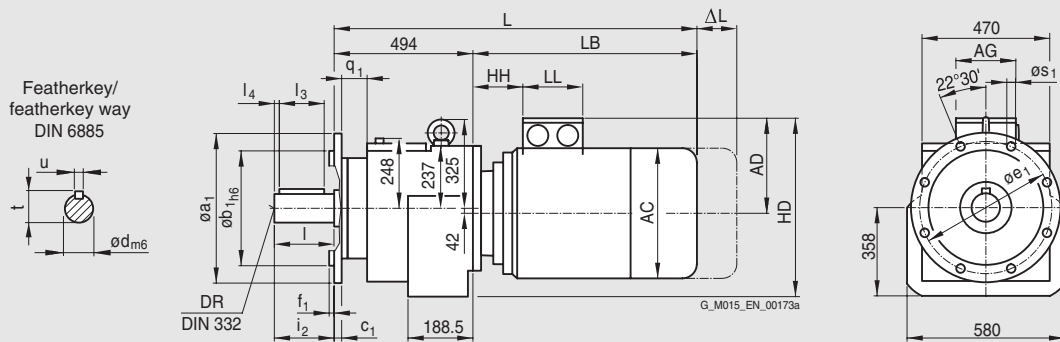
d	l	i ₂	DR	Flange
100	210	210	M24x50	A450, A550
120	210	210	M24x50	A450, A550

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR	Flange
100	210	180	15	106	28	210	M24x50	A450, A550
120	210	180	15	127	32	210	M24x50	A450, A550

Flange dimensions

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	q ₁	s ₁
A450	450	350	31	400	5	65	17.5
A550	550	450	31	500	5	65	17.5



Geared motors

Helical geared motors

Dimensions

H162/H163 gearbox (two-/three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
H162 gearbox (two-stage)									
132	M or N or P	266	167	140	525	53	861	367	140
160	Q or R or S	319	197	165	555	63	957	463	165
180	T or U	358	259	152	617	112	1102	608	132
200	V or W	398	306	260	664	89	1150	656	192
225	X or Y	398	306	260	664	116	1178	684	192
H163 gearbox (three-stage)									
132	M or N or P	266	167	140	525	94	902	408	140
160	Q or R or S	319	197	165	555	104	998	504	165
180	T or U	358	259	152	617	153	1143	649	132
200	V or W	398	306	260	664	130	1191	697	192
225	X or Y	398	306	260	664	157	1219	725	192

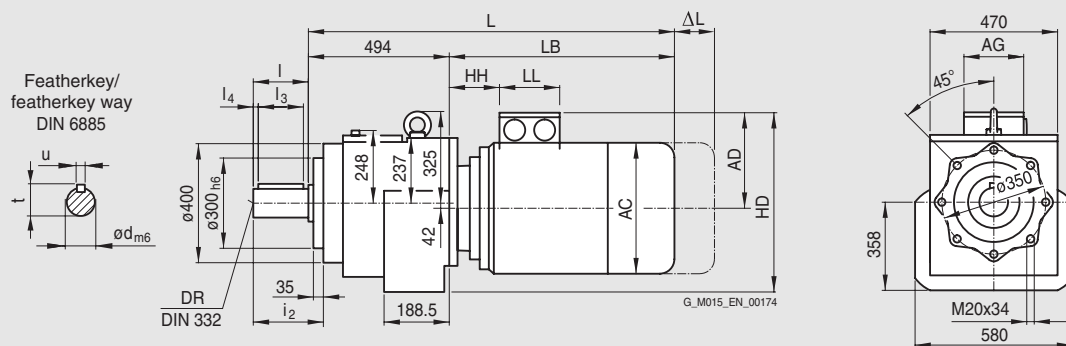
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i ₂	DR
100	210	251	M24x50
120	210	251	M24x50

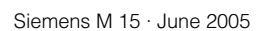
Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i ₂	DR
100	210	180	15	106	28	251	M24x50
120	210	180	15	127	32	251	M24x50



3

ΔL see Section 8, "Dimensions of built-on accessories".



Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL

ΔL see Section 8, "Dimensions of built-on accessories".

Flange	a ₁	b ₁	c ₁	e ₁	f ₁	s ₁
A550	550	450	31	500	5	17.5
A660	660	550	31	600	6	22



3

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

Helical geared motors

Notes

3

Offset geared motors



Structure of the order number and how to complete it

- 4/2 Structure of the order number for offset geared motors
- 4/3 Completing the order number
- 4/8 Mounting positions and position of the connection system
- 4/9 Selection example

Selection and ordering

- 4/10 Preliminary selection of the geared motor according to power, speed and torque
- 4/11 Selection and ordering data
- 4/56 Ratios and maximum torques

Dimensions

- 4/64 O32/O33 gearbox
- 4/66 O42/O43 gearbox
- 4/68 O62/O63 gearbox
- 4/70 O82/O83 gearbox
- 4/72 O102/O103 gearbox
- 4/74 O122/O123 gearbox
- 4/76 O142/O143 gearbox
- 4/78 O162/O163 gearbox
- 4/80 O182/O183 gearbox

Geared motors

Offset geared motors

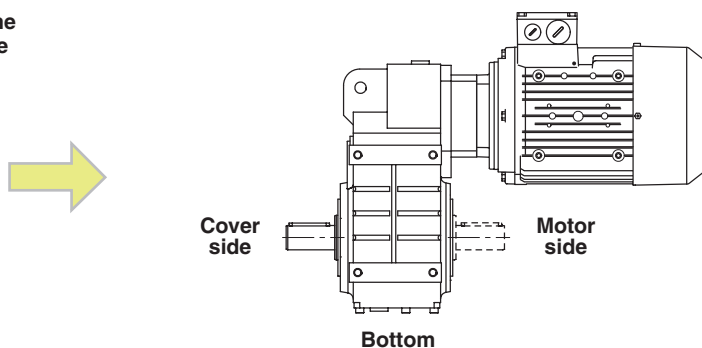
Structure of the order number and how to complete it

Structure of the order number for offset geared motors

Order number	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
		2	K	G	□	2	□	1	-	□	□	□	□	-	□	□	□	-	Z
Generation					3 or 4														
O offset gearbox																			
Gearbox size						0 to 8													
Basic version motor																			
Gear case type								2, 4 or 8											
Shaft design									B to S										
Motor frame size										A to Y									
Ratio code											01 to 64								
Number of poles on the motor													4, 6 or 8						
Mounting position of the gearbox														A to F					
Position of the connection system															A to D				
Voltage and frequency																1, 3, 5, 6, or 9			
Special versions																			

Definition of sides

Facing the gear case

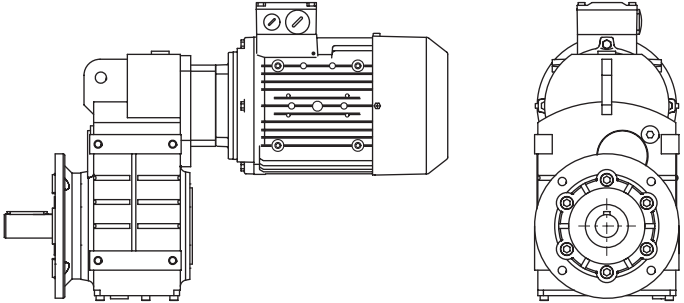
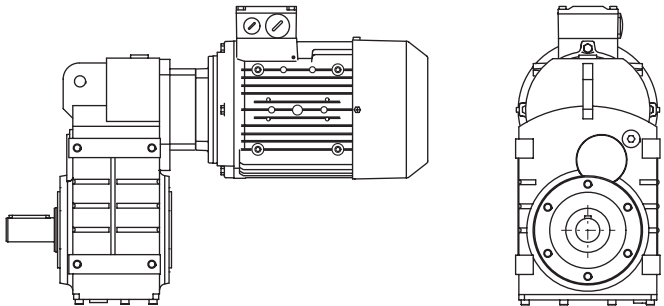
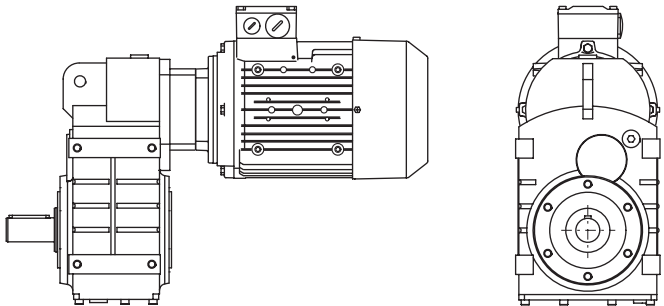


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The **order number of the offset geared motor** is shown in the selection and ordering data, but must be completed in certain places.

Completing the order number

8th position: Gear case type

Gear case models	8 th position of order number	
B35 flange-mounted type	4	
B3/B14 model	8	
Torque arm (rubber buffer)	2	

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Two-stage and three-stage offset gearbox (O)

Type	8th position of the order number	O32/O33 Flange size	Sur-charges	O42/O43 Flange size	Sur-charges	O62/O63 Flange size	Sur-charges	O82/O83 Flange size	Sur-charges	O102/O103 Flange size	Sur-charges
Torque arm (rubber buffer)	2		✓		✓		✓		✓		✓
Flange-mounted type B35 on cover side	4	A160	✓	A200	✓	A250	✓	A300	✓	A350	✓
Foot-mounted type B3/flange-mounted type B14	8		✓		✓		✓		✓		✓

Type	8th position of the order number	O122/O123 Flange size	Surcharges	O142/O143 Flange size	Surcharges	O162/O163 Flange size	Surcharges	O182/O183 Flange size	Surcharges
Torque arm (rubber buffer)	2		✓		✓		✓		✓
Flange-mounted type 35on cover side	4	A450	✓	A450	✓	A550	✓	A660	✓
Foot-mounted type B3/flange-mounted type B14	8		✓		✓		✓		✓

✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

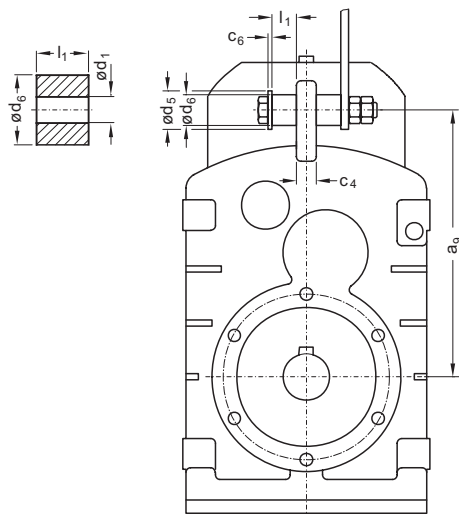
Offset geared motors

Structure of the order number and how to complete it

Torque arm for offset gearbox (rubber buffer)

The rubber buffer (supplied loose) is used to elastically support the gearbox on the case bar provided.

The rubber buffers are suitable for all models and can withstand temperatures of $-40\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$.



G_M015_XX_00048

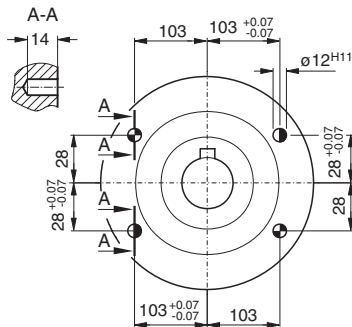
Gearboxes	a_g	l_1	d_6	d_1	d_5	c_6 min	c_4
O32/O33	140	15	30	10.5 +0.5	40	2.5	12
O42/O43	185	20	40	12.5 +0.5	50	3	12
O62/O63	218	20	40	12.5 +0.5	50	3	16
O82/O83	278	30	60	21 +0.5	75	4	20
O102/O103	346	30	60	21 +0.5	75	4	26
O122/O123	395	40	60	25 +0.5	100	6	30
O142/O143	485	40	80	25 +0.5	100	6	36
O162/O163	550	50	120	31 +0.5	140	8	50
O182/O183	620	50	120	31 +0.5	140	8	50

Pin holes

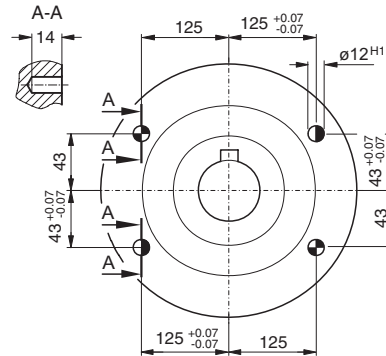
With frame sizes O102 to O183, the customer interface can be pinned to the case flange (flange-mounted type B14). The output flanges are designed in such a way that the permissible torques and radial forces are securely transferred from the bolted joints. If an additional safeguard is desired, e.g. with

reversing operation or a high impact load, the existing pin holes can be used. The gearbox can also be drilled and pinned together with the machine. The listed dimensions must be adhered to.

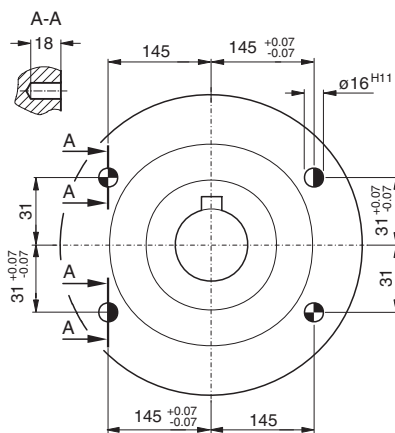
O102 / O103



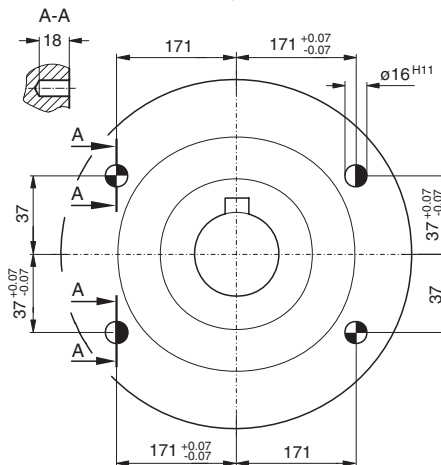
O122 / O123



O142 / O143



O162 / O163, O182 / O183



- ① Dowel pins, heavyweight model to DIN 1481 (use available pin holes on the case flange)
- ② Full length parallel grooved dowel pins with chamfer to DIN EN 28740/ISO 8740 (note: drill connecting part together with the case)

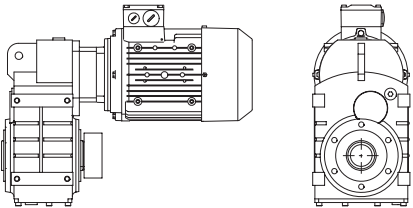
G_M015_EN_00046

Geared motors

Offset geared motors

Structure of the order number and how to complete it

9th position: Shaft design

Shaft design	9th position of order number	
Hollow shaft with shrink disk on the motor side	B	

G_M015_EN_00006

Two-stage and three-stage offset gearbox (O)

Shaft design	9th position of the order number	O32/O33		O42/O43		O62/O63		O82/O83		O102/O103	
		d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge
Hollow shaft with shrink disk on the motor side	B	30	✓	40	✓	50	✓	60	✓	70	✓
Hollow shaft with featherkey (basic version)	G	–	–	35	✓	40	✓	50	✓	60	✓
Hollow shaft with featherkey (basic version)	H	30	✓	40	✓	45	✓	60	✓	70	✓
Plain solid shaft on cover side	M	25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•	60 x 120	•
Solid shaft with featherkey on cover side	S	25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓	60 x 120	✓
Inch shafts		•		•		•		•		•	
Involute designs (splining)		•		•		•		•		•	

Shaft design	9th position of the order number	O122/O123		O142/O143		O162/O163		O182/O183	
		d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge
Hollow shaft with shrink disk on the motor side	B	80	✓	95	✓	105	✓	125	✓
Hollow shaft with featherkey (basic version)	G	70	✓	80	✓	100	✓	–	–
Hollow shaft with featherkey (basic version)	H	80	✓	90	✓	110	✓	120	✓
Plain solid shaft on cover side	M	70 x 140	•	90 x 170	•	110 x 210	•	120 x 210	•
Solid shaft with featherkey on cover side	S	70 x 140	✓	90 x 170	✓	110 x 210	✓	120 x 210	✓
Inch shafts		•		•		•		•	
Involute designs (splining)		•		•		•		•	

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Information:

The hollow shaft is supplied with a rotating cap as standard. For dimensions, see the "Dimensions" section.

A fixed cap (cast design) can also be ordered for the hollow shaft. For explanations and dimensions, see Section 9, order code **S30**.

A rotating rubber cover is supplied with shrink disks as standard. For dimensions, see the "Dimensions" section.

A steel cap can also be ordered for the shrink disks. For explanations and dimensions, see Section 9, order code **S31**.

Fixing parts for the hollow shaft are supplied as standard. For dimensions, see the "Dimensions" section.

14th position: Mounting position of offset geared motor

The letters from **A to F** correspond to the figures on page 4/8, and must be inserted into the 14th position of the order number (without surcharge).

15th position: Position of the connection system

The motor terminal box can be mounted in four different positions. When facing the gearbox cover, the positions are defined by **A, B, C**, or **D**, see figures on page 4/8 (without surcharge). This letter must be inserted into the 15th position of the order number.

16th position: Voltage and frequency

The last position of the order number contains the voltage and frequency of the geared motor.

1 = 230 VΔ/400 VΥ, 50 Hz

3 = 500 VΥ, 50 Hz

5 = 500 VΔ, 50 Hz

6 = 400 VΔ/690 VΥ, 50 Hz

9 = other voltages, see Section 8, "Other voltages and/or frequencies".

1, 3, 5, 6 without surcharge, **9** with surcharge.

-Z: Special versions

Special gearbox and/or motor designs should be ordered using the order number addition **-Z** and the order code, and is usually subject to a surcharge.

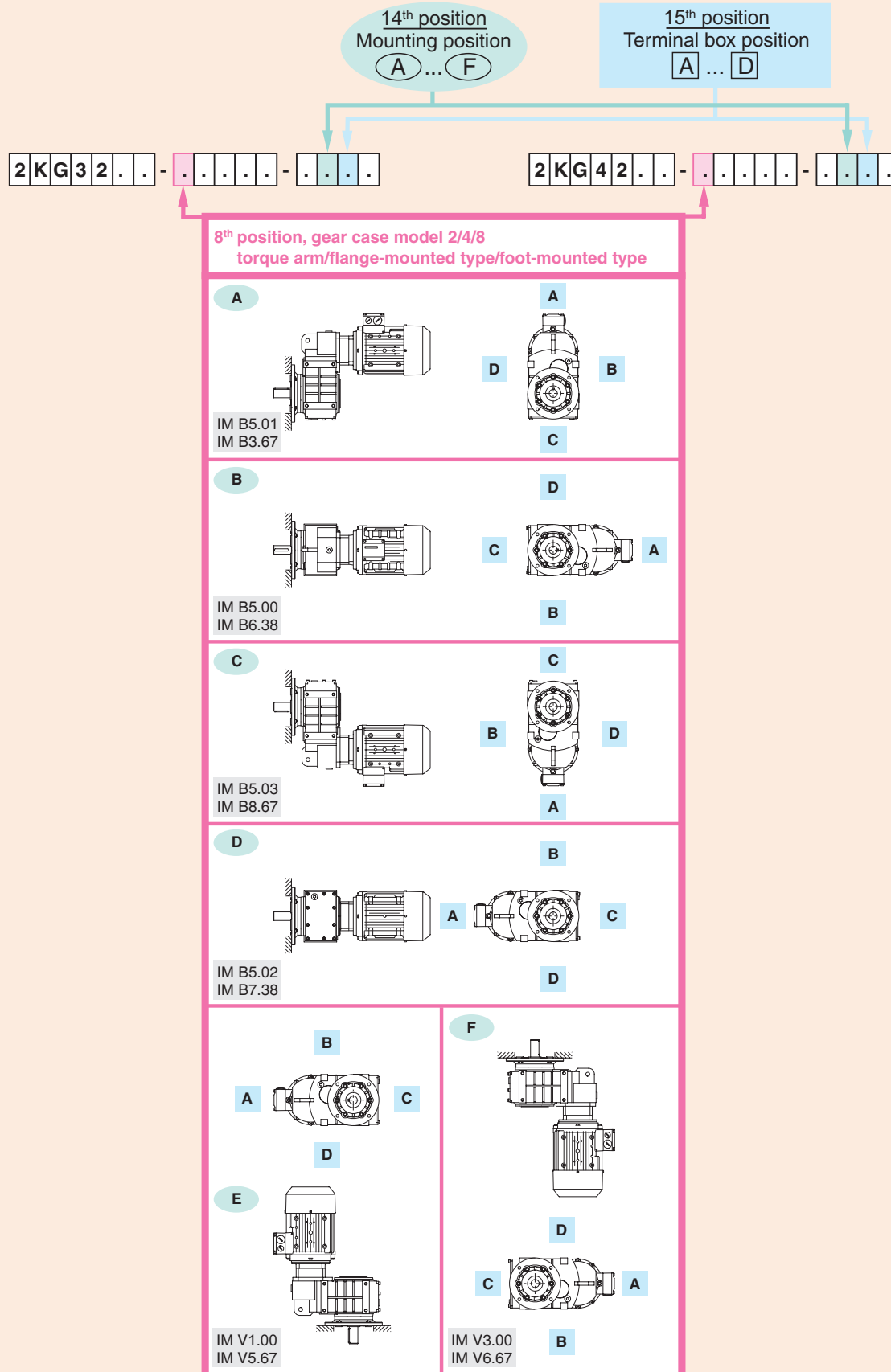
For a description of the options, see Sections 8, 9 and 10; for ordering data, see Section 11.

Geared motors

Offset geared motors

Structure of the order number
and how to complete it

Mounting positions and position of the connection system



G_M015_EN_00008a

Selection example

A geared motor with 0.55 kW, an output speed of around 20 rpm and a service factor of approximately 2 is needed.

From the table on page 4/19:

Order no.: **2KG3241-□□E45-4□□□**

With the O43 gearbox, the output speed is 20.7 rpm, the service factor 2.1, the motor frame size 80 M and there are four poles.

Offset geared motor, type B3/B14 with hollow shaft and featherkey, type IM B3.67, and terminal box at top (for figure, see page 4/8) and a voltage of 230 VΔ/400 VY, 50 Hz (see page 4/7)

Order no.: **2KG3241-8HE45-4AA1**

B35 type and solid shaft with featherkey on cover side

Order no.: **2KG3241-4SE45-4AA1**

Surcharge (for flange-mounted type B35 only), see page 4/3.

With standard brake for connection 1 AC 50 Hz 230 V (see Section 8)

Order number: **2KG3241-4SE456-4AA1-Z G21**

Surcharges have to be considered.

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.55 Gearbox size O43 – motor frame size 80M – 4 poles						
	9.6	548	146	0.98	2KG3241 - ■ ■ E53-4 ■ ■ ■	30
	10.9	482	128	1.1	2KG3241 - ■ ■ E52-4 ■ ■ ■	
	12.1	436	116	1.2	2KG3241 - ■ ■ E51-4 ■ ■ ■	
	13.8	380	101	1.4	2KG3241 - ■ ■ E50-4 ■ ■ ■	
	15.4	341	90.5	1.6	2KG3241 - ■ ■ E48-4 ■ ■ ■	
	17.1	308	81.7	1.8	2KG3241 - ■ ■ E47-4 ■ ■ ■	
	18.8	279	74.1	1.9	2KG3241 - ■ ■ E46-4 ■ ■ ■	
	20.7	254	67.4	2.1	2KG3241 - ■ ■ E45-4 ■ ■ ■	
	23.4	224	59.6	2.4	2KG3241 - ■ ■ E44-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ————— **2, 4 or 8**

For shaft designs, see page 4/6 ————— **B, G, H, M, S**

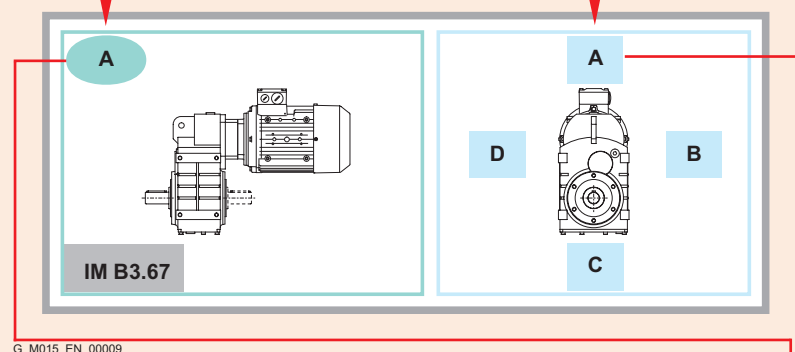
For gearbox mounting positions acc. to figure, see page 4/8 ————— **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 ————— **1, 3, 5, 6, or 9**

IM B3.67 model

Terminal box at top



Order no. **2KG3241-8HE45-4AA1**

Geared motors

Offset geared motors

Selection and ordering

Preliminary selection of the geared motor according to power, speed and torque

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Detailed selection and ordering data Page
0.09	1.6 – 28.3	552 – 30	405 – 22.3	1 – 9.5	4/11
0.12	1.6 – 37.5	719 – 31	405 – 36.0	1.2 – 9.5	4/11 – 4/12
0.18	1.6 – 53.5	1081 – 32.1	424 – 25.2	0.94 – 10	4/13 – 4/14
0.25	1.6 – 81.3	1480 – 29.4	424 – 16.6	0.94 – 9.9	4/14 – 4/15
0.37	1.5 – 122	2345 – 29	448 – 11.2	1 – 10	4/16 – 4/17
0.55	1.5 – 180	3486 – 29	448 – 7.76	0.95 – 9.9	4/18 – 4/20
0.75	1.5 – 309	4732 – 23	449 – 4.52	0.91 – 9.8	4/20 – 4/22
1.1	1.5 – 313	6940 – 34	449 – 4.52	0.91 – 9.7	4/23 – 4/26
1.5	1.6 – 545	9128 – 26	449 – 5.25	0.91 – 9.6	4/26 – 4/29
2.2	1.7 – 314	12122 – 67	449 – 4.52	0.93 – 4.9	4/29 – 4/32
3	1.7 – 328	16529 – 87	449 – 4.33	0.92 – 4.8	4/33 – 4/36
4	2.4 – 363	16239 – 105	404 – 3.97	0.92 – 5.6	4/36 – 4/39
5.5	2.6 – 305	20486 – 172	404 – 4.77	0.93 – 9.3	4/39 – 4/42
7.5	3.6 – 305	19881 – 235	404 – 4.77	0.91 – 5.4	4/42 – 4/44
11	4.9 – 257	21528 – 409	299 – 5.68	0.91 – 5.9	4/45 – 4/46
15	6.9 – 257	20692 – 557	211 – 5.68	0.94 – 4.8	4/46 – 4/48
18.5	8.7 – 384	20212 – 460	167 – 3.80	0.92 – 9.1	4/48 – 4/50
22	10.0 – 384	21026 – 547	146 – 3.80	0.95 – 5	4/50 – 4/51
30	13.1 – 386	21803 – 743	111 – 3.80	0.92 – 7.7	4/51 – 4/53
37	17.2 – 273	20562 – 1296	85.5 – 5.39	0.97 – 4	4/54
45	19.7 – 273	21803 – 1576	74.6 – 5.39	0.92 – 3.8	4/54 – 4/55

Selection and ordering data

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.09	Gearbox size O83 – motor frame size 71M – 8 poles					72
	1.6	552	405	3.4	2KG3281 - C63-8	
	1.8	489	358	3.9	2KG3281 - C62-8	
	1.9	444	326	4.3	2KG3281 - C61-8	
	Gearbox size O63 – motor frame size 71M – 8 poles					43
	2.1	404	296	2.5	2KG3261 - C60-8	
	2.4	359	263	2.8	2KG3261 - C58-8	
	2.8	312	228	3.2	2KG3261 - C57-8	
	3.0	291	213	3.4	2KG3261 - C56-8	
	3.4	256	188	3.9	2KG3261 - C55-8	
	Gearbox size O43 – motor frame size 71M – 8 poles					28
	2.3	367	269	1.5	2KG3241 - C58-8	
	2.6	326	239	1.7	2KG3241 - C57-8	
	3.0	285	209	1.9	2KG3241 - C56-8	
	3.4	255	187	2.1	2KG3241 - C55-8	
	3.8	227	166	2.4	2KG3241 - C54-8	
	4.3	199	146	2.7	2KG3241 - C53-8	
	4.9	175	128	3.1	2KG3241 - C52-8	
	5.4	158	116	3.4	2KG3241 - C51-8	
	Gearbox size O33 – motor frame size 71M – 8 poles					20
	3.0	284	208	1	2KG3231 - C54-8	
	3.3	261	191	1.1	2KG3231 - C53-8	
	3.6	237	174	1.2	2KG3231 - C52-8	
	4.1	210	154	1.4	2KG3231 - C51-8	
	4.9	176	129	1.6	2KG3231 - C50-8	
	5.7	150	110	1.9	2KG3231 - C48-8	
	6.7	128	93.5	2.3	2KG3231 - C47-8	
	7.8	111	81.2	2.6	2KG3231 - C46-8	
	8.9	97	70.7	3	2KG3231 - C45-8	
	9.9	87	63.8	3.3	2KG3231 - C44-8	
	Gearbox size O32 – motor frame size 71M – 8 poles					19
	11.1	77	56.7	2.7	2KG3231 - C30-8	
	12.5	69	50.4	3.3	2KG3231 - C28-8	
	14.4	60	43.8	4.2	2KG3231 - C27-8	
	15.4	56	40.9	4.9	2KG3231 - C26-8	
	17.5	49	36.0	5.9	2KG3231 - C25-8	
	20.0	43	31.5	6.8	2KG3231 - C24-8	
	22.6	38	27.9	7.6	2KG3231 - C23-8	
	25.0	34	25.2	8.4	2KG3231 - C22-8	
	28.3	30	22.3	9.5	2KG3231 - C21-8	

0.12	Gearbox size O83 – motor frame size 71M – 8 poles					72
	1.6	719	405	2.6	2KG3281 - ■■ D63-8 ■■■	
	1.8	637	358	3	2KG3281 - ■■ D62-8 ■■■	
	2.0	579	326	3.3	2KG3281 - ■■ D61-8 ■■■	
	2.2	520	293	3.7	2KG3281 - ■■ D60-8 ■■■	
	2.6	445	250	4.3	2KG3281 - ■■ D57-8 ■■■	
	2.8	403	227	4.7	2KG3281 - ■■ D56-8 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.12	Gearbox size O83 – motor frame size 63M – 4 poles					66
	3.3	344	405	5.5	2KG3281 - A63-4	
	3.8	304	358	6.2	2KG3281 - A62-4	
	4.1	277	326	6.9	2KG3281 - A61-4	
	Gearbox size O63 – motor frame size 63M – 4 poles					36
	4.6	251	296	4	2KG3261 - A60-4	
	5.1	224	263	4.5	2KG3261 - A58-4	
	5.9	194	228	5.2	2KG3261 - A57-4	
	6.3	181	213	5.5	2KG3261 - A56-4	
	7.2	159	188	6.3	2KG3261 - A55-4	
	8.2	140	164	7.2	2KG3261 - A54-4	
	9.3	123	145	8.1	2KG3261 - A53-4	
	10.2	112	132	8.9	2KG3261 - A52-4	22
	Gearbox size O43 – motor frame size 63M – 4 poles					
	5.0	228	269	2.4	2KG3241 - A58-4	
	5.7	203	239	2.7	2KG3241 - A57-4	
	6.5	178	209	3	2KG3241 - A56-4	
	7.2	159	187	3.4	2KG3241 - A55-4	
	8.1	141	166	3.8	2KG3241 - A54-4	
	9.3	124	146	4.4	2KG3241 - A53-4	
	10.5	109	128	5	2KG3241 - A52-4	
	11.7	98	116	5.5	2KG3241 - A51-4	
	13.4	86	101	6.3	2KG3241 - A50-4	
	14.9	77	90.5	7	2KG3241 - A48-4	
	16.5	69	81.7	7.8	2KG3241 - A47-4	21
	18.2	63	74.1	8.6	2KG3241 - A46-4	
	20.0	57	67.4	9.4	2KG3241 - A45-4	
	Gearbox size O42 – motor frame size 63M – 4 poles					
	22.2	52	60.7	7.8	2KG3241 - A30-4	13
	Gearbox size O32 – motor frame size 63M – 4 poles					
	4.8	238	280	1.2	2KG3231 - A56-4	
	5.6	205	242	1.4	2KG3231 - A55-4	
	6.5	176	208	1.6	2KG3231 - A54-4	
	7.1	162	191	1.8	2KG3231 - A53-4	
	7.8	148	174	2	2KG3231 - A52-4	
	8.8	131	154	2.2	2KG3231 - A51-4	
	10.5	109	129	2.6	2KG3231 - A50-4	
	12.3	93	110	3.1	2KG3231 - A48-4	
	14.4	79	93.5	3.7	2KG3231 - A47-4	
	16.6	69	81.2	4.2	2KG3231 - A46-4	
	19.1	60	70.7	4.8	2KG3231 - A45-4	
	21.2	54	63.8	5.4	2KG3231 - A44-4	
	23.8	48	56.7	4.4	2KG3231 - A30-4	
	26.8	43	50.4	5.4	2KG3231 - A28-4	
	30.9	37	43.8	6.7	2KG3231 - A27-4	
	33.0	35	40.9	7.9	2KG3231 - A26-4	
	37.5	31	36.0	9.5	2KG3231 - A25-4	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.18	Gearbox size O103 – motor frame size 80M – 8 poles					
	1.6	1081	424	3.1	2KG4201 - ■ ■ E63-8 ■ ■ ■	120
	1.8	975	383	3.5	2KG4201 - ■ ■ E62-8 ■ ■ ■	
	2.0	879	345	3.9	2KG4201 - ■ ■ E61-8 ■ ■ ■	
	Gearbox size O83 – motor frame size 80M – 8 poles					
	1.7	1031	405	1.8	2KG3281 - ■ ■ E63-8 ■ ■ ■	73
	1.9	913	358	2.1	2KG3281 - ■ ■ E62-8 ■ ■ ■	
	2.1	830	326	2.3	2KG3281 - ■ ■ E61-8 ■ ■ ■	
	2.3	745	293	2.5	2KG3281 - ■ ■ E60-8 ■ ■ ■	
	2.7	639	251	3	2KG3281 - ■ ■ E58-8 ■ ■ ■	
	Gearbox size O83 – motor frame size 63M – 4 poles					
	3.3	516	405	3.7	2KG3281 - ■ ■ B63-4 ■ ■ ■	66
	3.8	456	358	4.2	2KG3281 - ■ ■ B62-4 ■ ■ ■	
	4.1	415	326	4.6	2KG3281 - ■ ■ B61-4 ■ ■ ■	
	4.6	373	293	5.1	2KG3281 - ■ ■ B60-4 ■ ■ ■	
	Gearbox size O63 – motor frame size 63M – 4 poles					
	4.6	377	296	2.7	2KG3261 - ■ ■ B60-4 ■ ■ ■	36
	5.1	335	263	3	2KG3261 - ■ ■ B58-4 ■ ■ ■	
	5.9	291	228	3.4	2KG3261 - ■ ■ B57-4 ■ ■ ■	
	6.3	272	213	3.7	2KG3261 - ■ ■ B56-4 ■ ■ ■	
	7.2	239	188	4.2	2KG3261 - ■ ■ B55-4 ■ ■ ■	
	8.2	209	164	4.8	2KG3261 - ■ ■ B54-4 ■ ■ ■	
	9.3	185	145	5.4	2KG3261 - ■ ■ B53-4 ■ ■ ■	
	10.2	168	132	6	2KG3261 - ■ ■ B52-4 ■ ■ ■	
	Gearbox size O43 – motor frame size 63M – 4 poles					
	5.0	342	269	1.6	2KG3241 - ■ ■ B58-4 ■ ■ ■	22
	5.7	304	239	1.8	2KG3241 - ■ ■ B57-4 ■ ■ ■	
	6.5	266	209	2	2KG3241 - ■ ■ B56-4 ■ ■ ■	
	7.2	238	187	2.3	2KG3241 - ■ ■ B55-4 ■ ■ ■	
	8.1	212	166	2.6	2KG3241 - ■ ■ B54-4 ■ ■ ■	
	9.3	185	146	2.9	2KG3241 - ■ ■ B53-4 ■ ■ ■	
	10.5	163	128	3.3	2KG3241 - ■ ■ B52-4 ■ ■ ■	
	11.7	147	116	3.7	2KG3241 - ■ ■ B51-4 ■ ■ ■	
	13.4	128	101	4.2	2KG3241 - ■ ■ B50-4 ■ ■ ■	
	14.9	115	90.5	4.7	2KG3241 - ■ ■ B48-4 ■ ■ ■	
	16.5	104	81.7	5.2	2KG3241 - ■ ■ B47-4 ■ ■ ■	
	18.2	94.4	74.1	5.7	2KG3241 - ■ ■ B46-4 ■ ■ ■	
	20.0	85.9	67.4	6.3	2KG3241 - ■ ■ B45-4 ■ ■ ■	
	Gearbox size O42 – motor frame size 63M – 4 poles					
	22.2	77.3	60.7	5.2	2KG3241 - ■ ■ B30-4 ■ ■ ■	21
	24.5	70.3	55.2	7.1	2KG3241 - ■ ■ B28-4 ■ ■ ■	
	27.2	63.1	49.6	8.6	2KG3241 - ■ ■ B27-4 ■ ■ ■	
	31.8	54.1	42.5	10	2KG3241 - ■ ■ B26-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.18	Gearbox size O33 – motor frame size 63M – 4 poles					
	5.6	308	242	0.94	2KG3231 - ■ ■ B55-4 ■ ■ ■	14
	6.5	265	208	1.1	2KG3231 - ■ ■ B54-4 ■ ■ ■	
	7.1	244	191	1.2	2KG3231 - ■ ■ B53-4 ■ ■ ■	
	7.8	221	174	1.3	2KG3231 - ■ ■ B52-4 ■ ■ ■	
	8.8	196	154	1.5	2KG3231 - ■ ■ B51-4 ■ ■ ■	
	10.5	164	129	1.8	2KG3231 - ■ ■ B50-4 ■ ■ ■	
	12.3	140	110	2.1	2KG3231 - ■ ■ B48-4 ■ ■ ■	
	14.4	119	93.5	2.4	2KG3231 - ■ ■ B47-4 ■ ■ ■	
	16.6	103	81.2	2.8	2KG3231 - ■ ■ B46-4 ■ ■ ■	
	19.1	90	70.7	3.2	2KG3231 - ■ ■ B45-4 ■ ■ ■	
	21.2	81.2	63.8	3.6	2KG3231 - ■ ■ B44-4 ■ ■ ■	
	Gearbox size O32 – motor frame size 63M – 4 poles					
	23.8	72.2	56.7	2.9	2KG3231 - ■ ■ B30-4 ■ ■ ■	13
	26.8	64.2	50.4	3.6	2KG3231 - ■ ■ B28-4 ■ ■ ■	
	30.9	55.7	43.8	4.5	2KG3231 - ■ ■ B27-4 ■ ■ ■	
	33.0	52.1	40.9	5.3	2KG3231 - ■ ■ B26-4 ■ ■ ■	
	37.5	45.8	36.0	6.3	2KG3231 - ■ ■ B25-4 ■ ■ ■	
	42.9	40.1	31.5	7.2	2KG3231 - ■ ■ B24-4 ■ ■ ■	
	48.5	35.5	27.9	8.2	2KG3231 - ■ ■ B23-4 ■ ■ ■	
	53.5	32.1	25.2	9	2KG3231 - ■ ■ B22-4 ■ ■ ■	
0.25	Gearbox size O103 – motor frame size 80M – 8 poles					
	1.6	1480	424	2.3	2KG4201 - ■ ■ F63-8 ■ ■ ■	121
	1.8	1334	383	2.5	2KG4201 - ■ ■ F62-8 ■ ■ ■	
	2.0	1203	345	2.8	2KG4201 - ■ ■ F61-8 ■ ■ ■	
	Gearbox size O83 – motor frame size 80M – 8 poles					
	1.7	1411	405	1.3	2KG3281 - ■ ■ F63-8 ■ ■ ■	75
	1.9	1249	358	1.5	2KG3281 - ■ ■ F62-8 ■ ■ ■	
	2.1	1135	326	1.7	2KG3281 - ■ ■ F61-8 ■ ■ ■	
	2.3	1020	293	1.9	2KG3281 - ■ ■ F60-8 ■ ■ ■	
	2.7	874	251	2.2	2KG3281 - ■ ■ F58-8 ■ ■ ■	
	3.0	791	227	2.4	2KG3281 - ■ ■ F56-8 ■ ■ ■	
	Gearbox size O83 – motor frame size 71M – 4 poles					
	3.3	716	405	2.7	2KG3281 - ■ ■ C63-4 ■ ■ ■	71
	3.8	634	358	3	2KG3281 - ■ ■ C62-4 ■ ■ ■	
	4.1	576	326	3.3	2KG3281 - ■ ■ C61-4 ■ ■ ■	
	4.6	518	293	3.7	2KG3281 - ■ ■ C60-4 ■ ■ ■	
	5.4	443	250	4.3	2KG3281 - ■ ■ C57-4 ■ ■ ■	
	5.9	401	227	4.7	2KG3281 - ■ ■ C56-4 ■ ■ ■	
	Gearbox size O63 – motor frame size 71M – 4 poles					
	4.6	524	296	1.9	2KG3261 - ■ ■ C60-4 ■ ■ ■	41
	5.1	466	263	2.1	2KG3261 - ■ ■ C58-4 ■ ■ ■	
	5.9	404	228	2.5	2KG3261 - ■ ■ C57-4 ■ ■ ■	
	6.3	378	213	2.6	2KG3261 - ■ ■ C56-4 ■ ■ ■	
	7.2	332	188	3	2KG3261 - ■ ■ C55-4 ■ ■ ■	
	8.2	291	164	3.4	2KG3261 - ■ ■ C54-4 ■ ■ ■	
	9.3	257	145	3.9	2KG3261 - ■ ■ C53-4 ■ ■ ■	
	10.2	233	132	4.3	2KG3261 - ■ ■ C52-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.25	Gearbox size O43 – motor frame size 71M – 4 poles					26
	5.0	475	269	1.1	2KG3241 - ■■ C58-4 ■■■	
	5.7	422	239	1.3	2KG3241 - ■■ C57-4 ■■■	
	6.5	370	209	1.5	2KG3241 - ■■ C56-4 ■■■	
	7.2	331	187	1.6	2KG3241 - ■■ C55-4 ■■■	
	8.1	294	166	1.8	2KG3241 - ■■ C54-4 ■■■	
	9.3	258	146	2.1	2KG3241 - ■■ C53-4 ■■■	
	10.5	226	128	2.4	2KG3241 - ■■ C52-4 ■■■	
	11.7	205	116	2.6	2KG3241 - ■■ C51-4 ■■■	
	13.4	178	101	3	2KG3241 - ■■ C50-4 ■■■	
	14.9	160	90.5	3.4	2KG3241 - ■■ C48-4 ■■■	
	16.5	145	81.7	3.7	2KG3241 - ■■ C47-4 ■■■	
	18.2	131	74.1	4.1	2KG3241 - ■■ C46-4 ■■■	
	20.0	119	67.4	4.5	2KG3241 - ■■ C45-4 ■■■	
	Gearbox size O42 – motor frame size 71M – 4 poles					26
	22.2	107	60.7	3.7	2KG3241 - ■■ C30-4 ■■■	
	24.5	97.6	55.2	5.1	2KG3241 - ■■ C28-4 ■■■	
	27.2	87.7	49.6	6.2	2KG3241 - ■■ C27-4 ■■■	
	43.7	54.6	30.9	9.9	2KG3241 - ■■ C23-4 ■■■	
	Gearbox size O33 – motor frame size 71M – 4 poles					19
	7.8	308	174	0.94	2KG3231 - ■■ C52-4 ■■■	
	8.8	272	154	1.1	2KG3231 - ■■ C51-4 ■■■	
	10.5	228	129	1.3	2KG3231 - ■■ C50-4 ■■■	
	12.3	194	110	1.5	2KG3231 - ■■ C48-4 ■■■	
	14.4	165	93.5	1.8	2KG3231 - ■■ C47-4 ■■■	
	16.6	144	81.2	2	2KG3231 - ■■ C46-4 ■■■	
	19.1	125	70.7	2.3	2KG3231 - ■■ C45-4 ■■■	
	21.2	113	63.8	2.6	2KG3231 - ■■ C44-4 ■■■	
	Gearbox size O32 – motor frame size 71M – 4 poles					18
	23.8	100	56.7	2.1	2KG3231 - ■■ C30-4 ■■■	
	26.8	89.2	50.4	2.6	2KG3231 - ■■ C28-4 ■■■	
	30.9	77.4	43.8	3.2	2KG3231 - ■■ C27-4 ■■■	
	33.0	72.3	40.9	3.8	2KG3231 - ■■ C26-4 ■■■	
	37.5	63.6	36.0	4.6	2KG3231 - ■■ C25-4 ■■■	
	42.9	55.7	31.5	5.2	2KG3231 - ■■ C24-4 ■■■	
	48.5	49.3	27.9	5.9	2KG3231 - ■■ C23-4 ■■■	
	53.5	44.6	25.2	6.5	2KG3231 - ■■ C22-4 ■■■	
	60.6	39.4	22.3	7.4	2KG3231 - ■■ C21-4 ■■■	
	67.2	35.5	20.1	8.2	2KG3231 - ■■ C20-4 ■■■	
	74.1	32.2	18.2	9	2KG3231 - ■■ C18-4 ■■■	
	81.3	29.4	16.6	9.9	2KG3231 - ■■ C17-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.37	Gearbox size O123 – motor frame size 90S – 8 poles					204
	1.5	2345	448	2.6	2KG4221 - ■■■ G64-8 ■■■	
	1.7	2123	405	2.9	2KG4221 - ■■■ G63-8 ■■■	
	1.9	1858	355	3.3	2KG4221 - ■■■ G62-8 ■■■	
	2.1	1676	320	3.6	2KG4221 - ■■■ G61-8 ■■■	
	2.3	1535	293	4	2KG4221 - ■■■ G60-8 ■■■	
	Gearbox size O103 – motor frame size 90S – 8 poles					123
	1.6	2222	424	1.5	2KG4201 - ■■■ G63-8 ■■■	
	1.8	2004	383	1.7	2KG4201 - ■■■ G62-8 ■■■	
	2.0	1807	345	1.9	2KG4201 - ■■■ G61-8 ■■■	
	2.2	1580	302	2.2	2KG4201 - ■■■ G60-8 ■■■	
	2.5	1419	271	2.4	2KG4201 - ■■■ G58-8 ■■■	
	2.7	1296	248	2.6	2KG4201 - ■■■ G57-8 ■■■	
	3.1	1150	220	3	2KG4201 - ■■■ G56-8 ■■■	
	3.3	1061	203	3.2	2KG4201 - ■■■ G55-8 ■■■	
	3.7	960	183	3.5	2KG4201 - ■■■ G54-8 ■■■	
	4.0	884	169	3.8	2KG4201 - ■■■ G53-8 ■■■	
	4.3	818	156	4.2	2KG4201 - ■■■ G52-8 ■■■	
	Gearbox size O83 – motor frame size 71M – 4 poles					72
	3.4	1044	405	1.8	2KG3281 - ■■■ D63-4 ■■■	
	3.8	924	358	2.1	2KG3281 - ■■■ D62-4 ■■■	
	4.2	840	326	2.3	2KG3281 - ■■■ D61-4 ■■■	
	4.7	755	293	2.5	2KG3281 - ■■■ D60-4 ■■■	
	5.5	646	250	2.9	2KG3281 - ■■■ D57-4 ■■■	
	6.0	585	227	3.2	2KG3281 - ■■■ D56-4 ■■■	
	6.5	540	209	3.5	2KG3281 - ■■■ D55-4 ■■■	
	7.5	470	182	4	2KG3281 - ■■■ D54-4 ■■■	
	8.3	427	165	4.5	2KG3281 - ■■■ D53-4 ■■■	
	Gearbox size O63 – motor frame size 71M – 4 poles					42
	4.6	764	296	1.3	2KG3261 - ■■■ D60-4 ■■■	
	5.2	679	263	1.5	2KG3261 - ■■■ D58-4 ■■■	
	6.0	589	228	1.7	2KG3261 - ■■■ D57-4 ■■■	
	6.4	551	213	1.8	2KG3261 - ■■■ D56-4 ■■■	
	7.3	484	188	2.1	2KG3261 - ■■■ D55-4 ■■■	
	8.3	424	164	2.4	2KG3261 - ■■■ D54-4 ■■■	
	9.4	375	145	2.7	2KG3261 - ■■■ D53-4 ■■■	
	10.4	340	132	2.9	2KG3261 - ■■■ D52-4 ■■■	
	11.8	300	116	3.3	2KG3261 - ■■■ D51-4 ■■■	
	13.1	271	105	3.7	2KG3261 - ■■■ D50-4 ■■■	
	14.4	246	95.2	4.1	2KG3261 - ■■■ D48-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.37	Gearbox size O43 – motor frame size 71M – 4 poles					28
	6.5	540	209	1	2KG3241 - ■■■D56-4■■■	
	7.3	483	187	1.1	2KG3241 - ■■■D55-4■■■	
	8.2	429	166	1.3	2KG3241 - ■■■D54-4■■■	
	9.4	376	146	1.4	2KG3241 - ■■■D53-4■■■	
	10.7	330	128	1.6	2KG3241 - ■■■D52-4■■■	
	11.8	298	116	1.8	2KG3241 - ■■■D51-4■■■	
	13.6	260	101	2.1	2KG3241 - ■■■D50-4■■■	
	15.1	233	90.5	2.3	2KG3241 - ■■■D48-4■■■	
	16.8	211	81.7	2.6	2KG3241 - ■■■D47-4■■■	
	18.5	191	74.1	2.8	2KG3241 - ■■■D46-4■■■	27
	20.3	174	67.4	3.1	2KG3241 - ■■■D45-4■■■	
	Gearbox size O42 – motor frame size 71M – 4 poles					
	22.6	157	60.7	2.6	2KG3241 - ■■■D30-4■■■	
	24.8	142	55.2	3.5	2KG3241 - ■■■D28-4■■■	
	27.6	128	49.6	4.2	2KG3241 - ■■■D27-4■■■	
	32.2	110	42.5	4.9	2KG3241 - ■■■D26-4■■■	
	Gearbox size O33 – motor frame size 71M – 4 poles					20
	12.5	284	110	1	2KG3231 - ■■■D48-4■■■	
	14.7	241	93.5	1.2	2KG3231 - ■■■D47-4■■■	
	16.9	209	81.2	1.4	2KG3231 - ■■■D46-4■■■	
	19.4	182	70.7	1.6	2KG3231 - ■■■D45-4■■■	
	21.5	164	63.8	1.8	2KG3231 - ■■■D44-4■■■	19
	Gearbox size O32 – motor frame size 71M – 4 poles					
	24.2	146	56.7	1.4	2KG3231 - ■■■D30-4■■■	
	27.2	130	50.4	1.8	2KG3231 - ■■■D28-4■■■	
	31.3	113	43.8	2.2	2KG3231 - ■■■D27-4■■■	
	33.5	105	40.9	2.6	2KG3231 - ■■■D26-4■■■	
	38.1	93	36.0	3.1	2KG3231 - ■■■D25-4■■■	
	43.5	81	31.5	3.6	2KG3231 - ■■■D24-4■■■	
	49.2	72	27.9	4	2KG3231 - ■■■D23-4■■■	
	54.3	65	25.2	4.5	2KG3231 - ■■■D22-4■■■	
	61.5	58	22.3	5	2KG3231 - ■■■D21-4■■■	
	68.2	52	20.1	5.6	2KG3231 - ■■■D20-4■■■	
	75.2	47	18.2	6.2	2KG3231 - ■■■D18-4■■■	
	82.5	43	16.6	6.8	2KG3231 - ■■■D17-4■■■	
	90.2	39	15.2	7.4	2KG3231 - ■■■D16-4■■■	
	101	35	13.6	8.3	2KG3231 - ■■■D15-4■■■	
	110	32	12.5	9	2KG3231 - ■■■D14-4■■■	
	122	29	11.2	10	2KG3231 - ■■■D13-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.55	Gearbox size O123 – motor frame size 90L – 8 poles					207
	1.5	3486	448	1.7	2KG4221 - ■ ■ H64-8 ■ ■ ■	
	1.7	3155	405	1.9	2KG4221 - ■ ■ H63-8 ■ ■ ■	
	1.9	2762	355	2.2	2KG4221 - ■ ■ H62-8 ■ ■ ■	
	2.1	2492	320	2.4	2KG4221 - ■ ■ H61-8 ■ ■ ■	
	2.3	2282	293	2.7	2KG4221 - ■ ■ H60-8 ■ ■ ■	
	2.6	2030	261	3	2KG4221 - ■ ■ H58-8 ■ ■ ■	
	2.8	1855	238	3.3	2KG4221 - ■ ■ H57-8 ■ ■ ■	
	3.1	1705	219	3.6	2KG4221 - ■ ■ H56-8 ■ ■ ■	
	Gearbox size O103 – motor frame size 90L – 8 poles					125
	1.6	3303	424	1	2KG4201 - ■ ■ H63-8 ■ ■ ■	
	1.8	2979	383	1.1	2KG4201 - ■ ■ H62-8 ■ ■ ■	
	2.0	2686	345	1.3	2KG4201 - ■ ■ H61-8 ■ ■ ■	
	2.2	2349	302	1.4	2KG4201 - ■ ■ H60-8 ■ ■ ■	
	2.5	2109	271	1.6	2KG4201 - ■ ■ H58-8 ■ ■ ■	
	2.7	1926	248	1.8	2KG4201 - ■ ■ H57-8 ■ ■ ■	
	3.1	1709	220	2	2KG4201 - ■ ■ H56-8 ■ ■ ■	
	Gearbox size O103 – motor frame size 80M – 4 poles					120
	3.3	1598	424	2.1	2KG4201 - ■ ■ E63-4 ■ ■ ■	
	3.6	1441	383	2.4	2KG4201 - ■ ■ E62-4 ■ ■ ■	
	4.0	1300	345	2.6	2KG4201 - ■ ■ E61-4 ■ ■ ■	
	4.6	1137	302	3	2KG4201 - ■ ■ E60-4 ■ ■ ■	
	5.1	1020	271	3.3	2KG4201 - ■ ■ E58-4 ■ ■ ■	
	5.6	932	248	3.6	2KG4201 - ■ ■ E57-4 ■ ■ ■	
	6.4	827	220	4.1	2KG4201 - ■ ■ E56-4 ■ ■ ■	
	Gearbox size O83 – motor frame size 80M – 4 poles					74
	3.4	1525	405	1.2	2KG3281 - ■ ■ E63-4 ■ ■ ■	
	3.9	1349	358	1.4	2KG3281 - ■ ■ E62-4 ■ ■ ■	
	4.3	1227	326	1.5	2KG3281 - ■ ■ E61-4 ■ ■ ■	
	4.8	1102	293	1.7	2KG3281 - ■ ■ E60-4 ■ ■ ■	
	5.6	944	251	2	2KG3281 - ■ ■ E58-4 ■ ■ ■	
	6.1	854	227	2.2	2KG3281 - ■ ■ E56-4 ■ ■ ■	
	6.7	789	209	2.4	2KG3281 - ■ ■ E55-4 ■ ■ ■	
	7.7	686	182	2.8	2KG3281 - ■ ■ E54-4 ■ ■ ■	
	8.4	623	165	3.1	2KG3281 - ■ ■ E53-4 ■ ■ ■	
	9.2	569	151	3.3	2KG3281 - ■ ■ E52-4 ■ ■ ■	
	10.1	522	139	3.6	2KG3281 - ■ ■ E51-4 ■ ■ ■	
	10.9	481	128	4	2KG3281 - ■ ■ E50-4 ■ ■ ■	
	12.0	437	116	4.4	2KG3281 - ■ ■ E48-4 ■ ■ ■	
	13.2	398	106	4.8	2KG3281 - ■ ■ E47-4 ■ ■ ■	
	14.4	364	96.8	5.2	2KG3281 - ■ ■ E46-4 ■ ■ ■	
	16.2	325	86.3	5.8	2KG3281 - ■ ■ E45-4 ■ ■ ■	
	18.1	290	77.0	6.6	2KG3281 - ■ ■ E44-4 ■ ■ ■	
	21.3	246	65.4	7.7	2KG3281 - ■ ■ E43-4 ■ ■ ■	
	Gearbox size O82 – motor frame size 80M – 4 poles					73
	21.6	243	64.6	7.8	2KG3281 - ■ ■ E27-4 ■ ■ ■	
	23.6	223	59.1	8.5	2KG3281 - ■ ■ E26-4 ■ ■ ■	
	26.5	198	52.6	9.6	2KG3281 - ■ ■ E25-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.55	Gearbox size O63 – motor frame size 80M – 4 poles					
	5.3	992	263	1	2KG3261 - ■ ■ E58-4 ■ ■ ■	44
	6.1	860	228	1.2	2KG3261 - ■ ■ E57-4 ■ ■ ■	
	6.5	804	213	1.2	2KG3261 - ■ ■ E56-4 ■ ■ ■	
	7.4	707	188	1.4	2KG3261 - ■ ■ E55-4 ■ ■ ■	
	8.5	619	164	1.6	2KG3261 - ■ ■ E54-4 ■ ■ ■	
	9.6	548	145	1.8	2KG3261 - ■ ■ E53-4 ■ ■ ■	
	10.6	496	132	2	2KG3261 - ■ ■ E52-4 ■ ■ ■	
	12.0	438	116	2.3	2KG3261 - ■ ■ E51-4 ■ ■ ■	
	13.3	395	105	2.5	2KG3261 - ■ ■ E50-4 ■ ■ ■	
	14.7	358	95.2	2.8	2KG3261 - ■ ■ E48-4 ■ ■ ■	
	16.1	327	86.7	3.1	2KG3261 - ■ ■ E47-4 ■ ■ ■	
	17.6	299	79.3	3.3	2KG3261 - ■ ■ E46-4 ■ ■ ■	
	19.7	267	70.9	3.7	2KG3261 - ■ ■ E45-4 ■ ■ ■	
	21.4	245	65.1	4.1	2KG3261 - ■ ■ E44-4 ■ ■ ■	
	Gearbox size O62 – motor frame size 80M – 4 poles					
	22.8	230	61.2	3.7	2KG3261 - ■ ■ E28-4 ■ ■ ■	43
	26.1	201	53.5	5	2KG3261 - ■ ■ E27-4 ■ ■ ■	
	29.0	181	48.0	5.5	2KG3261 - ■ ■ E26-4 ■ ■ ■	
	31.8	165	43.9	6.1	2KG3261 - ■ ■ E25-4 ■ ■ ■	
	Gearbox size O43 – motor frame size 80M – 4 poles					
	9.6	548	146	0.98	2KG3241 - ■ ■ E53-4 ■ ■ ■	30
	10.9	482	128	1.1	2KG3241 - ■ ■ E52-4 ■ ■ ■	
	12.1	436	116	1.2	2KG3241 - ■ ■ E51-4 ■ ■ ■	
	13.8	380	101	1.4	2KG3241 - ■ ■ E50-4 ■ ■ ■	
	15.4	341	90.5	1.6	2KG3241 - ■ ■ E48-4 ■ ■ ■	
	17.1	308	81.7	1.8	2KG3241 - ■ ■ E47-4 ■ ■ ■	
	18.8	279	74.1	1.9	2KG3241 - ■ ■ E46-4 ■ ■ ■	
	20.7	254	67.4	2.1	2KG3241 - ■ ■ E45-4 ■ ■ ■	
	23.4	224	59.6	2.4	2KG3241 - ■ ■ E44-4 ■ ■ ■	
	Gearbox size O42 – motor frame size 80M – 4 poles					
	23.0	229	60.7	1.7	2KG3241 - ■ ■ E30-4 ■ ■ ■	29
	25.3	208	55.2	2.4	2KG3241 - ■ ■ E28-4 ■ ■ ■	
	28.1	187	49.6	2.9	2KG3241 - ■ ■ E27-4 ■ ■ ■	
	32.8	160	42.5	3.4	2KG3241 - ■ ■ E26-4 ■ ■ ■	
	36.3	145	38.5	3.7	2KG3241 - ■ ■ E25-4 ■ ■ ■	
	39.3	134	35.5	4	2KG3241 - ■ ■ E24-4 ■ ■ ■	
	Gearbox size O33 – motor frame size 80M – 4 poles					
	17.2	306	81.2	0.95	2KG3231 - ■ ■ E46-4 ■ ■ ■	22
	19.7	266	70.7	1.1	2KG3231 - ■ ■ E45-4 ■ ■ ■	
	21.9	240	63.8	1.2	2KG3231 - ■ ■ E44-4 ■ ■ ■	
	24.8	212	56.3	1.4	2KG3231 - ■ ■ E43-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

For shaft designs, see page 4/6

For gearbox mounting positions acc. to figure, see page 4/8

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

For voltage/frequency, see page 4/7

2, 4 or 8

B, G, H, M, S

A to F

A to D

1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.55	Gearbox size O32 – motor frame size 80M – 4 poles					21
	24.6	214	56.7	0.98	2KG3231 - ■ ■ E30-4 ■ ■ ■	
	27.7	190	50.4	1.2	2KG3231 - ■ ■ E28-4 ■ ■ ■	
	31.9	165	43.8	1.5	2KG3231 - ■ ■ E27-4 ■ ■ ■	
	34.1	154	40.9	1.8	2KG3231 - ■ ■ E26-4 ■ ■ ■	
	38.8	135	36.0	2.1	2KG3231 - ■ ■ E25-4 ■ ■ ■	
	44.3	119	31.5	2.4	2KG3231 - ■ ■ E24-4 ■ ■ ■	
	50.1	105	27.9	2.8	2KG3231 - ■ ■ E23-4 ■ ■ ■	
	55.3	95	25.2	3.1	2KG3231 - ■ ■ E22-4 ■ ■ ■	
	62.6	84	22.3	3.5	2KG3231 - ■ ■ E21-4 ■ ■ ■	
	69.4	76	20.1	3.8	2KG3231 - ■ ■ E20-4 ■ ■ ■	
	76.5	69	18.2	4.2	2KG3231 - ■ ■ E18-4 ■ ■ ■	
	84.0	63	16.6	4.6	2KG3231 - ■ ■ E17-4 ■ ■ ■	
	91.8	57	15.2	5.1	2KG3231 - ■ ■ E16-4 ■ ■ ■	
	103	51	13.6	5.7	2KG3231 - ■ ■ E15-4 ■ ■ ■	
	112	47	12.5	6.2	2KG3231 - ■ ■ E14-4 ■ ■ ■	
	124	42	11.2	6.9	2KG3231 - ■ ■ E13-4 ■ ■ ■	
	144	36	9.67	8	2KG3231 - ■ ■ E12-4 ■ ■ ■	
	164	32	8.52	9	2KG3231 - ■ ■ E11-4 ■ ■ ■	
180	29	7.76	9.9	2KG3231 - ■ ■ E10-4 ■ ■ ■		

0.75	Gearbox size O143 – motor frame size 100L – 8 poles					310
	1.5	4732	449	1.9	2KG4241 -   J65-8  	
	1.7	4339	412	2.1	2KG4241 -   J63-8  	
	1.8	3877	368	2.3	2KG4241 -   J62-8  	
	2.0	3550	337	2.5	2KG4241 -   J61-8  	
	2.2	3271	311	2.8	2KG4241 -   J60-8  	
	2.4	3028	287	3	2KG4241 -   J58-8  	
	2.5	2816	267	3.2	2KG4241 -   J57-8  	
	2.7	2629	250	3.4	2KG4241 -   J56-8  	
	Gearbox size O123 – motor frame size 100L – 8 poles					
	1.9	3739	355	1.6	2KG4221 -   J62-8  	213
	2.1	3373	320	1.8	2KG4221 -   J61-8  	
	2.3	3089	293	2	2KG4221 -   J60-8  	
	2.6	2747	261	2.2	2KG4221 -   J58-8  	
	2.9	2511	238	2.4	2KG4221 -   J57-8  	
	3.1	2308	219	2.6	2KG4221 -   J56-8  	
	3.4	2133	202	2.9	2KG4221 -   J55-8  	
	3.6	1979	188	3.1	2KG4221 -   J54-8  	
	3.9	1843	175	3.3	2KG4221 -   J53-8  	
	4.3	1667	158	3.7	2KG4221 -   J52-8  	
	4.7	1534	146	4	2KG4221 -   J51-8  	
	Gearbox size O103 – motor frame size 100L – 8 poles					
	2.3	3180	302	1.1	2KG4201 -   J60-8  	132
	2.5	2855	271	1.2	2KG4201 -   J58-8  	
	2.7	2607	248	1.3	2KG4201 -   J57-8  	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg	
0.75	Gearbox size O103 – motor frame size 80M – 4 poles						
	3.3	2180	424	1.6	2KG4201 - ■■■ F63-4 ■■■	121	
	3.6	1965	383	1.7	2KG4201 - ■■■ F62-4 ■■■		
	4.0	1772	345	1.9	2KG4201 - ■■■ F61-4 ■■■		
	4.6	1550	302	2.2	2KG4201 - ■■■ F60-4 ■■■		
	5.1	1391	271	2.4	2KG4201 - ■■■ F58-4 ■■■		
	5.6	1271	248	2.7	2KG4201 - ■■■ F57-4 ■■■		
	6.4	1128	220	3	2KG4201 - ■■■ F56-4 ■■■		
	6.9	1041	203	3.3	2KG4201 - ■■■ F55-4 ■■■		
	7.6	942	183	3.6	2KG4201 - ■■■ F54-4 ■■■		
	8.3	867	169	3.9	2KG4201 - ■■■ F53-4 ■■■		
	8.9	802	156	4.2	2KG4201 - ■■■ F52-4 ■■■	75	
	9.6	744	145	4.6	2KG4201 - ■■■ F51-4 ■■■		
	Gearbox size O83 – motor frame size 80M – 4 poles						
	3.4	2079	405	0.91	2KG3281 - ■■■ F63-4 ■■■		
	3.9	1840	358	1	2KG3281 - ■■■ F62-4 ■■■		
	4.3	1673	326	1.1	2KG3281 - ■■■ F61-4 ■■■		
	4.8	1503	293	1.3	2KG3281 - ■■■ F60-4 ■■■		
	5.6	1288	251	1.5	2KG3281 - ■■■ F58-4 ■■■		
	6.1	1165	227	1.6	2KG3281 - ■■■ F56-4 ■■■		
	6.7	1076	209	1.8	2KG3281 - ■■■ F55-4 ■■■		
	7.7	935	182	2	2KG3281 - ■■■ F54-4 ■■■		
	8.4	849	165	2.2	2KG3281 - ■■■ F53-4 ■■■	46	
	9.2	775	151	2.5	2KG3281 - ■■■ F52-4 ■■■		
	10.1	711	139	2.7	2KG3281 - ■■■ F51-4 ■■■		
	10.9	655	128	2.9	2KG3281 - ■■■ F50-4 ■■■		
	12.0	595	116	3.2	2KG3281 - ■■■ F48-4 ■■■		
	13.2	542	106	3.5	2KG3281 - ■■■ F47-4 ■■■		
	14.4	497	96.8	3.8	2KG3281 - ■■■ F46-4 ■■■		
	16.2	443	86.3	4.3	2KG3281 - ■■■ F45-4 ■■■		
	Gearbox size O63 – motor frame size 80M – 4 poles						
	6.5	1096	213	0.91	2KG3261 - ■■■ F56-4 ■■■	45	
	7.4	964	188	1	2KG3261 - ■■■ F55-4 ■■■		
	8.5	844	164	1.2	2KG3261 - ■■■ F54-4 ■■■		
	9.6	747	145	1.3	2KG3261 - ■■■ F53-4 ■■■		
	10.6	677	132	1.5	2KG3261 - ■■■ F52-4 ■■■		
	12.0	597	116	1.7	2KG3261 - ■■■ F51-4 ■■■		
	13.3	539	105	1.9	2KG3261 - ■■■ F50-4 ■■■		
	14.7	489	95.2	2	2KG3261 - ■■■ F48-4 ■■■		
	16.1	445	86.7	2.2	2KG3261 - ■■■ F47-4 ■■■		
	17.6	407	79.3	2.5	2KG3261 - ■■■ F46-4 ■■■		
	19.7	364	70.9	2.7	2KG3261 - ■■■ F45-4 ■■■		
	21.4	334	65.1	3	2KG3261 - ■■■ F44-4 ■■■		
	Gearbox size O62 – motor frame size 80M – 4 poles						
	22.8	314	61.2	2.7	2KG3261 - ■■■ F28-4 ■■■		45
	26.1	275	53.5	3.6	2KG3261 - ■■■ F27-4 ■■■		
	29.0	247	48.0	4.1	2KG3261 - ■■■ F26-4 ■■■		
	31.8	225	43.9	4.4	2KG3261 - ■■■ F25-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.75	Gearbox size O43 – motor frame size 80M – 4 poles					31
	12.1	594	116	0.91	2KG3241 - ■ ■ F51-4 ■ ■ ■	
	13.8	518	101	1	2KG3241 - ■ ■ F50-4 ■ ■ ■	
	15.4	465	90.5	1.2	2KG3241 - ■ ■ F48-4 ■ ■ ■	
	17.1	420	81.7	1.3	2KG3241 - ■ ■ F47-4 ■ ■ ■	
	18.8	380	74.1	1.4	2KG3241 - ■ ■ F46-4 ■ ■ ■	
	20.7	346	67.4	1.6	2KG3241 - ■ ■ F45-4 ■ ■ ■	
	23.4	306	59.6	1.8	2KG3241 - ■ ■ F44-4 ■ ■ ■	
	25.3	283	55.1	1.9	2KG3241 - ■ ■ F43-4 ■ ■ ■	
	29.4	243	47.4	2.2	2KG3241 - ■ ■ F42-4 ■ ■ ■	30
	32.4	221	43.1	2.4	2KG3241 - ■ ■ F41-4 ■ ■ ■	
	Gearbox size O42 – motor frame size 80M – 4 poles					
	23.0	312	60.7	1.3	2KG3241 - ■ ■ F30-4 ■ ■ ■	
	25.3	283	55.2	1.8	2KG3241 - ■ ■ F28-4 ■ ■ ■	
	28.1	255	49.6	2.1	2KG3241 - ■ ■ F27-4 ■ ■ ■	
	32.8	218	42.5	2.5	2KG3241 - ■ ■ F26-4 ■ ■ ■	
	36.3	197	38.5	2.7	2KG3241 - ■ ■ F25-4 ■ ■ ■	
	39.3	182	35.5	3	2KG3241 - ■ ■ F24-4 ■ ■ ■	
	45.2	158	30.9	3.4	2KG3241 - ■ ■ F23-4 ■ ■ ■	
	49.8	144	28.0	3.8	2KG3241 - ■ ■ F22-4 ■ ■ ■	
	54.5	131	25.6	4.1	2KG3241 - ■ ■ F21-4 ■ ■ ■	23
	59.4	121	23.5	4.5	2KG3241 - ■ ■ F20-4 ■ ■ ■	
	Gearbox size O33 – motor frame size 80M – 4 poles					
	24.8	289	56.3	1	2KG3231 - ■ ■ F43-4 ■ ■ ■	
	Gearbox size O32 – motor frame size 80M – 4 poles					22
	31.9	225	43.8	1.1	2KG3231 - ■ ■ F27-4 ■ ■ ■	
	34.1	210	40.9	1.3	2KG3231 - ■ ■ F26-4 ■ ■ ■	
	38.8	185	36.0	1.6	2KG3231 - ■ ■ F25-4 ■ ■ ■	
	44.3	162	31.5	1.8	2KG3231 - ■ ■ F24-4 ■ ■ ■	
	50.1	143	27.9	2	2KG3231 - ■ ■ F23-4 ■ ■ ■	
	55.3	130	25.2	2.2	2KG3231 - ■ ■ F22-4 ■ ■ ■	
	62.6	114	22.3	2.5	2KG3231 - ■ ■ F21-4 ■ ■ ■	
	69.4	103	20.1	2.8	2KG3231 - ■ ■ F20-4 ■ ■ ■	
	76.5	94	18.2	3.1	2KG3231 - ■ ■ F18-4 ■ ■ ■	
	84.0	85	16.6	3.4	2KG3231 - ■ ■ F17-4 ■ ■ ■	
	91.8	78	15.2	3.7	2KG3231 - ■ ■ F16-4 ■ ■ ■	
	103	70	13.6	4.2	2KG3231 - ■ ■ F15-4 ■ ■ ■	
	112	64	12.5	4.5	2KG3231 - ■ ■ F14-4 ■ ■ ■	
	124	58	11.2	5	2KG3231 - ■ ■ F13-4 ■ ■ ■	
	144	50	9.67	5.8	2KG3231 - ■ ■ F12-4 ■ ■ ■	
	164	44	8.52	6.6	2KG3231 - ■ ■ F11-4 ■ ■ ■	
	180	40	7.76	7.3	2KG3231 - ■ ■ F10-4 ■ ■ ■	
	196	37	7.1	8	2KG3231 - ■ ■ F08-4 ■ ■ ■	
	220	33	6.35	8.4	2KG3231 - ■ ■ F07-4 ■ ■ ■	
	239	30	5.83	9.2	2KG3231 - ■ ■ F06-4 ■ ■ ■	
	266	27	5.25	9.4	2KG3231 - ■ ■ F05-4 ■ ■ ■	
	309	23	4.52	9.8	2KG3231 - ■ ■ F04-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.1	Gearbox size O143 – motor frame size 100L – 8 poles					312
	1.5	6940	449	1.3	2KG4241 - ■■ K65-8 ■■■	
	1.7	6364	412	1.4	2KG4241 - ■■ K63-8 ■■■	
	1.8	5686	368	1.6	2KG4241 - ■■ K62-8 ■■■	
	2.0	5207	337	1.7	2KG4241 - ■■ K61-8 ■■■	
	2.2	4797	311	1.9	2KG4241 - ■■ K60-8 ■■■	
	2.4	4441	287	2	2KG4241 - ■■ K58-8 ■■■	
	2.5	4130	267	2.2	2KG4241 - ■■ K57-8 ■■■	
	2.7	3856	250	2.3	2KG4241 - ■■ K56-8 ■■■	
	3.0	3450	223	2.6	2KG4241 - ■■ K55-8 ■■■	
	3.3	3197	207	2.8	2KG4241 - ■■ K54-8 ■■■	
	3.6	2930	190	3.1	2KG4241 - ■■ K53-8 ■■■	
	3.9	2686	174	3.4	2KG4241 - ■■ K52-8 ■■■	
	Gearbox size O123 – motor frame size 100L – 8 poles					215
	1.9	5484	355	1.1	2KG4221 - ■■ K62-8 ■■■	
	2.1	4947	320	1.2	2KG4221 - ■■ K61-8 ■■■	
	2.3	4530	293	1.3	2KG4221 - ■■ K60-8 ■■■	
	2.6	4030	261	1.5	2KG4221 - ■■ K58-8 ■■■	
	2.9	3683	238	1.7	2KG4221 - ■■ K57-8 ■■■	206
	Gearbox size O123 – motor frame size 90S – 4 poles					
	3.2	3326	448	1.8	2KG4221 - ■■ G64-4 ■■■	
	3.5	3010	405	2	2KG4221 - ■■ G63-4 ■■■	
	4.0	2635	355	2.3	2KG4221 - ■■ G62-4 ■■■	
	4.4	2377	320	2.6	2KG4221 - ■■ G61-4 ■■■	
	4.8	2177	293	2.8	2KG4221 - ■■ G60-4 ■■■	
	5.4	1936	261	3.2	2KG4221 - ■■ G58-4 ■■■	
	5.9	1770	238	3.4	2KG4221 - ■■ G57-4 ■■■	
	6.5	1627	219	3.7	2KG4221 - ■■ G56-4 ■■■	
	7.0	1503	202	4.1	2KG4221 - ■■ G55-4 ■■■	
	7.5	1395	188	4.4	2KG4221 - ■■ G54-4 ■■■	
	8.1	1299	175	4.7	2KG4221 - ■■ G53-4 ■■■	
	8.9	1175	158	5.2	2KG4221 - ■■ G52-4 ■■■	
9.7	1081	146	5.6	2KG4221 - ■■ G51-4 ■■■		
10.8	973	131	6.3	2KG4221 - ■■ G50-4 ■■■		
11.7	897	121	6.8	2KG4221 - ■■ G48-4 ■■■		
13.8	760	102	8	2KG4221 - ■■ G47-4 ■■■		
15.9	663	89.3	9.2	2KG4221 - ■■ G46-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.1	Gearbox size O103 – motor frame size 90S – 4 poles					124
	3.3	3151	424	1.1	2KG4201 - ■■ G63-4 ■■■	
	3.7	2842	383	1.2	2KG4201 - ■■ G62-4 ■■■	
	4.1	2563	345	1.3	2KG4201 - ■■ G61-4 ■■■	
	4.7	2241	302	1.5	2KG4201 - ■■ G60-4 ■■■	
	5.2	2012	271	1.7	2KG4201 - ■■ G58-4 ■■■	
	5.7	1838	248	1.9	2KG4201 - ■■ G57-4 ■■■	
	6.4	1631	220	2.1	2KG4201 - ■■ G56-4 ■■■	
	7.0	1505	203	2.3	2KG4201 - ■■ G55-4 ■■■	
	7.7	1361	183	2.5	2KG4201 - ■■ G54-4 ■■■	
	8.4	1254	169	2.7	2KG4201 - ■■ G53-4 ■■■	
	9.1	1160	156	2.9	2KG4201 - ■■ G52-4 ■■■	
	9.8	1076	145	3.2	2KG4201 - ■■ G51-4 ■■■	
	11.1	950	128	3.6	2KG4201 - ■■ G50-4 ■■■	
	12.0	877	118	3.9	2KG4201 - ■■ G48-4 ■■■	
	Gearbox size O83 – motor frame size 90S – 4 poles					78
	5.6	1862	251	1	2KG3281 - ■■ G58-4 ■■■	
	6.2	1685	227	1.1	2KG3281 - ■■ G56-4 ■■■	
	6.8	1555	209	1.2	2KG3281 - ■■ G55-4 ■■■	
	7.8	1352	182	1.4	2KG3281 - ■■ G54-4 ■■■	
	8.6	1228	165	1.5	2KG3281 - ■■ G53-4 ■■■	
	9.4	1121	151	1.7	2KG3281 - ■■ G52-4 ■■■	
	10.2	1029	139	1.8	2KG3281 - ■■ G51-4 ■■■	
	11.1	948	128	2	2KG3281 - ■■ G50-4 ■■■	
	12.2	861	116	2.2	2KG3281 - ■■ G48-4 ■■■	
	13.4	784	106	2.4	2KG3281 - ■■ G47-4 ■■■	
	14.6	718	96.8	2.6	2KG3281 - ■■ G46-4 ■■■	
	16.4	641	86.3	3	2KG3281 - ■■ G45-4 ■■■	
	18.4	572	77.0	3.3	2KG3281 - ■■ G44-4 ■■■	
	21.6	486	65.4	3.9	2KG3281 - ■■ G43-4 ■■■	
	Gearbox size O82 – motor frame size 90S – 4 poles					77
	21.9	479	64.6	4	2KG3281 - ■■ G27-4 ■■■	
	23.9	439	59.1	4.3	2KG3281 - ■■ G26-4 ■■■	
	26.9	391	52.6	4.9	2KG3281 - ■■ G25-4 ■■■	
	29.5	357	48.0	5.3	2KG3281 - ■■ G24-4 ■■■	
	32.0	328	44.2	5.8	2KG3281 - ■■ G23-4 ■■■	
34.7	303	40.8	6.3	2KG3281 - ■■ G22-4 ■■■		
37.3	281	37.9	6.8	2KG3281 - ■■ G21-4 ■■■		
40.1	262	35.3	7.3	2KG3281 - ■■ G20-4 ■■■		
44.3	237	31.9	8	2KG3281 - ■■ G18-4 ■■■		
48.2	218	29.4	8.7	2KG3281 - ■■ G17-4 ■■■		
53.6	196	26.4	9.7	2KG3281 - ■■ G16-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

For shaft designs, see page 4/6

For gearbox mounting positions acc. to figure, see page 4/8

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

For voltage/frequency, see page 4/7

2, 4 or 8

B, G, H, M, S

A to F

A to D

1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.1	Gearbox size O63 – motor frame size 90S – 4 poles					49
	9.7	1080	145	0.93	2KG3261 - ■■ G53-4 ■■■	
	10.7	979	132	1	2KG3261 - ■■ G52-4 ■■■	
	12.2	864	116	1.2	2KG3261 - ■■ G51-4 ■■■	
	13.5	779	105	1.3	2KG3261 - ■■ G50-4 ■■■	
	14.9	707	95.2	1.4	2KG3261 - ■■ G48-4 ■■■	
	16.3	644	86.7	1.6	2KG3261 - ■■ G47-4 ■■■	
	17.8	589	79.3	1.7	2KG3261 - ■■ G46-4 ■■■	
	19.9	527	70.9	1.9	2KG3261 - ■■ G45-4 ■■■	
	21.7	484	65.1	2.1	2KG3261 - ■■ G44-4 ■■■	
	24.1	436	58.7	2.3	2KG3261 - ■■ G43-4 ■■■	
	Gearbox size O62 – motor frame size 90S – 4 poles					48
	23.1	454	61.2	1.9	2KG3261 - ■■ G28-4 ■■■	
	26.4	397	53.5	2.5	2KG3261 - ■■ G27-4 ■■■	
	29.5	357	48.0	2.8	2KG3261 - ■■ G26-4 ■■■	
	32.3	326	43.9	3.1	2KG3261 - ■■ G25-4 ■■■	
	36.3	289	38.9	3.5	2KG3261 - ■■ G24-4 ■■■	
	39.4	267	35.9	3.7	2KG3261 - ■■ G23-4 ■■■	
	Gearbox size O43 – motor frame size 90S – 4 poles					34
	19.1	550	74.1	0.98	2KG3241 - ■■ G46-4 ■■■	
	21.0	501	67.4	1.1	2KG3241 - ■■ G45-4 ■■■	
	23.7	443	59.6	1.2	2KG3241 - ■■ G44-4 ■■■	
	25.7	409	55.1	1.3	2KG3241 - ■■ G43-4 ■■■	
	29.9	352	47.4	1.5	2KG3241 - ■■ G42-4 ■■■	
	32.8	320	43.1	1.7	2KG3241 - ■■ G41-4 ■■■	
	Gearbox size O42 – motor frame size 90S – 4 poles					33
	25.6	410	55.2	1.2	2KG3241 - ■■ G28-4 ■■■	
	28.5	368	49.6	1.5	2KG3241 - ■■ G27-4 ■■■	
	33.3	316	42.5	1.7	2KG3241 - ■■ G26-4 ■■■	
	36.8	285	38.5	1.9	2KG3241 - ■■ G25-4 ■■■	
	39.9	263	35.5	2	2KG3241 - ■■ G24-4 ■■■	
	45.9	229	30.9	2.4	2KG3241 - ■■ G23-4 ■■■	
	50.5	208	28.0	2.6	2KG3241 - ■■ G22-4 ■■■	
55.3	190	25.6	2.8	2KG3241 - ■■ G21-4 ■■■		
60.3	174	23.5	3.1	2KG3241 - ■■ G20-4 ■■■		
65.4	161	21.6	3.4	2KG3241 - ■■ G18-4 ■■■		
72.0	146	19.6	3.7	2KG3241 - ■■ G17-4 ■■■		
79.1	133	17.9	4.1	2KG3241 - ■■ G16-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.1 Gearbox size O32 – motor frame size 90S – 4 poles						
	34.6	303	40.9	0.91	2KG3231 - ■■■ G26-4 ■■■	25
	39.3	267	36.0	1.1	2KG3231 - ■■■ G25-4 ■■■	
	44.9	234	31.5	1.2	2KG3231 - ■■■ G24-4 ■■■	
	50.8	207	27.9	1.4	2KG3231 - ■■■ G23-4 ■■■	
	56.1	187	25.2	1.5	2KG3231 - ■■■ G22-4 ■■■	
	63.5	165	22.3	1.8	2KG3231 - ■■■ G21-4 ■■■	
	70.4	149	20.1	1.9	2KG3231 - ■■■ G20-4 ■■■	
	77.6	135	18.2	2.1	2KG3231 - ■■■ G18-4 ■■■	
	85.2	123	16.6	2.4	2KG3231 - ■■■ G17-4 ■■■	
	93.2	113	15.2	2.6	2KG3231 - ■■■ G16-4 ■■■	
	104	101	13.6	2.9	2KG3231 - ■■■ G15-4 ■■■	
	113	93	12.5	3.1	2KG3231 - ■■■ G14-4 ■■■	
	126	83	11.2	3.5	2KG3231 - ■■■ G13-4 ■■■	
	146	72	9.67	4	2KG3231 - ■■■ G12-4 ■■■	
	166	63	8.52	4.6	2KG3231 - ■■■ G11-4 ■■■	
	182	58	7.76	5	2KG3231 - ■■■ G10-4 ■■■	
	199	53	7.1	5.5	2KG3231 - ■■■ G08-4 ■■■	
	223	47	6.35	5.8	2KG3231 - ■■■ G07-4 ■■■	
	243	43	5.83	6.4	2KG3231 - ■■■ G06-4 ■■■	
	270	39	5.25	6.5	2KG3231 - ■■■ G05-4 ■■■	
	313	34	4.52	6.8	2KG3231 - ■■■ G04-4 ■■■	

1.5 Gearbox size O143 – motor frame size 112M – 8 poles						
	1.6	9128	449	0.99	2KG4241 - ■■■ L65-8 ■■■	314
	1.7	8371	412	1.1	2KG4241 - ■■■ L63-8 ■■■	
	1.9	7479	368	1.2	2KG4241 - ■■■ L62-8 ■■■	
	2.1	6849	337	1.3	2KG4241 - ■■■ L61-8 ■■■	
	2.3	6309	311	1.4	2KG4241 - ■■■ L60-8 ■■■	
	2.5	5842	287	1.5	2KG4241 - ■■■ L58-8 ■■■	
	2.6	5432	267	1.7	2KG4241 - ■■■ L57-8 ■■■	
	2.8	5071	250	1.8	2KG4241 - ■■■ L56-8 ■■■	
	3.2	4537	223	2	2KG4241 - ■■■ L55-8 ■■■	
	3.4	4205	207	2.1	2KG4241 - ■■■ L54-8 ■■■	
	3.7	3854	190	2.3	2KG4241 - ■■■ L53-8 ■■■	
	4.1	3533	174	2.5	2KG4241 - ■■■ L52-8 ■■■	
	4.8	3011	148	3	2KG4241 - ■■■ L51-8 ■■■	
	5.4	2657	131	3.4	2KG4241 - ■■■ L50-8 ■■■	
	6.3	2261	111	4	2KG4241 - ■■■ L48-8 ■■■	
	7.3	1959	96.4	4.6	2KG4241 - ■■■ L47-8 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

For shaft designs, see page 4/6

For gearbox mounting positions acc. to figure, see page 4/8

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

For voltage/frequency, see page 4/7

2, 4 or 8

B, G, H, M, S

A to F

A to D

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.5	Gearbox size O123 – motor frame size 90L – 4 poles					209
	3.2	4519	448	1.3	2KG4221 - ■■■H64-4■■■	
	3.5	4090	405	1.5	2KG4221 - ■■■H63-4■■■	
	4.0	3581	355	1.7	2KG4221 - ■■■H62-4■■■	
	4.4	3231	320	1.9	2KG4221 - ■■■H61-4■■■	
	4.8	2958	293	2.1	2KG4221 - ■■■H60-4■■■	
	5.4	2631	261	2.3	2KG4221 - ■■■H58-4■■■	
	6.0	2405	238	2.5	2KG4221 - ■■■H57-4■■■	
	6.5	2211	219	2.8	2KG4221 - ■■■H56-4■■■	
	7.0	2043	202	3	2KG4221 - ■■■H55-4■■■	
	7.6	1895	188	3.2	2KG4221 - ■■■H54-4■■■	
	8.1	1766	175	3.5	2KG4221 - ■■■H53-4■■■	
	9.0	1596	158	3.8	2KG4221 - ■■■H52-4■■■	
	Gearbox size O103 – motor frame size 90L – 4 poles					128
	4.1	3482	345	0.98	2KG4201 - ■■■H61-4■■■	
	4.7	3045	302	1.1	2KG4201 - ■■■H60-4■■■	
	5.2	2734	271	1.2	2KG4201 - ■■■H58-4■■■	
	5.7	2497	248	1.4	2KG4201 - ■■■H57-4■■■	
	6.5	2216	220	1.5	2KG4201 - ■■■H56-4■■■	
	7.0	2046	203	1.7	2KG4201 - ■■■H55-4■■■	
	7.7	1850	183	1.8	2KG4201 - ■■■H54-4■■■	
	8.4	1704	169	2	2KG4201 - ■■■H53-4■■■	
	9.1	1576	156	2.2	2KG4201 - ■■■H52-4■■■	
	9.8	1463	145	2.3	2KG4201 - ■■■H51-4■■■	
	11.1	1290	128	2.6	2KG4201 - ■■■H50-4■■■	
	12.0	1191	118	2.9	2KG4201 - ■■■H48-4■■■	
	13.4	1067	106	3.2	2KG4201 - ■■■H47-4■■■	
	14.6	984	97.6	3.5	2KG4201 - ■■■H46-4■■■	
	17.3	826	81.9	4.1	2KG4201 - ■■■H45-4■■■	
	Gearbox size O83 – motor frame size 90L – 4 poles					82
	7.8	1838	182	1	2KG3281 - ■■■H54-4■■■	
	8.6	1668	165	1.1	2KG3281 - ■■■H53-4■■■	
	9.4	1523	151	1.2	2KG3281 - ■■■H52-4■■■	
	10.2	1398	139	1.4	2KG3281 - ■■■H51-4■■■	
	11.1	1288	128	1.5	2KG3281 - ■■■H50-4■■■	
	12.2	1170	116	1.6	2KG3281 - ■■■H48-4■■■	
	13.4	1065	106	1.8	2KG3281 - ■■■H47-4■■■	
	14.7	976	96.8	1.9	2KG3281 - ■■■H46-4■■■	
	16.4	871	86.3	2.2	2KG3281 - ■■■H45-4■■■	
	18.4	777	77.0	2.4	2KG3281 - ■■■H44-4■■■	
	21.7	660	65.4	2.9	2KG3281 - ■■■H43-4■■■	
	26.1	549	54.5	3.5	2KG3281 - ■■■H42-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.5	Gearbox size O82 – motor frame size 90L – 4 poles					
	22.0	651	64.6	2.9	2KG3281 - ■■■ H27-4 ■■■	80
	24.0	597	59.1	3.2	2KG3281 - ■■■ H26-4 ■■■	
	27.0	531	52.6	3.6	2KG3281 - ■■■ H25-4 ■■■	
	29.6	485	48.0	3.9	2KG3281 - ■■■ H24-4 ■■■	
	32.1	446	44.2	4.3	2KG3281 - ■■■ H23-4 ■■■	
	34.8	412	40.8	4.6	2KG3281 - ■■■ H22-4 ■■■	
	Gearbox size O63 – motor frame size 90L – 4 poles					
	13.5	1059	105	0.94	2KG3261 - ■■■ H50-4 ■■■	52
	14.9	960	95.2	1	2KG3261 - ■■■ H48-4 ■■■	
	16.4	875	86.7	1.1	2KG3261 - ■■■ H47-4 ■■■	
	17.9	800	79.3	1.2	2KG3261 - ■■■ H46-4 ■■■	
	20.0	716	70.9	1.4	2KG3261 - ■■■ H45-4 ■■■	
	21.8	657	65.1	1.5	2KG3261 - ■■■ H44-4 ■■■	
	24.2	592	58.7	1.7	2KG3261 - ■■■ H43-4 ■■■	
	Gearbox size O62 – motor frame size 90L – 4 poles					
	23.2	617	61.2	1.4	2KG3261 - ■■■ H28-4 ■■■	51
	26.5	540	53.5	1.9	2KG3261 - ■■■ H27-4 ■■■	
	29.6	485	48.0	2.1	2KG3261 - ■■■ H26-4 ■■■	
	32.4	443	43.9	2.3	2KG3261 - ■■■ H25-4 ■■■	
	36.5	393	38.9	2.5	2KG3261 - ■■■ H24-4 ■■■	
	39.5	362	35.9	2.8	2KG3261 - ■■■ H23-4 ■■■	
	43.7	328	32.5	3.1	2KG3261 - ■■■ H22-4 ■■■	
	47.4	302	29.9	3.3	2KG3261 - ■■■ H21-4 ■■■	
	51.3	279	27.7	3.6	2KG3261 - ■■■ H20-4 ■■■	
	55.3	259	25.7	3.9	2KG3261 - ■■■ H18-4 ■■■	
	62.6	229	22.7	4.4	2KG3261 - ■■■ H17-4 ■■■	
	Gearbox size O43 – motor frame size 90L – 4 poles					
	25.8	555	55.1	0.97	2KG3241 - ■■■ H43-4 ■■■	37
	30.0	478	47.4	1.1	2KG3241 - ■■■ H42-4 ■■■	
	Gearbox size O42 – motor frame size 90L – 4 poles					
	28.6	500	49.6	1.1	2KG3241 - ■■■ H27-4 ■■■	37
	33.4	429	42.5	1.3	2KG3241 - ■■■ H26-4 ■■■	
	36.9	388	38.5	1.4	2KG3241 - ■■■ H25-4 ■■■	
	40.0	358	35.5	1.5	2KG3241 - ■■■ H24-4 ■■■	
	46.0	311	30.9	1.7	2KG3241 - ■■■ H23-4 ■■■	
	50.7	283	28.0	1.9	2KG3241 - ■■■ H22-4 ■■■	
	55.5	258	25.6	2.1	2KG3241 - ■■■ H21-4 ■■■	
	60.5	237	23.5	2.3	2KG3241 - ■■■ H20-4 ■■■	
	65.6	218	21.6	2.5	2KG3241 - ■■■ H18-4 ■■■	
	72.3	198	19.6	2.7	2KG3241 - ■■■ H17-4 ■■■	
	79.4	180	17.9	3	2KG3241 - ■■■ H16-4 ■■■	
	86.6	165	16.4	3.3	2KG3241 - ■■■ H15-4 ■■■	
	97.1	148	14.6	3.7	2KG3241 - ■■■ H14-4 ■■■	
	109	132	13.1	4.1	2KG3241 - ■■■ H13-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.5 Gearbox size O32 – motor frame size 90L – 4 poles						
	45.1	318	31.5	0.91	2KG3231 - ■■■H24-4■■■	28
	51.0	281	27.9	1	2KG3231 - ■■■H23-4■■■	
	56.3	255	25.2	1.1	2KG3231 - ■■■H22-4■■■	
	63.7	225	22.3	1.3	2KG3231 - ■■■H21-4■■■	
	70.6	203	20.1	1.4	2KG3231 - ■■■H20-4■■■	
	77.9	184	18.2	1.6	2KG3231 - ■■■H18-4■■■	
	85.5	168	16.6	1.7	2KG3231 - ■■■H17-4■■■	
	93.5	153	15.2	1.9	2KG3231 - ■■■H16-4■■■	
	105	137	13.6	2.1	2KG3231 - ■■■H15-4■■■	
	114	126	12.5	2.3	2KG3231 - ■■■H14-4■■■	
	126	113	11.2	2.6	2KG3231 - ■■■H13-4■■■	
	147	98	9.67	3	2KG3231 - ■■■H12-4■■■	
	167	86	8.52	3.4	2KG3231 - ■■■H11-4■■■	
	183	78	7.76	3.7	2KG3231 - ■■■H10-4■■■	
	200	72	7.10	4	2KG3231 - ■■■H08-4■■■	
	224	64	6.35	4.3	2KG3231 - ■■■H07-4■■■	
	244	59	5.83	4.7	2KG3231 - ■■■H06-4■■■	
	270	53	5.25	4.8	2KG3231 - ■■■H05-4■■■	
	314	46	4.52	5	2KG3231 - ■■■H04-4■■■	
	336	43	8.52	6.8	2KG3231 - ■■■G11-2■■■	
	369	39	7.76	7.5	2KG3231 - ■■■G10-2■■■	
	403	36	7.10	8.2	2KG3231 - ■■■G08-2■■■	
	450	32	6.35	8.6	2KG3231 - ■■■G07-2■■■	
	491	29	5.83	9.4	2KG3231 - ■■■G06-2■■■	
	545	26	5.25	9.6	2KG3231 - ■■■G05-2■■■	

2.2 Gearbox size O183 – motor frame size 132S – 8 poles						
	1.7	12122	404	1.6	2KG4281 - ■■■M62-8■■■	665
	1.9	11121	371	1.8	2KG4281 - ■■■M61-8■■■	
	2.0	10263	342	1.9	2KG4281 - ■■■M60-8■■■	
	2.2	9520	317	2.1	2KG4281 - ■■■M58-8■■■	
	2.3	8980	299	2.2	2KG4281 - ■■■M57-8■■■	
	2.5	8400	280	2.4	2KG4281 - ■■■M56-8■■■	
	2.8	7469	249	2.7	2KG4281 - ■■■M55-8■■■	
	3.0	7051	235	2.8	2KG4281 - ■■■M54-8■■■	
	3.3	6330	211	3.2	2KG4281 - ■■■M53-8■■■	
	3.6	5810	194	3.4	2KG4281 - ■■■M52-8■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— **2, 4 or 8** ———

For shaft designs, see page 4/6 ——— **B, G, H, M, S** ———

For gearbox mounting positions acc. to figure, see page 4/8 ——— **A to F** ———

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— **A to D** ———

For voltage/frequency, see page 4/7 ——— **1, 3, 5, 6, or 9** ———

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size O163 – motor frame size 132S – 8 poles					491
	1.9	11083	369	1.3	2KG4261 - ■ ■ M63-8 ■ ■ ■	
	2.1	10160	338	1.4	2KG4261 - ■ ■ M62-8 ■ ■ ■	
	2.2	9368	312	1.5	2KG4261 - ■ ■ M61-8 ■ ■ ■	
	2.4	8682	289	1.6	2KG4261 - ■ ■ M60-8 ■ ■ ■	
	2.5	8255	275	1.7	2KG4261 - ■ ■ M58-8 ■ ■ ■	
	2.7	7715	257	1.8	2KG4261 - ■ ■ M57-8 ■ ■ ■	
	3.1	6805	227	2.1	2KG4261 - ■ ■ M56-8 ■ ■ ■	
	3.3	6419	214	2.2	2KG4261 - ■ ■ M55-8 ■ ■ ■	
	3.7	5752	192	2.4	2KG4261 - ■ ■ M54-8 ■ ■ ■	
	4.0	5311	177	2.6	2KG4261 - ■ ■ M53-8 ■ ■ ■	
	4.6	4538	151	3.1	2KG4261 - ■ ■ M52-8 ■ ■ ■	
	5.1	4101	137	3.4	2KG4261 - ■ ■ M51-8 ■ ■ ■	
	5.3	3951	132	3.5	2KG4261 - ■ ■ M50-8 ■ ■ ■	
	6.1	3417	114	4.1	2KG4261 - ■ ■ M48-8 ■ ■ ■	
	Gearbox size O143 – motor frame size 100L – 4 poles					312
	3.2	6646	449	1.4	2KG4241 - ■ ■ J65-4 ■ ■ ■	
	3.4	6096	412	1.5	2KG4241 - ■ ■ J63-4 ■ ■ ■	
	3.9	5446	368	1.7	2KG4241 - ■ ■ J62-4 ■ ■ ■	
	4.2	4987	337	1.8	2KG4241 - ■ ■ J61-4 ■ ■ ■	
	4.6	4594	311	2	2KG4241 - ■ ■ J60-4 ■ ■ ■	
	4.9	4254	287	2.1	2KG4241 - ■ ■ J58-4 ■ ■ ■	
	5.3	3956	267	2.3	2KG4241 - ■ ■ J57-4 ■ ■ ■	
	5.7	3693	250	2.4	2KG4241 - ■ ■ J56-4 ■ ■ ■	
	6.4	3304	223	2.7	2KG4241 - ■ ■ J55-4 ■ ■ ■	
	6.9	3062	207	2.9	2KG4241 - ■ ■ J54-4 ■ ■ ■	
	7.5	2807	190	3.2	2KG4241 - ■ ■ J53-4 ■ ■ ■	
	Gearbox size O123 – motor frame size 100L – 4 poles					215
	4.0	5252	355	1.2	2KG4221 - ■ ■ J62-4 ■ ■ ■	
	4.4	4738	320	1.3	2KG4221 - ■ ■ J61-4 ■ ■ ■	
	4.8	4338	293	1.4	2KG4221 - ■ ■ J60-4 ■ ■ ■	
	5.4	3859	261	1.6	2KG4221 - ■ ■ J58-4 ■ ■ ■	
	6.0	3527	238	1.7	2KG4221 - ■ ■ J57-4 ■ ■ ■	
	6.5	3242	219	1.9	2KG4221 - ■ ■ J56-4 ■ ■ ■	
	7.0	2996	202	2	2KG4221 - ■ ■ J55-4 ■ ■ ■	
	7.6	2780	188	2.2	2KG4221 - ■ ■ J54-4 ■ ■ ■	
8.1	2589	175	2.4	2KG4221 - ■ ■ J53-4 ■ ■ ■		
9.0	2341	158	2.6	2KG4221 - ■ ■ J52-4 ■ ■ ■		
9.7	2155	146	2.8	2KG4221 - ■ ■ J51-4 ■ ■ ■		
10.8	1938	131	3.1	2KG4221 - ■ ■ J50-4 ■ ■ ■		
11.7	1788	121	3.4	2KG4221 - ■ ■ J48-4 ■ ■ ■		
13.9	1515	102	4	2KG4221 - ■ ■ J47-4 ■ ■ ■		
15.9	1321	89.3	4.6	2KG4221 - ■ ■ J46-4 ■ ■ ■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size O103 – motor frame size 100L – 4 poles					134
	5.7	3662	248	0.93	2KG4201 - ■■■ J57-4 ■■■	
	6.5	3250	220	1	2KG4201 - ■■■ J56-4 ■■■	
	7.0	3000	203	1.1	2KG4201 - ■■■ J55-4 ■■■	
	7.7	2713	183	1.3	2KG4201 - ■■■ J54-4 ■■■	
	8.4	2499	169	1.4	2KG4201 - ■■■ J53-4 ■■■	
	9.1	2311	156	1.5	2KG4201 - ■■■ J52-4 ■■■	
	9.8	2145	145	1.6	2KG4201 - ■■■ J51-4 ■■■	
	11.1	1893	128	1.8	2KG4201 - ■■■ J50-4 ■■■	
	12.0	1748	118	1.9	2KG4201 - ■■■ J48-4 ■■■	
	13.4	1566	106	2.2	2KG4201 - ■■■ J47-4 ■■■	
	14.6	1444	97.6	2.4	2KG4201 - ■■■ J46-4 ■■■	
	17.3	1211	81.9	2.8	2KG4201 - ■■■ J45-4 ■■■	
	20.3	1033	69.8	3.3	2KG4201 - ■■■ J44-4 ■■■	
	Gearbox size O102 – motor frame size 100L – 4 poles					133
	22.1	950	64.2	3.2	2KG4201 - ■■■ J28-4 ■■■	
	24.1	870	58.8	3.4	2KG4201 - ■■■ J27-4 ■■■	
	26.2	801	54.2	4.2	2KG4201 - ■■■ J26-4 ■■■	
	28.3	742	50.2	4.6	2KG4201 - ■■■ J25-4 ■■■	
	30.4	690	46.6	4.9	2KG4201 - ■■■ J24-4 ■■■	
	Gearbox size O83 – motor frame size 100L – 4 poles					88
	10.2	2050	139	0.93	2KG3281 - ■■■ J51-4 ■■■	
	11.1	1889	128	1	2KG3281 - ■■■ J50-4 ■■■	
	12.2	1715	116	1.1	2KG3281 - ■■■ J48-4 ■■■	
	13.4	1563	106	1.2	2KG3281 - ■■■ J47-4 ■■■	
	14.7	1431	96.8	1.3	2KG3281 - ■■■ J46-4 ■■■	
	16.4	1277	86.3	1.5	2KG3281 - ■■■ J45-4 ■■■	
	18.4	1140	77.0	1.7	2KG3281 - ■■■ J44-4 ■■■	
	21.7	968	65.4	2	2KG3281 - ■■■ J43-4 ■■■	
	Gearbox size O82 – motor frame size 100L – 4 poles					87
	22.0	956	64.6	2	2KG3281 - ■■■ J27-4 ■■■	
	24.0	875	59.1	2.2	2KG3281 - ■■■ J26-4 ■■■	
	27.0	778	52.6	2.4	2KG3281 - ■■■ J25-4 ■■■	
29.6	711	48.0	2.7	2KG3281 - ■■■ J24-4 ■■■		
32.1	654	44.2	2.9	2KG3281 - ■■■ J23-4 ■■■		
34.8	604	40.8	3.1	2KG3281 - ■■■ J22-4 ■■■		
37.5	561	37.9	3.4	2KG3281 - ■■■ J21-4 ■■■		
40.2	522	35.3	3.6	2KG3281 - ■■■ J20-4 ■■■		
44.5	472	31.9	4	2KG3281 - ■■■ J18-4 ■■■		
48.3	435	29.4	4.4	2KG3281 - ■■■ J17-4 ■■■		
53.7	391	26.4	4.9	2KG3281 - ■■■ J16-4 ■■■		
Gearbox size O63 – motor frame size 100L – 4 poles					58	
20.0	1049	70.9	0.95	2KG3261 - ■■■ J45-4 ■■■		
21.8	964	65.1	1	2KG3261 - ■■■ J44-4 ■■■		
	24.2	869	58.7	1.2	2KG3261 - ■■■ J43-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size O62 – motor frame size 100L – 4 poles					57
	26.5	792	53.5	1.3	2KG3261 - ■■■ J27-4 ■■■	
	29.6	711	48.0	1.4	2KG3261 - ■■■ J26-4 ■■■	
	32.4	649	43.9	1.5	2KG3261 - ■■■ J25-4 ■■■	
	36.5	576	38.9	1.7	2KG3261 - ■■■ J24-4 ■■■	
	39.5	532	35.9	1.9	2KG3261 - ■■■ J23-4 ■■■	
	43.7	481	32.5	2.1	2KG3261 - ■■■ J22-4 ■■■	
	47.4	443	29.9	2.3	2KG3261 - ■■■ J21-4 ■■■	
	51.3	410	27.7	2.4	2KG3261 - ■■■ J20-4 ■■■	
	55.3	380	25.7	2.6	2KG3261 - ■■■ J18-4 ■■■	
	62.6	335	22.7	3	2KG3261 - ■■■ J17-4 ■■■	
	67.8	310	20.9	3.2	2KG3261 - ■■■ J16-4 ■■■	
	75.7	277	18.8	3.6	2KG3261 - ■■■ J15-4 ■■■	
	82.1	256	17.3	3.9	2KG3261 - ■■■ J14-4 ■■■	
	Gearbox size O42 – motor frame size 100L – 4 poles					43
	36.9	569	38.5	0.95	2KG3241 - ■■■ J25-4 ■■■	
	40.0	525	35.5	1	2KG3241 - ■■■ J24-4 ■■■	
	46.0	457	30.9	1.2	2KG3241 - ■■■ J23-4 ■■■	
	50.7	415	28.0	1.3	2KG3241 - ■■■ J22-4 ■■■	
	55.5	379	25.6	1.4	2KG3241 - ■■■ J21-4 ■■■	
	60.5	347	23.5	1.6	2KG3241 - ■■■ J20-4 ■■■	
	65.6	320	21.6	1.7	2KG3241 - ■■■ J18-4 ■■■	
	72.3	291	19.6	1.9	2KG3241 - ■■■ J17-4 ■■■	
	79.4	265	17.9	2	2KG3241 - ■■■ J16-4 ■■■	
	86.6	243	16.4	2.2	2KG3241 - ■■■ J15-4 ■■■	
	97.1	216	14.6	2.5	2KG3241 - ■■■ J14-4 ■■■	
	109	193	13.1	2.8	2KG3241 - ■■■ J13-4 ■■■	
	128	164	11.1	3.3	2KG3241 - ■■■ J12-4 ■■■	
	154	137	9.23	3.9	2KG3241 - ■■■ J11-4 ■■■	
	169	124	8.39	4.1	2KG3241 - ■■■ J10-4 ■■■	
	185	114	7.68	4.1	2KG3241 - ■■■ J08-4 ■■■	
	207	101	6.86	4.4	2KG3241 - ■■■ J07-4 ■■■	
	Gearbox size O32 – motor frame size 100L – 4 poles					35
	70.6	297	20.1	0.98	2KG3231 - ■■■ J20-4 ■■■	
	77.9	270	18.2	1.1	2KG3231 - ■■■ J18-4 ■■■	
	85.5	246	16.6	1.2	2KG3231 - ■■■ J17-4 ■■■	
93.5	225	15.2	1.3	2KG3231 - ■■■ J16-4 ■■■		
105	201	13.6	1.4	2KG3231 - ■■■ J15-4 ■■■		
114	185	12.5	1.6	2KG3231 - ■■■ J14-4 ■■■		
126	166	11.2	1.7	2KG3231 - ■■■ J13-4 ■■■		
147	143	9.67	2	2KG3231 - ■■■ J12-4 ■■■		
167	126	8.52	2.3	2KG3231 - ■■■ J11-4 ■■■		
183	115	7.76	2.5	2KG3231 - ■■■ J10-4 ■■■		
200	105	7.10	2.8	2KG3231 - ■■■ J08-4 ■■■		
224	94	6.35	2.9	2KG3231 - ■■■ J07-4 ■■■		
244	86	5.83	3.2	2KG3231 - ■■■ J06-4 ■■■		
270	78	5.25	3.3	2KG3231 - ■■■ J05-4 ■■■		
314	67	4.52	3.4	2KG3231 - ■■■ J04-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg	
3	Gearbox size O183 – motor frame size 132M – 8 poles						
	1.7	16529	404	1.2	2KG4281 - ■■■ N62-8 ■■■	673	
	1.9	15165	371	1.3	2KG4281 - ■■■ N61-8 ■■■		
	2.0	13995	342	1.4	2KG4281 - ■■■ N60-8 ■■■		
	2.2	12982	317	1.5	2KG4281 - ■■■ N58-8 ■■■		
	2.3	12246	299	1.6	2KG4281 - ■■■ N57-8 ■■■		
	2.5	11454	280	1.7	2KG4281 - ■■■ N56-8 ■■■		
	2.8	10185	249	2	2KG4281 - ■■■ N55-8 ■■■		
	3.0	9615	235	2.1	2KG4281 - ■■■ N54-8 ■■■		
	3.3	8631	211	2.3	2KG4281 - ■■■ N53-8 ■■■		
	3.6	7922	194	2.5	2KG4281 - ■■■ N52-8 ■■■		
	4.2	6836	167	2.9	2KG4281 - ■■■ N51-8 ■■■	491	
	4.8	5980	146	3.3	2KG4281 - ■■■ N50-8 ■■■		
	Gearbox size O163 – motor frame size 132S – 6 poles						
	2.6	11136	369	1.3	2KG4261 - ■■■ M63-6 ■■■		
	2.8	10208	338	1.4	2KG4261 - ■■■ M62-6 ■■■		
	3.0	9413	312	1.5	2KG4261 - ■■■ M61-6 ■■■		
	3.3	8723	289	1.6	2KG4261 - ■■■ M60-6 ■■■		
	3.5	8294	275	1.7	2KG4261 - ■■■ M58-6 ■■■		
	3.7	7752	257	1.8	2KG4261 - ■■■ M57-6 ■■■		
	4.2	6838	227	2	2KG4261 - ■■■ M56-6 ■■■		
	4.4	6450	214	2.2	2KG4261 - ■■■ M55-6 ■■■		315
	5.0	5779	192	2.4	2KG4261 - ■■■ M54-6 ■■■		
	5.4	5336	177	2.6	2KG4261 - ■■■ M53-6 ■■■		
	6.3	4559	151	3.1	2KG4261 - ■■■ M52-6 ■■■		
	7.0	4120	137	3.4	2KG4261 - ■■■ M51-6 ■■■		
	7.2	3970	132	3.5	2KG4261 - ■■■ M50-6 ■■■		
	Gearbox size O143 – motor frame size 100L – 4 poles						
	3.2	9063	449	0.99	2KG4241 - ■■■ K65-4 ■■■		
	3.4	8312	412	1.1	2KG4241 - ■■■ K63-4 ■■■		
	3.9	7426	368	1.2	2KG4241 - ■■■ K62-4 ■■■		
	4.2	6801	337	1.3	2KG4241 - ■■■ K61-4 ■■■		
	4.6	6265	311	1.4	2KG4241 - ■■■ K60-4 ■■■		
	4.9	5800	287	1.6	2KG4241 - ■■■ K58-4 ■■■		
	5.3	5394	267	1.7	2KG4241 - ■■■ K57-4 ■■■		
	5.7	5036	250	1.8	2KG4241 - ■■■ K56-4 ■■■		
	6.4	4506	223	2	2KG4241 - ■■■ K55-4 ■■■		
	6.9	4175	207	2.2	2KG4241 - ■■■ K54-4 ■■■		
	7.5	3827	190	2.4	2KG4241 - ■■■ K53-4 ■■■		
	8.2	3508	174	2.6	2KG4241 - ■■■ K52-4 ■■■		
	9.6	2990	148	3	2KG4241 - ■■■ K51-4 ■■■		
	10.9	2638	131	3.4	2KG4241 - ■■■ K50-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3	Gearbox size O123 – motor frame size 100L – 4 poles					218
	4.4	6461	320	0.94	2KG4221 - ■ ■ K61-4 ■ ■ ■	
	4.8	5916	293	1	2KG4221 - ■ ■ K60-4 ■ ■ ■	
	5.4	5263	261	1.2	2KG4221 - ■ ■ K58-4 ■ ■ ■	
	6.0	4810	238	1.3	2KG4221 - ■ ■ K57-4 ■ ■ ■	
	6.5	4422	219	1.4	2KG4221 - ■ ■ K56-4 ■ ■ ■	
	7.0	4085	202	1.5	2KG4221 - ■ ■ K55-4 ■ ■ ■	
	7.6	3791	188	1.6	2KG4221 - ■ ■ K54-4 ■ ■ ■	
	8.1	3531	175	1.7	2KG4221 - ■ ■ K53-4 ■ ■ ■	
	9.0	3192	158	1.9	2KG4221 - ■ ■ K52-4 ■ ■ ■	
	9.7	2939	146	2.1	2KG4221 - ■ ■ K51-4 ■ ■ ■	
	10.8	2643	131	2.3	2KG4221 - ■ ■ K50-4 ■ ■ ■	
	11.7	2439	121	2.5	2KG4221 - ■ ■ K48-4 ■ ■ ■	
	13.9	2066	102	3	2KG4221 - ■ ■ K47-4 ■ ■ ■	
	15.9	1801	89.3	3.4	2KG4221 - ■ ■ K46-4 ■ ■ ■	
	18.7	1532	75.9	4	2KG4221 - ■ ■ K45-4 ■ ■ ■	
	Gearbox size O103 – motor frame size 100L – 4 poles					137
	7.7	3700	183	0.92	2KG4201 - ■ ■ K54-4 ■ ■ ■	
	8.4	3407	169	1	2KG4201 - ■ ■ K53-4 ■ ■ ■	
	9.1	3151	156	1.1	2KG4201 - ■ ■ K52-4 ■ ■ ■	
	9.8	2925	145	1.2	2KG4201 - ■ ■ K51-4 ■ ■ ■	
	11.1	2581	128	1.3	2KG4201 - ■ ■ K50-4 ■ ■ ■	
	12.0	2383	118	1.4	2KG4201 - ■ ■ K48-4 ■ ■ ■	
	13.4	2135	106	1.6	2KG4201 - ■ ■ K47-4 ■ ■ ■	
	14.6	1969	97.6	1.7	2KG4201 - ■ ■ K46-4 ■ ■ ■	
	17.3	1652	81.9	2.1	2KG4201 - ■ ■ K45-4 ■ ■ ■	
	20.3	1409	69.8	2.4	2KG4201 - ■ ■ K44-4 ■ ■ ■	
	24.4	1174	58.2	2.9	2KG4201 - ■ ■ K43-4 ■ ■ ■	
	Gearbox size O102 – motor frame size 100L – 4 poles					136
	22.1	1296	64.2	2.3	2KG4201 - ■ ■ K28-4 ■ ■ ■	
	24.1	1186	58.8	2.5	2KG4201 - ■ ■ K27-4 ■ ■ ■	
	26.2	1093	54.2	3.1	2KG4201 - ■ ■ K26-4 ■ ■ ■	
	28.3	1012	50.2	3.4	2KG4201 - ■ ■ K25-4 ■ ■ ■	
	30.4	941	46.6	3.6	2KG4201 - ■ ■ K24-4 ■ ■ ■	
	32.6	878	43.5	3.9	2KG4201 - ■ ■ K23-4 ■ ■ ■	
	36.5	786	39.0	4.3	2KG4201 - ■ ■ K22-4 ■ ■ ■	
	Gearbox size O83 – motor frame size 100L – 4 poles					91
	14.7	1952	96.8	0.97	2KG3281 - ■ ■ K46-4 ■ ■ ■	
	16.4	1742	86.3	1.1	2KG3281 - ■ ■ K45-4 ■ ■ ■	
	18.4	1554	77.0	1.2	2KG3281 - ■ ■ K44-4 ■ ■ ■	
	21.7	1320	65.4	1.4	2KG3281 - ■ ■ K43-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

For shaft designs, see page 4/6

For gearbox mounting positions acc. to figure, see page 4/8

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

For voltage/frequency, see page 4/7

2, 4 or 8

B, G, H, M, S

A to F

A to D

1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
3	Gearbox size O82 – motor frame size 100L – 4 poles					
	22.0	1303	64.6	1.5	2KG3281 - ■■■ K27-4 ■■■	90
	24.0	1193	59.1	1.6	2KG3281 - ■■■ K26-4 ■■■	
	27.0	1061	52.6	1.8	2KG3281 - ■■■ K25-4 ■■■	
	29.6	969	48.0	2	2KG3281 - ■■■ K24-4 ■■■	
	32.1	892	44.2	2.1	2KG3281 - ■■■ K23-4 ■■■	
	34.8	824	40.8	2.3	2KG3281 - ■■■ K22-4 ■■■	
	37.5	764	37.9	2.5	2KG3281 - ■■■ K21-4 ■■■	
	40.2	712	35.3	2.7	2KG3281 - ■■■ K20-4 ■■■	
	44.5	644	31.9	3	2KG3281 - ■■■ K18-4 ■■■	
	48.3	593	29.4	3.2	2KG3281 - ■■■ K17-4 ■■■	
	53.7	533	26.4	3.6	2KG3281 - ■■■ K16-4 ■■■	
	58.2	492	24.4	3.9	2KG3281 - ■■■ K15-4 ■■■	
	Gearbox size O62 – motor frame size 100L – 4 poles					
	26.5	1079	53.5	0.93	2KG3261 - ■■■ K27-4 ■■■	60
	29.6	969	48.0	1	2KG3261 - ■■■ K26-4 ■■■	
	32.4	885	43.9	1.1	2KG3261 - ■■■ K25-4 ■■■	
	36.5	785	38.9	1.3	2KG3261 - ■■■ K24-4 ■■■	
	39.5	725	35.9	1.4	2KG3261 - ■■■ K23-4 ■■■	
	43.7	656	32.5	1.5	2KG3261 - ■■■ K22-4 ■■■	
	47.4	604	29.9	1.7	2KG3261 - ■■■ K21-4 ■■■	
	51.3	558	27.7	1.8	2KG3261 - ■■■ K20-4 ■■■	
	55.3	518	25.7	1.9	2KG3261 - ■■■ K18-4 ■■■	
	62.6	457	22.7	2.2	2KG3261 - ■■■ K17-4 ■■■	
	67.8	422	20.9	2.4	2KG3261 - ■■■ K16-4 ■■■	
	75.7	378	18.8	2.6	2KG3261 - ■■■ K15-4 ■■■	
	82.1	349	17.3	2.9	2KG3261 - ■■■ K14-4 ■■■	
	97.9	293	14.5	3.4	2KG3261 - ■■■ K13-4 ■■■	
	115	250	12.4	4	2KG3261 - ■■■ K12-4 ■■■	
	138	208	10.3	4.8	2KG3261 - ■■■ K11-4 ■■■	
	Gearbox size O42 – motor frame size 100L – 4 poles					
	50.7	565	28.0	0.96	2KG3241 - ■■■ K22-4 ■■■	46
	55.5	516	25.6	1	2KG3241 - ■■■ K21-4 ■■■	
	60.5	474	23.5	1.1	2KG3241 - ■■■ K20-4 ■■■	
	65.6	436	21.6	1.2	2KG3241 - ■■■ K18-4 ■■■	
	72.3	396	19.6	1.4	2KG3241 - ■■■ K17-4 ■■■	
	79.4	361	17.9	1.5	2KG3241 - ■■■ K16-4 ■■■	
	86.6	331	16.4	1.6	2KG3241 - ■■■ K15-4 ■■■	
	97.1	295	14.6	1.8	2KG3241 - ■■■ K14-4 ■■■	
	109	263	13.1	2.1	2KG3241 - ■■■ K13-4 ■■■	
	128	224	11.1	2.4	2KG3241 - ■■■ K12-4 ■■■	
	154	186	9.23	2.8	2KG3241 - ■■■ K11-4 ■■■	
169	169	8.39	3	2KG3241 - ■■■ K10-4 ■■■		
185	155	7.68	3	2KG3241 - ■■■ K08-4 ■■■		
207	138	6.86	3.2	2KG3241 - ■■■ K07-4 ■■■		
232	123	6.12	3.3	2KG3241 - ■■■ K06-4 ■■■		
273	105	5.20	3.6	2KG3241 - ■■■ K05-4 ■■■		
328	87	4.33	3.7	2KG3241 - ■■■ K04-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3	Gearbox size O32 – motor frame size 100L – 4 poles					38
	93.5	306	15.2	0.95	2KG3231 - ■■■K16-4■■■	
	105	274	13.6	1.1	2KG3231 - ■■■K15-4■■■	
	114	252	12.5	1.2	2KG3231 - ■■■K14-4■■■	
	126	227	11.2	1.3	2KG3231 - ■■■K13-4■■■	
	147	195	9.67	1.5	2KG3231 - ■■■K12-4■■■	
	167	172	8.52	1.7	2KG3231 - ■■■K11-4■■■	
	183	157	7.76	1.9	2KG3231 - ■■■K10-4■■■	
	200	143	7.10	2	2KG3231 - ■■■K08-4■■■	
	224	128	6.35	2.1	2KG3231 - ■■■K07-4■■■	
	244	118	5.83	2.3	2KG3231 - ■■■K06-4■■■	
	270	106	5.25	2.4	2KG3231 - ■■■K05-4■■■	
	314	91	4.52	2.5	2KG3231 - ■■■K04-4■■■	

4	Gearbox size O183 – motor frame size 132M – 6 poles					670
	2.4	16239	404	1.2	2KG4281 - ■■■N62-6■■■	
	2.6	14899	371	1.3	2KG4281 - ■■■N61-6■■■	
	2.8	13750	342	1.5	2KG4281 - ■■■N60-6■■■	
	3.0	12754	317	1.6	2KG4281 - ■■■N58-6■■■	
	3.2	12031	299	1.7	2KG4281 - ■■■N57-6■■■	
	3.4	11253	280	1.8	2KG4281 - ■■■N56-6■■■	
	3.8	10006	249	2	2KG4281 - ■■■N55-6■■■	
	4.0	9447	235	2.1	2KG4281 - ■■■N54-6■■■	
	4.5	8480	211	2.4	2KG4281 - ■■■N53-6■■■	
	4.9	7783	194	2.6	2KG4281 - ■■■N52-6■■■	
	5.7	6716	167	3	2KG4281 - ■■■N51-6■■■	
	6.5	5875	146	3.4	2KG4281 - ■■■N50-6■■■	
	Gearbox size O163 – motor frame size 132M – 6 poles					496
	2.6	14848	369	0.94	2KG4261 - ■■■N63-6■■■	
	2.8	13611	338	1	2KG4261 - ■■■N62-6■■■	
	3.0	12551	312	1.1	2KG4261 - ■■■N61-6■■■	
	3.3	11631	289	1.2	2KG4261 - ■■■N60-6■■■	
	3.5	11059	275	1.3	2KG4261 - ■■■N58-6■■■	
	3.7	10336	257	1.4	2KG4261 - ■■■N57-6■■■	
	4.2	9117	227	1.5	2KG4261 - ■■■N56-6■■■	
	4.4	8600	214	1.6	2KG4261 - ■■■N55-6■■■	
	5.0	7706	192	1.8	2KG4261 - ■■■N54-6■■■	
	5.4	7115	177	2	2KG4261 - ■■■N53-6■■■	
	6.3	6079	151	2.3	2KG4261 - ■■■N52-6■■■	
	7.0	5494	137	2.5	2KG4261 - ■■■N51-6■■■	
	7.2	5293	132	2.6	2KG4261 - ■■■N50-6■■■	
	8.3	4578	114	3.1	2KG4261 - ■■■N48-6■■■	
	9.6	3993	99.3	3.5	2KG4261 - ■■■N47-6■■■	
	11.2	3417	85.0	4.1	2KG4261 - ■■■N46-6■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
4	Gearbox size O143 – motor frame size 112M – 4 poles					
	3.9	9764	368	0.92	2KG4241 - ■■■L62-4■■■	321
	4.3	8942	337	1	2KG4241 - ■■■L61-4■■■	
	4.6	8237	311	1.1	2KG4241 - ■■■L60-4■■■	
	5.0	7626	287	1.2	2KG4241 - ■■■L58-4■■■	
	5.4	7092	267	1.3	2KG4241 - ■■■L57-4■■■	
	5.8	6621	250	1.4	2KG4241 - ■■■L56-4■■■	
	6.4	5924	223	1.5	2KG4241 - ■■■L55-4■■■	
	7.0	5489	207	1.6	2KG4241 - ■■■L54-4■■■	
	7.6	5032	190	1.8	2KG4241 - ■■■L53-4■■■	
	8.3	4613	174	2	2KG4241 - ■■■L52-4■■■	
	9.7	3931	148	2.3	2KG4241 - ■■■L51-4■■■	
	11.0	3469	131	2.6	2KG4241 - ■■■L50-4■■■	
	12.9	2952	111	3	2KG4241 - ■■■L48-4■■■	
	14.9	2558	96.4	3.5	2KG4241 - ■■■L47-4■■■	
	17.7	2153	81.2	4.2	2KG4241 - ■■■L46-4■■■	
	Gearbox size O123 – motor frame size 112M – 4 poles					
	6.0	6324	238	0.96	2KG4221 - ■■■L57-4■■■	224
	6.6	5814	219	1	2KG4221 - ■■■L56-4■■■	
	7.1	5371	202	1.1	2KG4221 - ■■■L55-4■■■	
	7.7	4984	188	1.2	2KG4221 - ■■■L54-4■■■	
	8.2	4643	175	1.3	2KG4221 - ■■■L53-4■■■	
	9.1	4197	158	1.5	2KG4221 - ■■■L52-4■■■	
	9.9	3864	146	1.6	2KG4221 - ■■■L51-4■■■	
	11.0	3475	131	1.8	2KG4221 - ■■■L50-4■■■	
	11.9	3206	121	1.9	2KG4221 - ■■■L48-4■■■	
	14.1	2717	102	2.2	2KG4221 - ■■■L47-4■■■	
	16.1	2368	89.3	2.6	2KG4221 - ■■■L46-4■■■	
	19.0	2014	75.9	3	2KG4221 - ■■■L45-4■■■	
	22.2	1719	64.8	3.5	2KG4221 - ■■■L44-4■■■	
	Gearbox size O122 – motor frame size 112M – 4 poles					
	25.5	1497	56.4	2.9	2KG4221 - ■■■L27-4■■■	220
	27.5	1387	52.3	3.3	2KG4221 - ■■■L26-4■■■	
	29.0	1319	49.7	3.7	2KG4221 - ■■■L25-4■■■	
	31.0	1232	46.5	4.2	2KG4221 - ■■■L24-4■■■	
	Gearbox size O103 – motor frame size 112M – 4 poles					
	11.3	3393	128	1	2KG4201 - ■■■L50-4■■■	143
	12.2	3133	118	1.1	2KG4201 - ■■■L48-4■■■	
	13.6	2807	106	1.2	2KG4201 - ■■■L47-4■■■	
	14.8	2588	97.6	1.3	2KG4201 - ■■■L46-4■■■	
	17.6	2172	81.9	1.6	2KG4201 - ■■■L45-4■■■	
	20.6	1853	69.8	1.8	2KG4201 - ■■■L44-4■■■	
	24.7	1544	58.2	2.2	2KG4201 - ■■■L43-4■■■	
	29.9	1280	48.2	2.7	2KG4201 - ■■■L42-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
4	Gearbox size O102 – motor frame size 112M – 4 poles					142
	22.4	1703	64.2	1.8	2KG4201 - ■■■L28-4■■■	
	24.5	1560	58.8	1.9	2KG4201 - ■■■L27-4■■■	
	26.6	1437	54.2	2.4	2KG4201 - ■■■L26-4■■■	
	28.7	1330	50.2	2.6	2KG4201 - ■■■L25-4■■■	
	30.9	1237	46.6	2.7	2KG4201 - ■■■L24-4■■■	
	33.1	1155	43.5	2.9	2KG4201 - ■■■L23-4■■■	
	37.0	1033	39.0	3.3	2KG4201 - ■■■L22-4■■■	
	39.9	958	36.1	3.6	2KG4201 - ■■■L21-4■■■	
	43.5	878	33.1	3.9	2KG4201 - ■■■L20-4■■■	
	47.5	805	30.3	4.2	2KG4201 - ■■■L18-4■■■	
	Gearbox size O83 – motor frame size 112M – 4 poles					97
	18.7	2044	77.0	0.93	2KG3281 - ■■■L44-4■■■	
	22.0	1736	65.4	1.1	2KG3281 - ■■■L43-4■■■	
	Gearbox size O82 – motor frame size 112M – 4 poles					96
	22.3	1713	64.6	1.1	2KG3281 - ■■■L27-4■■■	
	24.4	1569	59.1	1.2	2KG3281 - ■■■L26-4■■■	
	27.4	1395	52.6	1.4	2KG3281 - ■■■L25-4■■■	
	30.0	1274	48.0	1.5	2KG3281 - ■■■L24-4■■■	
	32.6	1173	44.2	1.6	2KG3281 - ■■■L23-4■■■	
	35.3	1083	40.8	1.8	2KG3281 - ■■■L22-4■■■	
	38.0	1005	37.9	1.9	2KG3281 - ■■■L21-4■■■	
	40.8	936	35.3	2	2KG3281 - ■■■L20-4■■■	
	45.1	847	31.9	2.2	2KG3281 - ■■■L18-4■■■	
	49.0	779	29.4	2.4	2KG3281 - ■■■L17-4■■■	
	54.5	701	26.4	2.7	2KG3281 - ■■■L16-4■■■	
	59.1	647	24.4	2.9	2KG3281 - ■■■L15-4■■■	
	69.7	548	20.7	3.5	2KG3281 - ■■■L14-4■■■	
	80.0	478	18.0	4	2KG3281 - ■■■L13-4■■■	
	94.1	406	15.3	4.7	2KG3281 - ■■■L12-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
4						
Gearbox size O62 – motor frame size 112M – 4 poles						
37.0		1033	38.9	0.97	2KG3261 - ■■■L24-4■■■	66
40.1		953	35.9	1	2KG3261 - ■■■L23-4■■■	
44.3		862	32.5	1.2	2KG3261 - ■■■L22-4■■■	
48.1		794	29.9	1.3	2KG3261 - ■■■L21-4■■■	
52.0		734	27.7	1.4	2KG3261 - ■■■L20-4■■■	
56.1		681	25.7	1.5	2KG3261 - ■■■L18-4■■■	
63.5		601	22.7	1.7	2KG3261 - ■■■L17-4■■■	
68.8		555	20.9	1.8	2KG3261 - ■■■L16-4■■■	
76.8		497	18.8	2	2KG3261 - ■■■L15-4■■■	
83.3		459	17.3	2.2	2KG3261 - ■■■L14-4■■■	
99.2		385	14.5	2.6	2KG3261 - ■■■L13-4■■■	
116		328	12.4	3	2KG3261 - ■■■L12-4■■■	
140		274	10.3	3.7	2KG3261 - ■■■L11-4■■■	
168		227	8.55	4.4	2KG3261 - ■■■L10-4■■■	
179		213	8.03	4.2	2KG3261 - ■■■L08-4■■■	
214		179	6.74	4.7	2KG3261 - ■■■L07-4■■■	
250		153	5.75	4.9	2KG3261 - ■■■L06-4■■■	
301		127	4.79	5.4	2KG3261 - ■■■L05-4■■■	
363		105	3.97	5.6	2KG3261 - ■■■L04-4■■■	

5.5	Gearbox size O183 – motor frame size 132M – 6 poles					
	2.6	20486	371	0.98	2KG4281 -   P61-6  	678
	2.8	18906	342	1.1	2KG4281 -   P60-6  	
	3.0	17537	317	1.1	2KG4281 -   P58-6  	
	3.2	16543	299	1.2	2KG4281 -   P57-6  	
	3.4	15473	280	1.3	2KG4281 -   P56-6  	
	Gearbox size O183 – motor frame size 132S – 4 poles					
	3.6	14579	404	1.4	2KG4281 -   M62-4  	667
	3.9	13376	371	1.5	2KG4281 -   M61-4  	
	4.3	12344	342	1.6	2KG4281 -   M60-4  	
	4.6	11450	317	1.7	2KG4281 -   M58-4  	
	4.9	10801	299	1.9	2KG4281 -   M57-4  	
	5.2	10103	280	2	2KG4281 -   M56-4  	
	5.8	8983	249	2.2	2KG4281 -   M55-4  	
6.2	8481	235	2.4	2KG4281 -   M54-4  		
6.9	7613	211	2.6	2KG4281 -   M53-4  		
7.5	6987	194	2.9	2KG4281 -   M52-4  		
8.7	6030	167	3.3	2KG4281 -   M51-4  		
10.0	5275	146	3.8	2KG4281 -   M50-4  		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5	2, 4 or 8	↑↑↑
For shaft designs, see page 4/6	B, G, H, M, S	↑↑↑
For gearbox mounting positions acc. to figure, see page 4/8	A to F	↑↑↑
For pos. of the connection system acc. to fig., see pages 4/7 to 4/8	A to D	↑↑↑
For voltage/frequency, see page 4/7	1, 3, 5, 6, or 9	↑↑↑

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
5.5	Gearbox size O163 – motor frame size 132S – 4 poles					493
	3.9	13330	369	1.1	2KG4261 - ■ ■ M63-4 ■ ■ ■	
	4.3	12219	338	1.1	2KG4261 - ■ ■ M62-4 ■ ■ ■	
	4.7	11267	312	1.2	2KG4261 - ■ ■ M61-4 ■ ■ ■	
	5.0	10442	289	1.3	2KG4261 - ■ ■ M60-4 ■ ■ ■	
	5.3	9928	275	1.4	2KG4261 - ■ ■ M58-4 ■ ■ ■	
	5.7	9279	257	1.5	2KG4261 - ■ ■ M57-4 ■ ■ ■	
	6.4	8185	227	1.7	2KG4261 - ■ ■ M56-4 ■ ■ ■	
	6.8	7721	214	1.8	2KG4261 - ■ ■ M55-4 ■ ■ ■	
	7.6	6918	192	2	2KG4261 - ■ ■ M54-4 ■ ■ ■	
	8.2	6387	177	2.2	2KG4261 - ■ ■ M53-4 ■ ■ ■	
	9.6	5458	151	2.6	2KG4261 - ■ ■ M52-4 ■ ■ ■	
	10.6	4932	137	2.8	2KG4261 - ■ ■ M51-4 ■ ■ ■	
	11.1	4752	132	2.9	2KG4261 - ■ ■ M50-4 ■ ■ ■	
	12.8	4110	114	3.4	2KG4261 - ■ ■ M48-4 ■ ■ ■	
	14.7	3585	99.3	3.9	2KG4261 - ■ ■ M47-4 ■ ■ ■	
	17.1	3068	85.0	4.6	2KG4261 - ■ ■ M46-4 ■ ■ ■	
	19.1	2748	76.1	5.1	2KG4261 - ■ ■ M45-4 ■ ■ ■	
	22.6	2327	64.5	6	2KG4261 - ■ ■ M44-4 ■ ■ ■	
	Gearbox size O162 – motor frame size 132S – 4 poles					476
	27.2	1931	53.5	4.7	2KG4261 - ■ ■ M22-4 ■ ■ ■	
	30.1	1743	48.3	6	2KG4261 - ■ ■ M21-4 ■ ■ ■	
	32.2	1634	45.3	7	2KG4261 - ■ ■ M20-4 ■ ■ ■	
	37.4	1403	38.9	9.3	2KG4261 - ■ ■ M18-4 ■ ■ ■	
	Gearbox size O143 – motor frame size 132S – 4 poles					333
	5.4	9651	267	0.93	2KG4241 - ■ ■ M57-4 ■ ■ ■	
	5.8	9010	250	1	2KG4241 - ■ ■ M56-4 ■ ■ ■	
	6.5	8061	223	1.1	2KG4241 - ■ ■ M55-4 ■ ■ ■	
	7.0	7470	207	1.2	2KG4241 - ■ ■ M54-4 ■ ■ ■	
	7.7	6848	190	1.3	2KG4241 - ■ ■ M53-4 ■ ■ ■	
	8.4	6277	174	1.4	2KG4241 - ■ ■ M52-4 ■ ■ ■	
	9.8	5349	148	1.7	2KG4241 - ■ ■ M51-4 ■ ■ ■	
	11.1	4720	131	1.9	2KG4241 - ■ ■ M50-4 ■ ■ ■	
	13.1	4018	111	2.2	2KG4241 - ■ ■ M48-4 ■ ■ ■	
	15.1	3481	96.4	2.6	2KG4241 - ■ ■ M47-4 ■ ■ ■	
	17.9	2929	81.2	3.1	2KG4241 - ■ ■ M46-4 ■ ■ ■	
	19.9	2643	73.2	3.4	2KG4241 - ■ ■ M45-4 ■ ■ ■	
	Gearbox size O142 – motor frame size 132S – 4 poles					325
	21.3	2463	68.2	2.3	2KG4241 - ■ ■ M26-4 ■ ■ ■	
	22.6	2324	64.4	2.8	2KG4241 - ■ ■ M25-4 ■ ■ ■	
	24.2	2174	60.2	3.2	2KG4241 - ■ ■ M24-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
5.5	Gearbox size O123 – motor frame size 132S – 4 poles					236
	8.3	6318	175	0.97	2KG4221 - ■■■ M53-4 ■■■	
	9.2	5712	158	1.1	2KG4221 - ■■■ M52-4 ■■■	
	10.0	5258	146	1.2	2KG4221 - ■■■ M51-4 ■■■	
	11.1	4729	131	1.3	2KG4221 - ■■■ M50-4 ■■■	
	12.0	4363	121	1.4	2KG4221 - ■■■ M48-4 ■■■	
	14.2	3697	102	1.7	2KG4221 - ■■■ M47-4 ■■■	
	16.3	3222	89.3	1.9	2KG4221 - ■■■ M46-4 ■■■	
	19.2	2741	75.9	2.2	2KG4221 - ■■■ M45-4 ■■■	
	22.5	2339	64.8	2.6	2KG4221 - ■■■ M44-4 ■■■	
	Gearbox size O122 – motor frame size 132S – 4 poles					232
	25.8	2037	56.4	2.1	2KG4221 - ■■■ M27-4 ■■■	
	27.8	1888	52.3	2.4	2KG4221 - ■■■ M26-4 ■■■	
	29.3	1795	49.7	2.7	2KG4221 - ■■■ M25-4 ■■■	
	31.3	1677	46.5	3.1	2KG4221 - ■■■ M24-4 ■■■	
	35.5	1480	41.0	3.9	2KG4221 - ■■■ M23-4 ■■■	
	37.6	1396	38.7	4.3	2KG4221 - ■■■ M22-4 ■■■	
	Gearbox size O103 – motor frame size 132S – 4 poles					155
	14.9	3522	97.6	0.97	2KG4201 - ■■■ M46-4 ■■■	
	17.8	2955	81.9	1.2	2KG4201 - ■■■ M45-4 ■■■	
	20.8	2521	69.8	1.3	2KG4201 - ■■■ M44-4 ■■■	
	Gearbox size O102 – motor frame size 132S – 4 poles					154
	22.7	2318	64.2	1.3	2KG4201 - ■■■ M28-4 ■■■	
	24.7	2123	58.8	1.4	2KG4201 - ■■■ M27-4 ■■■	
	26.9	1956	54.2	1.7	2KG4201 - ■■■ M26-4 ■■■	
	29.0	1810	50.2	1.9	2KG4201 - ■■■ M25-4 ■■■	
	31.2	1684	46.6	2	2KG4201 - ■■■ M24-4 ■■■	
	33.4	1572	43.5	2.2	2KG4201 - ■■■ M23-4 ■■■	
	37.4	1406	39.0	2.4	2KG4201 - ■■■ M22-4 ■■■	
	40.3	1303	36.1	2.6	2KG4201 - ■■■ M21-4 ■■■	
	44.0	1195	33.1	2.8	2KG4201 - ■■■ M20-4 ■■■	
	48.0	1095	30.3	3.1	2KG4201 - ■■■ M18-4 ■■■	
	56.3	933	25.9	3.6	2KG4201 - ■■■ M17-4 ■■■	
	63.8	823	22.8	4.1	2KG4201 - ■■■ M16-4 ■■■	
	Gearbox size O83 – motor frame size 132S – 4 poles					109
	26.7	1966	54.5	0.97	2KG3281 - ■■■ M42-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
5.5						
Gearbox size O82 – motor frame size 132S – 4 poles						
27.7		1899	52.6	1	2KG3281 - ■■■ M25-4 ■■■	108
30.3		1734	48.0	1.1	2KG3281 - ■■■ M24-4 ■■■	
32.9		1596	44.2	1.2	2KG3281 - ■■■ M23-4 ■■■	
35.6		1474	40.8	1.3	2KG3281 - ■■■ M22-4 ■■■	
38.4		1368	37.9	1.4	2KG3281 - ■■■ M21-4 ■■■	
41.2		1274	35.3	1.5	2KG3281 - ■■■ M20-4 ■■■	
45.6		1152	31.9	1.6	2KG3281 - ■■■ M18-4 ■■■	
49.5		1061	29.4	1.8	2KG3281 - ■■■ M17-4 ■■■	
55.1		954	26.4	2	2KG3281 - ■■■ M16-4 ■■■	
59.7		880	24.4	2.2	2KG3281 - ■■■ M15-4 ■■■	
70.5		745	20.7	2.5	2KG3281 - ■■■ M14-4 ■■■	
80.8		650	18.0	2.9	2KG3281 - ■■■ M13-4 ■■■	
95.0		553	15.3	3.4	2KG3281 - ■■■ M12-4 ■■■	
111		472	13.1	4	2KG3281 - ■■■ M11-4 ■■■	
136		387	10.7	4.9	2KG3281 - ■■■ M10-4 ■■■	
158		332	9.19	5	2KG3281 - ■■■ M08-4 ■■■	
182		289	8.01	5.4	2KG3281 - ■■■ M07-4 ■■■	
213		246	6.82	5.9	2KG3281 - ■■■ M06-4 ■■■	
250		210	5.82	6.4	2KG3281 - ■■■ M05-4 ■■■	
305		172	4.77	7	2KG3281 - ■■■ M04-4 ■■■	

7.5						
Gearbox size O183 – motor frame size 132M – 4 poles						
3.6		19881	404	1	2KG4281 - ■■■ N62-4 ■■■	673
3.9		18240	371	1.1	2KG4281 - ■■■ N61-4 ■■■	
4.3		16833	342	1.2	2KG4281 - ■■■ N60-4 ■■■	
4.6		15614	317	1.3	2KG4281 - ■■■ N58-4 ■■■	
4.9		14729	299	1.4	2KG4281 - ■■■ N57-4 ■■■	
5.2		13777	280	1.5	2KG4281 - ■■■ N56-4 ■■■	
5.8		12250	249	1.6	2KG4281 - ■■■ N55-4 ■■■	
6.2		11565	235	1.7	2KG4281 - ■■■ N54-4 ■■■	
6.9		10381	211	1.9	2KG4281 - ■■■ N53-4 ■■■	
7.5		9528	194	2.1	2KG4281 - ■■■ N52-4 ■■■	
8.7		8222	167	2.4	2KG4281 - ■■■ N51-4 ■■■	
10.0		7193	146	2.8	2KG4281 - ■■■ N50-4 ■■■	
11.5		6255	127	3.2	2KG4281 - ■■■ N48-4 ■■■	
13.1		5488	111	3.6	2KG4281 - ■■■ N47-4 ■■■	
15.4		4641	94.3	4.3	2KG4281 - ■■■ N46-4 ■■■	
17.0		4211	85.5	4.7	2KG4281 - ■■■ N45-4 ■■■	
19.5		3671	74.6	5.4	2KG4281 - ■■■ N44-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
7.5	Gearbox size O163 – motor frame size 132M – 4 poles					499
	4.7	15365	312	0.91	2KG4261 - ■■■N61-4■■■	
	5.0	14239	289	0.98	2KG4261 - ■■■N60-4■■■	
	5.3	13539	275	1	2KG4261 - ■■■N58-4■■■	
	5.7	12653	257	1.1	2KG4261 - ■■■N57-4■■■	
	6.4	11162	227	1.3	2KG4261 - ■■■N56-4■■■	
	6.8	10528	214	1.3	2KG4261 - ■■■N55-4■■■	
	7.6	9433	192	1.5	2KG4261 - ■■■N54-4■■■	
	8.2	8710	177	1.6	2KG4261 - ■■■N53-4■■■	
	9.6	7442	151	1.9	2KG4261 - ■■■N52-4■■■	
	10.6	6726	137	2.1	2KG4261 - ■■■N51-4■■■	
	11.1	6480	132	2.2	2KG4261 - ■■■N50-4■■■	
	12.8	5605	114	2.5	2KG4261 - ■■■N48-4■■■	
	14.7	4889	99.3	2.9	2KG4261 - ■■■N47-4■■■	
	17.1	4184	85.0	3.3	2KG4261 - ■■■N46-4■■■	
	19.1	3747	76.1	3.7	2KG4261 - ■■■N45-4■■■	
	22.6	3174	64.5	4.4	2KG4261 - ■■■N44-4■■■	
	Gearbox size O143 – motor frame size 132M – 4 poles					339
	7.7	9338	190	0.96	2KG4241 - ■■■N53-4■■■	
	8.4	8560	174	1.1	2KG4241 - ■■■N52-4■■■	
	9.8	7294	148	1.2	2KG4241 - ■■■N51-4■■■	
	11.1	6437	131	1.4	2KG4241 - ■■■N50-4■■■	
	13.1	5478	111	1.6	2KG4241 - ■■■N48-4■■■	
	15.1	4747	96.4	1.9	2KG4241 - ■■■N47-4■■■	
	17.9	3995	81.2	2.3	2KG4241 - ■■■N46-4■■■	
	19.9	3604	73.2	2.5	2KG4241 - ■■■N45-4■■■	
	23.1	3098	62.9	2.9	2KG4241 - ■■■N44-4■■■	
	Gearbox size O142 – motor frame size 132M – 4 poles					331
	21.3	3359	68.2	1.7	2KG4241 - ■■■N26-4■■■	
	22.6	3169	64.4	2.1	2KG4241 - ■■■N25-4■■■	
	24.2	2964	60.2	2.4	2KG4241 - ■■■N24-4■■■	
	27.2	2635	53.5	3	2KG4241 - ■■■N23-4■■■	
	28.8	2488	50.5	3.2	2KG4241 - ■■■N22-4■■■	
	32.1	2233	45.4	3.9	2KG4241 - ■■■N21-4■■■	
	34.9	2050	41.6	4.4	2KG4241 - ■■■N20-4■■■	
	Gearbox size O123 – motor frame size 132M – 4 poles					242
	11.1	6449	131	0.95	2KG4221 - ■■■N50-4■■■	
	12.0	5950	121	1	2KG4221 - ■■■N48-4■■■	
	14.2	5041	102	1.2	2KG4221 - ■■■N47-4■■■	
	16.3	4393	89.3	1.4	2KG4221 - ■■■N46-4■■■	
	19.2	3738	75.9	1.6	2KG4221 - ■■■N45-4■■■	
	22.5	3190	64.8	1.9	2KG4221 - ■■■N44-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
7.5	Gearbox size O122 – motor frame size 132M – 4 poles					238
	25.8	2777	56.4	1.5	2KG4221 - ■■■N27-4■■■	
	27.8	2574	52.3	1.8	2KG4221 - ■■■N26-4■■■	
	29.3	2447	49.7	2	2KG4221 - ■■■N25-4■■■	
	31.3	2287	46.5	2.3	2KG4221 - ■■■N24-4■■■	
	35.5	2018	41.0	2.8	2KG4221 - ■■■N23-4■■■	
	37.6	1903	38.7	3.2	2KG4221 - ■■■N22-4■■■	
	42.0	1705	34.6	3.6	2KG4221 - ■■■N21-4■■■	
	45.5	1574	32.0	3.9	2KG4221 - ■■■N20-4■■■	
	53.2	1345	27.3	4.5	2KG4221 - ■■■N18-4■■■	
	Gearbox size O103 – motor frame size 132M – 4 poles					161
	20.8	3438	69.8	0.99	2KG4201 - ■■■N44-4■■■	
	Gearbox size O102 – motor frame size 132M – 4 poles					160
	22.7	3161	64.2	0.95	2KG4201 - ■■■N28-4■■■	
	24.7	2895	58.8	1	2KG4201 - ■■■N27-4■■■	
	26.9	2667	54.2	1.3	2KG4201 - ■■■N26-4■■■	
	29.0	2469	50.2	1.4	2KG4201 - ■■■N25-4■■■	
	31.2	2296	46.6	1.5	2KG4201 - ■■■N24-4■■■	
	33.4	2143	43.5	1.6	2KG4201 - ■■■N23-4■■■	
	37.4	1917	39.0	1.8	2KG4201 - ■■■N22-4■■■	
	40.3	1777	36.1	1.9	2KG4201 - ■■■N21-4■■■	
	44.0	1629	33.1	2.1	2KG4201 - ■■■N20-4■■■	
	48.0	1493	30.3	2.3	2KG4201 - ■■■N18-4■■■	
	56.3	1273	25.9	2.7	2KG4201 - ■■■N17-4■■■	
	63.8	1123	22.8	3	2KG4201 - ■■■N16-4■■■	
	75.0	955	19.4	3.6	2KG4201 - ■■■N15-4■■■	
	86.5	828	16.8	4.1	2KG4201 - ■■■N14-4■■■	
	Gearbox size O82 – motor frame size 132M – 4 poles					114
	35.6	2010	40.8	0.95	2KG3281 - ■■■N22-4■■■	
	38.4	1865	37.9	1	2KG3281 - ■■■N21-4■■■	
	41.2	1737	35.3	1.1	2KG3281 - ■■■N20-4■■■	
	45.6	1571	31.9	1.2	2KG3281 - ■■■N18-4■■■	
	49.5	1446	29.4	1.3	2KG3281 - ■■■N17-4■■■	
	55.1	1301	26.4	1.5	2KG3281 - ■■■N16-4■■■	
	59.7	1200	24.4	1.6	2KG3281 - ■■■N15-4■■■	
	70.5	1017	20.7	1.9	2KG3281 - ■■■N14-4■■■	
	80.8	886	18.0	2.1	2KG3281 - ■■■N13-4■■■	
	95.0	754	15.3	2.5	2KG3281 - ■■■N12-4■■■	
	111	643	13.1	3	2KG3281 - ■■■N11-4■■■	
	136	527	10.7	3.6	2KG3281 - ■■■N10-4■■■	
	158	452	9.19	3.7	2KG3281 - ■■■N08-4■■■	
	182	394	8.01	3.9	2KG3281 - ■■■N07-4■■■	
	213	336	6.82	4.3	2KG3281 - ■■■N06-4■■■	
	250	286	5.82	4.7	2KG3281 - ■■■N05-4■■■	
	305	235	4.77	5.1	2KG3281 - ■■■N04-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg	
11	Gearbox size O183 – motor frame size 160M – 4 poles						
	4.9	21528	299	0.93	2KG4281 - ■■ Q57-4 ■■■	692	
	5.2	20137	280	0.99	2KG4281 - ■■ Q56-4 ■■■		
	5.9	17905	249	1.1	2KG4281 - ■■ Q55-4 ■■■		
	6.2	16904	235	1.2	2KG4281 - ■■ Q54-4 ■■■		
	6.9	15174	211	1.3	2KG4281 - ■■ Q53-4 ■■■		
	7.5	13927	194	1.4	2KG4281 - ■■ Q52-4 ■■■		
	8.7	12018	167	1.7	2KG4281 - ■■ Q51-4 ■■■		
	10.0	10513	146	1.9	2KG4281 - ■■ Q50-4 ■■■		
	11.5	9143	127	2.2	2KG4281 - ■■ Q48-4 ■■■		
	13.1	8022	111	2.5	2KG4281 - ■■ Q47-4 ■■■		
	15.5	6784	94.3	2.9	2KG4281 - ■■ Q46-4 ■■■		
	17.1	6155	85.5	3.2	2KG4281 - ■■ Q45-4 ■■■		
	19.6	5366	74.6	3.7	2KG4281 - ■■ Q44-4 ■■■		
	23.1	4556	63.3	4.4	2KG4281 - ■■ Q43-4 ■■■		
	Gearbox size O163 – motor frame size 160M – 4 poles						
	6.8	15388	214	0.91	2KG4261 - ■■ Q55-4 ■■■	518	
	7.6	13788	192	1	2KG4261 - ■■ Q54-4 ■■■		
	8.3	12731	177	1.1	2KG4261 - ■■ Q53-4 ■■■		
	9.7	10878	151	1.3	2KG4261 - ■■ Q52-4 ■■■		
	10.7	9831	137	1.4	2KG4261 - ■■ Q51-4 ■■■		
	11.1	9472	132	1.5	2KG4261 - ■■ Q50-4 ■■■		
	12.8	8192	114	1.7	2KG4261 - ■■ Q48-4 ■■■		
	14.7	7146	99.3	2	2KG4261 - ■■ Q47-4 ■■■		
	17.2	6115	85.0	2.3	2KG4261 - ■■ Q46-4 ■■■		
	19.2	5477	76.1	2.6	2KG4261 - ■■ Q45-4 ■■■		
	22.6	4639	64.5	3	2KG4261 - ■■ Q44-4 ■■■		
	26.2	4006	55.7	3.5	2KG4261 - ■■ Q43-4 ■■■		
	Gearbox size O162 – motor frame size 160M – 4 poles						
	27.3	3848	53.5	2.3	2KG4261 - ■■ Q22-4 ■■■		501
	30.2	3475	48.3	3	2KG4261 - ■■ Q21-4 ■■■		
	32.3	3256	45.3	3.5	2KG4261 - ■■ Q20-4 ■■■		
	Gearbox size O143 – motor frame size 160M – 4 poles						
	11.2	9408	131	0.96	2KG4241 - ■■ Q50-4 ■■■	358	
	13.1	8008	111	1.1	2KG4241 - ■■ Q48-4 ■■■		
	15.1	6938	96.4	1.3	2KG4241 - ■■ Q47-4 ■■■		
	18.0	5839	81.2	1.5	2KG4241 - ■■ Q46-4 ■■■		
	19.9	5268	73.2	1.7	2KG4241 - ■■ Q45-4 ■■■		
	23.2	4528	62.9	2	2KG4241 - ■■ Q44-4 ■■■		
	Gearbox size O142 – motor frame size 160M – 4 poles						
	22.7	4632	64.4	1.4	2KG4241 - ■■ Q25-4 ■■■	350	
	24.2	4332	60.2	1.6	2KG4241 - ■■ Q24-4 ■■■		
	27.3	3852	53.5	2.1	2KG4241 - ■■ Q23-4 ■■■		
	28.9	3636	50.5	2.2	2KG4241 - ■■ Q22-4 ■■■		
	32.2	3264	45.4	2.7	2KG4241 - ■■ Q21-4 ■■■		
35.1	2996	41.6	3	2KG4241 - ■■ Q20-4 ■■■			
40.6	2585	35.9	3.5	2KG4241 - ■■ Q18-4 ■■■			

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— **2, 4 or 8**

For shaft designs, see page 4/6 ——— **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 ——— **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— **A to D**

For voltage/frequency, see page 4/7 ——— **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
11	Gearbox size O123 – motor frame size 160M – 4 poles					261
	16.4	6422	89.3	0.95	2KG4221 - ■ ■ Q46-4 ■ ■ ■	
	19.2	5463	75.9	1.1	2KG4221 - ■ ■ Q45-4 ■ ■ ■	
	22.5	4662	64.8	1.3	2KG4221 - ■ ■ Q44-4 ■ ■ ■	
	27.5	3823	53.1	1.6	2KG4221 - ■ ■ Q43-4 ■ ■ ■	
	Gearbox size O122 – motor frame size 160M – 4 poles					257
	29.4	3577	49.7	1.4	2KG4221 - ■ ■ Q25-4 ■ ■ ■	
	31.4	3343	46.5	1.5	2KG4221 - ■ ■ Q24-4 ■ ■ ■	
	35.6	2949	41.0	1.9	2KG4221 - ■ ■ Q23-4 ■ ■ ■	
	37.8	2782	38.7	2.2	2KG4221 - ■ ■ Q22-4 ■ ■ ■	
	42.1	2492	34.6	2.4	2KG4221 - ■ ■ Q21-4 ■ ■ ■	
	45.7	2301	32.0	2.7	2KG4221 - ■ ■ Q20-4 ■ ■ ■	
	53.4	1966	27.3	3.1	2KG4221 - ■ ■ Q18-4 ■ ■ ■	
	59.1	1777	24.7	3.4	2KG4221 - ■ ■ Q17-4 ■ ■ ■	
	61.3	1712	23.8	3.6	2KG4221 - ■ ■ Q16-4 ■ ■ ■	
	70.9	1481	20.6	4.1	2KG4221 - ■ ■ Q15-4 ■ ■ ■	
	Gearbox size O103 – motor frame size 160M – 4 poles					180
	30.3	3471	48.2	0.98	2KG4201 - ■ ■ Q42-4 ■ ■ ■	
	Gearbox size O102 – motor frame size 160M – 4 poles					179
	31.3	3356	46.6	1	2KG4201 - ■ ■ Q24-4 ■ ■ ■	
	33.5	3133	43.5	1.1	2KG4201 - ■ ■ Q23-4 ■ ■ ■	
	37.5	2803	39.0	1.2	2KG4201 - ■ ■ Q22-4 ■ ■ ■	
	40.4	2597	36.1	1.3	2KG4201 - ■ ■ Q21-4 ■ ■ ■	
	44.1	2381	33.1	1.4	2KG4201 - ■ ■ Q20-4 ■ ■ ■	
	48.1	2182	30.3	1.6	2KG4201 - ■ ■ Q18-4 ■ ■ ■	
	56.5	1860	25.9	1.8	2KG4201 - ■ ■ Q17-4 ■ ■ ■	
	64.0	1641	22.8	2.1	2KG4201 - ■ ■ Q16-4 ■ ■ ■	
	75.2	1397	19.4	2.4	2KG4201 - ■ ■ Q15-4 ■ ■ ■	
	86.8	1210	16.8	2.8	2KG4201 - ■ ■ Q14-4 ■ ■ ■	
	103	1019	14.2	3.2	2KG4201 - ■ ■ Q13-4 ■ ■ ■	
	114	919	12.8	3.5	2KG4201 - ■ ■ Q12-4 ■ ■ ■	
	133	790	11.0	4	2KG4201 - ■ ■ Q11-4 ■ ■ ■	
	145	722	10.0	4.7	2KG4201 - ■ ■ Q10-4 ■ ■ ■	
	168	626	8.70	5	2KG4201 - ■ ■ Q08-4 ■ ■ ■	
	199	527	7.32	5.4	2KG4201 - ■ ■ Q07-4 ■ ■ ■	
	221	475	6.60	5.6	2KG4201 - ■ ■ Q06-4 ■ ■ ■	
	257	409	5.68	5.9	2KG4201 - ■ ■ Q05-4 ■ ■ ■	

15	Gearbox size O183 – motor frame size 160L – 4 poles					717
	6.9	20692	211	0.97	2KG4281 - ■■ S53-4 ■■■	
	7.5	18991	194	1.1	2KG4281 - ■■ S52-4 ■■■	
	8.7	16388	167	1.2	2KG4281 - ■■ S51-4 ■■■	
	10.0	14336	146	1.4	2KG4281 - ■■ S50-4 ■■■	
	11.5	12468	127	1.6	2KG4281 - ■■ S48-4 ■■■	
	13.1	10939	111	1.8	2KG4281 - ■■ S47-4 ■■■	
	15.5	9250	94.3	2.2	2KG4281 - ■■ S46-4 ■■■	
	17.1	8393	85.5	2.4	2KG4281 - ■■ S45-4 ■■■	
	19.6	7318	74.6	2.7	2KG4281 - ■■ S44-4 ■■■	
	23.1	6213	63.3	3.2	2KG4281 - ■■ S43-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
15	Gearbox size O182 – motor frame size 160L – 4 poles					
	27.7	5164	52.6	3.2	2KG4281 - ■ ■ S20-4 ■ ■ ■	693
	30.1	4756	48.5	3.5	2KG4281 - ■ ■ S18-4 ■ ■ ■	
	34.7	4128	42.1	4.2	2KG4281 - ■ ■ S17-4 ■ ■ ■	
	39.4	3638	37.1	4.8	2KG4281 - ■ ■ S16-4 ■ ■ ■	
	Gearbox size O163 – motor frame size 160L – 4 poles					
	9.7	14833	151	0.94	2KG4261 - ■ ■ S52-4 ■ ■ ■	543
	10.7	13406	137	1	2KG4261 - ■ ■ S51-4 ■ ■ ■	
	11.1	12916	132	1.1	2KG4261 - ■ ■ S50-4 ■ ■ ■	
	12.8	11172	114	1.3	2KG4261 - ■ ■ S48-4 ■ ■ ■	
	14.7	9744	99.3	1.4	2KG4261 - ■ ■ S47-4 ■ ■ ■	
	17.2	8339	85.0	1.7	2KG4261 - ■ ■ S46-4 ■ ■ ■	
	19.2	7469	76.1	1.9	2KG4261 - ■ ■ S45-4 ■ ■ ■	
	22.6	6326	64.5	2.2	2KG4261 - ■ ■ S44-4 ■ ■ ■	
	26.2	5463	55.7	2.6	2KG4261 - ■ ■ S43-4 ■ ■ ■	
	Gearbox size O162 – motor frame size 160L – 4 poles					
	27.3	5247	53.5	1.7	2KG4261 - ■ ■ S22-4 ■ ■ ■	526
	30.2	4738	48.3	2.2	2KG4261 - ■ ■ S21-4 ■ ■ ■	
	32.3	4440	45.3	2.6	2KG4261 - ■ ■ S20-4 ■ ■ ■	
	37.6	3814	38.9	3.4	2KG4261 - ■ ■ S18-4 ■ ■ ■	
	43.5	3295	33.6	3.9	2KG4261 - ■ ■ S17-4 ■ ■ ■	
	Gearbox size O143 – motor frame size 160L – 4 poles					
	15.1	9461	96.4	0.95	2KG4241 - ■ ■ S47-4 ■ ■ ■	383
	18.0	7962	81.2	1.1	2KG4241 - ■ ■ S46-4 ■ ■ ■	
	19.9	7184	73.2	1.3	2KG4241 - ■ ■ S45-4 ■ ■ ■	
	23.2	6174	62.9	1.5	2KG4241 - ■ ■ S44-4 ■ ■ ■	
	Gearbox size O142 – motor frame size 160L – 4 poles					
	22.7	6316	64.4	1	2KG4241 - ■ ■ S25-4 ■ ■ ■	375
	24.2	5908	60.2	1.2	2KG4241 - ■ ■ S24-4 ■ ■ ■	
	27.3	5252	53.5	1.5	2KG4241 - ■ ■ S23-4 ■ ■ ■	
	28.9	4959	50.5	1.6	2KG4241 - ■ ■ S22-4 ■ ■ ■	
	32.2	4452	45.4	2	2KG4241 - ■ ■ S21-4 ■ ■ ■	
	35.1	4086	41.6	2.2	2KG4241 - ■ ■ S20-4 ■ ■ ■	
	40.6	3525	35.9	2.6	2KG4241 - ■ ■ S18-4 ■ ■ ■	
	46.5	3084	31.4	2.9	2KG4241 - ■ ■ S17-4 ■ ■ ■	
	53.4	2683	27.3	3.4	2KG4241 - ■ ■ S16-4 ■ ■ ■	
	60.9	2353	24.0	3.8	2KG4241 - ■ ■ S15-4 ■ ■ ■	
	Gearbox size O123 – motor frame size 160L – 4 poles					
	22.5	6358	64.8	0.96	2KG4221 - ■ ■ S44-4 ■ ■ ■	286
	27.5	5213	53.1	1.2	2KG4221 - ■ ■ S43-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
15	Gearbox size O122 – motor frame size 160L – 4 poles					282
	29.4	4877	49.7	1	2KG4221 - ■■ S25-4 ■■■	
	31.4	4558	46.5	1.1	2KG4221 - ■■ S24-4 ■■■	
	35.6	4022	41.0	1.4	2KG4221 - ■■ S23-4 ■■■	
	37.8	3793	38.7	1.6	2KG4221 - ■■ S22-4 ■■■	
	42.1	3399	34.6	1.8	2KG4221 - ■■ S21-4 ■■■	
	45.7	3138	32.0	1.9	2KG4221 - ■■ S20-4 ■■■	
	53.4	2682	27.3	2.3	2KG4221 - ■■ S18-4 ■■■	
	59.1	2423	24.7	2.5	2KG4221 - ■■ S17-4 ■■■	
	61.3	2335	23.8	2.6	2KG4221 - ■■ S16-4 ■■■	
	70.9	2019	20.6	3	2KG4221 - ■■ S15-4 ■■■	
	81.3	1761	18.0	3.5	2KG4221 - ■■ S14-4 ■■■	
	95.1	1507	15.4	3.9	2KG4221 - ■■ S13-4 ■■■	
	Gearbox size O102 – motor frame size 160L – 4 poles					204
	40.4	3542	36.1	0.96	2KG4201 - ■■ S21-4 ■■■	
	44.1	3247	33.1	1	2KG4201 - ■■ S20-4 ■■■	
	48.1	2976	30.3	1.1	2KG4201 - ■■ S18-4 ■■■	
	56.5	2536	25.9	1.3	2KG4201 - ■■ S17-4 ■■■	
	64.0	2238	22.8	1.5	2KG4201 - ■■ S16-4 ■■■	
	75.2	1904	19.4	1.8	2KG4201 - ■■ S15-4 ■■■	
	86.8	1650	16.8	2.1	2KG4201 - ■■ S14-4 ■■■	
	103	1389	14.2	2.4	2KG4201 - ■■ S13-4 ■■■	
	114	1253	12.8	2.6	2KG4201 - ■■ S12-4 ■■■	
	133	1077	11.0	2.9	2KG4201 - ■■ S11-4 ■■■	
	145	985	10.0	3.4	2KG4201 - ■■ S10-4 ■■■	
	168	854	8.70	3.6	2KG4201 - ■■ S08-4 ■■■	
	199	718	7.32	4	2KG4201 - ■■ S07-4 ■■■	
	221	648	6.60	4.1	2KG4201 - ■■ S06-4 ■■■	
	257	557	5.68	4.3	2KG4201 - ■■ S05-4 ■■■	
18.5	Gearbox size O183 – motor frame size 180M – 4 poles					736
	8.7	20212	167	0.99	2KG4281 - ■■ T51-4 ■■■	
	10.0	17681	146	1.1	2KG4281 - ■■ T50-4 ■■■	
	11.5	15377	127	1.3	2KG4281 - ■■ T48-4 ■■■	
	13.1	13491	111	1.5	2KG4281 - ■■ T47-4 ■■■	
	15.5	11409	94.3	1.8	2KG4281 - ■■ T46-4 ■■■	
	17.1	10351	85.5	1.9	2KG4281 - ■■ T45-4 ■■■	
	19.6	9025	74.6	2.2	2KG4281 - ■■ T44-4 ■■■	
	23.1	7662	63.3	2.6	2KG4281 - ■■ T43-4 ■■■	
	30.1	5864	48.5	3.4	2KG4281 - ■■ T42-4 ■■■	
	Gearbox size O182 – motor frame size 180M – 4 poles					712
	27.7	6369	52.6	2.6	2KG4281 - ■■ T20-4 ■■■	
	30.1	5865	48.5	2.9	2KG4281 - ■■ T18-4 ■■■	
	34.7	5091	42.1	3.4	2KG4281 - ■■ T17-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
18.5	Gearbox size O163 – motor frame size 180M – 4 poles					
	12.8	13778	114	1	2KG4261 - ■ ■ T48-4 ■ ■ ■	562
	14.7	12018	99.3	1.2	2KG4261 - ■ ■ T47-4 ■ ■ ■	
	17.2	10285	85.0	1.4	2KG4261 - ■ ■ T46-4 ■ ■ ■	
	19.2	9211	76.1	1.5	2KG4261 - ■ ■ T45-4 ■ ■ ■	
	22.6	7802	64.5	1.8	2KG4261 - ■ ■ T44-4 ■ ■ ■	
	26.2	6738	55.7	2.1	2KG4261 - ■ ■ T43-4 ■ ■ ■	
	34.9	5064	41.9	2.8	2KG4261 - ■ ■ T42-4 ■ ■ ■	
	Gearbox size O162 – motor frame size 180M – 4 poles					
	27.3	6472	53.5	1.4	2KG4261 - ■ ■ T22-4 ■ ■ ■	545
	30.2	5844	48.3	1.8	2KG4261 - ■ ■ T21-4 ■ ■ ■	
	32.3	5476	45.3	2.1	2KG4261 - ■ ■ T20-4 ■ ■ ■	
	37.6	4704	38.9	2.8	2KG4261 - ■ ■ T18-4 ■ ■ ■	
	43.5	4064	33.6	3.2	2KG4261 - ■ ■ T17-4 ■ ■ ■	
	49.3	3587	29.6	3.9	2KG4261 - ■ ■ T16-4 ■ ■ ■	
	54.7	3229	26.7	4.3	2KG4261 - ■ ■ T15-4 ■ ■ ■	
	65.9	2679	22.1	5.2	2KG4261 - ■ ■ T14-4 ■ ■ ■	
	72.3	2443	20.2	5.7	2KG4261 - ■ ■ T13-4 ■ ■ ■	
	82.4	2143	17.7	6.5	2KG4261 - ■ ■ T12-4 ■ ■ ■	
	95.9	1842	15.2	7.6	2KG4261 - ■ ■ T11-4 ■ ■ ■	
	123	1435	11.9	9.1	2KG4261 - ■ ■ T10-4 ■ ■ ■	
	Gearbox size O143 – motor frame size 180M – 4 poles					
	18.0	9820	81.2	0.92	2KG4241 - ■ ■ T46-4 ■ ■ ■	402
	19.9	8860	73.2	1	2KG4241 - ■ ■ T45-4 ■ ■ ■	
	23.2	7615	62.9	1.2	2KG4241 - ■ ■ T44-4 ■ ■ ■	
	Gearbox size O142 – motor frame size 180M – 4 poles					
	27.3	6478	53.5	1.2	2KG4241 - ■ ■ T23-4 ■ ■ ■	394
	28.9	6116	50.5	1.3	2KG4241 - ■ ■ T22-4 ■ ■ ■	
	32.2	5490	45.4	1.6	2KG4241 - ■ ■ T21-4 ■ ■ ■	
	35.1	5039	41.6	1.8	2KG4241 - ■ ■ T20-4 ■ ■ ■	
	40.6	4348	35.9	2.1	2KG4241 - ■ ■ T18-4 ■ ■ ■	
	46.5	3803	31.4	2.4	2KG4241 - ■ ■ T17-4 ■ ■ ■	
	53.4	3308	27.3	2.7	2KG4241 - ■ ■ T16-4 ■ ■ ■	
60.9	2902	24.0	3.1	2KG4241 - ■ ■ T15-4 ■ ■ ■		
Gearbox size O123 – motor frame size 180M – 4 poles						
27.5	6429	53.1	0.95	2KG4221 - ■ ■ T43-4 ■ ■ ■	305	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
18.5	Gearbox size O122 – motor frame size 180M – 4 poles					301
	35.6	4960	41.0	1.1	2KG4221 - ■■ T23-4 ■■■	
	37.8	4678	38.7	1.3	2KG4221 - ■■ T22-4 ■■■	
	42.1	4192	34.6	1.5	2KG4221 - ■■ T21-4 ■■■	
	45.7	3870	32.0	1.6	2KG4221 - ■■ T20-4 ■■■	
	53.4	3307	27.3	1.8	2KG4221 - ■■ T18-4 ■■■	
	59.1	2989	24.7	2	2KG4221 - ■■ T17-4 ■■■	
	61.3	2880	23.8	2.1	2KG4221 - ■■ T16-4 ■■■	
	70.9	2490	20.6	2.4	2KG4221 - ■■ T15-4 ■■■	
	81.3	2172	18.0	2.8	2KG4221 - ■■ T14-4 ■■■	
	95.1	1859	15.4	3.1	2KG4221 - ■■ T13-4 ■■■	
	106	1665	13.8	3.4	2KG4221 - ■■ T12-4 ■■■	
	125	1410	11.7	3.8	2KG4221 - ■■ T11-4 ■■■	
	145	1219	10.1	4.2	2KG4221 - ■■ T10-4 ■■■	
	193	916	7.57	5	2KG4221 - ■■ T08-4 ■■■	
	211	836	6.91	4.3	2KG4221 - ■■ T07-4 ■■■	
	250	708	5.85	4.7	2KG4221 - ■■ T06-4 ■■■	
	289	611	5.05	5.1	2KG4221 - ■■ T05-4 ■■■	
	384	460	3.80	5.9	2KG4221 - ■■ T04-4 ■■■	

22	Gearbox size O183 – motor frame size 180L – 4 poles					750
	10.0	21026	146	0.95	2KG4281 -   U50-4  	
	11.5	18286	127	1.1	2KG4281 -   U48-4  	
	13.1	16044	111	1.2	2KG4281 -   U47-4  	
	15.5	13567	94.3	1.5	2KG4281 -   U46-4  	
	17.1	12310	85.5	1.6	2KG4281 -   U45-4  	
	19.6	10732	74.6	1.9	2KG4281 -   U44-4  	
	23.1	9112	63.3	2.2	2KG4281 -   U43-4  	
	Gearbox size O182 – motor frame size 180L – 4 poles					726
	27.7	7574	52.6	2.2	2KG4281 -   U20-4  	
	30.1	6975	48.5	2.4	2KG4281 -   U18-4  	
	34.7	6054	42.1	2.9	2KG4281 -   U17-4  	
	39.4	5336	37.1	3.3	2KG4281 -   U16-4  	
	44.9	4683	32.5	4	2KG4281 -   U15-4  	
	49.8	4221	29.3	4.7	2KG4281 -   U14-4  	
	Gearbox size O163 – motor frame size 180L – 4 poles					576
	14.7	14291	99.3	0.98	2KG4261 -   U47-4  	
	17.2	12230	85.0	1.1	2KG4261 -   U46-4  	
	19.2	10954	76.1	1.3	2KG4261 -   U45-4  	
	22.6	9277	64.5	1.5	2KG4261 -   U44-4  	
	26.2	8013	55.7	1.7	2KG4261 -   U43-4  	
	34.9	6022	41.9	2.3	2KG4261 -   U42-4  	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5

2, 4 or 8

For shaft designs, see page 4/6

B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8

A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8

A to D

For voltage/frequency, see page 4/7

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
22	Gearbox size O162 – motor frame size 180L – 4 poles					559
	27.3	7696	53.5	1.2	2KG4261 - ■■■U22-4■■■	
	30.2	6949	48.3	1.5	2KG4261 - ■■■U21-4■■■	
	32.3	6512	45.3	1.8	2KG4261 - ■■■U20-4■■■	
	37.6	5594	38.9	2.3	2KG4261 - ■■■U18-4■■■	
	43.5	4832	33.6	2.7	2KG4261 - ■■■U17-4■■■	
	49.3	4265	29.6	3.3	2KG4261 - ■■■U16-4■■■	
	54.7	3839	26.7	3.6	2KG4261 - ■■■U15-4■■■	
	65.9	3186	22.1	4.4	2KG4261 - ■■■U14-4■■■	
	Gearbox size O143 – motor frame size 180L – 4 poles					416
	23.2	9056	62.9	0.99	2KG4241 - ■■■U44-4■■■	
	Gearbox size O142 – motor frame size 180L – 4 poles					408
	27.3	7703	53.5	1	2KG4241 - ■■■U23-4■■■	
	28.9	7273	50.5	1.1	2KG4241 - ■■■U22-4■■■	
	32.2	6529	45.4	1.3	2KG4241 - ■■■U21-4■■■	
	35.1	5992	41.6	1.5	2KG4241 - ■■■U20-4■■■	
	40.6	5170	35.9	1.7	2KG4241 - ■■■U18-4■■■	
	46.5	4523	31.4	2	2KG4241 - ■■■U17-4■■■	
	53.4	3934	27.3	2.3	2KG4241 - ■■■U16-4■■■	
	60.9	3451	24.0	2.6	2KG4241 - ■■■U15-4■■■	
	72.0	2918	20.3	3.1	2KG4241 - ■■■U14-4■■■	
	79.3	2648	18.4	3.4	2KG4241 - ■■■U13-4■■■	
	Gearbox size O122 – motor frame size 180L – 4 poles					315
	35.6	5899	41.0	0.97	2KG4221 - ■■■U23-4■■■	
	37.8	5563	38.7	1.1	2KG4221 - ■■■U22-4■■■	
	42.1	4985	34.6	1.2	2KG4221 - ■■■U21-4■■■	
	45.7	4602	32.0	1.3	2KG4221 - ■■■U20-4■■■	
	53.4	3933	27.3	1.6	2KG4221 - ■■■U18-4■■■	
	59.1	3554	24.7	1.7	2KG4221 - ■■■U17-4■■■	
	61.3	3425	23.8	1.8	2KG4221 - ■■■U16-4■■■	
	70.9	2962	20.6	2.1	2KG4221 - ■■■U15-4■■■	
	81.3	2583	18.0	2.4	2KG4221 - ■■■U14-4■■■	
	95.1	2210	15.4	2.6	2KG4221 - ■■■U13-4■■■	
	106	1980	13.8	2.8	2KG4221 - ■■■U12-4■■■	
	125	1676	11.7	3.2	2KG4221 - ■■■U11-4■■■	
	145	1449	10.1	3.5	2KG4221 - ■■■U10-4■■■	
	193	1089	7.57	4.2	2KG4221 - ■■■U08-4■■■	
	211	994	6.91	3.6	2KG4221 - ■■■U07-4■■■	
	250	842	5.85	3.9	2KG4221 - ■■■U06-4■■■	
	289	727	5.05	4.3	2KG4221 - ■■■U05-4■■■	
	384	547	3.80	5	2KG4221 - ■■■U04-4■■■	
30	Gearbox size O183 – motor frame size 200L – 4 poles					794
	13.1	21803	111	0.92	2KG4281 - ■■■W47-4■■■	
	15.5	18438	94.3	1.1	2KG4281 - ■■■W46-4■■■	
	17.1	16728	85.5	1.2	2KG4281 - ■■■W45-4■■■	
	19.6	14585	74.6	1.4	2KG4281 - ■■■W44-4■■■	
	23.1	12383	63.3	1.6	2KG4281 - ■■■W43-4■■■	
	30.2	9477	48.5	2.1	2KG4281 - ■■■W42-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ——— 2, 4 or 8

For shaft designs, see page 4/6 ——— B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ——— A to D

For voltage/frequency, see page 4/7 ——— 1, 3, 5, 6, or 9

Geared motors

Offset geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
30	Gearbox size O182 – motor frame size 200L – 4 poles					
	27.8	10292	52.6	1.6	2KG4281 - ■ ■ W20-4 ■ ■ ■	770
	30.2	9479	48.5	1.8	2KG4281 - ■ ■ W18-4 ■ ■ ■	
	34.8	8227	42.1	2.1	2KG4281 - ■ ■ W17-4 ■ ■ ■	
	39.5	7251	37.1	2.4	2KG4281 - ■ ■ W16-4 ■ ■ ■	
	45.0	6364	32.5	2.9	2KG4281 - ■ ■ W15-4 ■ ■ ■	
	49.9	5736	29.3	3.5	2KG4281 - ■ ■ W14-4 ■ ■ ■	
	110	2611	13.4	6.7	2KG4281 - ■ ■ W08-4 ■ ■ ■	620
	136	2100	10.7	7.7	2KG4281 - ■ ■ W07-4 ■ ■ ■	
	Gearbox size O163 – motor frame size 200L – 4 poles					
	19.2	14886	76.1	0.94	2KG4261 - ■ ■ W45-4 ■ ■ ■	620
	22.7	12608	64.5	1.1	2KG4261 - ■ ■ W44-4 ■ ■ ■	
	26.3	10889	55.7	1.3	2KG4261 - ■ ■ W43-4 ■ ■ ■	
	Gearbox size O162 – motor frame size 200L – 4 poles					
	30.3	9444	48.3	1.1	2KG4261 - ■ ■ W21-4 ■ ■ ■	603
	32.4	8849	45.3	1.3	2KG4261 - ■ ■ W20-4 ■ ■ ■	
	37.7	7602	38.9	1.7	2KG4261 - ■ ■ W18-4 ■ ■ ■	
	43.6	6567	33.6	2	2KG4261 - ■ ■ W17-4 ■ ■ ■	
	49.4	5796	29.6	2.4	2KG4261 - ■ ■ W16-4 ■ ■ ■	
	54.9	5218	26.7	2.7	2KG4261 - ■ ■ W15-4 ■ ■ ■	
	66.2	4330	22.1	3.2	2KG4261 - ■ ■ W14-4 ■ ■ ■	
	72.6	3948	20.2	3.5	2KG4261 - ■ ■ W13-4 ■ ■ ■	
	82.7	3463	17.7	4	2KG4261 - ■ ■ W12-4 ■ ■ ■	
	Gearbox size O142 – motor frame size 200L – 4 poles					
	32.3	8873	45.4	0.98	2KG4241 - ■ ■ W21-4 ■ ■ ■	452
	35.2	8143	41.6	1.1	2KG4241 - ■ ■ W20-4 ■ ■ ■	
	40.8	7027	35.9	1.3	2KG4241 - ■ ■ W18-4 ■ ■ ■	
	46.6	6147	31.4	1.5	2KG4241 - ■ ■ W17-4 ■ ■ ■	
	53.6	5347	27.3	1.7	2KG4241 - ■ ■ W16-4 ■ ■ ■	
	61.1	4690	24.0	1.9	2KG4241 - ■ ■ W15-4 ■ ■ ■	
	72.2	3966	20.3	2.3	2KG4241 - ■ ■ W14-4 ■ ■ ■	
	79.6	3598	18.4	2.5	2KG4241 - ■ ■ W13-4 ■ ■ ■	
	91.3	3137	16.0	2.9	2KG4241 - ■ ■ W12-4 ■ ■ ■	
	108	2664	13.6	3.2	2KG4241 - ■ ■ W11-4 ■ ■ ■	
	140	2040	10.4	3.8	2KG4241 - ■ ■ W10-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

For shaft designs, see page 4/6 — B, G, H, M, S

For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
30						
Gearbox size O122 – motor frame size 200L – 4 poles						
45.8		6254	32.0	0.98	2KG4221 - ■ ■ W20-4 ■ ■ ■	359
53.6		5345	27.3	1.1	2KG4221 - ■ ■ W18-4 ■ ■ ■	
59.3		4830	24.7	1.3	2KG4221 - ■ ■ W17-4 ■ ■ ■	
61.6		4654	23.8	1.3	2KG4221 - ■ ■ W16-4 ■ ■ ■	
71.2		4025	20.6	1.5	2KG4221 - ■ ■ W15-4 ■ ■ ■	
81.6		3510	18.0	1.7	2KG4221 - ■ ■ W14-4 ■ ■ ■	
95.4		3004	15.4	1.9	2KG4221 - ■ ■ W13-4 ■ ■ ■	
106		2691	13.8	2.1	2KG4221 - ■ ■ W12-4 ■ ■ ■	
126		2278	11.7	2.3	2KG4221 - ■ ■ W11-4 ■ ■ ■	
145		1969	10.1	2.6	2KG4221 - ■ ■ W10-4 ■ ■ ■	
194		1480	7.57	3.1	2KG4221 - ■ ■ W08-4 ■ ■ ■	
212		1351	6.91	2.7	2KG4221 - ■ ■ W07-4 ■ ■ ■	
250		1144	5.85	2.9	2KG4221 - ■ ■ W06-4 ■ ■ ■	
290		988	5.05	3.2	2KG4221 - ■ ■ W05-4 ■ ■ ■	
386		743	3.80	3.6	2KG4221 - ■ ■ W04-4 ■ ■ ■	

37	Gearbox size O183 – motor frame size 225S – 4 poles					
	17.2	20562	85.5	0.97	2KG4281 - ■ ■ X45-4 ■ ■ ■	839
	19.7	17927	74.6	1.1	2KG4281 - ■ ■ X44-4 ■ ■ ■	
	23.2	15220	63.3	1.3	2KG4281 - ■ ■ X43-4 ■ ■ ■	
	30.3	11649	48.5	1.7	2KG4281 - ■ ■ X42-4 ■ ■ ■	
	Gearbox size O182 – motor frame size 225S – 4 poles					
	27.9	12651	52.6	1.3	2KG4281 - ■ ■ X20-4 ■ ■ ■	815
	30.3	11651	48.5	1.4	2KG4281 - ■ ■ X18-4 ■ ■ ■	
	34.9	10113	42.1	1.7	2KG4281 - ■ ■ X17-4 ■ ■ ■	
	39.6	8913	37.1	2	2KG4281 - ■ ■ X16-4 ■ ■ ■	
	45.2	7822	32.5	2.4	2KG4281 - ■ ■ X15-4 ■ ■ ■	
	50.1	7050	29.3	2.8	2KG4281 - ■ ■ X14-4 ■ ■ ■	
	59.0	5985	24.9	3.3	2KG4281 - ■ ■ X13-4 ■ ■ ■	
63.6	5560	23.1	3.6	2KG4281 - ■ ■ X12-4 ■ ■ ■		
Gearbox size O163 – motor frame size 225S – 4 poles						
26.4	13384	55.7	1	2KG4261 - ■ ■ X43-4 ■ ■ ■	665	
35.1	10060	41.9	1.4	2KG4261 - ■ ■ X42-4 ■ ■ ■		
Gearbox size O162 – motor frame size 225S – 4 poles						
32.5	10877	45.3	1.1	2KG4261 - ■ ■ X20-4 ■ ■ ■	648	
37.8	9343	38.9	1.4	2KG4261 - ■ ■ X18-4 ■ ■ ■		
43.8	8072	33.6	1.6	2KG4261 - ■ ■ X17-4 ■ ■ ■		
49.6	7125	29.6	2	2KG4261 - ■ ■ X16-4 ■ ■ ■		
55.1	6413	26.7	2.2	2KG4261 - ■ ■ X15-4 ■ ■ ■		
66.4	5322	22.1	2.6	2KG4261 - ■ ■ X14-4 ■ ■ ■		
72.8	4853	20.2	2.9	2KG4261 - ■ ■ X13-4 ■ ■ ■		
83.0	4257	17.7	3.3	2KG4261 - ■ ■ X12-4 ■ ■ ■		
96.6	3658	15.2	3.8	2KG4261 - ■ ■ X11-4 ■ ■ ■		

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — **2, 4 or 8**

For shaft designs, see page 4/6 — **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — **A to D**

For voltage/frequency, see page 4/7 — **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
37	Gearbox size O142 – motor frame size 225S – 4 poles					497
	40.9	8637	35.9	1	2KG4241 - ■■X18-4■■■	
	46.8	7555	31.4	1.2	2KG4241 - ■■X17-4■■■	
	53.8	6572	27.3	1.4	2KG4241 - ■■X16-4■■■	
	61.3	5764	24.0	1.6	2KG4241 - ■■X15-4■■■	
	72.5	4875	20.3	1.8	2KG4241 - ■■X14-4■■■	
	79.9	4423	18.4	2	2KG4241 - ■■X13-4■■■	
	91.6	3856	16.0	2.3	2KG4241 - ■■X12-4■■■	
	108	3274	13.6	2.6	2KG4241 - ■■X11-4■■■	
	141	2507	10.4	3.1	2KG4241 - ■■X10-4■■■	
	155	2286	9.51	2.9	2KG4241 - ■■X08-4■■■	
	177	1993	8.29	3.1	2KG4241 - ■■X07-4■■■	
	209	1692	7.04	3.4	2KG4241 - ■■X06-4■■■	
273	1296	5.39	4	2KG4241 - ■■X05-4■■■		
45	Gearbox size O183 – motor frame size 225M – 4 poles					859
	19.7	21803	74.6	0.92	2KG4281 - ■■Y44-4■■■	
	23.2	18511	63.3	1.1	2KG4281 - ■■Y43-4■■■	835
	Gearbox size O182 – motor frame size 225M – 4 poles					
	27.9	15386	52.6	1.1	2KG4281 - ■■Y20-4■■■	
	30.3	14170	48.5	1.2	2KG4281 - ■■Y18-4■■■	
	34.9	12299	42.1	1.4	2KG4281 - ■■Y17-4■■■	
	39.6	10840	37.1	1.6	2KG4281 - ■■Y16-4■■■	
	45.2	9513	32.5	1.9	2KG4281 - ■■Y15-4■■■	
	50.1	8575	29.3	2.3	2KG4281 - ■■Y14-4■■■	
	59.0	7279	24.9	2.7	2KG4281 - ■■Y13-4■■■	
	63.6	6762	23.1	3	2KG4281 - ■■Y12-4■■■	685
	74.0	5809	19.9	3.4	2KG4281 - ■■Y11-4■■■	
	Gearbox size O163 – motor frame size 225M – 4 poles					
	35.1	12235	41.9	1.1	2KG4261 - ■■Y42-4■■■	
	Gearbox size O162 – motor frame size 225M – 4 poles					
	37.8	11364	38.9	1.1	2KG4261 - ■■Y18-4■■■	
	43.8	9817	33.6	1.3	2KG4261 - ■■Y17-4■■■	
	49.6	8665	29.6	1.6	2KG4261 - ■■Y16-4■■■	
	55.1	7800	26.7	1.8	2KG4261 - ■■Y15-4■■■	
	66.4	6473	22.1	2.2	2KG4261 - ■■Y14-4■■■	
	72.8	5902	20.2	2.4	2KG4261 - ■■Y13-4■■■	
	83.0	5177	17.7	2.7	2KG4261 - ■■Y12-4■■■	
	96.6	4450	15.2	3.1	2KG4261 - ■■Y11-4■■■	
	124	3467	11.9	3.8	2KG4261 - ■■Y10-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 — 2, 4 or 8

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For gearbox mounting positions acc. to figure, see page 4/8 — A to F

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 — A to D

For voltage/frequency, see page 4/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
45						
Gearbox size O142 – motor frame size 225M – 4 poles						
46.8		9188	31.4	0.98	2KG4241 - ■■Y17-4■■■	517
53.8		7993	27.3	1.1	2KG4241 - ■■Y16-4■■■	
61.3		7010	24.0	1.3	2KG4241 - ■■Y15-4■■■	
72.5		5929	20.3	1.5	2KG4241 - ■■Y14-4■■■	
79.9		5379	18.4	1.7	2KG4241 - ■■Y13-4■■■	
91.6		4689	16.0	1.9	2KG4241 - ■■Y12-4■■■	
108		3982	13.6	2.1	2KG4241 - ■■Y11-4■■■	
141		3049	10.4	2.6	2KG4241 - ■■Y10-4■■■	
155		2780	9.51	2.4	2KG4241 - ■■Y08-4■■■	
177		2424	8.29	2.6	2KG4241 - ■■Y07-4■■■	
209		2058	7.04	2.8	2KG4241 - ■■Y06-4■■■	
273		1576	5.39	3.3	2KG4241 - ■■Y05-4■■■	

All values apply at 50 Hz

For types of construction, see pages 4/3 to 4/5 ————— **2, 4 or 8**

For shaft designs, see page 4/6 ————— **B, G, H, M, S**

For gearbox mounting positions acc. to figure, see page 4/8 ————— **A to F**

For pos. of the connection system acc. to fig., see pages 4/7 to 4/8 ————— **A to D**

For voltage/frequency, see page 4/7 ————— **1, 3, 5, 6, or 9**

Geared motors

Offset geared motors

Selection and ordering

Ratios and maximum torques

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th	12th				i	n_2	M_2	63	71	80	90	100	112	132	160	180
Nm		position			rpm	Nm												
4-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)																		
O32	210 to 290	0	4	4.52	321	228				•	•	•						
		0	5	5.25	276	253				•	•	•						
		0	6	5.83	249	275				•	•	•						
		0	7	6.35	228	275				•	•	•						
		0	8	7.10	204	290				•	•	•						
		1	0	7.76	187	290				•	•	•						
		1	1	8.52	170	290				•	•	•						
		1	2	9.67	150	290				•	•	•						
		1	3	11.2	129	290			•	•	•	•						
		1	4	12.5	116	290			•	•	•	•						
		1	5	13.6	107	290			•	•	•	•						
		1	6	15.2	95.0	290			•	•	•	•						
		1	7	16.6	87.0	290			•	•	•	•						
		1	8	18.2	80.0	290			•	•	•	•						
		2	0	20.1	72.0	290			•	•	•	•	•					
		2	1	22.3	65.0	290			•	•	•	•						
		2	2	25.2	57.0	290	•	•	•	•	•							
		2	3	27.9	52.0	290	•	•	•	•	•							
		2	4	31.5	46.0	290	•	•	•	•	•							
		2	5	36.0	40.0	290	•	•	•	•	•							
		2	6	40.9	35.0	275	•	•	•	•	•							
		2	7	43.8	33.0	250	•	•	•	•								
		2	8	50.4	29.0	230	•	•	•	•								
		3	0	56.7	26.0	210	•	•	•	•								
O33	290	4	3	56.3	26.0	290	•	•	•	•								
		4	4	63.8	23.0	290	•	•	•	•								
		4	5	70.7	21.0	290	•	•	•	•								
		4	6	81.2	17.9	290	•	•	•	•								
		4	7	93.5	15.5	290	•	•										
		4	8	110	13.2	290	•	•										
		5	0	129	11.2	290	•	•										
		5	1	154	9.4	290	•	•										
		5	2	174	8.3	290	•	•										
		5	3	191	7.6	290	•											
		5	4	208	7.0	290	•											
		5	5	242	6.0	290	•											
		5	6	280	5.2	290	•											
O42	325 to 540	0	4	4.33	335	325					•	•						
		0	5	5.20	279	378					•	•						
		0	6	6.12	237	406					•	•						
		0	7	6.86	211	443					•	•						
		0	8	7.68	189	467					•	•						
		1	0	8.39	173	510					•	•						
		1	1	9.23	157	526					•	•						
		1	2	11.1	131	535				•	•	•						
		1	3	13.1	111	540				•	•	•						
		1	4	14.6	99.0	540				•	•	•						

Gearbox size	Max. gearbox torque Nm	Ratio code order no.		Ratio i	Output speed n_2 rpm	Max. torque M_2 Nm	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
O42	325 to 540	1	5	16.4	88.0	540			•	•	•						
		1	6	17.9	81.0	540			•	•	•						
		1	7	19.6	74.0	540			•	•	•						
		1	8	21.6	67.0	540		•	•	•	•						
		2	0	23.5	62.0	540		•	•	•	•						
		2	1	25.6	57.0	540		•	•	•	•						
		2	2	28.0	52.0	540		•	•	•	•						
		2	3	30.9	47.0	540		•	•	•	•						
		2	4	35.5	41.0	540		•	•	•	•						
		2	5	38.5	38.0	540		•	•	•	•						
		2	6	42.5	34.0	540	•	•	•	•							
		2	7	49.6	29.0	540	•	•	•	•							
		2	8	55.2	26.0	500	•	•	•	•							
		3	0	60.7	24.0	400	•	•	•								
O43	540	4	1	43.1	34.0	540	•	•	•	•							
		4	2	47.4	31.0	540	•	•	•	•							
		4	3	55.1	26.0	540	•	•	•	•							
		4	4	59.6	24.0	540	•	•	•	•							
		4	5	67.4	22.0	540	•	•	•	•							
		4	6	74.1	19.6	540	•	•	•	•							
		4	7	81.7	17.7	540	•	•	•								
		4	8	90.5	16.0	540	•	•	•								
		5	0	101	14.4	540	•	•	•								
		5	1	116	12.5	540	•	•	•								
		5	2	128	11.3	540	•	•	•								
		5	3	146	10.0	540	•	•	•								
		5	4	166	8.7	540	•	•									
		5	5	187	7.7	540	•	•									
		5	6	209	6.9	540	•	•									
		5	7	239	6.1	540	•	•									
		5	8	269	5.4	540	•	•									
O62	589 to 1000	0	4	3.97	365	589					•	•					
		0	5	4.79	303	682					•	•					
		0	6	5.75	252	755					•	•					
		0	7	6.74	215	835					•	•					
		0	8	8.03	181	897					•	•					
		1	0	8.55	170	1000					•	•					
		1	1	10.3	141	1000					•	•					
		1	2	12.4	117	1000				•	•	•					
		1	3	14.5	100	1000				•	•	•					
		1	4	17.3	84.0	1000				•	•	•					
		1	5	18.8	77.0	1000				•	•	•					
		1	6	20.9	69.0	1000			•	•	•	•					
		1	7	22.7	64.0	1000			•	•	•	•					
		1	8	25.7	56.0	1000			•	•	•	•					
		2	0	27.7	52.0	1000			•	•	•	•					
		2	1	29.9	48.0	1000			•	•	•	•					
		2	2	32.5	45.0	1000			•	•	•	•					
		2	3	35.9	40.0	1000			•	•	•	•					

Geared motors

Offset geared motors

Selection and ordering

Gearbox size	Max. gearbox torque Nm	Ratio code order no.		Ratio i	Output speed n_2 rpm	Max. torque M_2 Nm	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
O62	589 to 1000	2	4	38.9	37.0	1000			•	•	•	•					
		2	5	43.9	33.0	1000			•	•	•						
		2	6	48.0	30.0	1000			•	•	•						
		2	7	53.5	27.0	1000			•	•	•						
		2	8	61.2	24.0	850			•	•							
O63	1000	4	2	50.5	29.0	1000		•	•	•	•						
		4	3	58.7	25.0	1000		•	•	•	•						
		4	4	65.1	22.0	1000		•	•	•	•						
		4	5	70.9	20.0	1000		•	•	•	•						
		4	6	79.3	18.3	1000	•	•	•	•							
		4	7	86.7	16.7	1000	•	•	•	•							
		4	8	95.2	15.2	1000	•	•	•	•							
		5	0	105	13.8	1000	•	•	•	•							
		5	1	116	12.5	1000	•	•	•	•							
		5	2	132	11.0	1000	•	•	•	•							
		5	3	145	10.0	1000	•	•	•	•							
		5	4	164	8.8	1000	•	•	•								
		5	5	188	7.7	1000	•	•	•								
		5	6	213	6.8	1000	•	•	•								
		5	7	228	6.3	1000	•	•	•								
		5	8	263	5.5	1000	•	•	•								
		6	0	296	4.9	1000	•	•									
O82	1199 to 1900	0	4	4.77	304	1199						•	•				
		0	5	5.82	249	1348						•	•				
		0	6	6.82	213	1454						•	•				
		0	7	8.01	181	1548					•	•	•				
		0	8	9.19	158	1658					•	•	•				
		1	0	10.7	135	1900					•	•	•				
		1	1	13.1	111	1900					•	•	•				
		1	2	15.3	95.0	1900					•	•	•				
		1	3	18.0	81.0	1900					•	•	•				
		1	4	20.7	70.0	1900				•	•	•	•				
		1	5	24.4	59.0	1900				•	•	•	•				
		1	6	26.4	55.0	1900				•	•	•	•				
		1	7	29.4	49.0	1900				•	•	•	•				
		1	8	31.9	45.0	1900				•	•	•	•				
		2	0	35.3	41.0	1900				•	•	•	•				
		2	1	37.9	38.0	1900			•	•	•	•	•				
		2	2	40.8	36.0	1900			•	•	•	•	•				
		2	3	44.2	33.0	1900			•	•	•	•	•				
		2	4	48.0	30.0	1900			•	•	•	•	•				
		2	5	52.6	28.0	1900			•	•	•	•	•				
		2	6	59.1	25.0	1900			•	•	•	•					
		2	7	64.6	22.0	1900			•	•	•	•					
O83	1900	4	2	54.5	27.0	1900			•	•	•	•	•				
		4	3	65.4	22.0	1900			•	•	•	•					
		4	4	77.0	18.8	1900			•	•	•	•					
		4	5	86.3	16.8	1900		•	•	•	•						
		4	6	96.8	15.0	1900		•	•	•	•						

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th	<i>i</i>	<i>n</i> ₂ rpm	<i>M</i> ₂ Nm	63	71	80	90	100	112	132	160	180	200	225
O83	1900	4	7	106	13.7	1900		•	•	•	•						
		4	8	116	12.5	1900		•	•	•	•						
		5	0	128	11.4	1900		•	•	•	•						
		5	1	139	10.5	1900		•	•	•	•						
		5	2	151	9.6	1900	•	•	•	•							
		5	3	165	8.8	1900	•	•	•	•							
		5	4	182	8.0	1900	•	•	•	•							
		5	5	209	6.9	1900	•	•	•	•							
		5	6	227	6.4	1900	•	•	•	•							
		5	7	250	5.4	1900	•	•									
		5	8	251	5.8	1900			•	•							
		6	0	293	5.0	1900	•	•	•								
		6	1	326	4.5	1900	•	•	•								
		6	2	358	4.0	1900	•	•	•								
		6	3	405	3.6	1900	•	•	•								
O102	2422 to 3400	0	5	5.68	255	2422							•	•			
		0	6	6.60	220	2651							•	•			
		0	7	7.32	198	2853							•	•			
		0	8	8.70	167	3102							•	•			
		1	0	10.0	144	3374							•	•			
		1	1	11.0	132	3153							•	•			
		1	2	12.8	114	3249							•	•			
		1	3	14.2	102	3304						•	•	•			
		1	4	16.8	86.0	3400					•	•	•	•			
		1	5	19.4	75.0	3400					•	•	•	•			
		1	6	22.8	64.0	3400					•	•	•	•			
		1	7	25.9	56.0	3400					•	•	•	•			
		1	8	30.3	48.0	3400					•	•	•	•			
		2	0	33.1	44.0	3400					•	•	•	•			
		2	1	36.1	40.0	3400					•	•	•	•			
		2	2	39.0	37.0	3400					•	•	•	•			
		2	3	43.5	33.0	3400					•	•	•	•			
		2	4	46.6	31.0	3400					•	•	•	•			
		2	5	50.2	29.0	3400					•	•	•				
		2	6	54.2	27.0	3400					•	•	•				
		2	7	58.8	25.0	3000					•	•	•				
		2	8	64.2	23.0	3000					•	•	•				
O103	3400	4	2	48.2	30.0	3400					•	•	•	•			
		4	3	58.2	25.0	3400					•	•	•				
		4	4	69.8	21.0	3400			•	•	•	•	•				
		4	5	81.9	17.7	3400			•	•	•	•	•				
		4	6	97.6	14.9	3400			•	•	•	•	•				
		4	7	106	13.7	3400			•	•	•	•					
		4	8	118	12.3	3400			•	•	•	•					
		5	0	128	11.3	3400			•	•	•	•					
		5	1	145	10.0	3400			•	•	•						
		5	2	156	9.3	3400			•	•	•						
		5	3	169	8.6	3400			•	•	•						
		5	4	183	7.9	3400			•	•	•						

Geared motors

Offset geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size										
		11th position	12th position				63	71	80	90	100	112	132	160	180	200	225
O103	3400	5	5	203	7.2	3400			•	•	•						
		5	6	220	6.6	3400			•	•	•						
		5	7	248	5.9	3400			•	•	•						
		5	8	271	5.4	3400			•	•							
		6	0	302	4.8	3400			•	•							
		6	1	345	4.2	3400			•	•							
		6	2	383	3.8	3400			•	•							
		6	3	424	3.4	3400			•	•							
O122	2703 to 6100	0	4	3.80	382	2708								•	•	•	
		0	5	5.05	287	3137								•	•	•	
		0	6	5.85	248	3301								•	•	•	
		0	7	6.91	210	3592								•	•	•	
		0	8	7.57	192	4565								•	•	•	
		1	0	10.1	144	5113								•	•	•	
		1	1	11.7	124	5347							•	•	•	•	
		1	2	13.8	105	5640							•	•	•	•	
		1	3	15.4	94.0	5847							•	•	•	•	
		1	4	18.0	81.0	6100							•	•	•	•	
		1	5	20.6	70.0	6100							•	•	•	•	
		1	6	23.8	61.0	6100						•	•	•	•	•	
		1	7	24.7	59.0	6100						•	•	•	•	•	
		1	8	27.3	53.0	6100						•	•	•	•	•	
		2	0	32.0	45.0	6100						•	•	•	•	•	
		2	1	34.6	42.0	6100						•	•	•	•		
		2	2	38.7	38.0	6000						•	•	•	•		
		2	3	41.0	35.0	5700						•	•	•	•		
		2	4	46.5	31.0	5150						•	•	•			
		2	5	49.7	29.0	4900						•	•	•			
		2	6	52.3	28.0	4600						•	•				
		2	7	56.4	26.0	4300						•	•				
O123	6100	4	3	53.1	27.0	6100					•	•	•	•	•		
		4	4	64.8	22.0	6100					•	•	•	•			
		4	5	75.9	19.1	6100					•	•	•	•			
		4	6	89.3	16.2	6100				•	•	•	•	•			
		4	7	102	14.2	6100				•	•	•	•				
		4	8	121	12.0	6100				•	•	•	•				
		5	0	131	11.1	6100				•	•	•	•				
		5	1	146	10.0	6100				•	•	•	•				
		5	2	158	9.2	6100				•	•	•	•				
		5	3	175	8.3	6100				•	•	•	•				
		5	4	188	7.7	6100				•	•	•					
		5	5	202	7.2	6100				•	•	•					
		5	6	219	6.6	6100				•	•	•					
		5	7	238	6.1	6100				•	•	•					
		5	8	261	5.6	6100				•	•						
		6	0	293	4.9	6100				•	•						
		6	1	320	4.5	6100				•	•						
		6	2	355	4.1	6100				•	•						
		6	3	405	3.6	6100				•							
		6	4	448	3.2	6100				•							

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th position	12th position	<i>i</i>	<i>n</i> ₂ rpm	<i>M</i> ₂ Nm	63	71	80	90	100	112	132	160	180	200	225	
O142	5124 to 9000	0	5	5.39	269	5124								•	•	•	•	
		0	6	7.04	206	5820								•	•	•	•	
		0	7	8.29	175	6204									•	•	•	•
		0	8	9.51	152	6581									•	•	•	•
		1	0	10.4	139	7822									•	•	•	•
		1	1	13.6	106	8519									•	•	•	•
		1	2	16.0	90.0	9000									•	•	•	•
		1	3	18.4	79.0	9000							•		•	•	•	•
		1	4	20.3	71.0	9000							•		•	•	•	•
		1	5	24.0	60.0	9000							•		•	•	•	•
		1	6	27.3	53.0	9000							•		•	•	•	•
		1	7	31.4	46.0	9000							•		•	•	•	•
		1	8	35.9	40.0	9000							•		•	•	•	•
		2	0	41.6	35.0	9000							•		•	•	•	
		2	1	45.4	32.0	8700							•		•	•	•	
		2	2	50.5	29.0	8000							•		•	•		
		2	3	53.5	27.0	8000							•		•	•		
		2	4	60.2	24.0	7000							•		•			
		2	5	64.4	23.0	6500							•		•			
		2	6	68.2	21.0	5600							•					
O143	6100	4	4	62.9	23.0	9000							•	•	•			
		4	5	73.2	19.8	9000							•	•	•			
		4	6	81.2	17.9	9000					•	•	•	•	•			
		4	7	96.4	15.0	9000					•	•	•	•				
		4	8	111	13.0	9000					•	•	•	•				
		5	0	131	11.1	9000					•	•	•	•				
		5	1	148	9.8	9000					•	•	•					
		5	2	174	8.3	9000					•	•	•					
		5	3	190	7.6	9000					•	•	•					
		5	4	207	7.0	9000					•	•	•					
		5	5	223	6.5	9000					•	•	•					
		5	6	250	5.8	9000					•	•	•					
		5	7	267	5.4	9000					•	•	•					
		5	8	287	5.0	9000					•	•						
		6	0	311	4.7	9000					•	•						
		6	1	337	4.3	9000					•	•						
		6	2	368	3.9	9000					•	•						
		6	3	412	3.5	9000					•							
		6	4	449	3.2	9000					•							
		O162	8682 to 14000	0	5	5.28	275	8682										•
0	6			6.65	218	10011										•	•	
0	7			8.54	170	11257									•	•	•	
0	8			9.42	154	12147									•	•	•	
1	0			11.9	122	13076									•	•	•	
1	1			15.2	95.0	14000								•	•	•	•	
1	2			17.7	82.0	14000								•	•	•	•	
1	3			20.2	72.0	14000								•	•	•	•	
1	4			22.1	65.0	14000								•	•	•	•	
1	5			26.7	54.0	14000								•	•	•	•	
O162	8682 to 14000	1	6	29.6	49.0	14000							•	•	•	•		

Geared motors

Offset geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Output speed	Max. torque	Motor frame size										
						63	71	80	90	100	112	132	160	180	200	225
		11th 12th position	i	n_2 rpm	M_2 Nm											
O163	14000	1 7	33.6	43.0	13000							•	•	•	•	•
		1 8	38.9	37.0	13000							•	•	•	•	•
		2 0	45.3	32.0	11500							•	•	•	•	•
		2 1	48.3	30.0	10500							•	•	•	•	
		2 2	53.5	27.0	9000							•	•	•		
		4 2	41.9	35.0	14000								•	•	•	•
		4 3	55.7	26.0	14000								•	•	•	•
		4 4	64.5	22.0	14000							•	•	•	•	
		4 5	76.1	19.0	14000							•	•	•	•	
		4 6	85.0	17.1	14000							•	•	•		
		4 7	99.3	14.6	14000							•	•	•		
		4 8	114	12.7	14000							•	•	•		
		5 0	132	11.0	14000							•	•			
		5 1	137	10.6	14000							•	•			
		5 2	151	9.6	14000							•	•			
		5 3	177	8.2	14000							•	•			
		5 4	192	7.6	14000							•	•			
		5 5	214	6.8	14000							•	•			
		5 6	227	6.4	14000							•				
		5 7	257	5.6	14000							•				
		5 8	275	5.3	14000							•				
O182	14190 to 20000	0 5	8.3	174	14190											•
		0 6	9.3	155	14990											•
		0 7	10.7	135	16070										•	•
		0 8	13.4	109	17560									•	•	•
		1 0	17.0	86	18700									•	•	•
		1 0	17.0	86	18870									•	•	•
		1 1	19.9	73	19790									•	•	•
		1 2	23.1	63	20000								•	•	•	•
		1 3	24.9	58	20000								•	•	•	•
		1 4	29.3	49	20000								•	•	•	•
		1 5	32.5	45	18550								•	•	•	•
		1 6	37.1	39	17510								•	•	•	•
		1 7	42.1	34	17500								•	•	•	•
		1 8	48.5	30	16870								•	•	•	•
		2 0	52.6	28	16580								•	•	•	•
O183	20000	4 2	48.5	30	20000								•	•	•	•
		4 3	63.3	23	20000								•	•	•	•
		4 4	74.6	19	20000							•	•	•	•	•
		4 5	85.5	17	20000							•	•	•	•	•
		4 6	94.3	15	20000							•	•	•	•	
		4 7	111	13	20000							•	•	•	•	
		4 8	127	11	20000							•	•	•		
		5 0	146	9.90	20000							•	•	•		
O183	20000	5 1	167	8.70	20000							•	•	•		

Geared motors

Offset geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Output speed	Max. torque	Motor frame size										
						63	71	80	90	100	112	132	160	180	200	225
	Nm	11th 12th position	i	n_2 rpm	M_2 Nm											
		5 2	194	7.50	20000							•	•			
		5 3	211	6.90	20000							•	•			
		5 4	235	6.20	20000							•	•			
		5 5	249	5.80	20000							•	•			
		5 6	280	5.20	20000							•	•			
		5 7	299	4.80	20000							•	•			
		5 8	317	4.60	20000							•				
		6 0	342	4.20	20000							•				
		6 1	371	3.90	20000							•				
		6 2	404	3.60	20000							•				

Offset geared motors

Dimensions

O32/O33 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	301	53	380	236	75
71	C or D	145	111	75	301	53	380	236	75
80	E or F	162	120	75	310	52	403	259	75
90	G or H	181	128	75	318	52	435	291	75
100	J or K	202	135	120	325	70	484	340	120

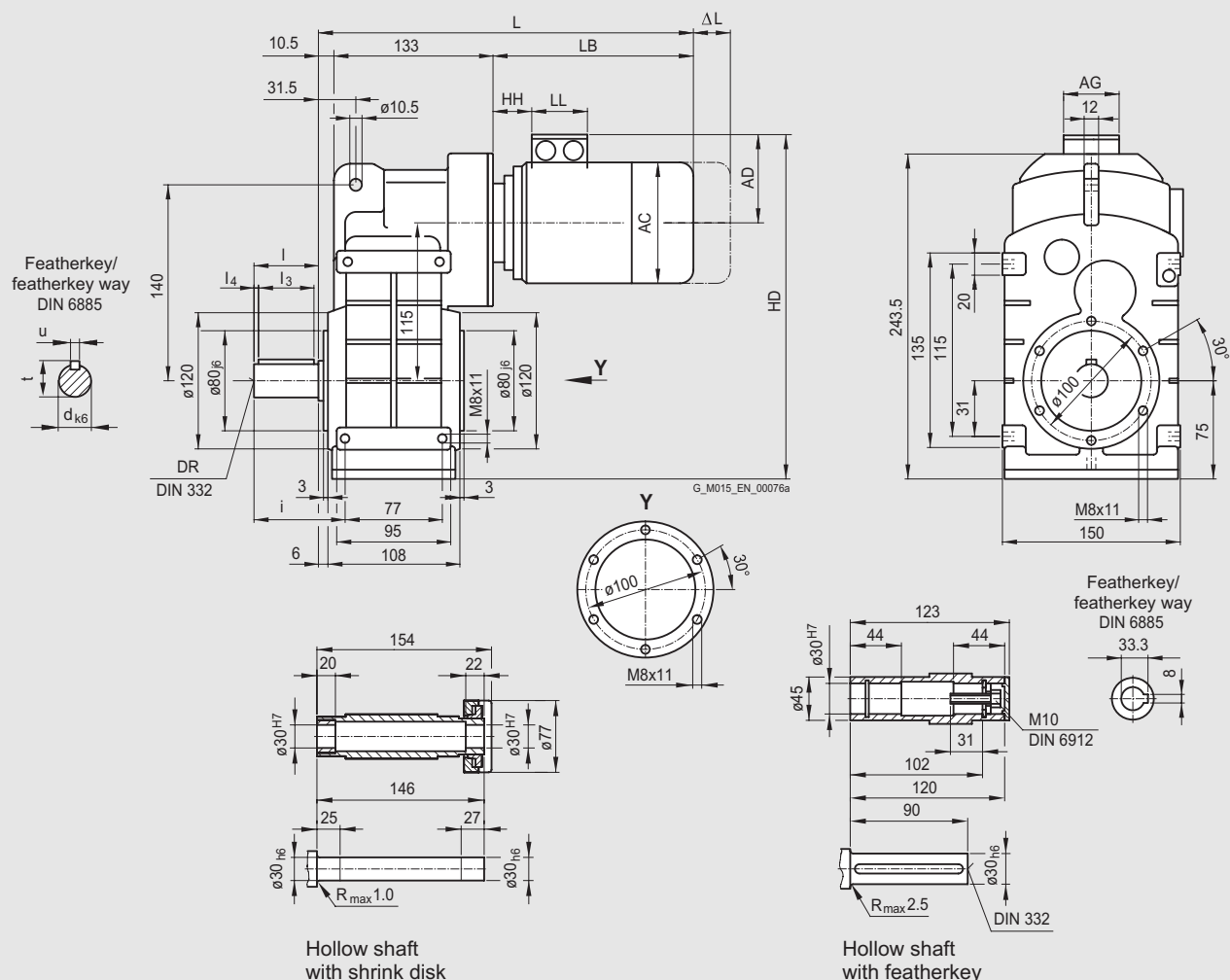
AL see Section 8. "Dimensions of built-on accessories"

Plain solid shaft

d	l	i	DR
25	50	71.5	M10x22

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	DR
25	50	40	5	28	8	71.5	M10x22



4

d	l	l ₃	l ₄	t	u	i	i ₂	DR
25	50	40	5	28	8	95.5	50	M10x22



Geared motors

Offset geared motors

Dimensions

O42/O43 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	353	78	395	261	75
71	C or D	145	111	75	353	78	395	261	75
80	E or F	162	120	75	362	77	418	284	75
90	G or H	181	128	75	370	77	450	316	75
100	J or K	202	135	120	377	95	499	365	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

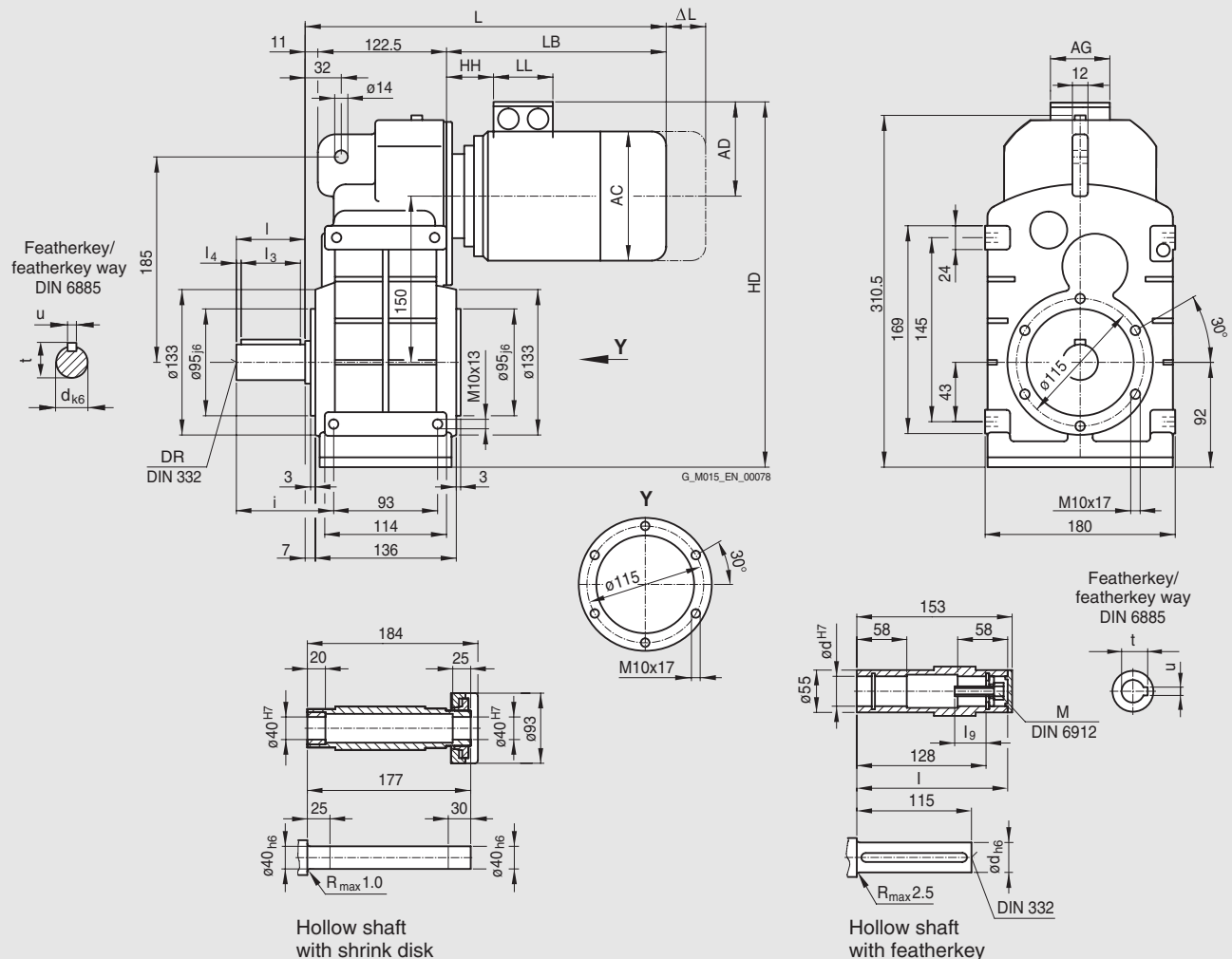
d	l	i	DR
30	60	88.5	M10x22

Solid shaft with featherkey

d	l	l_3	l_4	t	u	i	DR
30	60	50	3.5	33	8	88.5	M10x22

Hollow shaft with featherkey

d	l	l_9	M	t	u
35	150	40	M12	38.3	10
40	150	48	M16	43.3	12



4

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

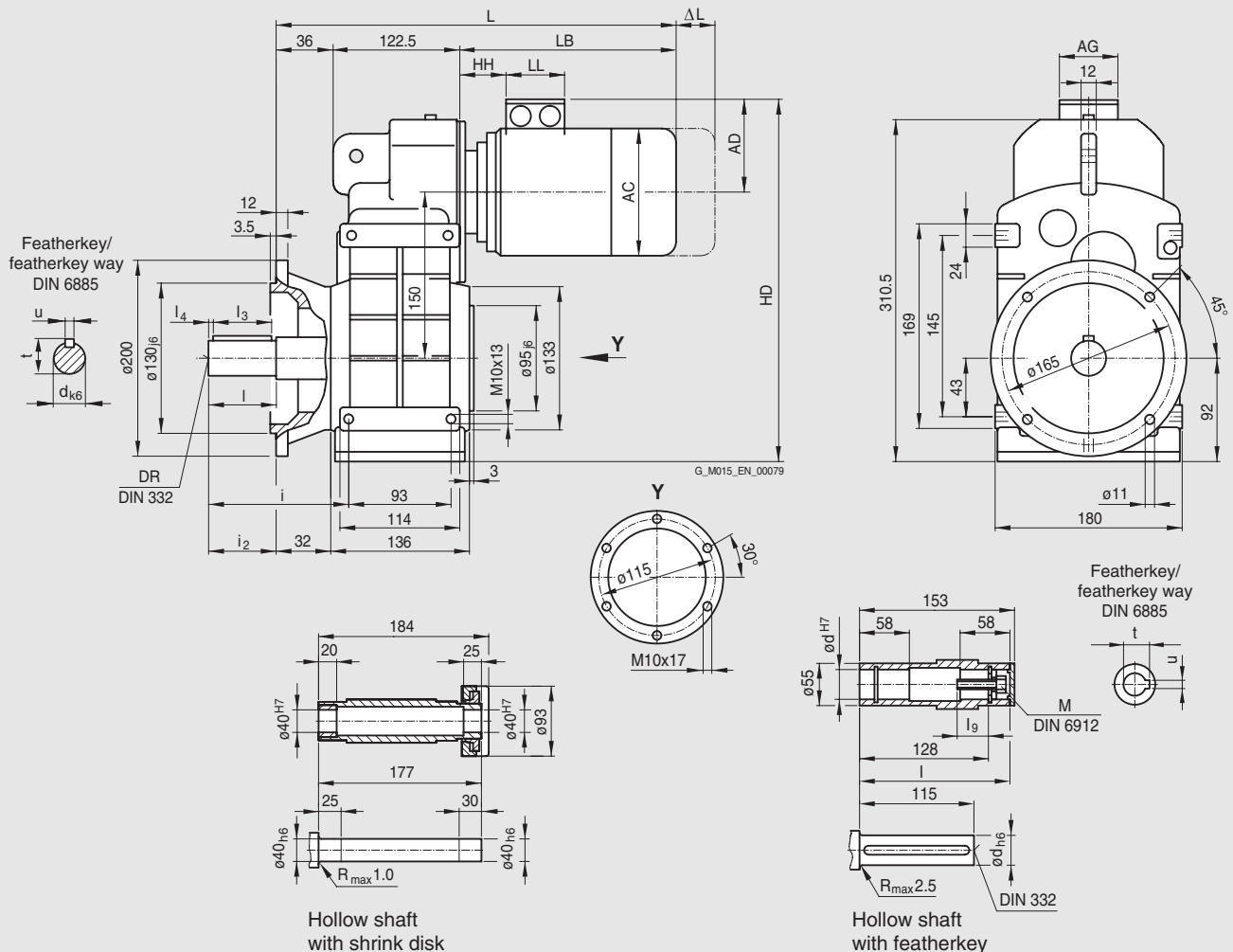
d	l	i	i₂	DR
30	60	113.5	60	M10x22

Solid shaft with featherkey

d	l	l_3	l_4	t	u	i	i_2	DR
30	60	50	3.5	33	8	113.5	60	M10x22

Hollow shaft with featherkey

d	l	l₉	M	t	u
35	150	40	M12	38.3	10
40	150	48	M16	43.3	12



Offset geared motors

Dimensions

O62/O63 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	401	72	411	256	75
71	C or D	145	111	75	401	72	411	256	75
80	E or F	162	120	75	410	72	434	279	75
90	G or H	181	128	75	418	72	466	311	75
100	J or K	202	135	120	425	89	514	359	120
112	L	227	148	120	438	94	540	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

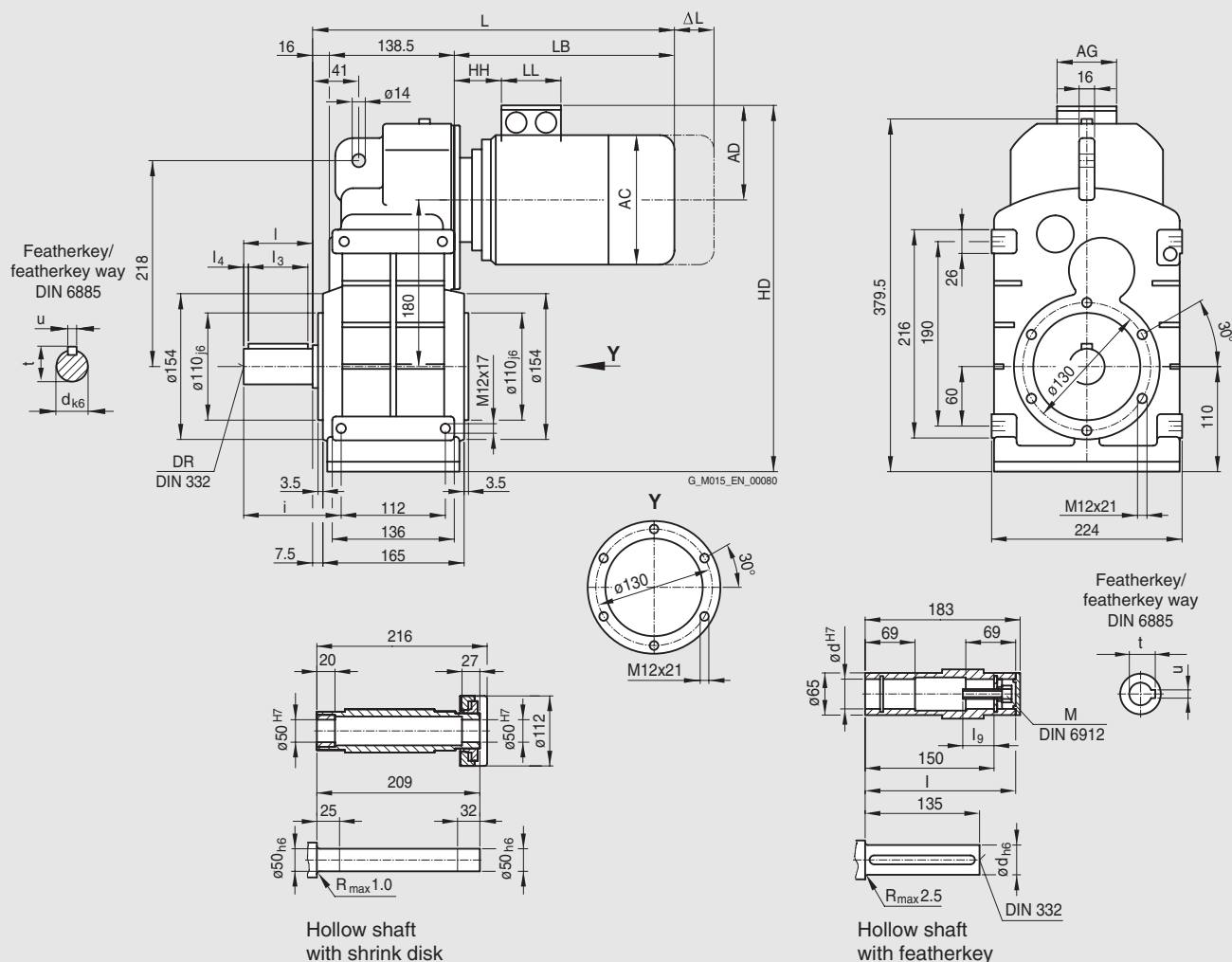
d	l	i	DR
40	80	114	M16x36

Solid shaft with featherkey

d	l	l₃	l₄	t	u	i	DR
40	80	70	5	43	12	114	M16x36

Hollow shaft with featherkey

d	l	l _g	M	t	u
40	180	48	M16	43.3	12
45	180	47	M16	48.8	14



O62/O63 gearbox (two-/three-stage), flange-mounted type B35 (4 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	401	72	434	256	75
71	C or D	145	111	75	401	72	434	256	75
80	E or F	162	120	75	410	72	457	279	75
90	G or H	181	128	75	418	72	489	311	75
100	J or K	202	135	120	425	89	537	359	120
112	L	227	148	120	438	94	563	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

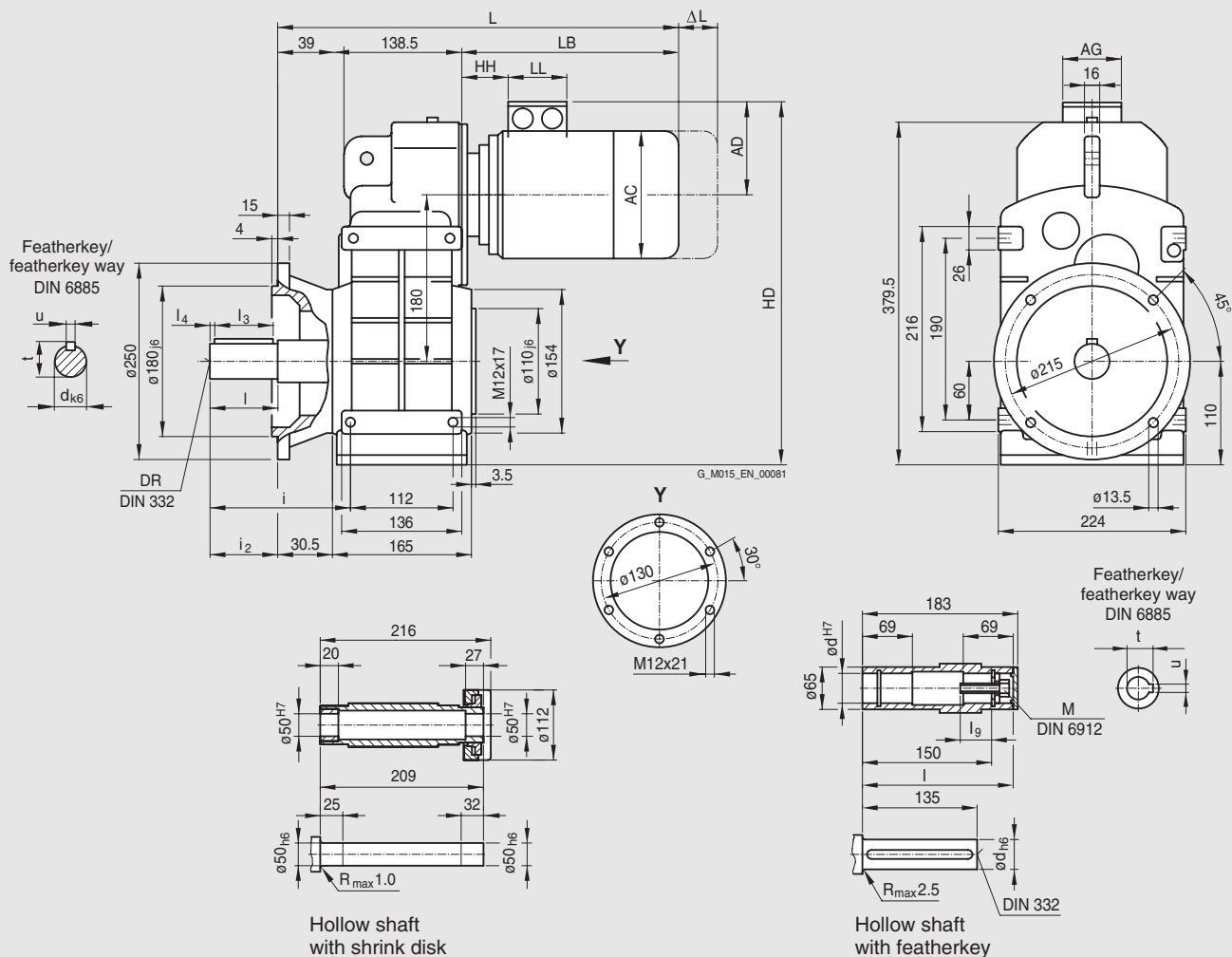
d	l	i	i ₂	DR
40	80	137	80	M16x36

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	i ₂	DR
40	80	70	5	43	12	137	80	M16x36

Hollow shaft with featherkey

d	l	l _g	M	t	u
40	180	48	M16	43.3	12
45	180	47	M16	48.8	14



Geared motors

Offset geared motors

Dimensions

O82/O83 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	473	66	440	250	75
71	C or D	145	111	75	473	66	440	250	75
80	E or F	162	120	75	482	66	463	273	75
90	G or H	181	128	75	490	66	495	305	75
100	J or K	202	135	120	497	83	543	353	120
112	L	227	148	120	510	86	567	377	120
132	M or N or P	266	167	140	529	117	621	431	140

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

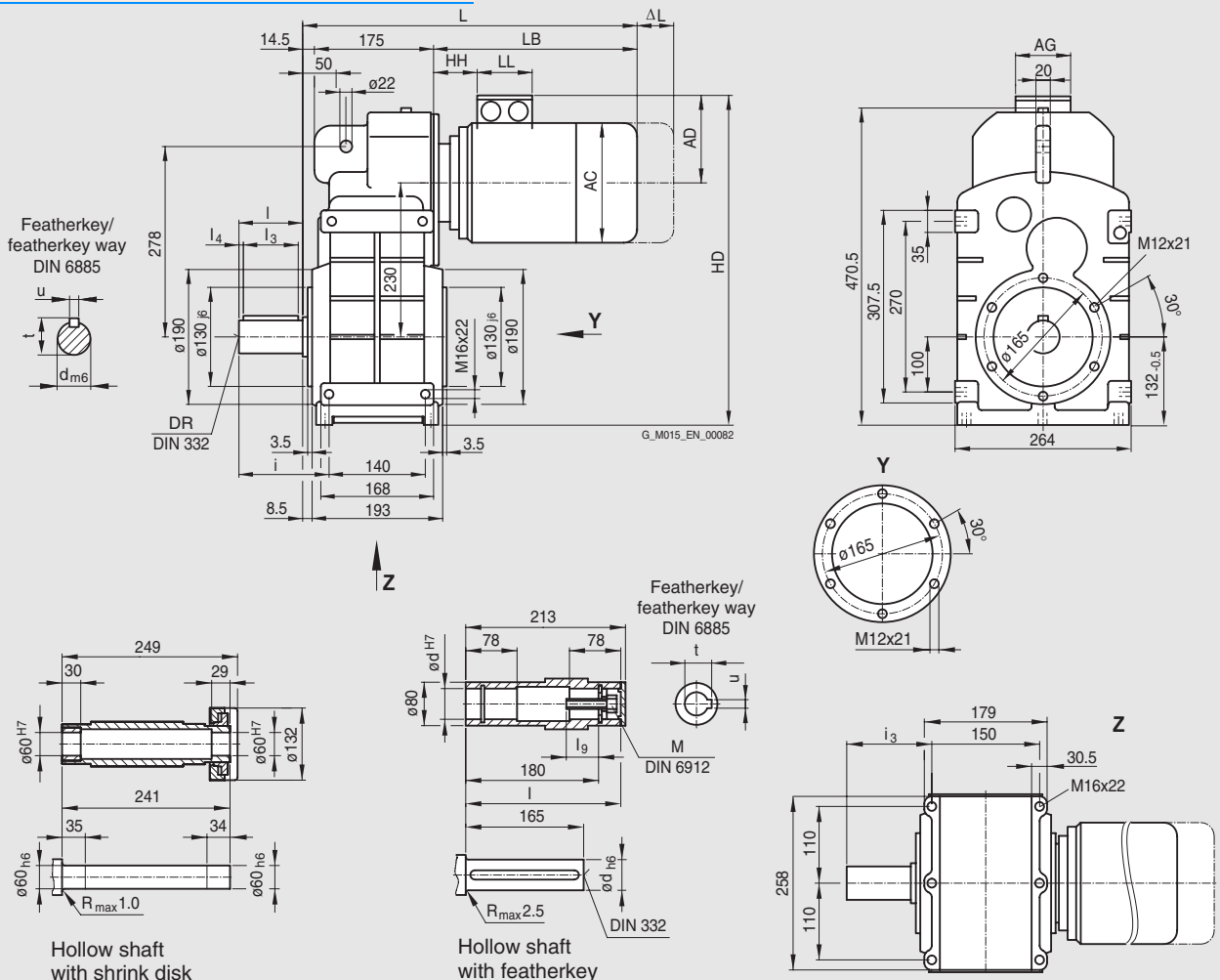
d	l	i	i ₃	DR
50	100	135	130	M16x36

Solid shaft with featherkey

d	l	i ₃	i ₄	t	u	i	i ₃	DR
50	100	80	10	53.3	14	135	130	M16x36

Hollow shaft with featherkey

d	l	i _g	M	t	u
50	210	44.5	M16	53.8	14
60	210	54	M20	64.4	18



O82/O83 gearbox (two-/three-stage), flange-mounted type B35 (4 in the 8th position of the order no.)

4

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	473	66	477	250	75
71	C or D	145	111	75	473	66	477	250	75
80	E or F	162	120	75	482	66	500	273	75
90	G or H	181	128	75	490	66	532	305	75
100	J or K	202	135	120	497	83	580	353	120
112	L	227	148	120	510	86	604	377	120
132	M or N or P	266	167	140	529	117	658	431	140

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

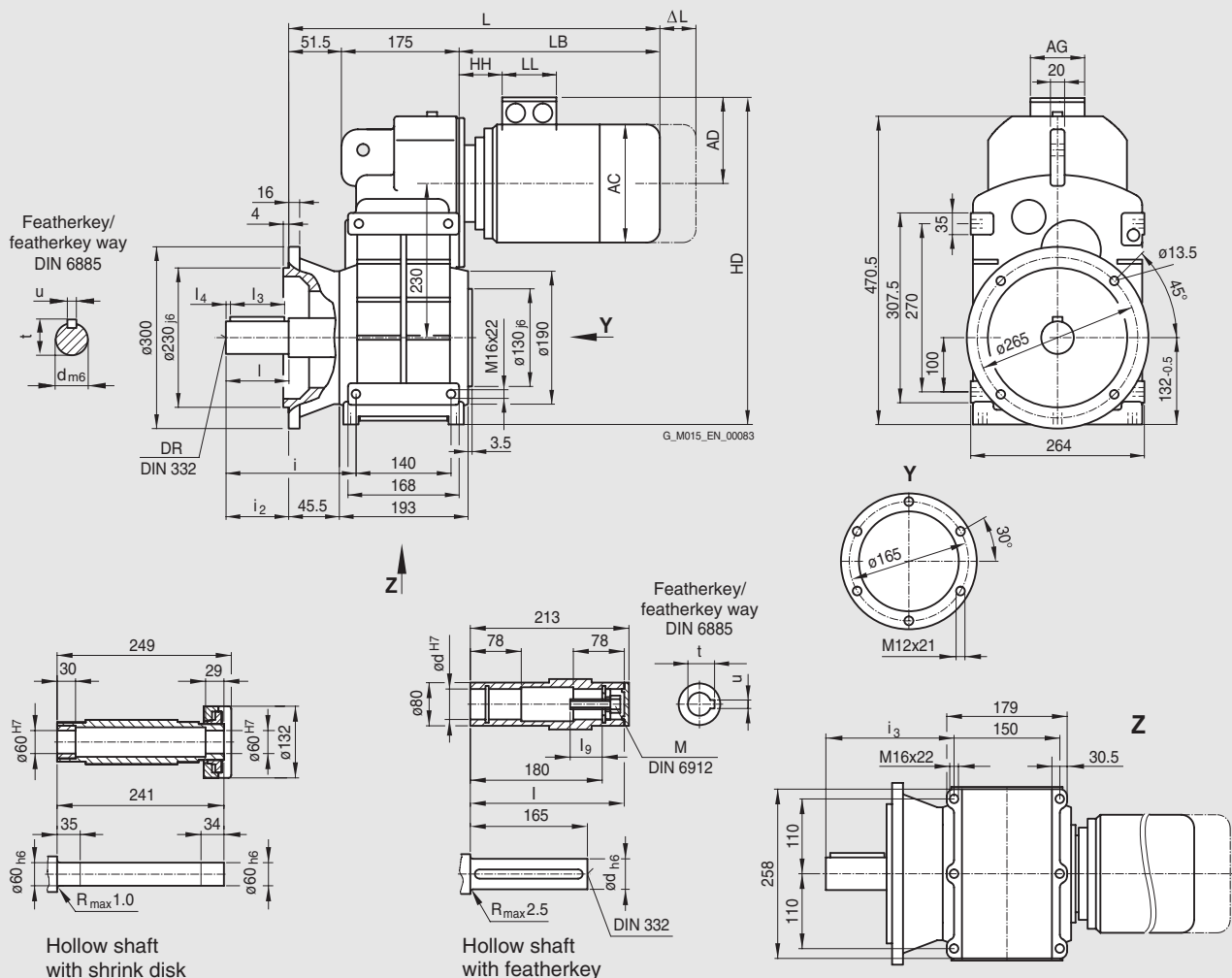
d	l	i	i ₂	i ₃	DR
50	100	172	100	167	M16x36

Solid shaft with featherkey

d	l	i ₃	i ₄	t	u	i	i ₂	i ₃	DR
50	100	80	10	53.3	14	172	100	167	M16x36

Hollow shaft with featherkey

d	l	i _g	M	t	u
50	210	44.5	M16	53.8	14
60	210	54	M20	64.4	18



Geared motors

Offset geared motors

Dimensions

O102/O103 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
80	E or F	162	120	75	560	51	478	258	75
90	G or H	181	128	75	568	51	510	290	75
100	J or K	202	135	120	575	73	563	343	120
112	L	227	148	120	588	68	579	359	120
132	M or N or P	266	167	140	607	98	633	413	140
160	Q or R or S	319	197	165	637	113	733	513	165

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

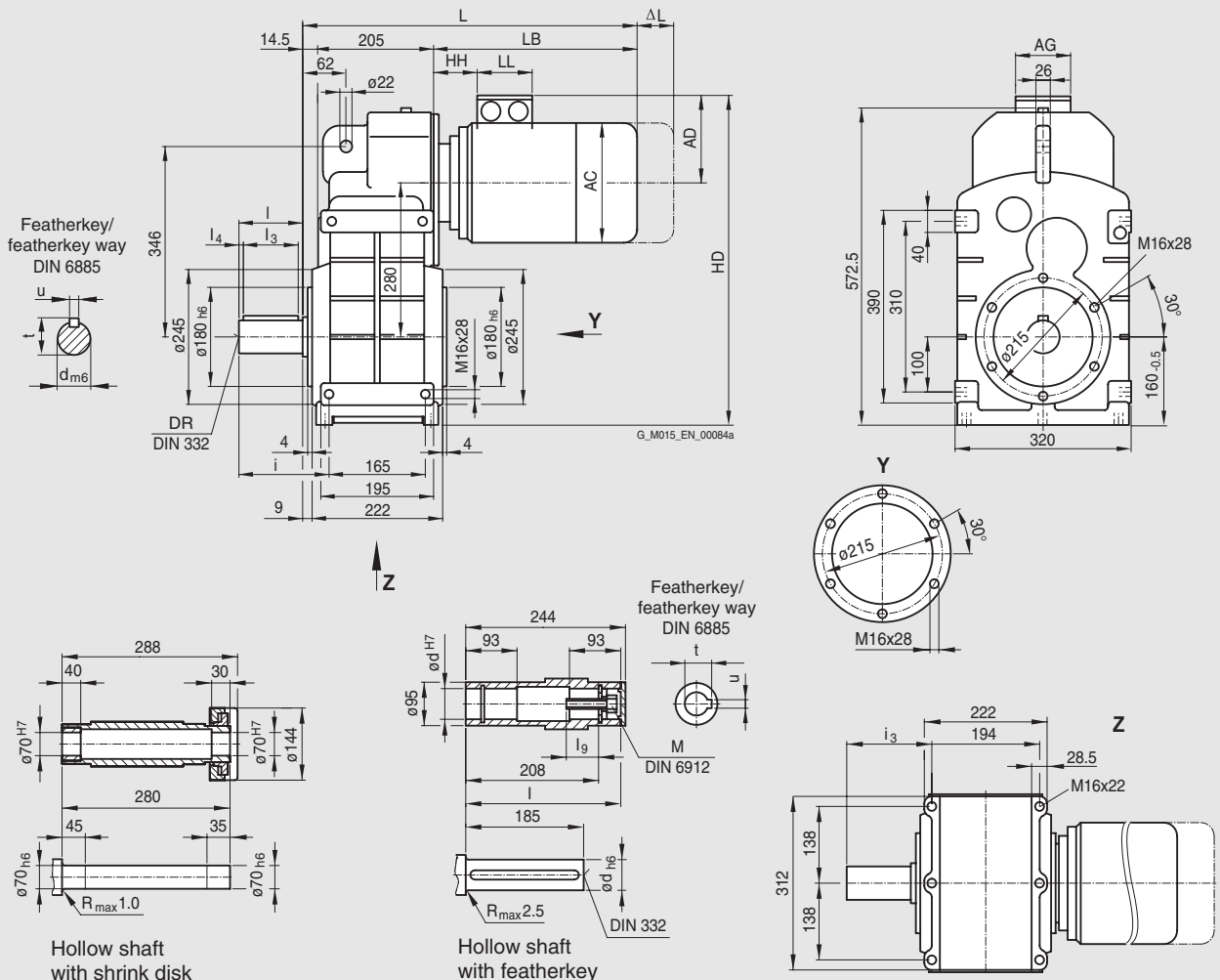
d	l	i	i ₃	DR
60	120	157.5	143	M20x42

Solid shaft with featherkey

d	l	i ₃	i ₄	t	u	i	i ₃	DR
60	120	110	5	64	18	157.5	143	M20x42

Hollow shaft with featherkey

d	l	i _g	M	t	u
60	240	63.5	M20	64.4	18
70	240	63.5	M20	74.9	20



O102/O103 gearbox (two-/three-stage), flange-mounted type B35 (4 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
80	E or F	162	120	75	560	51	514	258	75
90	G or H	181	128	75	568	51	546	290	75
100	J or K	202	135	120	575	73	599	343	120
112	L	227	148	120	588	68	615	359	120
132	M or N or P	266	167	140	607	98	669	413	140
160	Q or R or S	319	197	165	637	113	769	513	165

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

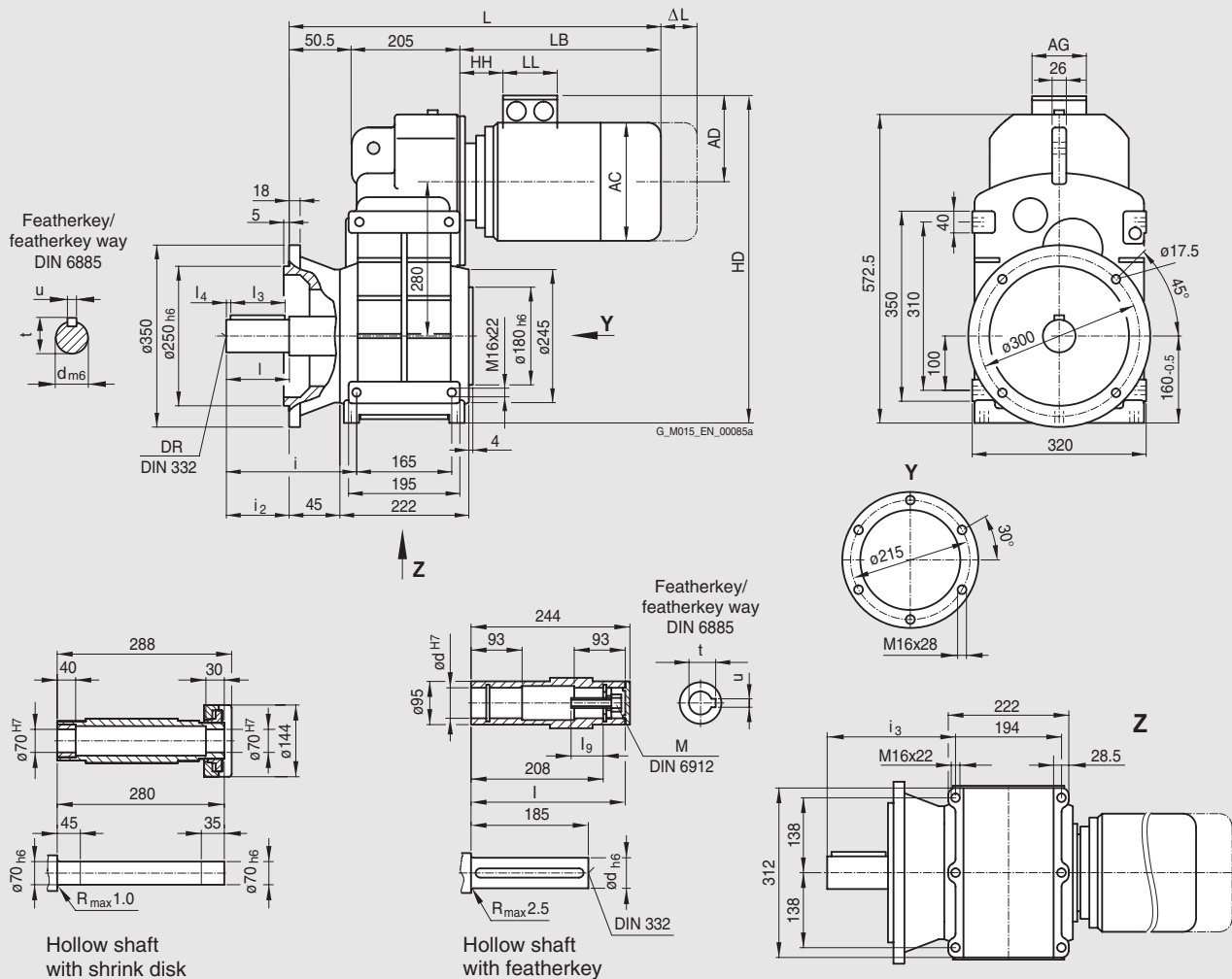
d	l	i	i ₂	i ₃	DR
60	120	193.5	120	179	M20x42

Solid shaft with featherkey

d	l	i ₃	i ₄	t	u	i	i ₂	i ₃	DR
60	120	110	45	64	18	193.5	120	179	M20x42

Hollow shaft with featherkey

d	l	i _g	M	t	u
60	240	63.5	M20	64.4	18
70	240	63.5	M20	74.9	20



Offset geared motors

Dimensions

O122/O123 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
90	G or H	181	128	75	609	64	590	303	75
100	J or K	202	135	120	616	85	642	355	120
112	L	227	148	120	629	56	634	347	120
132	M or N or P	266	167	140	648	86	687	400	140
160	Q or R or S	319	197	165	678	102	789	502	165
180	T or U	358	259	152	740	147	930	643	132
200	V or W	398	306	260	787	124	979	692	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

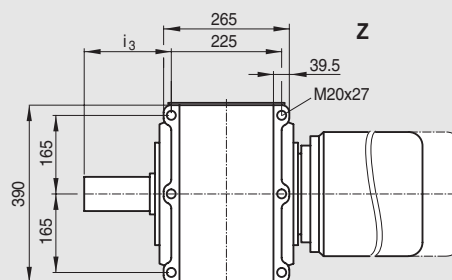
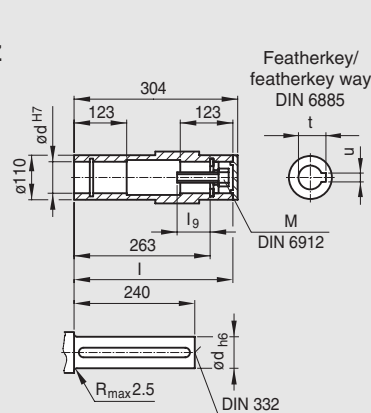
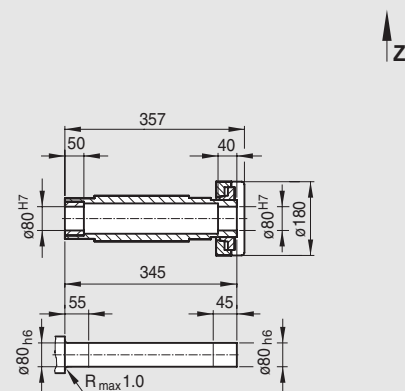
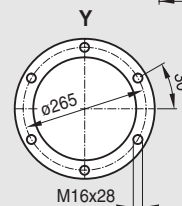
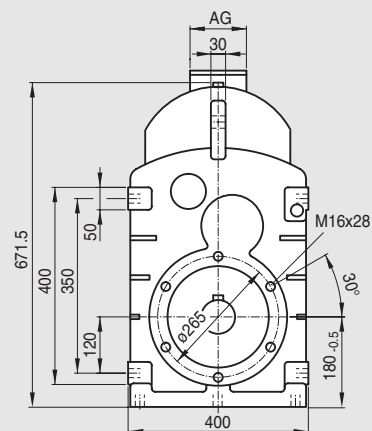
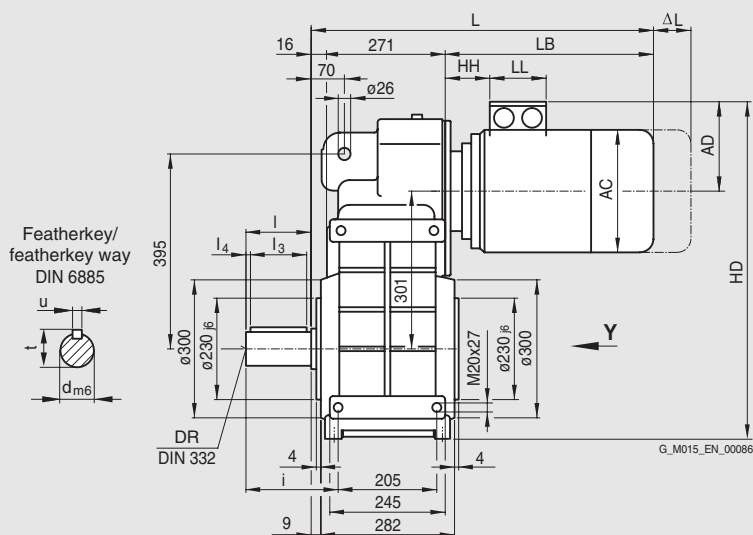
d	l	i	i ₃	DR
70	140	187.5	177.5	M20x42

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	i ₃	DR
70	140	125	7.5	74.5	20	187.5	177.5	M20x42

Hollow shaft with featherkey

d	l	l _g	M	t	u
70	300	63.5	M20	74.9	20
80	300	63.5	M20	85.4	22



4

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Dimensions

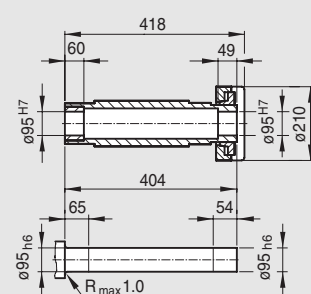
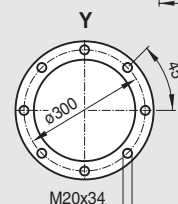
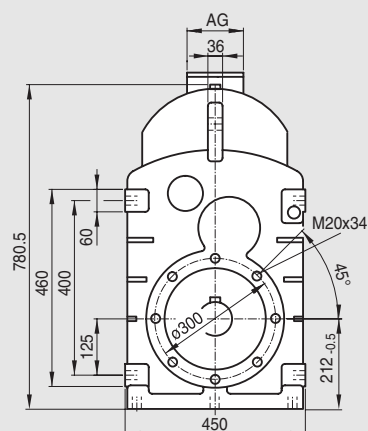
Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	698	44	649	314	120
112	L	227	148	120	711	89	715	380	120
132	M or N or P	266	167	140	730	75	725	390	140
160	Q or R or S	319	197	165	760	85	820	485	165
180	T or U	358	259	152	822	134	965	630	132
200	V or W	398	306	260	869	111	1013	678	192
225	X or Y	398	306	260	869	138	1041	706	192

Plain solid shaft

Solid shaft with featherkey

Hollow shaft with featherkey

Technical drawing of a shaft-hub assembly with a motor. The drawing shows a shaft with a keyway, a hub with a motor, and various dimensions. The motor is labeled 'AC' and 'AD'. The shaft has a diameter of 37mm. The hub has a diameter of 298mm. The motor has a diameter of 26mm. The shaft has a length of 485mm. The hub has a length of 220mm. The motor has a length of 260mm. The total length is 328mm. The drawing includes a detail of the featherkey/featherkey way according to DIN 6885, showing dimensions u, t, and d_{m6}. The drawing is labeled 'DR DIN 332' and 'G_M015_EN_00088a'.



Technical drawing of a hollow shaft with a featherkey. The drawing includes a side view and an end view.

Side View Dimensions:

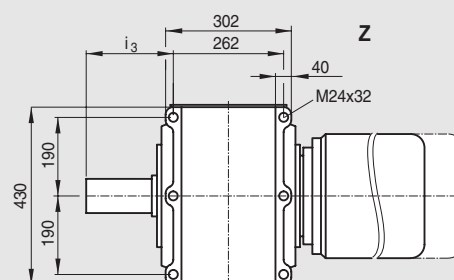
- Outer diameter: $\varnothing d_{H7}$
- Total length: 354
- Inner diameter: 148
- Key length: l_g
- Keyway length: 310
- Shaft length: 285
- Radius: $R_{\max 2.5}$
- Inner diameter at keyway: 148

End View Dimensions:

- Keyway width: t
- Keyway depth: u
- Keyway diameter: M

Standards and Labels:

- featherkey way DIN 6885
- DIN 6912
- DIN 332
- Hollow shaft with featherkey



4

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Geared motors

Offset geared motors

Dimensions

O162/O163 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	829	67	756	382	140
160	Q or R or S	319	197	165	859	78	852	478	165
180	T or U	358	259	152	921	126	996	622	132
200	V or W	398	306	260	968	103	1045	671	192
225	X or Y	398	306	260	968	131	1072	698	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

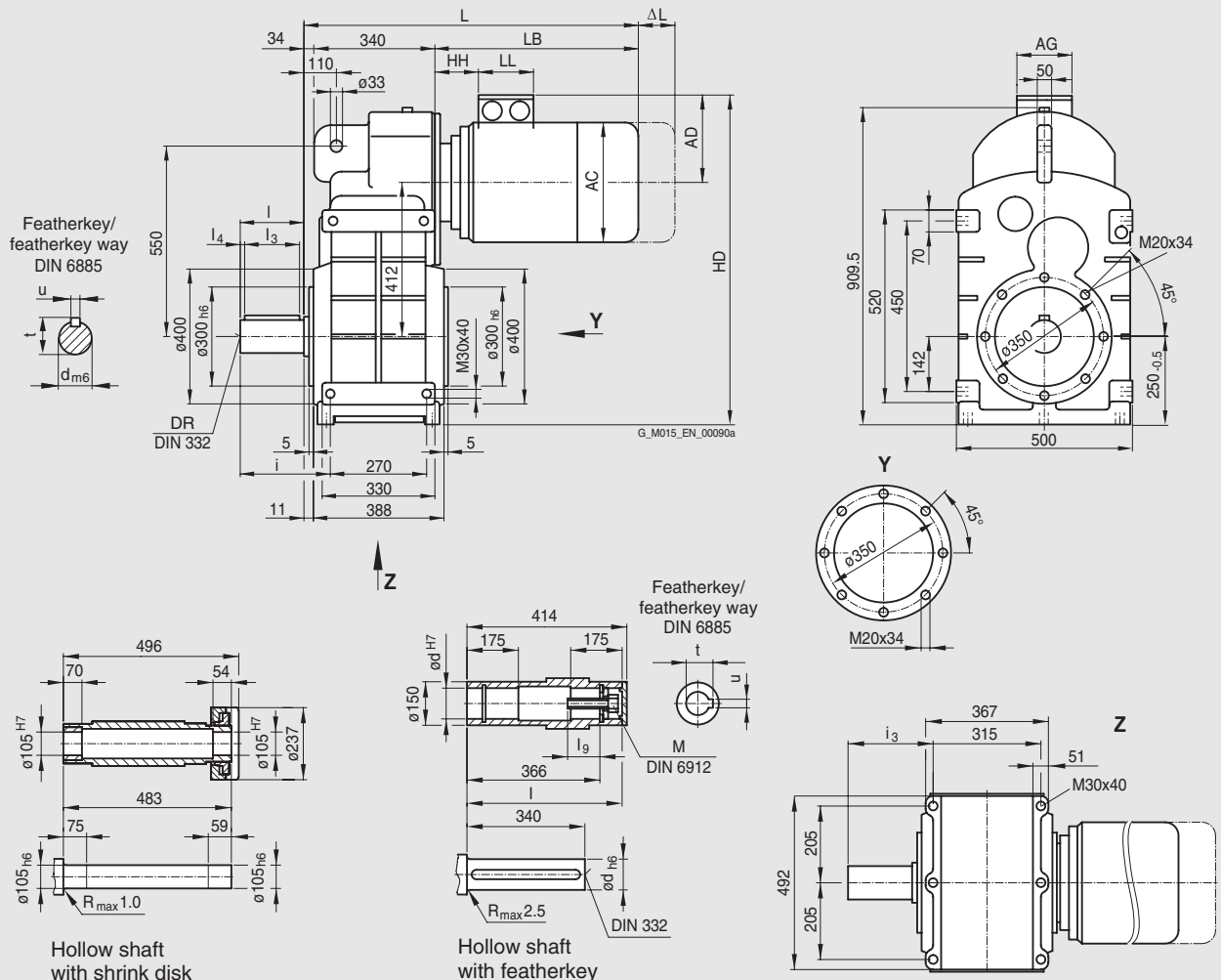
d	l	i	i ₃	DR
110	210	280	252	M24x50

Solid shaft with featherkey

d	l	i ₃	i ₄	t	u	i	i ₃	DR
110	210	180	15	116	28	280	252	M24x50

Hollow shaft with featherkey

d	l	i _g	M	t	u
100	410	72	M24	106.4	28
110	410	73	M24	116.4	28



4

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Geared motors

Offset geared motors

Dimensions

O182/O183 gearbox (two-/three-stage), foot-/flange-mounted type B3/B14 (8 in the 8th position of the order no.)
or with torque arm, see page 4/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	872	53	821	367	140
160	Q or R or S	319	197	165	902	63	917	463	165
180	T or U	358	259	152	964	112	1062	608	132
200	V or W	398	306	260	1011	89	1110	656	192
225	X or Y	398	306	260	1011	116	1138	684	192

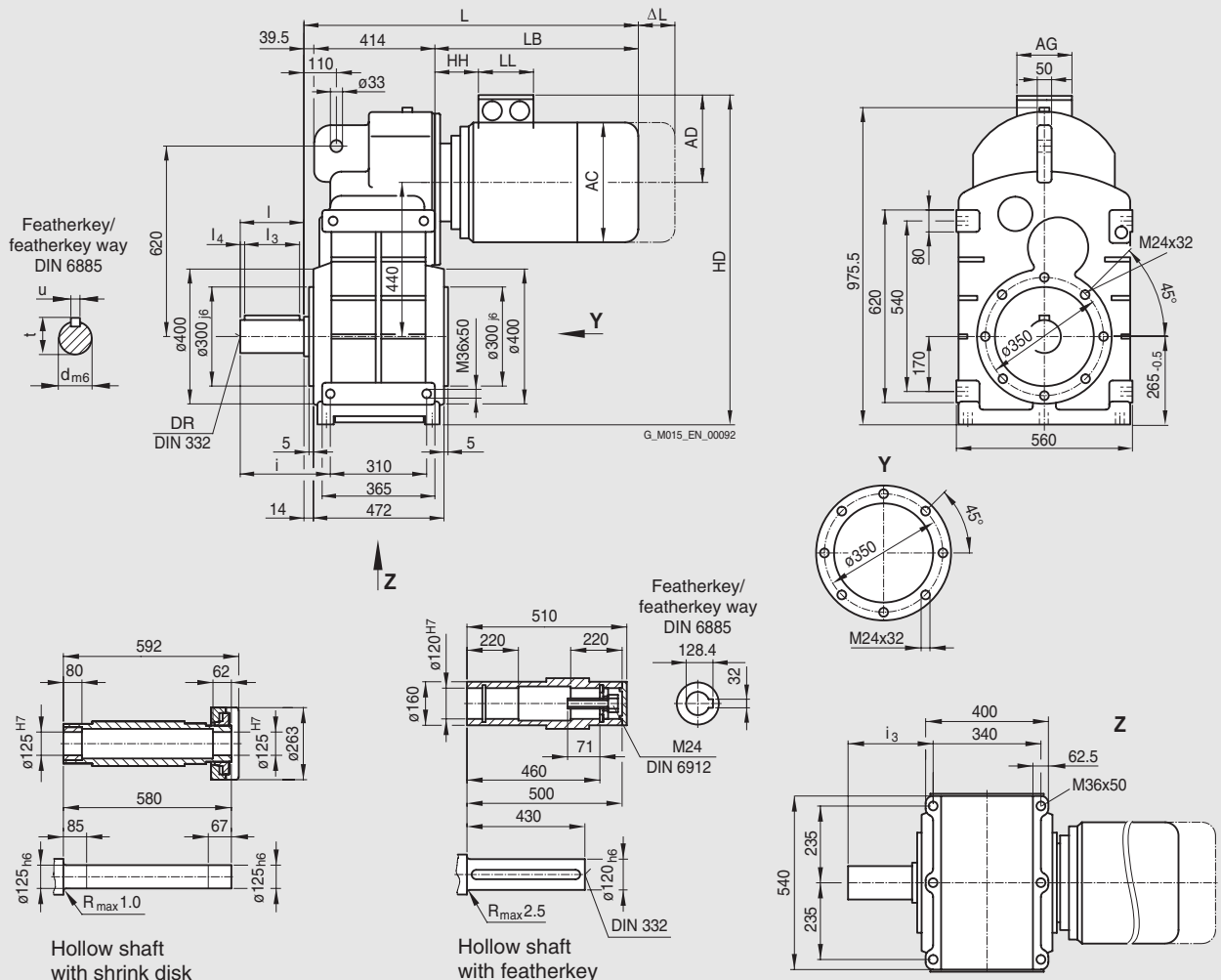
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	i ₃	DR
120	210	305	290	M24x50

Solid shaft with featherkey

d	l	i ₃	i ₄	t	u	i	i ₃	DR
120	210	180	15	127	32	305	290	M24x50



4

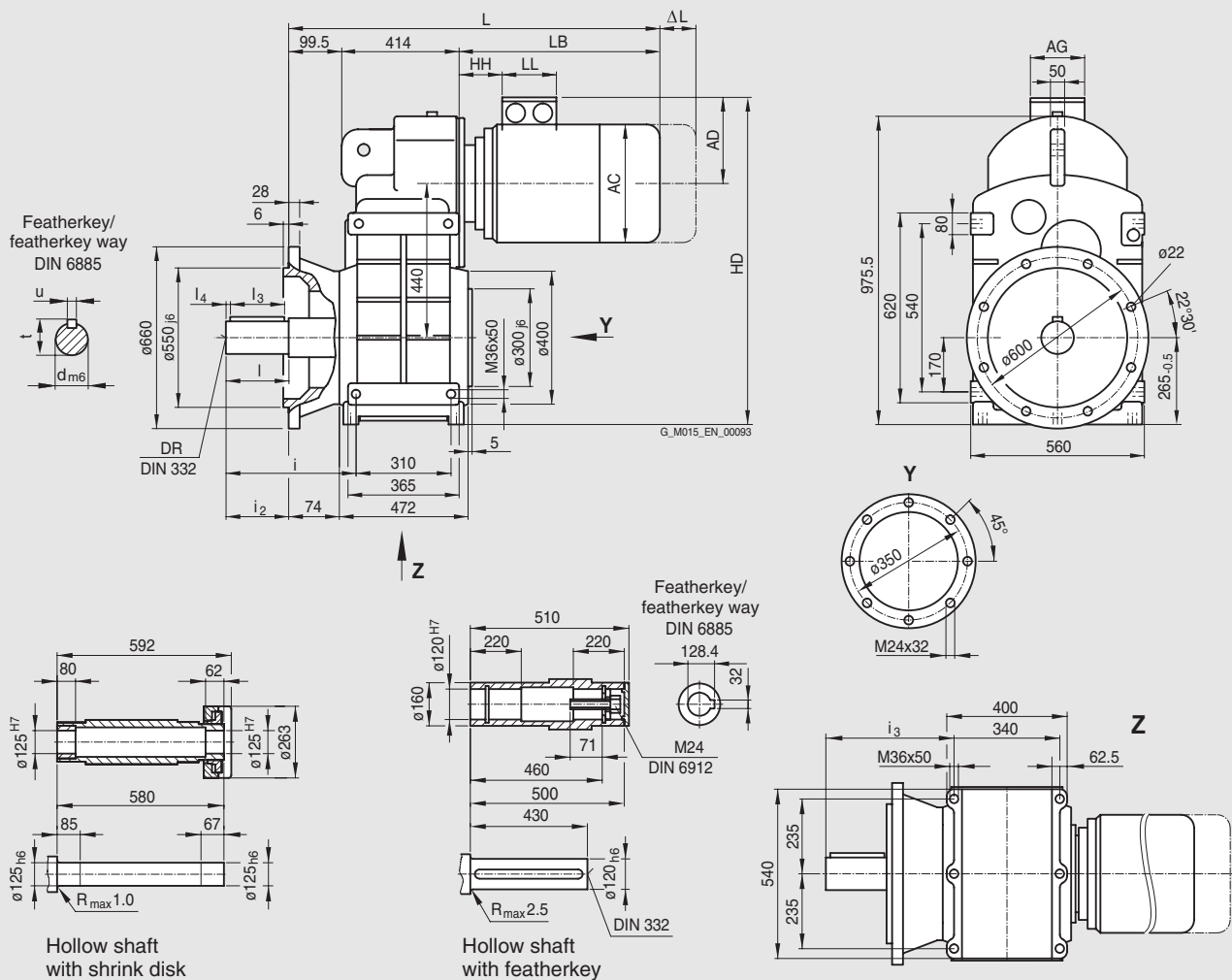
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

d	l	i	i₂	i₃	DR
120	210	365	210	350	M24x50

Solid shaft with featherkey

d	l	l₃	l₄	t	u	i	i₂	i₃	DR
120	210	180	15	127	32	365	210	350	M24x50



Geared motors

Offset geared motors

Notes

4

Bevel-helical geared motors

5



	Structure of the order number and how to complete it
5/2	Structure of the order number for bevel-helical geared motors
5/3	Completing the order number
5/8	Mounting positions and position of the connection system
5/9	Selection example
	Selection and ordering
5/10	Preliminary selection of the geared motor according to power, speed and torque
5/11	Selection and ordering data
5/50	Ratios and maximum torques
	Dimensions
5/56	K33 gearbox
5/60	K43 gearbox
5/64	K63 gearbox
5/68	K83 gearbox
5/72	K103 gearbox
5/76	K123 gearbox
5/80	K143 gearbox
5/84	K163 gearbox
5/88	K183 gearbox



Geared motors

Bevel-helical geared motors

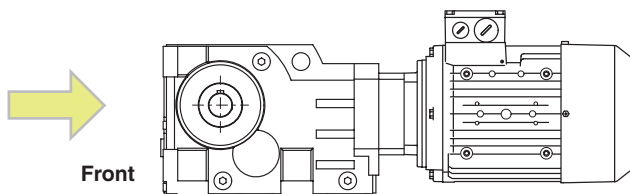
Structure of the order number and how to complete it

Structure of the order number for bevel-helical geared motors

Order number	position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
		2	K	G	□	3	□	1	-	□	□	□	□	-	□	□	□	- Z
Generation					3 or 4													
Bevel-helical gearbox K																		
Gearbox size							0 to 8											
Basic version motor																		
Gear case type								0, 1, 2, 3, or 6										
Shaft design																		A to T
Motor frame size																		A to Y
Ratio code																		01 to 54
Number of poles on the motor																		4, 6 or 8
Mounting position of the gearbox																		A to F
Position of the connection system																		A to D
Voltage and frequency																		1, 3, 5, 6, or 9
Special versions																		

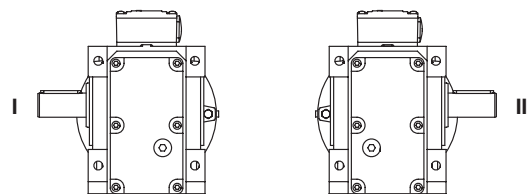
Definition of sides

Facing the gear case



Front

Bottom



Position of solid shaft and output flange

G_M015_EN_00010

Geared motors

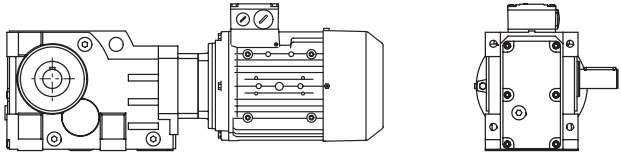
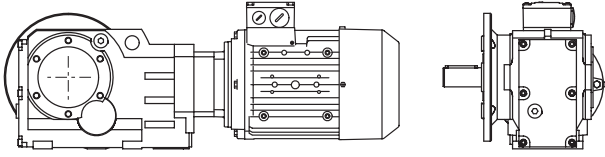
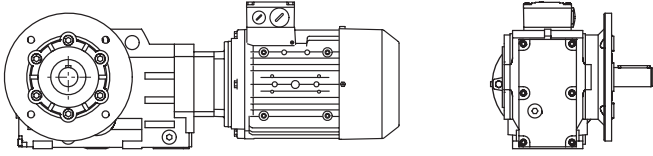
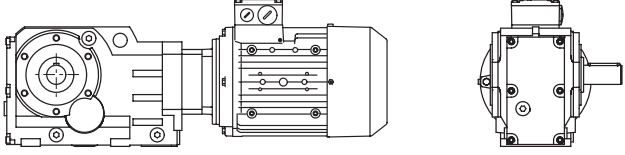
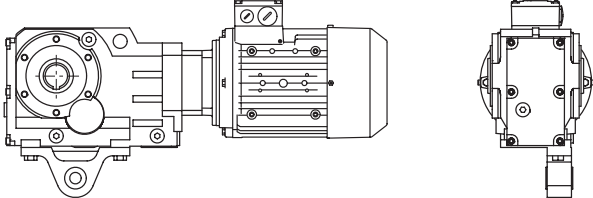
Bevel-helical geared motors

Structure of the order number and how to complete it

The **order number of the bevel-helical geared motor** is shown in the selection and ordering data, but must be completed in certain places.

Completing the order number

8th position: Gear case type

Gear case models	8 th position of order number	
Foot-mounted type	0	
Flange-mounted type B5 model in position I	1	
Flange-mounted type B5 model in position II	6	
Flange-mounted type B14 model	3	
Torque arm	2	

G_M015_EN_00012

Geared motors

Bevel-helical geared motors

Structure of the order number and how to complete it

Three-step bevel-helical gearbox (K)

Type	8th position of the order number	K33		K43		K63		K83		K103	
		Flange size	Sur-charges	Flange size	Sur-charges	Flange size	Sur-charges	Flange size	Sur-charges	Flange size	Sur-charges
Foot-mounted type B3	0		✓		✓		✓		✓		✓
Flange-mounted type B5 in position I	1	A160	✓	A200	✓	A250	✓	A300	✓	A350	✓
Flange-mounted type B5 in position II	6	A160	✓	A200	✓	A250	✓	A300	✓	A350	✓
Torque arm*	2		✓		✓		✓		✓		✓
Flange-mounted type B14	3		✓		✓		✓		✓		✓

Type	8th position of the order number	K123		K143		K163		K183	
		Flange size	Sur-charges	Flange size	Sur-charges	Flange size	Sur-charges	Flange size	Sur-charges
Foot-mounted type B3	0		✓		✓		✓		✓
Flange-mounted type B5 in position I	1	A450	✓	A450	✓	A550	✓	A660	✓
Flange-mounted type B5 in position II	6	A450	✓	A450	✓	A550	✓	A660	✓
Torque arm*	2		✓		✓		✓		✓
Flange-mounted type B14	3		✓		✓		✓		✓

* The torque arm is supplied loose. The torque arm dimensions can be seen in the dimension drawings.

✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Bevel-helical geared motors

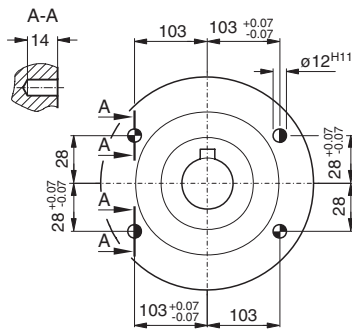
Structure of the order number and how to complete it

Pin holes

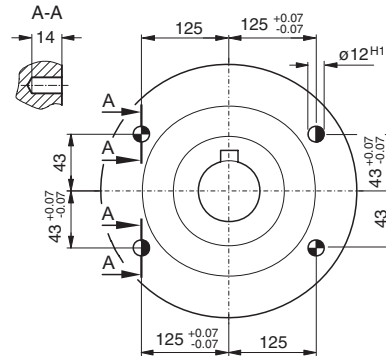
With frame sizes K103 to K183, the customer interface can be pinned to the case flange (flange-mounted type B14). The output flanges are designed in such a way that the permissible torques and radial forces are securely transferred from the bolted joints. If an additional safeguard is desired, e.g. with

reversing operation or a high impact load, the existing pin holes can be used. The gearbox can also be drilled and pinned together with the machine. The listed dimensions must be adhered to.

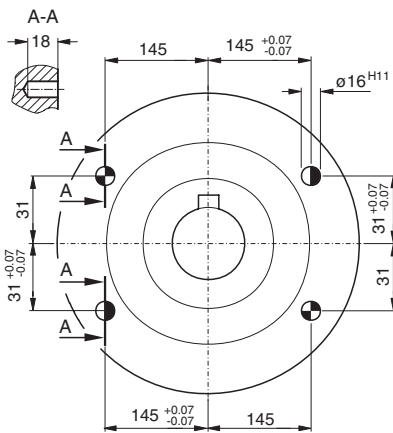
K103



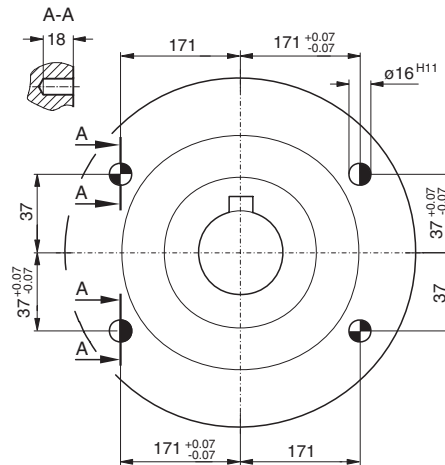
K123



K143



K163, K183



- ① Dowel pins, heavyweight model to DIN 1481 (use available pin holes on the case flange)
- ② Full length parallel grooved dowel pins with chamfer to DIN EN 28740/ISO 8740 (note: drill connecting part together with the case)

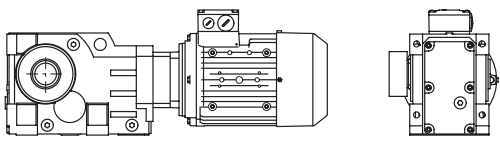
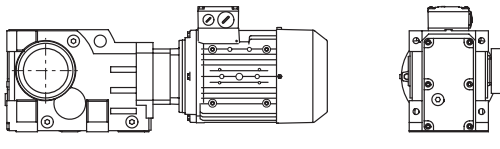
G_M015_EN_00050

Geared motors

Bevel-helical geared motors

Structure of the order number and how to complete it

9th position: Shaft design

Shaft design	9 th position of order number	
Hollow shaft with shrink disk in position I	A	
Hollow shaft with shrink disk in position II	B	

G_M015_EN_00011

Three-step bevel-helical gearbox (K)

Shaft design	9 th position of the order number	K33		K43		K63		K83	
		d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge
Hollow shaft with shrink disk I	A	30	✓	40	✓	50	✓	60	✓
Hollow shaft with shrink disk II	B	30	✓	40	✓	50	✓	60	✓
Hollow shaft with featherkey (basic version)	G	–	–	40	✓	40	✓	50	✓
Hollow shaft with featherkey (basic version)	H	30	✓	35	✓	45	✓	60	✓
Plain solid shaft II	L	25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•
Plain solid shaft I	M	25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•
Plain solid shaft I + II	N	25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•
Solid shaft with featherkey II	R	25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓
Solid shaft with featherkey I	S	25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓
Solid shaft with featherkey I + II (flange design available on request)	T	25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓
Inch shafts		•		•		•		•	
Involute designs (splining)		•		•		•		•	

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

For more designs, see page 5/7.

Geared motors

Bevel-helical geared motors

Structure of the order number and how to complete it

Shaft design	9th position of the order number	K103		K123		K143		K163		K183	
		d x l mm	Sur- charge	d x l mm	Sur- charge	d x l mm	Sur- charge	d x l mm	Sur- charge	d x l mm	Sur- charge
Hollow shaft with shrink disk I	A	70	✓	80	✓	95	✓	105	✓	125	✓
Hollow shaft with shrink disk II	B	70	✓	80	✓	95	✓	105	✓	125	✓
Hollow shaft with featherkey (basic version)	G	60	✓	70	✓	80	✓	100	✓	–	–
Hollow shaft with featherkey (basic version)	H	70	✓	80	✓	90	✓	110	✓	120	✓
Plain solid shaft II	L	60 x 120	•	70 x 140	•	90 x 170	•	110 x 210	•	120 x 210	•
Plain solid shaft I	M	60 x 120	•	70 x 140	•	90 x 170	•	110 x 210	•	120 x 210	•
Plain solid shaft I + II	N	60 x 120	•	70 x 140	•	90 x 170	•	110 x 210	•	120 x 210	•
Solid shaft with featherkey II	R	60 x 120	✓	70 x 140	✓	90 x 170	✓	110 x 210	✓	120 x 210	✓
Solid shaft with featherkey I	S	60 x 120	✓	70 x 140	✓	90 x 170	✓	110 x 210	✓	120 x 210	✓
Solid shaft with featherkey I + II (flange design available on request)	T	60 x 120	✓	70 x 140	✓	90 x 170	✓	110 x 210	✓	120 x 210	✓
Inch shafts		•		•		•		•		•	
Involute designs (splining)		•		•		•		•		•	

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Information:

The hollow shaft is supplied with a rotating cap as standard. For dimensions, see the "Dimensions" section. A fixed cap (cast design) can also be ordered for the hollow shaft. For explanations and dimensions, see Section 9, order code **S30**.

A rotating rubber cover is supplied with shrink disks as standard. For dimensions, see the "Dimensions" section. A steel cap can also be ordered for the shrink disks. For explanations and dimensions, see Section 9, order code **S31**. Fixing parts for the hollow shaft are supplied as standard. For dimensions, see the "Dimensions" section.

14th position: Mounting position of the bevel-helical geared motor

The letters from **A to F** correspond to the figures on page 5/8, and must be inserted into the 14th position of the order number (without surcharge).

15th position: Position of the connection system

The motor terminal box can be mounted in four different positions (position of connection system). When facing the gearbox, the positions are defined by **A, B, C, or D**, see figures on page 5/8 (without surcharge). This letter must be inserted into the 15th position of the order number.

16th position: Voltage and frequency

The last position of the order number contains the voltage and frequency of the geared motor.

1 = 230 VΔ/400 VΥ, 50 Hz

3 = 500 VΥ, 50 Hz

5 = 500 VΔ, 50 Hz

6 = 400 VΔ/690 VΥ, 50 Hz

9 = other voltages, see

Section 8, "Other voltages and/or frequencies".

1, 3, 5, 6 without surcharge, **9** with surcharge.

-Z: Special versions

Special gearbox and/or motor designs should be ordered using the order number addition **-Z** and the order code, and is usually subject to a surcharge.

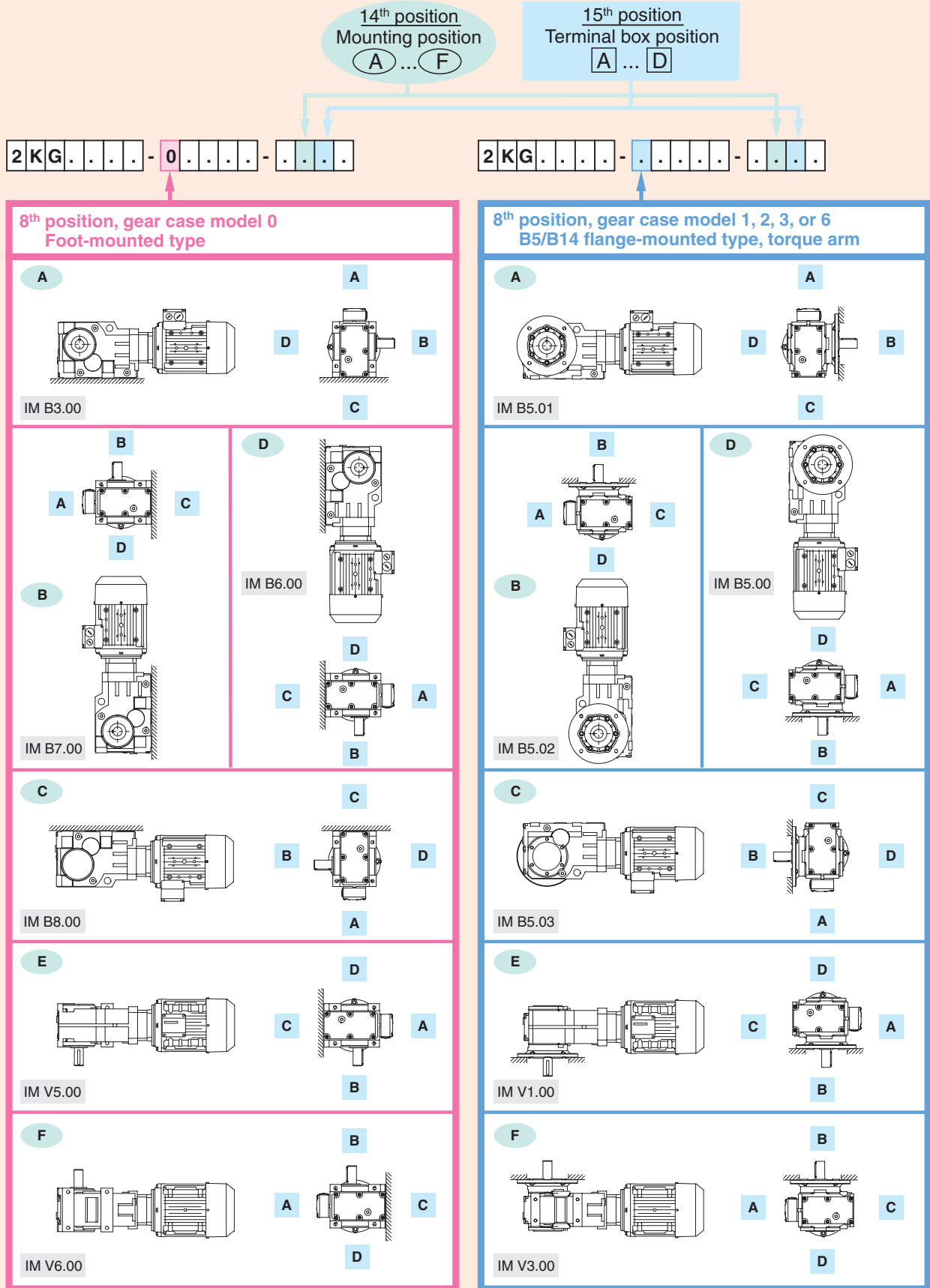
For a description of the options, see Sections 8, 9 and 10; for ordering data, see Section 11.

Geared motors

Bevel-helical geared motors

Structure of the order number
and how to complete it

Mounting positions and position of the connection system



G_M015_EN_00013

Geared motors

Bevel-helical geared motors

Structure of the order number
and how to complete it

Selection example

A geared motor with 0.75 kW, an output speed of around 6 rpm and a service factor of approximately 2.3 is needed.

From the table on page 5/20:

Order no.: **2KG4301-□□F51-4□□□**

With the K103 gearbox, the output speed is 5.7 rpm, the service factor 2.4, the motor frame size 80 M and there are four poles.

Foot-mounted bevel-helical geared motor with solid shaft, type IM B3 with terminal box at top (for figure, see page 5/8) and a voltage of 230 VΔ/400 VY, 50 Hz (see page 5/7)

Order no.: **2KG4301-0RF51-4AA1**

Model with torque arm and hollow shaft with shrink disk in position I

Order no.: **2KG4301-2AF51-4AA1**

Surcharge (torque arm only), see page 5/4.

Surcharge (shaft design only), see page 5/7.

With standard brake for connection 1 AC 50 Hz 230 V (see Section 8)

Order number: **2KG4301-2AF51-4AA1-Z
G21**

Surcharges have to be considered.

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1	n_2	M_2	i	f_B		kg
kW	rpm	Nm				
0.75	Gearbox size K103 – motor frame size 80M – 4 poles					
	4.5	1577	307	1.8	2KG4301 - ■■ F53-4 ■■■	141
	5.0	1428	278	2	2KG4301 - ■■ F52-4 ■■■	
	5.7	1250	243	2.4	2KG4301 - ■■ F51-4 ■■■	
	6.4	1128	220	2.7	2KG4301 - ■■ F50-4 ■■■	
	6.9	1033	201	2.9	2KG4301 - ■■ F48-4 ■■■	
	7.8	919	179	3.3	2KG4301 - ■■ F47-4 ■■■	
	8.5	840	164	3.6	2KG4301 - ■■ F46-4 ■■■	
	9.3	772	150	3.9	2KG4301 - ■■ F45-4 ■■■	
	10.0	713	139	4.2	2KG4301 - ■■ F44-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

For shaft designs, see pages 5/6 to 5/7

For gearbox mounting positions acc. to the figure, see page 5/8

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

For voltage/frequency, see page 5/7

0, 1, 2, 3 or 6

A, B, G, H, L, M, N, R, S, T

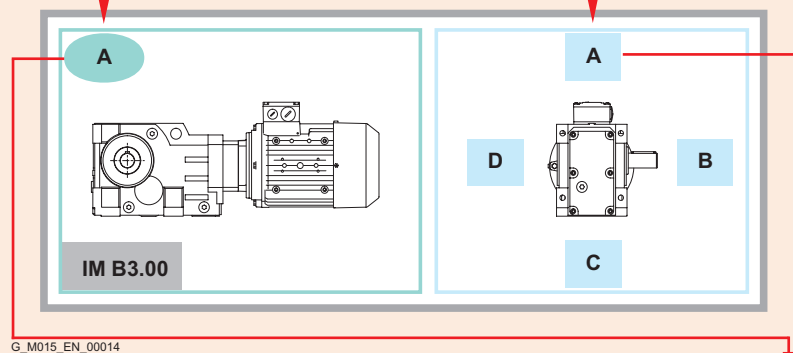
A to F

A to D

1, 3, 5, 6 or 9

IM B3.00 model

Terminal box at top



Order no. **2KG4301-0RF51-4AA1**

Geared motors

Bevel-helical geared motors

Selection and ordering

Preliminary selection of the geared motor according to power, speed and torque

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Detailed selection and ordering data Page
0.09	2.1 – 49.8	413 – 17	303 – 12.7	1.0 – 10	5/11
0.12	2.1 – 50.2	538 – 23	303 – 26.9	1.6 – 9.5	5/12
0.18	2.2 – 91.9	782 – 19	307 – 14.7	1.1 – 9.6	5/12 – 5/13
0.25	2.2 – 139	1071 – 17	307 – 9.72	1.0 – 9.2	5/13 – 5/15
0.37	2.2 – 220	1608 – 16	307 – 6.22	1.0 – 9.5	5/15 – 5/17
0.55	2.3 – 247	2298 – 21	307 – 5.65	0.91 – 7.0	5/17 – 5/19
0.75	2.2 – 247	3224 – 29	307 – 5.65	0.91 – 5.2	5/20 – 5/22
1.1	2.2 – 250	4728 – 42	306 – 5.65	0.91 – 4.5	5/22 – 5/25
1.5	2.3 – 251	6219 – 57	307 – 5.65	0.92 – 4.2	5/25 – 5/28
2.2	2.4 – 251	8643 – 84	306 – 5.65	0.91 – 4.7	5/28 – 5/30
3	2.4 – 265	11785 – 108	306 – 5.36	0.91 – 5.7	5/31 – 5/33
4	3.3 – 269	11579 – 142	306 – 5.36	0.94 – 4.4	5/33 – 5/36
5.5	3.7 – 263	14155 – 200	288 – 5.54	0.92 – 4.2	5/36 – 5/38
7.5	3.7 – 263	19167 – 273	288 – 5.54	0.95 – 4.4	5/38 – 5/40
11	5.0 – 190	20938 – 553	200 – 7.68	0.94 – 4.4	5/40 – 5/42
15	7.6 – 190	18774 – 697	191 – 7.10	0.92 – 4.2	5/42 – 5/43
18.5	8.5 – 206	20908 – 859	173 – 7.10	0.94 – 5.6	5/44 – 5/45
22	10.5 – 206	20014 – 1022	139 – 7.10	0.91 – 4.7	5/45 – 5/46
30	13.8 – 303	20743 – 945	106 – 4.83	0.96 – 4.5	5/46 – 5/47
37	18.6 – 304	19045 – 1161	79.2 – 4.83	0.92 – 3.7	5/48
45	20.3 – 304	21119 – 1412	72.2 – 4.83	0.95 – 4.9	5/49

Selection and ordering data

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.09	Gearbox size K83 – motor frame size 71M – 8 poles					
	2.1	413	303	3.7	2KG3381 -   C54-8  	80
	2.3	372	273	4.4	2KG3381 -   C52-8  	
	Gearbox size K63 – motor frame size 71M – 8 poles					
	2.6	333	244	2.5	2KG3361 -   C50-8  	48
	2.9	294	216	2.8	2KG3361 -   C48-8  	
	3.2	267	196	3.1	2KG3361 -   C47-8  	
	3.6	240	176	3.4	2KG3361 -   C46-8  	
	4.2	206	151	4	2KG3361 -   C45-8  	
	Gearbox size K43 – motor frame size 71M – 8 poles					
	3.7	231	170	1.9	2KG3341 -   C47-8  	27
	4.2	206	151	2.2	2KG3341 -   C45-8  	
	4.8	178	131	2.5	2KG3341 -   C43-8  	
	5.2	167	122	2.7	2KG3341 -   C42-8  	
	5.9	147	107	3.1	2KG3341 -   C41-8  	
	6.7	128	94.1	3.5	2KG3341 -   C38-8  	
	7.6	114	83.3	4	2KG3341 -   C37-8  	
	Gearbox size K33 – motor frame size 71M – 8 poles					
	3.5	244	179	1	2KG3331 -   C47-8  	22
	4.0	217	159	1.2	2KG3331 -   C45-8  	
	4.5	190	139	1.3	2KG3331 -   C43-8  	
	5.0	170	125	1.5	2KG3331 -   C42-8  	
	5.7	151	111	1.7	2KG3331 -   C41-8  	
	6.5	132	97.1	1.9	2KG3331 -   C40-8  	
	7.4	116	85.3	2.1	2KG3331 -   C37-8  	
	8.2	105	77.1	2.4	2KG3331 -   C36-8  	
	9.4	92	67.2	2.7	2KG3331 -   C35-8  	
	10.4	82	60.3	3	2KG3331 -   C34-8  	
	11.6	74	54.5	3.4	2KG3331 -   C33-8  	
	12.8	67	49.4	3.7	2KG3331 -   C32-8  	
	14.0	61	44.9	4.1	2KG3331 -   C31-8  	
	15.9	54	39.7	4.6	2KG3331 -   C30-8  	
	17.2	50	36.7	5	2KG3331 -   C28-8  	
	19.9	43	31.6	5.8	2KG3331 -   C26-8  	
	21.9	39	28.7	6.4	2KG3331 -   C25-8  	
	23.4	37	26.9	5.9	2KG3331 -   C24-8  	
	26.1	33	24.2	6.3	2KG3331 -   C23-8  	
	28.9	30	21.8	6.8	2KG3331 -   C22-8  	
	31.9	27	19.8	7.3	2KG3331 -   C21-8  	
	35.0	25	18.0	7.8	2KG3331 -   C20-8  	
	39.6	22	15.9	8.5	2KG3331 -   C18-8  	
	42.9	20	14.7	9	2KG3331 -   C17-8  	
	49.8	17	12.7	10	2KG3331 -   C16-8  	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.12	Gearbox size K83 – motor frame size 71M – 8 poles					80
	2.1	538	303	2.9	2KG3381 - ■■■ D54-8 ■■■	
	2.4	485	273	3.4	2KG3381 - ■■■ D52-8 ■■■	
	2.6	437	246	3.8	2KG3381 - ■■■ D51-8 ■■■	
	3.0	382	215	4.3	2KG3381 - ■■■ D50-8 ■■■	
	3.3	343	193	4.8	2KG3381 - ■■■ D48-8 ■■■	
	3.7	314	177	5.3	2KG3381 - ■■■ D47-8 ■■■	
	4.1	278	157	5.9	2KG3381 - ■■■ D45-8 ■■■	
	Gearbox size K83 – motor frame size 63M – 4 poles					74
	4.5	257	303	6	2KG3381 - ■■■ A54-4 ■■■	
	4.9	232	273	7.1	2KG3381 - ■■■ A52-4 ■■■	41
	Gearbox size K63 – motor frame size 63M – 4 poles					
	5.5	207	244	4	2KG3361 - ■■■ A50-4 ■■■	
	6.3	183	216	4.5	2KG3361 - ■■■ A48-4 ■■■	
	6.9	166	196	4.9	2KG3361 - ■■■ A47-4 ■■■	
	7.7	150	176	5.5	2KG3361 - ■■■ A46-4 ■■■	21
	Gearbox size K43 – motor frame size 63M – 4 poles					
	8.0	144	170	3.1	2KG3341 - ■■■ A47-4 ■■■	
	9.0	128	151	3.5	2KG3341 - ■■■ A45-4 ■■■	
	10.3	111	131	4.1	2KG3341 - ■■■ A43-4 ■■■	
	Gearbox size K33 – motor frame size 63M – 4 poles					16
	7.5	152	179	1.6	2KG3331 - ■■■ A47-4 ■■■	
	8.5	135	159	1.9	2KG3331 - ■■■ A45-4 ■■■	
	9.7	118	139	2.1	2KG3331 - ■■■ A43-4 ■■■	
	10.8	106	125	2.4	2KG3331 - ■■■ A42-4 ■■■	
	12.2	94	111	2.7	2KG3331 - ■■■ A41-4 ■■■	
	13.9	82	97.1	3	2KG3331 - ■■■ A40-4 ■■■	
	15.8	72	85.3	3.5	2KG3331 - ■■■ A37-4 ■■■	
	17.5	65	77.1	3.8	2KG3331 - ■■■ A36-4 ■■■	
	20.1	57	67.2	4.4	2KG3331 - ■■■ A35-4 ■■■	
	22.4	51	60.3	4.9	2KG3331 - ■■■ A34-4 ■■■	
	24.8	46	54.5	5.4	2KG3331 - ■■■ A33-4 ■■■	
	27.3	42	49.4	6	2KG3331 - ■■■ A32-4 ■■■	
	30.0	38	44.9	6.6	2KG3331 - ■■■ A31-4 ■■■	
	34.0	34	39.7	7.4	2KG3331 - ■■■ A30-4 ■■■	
	36.8	31	36.7	8	2KG3331 - ■■■ A28-4 ■■■	
	42.7	27	31.6	9.3	2KG3331 - ■■■ A26-4 ■■■	
	50.2	23	26.9	9.5	2KG3331 - ■■■ A24-4 ■■■	
0.18	Gearbox size K103 – motor frame size 80M – 8 poles					
	2.2	782	307	3.7	2KG4301 - ■■■ E53-8 ■■■	
	2.4	708	278	4	2KG4301 - ■■■ E52-8 ■■■	
	2.8	620	243	4.8	2KG4301 - ■■■ E51-8 ■■■	
	3.1	559	220	5.4	2KG4301 - ■■■ E50-8 ■■■	
	3.4	512	201	5.9	2KG4301 - ■■■ E48-8 ■■■	
	3.8	456	179	6.6	2KG4301 - ■■■ E47-8 ■■■	74
	Gearbox size K83 – motor frame size 63M – 4 poles					
	4.5	385	303	4	2KG3381 - ■■■ B54-4 ■■■	
	4.9	348	273	4.7	2KG3381 - ■■■ B52-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6
 For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T
 For gearbox mounting positions acc. to the figure, see page 5/8 — A to F
 For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D
 For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.18	Gearbox size K63 – motor frame size 63M – 4 poles					41
	5.5	310	244	2.6	2KG3361 - ■■■B50-4■■■	
	6.3	275	216	3	2KG3361 - ■■■B48-4■■■	
	6.9	250	196	3.3	2KG3361 - ■■■B47-4■■■	
	7.7	224	176	3.7	2KG3361 - ■■■B46-4■■■	21
	Gearbox size K43 – motor frame size 63M – 4 poles					
	8.0	216	170	2.1	2KG3341 - ■■■B47-4■■■	
	9.0	192	151	2.3	2KG3341 - ■■■B45-4■■■	
	10.3	167	131	2.7	2KG3341 - ■■■B43-4■■■	
	11.0	156	122	2.9	2KG3341 - ■■■B42-4■■■	
	12.6	137	107	3.3	2KG3341 - ■■■B41-4■■■	16
	Gearbox size K33 – motor frame size 63M – 4 poles					
	7.5	228	179	1.1	2KG3331 - ■■■B47-4■■■	
	8.5	203	159	1.2	2KG3331 - ■■■B45-4■■■	
	9.7	178	139	1.4	2KG3331 - ■■■B43-4■■■	
	10.8	159	125	1.6	2KG3331 - ■■■B42-4■■■	
	12.2	141	111	1.8	2KG3331 - ■■■B41-4■■■	
	13.9	124	97.1	2	2KG3331 - ■■■B40-4■■■	
	15.8	109	85.3	2.3	2KG3331 - ■■■B37-4■■■	
	17.5	98	77.1	2.5	2KG3331 - ■■■B36-4■■■	
	20.1	86	67.2	2.9	2KG3331 - ■■■B35-4■■■	
	22.4	77	60.3	3.3	2KG3331 - ■■■B34-4■■■	
	24.8	69	54.5	3.6	2KG3331 - ■■■B33-4■■■	
	27.3	63	49.4	4	2KG3331 - ■■■B32-4■■■	
	30.0	57	44.9	4.4	2KG3331 - ■■■B31-4■■■	
	34.0	51	39.7	4.9	2KG3331 - ■■■B30-4■■■	
	36.8	47	36.7	5.4	2KG3331 - ■■■B28-4■■■	
	42.7	40	31.6	6.2	2KG3331 - ■■■B26-4■■■	
	47.0	37	28.7	6.8	2KG3331 - ■■■B25-4■■■	
	50.2	34	26.9	6.3	2KG3331 - ■■■B24-4■■■	
	55.9	31	24.2	6.8	2KG3331 - ■■■B23-4■■■	
	61.9	28	21.8	7.3	2KG3331 - ■■■B22-4■■■	
	68.3	25	19.8	7.8	2KG3331 - ■■■B21-4■■■	
	75.0	23	18.0	8.3	2KG3331 - ■■■B20-4■■■	
	84.9	20	15.9	9.1	2KG3331 - ■■■B18-4■■■	
	91.9	19	14.7	9.6	2KG3331 - ■■■B17-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 ——— A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— A to D

For voltage/frequency, see page 5/7 ——— 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.25	Gearbox size K83 – motor frame size 71M – 4 poles					79
	4.5	535	303	2.9	2KG3381 - ■■ C54-4 ■■■	
	4.9	483	273	3.4	2KG3381 - ■■ C52-4 ■■■	
	5.5	435	246	3.8	2KG3381 - ■■ C51-4 ■■■	
	6.3	381	215	4.3	2KG3381 - ■■ C50-4 ■■■	
	7.0	342	193	4.8	2KG3381 - ■■ C48-4 ■■■	46
	Gearbox size K63 – motor frame size 71M – 4 poles					
	5.5	431	244	1.9	2KG3361 - ■■ C50-4 ■■■	
	6.3	381	216	2.1	2KG3361 - ■■ C48-4 ■■■	
	6.9	347	196	2.4	2KG3361 - ■■ C47-4 ■■■	
	7.7	312	176	2.6	2KG3361 - ■■ C46-4 ■■■	
	8.9	267	151	3.1	2KG3361 - ■■ C45-4 ■■■	
	9.9	242	137	3.4	2KG3361 - ■■ C43-4 ■■■	
	10.7	223	126	3.7	2KG3361 - ■■ C42-4 ■■■	
	12.3	194	110	4.2	2KG3361 - ■■ C41-4 ■■■	25
	Gearbox size K43 – motor frame size 71M – 4 poles					
	8.0	300	170	1.5	2KG3341 - ■■ C47-4 ■■■	
	9.0	267	151	1.7	2KG3341 - ■■ C45-4 ■■■	
	10.3	231	131	1.9	2KG3341 - ■■ C43-4 ■■■	
	11.0	216	122	2.1	2KG3341 - ■■ C42-4 ■■■	
	12.6	190	107	2.4	2KG3341 - ■■ C41-4 ■■■	
	14.3	166	94.1	2.7	2KG3341 - ■■ C38-4 ■■■	
	16.2	147	83.3	3.1	2KG3341 - ■■ C37-4 ■■■	
	17.9	133	75.5	3.4	2KG3341 - ■■ C36-4 ■■■	
	20.3	118	66.6	3.8	2KG3341 - ■■ C35-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.25						
Gearbox size K33 – motor frame size 71M – 4 poles						
	9.7	247	139	1	2KG3331 - ■■ C43-4 ■■■	20
	10.8	221	125	1.1	2KG3331 - ■■ C42-4 ■■■	
	12.2	196	111	1.3	2KG3331 - ■■ C41-4 ■■■	
	13.9	172	97.1	1.5	2KG3331 - ■■ C40-4 ■■■	
	15.8	151	85.3	1.7	2KG3331 - ■■ C37-4 ■■■	
	17.5	136	77.1	1.8	2KG3331 - ■■ C36-4 ■■■	
	20.1	119	67.2	2.1	2KG3331 - ■■ C35-4 ■■■	
	22.4	107	60.3	2.3	2KG3331 - ■■ C34-4 ■■■	
	24.8	96	54.5	2.6	2KG3331 - ■■ C33-4 ■■■	
	27.3	87	49.4	2.9	2KG3331 - ■■ C32-4 ■■■	
	30.0	80	44.9	3.1	2KG3331 - ■■ C31-4 ■■■	
	34.0	70	39.7	3.6	2KG3331 - ■■ C30-4 ■■■	
	36.8	65	36.7	3.9	2KG3331 - ■■ C28-4 ■■■	
	42.7	56	31.6	4.5	2KG3331 - ■■ C26-4 ■■■	
	47.0	51	28.7	4.9	2KG3331 - ■■ C25-4 ■■■	
	50.2	48	26.9	4.5	2KG3331 - ■■ C24-4 ■■■	
	55.9	43	24.2	4.9	2KG3331 - ■■ C23-4 ■■■	
	61.9	39	21.8	5.3	2KG3331 - ■■ C22-4 ■■■	
	68.3	35	19.8	5.6	2KG3331 - ■■ C21-4 ■■■	
	75.0	32	18.0	6	2KG3331 - ■■ C20-4 ■■■	
	84.9	28	15.9	6.5	2KG3331 - ■■ C18-4 ■■■	
	91.9	26	14.7	6.9	2KG3331 - ■■ C17-4 ■■■	
	107	22	12.7	7.7	2KG3331 - ■■ C16-4 ■■■	
	117	20	11.5	8.2	2KG3331 - ■■ C15-4 ■■■	
	126	19	10.7	8.4	2KG3331 - ■■ C14-4 ■■■	
	139	17	9.72	9.2	2KG3331 - ■■ C13-4 ■■■	

0.37	Gearbox size K123 – motor frame size 90S – 8 poles					
	2.3	1546	295	3	2KG4321 -   G53-8  	221
	2.5	1418	271	3.3	2KG4321 -   G52-8  	
	2.8	1267	242	3.7	2KG4321 -   G51-8  	
	3.0	1160	222	4.1	2KG4321 -   G50-8  	
	Gearbox size K103 – motor frame size 90S – 8 poles					
	2.2	1608	307	1.8	2KG4301 -   G53-8  	142
	2.4	1456	278	1.9	2KG4301 -   G52-8  	
	2.8	1275	243	2.4	2KG4301 -   G51-8  	
	3.1	1150	220	2.6	2KG4301 -   G50-8  	
3.4	1053	201	2.8	2KG4301 -   G48-8  		
3.8	937	179	3.2	2KG4301 -   G47-8  		
	4.1	856	164	3.5	2KG4301 -   G46-8  	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — **0, 1, 2, 3, or 6**

For shaft designs, see pages 5/6 to 5/7 — **A, B, G, H, L, M, N, R, S, T**

For gearbox mounting positions acc. to the figure, see page 5/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — **A to D**

For voltage/frequency, see page 5/7 — **1, 3, 5, 6, or 9**

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.37	Gearbox size K83 – motor frame size 71M – 4 poles					80
	4.5	781	303	2	2KG3381 - ■ ■ D54-4 ■ ■ ■	
	5.0	704	273	2.3	2KG3381 - ■ ■ D52-4 ■ ■ ■	
	5.6	635	246	2.6	2KG3381 - ■ ■ D51-4 ■ ■ ■	
	6.4	555	215	3	2KG3381 - ■ ■ D50-4 ■ ■ ■	
	7.1	498	193	3.3	2KG3381 - ■ ■ D48-4 ■ ■ ■	
	7.8	455	177	3.6	2KG3381 - ■ ■ D47-4 ■ ■ ■	
	8.7	404	157	4.1	2KG3381 - ■ ■ D45-4 ■ ■ ■	
	9.5	373	145	4.4	2KG3381 - ■ ■ D44-4 ■ ■ ■	47
	Gearbox size K63 – motor frame size 71M – 4 poles					
	5.6	629	244	1.3	2KG3361 - ■ ■ D50-4 ■ ■ ■	
	6.4	556	216	1.5	2KG3361 - ■ ■ D48-4 ■ ■ ■	
	7.0	506	196	1.6	2KG3361 - ■ ■ D47-4 ■ ■ ■	
	7.8	454	176	1.8	2KG3361 - ■ ■ D46-4 ■ ■ ■	
	9.1	389	151	2.1	2KG3361 - ■ ■ D45-4 ■ ■ ■	
	10.0	352	137	2.3	2KG3361 - ■ ■ D43-4 ■ ■ ■	
	10.9	325	126	2.5	2KG3361 - ■ ■ D42-4 ■ ■ ■	
	12.5	283	110	2.9	2KG3361 - ■ ■ D41-4 ■ ■ ■	
	13.8	257	99.6	3.2	2KG3361 - ■ ■ D40-4 ■ ■ ■	
	15.1	234	90.9	3.5	2KG3361 - ■ ■ D38-4 ■ ■ ■	
	16.4	215	83.4	3.8	2KG3361 - ■ ■ D37-4 ■ ■ ■	
	17.8	198	76.8	4.1	2KG3361 - ■ ■ D36-4 ■ ■ ■	
	Gearbox size K43 – motor frame size 71M – 4 poles					
	8.1	437	170	1	2KG3341 - ■ ■ D47-4 ■ ■ ■	
	9.1	389	151	1.2	2KG3341 - ■ ■ D45-4 ■ ■ ■	
	10.5	337	131	1.3	2KG3341 - ■ ■ D43-4 ■ ■ ■	
	11.2	315	122	1.4	2KG3341 - ■ ■ D42-4 ■ ■ ■	
	12.7	277	107	1.6	2KG3341 - ■ ■ D41-4 ■ ■ ■	
	14.6	243	94.1	1.9	2KG3341 - ■ ■ D38-4 ■ ■ ■	
	16.5	215	83.3	2.1	2KG3341 - ■ ■ D37-4 ■ ■ ■	
	18.2	195	75.5	2.3	2KG3341 - ■ ■ D36-4 ■ ■ ■	
	20.6	172	66.6	2.6	2KG3341 - ■ ■ D35-4 ■ ■ ■	
	22.8	155	60.1	2.9	2KG3341 - ■ ■ D34-4 ■ ■ ■	
	25.1	141	54.5	3.2	2KG3341 - ■ ■ D33-4 ■ ■ ■	
	27.6	128	49.7	3.5	2KG3341 - ■ ■ D32-4 ■ ■ ■	
	30.2	117	45.4	3.8	2KG3341 - ■ ■ D31-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.37	Gearbox size K33 – motor frame size 71M – 4 poles					22
	14.1	250	97.1	1	2KG3331 - ■■■D40-4■■■	
	16.1	220	85.3	1.1	2KG3331 - ■■■D37-4■■■	
	17.8	199	77.1	1.3	2KG3331 - ■■■D36-4■■■	
	20.4	173	67.2	1.4	2KG3331 - ■■■D35-4■■■	
	22.7	156	60.3	1.6	2KG3331 - ■■■D34-4■■■	
	25.2	140	54.5	1.8	2KG3331 - ■■■D33-4■■■	
	27.7	127	49.4	2	2KG3331 - ■■■D32-4■■■	
	30.5	116	44.9	2.2	2KG3331 - ■■■D31-4■■■	
	34.5	102	39.7	2.4	2KG3331 - ■■■D30-4■■■	
	37.3	95	36.7	2.6	2KG3331 - ■■■D28-4■■■	
	43.4	82	31.6	3.1	2KG3331 - ■■■D26-4■■■	
	47.7	74	28.7	3.4	2KG3331 - ■■■D25-4■■■	
	50.9	69	26.9	3.1	2KG3331 - ■■■D24-4■■■	
	56.7	62	24.2	3.4	2KG3331 - ■■■D23-4■■■	
	62.8	56	21.8	3.6	2KG3331 - ■■■D22-4■■■	
	69.3	51	19.8	3.9	2KG3331 - ■■■D21-4■■■	
	76.2	46	18.0	4.1	2KG3331 - ■■■D20-4■■■	
	86.1	41	15.9	4.5	2KG3331 - ■■■D18-4■■■	
	93.3	38	14.7	4.8	2KG3331 - ■■■D17-4■■■	
	108	33	12.7	5.3	2KG3331 - ■■■D16-4■■■	
	119	30	11.5	5.6	2KG3331 - ■■■D15-4■■■	
	128	28	10.7	5.8	2KG3331 - ■■■D14-4■■■	
141	25	9.72	6.3	2KG3331 - ■■■D13-4■■■		
155	23	8.85	7	2KG3331 - ■■■D12-4■■■		
175	20	7.82	7.9	2KG3331 - ■■■D11-4■■■		
190	19	7.22	8.5	2KG3331 - ■■■D10-4■■■		
220	16	6.22	9.5	2KG3331 - ■■■D08-4■■■		
0.55	Gearbox size K123 – motor frame size 90L – 8 poles					224
	2.3	2298	295	2	2KG4321 - ■■■H53-8■■■	
	2.5	2108	271	2.2	2KG4321 - ■■■H52-8■■■	
	2.8	1883	242	2.5	2KG4321 - ■■■H51-8■■■	
	3.0	1725	222	2.7	2KG4321 - ■■■H50-8■■■	
	3.3	1589	204	3	2KG4321 - ■■■H48-8■■■	
	3.6	1471	189	3.2	2KG4321 - ■■■H47-8■■■	
	3.8	1368	176	3.4	2KG4321 - ■■■H46-8■■■	
	4.1	1277	164	3.7	2KG4321 - ■■■H45-8■■■	
	Gearbox size K103 – motor frame size 80M – 4 poles					140
	4.5	1157	307	2.5	2KG4301 - ■■■E53-4■■■	
	5.0	1047	278	2.7	2KG4301 - ■■■E52-4■■■	
	5.7	917	243	3.3	2KG4301 - ■■■E51-4■■■	
	6.4	827	220	3.6	2KG4301 - ■■■E50-4■■■	
	6.9	757	201	4	2KG4301 - ■■■E48-4■■■	
	7.8	674	179	4.5	2KG4301 - ■■■E47-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— **0, 1, 2, 3, or 6**

For shaft designs, see pages 5/6 to 5/7 ——— **A, B, G, H, L, M, N, R, S, T**

For gearbox mounting positions acc. to the figure, see page 5/8 ——— **A to F**

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— **A to D**

For voltage/frequency, see page 5/7 ——— **1, 3, 5, 6, or 9**

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.55	Gearbox size K83 – motor frame size 80M – 4 poles					82
	4.6	1140	303	1.4	2KG3381 - ■ ■ E54-4 ■ ■ ■	
	5.1	1028	273	1.6	2KG3381 - ■ ■ E52-4 ■ ■ ■	
	5.7	927	246	1.8	2KG3381 - ■ ■ E51-4 ■ ■ ■	
	6.5	810	215	2	2KG3381 - ■ ■ E50-4 ■ ■ ■	
	7.2	728	193	2.3	2KG3381 - ■ ■ E48-4 ■ ■ ■	
	7.9	665	177	2.5	2KG3381 - ■ ■ E47-4 ■ ■ ■	
	8.9	590	157	2.8	2KG3381 - ■ ■ E45-4 ■ ■ ■	
	9.6	544	145	3	2KG3381 - ■ ■ E44-4 ■ ■ ■	
	10.7	492	131	3.4	2KG3381 - ■ ■ E43-4 ■ ■ ■	
	11.6	453	120	3.6	2KG3381 - ■ ■ E42-4 ■ ■ ■	
	12.5	419	111	3.9	2KG3381 - ■ ■ E41-4 ■ ■ ■	
	13.5	389	103	4.2	2KG3381 - ■ ■ E40-4 ■ ■ ■	
	15.3	343	91.2	4.8	2KG3381 - ■ ■ E38-4 ■ ■ ■	
	Gearbox size K63 – motor frame size 80M – 4 poles					49
	6.5	812	216	1	2KG3361 - ■ ■ E48-4 ■ ■ ■	
	7.1	738	196	1.1	2KG3361 - ■ ■ E47-4 ■ ■ ■	
	7.9	663	176	1.2	2KG3361 - ■ ■ E46-4 ■ ■ ■	
	9.2	568	151	1.4	2KG3361 - ■ ■ E45-4 ■ ■ ■	
	10.2	514	137	1.6	2KG3361 - ■ ■ E43-4 ■ ■ ■	
	11.1	475	126	1.7	2KG3361 - ■ ■ E42-4 ■ ■ ■	
	12.7	413	110	2	2KG3361 - ■ ■ E41-4 ■ ■ ■	
	14.0	375	99.6	2.2	2KG3361 - ■ ■ E40-4 ■ ■ ■	
	15.3	342	90.9	2.4	2KG3361 - ■ ■ E38-4 ■ ■ ■	
	16.7	314	83.4	2.6	2KG3361 - ■ ■ E37-4 ■ ■ ■	
	18.2	289	76.8	2.8	2KG3361 - ■ ■ E36-4 ■ ■ ■	
	20.0	263	69.8	3.1	2KG3361 - ■ ■ E35-4 ■ ■ ■	
	21.9	239	63.6	3.4	2KG3361 - ■ ■ E34-4 ■ ■ ■	
	24.0	219	58.2	3.7	2KG3361 - ■ ■ E33-4 ■ ■ ■	
	26.8	196	52.0	4.2	2KG3361 - ■ ■ E32-4 ■ ■ ■	
	30.1	175	46.4	4.7	2KG3361 - ■ ■ E31-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
0.55	Gearbox size K43 – motor frame size 80M – 4 poles					
	10.7	492	131	0.91	2KG3341 - ■■■E43-4■■■	29
	11.4	460	122	0.98	2KG3341 - ■■■E42-4■■■	
	13.0	405	107	1.1	2KG3341 - ■■■E41-4■■■	
	14.8	354	94.1	1.3	2KG3341 - ■■■E38-4■■■	
	16.8	313	83.3	1.4	2KG3341 - ■■■E37-4■■■	
	18.5	284	75.5	1.6	2KG3341 - ■■■E36-4■■■	
	20.9	251	66.6	1.8	2KG3341 - ■■■E35-4■■■	
	23.2	226	60.1	2	2KG3341 - ■■■E34-4■■■	
	25.6	205	54.5	2.2	2KG3341 - ■■■E33-4■■■	
	28.1	187	49.7	2.4	2KG3341 - ■■■E32-4■■■	
	30.7	171	45.4	2.6	2KG3341 - ■■■E31-4■■■	
	34.4	153	40.6	2.9	2KG3341 - ■■■E30-4■■■	
	37.4	140	37.3	3.2	2KG3341 - ■■■E28-4■■■	
	41.5	127	33.6	3.6	2KG3341 - ■■■E27-4■■■	
	48.3	109	28.9	4.1	2KG3341 - ■■■E26-4■■■	
	50.6	104	27.6	4.3	2KG3341 - ■■■E25-4■■■	
	56.1	94	24.9	4.8	2KG3341 - ■■■E24-4■■■	
	61.9	85	22.5	5.3	2KG3341 - ■■■E23-4■■■	
	Gearbox size K33 – motor frame size 80M – 4 poles					
	20.8	253	67.2	0.99	2KG3331 - ■■■E35-4■■■	24
	23.1	227	60.3	1.1	2KG3331 - ■■■E34-4■■■	
	25.6	205	54.5	1.2	2KG3331 - ■■■E33-4■■■	
	28.3	186	49.4	1.3	2KG3331 - ■■■E32-4■■■	
	31.0	169	44.9	1.5	2KG3331 - ■■■E31-4■■■	
	35.1	150	39.7	1.7	2KG3331 - ■■■E30-4■■■	
	38.0	138	36.7	1.8	2KG3331 - ■■■E28-4■■■	
	44.2	119	31.6	2.1	2KG3331 - ■■■E26-4■■■	
	48.6	108	28.7	2.3	2KG3331 - ■■■E25-4■■■	
51.9	101	26.9	2.1	2KG3331 - ■■■E24-4■■■		
57.7	91	24.2	2.3	2KG3331 - ■■■E23-4■■■		
64.0	82	21.8	2.5	2KG3331 - ■■■E22-4■■■		
70.5	75	19.8	2.6	2KG3331 - ■■■E21-4■■■		
77.5	68	18.0	2.8	2KG3331 - ■■■E20-4■■■		
87.7	60	15.9	3.1	2KG3331 - ■■■E18-4■■■		
95.0	55	14.7	3.3	2KG3331 - ■■■E17-4■■■		
110	48	12.7	3.6	2KG3331 - ■■■E16-4■■■		
121	43	11.5	3.9	2KG3331 - ■■■E15-4■■■		
130	40	10.7	3.9	2KG3331 - ■■■E14-4■■■		
144	37	9.72	4.3	2KG3331 - ■■■E13-4■■■		
158	33	8.85	4.8	2KG3331 - ■■■E12-4■■■		
178	29	7.82	5.4	2KG3331 - ■■■E11-4■■■		
193	27	7.22	5.8	2KG3331 - ■■■E10-4■■■		
224	23	6.22	6.5	2KG3331 - ■■■E08-4■■■		
247	21	5.65	7	2KG3331 - ■■■E07-4■■■		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — **0, 1, 2, 3, or 6**

For shaft designs, see pages 5/6 to 5/7 — **A, B, G, H, L, M, N, R, S, T**

For gearbox mounting positions acc. to the figure, see page 5/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — **A to D**

For voltage/frequency, see page 5/7 — **1, 3, 5, 6, or 9**

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.75	Gearbox size K143 – motor frame size 100L – 8 poles					340
	2.2	3224	306	2.5	2KG4341 - ■■■ J54-8 ■■■	
	2.5	2890	274	2.8	2KG4341 - ■■■ J53-8 ■■■	
	2.7	2650	252	3	2KG4341 - ■■■ J52-8 ■■■	
	2.9	2443	232	3.3	2KG4341 - ■■■ J51-8 ■■■	
	3.2	2264	215	3.5	2KG4341 - ■■■ J50-8 ■■■	
	3.3	2153	204	3.7	2KG4341 - ■■■ J48-8 ■■■	
	3.6	2012	191	4	2KG4341 - ■■■ J47-8 ■■■	
	Gearbox size K123 – motor frame size 100L – 8 poles					230
	2.3	3111	295	1.5	2KG4321 - ■■■ J53-8 ■■■	
	2.5	2853	271	1.6	2KG4321 - ■■■ J52-8 ■■■	
	2.8	2549	242	1.8	2KG4321 - ■■■ J51-8 ■■■	
	3.1	2335	222	2	2KG4321 - ■■■ J50-8 ■■■	
	3.3	2151	204	2.2	2KG4321 - ■■■ J48-8 ■■■	
	3.6	1991	189	2.4	2KG4321 - ■■■ J47-8 ■■■	
	3.9	1852	176	2.5	2KG4321 - ■■■ J46-8 ■■■	
	4.1	1729	164	2.7	2KG4321 - ■■■ J45-8 ■■■	
	4.6	1547	147	3	2KG4321 - ■■■ J44-8 ■■■	
	5.0	1433	136	3.3	2KG4321 - ■■■ J43-8 ■■■	
	5.5	1314	125	3.6	2KG4321 - ■■■ J42-8 ■■■	
	5.9	1204	114	3.9	2KG4321 - ■■■ J41-8 ■■■	
	Gearbox size K103 – motor frame size 80M – 4 poles					141
	4.5	1577	307	1.8	2KG4301 - ■■■ F53-4 ■■■	
	5.0	1428	278	2	2KG4301 - ■■■ F52-4 ■■■	
	5.7	1250	243	2.4	2KG4301 - ■■■ F51-4 ■■■	
	6.4	1128	220	2.7	2KG4301 - ■■■ F50-4 ■■■	
	6.9	1033	201	2.9	2KG4301 - ■■■ F48-4 ■■■	
	7.8	919	179	3.3	2KG4301 - ■■■ F47-4 ■■■	
	8.5	840	164	3.6	2KG4301 - ■■■ F46-4 ■■■	
	9.3	772	150	3.9	2KG4301 - ■■■ F45-4 ■■■	
	10.0	713	139	4.2	2KG4301 - ■■■ F44-4 ■■■	
	Gearbox size K83 – motor frame size 80M – 4 poles					83
	4.6	1554	303	0.99	2KG3381 - ■■■ F54-4 ■■■	
	5.1	1401	273	1.2	2KG3381 - ■■■ F52-4 ■■■	
	5.7	1264	246	1.3	2KG3381 - ■■■ F51-4 ■■■	
	6.5	1105	215	1.5	2KG3381 - ■■■ F50-4 ■■■	
	7.2	992	193	1.7	2KG3381 - ■■■ F48-4 ■■■	
	7.9	906	177	1.8	2KG3381 - ■■■ F47-4 ■■■	
	8.9	804	157	2.1	2KG3381 - ■■■ F45-4 ■■■	
	9.6	742	145	2.2	2KG3381 - ■■■ F44-4 ■■■	
	10.7	671	131	2.5	2KG3381 - ■■■ F43-4 ■■■	
	11.6	618	120	2.7	2KG3381 - ■■■ F42-4 ■■■	
	12.5	572	111	2.9	2KG3381 - ■■■ F41-4 ■■■	
	13.5	531	103	3.1	2KG3381 - ■■■ F40-4 ■■■	
	15.3	468	91.2	3.5	2KG3381 - ■■■ F38-4 ■■■	
	16.6	432	84	3.8	2KG3381 - ■■■ F37-4 ■■■	
	18.5	387	75.5	4.3	2KG3381 - ■■■ F36-4 ■■■	
	20.1	357	69.6	4.6	2KG3381 - ■■■ F35-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.75	Gearbox size K63 – motor frame size 80M – 4 poles					51
	7.9	904	176	0.91	2KG3361 - ■■■ F46-4 ■■■	
	9.2	775	151	1.1	2KG3361 - ■■■ F45-4 ■■■	
	10.2	701	137	1.2	2KG3361 - ■■■ F43-4 ■■■	
	11.1	647	126	1.3	2KG3361 - ■■■ F42-4 ■■■	
	12.7	563	110	1.5	2KG3361 - ■■■ F41-4 ■■■	
	14.0	511	99.6	1.6	2KG3361 - ■■■ F40-4 ■■■	
	15.3	467	90.9	1.8	2KG3361 - ■■■ F38-4 ■■■	
	16.7	428	83.4	1.9	2KG3361 - ■■■ F37-4 ■■■	
	18.2	395	76.8	2.1	2KG3361 - ■■■ F36-4 ■■■	
	20.0	358	69.8	2.3	2KG3361 - ■■■ F35-4 ■■■	
	21.9	326	63.6	2.5	2KG3361 - ■■■ F34-4 ■■■	
	24.0	299	58.2	2.7	2KG3361 - ■■■ F33-4 ■■■	
	26.8	267	52.0	3.1	2KG3361 - ■■■ F32-4 ■■■	
	30.1	238	46.4	3.4	2KG3361 - ■■■ F31-4 ■■■	
	35.4	202	39.4	4.1	2KG3361 - ■■■ F28-4 ■■■	
	Gearbox size K43 – motor frame size 80M – 4 poles					30
	14.8	483	94.1	0.93	2KG3341 - ■■■ F38-4 ■■■	
	16.8	427	83.3	1.1	2KG3341 - ■■■ F37-4 ■■■	
	18.5	387	75.5	1.2	2KG3341 - ■■■ F36-4 ■■■	
	20.9	342	66.6	1.3	2KG3341 - ■■■ F35-4 ■■■	
	23.2	308	60.1	1.5	2KG3341 - ■■■ F34-4 ■■■	
	25.6	280	54.5	1.6	2KG3341 - ■■■ F33-4 ■■■	
	28.1	255	49.7	1.8	2KG3341 - ■■■ F32-4 ■■■	
	30.7	233	45.4	1.9	2KG3341 - ■■■ F31-4 ■■■	
	34.4	208	40.6	2.2	2KG3341 - ■■■ F30-4 ■■■	
	37.4	191	37.3	2.4	2KG3341 - ■■■ F28-4 ■■■	
	41.5	173	33.6	2.6	2KG3341 - ■■■ F27-4 ■■■	
	48.3	148	28.9	3	2KG3341 - ■■■ F26-4 ■■■	
	50.6	141	27.6	3.2	2KG3341 - ■■■ F25-4 ■■■	
	56.1	128	24.9	3.5	2KG3341 - ■■■ F24-4 ■■■	
	61.9	116	22.5	3.9	2KG3341 - ■■■ F23-4 ■■■	
	67.9	105	20.5	4.3	2KG3341 - ■■■ F22-4 ■■■	
	74.3	96	18.8	4.7	2KG3341 - ■■■ F21-4 ■■■	
	83.1	86	16.8	5.2	2KG3341 - ■■■ F20-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
0.75 Gearbox size K33 – motor frame size 80M – 4 poles						
	28.3	254	49.4	0.99	2KG3331 - ■■■ F32-4 ■■■	25
	31.0	231	44.9	1.1	2KG3331 - ■■■ F31-4 ■■■	
	35.1	204	39.7	1.2	2KG3331 - ■■■ F30-4 ■■■	
	38.0	188	36.7	1.3	2KG3331 - ■■■ F28-4 ■■■	
	44.2	162	31.6	1.5	2KG3331 - ■■■ F26-4 ■■■	
	48.6	147	28.7	1.7	2KG3331 - ■■■ F25-4 ■■■	
	51.9	138	26.9	1.6	2KG3331 - ■■■ F24-4 ■■■	
	57.7	124	24.2	1.7	2KG3331 - ■■■ F23-4 ■■■	
	64.0	112	21.8	1.8	2KG3331 - ■■■ F22-4 ■■■	
	70.5	102	19.8	1.9	2KG3331 - ■■■ F21-4 ■■■	
	77.5	92	18.0	2.1	2KG3331 - ■■■ F20-4 ■■■	
	87.7	82	15.9	2.3	2KG3331 - ■■■ F18-4 ■■■	
	95.0	75	14.7	2.4	2KG3331 - ■■■ F17-4 ■■■	
	110	65	12.7	2.6	2KG3331 - ■■■ F16-4 ■■■	
	121	59	11.5	2.8	2KG3331 - ■■■ F15-4 ■■■	
	130	55	10.7	2.9	2KG3331 - ■■■ F14-4 ■■■	
	144	50	9.72	3.2	2KG3331 - ■■■ F13-4 ■■■	
	158	45	8.85	3.5	2KG3331 - ■■■ F12-4 ■■■	
	178	40	7.82	4	2KG3331 - ■■■ F11-4 ■■■	
	193	37	7.22	4.3	2KG3331 - ■■■ F10-4 ■■■	
	224	32	6.22	4.8	2KG3331 - ■■■ F08-4 ■■■	
	247	29	5.65	5.1	2KG3331 - ■■■ F07-4 ■■■	

1.1	Gearbox size K143 – motor frame size 100L – 8 poles					342
	2.2	4728	306	1.7	2KG4341 -  K54-8 	
	2.5	4239	274	1.9	2KG4341 -  K53-8 	
	2.7	3886	252	2.1	2KG4341 -  K52-8 	
	2.9	3583	232	2.2	2KG4341 -  K51-8 	
	3.2	3321	215	2.4	2KG4341 -  K50-8 	
	3.3	3157	204	2.5	2KG4341 -  K48-8 	
	3.6	2951	191	2.7	2KG4341 -  K47-8 	
	4.0	2603	169	3.1	2KG4341 -  K46-8 	
	4.3	2455	159	3.3	2KG4341 -  K45-8 	
	4.8	2200	142	3.6	2KG4341 -  K44-8 	
	5.2	2031	131	3.9	2KG4341 -  K43-8 	
	Gearbox size K123 – motor frame size 100L – 8 poles					
2.3	4563	295	1	2KG4321 -  K53-8 	232	
2.5	4185	271	1.1	2KG4321 -  K52-8 		
2.8	3739	242	1.3	2KG4321 -  K51-8 		
3.1	3424	222	1.4	2KG4321 -  K50-8 		
3.3	3154	204	1.5	2KG4321 -  K48-8 		
3.6	2920	189	1.6	2KG4321 -  K47-8 		
3.9	2716	176	1.7	2KG4321 -  K46-8 		
4.1	2535	164	1.9	2KG4321 -  K45-8 		
4.6	2268	147	2.1	2KG4321 -  K44-8 		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 ——— A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— A to D

For voltage/frequency, see page 5/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.1	Gearbox size K123 – motor frame size 90S – 4 poles					223
	4.8	2193	295	2.1	2KG4321 - ■■ G53-4 ■■■	
	5.2	2011	271	2.3	2KG4321 - ■■ G52-4 ■■■	
	5.8	1797	242	2.6	2KG4321 - ■■ G51-4 ■■■	
	6.4	1645	222	2.9	2KG4321 - ■■ G50-4 ■■■	
	6.9	1516	204	3.1	2KG4321 - ■■ G48-4 ■■■	
	7.5	1403	189	3.3	2KG4321 - ■■ G47-4 ■■■	
	8.0	1305	176	3.6	2KG4321 - ■■ G46-4 ■■■	
	8.6	1218	164	3.9	2KG4321 - ■■ G45-4 ■■■	144
	Gearbox size K103 – motor frame size 90S – 4 poles					
	4.6	2281	307	1.3	2KG4301 - ■■ G53-4 ■■■	
	5.1	2065	278	1.4	2KG4301 - ■■ G52-4 ■■■	
	5.8	1808	243	1.7	2KG4301 - ■■ G51-4 ■■■	
	6.4	1631	220	1.8	2KG4301 - ■■ G50-4 ■■■	
	7.0	1493	201	2	2KG4301 - ■■ G48-4 ■■■	
	7.9	1328	179	2.3	2KG4301 - ■■ G47-4 ■■■	
	8.7	1214	164	2.5	2KG4301 - ■■ G46-4 ■■■	
	9.4	1116	150	2.7	2KG4301 - ■■ G45-4 ■■■	
	10.2	1031	139	2.9	2KG4301 - ■■ G44-4 ■■■	
	11	957	129	3.1	2KG4301 - ■■ G43-4 ■■■	
	12	891	120	3.4	2KG4301 - ■■ G42-4 ■■■	
	13	806	109	3.7	2KG4301 - ■■ G41-4 ■■■	
	14	742	99.9	4	2KG4301 - ■■ G40-4 ■■■	86
	Gearbox size K83 – motor frame size 90S – 4 poles					
	6.6	1598	215	1	2KG3381 - ■■ G50-4 ■■■	
	7.3	1435	193	1.2	2KG3381 - ■■ G48-4 ■■■	
	8.0	1310	177	1.3	2KG3381 - ■■ G47-4 ■■■	
	9.0	1163	157	1.4	2KG3381 - ■■ G45-4 ■■■	
	9.8	1073	145	1.5	2KG3381 - ■■ G44-4 ■■■	
	10.8	971	131	1.7	2KG3381 - ■■ G43-4 ■■■	
	11.8	894	120	1.8	2KG3381 - ■■ G42-4 ■■■	
	12.7	827	111	2	2KG3381 - ■■ G41-4 ■■■	
	13.7	767	103	2.1	2KG3381 - ■■ G40-4 ■■■	
	15.5	677	91.2	2.4	2KG3381 - ■■ G38-4 ■■■	
	16.8	625	84.2	2.6	2KG3381 - ■■ G37-4 ■■■	
	18.8	560	75.5	2.9	2KG3381 - ■■ G36-4 ■■■	
	20.3	516	69.6	3.2	2KG3381 - ■■ G35-4 ■■■	
	24.2	433	58.4	3.8	2KG3381 - ■■ G34-4 ■■■	
	28.4	370	49.8	4.5	2KG3381 - ■■ G32-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.1	Gearbox size K63 – motor frame size 90S – 4 poles					54
	12.9	814	110	1	2KG3361 - ■■ G41-4 ■■■	
	14.2	739	99.6	1.1	2KG3361 - ■■ G40-4 ■■■	
	15.6	675	90.9	1.2	2KG3361 - ■■ G38-4 ■■■	
	17.0	619	83.4	1.3	2KG3361 - ■■ G37-4 ■■■	
	18.4	570	76.8	1.4	2KG3361 - ■■ G36-4 ■■■	
	20.3	518	69.8	1.6	2KG3361 - ■■ G35-4 ■■■	
	22.3	472	63.6	1.7	2KG3361 - ■■ G34-4 ■■■	
	24.3	432	58.2	1.9	2KG3361 - ■■ G33-4 ■■■	
	27.2	386	52.0	2.1	2KG3361 - ■■ G32-4 ■■■	
	30.5	344	46.4	2.4	2KG3361 - ■■ G31-4 ■■■	
	35.9	292	39.4	2.8	2KG3361 - ■■ G28-4 ■■■	
	43.2	243	32.8	3.4	2KG3361 - ■■ G27-4 ■■■	
	46.6	226	30.4	3.6	2KG3361 - ■■ G26-4 ■■■	
	50.6	208	28.0	3.9	2KG3361 - ■■ G25-4 ■■■	
	55.7	189	25.4	4.3	2KG3361 - ■■ G24-4 ■■■	
	Gearbox size K43 – motor frame size 90S – 4 poles					33
	21.2	494	66.6	0.91	2KG3341 - ■■ G35-4 ■■■	
	23.6	446	60.1	1	2KG3341 - ■■ G34-4 ■■■	
	26.0	405	54.5	1.1	2KG3341 - ■■ G33-4 ■■■	
	28.5	369	49.7	1.2	2KG3341 - ■■ G32-4 ■■■	
	31.2	337	45.4	1.3	2KG3341 - ■■ G31-4 ■■■	
	34.9	301	40.6	1.5	2KG3341 - ■■ G30-4 ■■■	
	38.0	277	37.3	1.6	2KG3341 - ■■ G28-4 ■■■	
	42.1	249	33.6	1.8	2KG3341 - ■■ G27-4 ■■■	
	49.0	215	28.9	2.1	2KG3341 - ■■ G26-4 ■■■	
	51.4	205	27.6	2.2	2KG3341 - ■■ G25-4 ■■■	
	56.9	184	24.9	2.4	2KG3341 - ■■ G24-4 ■■■	
	62.8	167	22.5	2.7	2KG3341 - ■■ G23-4 ■■■	
	68.9	152	20.5	3	2KG3341 - ■■ G22-4 ■■■	
	75.3	139	18.8	3.2	2KG3341 - ■■ G21-4 ■■■	
	84.3	125	16.8	3.6	2KG3341 - ■■ G20-4 ■■■	
	91.8	114	15.4	3.9	2KG3341 - ■■ G18-4 ■■■	
	102	103	13.9	4.3	2KG3341 - ■■ G17-4 ■■■	
	118	89	12.0	4.7	2KG3341 - ■■ G15-4 ■■■	
	125	84	11.4	3.5	2KG3341 - ■■ G14-4 ■■■	
	139	75	10.2	3.8	2KG3341 - ■■ G13-4 ■■■	
	152	69	9.32	4	2KG3341 - ■■ G12-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.1 Gearbox size K33 – motor frame size 90S – 4 poles						
	38.6	272	36.7	0.92	2KG3331 - ■■ G28-4 ■■■	28
	44.8	235	31.6	1.1	2KG3331 - ■■ G26-4 ■■■	
	49.3	213	28.7	1.2	2KG3331 - ■■ G25-4 ■■■	
	52.6	200	26.9	1.1	2KG3331 - ■■ G24-4 ■■■	
	58.6	179	24.2	1.2	2KG3331 - ■■ G23-4 ■■■	
	64.9	162	21.8	1.3	2KG3331 - ■■ G22-4 ■■■	
	71.5	147	19.8	1.3	2KG3331 - ■■ G21-4 ■■■	
	78.7	134	18.0	1.4	2KG3331 - ■■ G20-4 ■■■	
	88.9	118	15.9	1.6	2KG3331 - ■■ G18-4 ■■■	
	96.3	109	14.7	1.7	2KG3331 - ■■ G17-4 ■■■	
	112	94	12.7	1.8	2KG3331 - ■■ G16-4 ■■■	
	123	85	11.5	2	2KG3331 - ■■ G15-4 ■■■	
	132	80	10.7	2	2KG3331 - ■■ G14-4 ■■■	
	146	72	9.72	2.2	2KG3331 - ■■ G13-4 ■■■	
	160	66	8.85	2.4	2KG3331 - ■■ G12-4 ■■■	
	181	58	7.82	2.7	2KG3331 - ■■ G11-4 ■■■	
	196	54	7.22	3	2KG3331 - ■■ G10-4 ■■■	
	227	46	6.22	3.3	2KG3331 - ■■ G08-4 ■■■	
	250	42	5.65	3.5	2KG3331 - ■■ G07-4 ■■■	

1.5	Gearbox size K143 – motor frame size 112M – 8 poles					
	2.3	6219	306	1.3	2KG4341 -   L54-8  	344
	2.6	5576	274	1.4	2KG4341 -   L53-8  	
	2.8	5111	252	1.6	2KG4341 -   L52-8  	
	3.0	4713	232	1.7	2KG4341 -   L51-8  	
	3.3	4368	215	1.8	2KG4341 -   L50-8  	
	3.4	4153	204	1.9	2KG4341 -   L48-8  	
	3.7	3881	191	2.1	2KG4341 -   L47-8  	
	4.2	3424	169	2.3	2KG4341 -   L46-8  	
	4.4	3229	159	2.5	2KG4341 -   L45-8  	
	5.0	2894	142	2.8	2KG4341 -   L44-8  	
	5.4	2672	131	3	2KG4341 -   L43-8  	
	6.3	2283	112	3.5	2KG4341 -   L41-8  	
	6.9	2063	102	3.9	2KG4341 -   L40-8  	
	7.2	1988	97.8	4	2KG4341 -   L38-8  	
	Gearbox size K123 – motor frame size 112M – 8 poles					
	2.9	4918	242	0.96	2KG4321 -   L51-8  	234
	3.2	4504	222	1	2KG4321 -   L50-8  	
	3.5	4149	204	1.1	2KG4321 -   L48-8  	
3.7	3841	189	1.2	2KG4321 -   L47-8  		
4.0	3572	176	1.3	2KG4321 -   L46-8  		
4.3	3335	164	1.4	2KG4321 -   L45-8  		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.5	Gearbox size K123 – motor frame size 90L – 4 poles					226
	4.8	2980	295	1.6	2KG4321 - ■■■H53-4■■■	
	5.2	2733	271	1.7	2KG4321 - ■■■H52-4■■■	
	5.9	2442	242	1.9	2KG4321 - ■■■H51-4■■■	
	6.4	2236	222	2.1	2KG4321 - ■■■H50-4■■■	
	7.0	2060	204	2.3	2KG4321 - ■■■H48-4■■■	
	7.5	1907	189	2.5	2KG4321 - ■■■H47-4■■■	
	8.1	1773	176	2.7	2KG4321 - ■■■H46-4■■■	
	8.7	1656	164	2.8	2KG4321 - ■■■H45-4■■■	
	9.7	1481	147	3.2	2KG4321 - ■■■H44-4■■■	
	10.4	1373	136	3.4	2KG4321 - ■■■H43-4■■■	
	11.4	1258	125	3.7	2KG4321 - ■■■H42-4■■■	
	Gearbox size K103 – motor frame size 90L – 4 poles					147
	4.6	3099	307	0.94	2KG4301 - ■■■H53-4■■■	
	5.1	2805	278	1	2KG4301 - ■■■H52-4■■■	
	5.8	2456	243	1.2	2KG4301 - ■■■H51-4■■■	
	6.5	2216	220	1.4	2KG4301 - ■■■H50-4■■■	
	7.1	2029	201	1.5	2KG4301 - ■■■H48-4■■■	
	7.9	1805	179	1.7	2KG4301 - ■■■H47-4■■■	
	8.7	1649	164	1.8	2KG4301 - ■■■H46-4■■■	
	9.4	1516	150	2	2KG4301 - ■■■H45-4■■■	
	10.2	1401	139	2.1	2KG4301 - ■■■H44-4■■■	
	11.0	1300	129	2.3	2KG4301 - ■■■H43-4■■■	
	11.8	1211	120	2.5	2KG4301 - ■■■H42-4■■■	
	13.1	1095	109	2.7	2KG4301 - ■■■H41-4■■■	
	14.2	1008	99.9	3	2KG4301 - ■■■H40-4■■■	
	15.8	906	89.9	3.3	2KG4301 - ■■■H38-4■■■	
	17.1	836	82.9	3.6	2KG4301 - ■■■H37-4■■■	
	20.2	709	70.2	4.2	2KG4301 - ■■■H35-4■■■	
	Gearbox size K83 – motor frame size 90L – 4 poles					89
	8.0	1781	177	0.93	2KG3381 - ■■■H47-4■■■	
	9.1	1580	157	1	2KG3381 - ■■■H45-4■■■	
	9.8	1459	145	1.1	2KG3381 - ■■■H44-4■■■	
	10.9	1319	131	1.3	2KG3381 - ■■■H43-4■■■	
	11.8	1215	120	1.4	2KG3381 - ■■■H42-4■■■	
	12.8	1124	111	1.5	2KG3381 - ■■■H41-4■■■	
	13.7	1043	103	1.6	2KG3381 - ■■■H40-4■■■	
	15.6	920	91.2	1.8	2KG3381 - ■■■H38-4■■■	
	16.9	850	84.2	1.9	2KG3381 - ■■■H37-4■■■	
	18.8	761	75.5	2.2	2KG3381 - ■■■H36-4■■■	
	20.4	702	69.6	2.4	2KG3381 - ■■■H35-4■■■	
	24.3	589	58.4	2.8	2KG3381 - ■■■H34-4■■■	
	28.5	502	49.8	3.3	2KG3381 - ■■■H32-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
1.5	Gearbox size K63 – motor frame size 90L – 4 poles					57
	17.0	841	83.4	0.97	2KG3361 - ■ ■ H37-4 ■ ■ ■	
	18.5	775	76.8	1.1	2KG3361 - ■ ■ H36-4 ■ ■ ■	
	20.3	704	69.8	1.2	2KG3361 - ■ ■ H35-4 ■ ■ ■	
	22.3	641	63.6	1.3	2KG3361 - ■ ■ H34-4 ■ ■ ■	
	24.4	587	58.2	1.4	2KG3361 - ■ ■ H33-4 ■ ■ ■	
	27.3	524	52.0	1.6	2KG3361 - ■ ■ H32-4 ■ ■ ■	
	30.6	468	46.4	1.8	2KG3361 - ■ ■ H31-4 ■ ■ ■	
	36.0	397	39.4	2.1	2KG3361 - ■ ■ H28-4 ■ ■ ■	
	43.3	331	32.8	2.5	2KG3361 - ■ ■ H27-4 ■ ■ ■	
	46.7	306	30.4	2.7	2KG3361 - ■ ■ H26-4 ■ ■ ■	
	50.7	282	28.0	2.9	2KG3361 - ■ ■ H25-4 ■ ■ ■	
	55.9	256	25.4	3.2	2KG3361 - ■ ■ H24-4 ■ ■ ■	
	61.3	234	23.2	3.5	2KG3361 - ■ ■ H23-4 ■ ■ ■	
	66.9	214	21.2	3.8	2KG3361 - ■ ■ H22-4 ■ ■ ■	
	Gearbox size K43 – motor frame size 90L – 4 poles					36
	31.3	458	45.4	0.98	2KG3341 - ■ ■ H31-4 ■ ■ ■	
	35.0	410	40.6	1.1	2KG3341 - ■ ■ H30-4 ■ ■ ■	
	38.1	376	37.3	1.2	2KG3341 - ■ ■ H28-4 ■ ■ ■	
	42.3	339	33.6	1.3	2KG3341 - ■ ■ H27-4 ■ ■ ■	
	49.1	292	28.9	1.5	2KG3341 - ■ ■ H26-4 ■ ■ ■	
	51.5	278	27.6	1.6	2KG3341 - ■ ■ H25-4 ■ ■ ■	
	57.1	251	24.9	1.8	2KG3341 - ■ ■ H24-4 ■ ■ ■	
	63.0	227	22.5	2	2KG3341 - ■ ■ H23-4 ■ ■ ■	
	69.1	207	20.5	2.2	2KG3341 - ■ ■ H22-4 ■ ■ ■	
	75.6	189	18.8	2.4	2KG3341 - ■ ■ H21-4 ■ ■ ■	
	84.6	169	16.8	2.7	2KG3341 - ■ ■ H20-4 ■ ■ ■	
	92.1	156	15.4	2.9	2KG3341 - ■ ■ H18-4 ■ ■ ■	
102	140	13.9	3.1	2KG3341 - ■ ■ H17-4 ■ ■ ■		
119	121	12.0	3.5	2KG3341 - ■ ■ H15-4 ■ ■ ■		
125	114	11.4	2.5	2KG3341 - ■ ■ H14-4 ■ ■ ■		
140	102	10.2	2.8	2KG3341 - ■ ■ H13-4 ■ ■ ■		
152	94	9.32	2.9	2KG3341 - ■ ■ H12-4 ■ ■ ■		
169	85	8.40	3.2	2KG3341 - ■ ■ H11-4 ■ ■ ■		
197	73	7.22	3.5	2KG3341 - ■ ■ H10-4 ■ ■ ■		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
1.5						
Gearbox size K33 – motor frame size 90L – 4 poles						
65.1	220	220	21.8	0.92	2KG3331 - ■■■ H22-4 ■■■	31
71.8	200	200	19.8	0.99	2KG3331 - ■■■ H21-4 ■■■	
78.9	181	181	18.0	1.1	2KG3331 - ■■■ H20-4 ■■■	
89.3	161	161	15.9	1.1	2KG3331 - ■■■ H18-4 ■■■	
96.7	148	148	14.7	1.2	2KG3331 - ■■■ H17-4 ■■■	
112	128	128	12.7	1.3	2KG3331 - ■■■ H16-4 ■■■	
123	116	116	11.5	1.4	2KG3331 - ■■■ H15-4 ■■■	
132	108	108	10.7	1.5	2KG3331 - ■■■ H14-4 ■■■	
146	98	98	9.72	1.6	2KG3331 - ■■■ H13-4 ■■■	
160	89	89	8.85	1.8	2KG3331 - ■■■ H12-4 ■■■	
182	79	79	7.82	2	2KG3331 - ■■■ H11-4 ■■■	
197	73	73	7.22	2.2	2KG3331 - ■■■ H10-4 ■■■	
228	63	63	6.22	2.4	2KG3331 - ■■■ H08-4 ■■■	
251	57	57	5.65	2.6	2KG3331 - ■■■ H07-4 ■■■	

2.2

Gearbox size K163 – motor frame size 132S – 8 poles						
2.4	8643	288	1.6	2KG4361 -  M54-8 	560	
2.6	7929	264	1.7	2KG4361 -  M53-8 		
2.9	7317	244	1.8	2KG4361 -  M52-8 		
3.1	6788	226	2	2KG4361 -  M51-8 		
3.3	6403	213	2.1	2KG4361 -  M50-8 		
3.5	5989	200	2.3	2KG4361 -  M48-8 		
3.9	5325	177	2.5	2KG4361 -  M47-8 		
4.2	5027	168	2.7	2KG4361 -  M46-8 		
4.7	4513	150	3	2KG4361 -  M45-8 		
5.1	4142	138	3.3	2KG4361 -  M43-8 		
5.9	3574	119	3.8	2KG4361 -  M41-8 		
6.7	3127	104	4.3	2KG4361 -  M40-8 		
Gearbox size K143 – motor frame size 100L – 4 poles						
4.6	4529	306	1.8	2KG4341 -  J54-4 	342	
5.2	4060	274	2	2KG4341 -  J53-4 		
5.6	3722	252	2.1	2KG4341 -  J52-4 		
6.1	3432	232	2.3	2KG4341 -  J51-4 		
6.6	3180	215	2.5	2KG4341 -  J50-4 		
6.9	3024	204	2.6	2KG4341 -  J48-4 		
7.4	2826	191	2.8	2KG4341 -  J47-4 		
8.4	2493	169	3.2	2KG4341 -  J46-4 		
8.9	2351	159	3.4	2KG4341 -  J45-4 		
10.0	2107	142	3.8	2KG4341 -  J44-4 		
10.8	1945	131	4.1	2KG4341 -  J43-4 		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — **0, 1, 2, 3, or 6**

For shaft designs, see pages 5/6 to 5/7 — **A, B, G, H, L, M, N, R, S, T**

For gearbox mounting positions acc. to figure, see page 5/8 — **A to F**

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — **A to D**

For voltage/frequency, see page 5/7 — **1, 3, 5, 6, or 9**

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size K123 – motor frame size 100L – 4 poles					232
	4.8	4370	295	1.1	2KG4321 - ■■■ J53-4 ■■■	
	5.2	4008	271	1.2	2KG4321 - ■■■ J52-4 ■■■	
	5.9	3581	242	1.3	2KG4321 - ■■■ J51-4 ■■■	
	6.4	3279	222	1.4	2KG4321 - ■■■ J50-4 ■■■	
	7.0	3021	204	1.6	2KG4321 - ■■■ J48-4 ■■■	
	7.5	2797	189	1.7	2KG4321 - ■■■ J47-4 ■■■	
	8.1	2601	176	1.8	2KG4321 - ■■■ J46-4 ■■■	
	8.7	2428	164	1.9	2KG4321 - ■■■ J45-4 ■■■	
	9.7	2173	147	2.2	2KG4321 - ■■■ J44-4 ■■■	
	10.4	2013	136	2.3	2KG4321 - ■■■ J43-4 ■■■	
	11.4	1845	125	2.5	2KG4321 - ■■■ J42-4 ■■■	
	12.4	1692	114	2.8	2KG4321 - ■■■ J41-4 ■■■	
	14.6	1442	97.4	3.3	2KG4321 - ■■■ J40-4 ■■■	
	16.5	1272	86.0	3.7	2KG4321 - ■■■ J37-4 ■■■	
	Gearbox size K103 – motor frame size 100L – 4 poles					154
	6.5	3250	220	0.92	2KG4301 - ■■■ J50-4 ■■■	
	7.1	2976	201	1	2KG4301 - ■■■ J48-4 ■■■	
	7.9	2647	179	1.1	2KG4301 - ■■■ J47-4 ■■■	
	8.7	2419	164	1.2	2KG4301 - ■■■ J46-4 ■■■	
	9.4	2224	150	1.3	2KG4301 - ■■■ J45-4 ■■■	
	10.2	2055	139	1.5	2KG4301 - ■■■ J44-4 ■■■	
	11.0	1907	129	1.6	2KG4301 - ■■■ J43-4 ■■■	
	11.8	1776	120	1.7	2KG4301 - ■■■ J42-4 ■■■	
	13.1	1606	109	1.9	2KG4301 - ■■■ J41-4 ■■■	
	14.2	1478	99.9	2	2KG4301 - ■■■ J40-4 ■■■	
	15.8	1329	89.9	2.3	2KG4301 - ■■■ J38-4 ■■■	
	17.1	1227	82.9	2.4	2KG4301 - ■■■ J37-4 ■■■	
	20.2	1039	70.2	2.9	2KG4301 - ■■■ J35-4 ■■■	
	23.2	906	61.2	3.3	2KG4301 - ■■■ J34-4 ■■■	
	27.3	771	52.1	3.9	2KG4301 - ■■■ J32-4 ■■■	
	Gearbox size K83 – motor frame size 100L – 4 poles					96
	11.8	1782	120	0.93	2KG3381 - ■■■ J42-4 ■■■	
	12.8	1648	111	1	2KG3381 - ■■■ J41-4 ■■■	
	13.7	1530	103	1.1	2KG3381 - ■■■ J40-4 ■■■	
	15.6	1350	91.2	1.2	2KG3381 - ■■■ J38-4 ■■■	
16.9	1246	84.2	1.3	2KG3381 - ■■■ J37-4 ■■■		
18.8	1116	75.5	1.5	2KG3381 - ■■■ J36-4 ■■■		
20.4	1029	69.6	1.6	2KG3381 - ■■■ J35-4 ■■■		
24.3	864	58.4	1.9	2KG3381 - ■■■ J34-4 ■■■		
28.5	737	49.8	2.2	2KG3381 - ■■■ J32-4 ■■■		
34.2	614	41.5	2.7	2KG3381 - ■■■ J30-4 ■■■		
41.3	509	34.4	3.2	2KG3381 - ■■■ J27-4 ■■■		
46.0	457	30.9	3.6	2KG3381 - ■■■ J26-4 ■■■		
49.8	422	28.5	3.9	2KG3381 - ■■■ J25-4 ■■■		
55.6	378	25.5	4.4	2KG3381 - ■■■ J24-4 ■■■		
60.3	348	23.5	4.7	2KG3381 - ■■■ J23-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— **0, 1, 2, 3, or 6** ———

For shaft designs, see pages 5/6 to 5/7 ——— **A, B, G, H, L, M, N, R, S, T** ———

For gearbox mounting positions acc. to figure, see page 5/8 ——— **A to F** ———

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— **A to D** ———

For voltage/frequency, see page 5/7 ——— **1, 3, 5, 6, or 9** ———

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
2.2	Gearbox size K63 – motor frame size 100L – 4 poles					63
	24.4	862	58.2	0.95	2KG3361 - ■■■ J33-4 ■■■	
	27.3	769	52.0	1.1	2KG3361 - ■■■ J32-4 ■■■	
	30.6	686	46.4	1.2	2KG3361 - ■■■ J31-4 ■■■	
	36.0	583	39.4	1.4	2KG3361 - ■■■ J28-4 ■■■	
	43.3	485	32.8	1.7	2KG3361 - ■■■ J27-4 ■■■	
	46.7	449	30.4	1.8	2KG3361 - ■■■ J26-4 ■■■	
	50.7	414	28.0	2	2KG3361 - ■■■ J25-4 ■■■	
	55.9	376	25.4	2.2	2KG3361 - ■■■ J24-4 ■■■	
	61.3	343	23.2	2.4	2KG3361 - ■■■ J23-4 ■■■	
	66.9	314	21.2	2.6	2KG3361 - ■■■ J22-4 ■■■	
	75.0	280	18.9	2.9	2KG3361 - ■■■ J21-4 ■■■	
	84.1	250	16.9	3.3	2KG3361 - ■■■ J20-4 ■■■	
	99.0	212	14.4	3.8	2KG3361 - ■■■ J17-4 ■■■	
	119	177	11.9	4.3	2KG3361 - ■■■ J15-4 ■■■	
	124	169	11.4	2.6	2KG3361 - ■■■ J14-4 ■■■	
	137	154	10.4	2.7	2KG3361 - ■■■ J13-4 ■■■	
	149	141	9.52	2.9	2KG3361 - ■■■ J12-4 ■■■	
	167	126	8.50	3.2	2KG3361 - ■■■ J11-4 ■■■	
	187	112	7.58	3.4	2KG3361 - ■■■ J10-4 ■■■	
Gearbox size K43 – motor frame size 100L – 4 poles						43
42.3	497	33.6	0.91	2KG3341 - ■■■ J27-4 ■■■		
49.1	428	28.9	1.1	2KG3341 - ■■■ J26-4 ■■■		
51.5	408	27.6	1.1	2KG3341 - ■■■ J25-4 ■■■		
57.1	368	24.9	1.2	2KG3341 - ■■■ J24-4 ■■■		
63.0	333	22.5	1.3	2KG3341 - ■■■ J23-4 ■■■		
69.1	304	20.5	1.5	2KG3341 - ■■■ J22-4 ■■■		
75.6	278	18.8	1.6	2KG3341 - ■■■ J21-4 ■■■		
84.6	248	16.8	1.8	2KG3341 - ■■■ J20-4 ■■■		
92.1	228	15.4	2	2KG3341 - ■■■ J18-4 ■■■		
102	206	13.9	2.1	2KG3341 - ■■■ J17-4 ■■■		
119	177	12.0	2.4	2KG3341 - ■■■ J15-4 ■■■		
125	168	11.4	1.7	2KG3341 - ■■■ J14-4 ■■■		
140	150	10.2	1.9	2KG3341 - ■■■ J13-4 ■■■		
152	138	9.32	2	2KG3341 - ■■■ J12-4 ■■■		
169	124	8.40	2.2	2KG3341 - ■■■ J11-4 ■■■		
197	107	7.22	2.4	2KG3341 - ■■■ J10-4 ■■■		
Gearbox size K33 – motor frame size 100L – 4 poles						38
112	187	12.7	0.92	2KG3331 - ■■■ J16-4 ■■■		
123	170	11.5	0.98	2KG3331 - ■■■ J15-4 ■■■		
132	159	10.7	1	2KG3331 - ■■■ J14-4 ■■■		
146	144	9.72	1.1	2KG3331 - ■■■ J13-4 ■■■		
160	131	8.85	1.2	2KG3331 - ■■■ J12-4 ■■■		
182	116	7.82	1.4	2KG3331 - ■■■ J11-4 ■■■		
197	107	7.22	1.5	2KG3331 - ■■■ J10-4 ■■■		
	228	92	6.22	1.7	2KG3331 - ■■■ J08-4 ■■■	
	251	84	5.65	1.8	2KG3331 - ■■■ J07-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output speed P_1 kW	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg	
3	Gearbox size K183 – motor frame size 132M – 8 poles					847
	3.7	7831	191	2.6	2KG4381 - ■■■N48-8■■■	
	4.1	7072	173	2.8	2KG4381 - ■■■N47-8■■■	
	4.3	6627	162	3	2KG4381 - ■■■N46-8■■■	
	5.0	5692	139	3.5	2KG4381 - ■■■N43-8■■■	568
	Gearbox size K163 – motor frame size 132M – 8 poles					
	2.4	11785	288	1.1	2KG4361 - ■■■N54-8■■■	
	2.6	10813	264	1.2	2KG4361 - ■■■N53-8■■■	
	2.9	9978	244	1.4	2KG4361 - ■■■N52-8■■■	
	3.1	9256	226	1.5	2KG4361 - ■■■N51-8■■■	
	3.3	8731	213	1.5	2KG4361 - ■■■N50-8■■■	
	3.5	8167	200	1.7	2KG4361 - ■■■N48-8■■■	
	3.9	7262	177	1.9	2KG4361 - ■■■N47-8■■■	
	4.2	6856	168	2	2KG4361 - ■■■N46-8■■■	
	4.7	6154	150	2.2	2KG4361 - ■■■N45-8■■■	
	5.1	5648	138	2.4	2KG4361 - ■■■N43-8■■■	
	5.9	4874	119	2.8	2KG4361 - ■■■N41-8■■■	
	6.7	4264	104	3.2	2KG4361 - ■■■N40-8■■■	
	7.7	3708	90.6	3.6	2KG4361 - ■■■N38-8■■■	345
	Gearbox size K143 – motor frame size 100L – 4 poles					
	4.6	6175	306	1.3	2KG4341 - ■■■K54-4■■■	
	5.2	5537	274	1.4	2KG4341 - ■■■K53-4■■■	
	5.6	5075	252	1.6	2KG4341 - ■■■K52-4■■■	
	6.1	4680	232	1.7	2KG4341 - ■■■K51-4■■■	
	6.6	4337	215	1.8	2KG4341 - ■■■K50-4■■■	
	6.9	4124	204	1.9	2KG4341 - ■■■K48-4■■■	
	7.4	3854	191	2.1	2KG4341 - ■■■K47-4■■■	
	8.4	3400	169	2.4	2KG4341 - ■■■K46-4■■■	
	8.9	3207	159	2.5	2KG4341 - ■■■K45-4■■■	
	10.0	2873	142	2.8	2KG4341 - ■■■K44-4■■■	
	10.8	2653	131	3	2KG4341 - ■■■K43-4■■■	
	12.6	2267	112	3.5	2KG4341 - ■■■K41-4■■■	
	14.0	2048	102	3.9	2KG4341 - ■■■K40-4■■■	235
	Gearbox size K123 – motor frame size 100L – 4 poles					
	5.9	4883	242	0.96	2KG4321 - ■■■K51-4■■■	
	6.4	4472	222	1.1	2KG4321 - ■■■K50-4■■■	
	7.0	4120	204	1.1	2KG4321 - ■■■K48-4■■■	
	7.5	3814	189	1.2	2KG4321 - ■■■K47-4■■■	
	8.1	3547	176	1.3	2KG4321 - ■■■K46-4■■■	
	8.7	3311	164	1.4	2KG4321 - ■■■K45-4■■■	
	9.7	2963	147	1.6	2KG4321 - ■■■K44-4■■■	
	10.4	2745	136	1.7	2KG4321 - ■■■K43-4■■■	
	11.4	2517	125	1.9	2KG4321 - ■■■K42-4■■■	
	12.4	2307	114	2	2KG4321 - ■■■K41-4■■■	
	14.6	1966	97.4	2.4	2KG4321 - ■■■K40-4■■■	
	16.5	1735	86.0	2.7	2KG4321 - ■■■K37-4■■■	
	19.4	1476	73.2	3.2	2KG4321 - ■■■K36-4■■■	
	22.4	1279	63.4	3.7	2KG4321 - ■■■K34-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
3	Gearbox size K103 – motor frame size 100L – 4 poles					157
	8.7	3299	164	0.91	2KG4301 - ■■ K46-4 ■■■	
	9.4	3033	150	0.99	2KG4301 - ■■ K45-4 ■■■	
	10.2	2802	139	1.1	2KG4301 - ■■ K44-4 ■■■	
	11.0	2600	129	1.2	2KG4301 - ■■ K43-4 ■■■	
	11.8	2422	120	1.2	2KG4301 - ■■ K42-4 ■■■	
	13.1	2190	109	1.4	2KG4301 - ■■ K41-4 ■■■	
	14.2	2016	99.9	1.5	2KG4301 - ■■ K40-4 ■■■	
	15.8	1813	89.9	1.7	2KG4301 - ■■ K38-4 ■■■	
	17.1	1673	82.9	1.8	2KG4301 - ■■ K37-4 ■■■	
	20.2	1417	70.2	2.1	2KG4301 - ■■ K35-4 ■■■	
	23.2	1235	61.2	2.4	2KG4301 - ■■ K34-4 ■■■	
	27.3	1051	52.1	2.9	2KG4301 - ■■ K32-4 ■■■	
	32.0	897	44.4	3.3	2KG4301 - ■■ K31-4 ■■■	
	39.0	735	36.4	3.9	2KG4301 - ■■ K28-4 ■■■	
	41.9	683	33.9	4.4	2KG4301 - ■■ K27-4 ■■■	
	45.4	631	31.3	4.8	2KG4301 - ■■ K26-4 ■■■	
	Gearbox size K83 – motor frame size 100L – 4 poles					99
	16.9	1699	84.2	0.97	2KG3381 - ■■ K37-4 ■■■	
	18.8	1522	75.5	1.1	2KG3381 - ■■ K36-4 ■■■	
	20.4	1404	69.6	1.2	2KG3381 - ■■ K35-4 ■■■	
	24.3	1178	58.4	1.4	2KG3381 - ■■ K34-4 ■■■	
	28.5	1005	49.8	1.6	2KG3381 - ■■ K32-4 ■■■	
	34.2	837	41.5	2	2KG3381 - ■■ K30-4 ■■■	
	41.3	694	34.4	2.4	2KG3381 - ■■ K27-4 ■■■	
	46.0	623	30.9	2.6	2KG3381 - ■■ K26-4 ■■■	
	49.8	575	28.5	2.9	2KG3381 - ■■ K25-4 ■■■	
	55.6	515	25.5	3.2	2KG3381 - ■■ K24-4 ■■■	
	60.3	475	23.5	3.5	2KG3381 - ■■ K23-4 ■■■	
	71.9	398	19.8	3.9	2KG3381 - ■■ K21-4 ■■■	
	84.3	340	16.9	4.4	2KG3381 - ■■ K20-4 ■■■	
	101	283	14.0	5	2KG3381 - ■■ K17-4 ■■■	
	122	235	11.6	5.7	2KG3381 - ■■ K15-4 ■■■	
	127	226	11.2	3.6	2KG3381 - ■■ K13-4 ■■■	
	151	190	9.41	4	2KG3381 - ■■ K12-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
3	Gearbox size K63 – motor frame size 100L – 4 poles					66
	36.0	795	39.4	1	2KG3361 - ■■ K28-4 ■■■	
	43.3	661	32.8	1.2	2KG3361 - ■■ K27-4 ■■■	
	46.7	613	30.4	1.3	2KG3361 - ■■ K26-4 ■■■	
	50.7	565	28.0	1.5	2KG3361 - ■■ K25-4 ■■■	
	55.9	513	25.4	1.6	2KG3361 - ■■ K24-4 ■■■	
	61.3	467	23.2	1.8	2KG3361 - ■■ K23-4 ■■■	
	66.9	428	21.2	1.9	2KG3361 - ■■ K22-4 ■■■	
	75.0	382	18.9	2.1	2KG3361 - ■■ K21-4 ■■■	
	84.1	341	16.9	2.4	2KG3361 - ■■ K20-4 ■■■	
	99.0	290	14.4	2.8	2KG3361 - ■■ K17-4 ■■■	
	119	241	11.9	3.2	2KG3361 - ■■ K15-4 ■■■	
	124	230	11.4	1.9	2KG3361 - ■■ K14-4 ■■■	
	137	210	10.4	2	2KG3361 - ■■ K13-4 ■■■	
	149	192	9.52	2.1	2KG3361 - ■■ K12-4 ■■■	
	167	171	8.50	2.3	2KG3361 - ■■ K11-4 ■■■	
	187	153	7.58	2.5	2KG3361 - ■■ K10-4 ■■■	
	220	130	6.44	2.8	2KG3361 - ■■ K08-4 ■■■	
	265	108	5.36	3.2	2KG3361 - ■■ K07-4 ■■■	
	Gearbox size K43 – motor frame size 100L – 4 poles					46
	63.0	455	22.5	0.99	2KG3341 - ■■ K23-4 ■■■	
	69.1	414	20.5	1.1	2KG3341 - ■■ K22-4 ■■■	
	75.6	379	18.8	1.2	2KG3341 - ■■ K21-4 ■■■	
	84.6	339	16.8	1.3	2KG3341 - ■■ K20-4 ■■■	
	92.1	311	15.4	1.4	2KG3341 - ■■ K18-4 ■■■	
	102	280	13.9	1.6	2KG3341 - ■■ K17-4 ■■■	
	119	241	12.0	1.7	2KG3341 - ■■ K15-4 ■■■	
	125	229	11.4	1.3	2KG3341 - ■■ K14-4 ■■■	
	140	205	10.2	1.4	2KG3341 - ■■ K13-4 ■■■	
	152	188	9.32	1.5	2KG3341 - ■■ K12-4 ■■■	
	169	169	8.4	1.6	2KG3341 - ■■ K11-4 ■■■	
	197	146	7.22	1.8	2KG3341 - ■■ K10-4 ■■■	
	Gearbox size K33 – motor frame size 100L – 4 poles					41
	182	158	7.82	1	2KG3331 - ■■ K11-4 ■■■	
	197	146	7.22	1.1	2KG3331 - ■■ K10-4 ■■■	
	228	125	6.22	1.2	2KG3331 - ■■ K08-4 ■■■	
	251	114	5.65	1.3	2KG3331 - ■■ K07-4 ■■■	
4	Gearbox size K183 – motor frame size 160M – 8 poles					859
	3.7	10223	191	2	2KG4381 - ■■ Q48-8 ■■■	
	4.1	9231	173	2.2	2KG4381 - ■■ Q47-8 ■■■	
	4.4	8651	162	2.3	2KG4381 - ■■ Q46-8 ■■■	
	5.1	7431	139	2.7	2KG4381 - ■■ Q43-8 ■■■	
	6.0	6420	120	3.1	2KG4381 - ■■ Q42-8 ■■■	
	6.7	5667	106	3.5	2KG4381 - ■■ Q40-8 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
4	Gearbox size K163 – motor frame size 132M – 6 poles					565
	3.3	11579	288	1.2	2KG4361 - ■■■N54-6■■■	
	3.6	10623	264	1.3	2KG4361 - ■■■N53-6■■■	
	3.9	9803	244	1.4	2KG4361 - ■■■N52-6■■■	
	4.2	9094	226	1.5	2KG4361 - ■■■N51-6■■■	
	4.5	8578	213	1.6	2KG4361 - ■■■N50-6■■■	
	4.8	8024	200	1.7	2KG4361 - ■■■N48-6■■■	
	5.4	7135	177	1.9	2KG4361 - ■■■N47-6■■■	
	5.7	6735	168	2	2KG4361 - ■■■N46-6■■■	
	6.3	6046	150	2.2	2KG4361 - ■■■N45-6■■■	
	6.9	5549	138	2.4	2KG4361 - ■■■N43-6■■■	
	8.0	4789	119	2.8	2KG4361 - ■■■N41-6■■■	
	9.1	4189	104	3.2	2KG4361 - ■■■N40-6■■■	
	10.5	3643	90.6	3.7	2KG4361 - ■■■N38-6■■■	
	12.0	3196	79.5	4.2	2KG4361 - ■■■N36-6■■■	
	Gearbox size K143 – motor frame size 112M – 4 poles					351
	4.7	8120	306	0.99	2KG4341 - ■■■L54-4■■■	
	5.2	7280	274	1.1	2KG4341 - ■■■L53-4■■■	
	5.7	6673	252	1.2	2KG4341 - ■■■L52-4■■■	
	6.2	6153	232	1.3	2KG4341 - ■■■L51-4■■■	
	6.7	5702	215	1.4	2KG4341 - ■■■L50-4■■■	
	7.0	5422	204	1.5	2KG4341 - ■■■L48-4■■■	
	7.5	5067	191	1.6	2KG4341 - ■■■L47-4■■■	
	8.5	4470	169	1.8	2KG4341 - ■■■L46-4■■■	
	9.1	4216	159	1.9	2KG4341 - ■■■L45-4■■■	
	10.1	3778	142	2.1	2KG4341 - ■■■L44-4■■■	
	11.0	3488	131	2.3	2KG4341 - ■■■L43-4■■■	
	12.8	2980	112	2.7	2KG4341 - ■■■L41-4■■■	
	14.2	2693	102	3	2KG4341 - ■■■L40-4■■■	
	14.7	2595	97.8	3.1	2KG4341 - ■■■L38-4■■■	
	17.0	2245	84.6	3.6	2KG4341 - ■■■L37-4■■■	
	19.5	1958	73.8	4.1	2KG4341 - ■■■L36-4■■■	
	Gearbox size K123 – motor frame size 112M – 4 poles					241
	7.6	5015	189	0.94	2KG4321 - ■■■L47-4■■■	
	8.2	4664	176	1	2KG4321 - ■■■L46-4■■■	
	8.8	4353	164	1.1	2KG4321 - ■■■L45-4■■■	
	9.8	3895	147	1.2	2KG4321 - ■■■L44-4■■■	
	10.6	3609	136	1.3	2KG4321 - ■■■L43-4■■■	
	11.5	3309	125	1.4	2KG4321 - ■■■L42-4■■■	
	12.6	3033	114	1.5	2KG4321 - ■■■L41-4■■■	
	14.8	2585	97.4	1.8	2KG4321 - ■■■L40-4■■■	
	16.7	2281	86.0	2.1	2KG4321 - ■■■L37-4■■■	
	19.7	1941	73.2	2.4	2KG4321 - ■■■L36-4■■■	
	22.7	1682	63.4	2.8	2KG4321 - ■■■L34-4■■■	
	27.0	1416	53.4	3.3	2KG4321 - ■■■L32-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 ——— A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— A to D

For voltage/frequency, see page 5/7 ——— 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
4	Gearbox size K103 – motor frame size 112M – 4 poles					163
	12.0	3184	120	0.94	2KG4301 - ■■■L42-4■■■	
	13.3	2879	109	1	2KG4301 - ■■■L41-4■■■	
	14.4	2650	99.9	1.1	2KG4301 - ■■■L40-4■■■	
	16.0	2384	89.9	1.3	2KG4301 - ■■■L38-4■■■	
	17.4	2199	82.9	1.4	2KG4301 - ■■■L37-4■■■	
	20.5	1863	70.2	1.6	2KG4301 - ■■■L35-4■■■	
	23.5	1624	61.2	1.8	2KG4301 - ■■■L34-4■■■	
	27.6	1382	52.1	2.2	2KG4301 - ■■■L32-4■■■	
	32.4	1179	44.4	2.5	2KG4301 - ■■■L31-4■■■	
	39.5	967	36.4	2.9	2KG4301 - ■■■L28-4■■■	
	42.5	898	33.9	3.3	2KG4301 - ■■■L27-4■■■	
	46.1	829	31.3	3.6	2KG4301 - ■■■L26-4■■■	
	54.4	702	26.5	4.1	2KG4301 - ■■■L24-4■■■	
	Gearbox size K83 – motor frame size 112M – 4 poles					105
	24.7	1548	58.4	1.1	2KG3381 - ■■■L34-4■■■	
	28.9	1321	49.8	1.2	2KG3381 - ■■■L32-4■■■	
	34.7	1101	41.5	1.5	2KG3381 - ■■■L30-4■■■	
	41.9	913	34.4	1.8	2KG3381 - ■■■L27-4■■■	
	46.6	819	30.9	2	2KG3381 - ■■■L26-4■■■	
	50.5	756	28.5	2.2	2KG3381 - ■■■L25-4■■■	
	56.4	677	25.5	2.4	2KG3381 - ■■■L24-4■■■	
	61.2	624	23.5	2.6	2KG3381 - ■■■L23-4■■■	
	72.9	524	19.8	3	2KG3381 - ■■■L21-4■■■	
	85.5	447	16.9	3.4	2KG3381 - ■■■L20-4■■■	
	103	372	14.0	3.8	2KG3381 - ■■■L17-4■■■	
	124	309	11.6	4.3	2KG3381 - ■■■L15-4■■■	
	128	297	11.2	2.7	2KG3381 - ■■■L13-4■■■	
	153	250	9.41	3.1	2KG3381 - ■■■L12-4■■■	
	179	213	8.03	3.4	2KG3381 - ■■■L11-4■■■	
	215	177	6.69	3.9	2KG3381 - ■■■L08-4■■■	
	260	147	5.54	4.4	2KG3381 - ■■■L07-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 ——— A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— A to D

For voltage/frequency, see page 5/7 ——— 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
4	Gearbox size K63 – motor frame size 112M – 4 poles					72
	43.9	870	32.8	0.94	2KG3361 - ■■■L27-4■■■	
	47.4	806	30.4	1	2KG3361 - ■■■L26-4■■■	
	51.4	743	28.0	1.1	2KG3361 - ■■■L25-4■■■	
	56.6	674	25.4	1.2	2KG3361 - ■■■L24-4■■■	
	62.2	614	23.2	1.3	2KG3361 - ■■■L23-4■■■	
	67.9	563	21.2	1.5	2KG3361 - ■■■L22-4■■■	
	76.1	502	18.9	1.6	2KG3361 - ■■■L21-4■■■	
	85.3	448	16.9	1.8	2KG3361 - ■■■L20-4■■■	
	100	381	14.4	2.1	2KG3361 - ■■■L17-4■■■	
	121	317	11.9	2.4	2KG3361 - ■■■L15-4■■■	
	126	303	11.4	1.4	2KG3361 - ■■■L14-4■■■	
	138	276	10.4	1.5	2KG3361 - ■■■L13-4■■■	
	151	253	9.52	1.6	2KG3361 - ■■■L12-4■■■	
	169	225	8.50	1.8	2KG3361 - ■■■L11-4■■■	
	190	201	7.58	1.9	2KG3361 - ■■■L10-4■■■	
	224	171	6.44	2.1	2KG3361 - ■■■L08-4■■■	
	269	142	5.36	2.4	2KG3361 - ■■■L07-4■■■	

5.5	Gearbox size K183 – motor frame size 160M – 8 poles					868
	3.7	14155	191	1.4	2KG4381 -   R48-8  	
	4.1	12782	173	1.6	2KG4381 -   R47-8  	
	4.4	11979	162	1.7	2KG4381 -   R46-8  	
	5.1	10289	139	1.9	2KG4381 -   R43-8  	
	5.9	8889	120	2.2	2KG4381 -   R42-8  	
	6.7	7847	106	2.5	2KG4381 -   R40-8  	
	7.4	7064	95.5	2.8	2KG4381 -   R38-8  	
	Gearbox size K183 – motor frame size 132S – 4 poles					841
	7.6	6907	191	2.9	2KG4381 -   M48-4  	
	8.4	6237	173	3.2	2KG4381 -   M47-4  	
	9.0	5845	162	3.4	2KG4381 -   M46-4  	
	10.5	5021	139	4	2KG4381 -   M43-4  	
	Gearbox size K163 – motor frame size 132S – 4 poles					562
	5.1	10395	288	1.3	2KG4361 -   M54-4  	
	5.5	9537	264	1.4	2KG4361 -   M53-4  	
	6.0	8801	244	1.5	2KG4361 -   M52-4  	
	6.4	8164	226	1.7	2KG4361 -   M51-4  	
	6.8	7701	213	1.8	2KG4361 -   M50-4  	
	7.3	7203	200	1.9	2KG4361 -   M48-4  	
	8.2	6405	177	2.1	2KG4361 -   M47-4  	
	8.7	6047	168	2.2	2KG4361 -   M46-4  	
	9.7	5428	150	2.5	2KG4361 -   M45-4  	
	10.5	4982	138	2.7	2KG4361 -   M43-4  	
	12.2	4299	119	3.1	2KG4361 -   M41-4  	
	14.0	3761	104	3.6	2KG4361 -   M40-4  	
	16.1	3271	90.6	4.1	2KG4361 -   M38-4  	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 ——— A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— A to D

For voltage/frequency, see page 5/7 ——— 1, 3, 5, 6, or 9

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
5.5	Gearbox size K143 – motor frame size 132S – 4 poles					363
	6.3	8373	232	0.96	2KG4341 - ■■■ M51-4 ■■■	
	6.8	7760	215	1	2KG4341 - ■■■ M50-4 ■■■	
	7.1	7378	204	1.1	2KG4341 - ■■■ M48-4 ■■■	
	7.6	6896	191	1.2	2KG4341 - ■■■ M47-4 ■■■	
	8.6	6083	169	1.3	2KG4341 - ■■■ M46-4 ■■■	
	9.2	5737	159	1.4	2KG4341 - ■■■ M45-4 ■■■	
	10.2	5141	142	1.6	2KG4341 - ■■■ M44-4 ■■■	
	11.1	4747	131	1.7	2KG4341 - ■■■ M43-4 ■■■	
	13.0	4056	112	2	2KG4341 - ■■■ M41-4 ■■■	
	14.3	3665	102	2.2	2KG4341 - ■■■ M40-4 ■■■	
	14.9	3531	97.8	2.3	2KG4341 - ■■■ M38-4 ■■■	
	17.2	3054	84.6	2.6	2KG4341 - ■■■ M37-4 ■■■	
	19.7	2664	73.8	3	2KG4341 - ■■■ M36-4 ■■■	
	23.0	2280	63.2	3.5	2KG4341 - ■■■ M34-4 ■■■	
	25.7	2042	56.6	3.9	2KG4341 - ■■■ M32-4 ■■■	
	Gearbox size K123 – motor frame size 132S – 4 poles					253
	10.7	4912	136	0.96	2KG4321 - ■■■ M43-4 ■■■	
	11.7	4503	125	1	2KG4321 - ■■■ M42-4 ■■■	
	12.7	4128	114	1.1	2KG4321 - ■■■ M41-4 ■■■	
	14.9	3518	97.4	1.3	2KG4321 - ■■■ M40-4 ■■■	
	16.9	3104	86.0	1.5	2KG4321 - ■■■ M37-4 ■■■	
	19.9	2642	73.2	1.8	2KG4321 - ■■■ M36-4 ■■■	
	22.9	2289	63.4	2.1	2KG4321 - ■■■ M34-4 ■■■	
	27.3	1926	53.4	2.4	2KG4321 - ■■■ M32-4 ■■■	
	30.2	1738	48.1	2.7	2KG4321 - ■■■ M31-4 ■■■	
	35.2	1494	41.4	3.1	2KG4321 - ■■■ M30-4 ■■■	
	37.1	1415	39.2	3.3	2KG4321 - ■■■ M28-4 ■■■	
	40.5	1297	35.9	3.6	2KG4321 - ■■■ M27-4 ■■■	
	Gearbox size K103 – motor frame size 132S – 4 poles					175
	16.2	3244	89.9	0.92	2KG4301 - ■■■ M38-4 ■■■	
	17.6	2993	82.9	1	2KG4301 - ■■■ M37-4 ■■■	
	20.7	2536	70.2	1.2	2KG4301 - ■■■ M35-4 ■■■	
	23.8	2210	61.2	1.4	2KG4301 - ■■■ M34-4 ■■■	
	27.9	1880	52.1	1.6	2KG4301 - ■■■ M32-4 ■■■	
	32.7	1604	44.4	1.9	2KG4301 - ■■■ M31-4 ■■■	
	39.9	1315	36.4	2.2	2KG4301 - ■■■ M28-4 ■■■	
	43.0	1223	33.9	2.5	2KG4301 - ■■■ M27-4 ■■■	
	46.6	1128	31.3	2.7	2KG4301 - ■■■ M26-4 ■■■	
	54.9	956	26.5	3	2KG4301 - ■■■ M24-4 ■■■	
	63.0	833	23.1	3.3	2KG4301 - ■■■ M23-4 ■■■	
	74.1	709	19.6	3.7	2KG4301 - ■■■ M21-4 ■■■	
	86.9	605	16.8	4.1	2KG4301 - ■■■ M20-4 ■■■	
113	466	12.9	4.2	2KG4301 - ■■■ M15-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
5.5	Gearbox size K83 – motor frame size 132S – 4 poles					117
	29.2	1798	49.8	0.92	2KG3381 - ■■■ M32-4 ■■■	
	35.1	1498	41.5	1.1	2KG3381 - ■■■ M30-4 ■■■	
	42.3	1242	34.4	1.3	2KG3381 - ■■■ M27-4 ■■■	
	47.1	1114	30.9	1.5	2KG3381 - ■■■ M26-4 ■■■	
	51.1	1029	28.5	1.6	2KG3381 - ■■■ M25-4 ■■■	
	57.0	922	25.5	1.8	2KG3381 - ■■■ M24-4 ■■■	
	61.8	850	23.5	1.9	2KG3381 - ■■■ M23-4 ■■■	
	73.7	713	19.8	2.2	2KG3381 - ■■■ M21-4 ■■■	
	86.4	608	16.9	2.5	2KG3381 - ■■■ M20-4 ■■■	
	104	507	14.0	2.8	2KG3381 - ■■■ M17-4 ■■■	
	125	420	11.6	3.2	2KG3381 - ■■■ M15-4 ■■■	
	130	405	11.2	2	2KG3381 - ■■■ M13-4 ■■■	
	155	340	9.41	2.2	2KG3381 - ■■■ M12-4 ■■■	
	181	290	8.03	2.5	2KG3381 - ■■■ M11-4 ■■■	
	217	242	6.69	2.9	2KG3381 - ■■■ M08-4 ■■■	
263	200	5.54	3.3	2KG3381 - ■■■ M07-4 ■■■		
7.5	Gearbox size K183 – motor frame size 160M – 8 poles					889
	3.7	19167	191	1	2KG4381 - ■■■ S48-8 ■■■	
	4.1	17308	173	1.2	2KG4381 - ■■■ S47-8 ■■■	
	4.4	16220	162	1.2	2KG4381 - ■■■ S46-8 ■■■	
	5.1	13932	139	1.4	2KG4381 - ■■■ S43-8 ■■■	
	6.0	12037	120	1.7	2KG4381 - ■■■ S42-8 ■■■	
	6.7	10626	106	1.9	2KG4381 - ■■■ S40-8 ■■■	
	7.5	9565	95.5	2.1	2KG4381 - ■■■ S38-8 ■■■	
	Gearbox size K183 – motor frame size 132M – 4 poles					847
	7.6	9419	191	2.1	2KG4381 - ■■■ N48-4 ■■■	
	8.4	8505	173	2.4	2KG4381 - ■■■ N47-4 ■■■	
	9.0	7971	162	2.5	2KG4381 - ■■■ N46-4 ■■■	
	10.5	6846	139	2.9	2KG4381 - ■■■ N43-4 ■■■	
	12.1	5915	120	3.4	2KG4381 - ■■■ N42-4 ■■■	
	13.7	5221	106	3.8	2KG4381 - ■■■ N40-4 ■■■	
	15.2	4700	95.5	4.3	2KG4381 - ■■■ N38-4 ■■■	
All values apply at 50 Hz						
For types of construction, see pages 5/3 to 5/5			0, 1, 2, 3, or 6			
For shaft designs, see pages 5/6 to 5/7			A, B, G, H, L, M, N, R, S, T			
For gearbox mounting positions acc. to figure, see page 5/8			A to F			
For pos. of the connection system acc. to fig., see pages 5/7 to 5/8			A to D			
For voltage/frequency, see page 5/7			1, 3, 5, 6, or 9			

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg	
7.5	Gearbox size K163 – motor frame size 132M – 4 poles						
	5.1	14175	288	0.95	2KG4361 - ■■■N54-4■■■	568	
	5.5	13005	264	1	2KG4361 - ■■■N53-4■■■		
	6.0	12001	244	1.1	2KG4361 - ■■■N52-4■■■		
	6.4	11133	226	1.2	2KG4361 - ■■■N51-4■■■		
	6.8	10502	213	1.3	2KG4361 - ■■■N50-4■■■		
	7.3	9823	200	1.4	2KG4361 - ■■■N48-4■■■		
	8.2	8734	177	1.5	2KG4361 - ■■■N47-4■■■		
	8.7	8245	168	1.6	2KG4361 - ■■■N46-4■■■		
	9.7	7402	150	1.8	2KG4361 - ■■■N45-4■■■		
	10.5	6793	138	2	2KG4361 - ■■■N43-4■■■		
	12.2	5862	119	2.3	2KG4361 - ■■■N41-4■■■		
	14.0	5128	104	2.6	2KG4361 - ■■■N40-4■■■		
	16.1	4460	90.6	3	2KG4361 - ■■■N38-4■■■		
	18.3	3913	79.5	3.5	2KG4361 - ■■■N36-4■■■		
	21.6	3309	67.2	4.1	2KG4361 - ■■■N35-4■■■		
	Gearbox size K143 – motor frame size 132M – 4 poles						
	8.6	8295	169	0.96	2KG4341 - ■■■N46-4■■■	369	
	9.2	7824	159	1	2KG4341 - ■■■N45-4■■■		
	10.2	7010	142	1.1	2KG4341 - ■■■N44-4■■■		
	11.1	6473	131	1.2	2KG4341 - ■■■N43-4■■■		
	13.0	5531	112	1.4	2KG4341 - ■■■N41-4■■■		
	14.3	4998	102	1.6	2KG4341 - ■■■N40-4■■■		
	14.9	4815	97.8	1.7	2KG4341 - ■■■N38-4■■■		
	17.2	4165	84.6	1.9	2KG4341 - ■■■N37-4■■■		
	19.7	3633	73.8	2.2	2KG4341 - ■■■N36-4■■■		
	23.0	3109	63.2	2.6	2KG4341 - ■■■N34-4■■■		
	25.7	2785	56.6	2.9	2KG4341 - ■■■N32-4■■■		
	30.4	2358	47.9	3.4	2KG4341 - ■■■N31-4■■■		
	Gearbox size K123 – motor frame size 132M – 4 poles						
	14.9	4797	97.4	0.98	2KG4321 - ■■■N40-4■■■		259
	16.9	4233	86.0	1.1	2KG4321 - ■■■N37-4■■■		
	19.9	3602	73.2	1.3	2KG4321 - ■■■N36-4■■■		
	22.9	3121	63.4	1.5	2KG4321 - ■■■N34-4■■■		
	27.3	2627	53.4	1.8	2KG4321 - ■■■N32-4■■■		
	30.2	2370	48.1	2	2KG4321 - ■■■N31-4■■■		
35.2	2037	41.4	2.3	2KG4321 - ■■■N30-4■■■			
37.1	1929	39.2	2.4	2KG4321 - ■■■N28-4■■■			
40.5	1768	35.9	2.7	2KG4321 - ■■■N27-4■■■			
47.5	1507	30.6	3.1	2KG4321 - ■■■N26-4■■■			
53.8	1330	27.0	3.5	2KG4321 - ■■■N24-4■■■			
63.3	1132	23.0	4.2	2KG4321 - ■■■N22-4■■■			

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
7.5	Gearbox size K103 – motor frame size 132M – 4 poles					181
	23.8	3014	61.2	1	2KG4301 - ■■■N34-4■■■	
	27.9	2564	52.1	1.2	2KG4301 - ■■■N32-4■■■	
	32.7	2188	44.4	1.4	2KG4301 - ■■■N31-4■■■	
	39.9	1794	36.4	1.6	2KG4301 - ■■■N28-4■■■	
	43.0	1667	33.9	1.8	2KG4301 - ■■■N27-4■■■	
	46.6	1538	31.3	2	2KG4301 - ■■■N26-4■■■	
	54.9	1304	26.5	2.2	2KG4301 - ■■■N24-4■■■	
	63.0	1136	23.1	2.4	2KG4301 - ■■■N23-4■■■	
	74.1	966	19.6	2.7	2KG4301 - ■■■N21-4■■■	
	86.9	825	16.8	3	2KG4301 - ■■■N20-4■■■	
	106	676	13.7	3.5	2KG4301 - ■■■N16-4■■■	
	113	635	12.9	3.1	2KG4301 - ■■■N15-4■■■	
	133	540	11.0	3.4	2KG4301 - ■■■N13-4■■■	
	155	461	9.36	3.8	2KG4301 - ■■■N12-4■■■	
	189	378	7.68	4.4	2KG4301 - ■■■N10-4■■■	
	Gearbox size K83 – motor frame size 132M – 4 poles					123
	42.3	1693	34.4	0.97	2KG3381 - ■■■N27-4■■■	
	47.1	1520	30.9	1.1	2KG3381 - ■■■N26-4■■■	
	51.1	1403	28.5	1.2	2KG3381 - ■■■N25-4■■■	
	57.0	1257	25.5	1.3	2KG3381 - ■■■N24-4■■■	
	61.8	1159	23.5	1.4	2KG3381 - ■■■N23-4■■■	
	73.7	972	19.8	1.6	2KG3381 - ■■■N21-4■■■	
	86.4	829	16.9	1.8	2KG3381 - ■■■N20-4■■■	
	104	691	14.0	2.1	2KG3381 - ■■■N17-4■■■	
	125	573	11.6	2.3	2KG3381 - ■■■N15-4■■■	
	130	552	11.2	1.5	2KG3381 - ■■■N13-4■■■	
	155	463	9.41	1.6	2KG3381 - ■■■N12-4■■■	
	181	395	8.03	1.8	2KG3381 - ■■■N11-4■■■	
	217	329	6.69	2.1	2KG3381 - ■■■N08-4■■■	
	263	273	5.54	2.4	2KG3381 - ■■■N07-4■■■	
11	Gearbox size K183 – motor frame size 160M – 6 poles					900
	5.0	20938	191	0.96	2KG4381 - ■■■S48-6■■■	
	5.6	18907	173	1.1	2KG4381 - ■■■S47-6■■■	
	5.9	17718	162	1.1	2KG4381 - ■■■S46-6■■■	
	6.9	15219	139	1.3	2KG4381 - ■■■S43-6■■■	
	Gearbox size K183 – motor frame size 160M – 4 poles					866
	7.6	13767	191	1.5	2KG4381 - ■■■Q48-4■■■	
	8.5	12432	173	1.6	2KG4381 - ■■■Q47-4■■■	
	9.0	11650	162	1.7	2KG4381 - ■■■Q46-4■■■	
	10.5	10007	139	2	2KG4381 - ■■■Q43-4■■■	
	12.2	8646	120	2.3	2KG4381 - ■■■Q42-4■■■	
	13.8	7632	106	2.6	2KG4381 - ■■■Q40-4■■■	
	15.3	6870	95.5	2.9	2KG4381 - ■■■Q38-4■■■	
	18.4	5701	79.2	3.5	2KG4381 - ■■■Q36-4■■■	
	20.2	5198	72.2	3.8	2KG4381 - ■■■Q35-4■■■	
	23.0	4560	63.4	4.4	2KG4381 - ■■■Q34-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
11	Gearbox size K163 – motor frame size 160M – 4 poles					587
	7.3	14357	200	0.94	2KG4361 - ■■ Q48-4 ■■■	
	8.2	12766	177	1.1	2KG4361 - ■■ Q47-4 ■■■	
	8.7	12052	168	1.1	2KG4361 - ■■ Q46-4 ■■■	
	9.7	10819	150	1.2	2KG4361 - ■■ Q45-4 ■■■	
	10.6	9929	138	1.4	2KG4361 - ■■ Q43-4 ■■■	
	12.3	8569	119	1.6	2KG4361 - ■■ Q41-4 ■■■	
	14.0	7496	104	1.8	2KG4361 - ■■ Q40-4 ■■■	
	16.1	6519	90.6	2.1	2KG4361 - ■■ Q38-4 ■■■	
	18.4	5719	79.5	2.4	2KG4361 - ■■ Q36-4 ■■■	
	21.7	4837	67.2	2.8	2KG4361 - ■■ Q35-4 ■■■	
	23.9	4388	61.0	3.1	2KG4361 - ■■ Q34-4 ■■■	
	27.5	3826	53.2	3.5	2KG4361 - ■■ Q32-4 ■■■	
	32.3	3249	45.2	4.2	2KG4361 - ■■ Q31-4 ■■■	
	Gearbox size K143 – motor frame size 160M – 4 poles					388
	13.0	8084	112	0.99	2KG4341 - ■■ Q41-4 ■■■	
	14.4	7305	102	1.1	2KG4341 - ■■ Q40-4 ■■■	
	14.9	7038	97.8	1.1	2KG4341 - ■■ Q38-4 ■■■	
	17.3	6088	84.6	1.3	2KG4341 - ■■ Q37-4 ■■■	
	19.8	5310	73.8	1.5	2KG4341 - ■■ Q36-4 ■■■	
	23.1	4544	63.2	1.8	2KG4341 - ■■ Q34-4 ■■■	
	25.8	4070	56.6	2	2KG4341 - ■■ Q32-4 ■■■	
	30.5	3447	47.9	2.3	2KG4341 - ■■ Q31-4 ■■■	
	35.3	2977	41.4	2.7	2KG4341 - ■■ Q30-4 ■■■	
	46.9	2238	31.1	3.6	2KG4341 - ■■ Q27-4 ■■■	
	47.5	2212	30.7	3.6	2KG4341 - ■■ Q26-4 ■■■	
	54.9	1912	26.6	4.2	2KG4341 - ■■ Q24-4 ■■■	
	Gearbox size K123 – motor frame size 160M – 4 poles					278
	23.0	4562	63.4	1	2KG4321 - ■■ Q34-4 ■■■	
	27.4	3839	53.4	1.2	2KG4321 - ■■ Q32-4 ■■■	
	30.3	3464	48.1	1.4	2KG4321 - ■■ Q31-4 ■■■	
	35.3	2977	41.4	1.6	2KG4321 - ■■ Q30-4 ■■■	
	37.3	2820	39.2	1.7	2KG4321 - ■■ Q28-4 ■■■	
	40.6	2585	35.9	1.8	2KG4321 - ■■ Q27-4 ■■■	
	47.7	2202	30.6	2.1	2KG4321 - ■■ Q26-4 ■■■	
	54.0	1944	27.0	2.4	2KG4321 - ■■ Q24-4 ■■■	
	63.5	1654	23.0	2.8	2KG4321 - ■■ Q22-4 ■■■	
	73.3	1433	19.9	3.3	2KG4321 - ■■ Q21-4 ■■■	
	87.1	1206	16.8	3.9	2KG4321 - ■■ Q20-4 ■■■	
	96.5	1089	15.1	4.2	2KG4321 - ■■ Q18-4 ■■■	
	112	935	13.0	4.7	2KG4321 - ■■ Q16-4 ■■■	
	116	904	12.6	3.6	2KG4321 - ■■ Q15-4 ■■■	
	134	783	10.9	3.9	2KG4321 - ■■ Q13-4 ■■■	
	159	659	9.16	4.4	2KG4321 - ■■ Q12-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
11	Gearbox size K103 – motor frame size 160M – 4 poles					200
	32.9	3198	44.4	0.94	2KG4301 - ■■ Q31-4 ■■■	
	40.1	2622	36.4	1.1	2KG4301 - ■■ Q28-4 ■■■	
	43.1	2437	33.9	1.2	2KG4301 - ■■ Q27-4 ■■■	
	46.7	2249	31.3	1.3	2KG4301 - ■■ Q26-4 ■■■	
	55.1	1905	26.5	1.5	2KG4301 - ■■ Q24-4 ■■■	
	63.3	1661	23.1	1.7	2KG4301 - ■■ Q23-4 ■■■	
	74.4	1412	19.6	1.9	2KG4301 - ■■ Q21-4 ■■■	
	87.2	1205	16.8	2.1	2KG4301 - ■■ Q20-4 ■■■	
	106	989	13.7	2.4	2KG4301 - ■■ Q16-4 ■■■	
	113	928	12.9	2.1	2KG4301 - ■■ Q15-4 ■■■	
	133	789	11.0	2.3	2KG4301 - ■■ Q13-4 ■■■	
	156	673	9.36	2.6	2KG4301 - ■■ Q12-4 ■■■	
	190	553	7.68	3	2KG4301 - ■■ Q10-4 ■■■	

15	Gearbox size K183 – motor frame size 160L – 4 poles					891
	7.6	18774	191	1.1	2KG4381 - ■■ S48-4 ■■■	
	8.5	16953	173	1.2	2KG4381 - ■■ S47-4 ■■■	
	9.0	15887	162	1.3	2KG4381 - ■■ S46-4 ■■■	
	10.5	13646	139	1.5	2KG4381 - ■■ S43-4 ■■■	
	12.2	11790	120	1.7	2KG4381 - ■■ S42-4 ■■■	
	13.8	10407	106	1.9	2KG4381 - ■■ S40-4 ■■■	
	15.3	9368	95.5	2.1	2KG4381 - ■■ S38-4 ■■■	
	18.4	7774	79.2	2.6	2KG4381 - ■■ S36-4 ■■■	
	20.2	7088	72.2	2.8	2KG4381 - ■■ S35-4 ■■■	
	23.0	6219	63.4	3.2	2KG4381 - ■■ S34-4 ■■■	
	26.8	5344	54.5	3.7	2KG4381 - ■■ S33-4 ■■■	
	Gearbox size K163 – motor frame size 160L – 4 poles					612
	9.7	14753	150	0.92	2KG4361 - ■■ S45-4 ■■■	
	10.6	13540	138	1	2KG4361 - ■■ S43-4 ■■■	
	12.3	11685	119	1.2	2KG4361 - ■■ S41-4 ■■■	
	14.0	10222	104	1.3	2KG4361 - ■■ S40-4 ■■■	
	16.1	8889	90.6	1.5	2KG4361 - ■■ S38-4 ■■■	
	18.4	7799	79.5	1.7	2KG4361 - ■■ S36-4 ■■■	
	21.7	6595	67.2	2	2KG4361 - ■■ S35-4 ■■■	
	23.9	5984	61.0	2.3	2KG4361 - ■■ S34-4 ■■■	
	27.5	5218	53.2	2.6	2KG4361 - ■■ S32-4 ■■■	
	32.3	4430	45.2	3	2KG4361 - ■■ S31-4 ■■■	
	42.3	3390	34.6	4	2KG4361 - ■■ S27-4 ■■■	
	44.9	3192	32.5	4.2	2KG4361 - ■■ S26-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
15	Gearbox size K143 – motor frame size 160L – 4 poles					413
	17.3	8302	84.6	0.96	2KG4341 - ■ ■ S37-4 ■ ■ ■	
	19.8	7241	73.8	1.1	2KG4341 - ■ ■ S36-4 ■ ■ ■	
	23.1	6197	63.2	1.3	2KG4341 - ■ ■ S34-4 ■ ■ ■	
	25.8	5550	56.6	1.4	2KG4341 - ■ ■ S32-4 ■ ■ ■	
	30.5	4701	47.9	1.7	2KG4341 - ■ ■ S31-4 ■ ■ ■	
	35.3	4060	41.4	2	2KG4341 - ■ ■ S30-4 ■ ■ ■	
	46.9	3051	31.1	2.6	2KG4341 - ■ ■ S27-4 ■ ■ ■	
	47.5	3016	30.7	2.7	2KG4341 - ■ ■ S26-4 ■ ■ ■	
	54.9	2608	26.6	3.1	2KG4341 - ■ ■ S24-4 ■ ■ ■	
	63.0	2275	23.2	3.5	2KG4341 - ■ ■ S23-4 ■ ■ ■	
	73.6	1947	19.8	4.1	2KG4341 - ■ ■ S21-4 ■ ■ ■	
	Gearbox size K123 – motor frame size 160L – 4 poles					303
	30.3	4723	48.1	1	2KG4321 - ■ ■ S31-4 ■ ■ ■	
	35.3	4060	41.4	1.2	2KG4321 - ■ ■ S30-4 ■ ■ ■	
	37.3	3845	39.2	1.2	2KG4321 - ■ ■ S28-4 ■ ■ ■	
	40.6	3524	35.9	1.3	2KG4321 - ■ ■ S27-4 ■ ■ ■	
	47.7	3003	30.6	1.6	2KG4321 - ■ ■ S26-4 ■ ■ ■	
	54.0	2651	27.0	1.8	2KG4321 - ■ ■ S24-4 ■ ■ ■	
	63.5	2256	23.0	2.1	2KG4321 - ■ ■ S22-4 ■ ■ ■	
	73.3	1954	19.9	2.4	2KG4321 - ■ ■ S21-4 ■ ■ ■	
	87.1	1644	16.8	2.9	2KG4321 - ■ ■ S20-4 ■ ■ ■	
	96.5	1485	15.1	3.1	2KG4321 - ■ ■ S18-4 ■ ■ ■	
	112	1276	13.0	3.5	2KG4321 - ■ ■ S16-4 ■ ■ ■	
	116	1232	12.6	2.6	2KG4321 - ■ ■ S15-4 ■ ■ ■	
	134	1068	10.9	2.9	2KG4321 - ■ ■ S13-4 ■ ■ ■	
	159	899	9.16	3.3	2KG4321 - ■ ■ S12-4 ■ ■ ■	
	177	810	8.26	3.5	2KG4321 - ■ ■ S11-4 ■ ■ ■	
	206	697	7.10	3.9	2KG4321 - ■ ■ S10-4 ■ ■ ■	
	Gearbox size K103 – motor frame size 160L – 4 poles					225
	46.7	3066	31.3	0.98	2KG4301 - ■ ■ S26-4 ■ ■ ■	
	55.1	2598	26.5	1.1	2KG4301 - ■ ■ S24-4 ■ ■ ■	
	63.3	2265	23.1	1.2	2KG4301 - ■ ■ S23-4 ■ ■ ■	
	74.4	1926	19.6	1.4	2KG4301 - ■ ■ S21-4 ■ ■ ■	
	87.2	1643	16.8	1.5	2KG4301 - ■ ■ S20-4 ■ ■ ■	
	106	1348	13.7	1.8	2KG4301 - ■ ■ S16-4 ■ ■ ■	
	113	1266	12.9	1.5	2KG4301 - ■ ■ S15-4 ■ ■ ■	
	133	1076	11.0	1.7	2KG4301 - ■ ■ S13-4 ■ ■ ■	
	156	918	9.36	1.9	2KG4301 - ■ ■ S12-4 ■ ■ ■	
	190	754	7.68	2.2	2KG4301 - ■ ■ S10-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg
18.5	Gearbox size K183 – motor frame size 180M – 4 poles					
	8.5	20908	173	0.96	2KG4381 - ■■■T47-4■■■	910
	9.0	19594	162	1	2KG4381 - ■■■T46-4■■■	
	10.5	16830	139	1.2	2KG4381 - ■■■T43-4■■■	
	12.2	14541	120	1.4	2KG4381 - ■■■T42-4■■■	
	13.8	12836	106	1.6	2KG4381 - ■■■T40-4■■■	
	15.3	11554	95.5	1.7	2KG4381 - ■■■T38-4■■■	
	18.4	9588	79.2	2.1	2KG4381 - ■■■T36-4■■■	
	20.2	8742	72.2	2.3	2KG4381 - ■■■T35-4■■■	
	23.0	7670	63.4	2.6	2KG4381 - ■■■T34-4■■■	
	26.8	6591	54.5	3	2KG4381 - ■■■T33-4■■■	
	34.4	5134	42.4	3.9	2KG4381 - ■■■T30-4■■■	
	Gearbox size K163 – motor frame size 180M – 4 poles					
	12.3	14411	119	0.94	2KG4361 - ■■■T41-4■■■	631
	14.0	12607	104	1.1	2KG4361 - ■■■T40-4■■■	
	16.1	10964	90.6	1.2	2KG4361 - ■■■T38-4■■■	
	18.4	9619	79.5	1.4	2KG4361 - ■■■T36-4■■■	
	21.7	8134	67.2	1.7	2KG4361 - ■■■T35-4■■■	
	23.9	7380	61.0	1.8	2KG4361 - ■■■T34-4■■■	
	27.5	6435	53.2	2.1	2KG4361 - ■■■T32-4■■■	
	32.3	5464	45.2	2.5	2KG4361 - ■■■T31-4■■■	
	42.3	4181	34.6	3.2	2KG4361 - ■■■T27-4■■■	
	44.9	3936	32.5	3.4	2KG4361 - ■■■T26-4■■■	
	51.2	3454	28.5	3.9	2KG4361 - ■■■T25-4■■■	
	Gearbox size K143 – motor frame size 180M – 4 poles					
	23.1	7643	63.2	1	2KG4341 - ■■■T34-4■■■	432
	25.8	6846	56.6	1.2	2KG4341 - ■■■T32-4■■■	
	30.5	5798	47.9	1.4	2KG4341 - ■■■T31-4■■■	
	35.3	5007	41.4	1.6	2KG4341 - ■■■T30-4■■■	
	46.9	3763	31.1	2.1	2KG4341 - ■■■T27-4■■■	
	47.5	3720	30.7	2.2	2KG4341 - ■■■T26-4■■■	
	54.9	3216	26.6	2.5	2KG4341 - ■■■T24-4■■■	
	63.0	2806	23.2	2.9	2KG4341 - ■■■T23-4■■■	
	73.6	2401	19.8	3.3	2KG4341 - ■■■T21-4■■■	
	82.2	2150	17.8	3.7	2KG4341 - ■■■T20-4■■■	
	97.0	1821	15.1	4.2	2KG4341 - ■■■T18-4■■■	
	112	1573	13.0	4.6	2KG4341 - ■■■T15-4■■■	
	149	1182	9.77	5.6	2KG4341 - ■■■T13-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 ——— 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 ——— A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 ——— A to D

For voltage/frequency, see page 5/7 ——— 1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
18.5	Gearbox size K123 – motor frame size 180M – 4 poles					322
	35.3	5007	41.4	0.94	2KG4321 - ■■■T30-4■■■	
	37.3	4742	39.2	0.99	2KG4321 - ■■■T28-4■■■	
	40.6	4347	35.9	1.1	2KG4321 - ■■■T27-4■■■	
	47.7	3704	30.6	1.3	2KG4321 - ■■■T26-4■■■	
	54.0	3270	27.0	1.4	2KG4321 - ■■■T24-4■■■	
	63.5	2782	23.0	1.7	2KG4321 - ■■■T22-4■■■	
	73.3	2411	19.9	1.9	2KG4321 - ■■■T21-4■■■	
	87.1	2028	16.8	2.3	2KG4321 - ■■■T20-4■■■	
	96.5	1831	15.1	2.5	2KG4321 - ■■■T18-4■■■	
	112	1573	13.0	2.8	2KG4321 - ■■■T16-4■■■	
	116	1520	12.6	2.1	2KG4321 - ■■■T15-4■■■	
	134	1317	10.9	2.3	2KG4321 - ■■■T13-4■■■	
	159	1108	9.16	2.6	2KG4321 - ■■■T12-4■■■	
	177	1000	8.26	2.8	2KG4321 - ■■■T11-4■■■	
	206	859	7.10	3.2	2KG4321 - ■■■T10-4■■■	

22	Gearbox size K183 – motor frame size 180L – 4 poles					924
	10.5	20014	139	1	2KG4381 - ■■■U43-4■■■	
	12.2	17292	120	1.2	2KG4381 - ■■■U42-4■■■	
	13.8	15264	106	1.3	2KG4381 - ■■■U40-4■■■	
	15.3	13740	95.5	1.5	2KG4381 - ■■■U38-4■■■	
	18.4	11402	79.2	1.8	2KG4381 - ■■■U36-4■■■	
	20.2	10396	72.2	1.9	2KG4381 - ■■■U35-4■■■	
	23.0	9121	63.4	2.2	2KG4381 - ■■■U34-4■■■	
	26.8	7838	54.5	2.6	2KG4381 - ■■■U33-4■■■	
	34.4	6106	42.4	3.3	2KG4381 - ■■■U30-4■■■	
	Gearbox size K163 – motor frame size 180L – 4 poles					645
	16.1	13038	90.6	1	2KG4361 - ■■■U38-4■■■	
	18.4	11439	79.5	1.2	2KG4361 - ■■■U36-4■■■	
	21.7	9673	67.2	1.4	2KG4361 - ■■■U35-4■■■	
	23.9	8777	61.0	1.5	2KG4361 - ■■■U34-4■■■	
27.5	7653	53.2	1.8	2KG4361 - ■■■U32-4■■■		
32.3	6497	45.2	2.1	2KG4361 - ■■■U31-4■■■		
42.3	4972	34.6	2.7	2KG4361 - ■■■U27-4■■■		
44.9	4681	32.5	2.9	2KG4361 - ■■■U26-4■■■		
51.2	4107	28.5	3.3	2KG4361 - ■■■U25-4■■■		
60.5	3474	24.1	3.9	2KG4361 - ■■■U23-4■■■		
66.7	3152	21.9	4.2	2KG4361 - ■■■U22-4■■■		

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
22	Gearbox size K143 – motor frame size 180L – 4 poles					446
	25.8	8141	56.6	0.98	2KG4341 - ■■U32-4■■■	
	30.5	6894	47.9	1.2	2KG4341 - ■■U31-4■■■	
	35.3	5955	41.4	1.3	2KG4341 - ■■U30-4■■■	
	46.9	4475	31.1	1.8	2KG4341 - ■■U27-4■■■	
	47.5	4424	30.7	1.8	2KG4341 - ■■U26-4■■■	
	54.9	3825	26.6	2.1	2KG4341 - ■■U24-4■■■	
	63.0	3337	23.2	2.4	2KG4341 - ■■U23-4■■■	
	73.6	2855	19.8	2.8	2KG4341 - ■■U21-4■■■	
	82.2	2557	17.8	3.1	2KG4341 - ■■U20-4■■■	
	97.0	2166	15.1	3.5	2KG4341 - ■■U18-4■■■	
	112	1871	13.0	3.9	2KG4341 - ■■U15-4■■■	
	149	1406	9.77	4.7	2KG4341 - ■■U13-4■■■	
	166	1265	8.79	3.1	2KG4341 - ■■U11-4■■■	
	196	1071	7.44	3.5	2KG4341 - ■■U10-4■■■	
	Gearbox size K123 – motor frame size 180L – 4 poles					336
	40.6	5169	35.9	0.91	2KG4321 - ■■U27-4■■■	
	47.7	4405	30.6	1.1	2KG4321 - ■■U26-4■■■	
	54.0	3888	27.0	1.2	2KG4321 - ■■U24-4■■■	
	63.5	3308	23.0	1.4	2KG4321 - ■■U22-4■■■	
	73.3	2867	19.9	1.6	2KG4321 - ■■U21-4■■■	
	87.1	2412	16.8	1.9	2KG4321 - ■■U20-4■■■	
	96.5	2177	15.1	2.1	2KG4321 - ■■U18-4■■■	
	112	1871	13.0	2.4	2KG4321 - ■■U16-4■■■	
	116	1807	12.6	1.8	2KG4321 - ■■U15-4■■■	
	134	1566	10.9	2	2KG4321 - ■■U13-4■■■	
	159	1318	9.16	2.2	2KG4321 - ■■U12-4■■■	
	177	1189	8.26	2.4	2KG4321 - ■■U11-4■■■	
	206	1022	7.10	2.6	2KG4321 - ■■U10-4■■■	
30	Gearbox size K183 – motor frame size 200L – 4 poles					968
	13.8	20743	106	0.96	2KG4381 - ■■W40-4■■■	
	15.3	18672	95.5	1.1	2KG4381 - ■■W38-4■■■	
	18.5	15494	79.2	1.3	2KG4381 - ■■W36-4■■■	
	20.3	14127	72.2	1.4	2KG4381 - ■■W35-4■■■	
	23.1	12395	63.4	1.6	2KG4381 - ■■W34-4■■■	
	26.9	10652	54.5	1.9	2KG4381 - ■■W33-4■■■	
	34.5	8298	42.4	2.4	2KG4381 - ■■W30-4■■■	
	42.7	6704	34.3	3	2KG4381 - ■■W27-4■■■	
	51.5	5564	28.5	3.6	2KG4381 - ■■W25-4■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
30	Gearbox size K163 – motor frame size 200L – 4 poles					689
	21.8	13146	67.2	1	2KG4361 - ■ ■ W35-4 ■ ■ ■	
	24.0	11927	61.0	1.1	2KG4361 - ■ ■ W34-4 ■ ■ ■	
	27.5	10400	53.2	1.3	2KG4361 - ■ ■ W32-4 ■ ■ ■	
	32.4	8830	45.2	1.5	2KG4361 - ■ ■ W31-4 ■ ■ ■	
	42.4	6757	34.6	2	2KG4361 - ■ ■ W27-4 ■ ■ ■	
	45.0	6362	32.5	2.1	2KG4361 - ■ ■ W26-4 ■ ■ ■	
	51.3	5581	28.5	2.4	2KG4361 - ■ ■ W25-4 ■ ■ ■	
	60.7	4721	24.1	2.9	2KG4361 - ■ ■ W23-4 ■ ■ ■	
	66.9	4283	21.9	3.1	2KG4361 - ■ ■ W22-4 ■ ■ ■	
	76.7	3733	19.1	3.4	2KG4361 - ■ ■ W21-4 ■ ■ ■	
	90.4	3170	16.2	3.8	2KG4361 - ■ ■ W18-4 ■ ■ ■	
	118	2427	12.4	4.5	2KG4361 - ■ ■ W15-4 ■ ■ ■	
	Gearbox size K143 – motor frame size 200L – 4 poles					490
	35.4	8092	41.4	0.99	2KG4341 - ■ ■ W30-4 ■ ■ ■	
	47.1	6082	31.1	1.3	2KG4341 - ■ ■ W27-4 ■ ■ ■	
	47.7	6012	30.7	1.3	2KG4341 - ■ ■ W26-4 ■ ■ ■	
	55.1	5198	26.6	1.5	2KG4341 - ■ ■ W24-4 ■ ■ ■	
	63.2	4535	23.2	1.8	2KG4341 - ■ ■ W23-4 ■ ■ ■	
	73.8	3880	19.8	2.1	2KG4341 - ■ ■ W21-4 ■ ■ ■	
	82.4	3475	17.8	2.3	2KG4341 - ■ ■ W20-4 ■ ■ ■	
	97.3	2943	15.1	2.6	2KG4341 - ■ ■ W18-4 ■ ■ ■	
	113	2542	13.0	2.9	2KG4341 - ■ ■ W15-4 ■ ■ ■	
	150	1911	9.77	3.5	2KG4341 - ■ ■ W13-4 ■ ■ ■	
	167	1719	8.79	2.3	2KG4341 - ■ ■ W11-4 ■ ■ ■	
	197	1455	7.44	2.6	2KG4341 - ■ ■ W10-4 ■ ■ ■	
	228	1257	6.43	2.9	2KG4341 - ■ ■ W08-4 ■ ■ ■	
	303	945	4.83	3.5	2KG4341 - ■ ■ W07-4 ■ ■ ■	
	Gearbox size K123 – motor frame size 200L – 4 poles					380
	63.7	4496	23.0	1	2KG4321 - ■ ■ W22-4 ■ ■ ■	
	73.5	3896	19.9	1.2	2KG4321 - ■ ■ W21-4 ■ ■ ■	
	87.4	3278	16.8	1.4	2KG4321 - ■ ■ W20-4 ■ ■ ■	
	96.8	2959	15.1	1.6	2KG4321 - ■ ■ W18-4 ■ ■ ■	
	113	2542	13.0	1.7	2KG4321 - ■ ■ W16-4 ■ ■ ■	
	117	2456	12.6	1.3	2KG4321 - ■ ■ W15-4 ■ ■ ■	
	135	2128	10.9	1.4	2KG4321 - ■ ■ W13-4 ■ ■ ■	
	160	1791	9.16	1.6	2KG4321 - ■ ■ W12-4 ■ ■ ■	
	177	1615	8.26	1.8	2KG4321 - ■ ■ W11-4 ■ ■ ■	
	206	1388	7.10	1.9	2KG4321 - ■ ■ W10-4 ■ ■ ■	

All values apply at 50 Hz

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For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Service factor	Order No.	Weight	
P_1 kW	n_2 rpm	M_2 Nm	i	f_B		kg	
37	Gearbox size K183 – motor frame size 225S – 4 poles						
	18.6	19045	79.2	1.1	2KG4381 - ■■X36-4■■■	1013	
	20.3	17365	72.2	1.2	2KG4381 - ■■X35-4■■■		
	23.2	15235	63.4	1.3	2KG4381 - ■■X34-4■■■		
	27.0	13093	54.5	1.5	2KG4381 - ■■X33-4■■■		
	34.6	10199	42.4	2	2KG4381 - ■■X30-4■■■		
	42.9	8240	34.3	2.4	2KG4381 - ■■X27-4■■■		
	51.7	6839	28.5	2.9	2KG4381 - ■■X25-4■■■		
	56.7	6235	25.9	3.2	2KG4381 - ■■X24-4■■■		
	64.6	5471	22.8	3.7	2KG4381 - ■■X22-4■■■		
	Gearbox size K163 – motor frame size 225S – 4 poles						
	24.1	14660	61.0	0.92	2KG4361 - ■■X34-4■■■	734	
	27.6	12783	53.2	1.1	2KG4361 - ■■X32-4■■■		
	32.6	10853	45.2	1.2	2KG4361 - ■■X31-4■■■		
	42.5	8305	34.6	1.6	2KG4361 - ■■X27-4■■■		
	45.2	7819	32.5	1.7	2KG4361 - ■■X26-4■■■		
	51.5	6860	28.5	2	2KG4361 - ■■X25-4■■■		
	60.9	5803	24.1	2.3	2KG4361 - ■■X23-4■■■		
	67.1	5264	21.9	2.5	2KG4361 - ■■X22-4■■■		
	77.0	4589	19.1	2.7	2KG4361 - ■■X21-4■■■		
	90.7	3896	16.2	3.1	2KG4361 - ■■X18-4■■■		
	118	2983	12.4	3.7	2KG4361 - ■■X15-4■■■		
	126	2805	11.7	2.5	2KG4361 - ■■X14-4■■■		
	145	2445	10.2	2.7	2KG4361 - ■■X12-4■■■		
	170	2077	8.64	3.1	2KG4361 - ■■X10-4■■■		
	222	1589	6.61	3.7	2KG4361 - ■■X08-4■■■		
	Gearbox size K143 – motor frame size 225S – 4 poles						
	47.3	7476	31.1	1.1	2KG4341 - ■■X27-4■■■	535	
	47.8	7389	30.7	1.1	2KG4341 - ■■X26-4■■■		
	55.3	6389	26.6	1.3	2KG4341 - ■■X24-4■■■		
	63.4	5574	23.2	1.4	2KG4341 - ■■X23-4■■■		
	74.1	4769	19.8	1.7	2KG4341 - ■■X21-4■■■		
	82.7	4271	17.8	1.9	2KG4341 - ■■X20-4■■■		
	97.7	3618	15.1	2.1	2KG4341 - ■■X18-4■■■		
	113	3125	13.0	2.3	2KG4341 - ■■X15-4■■■		
	150	2348	9.8	2.8	2KG4341 - ■■X13-4■■■		
	167	2113	8.79	1.9	2KG4341 - ■■X11-4■■■		
198	1788	7.44	2.1	2KG4341 - ■■X10-4■■■			
229	1546	6.43	2.3	2KG4341 - ■■X08-4■■■			
304	1161	4.83	2.9	2KG4341 - ■■X07-4■■■			

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5

0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7

A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8

A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8

A to D

For voltage/frequency, see page 5/7

1, 3, 5, 6, or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Service factor f_B	Order No.	Weight kg
45	Gearbox size K183 – motor frame size 225M – 4 poles					1033
	20.3	21119	72.2	0.95	2KG4381 - ■■ Y35-4 ■■■	
	23.2	18529	63.4	1.1	2KG4381 - ■■ Y34-4 ■■■	
	27.0	15924	54.5	1.3	2KG4381 - ■■ Y33-4 ■■■	
	34.6	12404	42.4	1.6	2KG4381 - ■■ Y30-4 ■■■	
	42.9	10022	34.3	2	2KG4381 - ■■ Y27-4 ■■■	
	51.7	8317	28.5	2.4	2KG4381 - ■■ Y25-4 ■■■	
	56.7	7583	25.9	2.6	2KG4381 - ■■ Y24-4 ■■■	
	64.6	6654	22.8	3	2KG4381 - ■■ Y22-4 ■■■	
	75.2	5718	19.6	3.5	2KG4381 - ■■ Y21-4 ■■■	
	96.5	4452	15.2	4.3	2KG4381 - ■■ Y18-4 ■■■	
	121	3537	12.1	4.9	2KG4381 - ■■ Y15-4 ■■■	
	Gearbox size K163 – motor frame size 225M – 4 poles					754
	32.6	13199	45.2	1	2KG4361 - ■■ Y31-4 ■■■	
	42.5	10101	34.6	1.3	2KG4361 - ■■ Y27-4 ■■■	
	45.2	9510	32.5	1.4	2KG4361 - ■■ Y26-4 ■■■	
	51.5	8344	28.5	1.6	2KG4361 - ■■ Y25-4 ■■■	
	60.9	7057	24.1	1.9	2KG4361 - ■■ Y23-4 ■■■	
	67.1	6402	21.9	2	2KG4361 - ■■ Y22-4 ■■■	
	77.0	5581	19.1	2.2	2KG4361 - ■■ Y21-4 ■■■	
	90.7	4739	16.2	2.5	2KG4361 - ■■ Y18-4 ■■■	
	118	3628	12.4	3	2KG4361 - ■■ Y15-4 ■■■	
	126	3412	11.7	2	2KG4361 - ■■ Y14-4 ■■■	
	145	2973	10.2	2.2	2KG4361 - ■■ Y12-4 ■■■	
	170	2526	8.64	2.5	2KG4361 - ■■ Y10-4 ■■■	
	222	1932	6.61	3	2KG4361 - ■■ Y08-4 ■■■	
	Gearbox size K143 – motor frame size 225M – 4 poles					555
	55.3	7771	26.6	1	2KG4341 - ■■ Y24-4 ■■■	
	63.4	6780	23.2	1.2	2KG4341 - ■■ Y23-4 ■■■	
	74.1	5800	19.8	1.4	2KG4341 - ■■ Y21-4 ■■■	
	82.7	5195	17.8	1.5	2KG4341 - ■■ Y20-4 ■■■	
	97.7	4400	15.1	1.7	2KG4341 - ■■ Y18-4 ■■■	
	113	3801	13.0	1.9	2KG4341 - ■■ Y15-4 ■■■	
	150	2856	9.8	2.3	2KG4341 - ■■ Y13-4 ■■■	
	167	2570	8.8	1.5	2KG4341 - ■■ Y11-4 ■■■	
	198	2175	7.44	1.7	2KG4341 - ■■ Y10-4 ■■■	
	229	1880	6.43	1.9	2KG4341 - ■■ Y08-4 ■■■	
	304	1412	4.83	2.4	2KG4341 - ■■ Y07-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 5/3 to 5/5 — 0, 1, 2, 3, or 6

For shaft designs, see pages 5/6 to 5/7 — A, B, G, H, L, M, N, R, S, T

For gearbox mounting positions acc. to the figure, see page 5/8 — A to F

For pos. of the connection system acc. to fig., see pages 5/7 to 5/8 — A to D

For voltage/frequency, see page 5/7 — 1, 3, 5, 6, or 9

Geared motors

Bevel-helical geared motors

Selection and ordering

Ratios and maximum torques

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th position	12th position				i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160	180
4-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)																		
K33	148 to 250	0	7	5.65	257	148			•	•	•							
		0	8	6.22	233	152			•	•	•	•						
		1	0	7.22	201	159		•	•	•	•	•						
		1	1	7.82	185	159		•	•	•	•	•						
		1	2	8.85	164	159		•	•	•	•	•						
		1	3	9.72	149	159		•	•	•	•	•						
		1	4	10.7	135	159		•	•	•	•	•						
		1	5	11.5	126	167		•	•	•	•	•						
		1	6	12.7	115	172		•	•	•	•	•						
		1	7	14.7	99.0	180	•	•	•	•	•							
		1	8	15.9	91.0	184	•	•	•	•	•							
		2	0	18.0	81.0	191	•	•	•	•	•							
		2	1	19.8	73.0	197	•	•	•	•	•							
		2	2	21.8	66.0	203	•	•	•	•	•							
		2	3	24.2	60.0	209	•	•	•	•	•							
		2	4	26.9	54.0	216	•	•	•	•	•							
		2	5	28.7	50.0	250	•	•	•	•	•							
		2	6	31.6	46.0	250	•	•	•	•	•							
		2	8	36.7	40.0	250	•	•	•	•	•							
		3	0	39.7	36.0	250	•	•	•	•	•							
		3	1	44.9	32.0	250	•	•	•	•	•							
		3	2	49.4	29.0	250	•	•	•	•	•							
		3	3	54.5	27.0	250	•	•	•	•	•							
		3	4	60.3	24.0	250	•	•	•	•	•							
		3	5	67.2	22.0	250	•	•	•	•	•							
		3	6	77.1	18.8	250	•	•										
		3	7	85.3	17.0	250	•	•										
		4	0	97.1	14.9	250	•	•										
		4	1	111	13.1	250	•	•										
		4	2	125	11.6	250	•	•										
		4	3	139	10.4	250	•	•										
		4	5	159	9.1	250	•											
		4	7	179	8.1	250	•											
K43	256 to 450	1	0	7.22	201	256			•	•	•							
		1	1	8.40	173	268			•	•	•							
		1	2	9.32	156	277			•	•	•							
		1	3	10.2	143	284			•	•	•							
		1	4	11.4	128	291			•	•	•							
		1	5	12.0	121	420			•	•	•							
		1	7	13.9	104	440			•	•	•							
		1	8	15.4	94.0	450			•	•	•							
		2	0	16.8	86.0	450			•	•	•							
		2	1	18.8	77.0	450		•	•	•	•	•						
		2	2	20.5	71.0	450		•	•	•	•	•						
		2	3	22.5	64.0	450		•	•	•	•	•						
		2	4	24.9	58.0	450		•	•	•	•	•						
		2	5	27.6	53.0	450		•	•	•	•	•						
		2	6	28.9	50.0	450		•	•	•	•	•						
		2	7	33.6	43.0	450		•	•	•	•	•						
		2	8	37.3	39.0	450	•	•	•	•	•							
		3	0	40.6	36.0	450	•	•	•	•	•							
		3	1	45.4	32.0	450	•	•	•	•	•							

Geared motors

Bevel-helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th position	12th position				<i>i</i>	<i>n</i> ₂ rpm	<i>M</i> ₂ Nm	63	71	80	90	100	112	132	160	180
K43	256 to 450	3	2	49.7	29.0	450	•	•	•	•								
		3	3	54.5	27.0	450	•	•	•	•								
		3	4	60.1	24.0	450	•	•	•	•								
		3	5	66.6	22.0	450	•	•	•	•								
		3	6	75.5	19.2	450	•	•	•									
		3	7	83.3	17.4	450	•	•	•									
		3	8	94.1	15.4	450	•	•	•									
		4	1	107	13.5	450	•	•	•									
		4	2	122	11.9	450	•	•	•									
		4	3	131	11.1	450	•	•	•									
		4	5	151	9.6	450	•	•										
		4	7	170	8.6	450	•	•										
K63	345 to 820	0	7	5.36	271	345				•	•	•						
		0	8	6.44	225	365				•	•	•						
		1	0	7.6	191	383			•	•	•	•						
		1	1	8.5	171	397			•	•	•	•						
		1	2	9.52	152	411			•	•	•	•						
		1	3	10.4	139	422			•	•	•	•						
		1	4	11.41	127	434			•	•	•	•						
		1	5	11.94	121	768			•	•	•	•						
		1	7	14.35	101	812			•	•	•	•						
		2	0	16.89	86	820			•	•	•	•						
		2	1	18.93	77	820			•	•	•	•						
		2	2	21.22	68	820			•	•	•	•						
		2	3	23.16	63	820			•	•	•	•						
		2	4	25.4	57	820			•	•	•	•						
		2	5	28.0	52	820			•	•	•	•						
		2	6	30.4	48	820			•	•	•	•						
		2	7	32.8	44	820			•	•	•	•						
		2	8	39.4	37	820			•	•	•							
		3	1	46.4	31	820			•	•	•							
		3	2	52.0	28	820		•	•	•	•	•						
		3	3	58.2	25	820		•	•	•	•	•						
		3	4	63.6	23	820		•	•	•	•							
		3	5	69.8	21	820	•	•	•	•								
		3	6	76.8	18.9	820	•	•	•	•								
		3	7	83.4	17.4	820	•	•	•	•								
		3	8	90.9	16	820	•	•	•	•								
		4	0	99.6	14.6	820	•	•	•	•								
		4	1	109.6	13.2	820	•	•	•	•								
		4	2	126.1	11.5	820	•	•	•									
		4	3	136.6	10.6	820	•	•	•									
		4	5	151.0	9.6	820	•	•	•									
		4	7	176.1	8.2	820	•	•	•									
		4	8	196.1	7.4	820	•	•	•									
		5	0	215.7	6.7	820	•	•	•									
		5	1	243.7	5.9	820	•	•										
K83	651 to 1650	0	7	5.54	262	651					•	•	•					
		0	8	6.69	217	689					•	•	•					
		1	1	8.03	181	728				•	•	•	•					
		1	2	9.41	154	764				•	•	•	•					
		1	3	11.2	129	806				•	•	•	•					
		1	5	11.6	125	1339					•	•	•					
		1	7	14.0	103	1417					•	•	•					

Geared motors

Bevel-helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Output speed	Max. torque	Motor frame size										
		11th 12th position	i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160	180	200	225
K83	651 to 1650	2 0	16.9	86.0	1498				•	•	•	•				
		2 1	19.8	73.0	1572				•	•	•	•				
		2 3	23.5	62.0	1650				•	•	•	•				
		2 4	25.5	57.0	1650				•	•	•	•				
		2 5	28.5	51.0	1650				•	•	•	•				
		2 6	30.9	47.0	1650				•	•	•	•				
		2 7	34.4	42.0	1650					•	•	•				
		3 0	41.5	35.0	1650					•	•	•				
		3 2	49.8	29.0	1650			•	•	•	•	•				
		3 4	58.4	25.0	1650			•	•	•	•					
		3 5	69.6	21.0	1650			•	•	•						
		3 6	75.5	19.2	1650		•	•	•	•						
		3 7	84.2	17.2	1650		•	•	•	•						
		3 8	91.2	15.9	1650		•	•	•	•						
		4 0	103	14.0	1650		•	•	•	•						
		4 1	111	13.0	1650		•	•	•	•						
		4 2	120	12.0	1650		•	•	•	•						
		4 3	131	11.1	1650	•	•	•	•							
		4 4	145	10.0	1650	•	•	•	•							
		4 5	157	9.3	1650	•	•	•	•							
		4 7	177	8.2	1650	•	•	•	•							
		4 8	193	7.5	1650	•	•	•	•							
		5 0	215	6.7	1650	•	•	•								
		5 1	246	5.9	1650	•	•	•								
		5 2	273	5.3	1650	•	•	•								
		5 4	303	4.8	1540	•	•	•								
K103	1656 to 3000	1 0	7.68	189	1656						•	•	•			
		1 2	9.36	155	1759					•	•	•	•			
		1 3	11.0	132	1845					•	•	•	•			
		1 5	12.9	112	1938					•	•	•	•			
		1 6	13.7	106	2362					•	•	•	•			
		2 0	16.8	87.0	2509					•	•	•	•			
		2 1	19.6	74.0	2632					•	•	•	•			
		2 3	23.1	63.0	2764					•	•	•	•			
		2 4	26.5	55.0	2882					•	•	•	•			
		2 6	31.3	46.0	3000				•	•	•	•	•			
		2 7	33.9	43.0	3000				•	•	•	•	•			
		2 8	36.4	40.0	2832					•	•	•	•			
		3 1	44.4	33.0	3000					•	•	•	•			
		3 2	52.1	28.0	3000					•	•	•				
		3 4	61.2	24.0	3000			•	•	•	•	•				
		3 5	70.2	21.0	3000			•	•	•	•	•				
		3 7	82.9	17.5	3000			•	•	•	•	•				
		3 8	89.9	16.1	3000			•	•	•	•	•				
		4 0	99.9	14.5	3000			•	•	•	•					
		4 1	109	13.4	3000			•	•	•	•					
		4 2	120	12.1	3000			•	•	•	•					
		4 3	129	11.3	3000			•	•	•						
		4 4	139	10.4	3000			•	•	•						
		4 5	150	9.6	3000			•	•	•						
		4 6	164	8.9	3000			•	•	•						
		4 7	179	8.1	3000			•	•	•						
		4 8	201	7.2	3000			•	•	•						
		5 0	220	6.6	3000			•	•	•						

Geared motors

Bevel-helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Output speed	Max. torque	Motor frame size											
		11th position	12th position				i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160	180
K103	1656 to 3000	5	1	243	6.0	3000			•	•								
		5	2	278	5.2	2830			•	•								
		5	3	307	4.7	2906			•	•								
K123	2707 to 4700	1	0	7.10	204	2707							•	•	•	•		
		1	1	8.26	176	2834							•	•	•	•		
		1	2	9.16	158	2924							•	•	•	•		
		1	3	10.9	133	3081							•	•	•	•		
		1	5	12.6	115	3217						•	•	•	•	•		
		1	6	13.0	112	4419							•	•	•	•		
		1	8	15.1	96.0	4626							•	•	•	•		
		2	0	16.8	87.0	4700							•	•	•	•		
		2	1	19.9	73.0	4700						•	•	•	•	•		
		2	2	23.0	63.0	4700						•	•	•	•	•		
		2	4	27.0	54.0	4700					•	•	•	•	•			
		2	6	30.6	47.0	4700					•	•	•	•	•			
		2	7	35.9	40.0	4700					•	•	•	•	•			
		2	8	39.2	37.0	4700					•	•	•	•	•			
		3	0	41.4	35.0	4700							•	•	•			
		3	1	48.1	30.0	4700							•	•				
		3	2	53.4	27.0	4700					•	•	•	•				
		3	4	63.4	23.0	4700					•	•	•	•				
		3	6	73.2	19.8	4700					•	•	•					
		3	7	86.0	16.9	4700				•	•	•	•					
		4	0	97.4	14.9	4700				•	•	•	•					
		4	1	114	12.7	4700				•	•	•	•					
		4	2	125	11.6	4700				•	•	•	•					
		4	3	136	10.7	4700				•	•	•	•					
		4	4	147	9.9	4700				•	•	•						
		4	5	164	8.8	4700				•	•	•						
		4	6	176	8.2	4700				•	•	•						
		4	7	189	7.7	4700				•	•	•						
		4	8	204	7.1	4700				•	•							
		5	0	222	6.5	4700				•	•							
		5	1	242	6.0	4700				•	•							
		5	2	271	5.4	4700				•	•							
		5	3	295	4.9	4700				•	•							
K143	3320 to 8000	0	7	4.83	300	3320								•	•	•	•	
		0	8	6.43	226	3620								•	•	•	•	
		1	0	7.44	195	3785								•	•	•	•	
		1	1	8.79	165	3980							•	•	•	•	•	
		1	3	9.77	148	6670								•	•	•	•	
		1	5	13.0	112	7273								•	•	•	•	
		1	8	15.1	96.0	7603								•	•	•	•	
		2	0	17.8	82.0	8000							•	•	•	•	•	
		2	1	19.8	73.0	8000							•	•	•	•	•	
		2	3	23.2	63.0	8000							•	•	•	•	•	
		2	4	26.6	55.0	8000							•	•	•	•	•	
		2	6	30.7	47.0	8000						•	•	•	•	•	•	
		2	7	31.1	47.0	8000								•	•	•	•	
		3	0	41.4	35.0	8000								•	•	•		
		3	1	47.9	30.0	8000							•	•	•			
3	2	56.6	26.0	8000							•	•	•					
3	4	63.2	23.0	8000					•	•	•	•	•					
3	6	73.8	19.6	8000					•	•	•	•						

Geared motors

Bevel-helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Output speed	Max. torque	Motor frame size										
		11th 12th position	i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160	180	200	225
K143	3320 to 8000	3 7	84.6	17.1	8000					•	•	•	•			
		3 8	97.8	14.8	8000					•	•	•	•			
		4 0	102	14.3	8000					•	•	•	•			
		4 1	112	12.9	8000					•	•	•	•			
		4 3	131	11.0	8000					•	•	•	•			
		4 4	142	10.2	8000					•	•	•	•			
		4 5	159	9.1	8000					•	•	•	•			
		4 6	169	8.6	8000					•	•	•	•			
		4 7	191	7.6	8000					•	•	•	•			
		4 8	204	7.1	8000					•	•	•	•			
		5 0	215	6.7	8000					•	•	•	•			
		5 1	232	6.3	8000					•	•	•	•			
		5 2	252	5.8	8000					•	•	•	•			
		5 3	274	5.3	8000					•	•	•	•			
		5 4	306	4.7	8000					•	•	•	•			
K163	5870 to 13500	0 8	6.61	219	5870								•	•	•	•
		1 0	8.64	168	6366								•	•	•	•
		1 2	10.2	143	6689								•	•	•	•
		1 4	11.7	124	6973								•	•	•	•
		1 5	12.4	117	11016								•	•	•	•
		1 8	16.2	89.0	11946								•	•	•	•
		2 1	19.1	76.0	12553								•	•	•	•
		2 2	21.9	66.0	13086								•	•	•	•
		2 3	24.1	60.0	13500								•	•	•	•
		2 5	28.5	51.0	13500							•	•	•	•	•
		2 6	32.5	45.0	13500							•	•	•	•	•
		2 7	34.6	42.0	13500							•	•	•	•	•
		3 1	45.2	32.0	13500							•	•	•	•	•
		3 2	53.2	27.0	13500							•	•	•	•	•
		3 4	61.0	24.0	13500							•	•	•	•	•
		3 5	67.2	22.0	13500							•	•	•	•	
		3 6	79.5	18.2	13500							•	•	•		
		3 8	90.6	16.0	13500							•	•	•		
		4 0	104	13.9	13500							•	•	•		
		4 1	119	12.2	13500							•	•	•		
		4 3	138	10.5	13500							•	•			
		4 5	150	9.6	13500							•	•			
		4 6	168	8.7	13500							•	•			
		4 7	177	8.2	13500							•	•			
		4 8	200	7.3	13500							•	•			
		5 0	213	6.8	13500							•				
		5 1	226	6.4	13500							•				
		5 2	244	5.9	13500							•				
		5 3	264	5.5	13500							•				
		5 4	288	5.0	13500							•				
K183	17500 to 20000	1 5	12.1	120	17500										•	•
		1 8	15.2	95.0	19000									•	•	•
		2 1	19.6	74.0	20000									•	•	•
		2 2	22.8	64.0	20000								•	•	•	•
		2 4	25.9	56.0	20000								•	•	•	•
		2 5	28.5	51.0	20000								•	•	•	•
		2 7	34.3	42.0	20000								•	•	•	•
		3 0	42.4	34.0	20000								•	•	•	•
		3 3	54.5	27.0	20000								•	•	•	•

Geared motors

Bevel-helical geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Output speed	Max. torque	Motor frame size										
	Nm	11th 12th position	i	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132	160	180	200	225
K183	17500 to 20000	3 4	63.4	23.0	20000							•	•	•	•	•
		3 5	72.2	20.0	20000							•	•	•	•	•
		3 6	79.2	18.3	20000							•	•	•	•	•
		3 8	95.5	15.2	20000							•	•	•	•	
		4 0	106.1	13.7	20000							•	•	•	•	
		4 2	120.2	12.1	20000							•	•	•		
		4 3	139.1	10.4	20000							•	•	•		
		4 6	161.9	9.0	20000							•	•	•		
		4 7	172.8	8.4	20000							•	•	•		
		4 8	191.3	7.6	20000							•	•			

Geared motors

Bevel-helical geared motors

Dimensions

K33 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	201	78	488	261	75
71	C or D	145	111	75	201	78	488	261	75
80	E or F	162	120	75	210	77	511	284	75
90	G or H	181	128	75	218	77	543	316	75
100	J or K	202	135	120	225	95	592	365	120

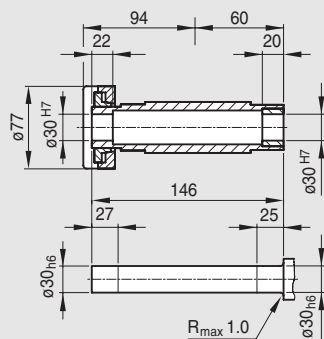
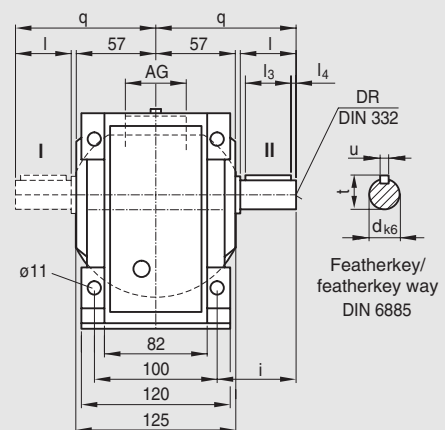
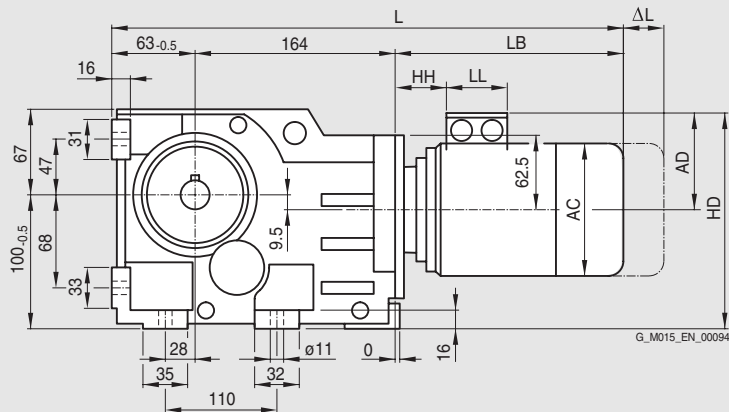
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

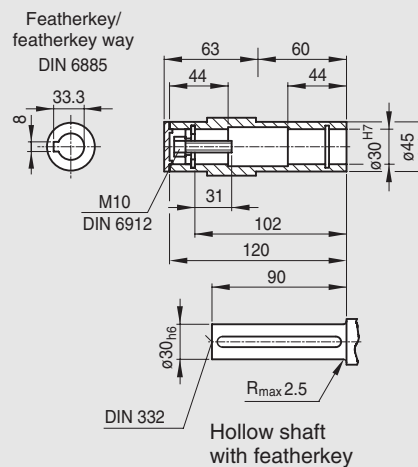
d	l	i	q	DR
25	50	60	110	M10x22

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	q	DR
25	50	40	5	28	8	60	110	M10x22



Hollow shaft with shrink disk



Hollow shaft with featherkey

5

5/57

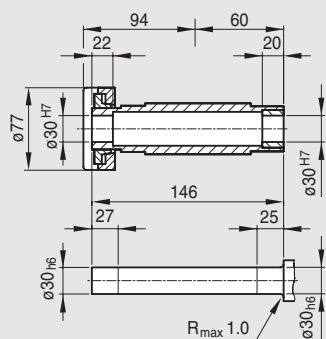
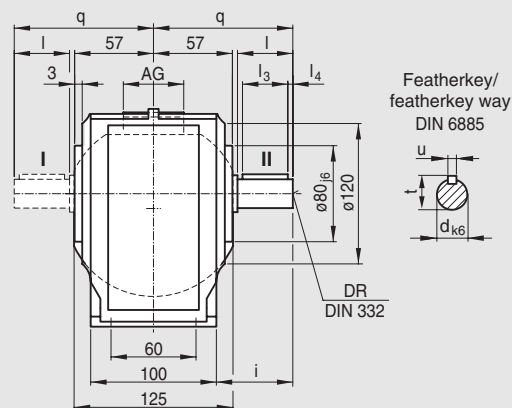
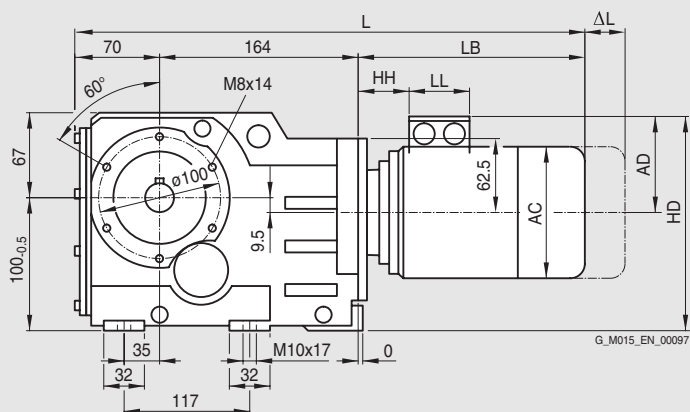
Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	201	78	495	261	75
71	C or D	145	111	75	201	78	495	261	75
80	E or F	162	120	75	210	77	518	284	75
90	G or H	181	128	75	218	77	550	316	75
100	J or K	202	135	120	225	95	599	365	120

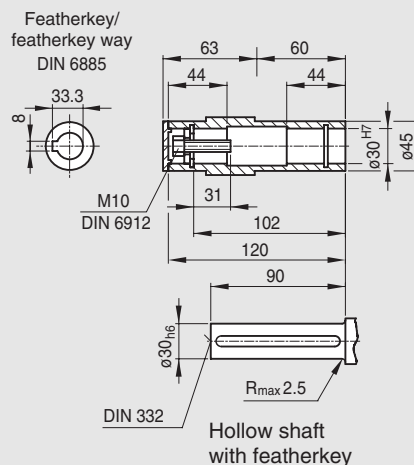
Plain solid shaft

d	l	i	q	DR
25	50	60	110	M10x22

d	l	l₃	l₄	t	u	i	q	DR
25	50	40	5	28	8	60	110	M10x22



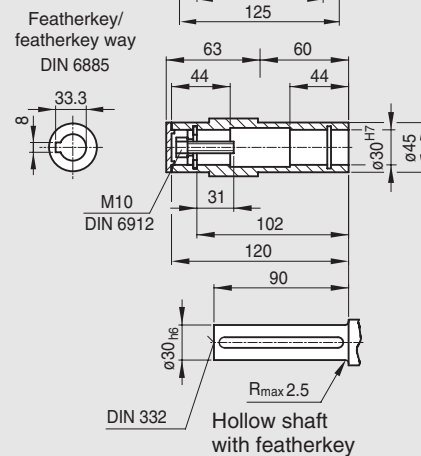
Hollow shaft
with shrink disk



Hollow shaft
with featherkey

5

ΔL see Section 8, "Dimensions of built-on accessories".



Follow shaft
with featherkey

Geared motors

Bevel-helical geared motors

Dimensions

K43 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	212	78	518	261	75
71	C or D	145	111	75	212	78	518	261	75
80	E or F	162	120	75	221	77	541	284	75
90	G or H	181	128	75	229	77	573	316	75
100	J or K	202	135	120	236	95	622	365	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

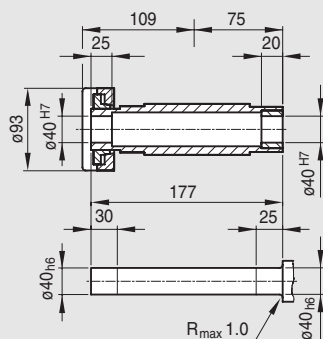
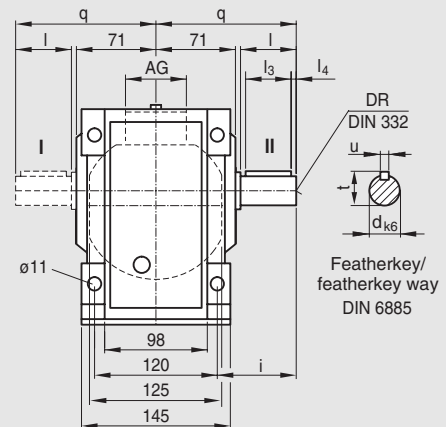
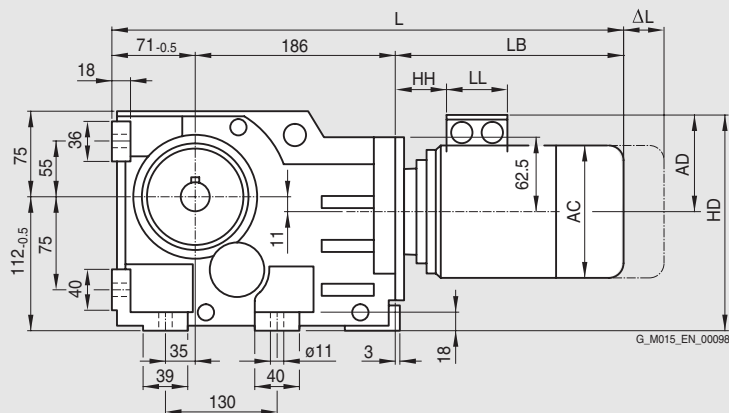
d	l	i	q	DR
30	60	75	135	M10x22

Solid shaft with featherkey

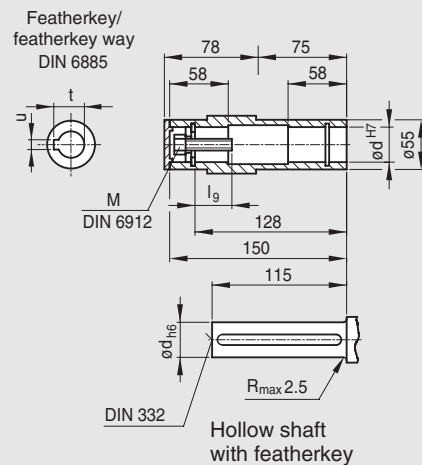
d	l	l_3	l_4	t	u	i	q	DR
30	60	50	3.5	33	8	75	135	M10x22

Hollow shaft with featherkey

d	l_9	M	t	u
35	40	M12	38.3	10
40	48	M16	43.3	12



Hollow shaft with shrink disk



Hollow shaft with featherkey

5

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

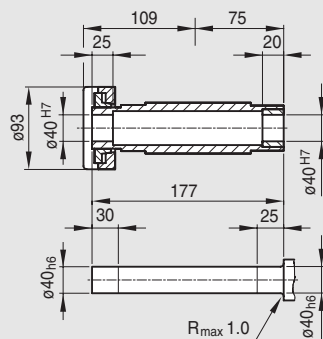
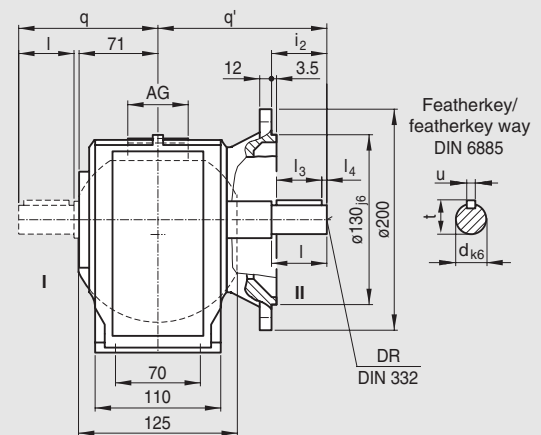
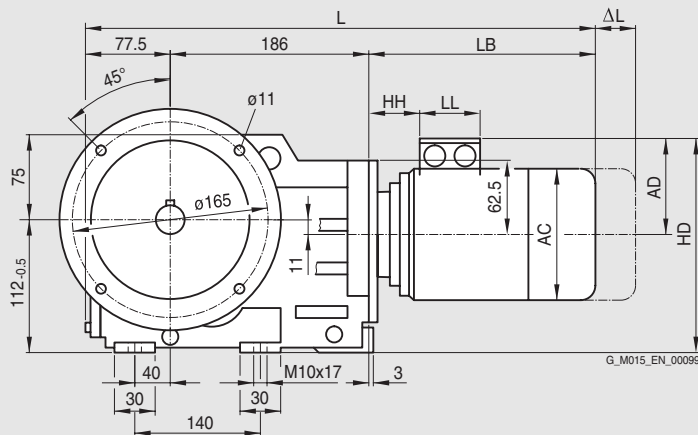
d	l	i₂	q	q'	DR
30	60	60	135	160	M10x22

Solid shaft with featherkey

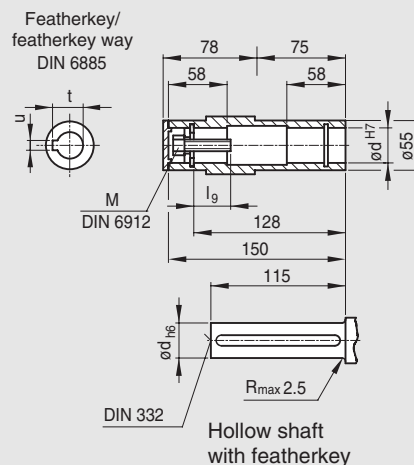
d	l	l₃	l₄	t	u	i₂	q	q'	DR
30	60	50	3.5	33	8	60	135	160	M10x22

Hollow shaft with featherkey

d	l_9	M	t	u
35	40	M12	38.3	10
40	48	M16	43.3	12



Hollow shaft
with shrink disk



Hollow shaft
with featherkey

Geared motors

Bevel-helical geared motors

Dimensions

K43 gearbox (three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	212	78	525	261	75
71	C or D	145	111	75	212	78	525	261	75
80	E or F	162	120	75	221	77	548	284	75
90	G or H	181	128	75	229	77	580	316	75
100	J or K	202	135	120	236	95	629	365	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

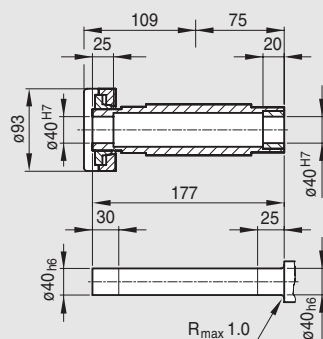
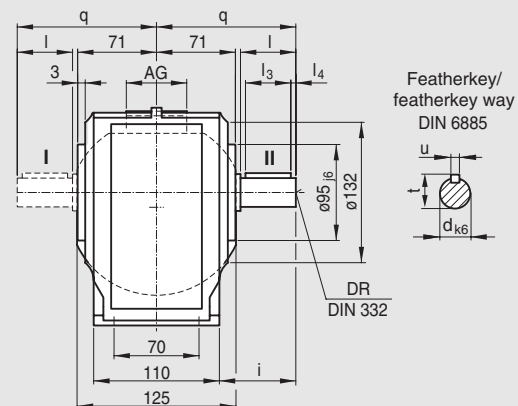
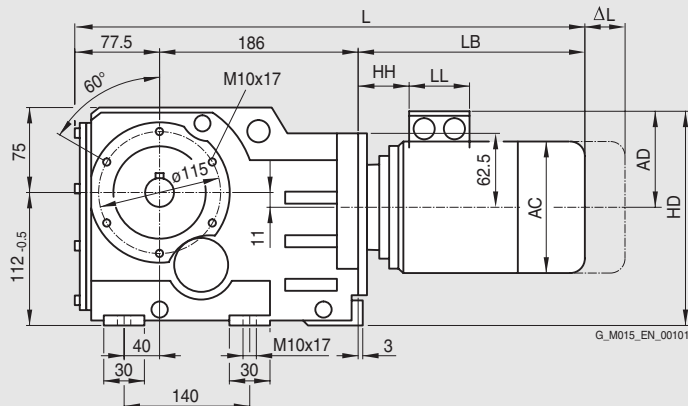
d	l	i	q	DR
30	60	80	135	M10x22

Solid shaft with featherkey

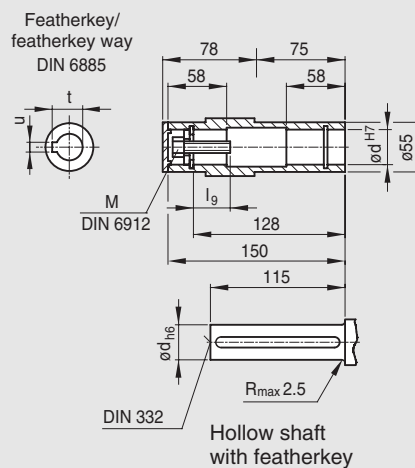
d	l	l_3	l_4	t	u	i	q	DR
30	60	50	3.5	33	8	80	135	M10x22

Hollow shaft with featherkey

d	l_g	M	t	u
35	40	M12	38.3	10
40	48	M16	43.3	12



Hollow shaft with shrink disk



Hollow shaft with featherkey

5

Geared motors

Bevel-helical geared motors

Dimensions

K63 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	244	72	566	256	75
71	C or D	145	111	75	244	72	566	256	75
80	E or F	162	120	75	253	72	589	279	75
90	G or H	181	128	75	261	72	621	311	75
100	J or K	202	135	120	268	86	669	359	120
112	L	227	148	120	281	94	695	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

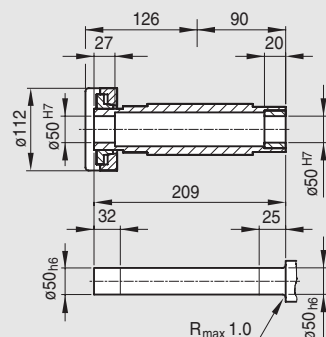
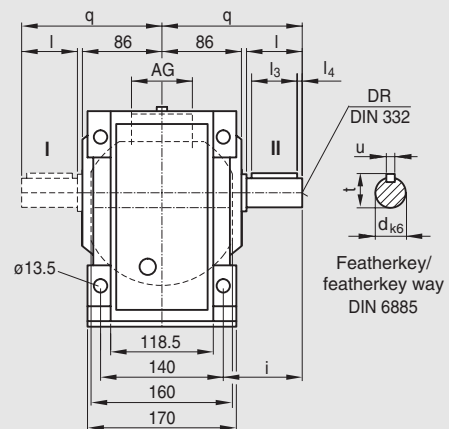
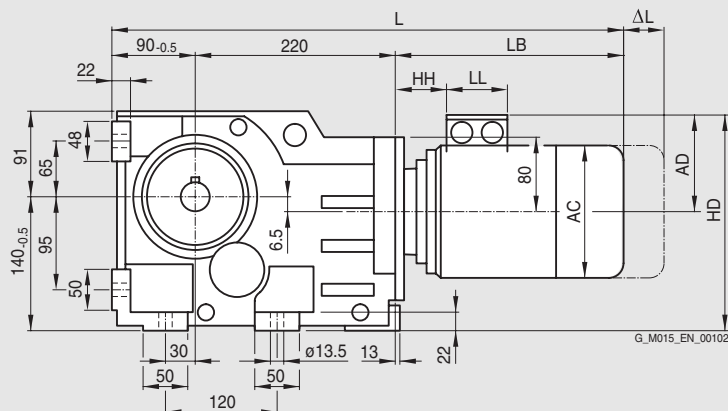
d	l	i	q	DR
40	80	100	170	M16x36

Solid shaft with featherkey

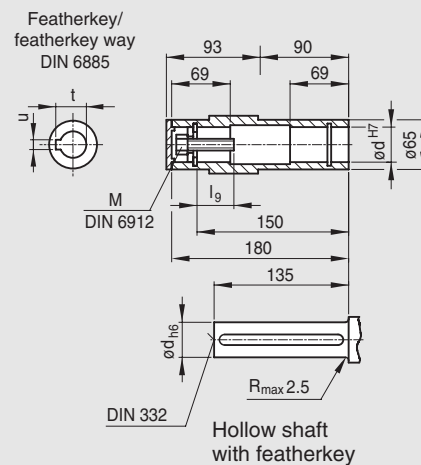
d	l	l_3	l_4	t	u	i	q	DR
40	80	70	5	43	12	100	170	M16x36

Hollow shaft with featherkey

d	l_9	M	t	u
40	48	M16	43.3	12
45	47	M16	48.8	14



Hollow shaft with shrink disk



Hollow shaft with featherkey

K63 gearbox (three-stage), flange-mounted type B5 (1 or 6 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	244	72	565	256	75
71	C or D	145	111	75	244	72	565	256	75
80	E or F	162	120	75	253	72	588	279	75
90	G or H	181	128	75	261	72	620	311	75
100	J or K	202	135	120	268	86	668	359	120
112	L	227	148	120	281	94	694	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

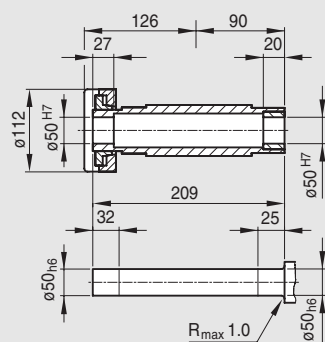
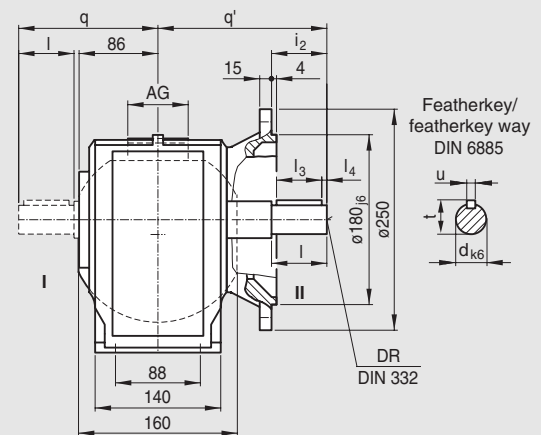
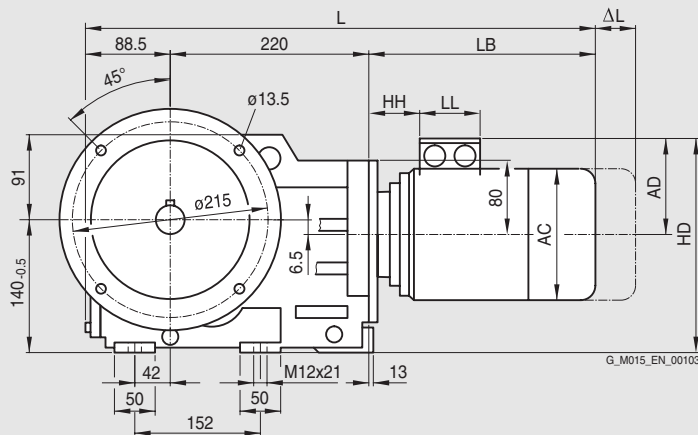
d	l	i ₂	q	q'	DR
40	80	80	170	193	M16x36

Solid shaft with featherkey

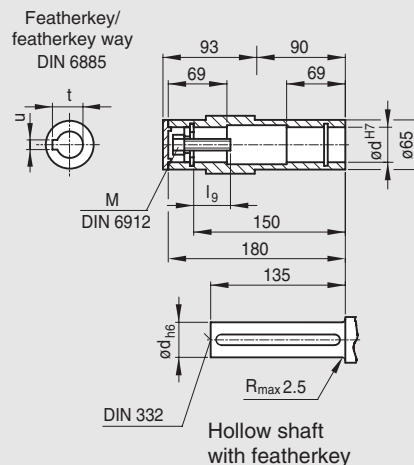
d	l	i ₃	i ₄	t	u	i ₂	q	q'	DR
40	80	70	5	43	12	80	170	193	M16x36

Hollow shaft with featherkey

d	l _g	M	t	u
40	48	M16	43.3	12
45	47	M16	48.8	14



Hollow shaft with shrink disk



Hollow shaft with featherkey

Geared motors

Bevel-helical geared motors

Dimensions

K63 gearbox (three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	244	72	565	256	75
71	C or D	145	111	75	244	72	565	256	75
80	E or F	162	120	75	253	72	588	279	75
90	G or H	181	128	75	261	72	620	311	75
100	J or K	202	135	120	268	86	668	359	120
112	L	227	148	120	281	94	694	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

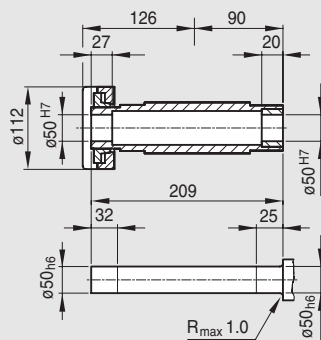
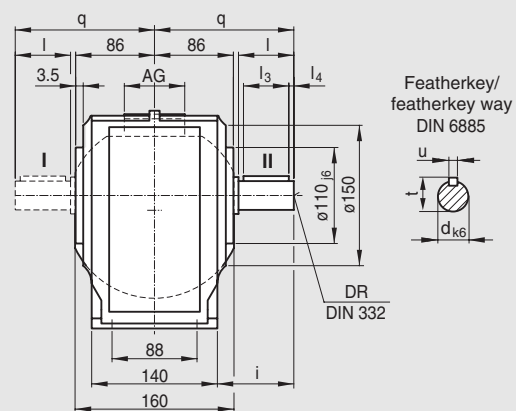
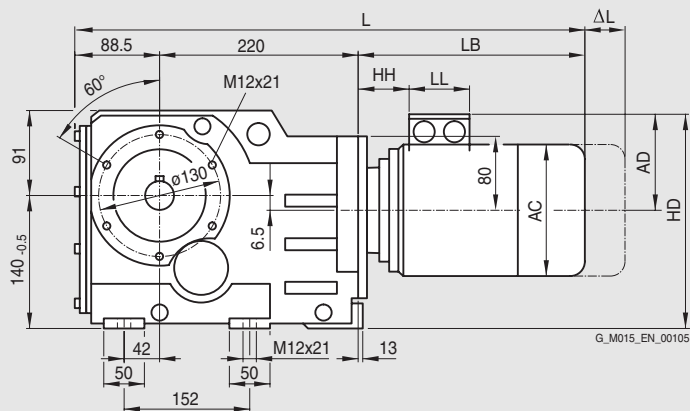
d	l	i	q	DR
40	80	100	170	M16x36

Solid shaft with featherkey

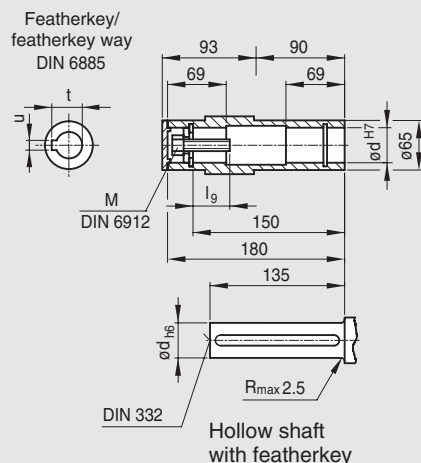
d	l	l_3	l_4	t	u	i	q	DR
40	80	70	5	43	12	100	170	M16x36

Hollow shaft with featherkey

d	l_g	M	t	u
40	48	M16	43.3	12
45	47	M16	48.8	14



Hollow shaft with shrink disk



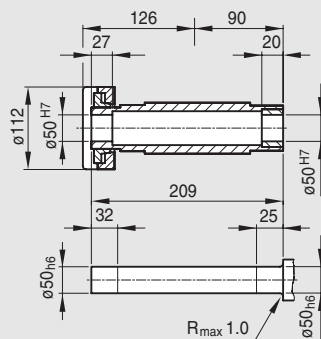
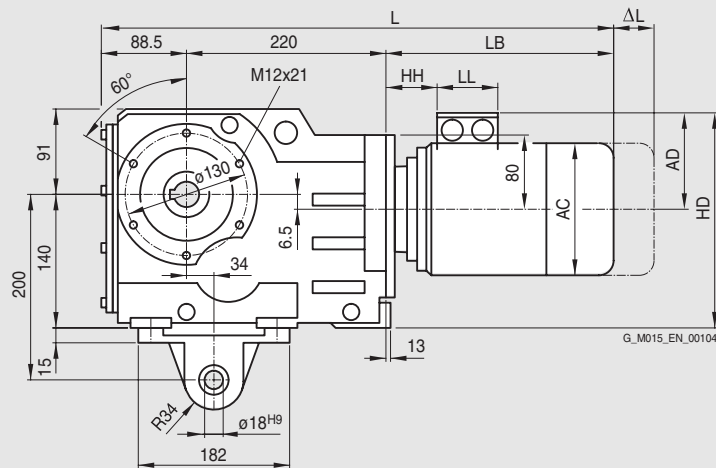
Hollow shaft with featherkey

5

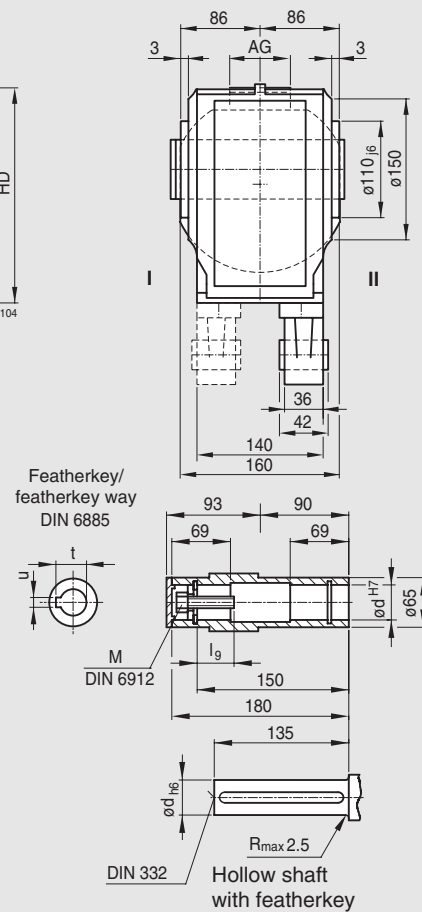
ΔL see Section 8, "Dimensions of built-on accessories".

Hollow shaft with featherkey

d	l_9	M	t	u
40	48	M16	43.3	12
45	47	M16	48.8	14



Hollow shaft
with shrink disk



Geared motors

Bevel-helical geared motors

Dimensions

K83 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	271	66	624	250	75
71	C or D	145	111	75	271	66	624	250	75
80	E or F	162	120	75	280	66	647	273	75
90	G or H	181	128	75	288	66	679	305	75
100	J or K	202	135	120	295	83	727	353	120
112	L	227	148	120	308	86	751	377	120
132	M or N or P	266	167	140	327	117	805	431	140

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

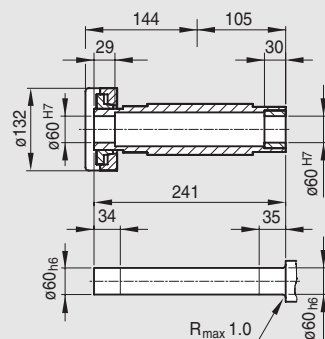
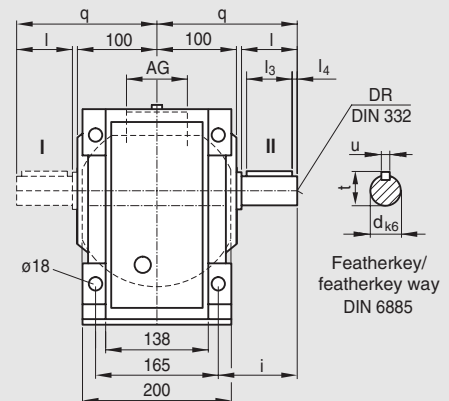
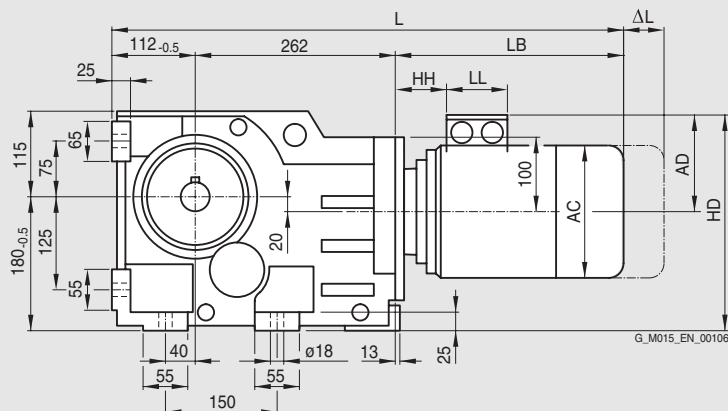
d	l	i	q	DR
50	100	122.5	205	M16x36

Solid shaft with featherkey

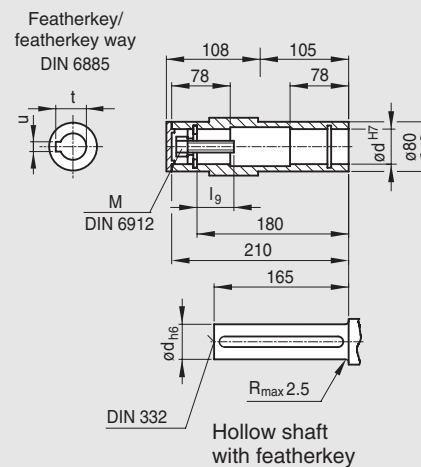
d	l	l_3	l_4	t	u	i	q	DR
50	100	80	10	53.5	14	122.5	205	M16x36

Hollow shaft with featherkey

d	l_g	M	t	u
50	44.5	M16	53.8	14
60	54	M20	64.4	18



Hollow shaft with shrink disk



Hollow shaft with featherkey

K83 gearbox (three-stage), flange-mounted type B5 (1 or 6 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	271	66	622	250	75
71	C or D	145	111	75	271	66	622	250	75
80	E or F	162	120	75	280	66	645	273	75
90	G or H	181	128	75	288	66	677	305	75
100	J or K	202	135	120	295	83	725	353	120
112	L	227	148	120	308	86	749	377	120
132	M or N or P	266	167	140	327	117	803	431	140

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

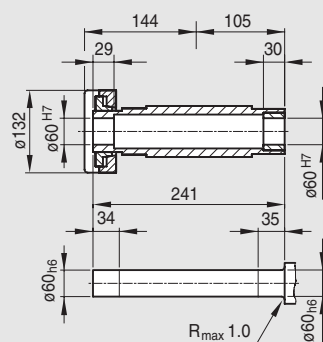
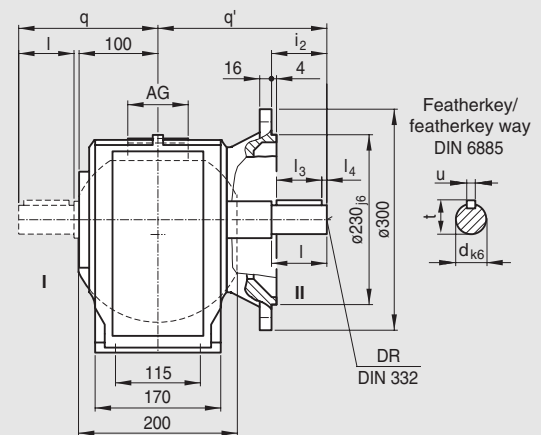
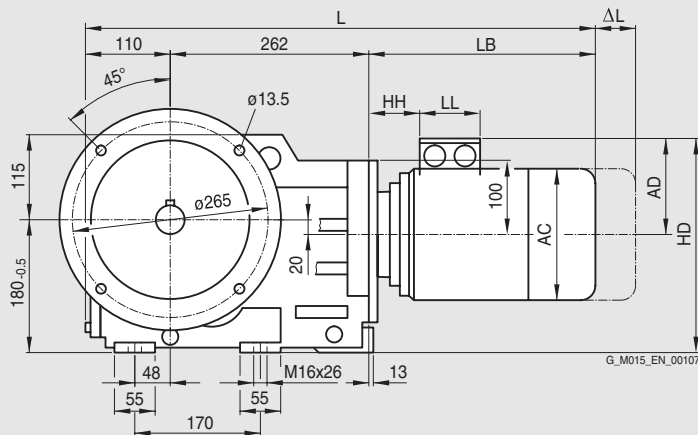
d	l	i_2	q	q'	DR
50	100	100	205	242	M16x36

Solid shaft with featherkey

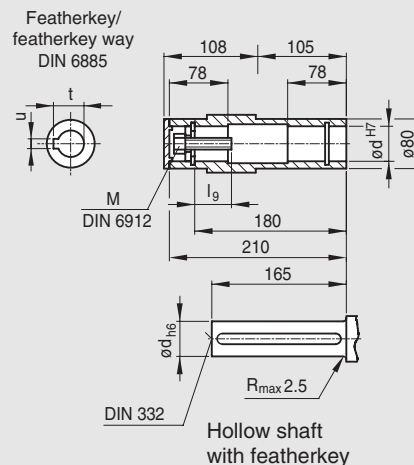
d	l	i_3	i_4	t	u	i_2	q	q'	DR
50	100	80	10	53.5	14	100	205	242	M16x36

Hollow shaft with featherkey

d	i_9	M	t	u
50	44.5	M16	53.8	14
60	54	M20	64.4	18



Hollow shaft with shrink disk



Hollow shaft with featherkey

Geared motors

Bevel-helical geared motors

Dimensions

K83 gearbox (three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	271	66	622	250	75
71	C or D	145	111	75	271	66	622	250	75
80	E or F	162	120	75	280	66	645	273	75
90	G or H	181	128	75	288	66	677	305	75
100	J or K	202	135	120	295	83	725	353	120
112	L	227	148	120	308	86	749	377	120
132	M or N or P	266	167	140	327	117	803	431	140

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

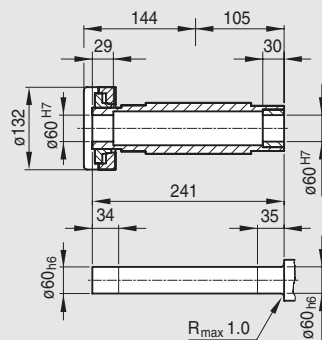
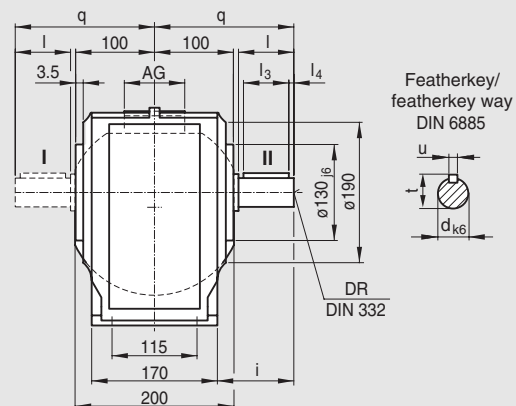
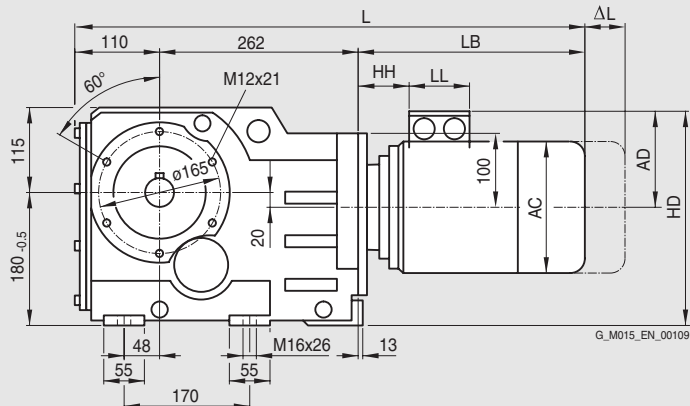
d	l	i	q	DR
50	100	120	205	M16x36

Solid shaft with featherkey

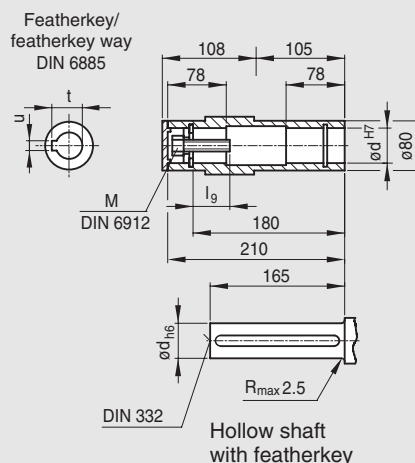
d	l	l_3	l_4	t	u	i	q	DR
50	100	80	10	53.5	14	120	205	M16x36

Hollow shaft with featherkey

d	l_g	M	t	u
50	44.5	M16	53.8	14
60	54	M20	64.4	18



Hollow shaft with shrink disk



Hollow shaft with featherkey

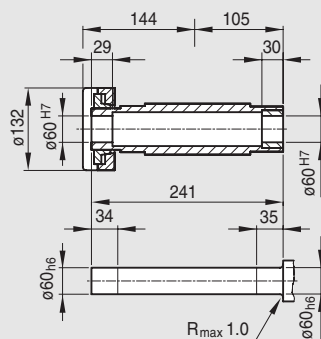
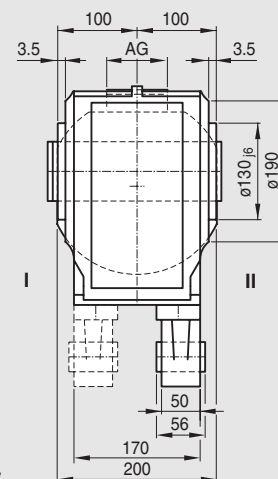
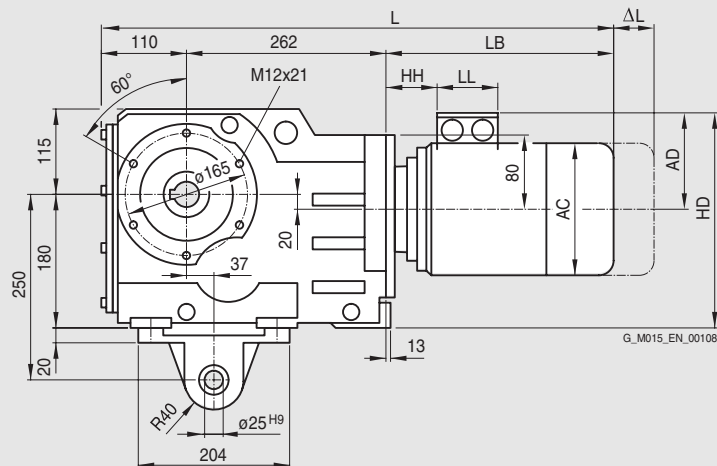
K83 gearbox (three-stage) with torque arm (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	271	66	622	250	75
71	C or D	145	111	75	271	66	622	250	75
80	E or F	162	120	75	280	66	645	273	75
90	G or H	181	128	75	288	66	677	305	75
100	J or K	202	135	120	295	83	725	353	120
112	L	227	148	120	308	86	749	377	120
132	M or N or P	266	167	140	327	117	803	431	140

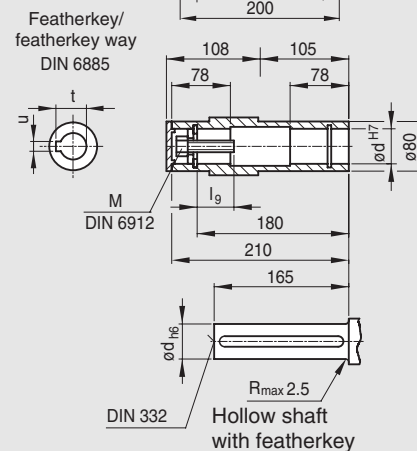
ΔL see Section 8, "Dimensions of built-on accessories".

Hollow shaft with featherkey

d	l _g	M	t	u
50	44.5	M16	53.8	14
60	54	M20	64.4	18



Hollow shaft with shrink disk



Geared motors

Bevel-helical geared motors

Dimensions

K103 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
80	E or F	162	120	75	319	51	718	258	75
90	G or H	181	128	75	327	51	750	290	75
100	J or K	202	135	120	334	73	803	343	120
112	L	227	148	120	347	68	819	359	120
132	M or N or P	266	167	140	366	98	873	413	140
160	Q or R or S	319	197	165	396	113	973	513	165

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

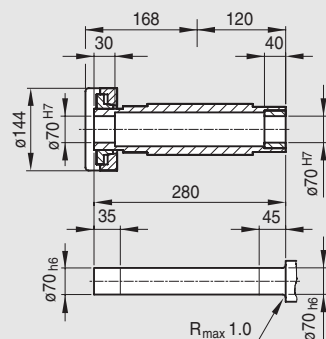
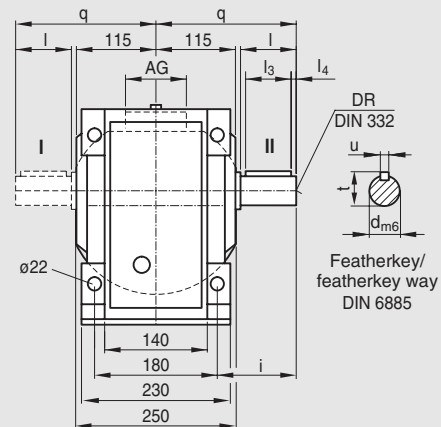
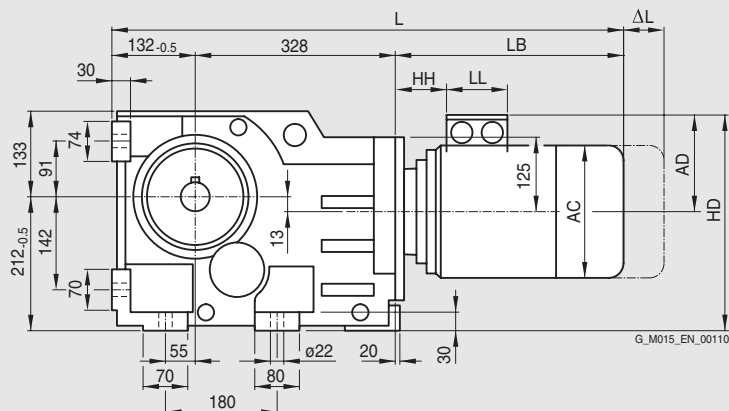
d	l	i	q	DR
60	120	150	240	M20x42

Solid shaft with featherkey

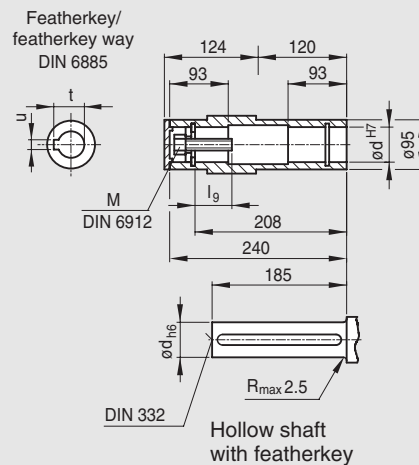
d	l	l_3	l_4	t	u	i	q	DR
60	120	110	5	64	18	150	240	M20x42

Hollow shaft with featherkey

d	l_9	M	t	u
60	64	M20	64.4	18
70	63.5	M20	74.9	20



Hollow shaft with shrink disk



Hollow shaft with featherkey

K103 gearbox (three-stage), flange-mounted type B5 (1 or 6 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
80	E or F	162	120	75	319	51	722	258	75
90	G or H	181	128	75	327	51	754	290	75
100	J or K	202	135	120	334	73	807	343	120
112	L	227	148	120	347	68	823	359	120
132	M or N or P	266	167	140	366	98	877	413	140
160	Q or R or S	319	197	165	396	113	977	513	165

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

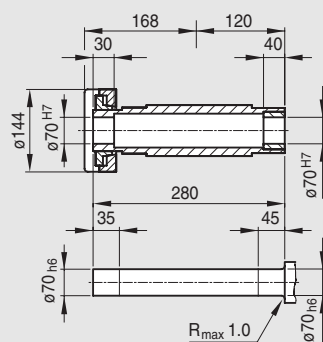
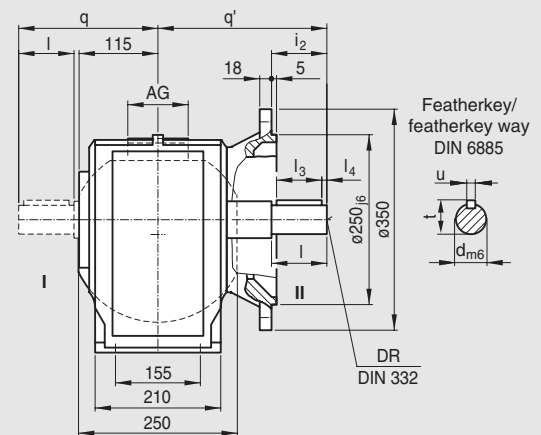
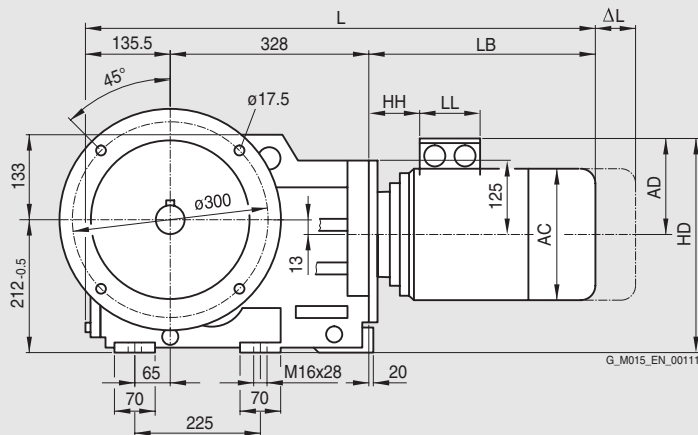
d	l	i_2	q	q'	DR
60	120	120	240	276	M20x42

Solid shaft with featherkey

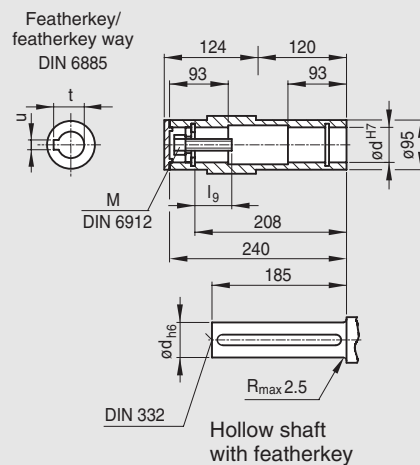
d	l	i_3	i_4	t	u	i_2	q	q'	DR
60	120	110	5	64	18	120	240	276	M20x42

Hollow shaft with featherkey

d	i_9	M	t	u
60	64	M20	64.4	18
70	63.5	M20	74.9	20



Hollow shaft with shrink disk



Hollow shaft with featherkey

Geared motors

Bevel-helical geared motors

Dimensions

K103 gearbox (three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
80	E or F	162	120	75	319	51	722	258	75
90	G or H	181	128	75	327	51	754	290	75
100	J or K	202	135	120	334	73	807	343	120
112	L	227	148	120	347	68	823	359	120
132	M or N or P	266	167	140	366	98	877	413	140
160	Q or R or S	319	197	165	396	113	977	513	165

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

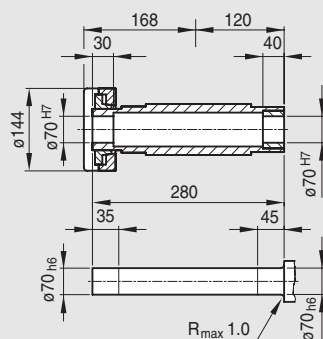
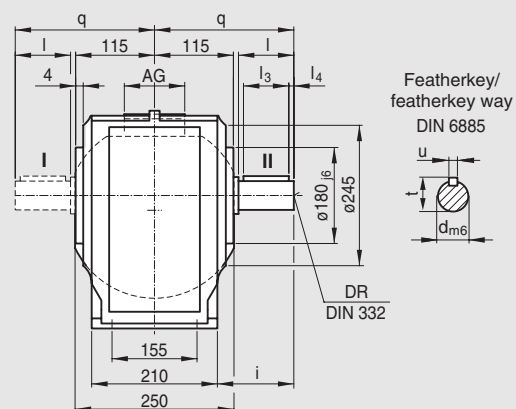
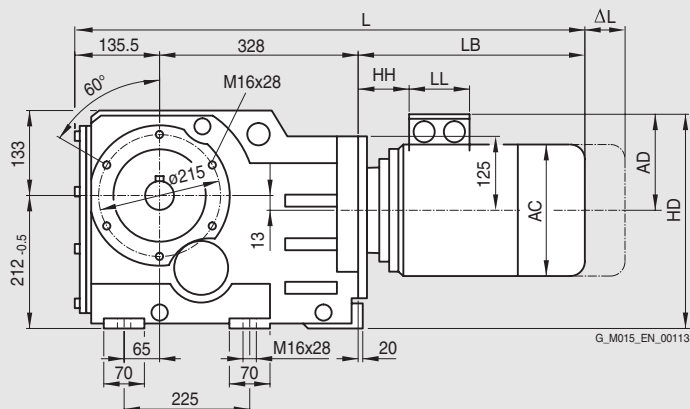
d	l	i	q	DR
60	120	135	240	M20x42

Solid shaft with featherkey

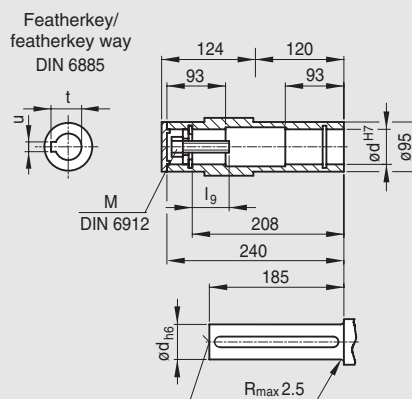
d	l	l_3	l_4	t	u	i	q	DR
60	120	110	5	64	18	135	240	M20x42

Hollow shaft with featherkey

d	l_g	M	t	u
60	64	M20	64.4	18
70	63.5	M20	74.9	20



Hollow shaft
with shrink disk



Hollow shaft
with featherkey

5

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Geared motors

Bevel-helical geared motors

Dimensions

K123 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
90	G or H	181	128	75	373	64	834	303	75
100	J or K	202	135	120	380	85	886	355	120
112	L	227	148	120	393	56	878	347	120
132	M or N or P	266	167	140	412	86	931	400	140
160	Q or R or S	319	197	165	442	102	1033	502	165
180	T or U	358	259	152	504	147	1174	643	132
200	V or W	398	306	260	551	124	1223	692	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

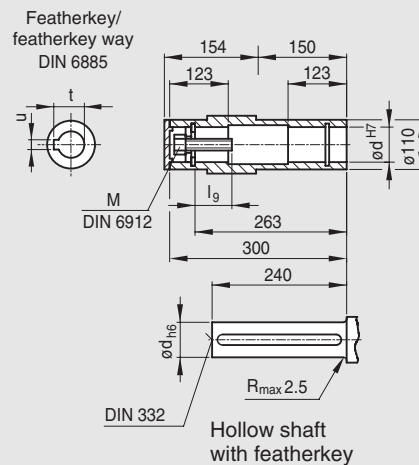
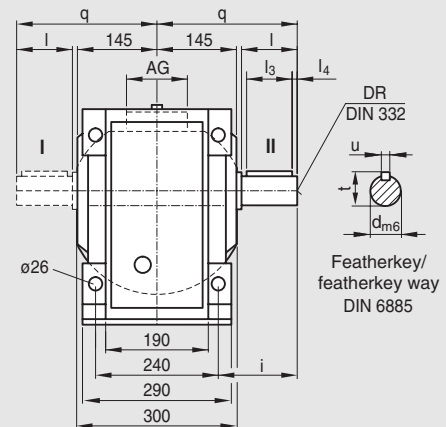
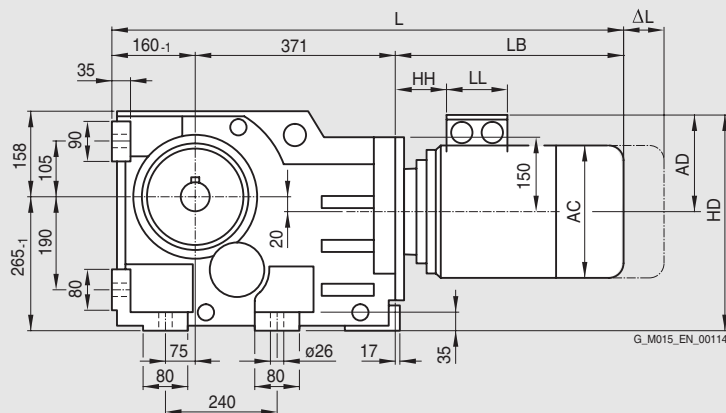
d	l	i	q	DR
70	140	170	290	M20x42

Solid shaft with featherkey

d	l	l_3	l_4	t	u	i	q	DR
70	140	125	7.5	74.5	20	170	290	M20x42

Hollow shaft with featherkey

d	l_g	M	t	u
70	63.5	M20	74.9	20
80	63.5	M20	85.4	22



K123 gearbox (three-stage), flange-mounted type B5 (1 or 6 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
90	G or H	181	128	75	373	64	831	303	75
100	J or K	202	135	120	380	85	883	355	120
112	L	227	148	120	393	56	875	347	120
132	M or N or P	266	167	140	412	86	928	400	140
160	Q or R or S	319	197	165	442	102	1030	502	165
180	T or U	358	259	152	504	147	1171	643	132
200	V or W	398	306	260	551	124	1220	692	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

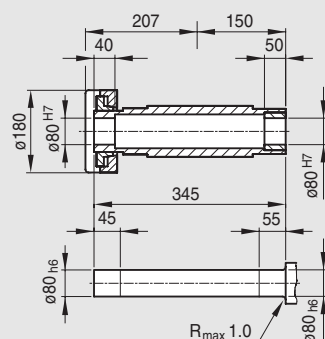
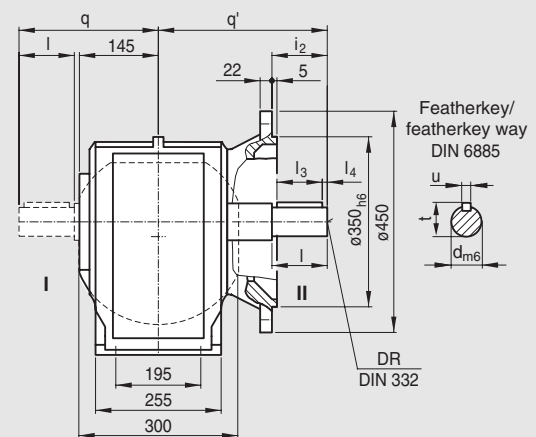
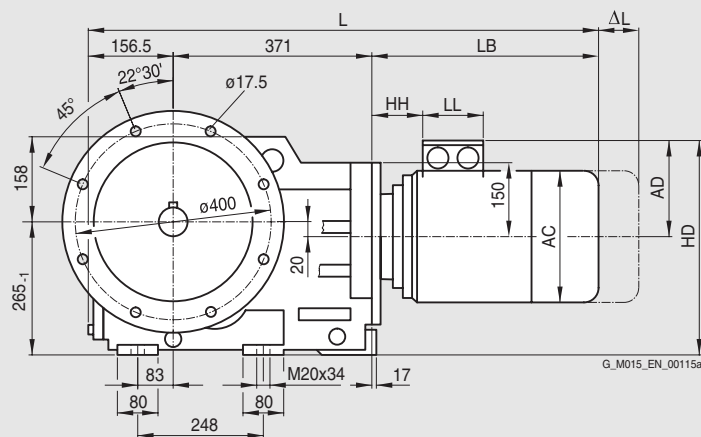
d	l	i_2	q	q'	DR
70	140	140	290	231.5	M20x42

Solid shaft with featherkey

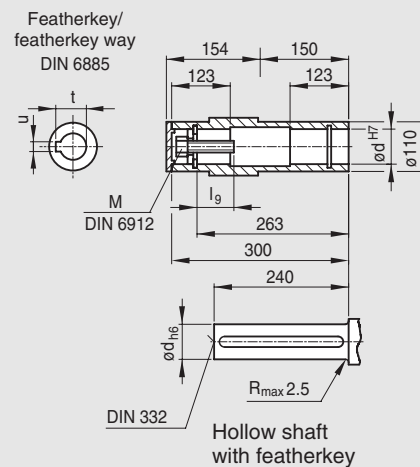
d	l	i_3	i_4	t	u	i_2	q	q'	DR
70	140	125	7.5	74.5	20	140	290	231.5	M20x42

Hollow shaft with featherkey

d	i_9	M	t	u
70	63.5	M20	74.9	20
80	63.5	M20	85.4	22



Hollow shaft with shrink disk



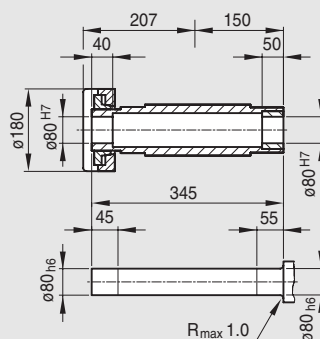
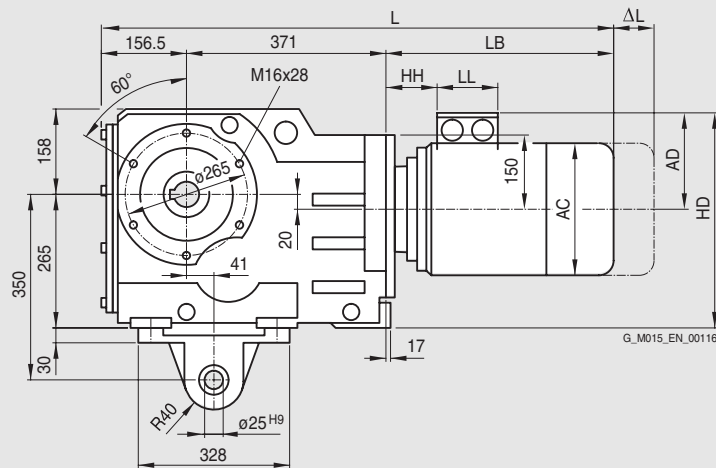
Hollow shaft with featherkey

5

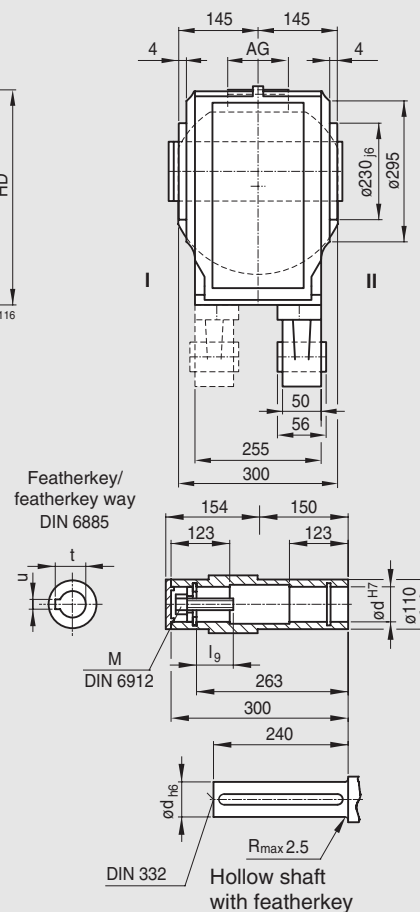
ΔL see Section 8, "Dimensions of built-on accessories".

Hollow shaft with featherkey

d	lg	M	t	u
70	63.5	M20	74.9	20
80	63.5	M20	85.4	22



Hollow shaft
with shrink disk



Geared motors

Bevel-helical geared motors

Dimensions

K143 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	413	44	936	314	120
112	L	227	148	120	426	89	1002	380	120
132	M or N or P	266	167	140	445	75	1012	390	140
160	Q or R or S	319	197	165	475	85	1107	485	165
180	T or U	358	259	152	537	134	1252	630	132
200	V or W	398	306	260	584	111	1300	678	192
225	X or Y	398	306	260	584	138	1328	706	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

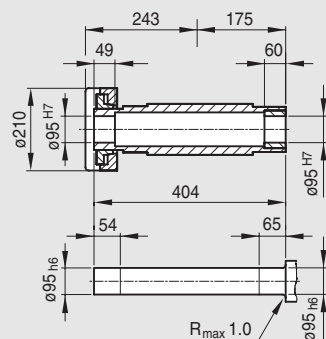
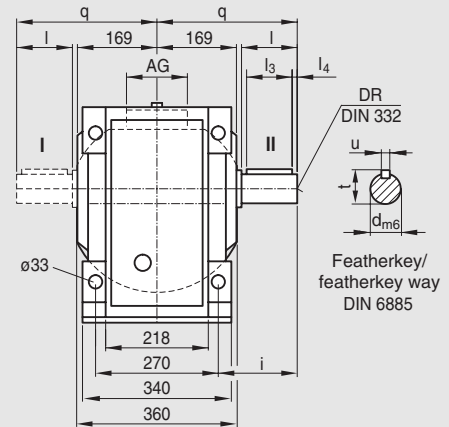
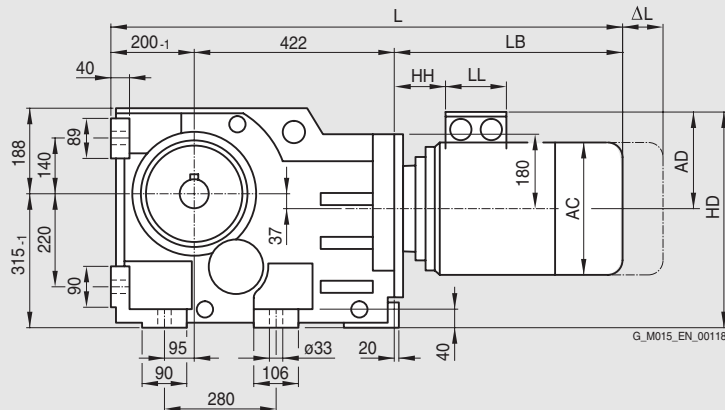
d	l	i	q	DR
90	170	210	345	M24x50

Solid shaft with featherkey

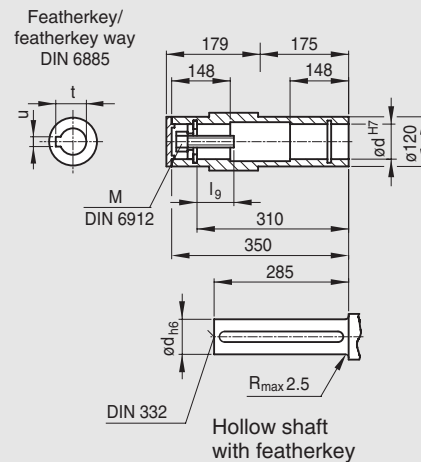
d	l	l_3	l_4	t	u	i	q	DR
90	170	140	15	95	25	210	345	M24x50

Hollow shaft with featherkey

d	l_g	M	t	u
80	63.5	M20	85.4	22
90	72	M24	95.4	25



Hollow shaft with shrink disk



5

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Geared motors

Bevel-helical geared motors

Dimensions

K143 gearbox (three-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	413	44	932	314	120
112	L	227	148	120	426	89	998	380	120
132	M or N or P	266	167	140	445	75	1008	390	140
160	Q or R or S	319	197	165	475	85	1103	485	165
180	T or U	358	259	152	537	134	1248	630	132
200	V or W	398	306	260	584	111	1296	678	192
225	X or Y	398	306	260	584	138	1324	706	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

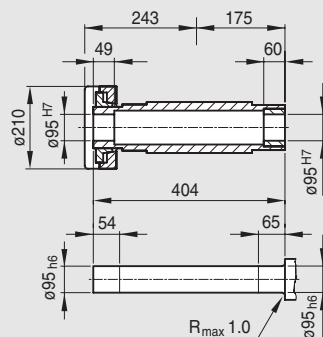
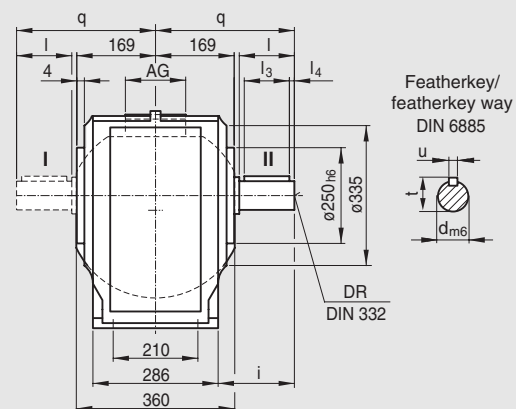
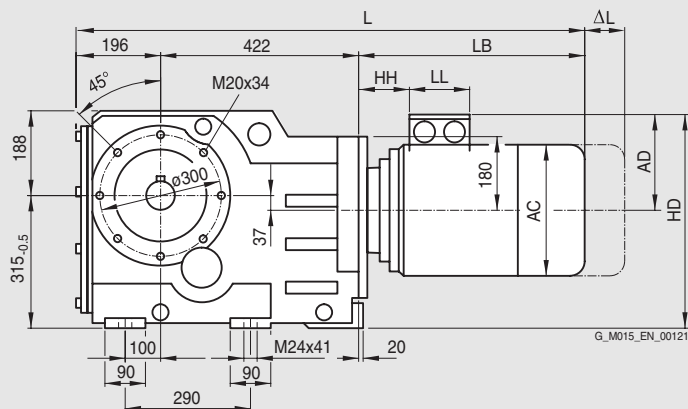
d	l	i	q	DR
90	170	202	345	M24x50

Solid shaft with featherkey

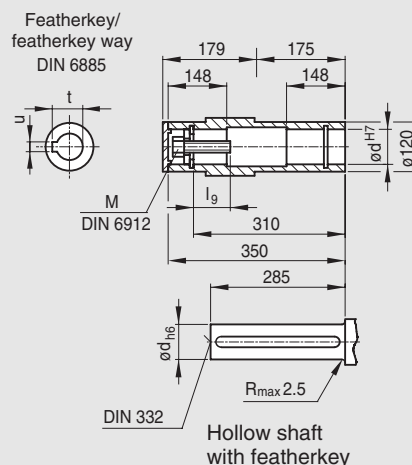
d	l	l_3	l_4	t	u	i	q	DR
90	170	140	15	95	25	202	345	M24x50

Hollow shaft with featherkey

d	l_g	M	t	u
80	63.5	M20	85.4	22
90	72	M24	95.4	25



Hollow shaft with shrink disk



Hollow shaft with featherkey

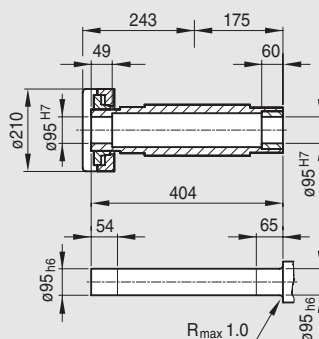
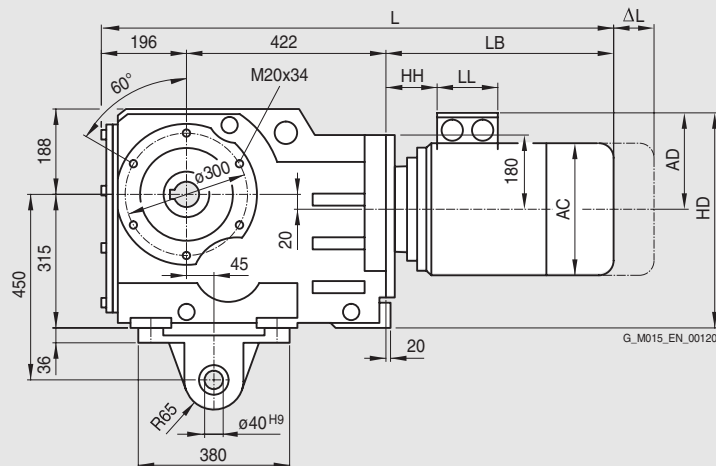
K143 gearbox (three-stage) with torque arm (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
100	J or K	202	135	120	413	44	932	314	120
112	L	227	148	120	426	89	998	380	120
132	M or N or P	266	167	140	445	75	1008	390	140
160	Q or R or S	319	197	165	475	85	1103	485	165
180	T or U	358	259	152	537	134	1248	630	132
200	V or W	398	306	260	584	111	1296	678	192
225	X or Y	398	306	260	584	138	1324	706	192

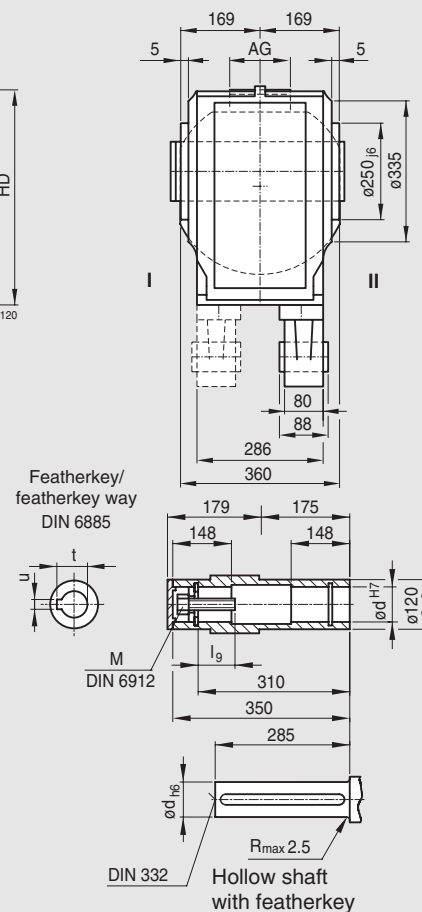
ΔL see Section 8, "Dimensions of built-on accessories".

Hollow shaft with featherkey

d	l _g	M	t	u
80	63.5	M20	85.4	22
90	72	M24	95.4	25



Hollow shaft with shrink disk



Geared motors

Bevel-helical geared motors

Dimensions

K163 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	492	67	1105	382	140
160	Q or R or S	319	197	165	522	78	1201	478	165
180	T or U	358	259	152	584	126	1345	622	132
200	V or W	398	306	260	631	103	1393	670	192
225	X or Y	398	306	260	631	131	1421	698	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

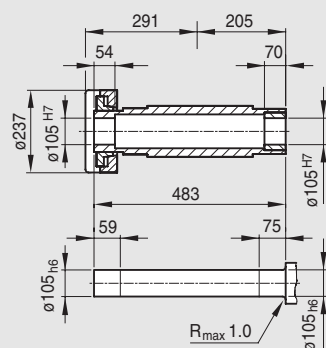
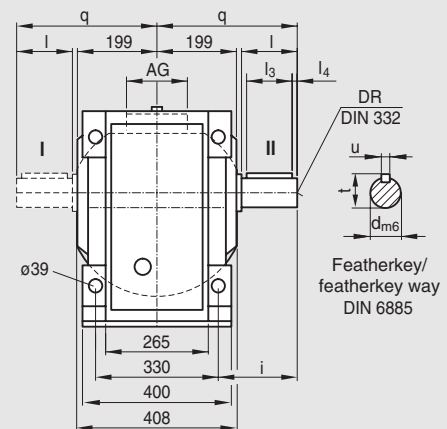
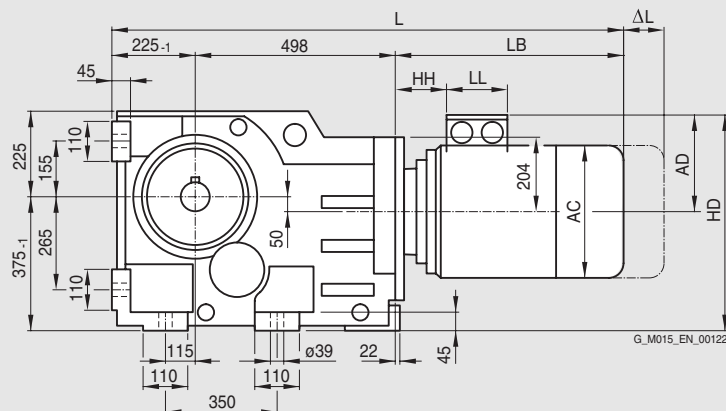
d	l	i	q	DR
110	210	250	415	M24x50

Solid shaft with featherkey

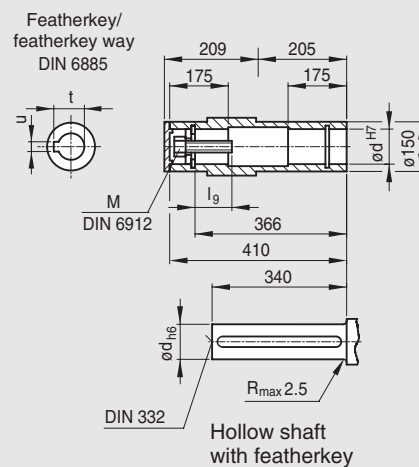
d	l	l ₃	l ₄	t	u	i	q	DR
110	210	180	15	116	28	250	415	M24x50

Hollow shaft with featherkey

d	l ₉	M	t	u
100	72	M24	106.4	28
110	73	M24	116.4	28



Hollow shaft with shrink disk



Hollow shaft with featherkey

K163 gearbox (three-stage), flange-mounted type B5 (1 or 6 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	492	67	1101	382	140
160	Q or R or S	319	197	165	522	78	1197	478	165
180	T or U	358	259	152	584	126	1341	622	132
200	V or W	398	306	260	631	103	1389	670	192
225	X or Y	398	306	260	631	131	1417	698	192

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

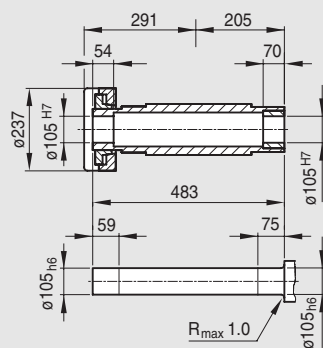
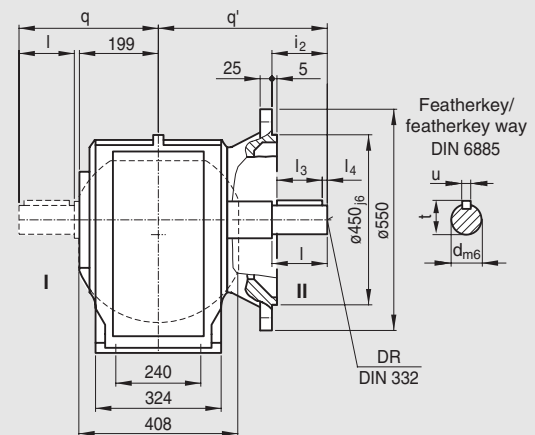
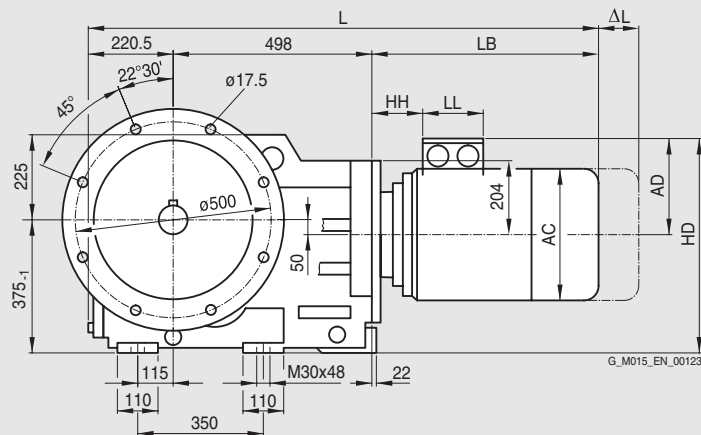
d	l	i ₂	q	q'	DR
110	210	210	415	466	M24x50

Solid shaft with featherkey

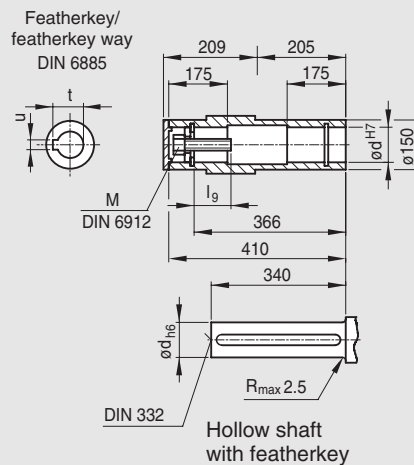
d	l	i ₃	i ₄	t	u	i ₂	q	q'	DR
110	210	180	15	116	28	210	415	466	M24x50

Hollow shaft with featherkey

d	i _g	M	t	u
100	72	M24	106.4	28
110	73	M24	116.4	28



Hollow shaft with shrink disk



Hollow shaft with featherkey

Dimensions

Plain solid shaft

Solid shaft with featherkey

Hollow shaft with featherkey

Hollow shaft
with featherkey

Geared motors

Bevel-helical geared motors

Dimensions

K183 gearbox (three-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	548	53	1183	367	140
160	Q or R or S	319	197	165	578	63	1279	463	165
180	T or U	358	259	152	640	112	1424	608	132
200	V or W	398	306	260	687	89	1472	656	192
225	X or Y	398	306	260	687	116	1500	684	192

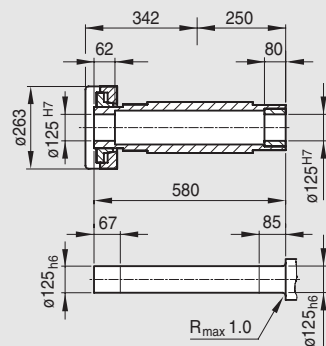
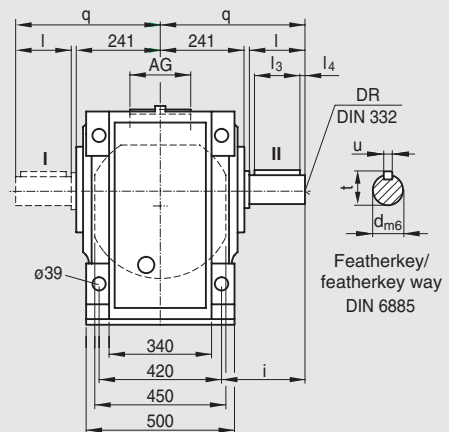
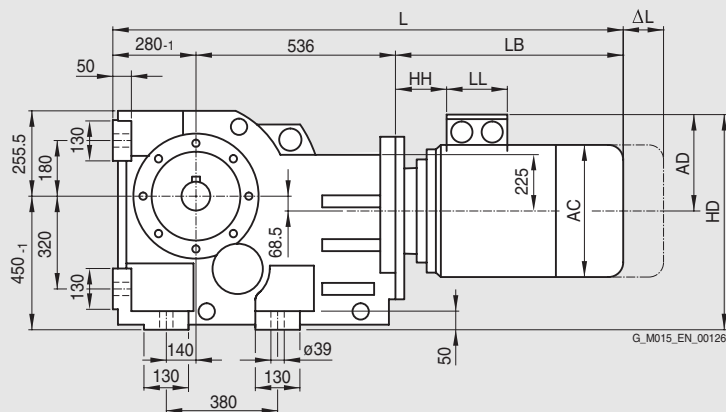
ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

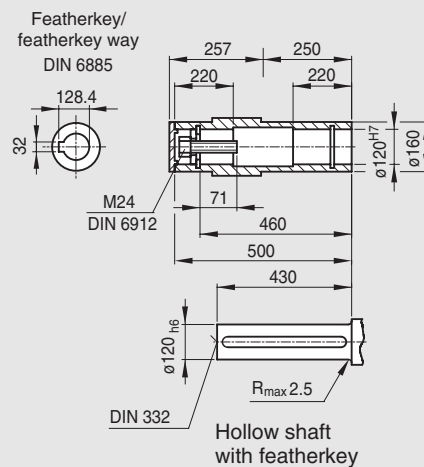
d	l	i	q	DR
120	210	250	460	M24x50

Solid shaft with featherkey

d	l	l_3	l_4	t	u	i	q	DR
120	210	180	15	127	32	250	460	M24x50



Hollow shaft with shrink disk



Hollow shaft with featherkey

5

5/89

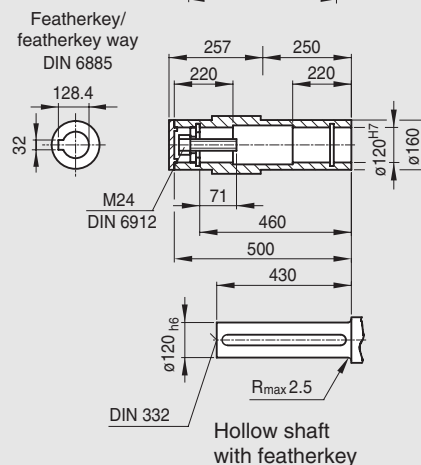
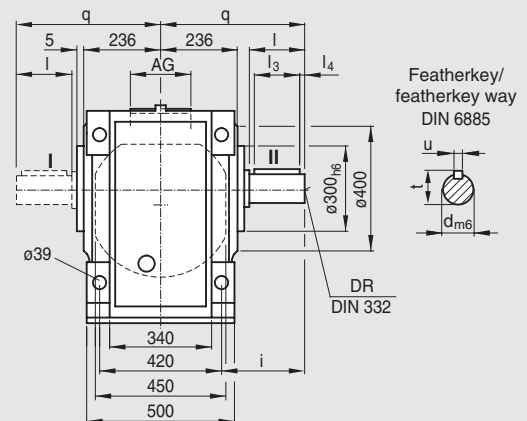
Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	548	53	1183	367	140
160	Q or R or S	319	197	165	578	63	1279	463	165
180	T or U	358	259	152	640	112	1424	608	132
200	V or W	398	306	260	687	89	1472	656	192
225	X or Y	398	306	260	687	116	1500	684	192

Plain solid shaft

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	q	DR
120	210	180	15	127	32	250	460	M24x50

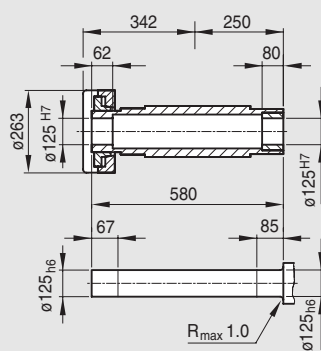
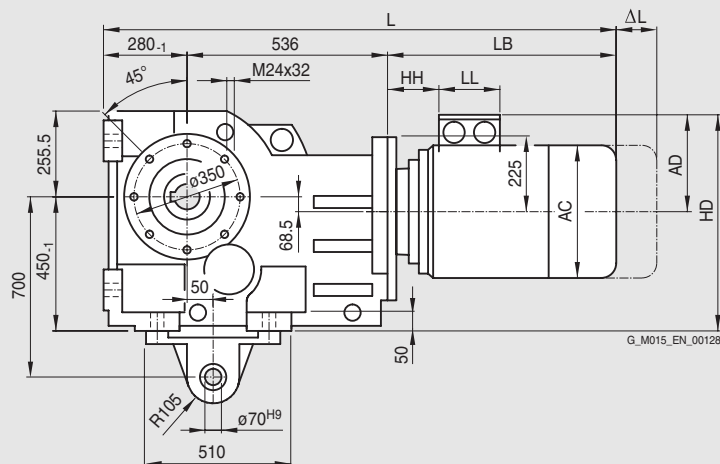


Hollow shaft
with featherkey

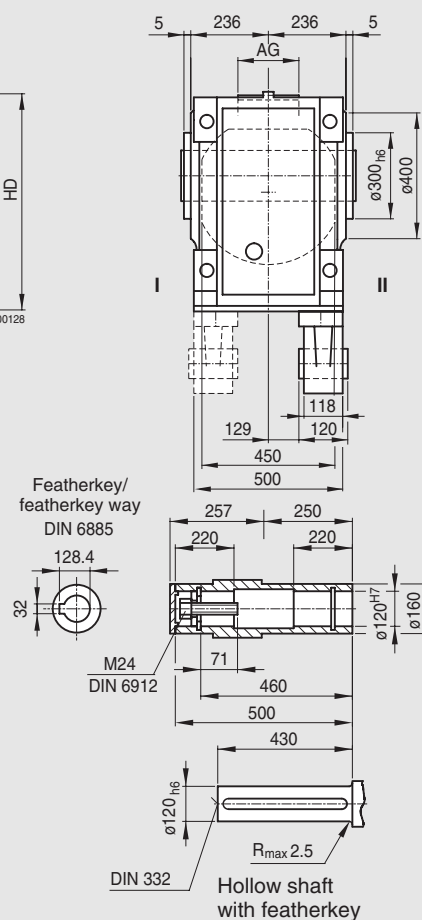
K183 gearbox (three-stage) with torque arm (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
132	M or N or P	266	167	140	548	53	1183	367	140
160	Q or R or S	319	197	165	578	63	1279	463	165
180	T or U	358	259	152	640	112	1424	608	132
200	V or W	398	306	260	687	89	1472	656	192
225	X or Y	398	306	260	687	116	1500	684	192

ΔL see Section 8, "Dimensions of built-on accessories".



Hollow shaft with shrink disk



Geared motors

Bevel-helical geared motors

Notes

5

Helical-worm geared motors

6



Structure of the order number and how to complete it

- 6/2 Structure of the order number for helical-worm geared motors
- 6/3 Completing the order number
- 6/8 Mounting positions and position of the connection system
- 6/9 Selection example

Selection and ordering

- 6/10 Preliminary selection of the geared motor according to power, speed and torque
- 6/11 Selection and ordering data
- 6/32 Ratios and maximum torques

Dimensions

- 6/41 C32 gearbox
- 6/45 C42 gearbox
- 6/49 C62 gearbox
- 6/53 C82 gearbox



Geared motors

Helical-worm geared motors

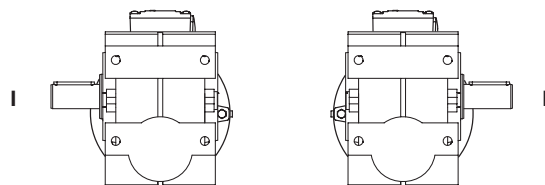
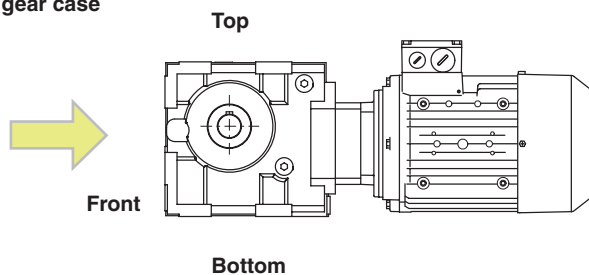
Structure of the order number and how to complete it

Structure of the order number for helical-worm geared motors

Order number	position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
		2	K	G	3	4	□	1	-	□	□	□	□	-	□	□	□	- Z
Generation																		
Helical-worm gearbox C																		
Gearbox size																		
Basic version motor																		
Gear case type																		
Shaft design																		
Motor frame size																		
Ratio code																		
Number of poles on the motor																		
Mounting position of the gearbox																		
Position of the connection system																		
Voltage and frequency																		
Special versions																		

Definition of sides

Facing the gear case



Position of solid shaft and output flange

G_M015_EN_00015

Geared motors

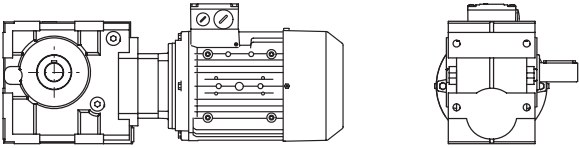
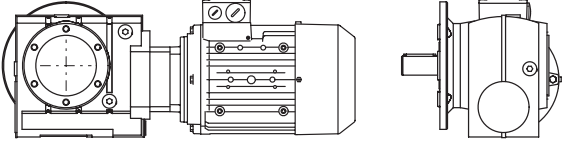
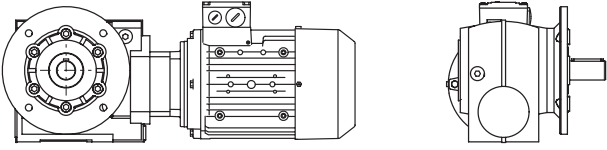
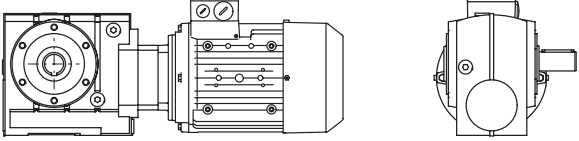
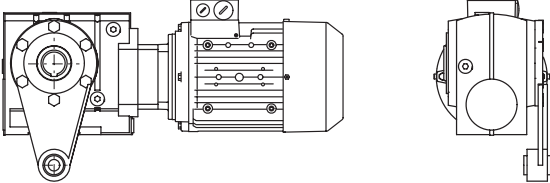
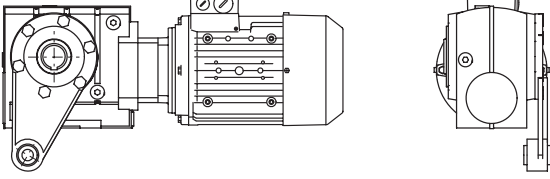
Helical-worm geared motors

Structure of the order number and how to complete it

The **order number of the helical-worm geared motor** is shown in the selection and ordering data, but must be completed in certain places.

Completing the order number

8th position: Gear case type

Gear case models	8 th position of order number	
Foot-mounted type	0	
Flange-mounted type in position I B5 model B5 model with order code H1F	1 9	
Flange-mounted type in position II B5 model B5 model with order code H6F	6 9	
Flange-mounted type B14 model	3	
Torque arm Model 1	2	
Torque arm Model 2 with order code H1D	9	

G_M015_EN_00017

Geared motors

Helical-worm geared motors

Structure of the order number and how to complete it

Helical-worm gearbox

Type	8th position of the order number	Order code	C32 Flange size	Sur- charges	C42 Flange size	Sur- charges	C62 Flange size	Sur- charges	C82 Flange size	Sur- charges
Foot-mounted type B3	0	—		✓		✓		✓		✓
Flange-mounted type B5 in position I	1	—	A160	✓	A200	✓	A250	✓	A300	✓
Torque arm Version 1	2	—		✓		✓		✓		✓
Torque arm Version 2	9	H1D		✓		✓		✓		✓
Flange-mounted type B14	3	—		✓		✓		✓		✓
Flange-mounted type B5 in position II	6	—	A160	✓	A200	✓	A250	✓	A300	✓
Flange-mounted type B5 in position I	9	H1F		—		—	A200	✓	A250	✓
Flange-mounted type B5 in position II	9	H6F		—		—	A200	✓	A250	✓

See also page 6/3.

✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Helical-worm geared motors

Structure of the order number
and how to complete it

Torque arm

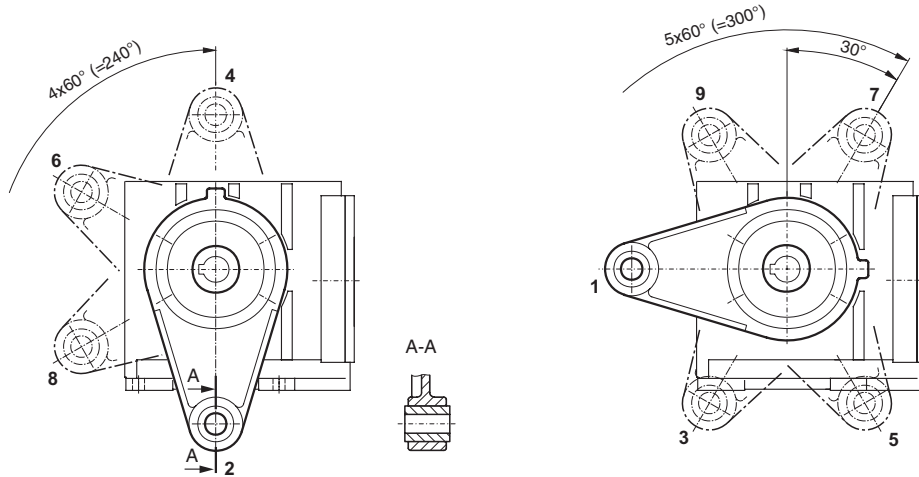
The torque arm can be screwed onto the gear case in any of nine positions at an angular pitch of 30° about the main drive pinion.

The torque arm is made of grey cast iron, the bushing in the lug is made of natural rubber. It is suitable for temperatures of -45 °C to +70 °C.

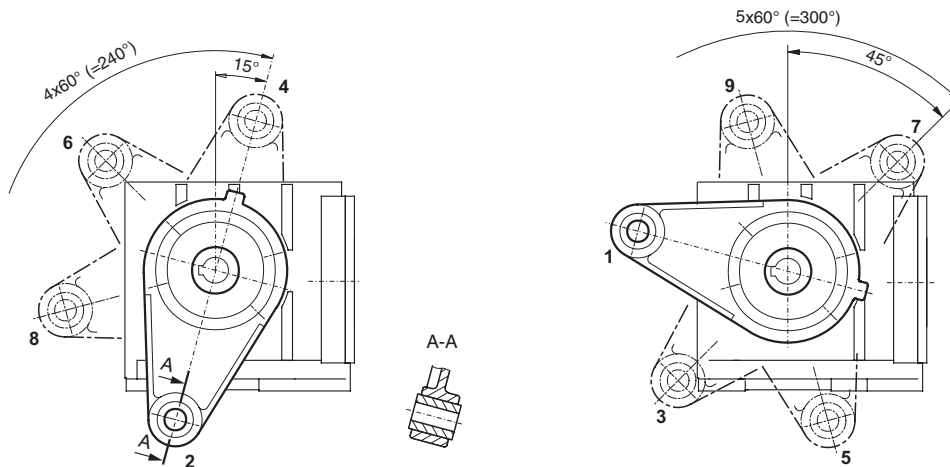
The torque arm dimensions can be seen in the dimension drawings, found in the "Dimensions" section.

The torque arm will be supplied as a loose part if **2** or **9** is entered in the 8th position of the order number.

Model 1



Model 2



G_M015_EN_00047

Gearbox	Version 1 Position									Version 2 Position								
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
C32	•	•	–	•	–	•	•	•	•	•	•	•	•	•	•	•	•	•
C42	•	•	–	•	–	•	•	•	•	•	•	•	•	•	•	•	•	•
C62	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
C82	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

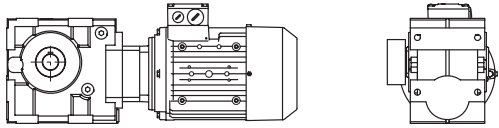
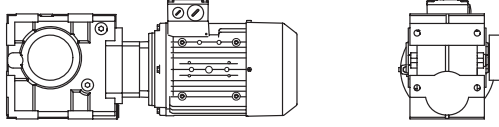
- Version possible for this position.
- Version not possible for this position.

Geared motors

Helical-worm geared motors

Structure of the order number and how to complete it

9th position: Shaft design

Shaft design	9 th position of order number	
Hollow shaft with shrink disk in position I	A	
Hollow shaft with shrink disk in position II	B	

G_M015_EN_00016

Helical-worm gearbox

Shaft design	9 th position of the order number	Order code	C32		C42		C62		C82	
			d x l mm	Sur-charge	d x l in mm	Sur-charge	d x l mm	Sur-charge	d x l mm	Sur-charge
Hollow shaft with shrink disk in position I	A		30	✓	40	✓	50	✓	60	✓
Hollow shaft with shrink disk in position II	B		30	✓	40	✓	50	✓	60	✓
Hollow shaft with featherkey	F		–	–	30	•	–	–	–	–
Hollow shaft with featherkey (basic version)	G		25	✓	40	✓	40	✓	50	✓
Hollow shaft with featherkey (basic version)	H		30	✓	35	✓	45	✓	60	✓
Plain solid shaft II	L		25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•
Plain solid shaft I	M		25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•
Plain solid shaft I + II	N		25 x 50	•	30 x 60	•	40 x 80	•	50 x 100	•
Solid shaft with featherkey II	R		25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓
Solid shaft with featherkey I	S		25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓
Solid shaft with featherkey I + II (flange design available on request)	T		25 x 50	✓	30 x 60	✓	40 x 80	✓	50 x 100	✓
Inch shafts	•									
Solid shaft with featherkey II	Z*	J1U	–	–	–	–	35 x 70	•	45 x 90	•
Solid shaft with featherkey I	Z*	J1V	–	–	–	–	35 x 70	•	45 x 90	•
Solid shaft with featherkey I + II (flange design available on request)	Z*	J1W	–	–	–	–	35 x 70	•	45 x 90	•
Involute designs (splining)			•		•		•		•	

• Possible for larger production quantities on request.

* With order code.

– Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

Information:

The hollow shaft is supplied with a rotating cap as standard. For dimensions, see the "Dimensions" section.

A fixed cap (cast design) can also be ordered for the hollow shaft. For explanations and dimensions, see Section 9, order code **S30**.

A rotating rubber cover is supplied with shrink disks as standard. For dimensions, see the "Dimensions" section.

A steel cap can also be ordered for the shrink disks. For explanations and dimensions, see Section 9, order code **S31**. Fixing parts for the hollow shaft are supplied as standard. For dimensions, see the "Dimensions" section.

Geared motors

Helical-worm geared motors

Structure of the order number and how to complete it

14th position: Mounting position of the helical-worm geared motor

The letters from **A to F** correspond to the figures on page 6/8, and must be inserted into the 14th position of the order number (without surcharge).

15th position: Position of the connection system

The motor terminal box can be mounted in four different positions (position of connection system). When facing the gearbox, the positions are defined by **A, B, C**, or **D**, see figures on page 6/8 (without surcharge). This letter must be inserted into the 15th position of the order number.

16th position: Voltage and frequency

The last position of the order number contains the voltage and frequency of the geared motor.

1 = 230 VΔ/400 VΥ, 50 Hz

3 = 500 VΥ, 50 Hz

5 = 500 VΔ, 50 Hz

6 = 400 VΔ/690 VΥ, 50 Hz

9 = other voltages, see Section 8, "Other voltages and/or frequencies".

1, 3, 5, 6 without surcharge, **9** with surcharge.

-Z: Special versions

Special gearbox and/or motor designs should be ordered using the order number addition **-Z** and the order code, and is usually subject to a surcharge.

For a description of the options, see Sections 8, 9 and 10; for ordering data, see Section 11.

Structure of the order number and how to complete it

14th position
Mounting position
A ... F

2	K	G	3	4	.	.	-	0	.	.	.	.	-	.	.	.	.

2	K	G	3	4	.	.	-	.	.	.	.	.	-	.	.	.	.

IM B3.00

IM V5.00

F

B

A

C

D

IM V6.00

IM B5.01

Figure 1 illustrates the IM B5.00 motor configurations. The figure shows four different mounting and connection options for the IM B5.00 motor. Option A shows a motor with a terminal box on the left and a cooling fan on the right, mounted on a base. Option B shows a motor with a terminal box on the left and a cooling fan on the right, mounted on a base. Option C shows a motor with a terminal box on the left and a cooling fan on the right, mounted on a base. Option D shows a motor with a terminal box on the left and a cooling fan on the right, mounted on a base.

IM B5.03

Structure of the order number and how to complete it

Geared motors

Helical-worm geared motors

Selection and ordering

Preliminary selection of the geared motor according to power, speed and torque

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Detailed selection and ordering data Page
0.09	1.4 – 37.9	358 – 20	441 – 16.6	0.52 – 0.87	0.97 – 9.7	6/11
0.12	1.5 – 47.0	468 – 21	441 – 28.7	0.55 – 0.88	1.2 – 9.5	6/12 – 6/13
0.18	1.9 – 73.6	568 – 21	441 – 18.3	0.57 – 0.88	0.97 – 9.9	6/13 – 6/15
0.25	1.9 – 109	793 – 19	441 – 12.4	0.61 – 0.88	0.92 – 10	6/15 – 6/17
0.37	2.1 – 142	1079 – 22	441 – 9.67	0.64 – 0.88	0.97 – 7.7	6/17 – 6/19
0.55	2.1 – 144	1618 – 32	441 – 9.67	0.64 – 0.88	0.93 – 5.2	6/19 – 6/21
0.75	3.2 – 144	1545 – 44	441 – 9.67	0.68 – 0.89	0.93 – 4.6	6/22 – 6/24
1.1	4.4 – 146	1681 – 63	319 – 9.67	0.71 – 0.89	0.92 – 5.2	6/24 – 6/26
1.5	7.2 – 147	1459 – 86	198 – 9.67	0.73 – 0.9	0.91 – 4.4	6/26 – 6/27
2.2	13.1 – 147	1363 – 126	109 – 9.67	0.85 – 0.9	0.93 – 4.3	6/28 – 6/29
3	18.0 – 147	1358 – 172	78.8 – 9.7	0.85 – 0.9	0.91 – 3.3	6/29 – 6/30
4	26.1 – 129	1253 – 268	55.2 – 11.2	0.86 – 0.9	0.91 – 2.5	6/30 – 6/31
5.5	43.7 – 130	1030 – 364	33.3 – 11.2	0.86 – 0.9	0.94 – 1.8	6/31
7.5	82.3 – 130	787 – 497	17.7 – 11.2	0.9	1 – 1.4	6/31

Selection and ordering data

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	η	f_B		kg
0.09	Gearbox size C82 – motor frame size 71M – 8 poles						
	1.4	358	441	0.6	4	2KG3481 -   C57-8  	80
	1.6	324	390	0.61	4.9	2KG3481 -   C56-8  	
	Gearbox size C62 – motor frame size 71M – 8 poles						
	1.7	291	364	0.59	2.3	2KG3461 -   C55-8  	50
	1.9	263	324	0.6	2.6	2KG3461 -   C54-8  	
	2.2	234	281	0.61	2.9	2KG3461 -   C53-8  	
	2.4	221	262	0.62	3.1	2KG3461 -   C52-8  	
	Gearbox size C42 – motor frame size 71M – 8 poles						
	2.0	241	321	0.55	1.5	2KG3441 -   C44-8  	32
	2.2	217	285	0.56	1.7	2KG3441 -   C43-8  	
	2.5	194	250	0.57	1.9	2KG3441 -   C42-8  	
	2.8	177	223	0.58	2.1	2KG3441 -   C41-8  	
	3.2	160	198	0.59	2.3	2KG3441 -   C40-8  	
	3.6	143	174	0.6	2.6	2KG3441 -   C38-8  	
	Gearbox size C32 – motor frame size 71M – 8 poles						
	2.0	230	321	0.52	0.97	2KG3431 -   C44-8  	24
	2.2	207	285	0.53	1.1	2KG3431 -   C43-8  	
	2.5	185	250	0.54	1.2	2KG3431 -   C42-8  	
	2.8	168	223	0.55	1.3	2KG3431 -   C41-8  	
	3.2	152	198	0.56	1.5	2KG3431 -   C40-8  	
	3.6	136	174	0.57	1.6	2KG3431 -   C38-8  	
	4.1	122	153	0.59	1.8	2KG3431 -   C37-8  	
	4.6	112	138	0.6	2	2KG3431 -   C36-8  	
	5.2	100	120	0.61	2.3	2KG3431 -   C35-8  	
	5.8	91	108	0.62	2.5	2KG3431 -   C34-8  	
	6.5	84	97.5	0.63	2.7	2KG3431 -   C33-8  	
	7.1	77	88.4	0.64	2.9	2KG3431 -   C32-8  	
	7.8	71	80.4	0.64	3.2	2KG3431 -   C31-8  	
	8.9	63	71.1	0.65	3.6	2KG3431 -   C30-8  	
	9.6	59	65.7	0.66	3.9	2KG3431 -   C28-8  	
	10.4	66	60.3	0.81	2.8	2KG3431 -   C27-8  	
	11.8	59	53.5	0.81	3.8	2KG3431 -   C26-8  	
13.4	53	46.9	0.82	4.1	2KG3431 -   C25-8  		
15.0	47	42.0	0.83	4.4	2KG3431 -   C24-8  		
16.9	42	37.3	0.83	5.1	2KG3431 -   C23-8  		
19.3	38	32.7	0.84	4.8	2KG3431 -   C22-8  		
21.9	33	28.7	0.85	5.9	2KG3431 -   C21-8  		
24.3	30	26.0	0.85	6.6	2KG3431 -   C20-8  		
27.9	27	22.6	0.86	7.5	2KG3431 -   C18-8  		
31.0	24	20.3	0.86	7.9	2KG3431 -   C17-8  		
34.4	22	18.3	0.87	9.2	2KG3431 -   C16-8  		
37.9	20	16.6	0.87	9.7	2KG3431 -   C15-8  		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 — 0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6 — A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8 — A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 — A to D

For voltage/frequency, see page 6/7 — 1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	η	f_B		kg
0.12	Gearbox size C82 – motor frame size 71M – 8 poles						
	1.5	468	441	0.6	3.1	2KG3481 - ■■■ D57-8 ■■■	80
	Gearbox size C82 – motor frame size 63M – 4 poles						
	3.1	254	441	0.68	6.3	2KG3481 - ■■■ A57-4 ■■■	73
	Gearbox size C62 – motor frame size 71M – 8 poles						
	1.8	380	364	0.59	1.8	2KG3461 - ■■■ D55-8 ■■■	50
	2.0	344	324	0.6	2	2KG3461 - ■■■ D54-8 ■■■	
	2.3	305	281	0.61	2.2	2KG3461 - ■■■ D53-8 ■■■	
	2.5	288	262	0.62	2.4	2KG3461 - ■■■ D52-8 ■■■	
	2.8	259	231	0.63	2.6	2KG3461 - ■■■ D51-8 ■■■	
	3.2	232	202	0.64	2.9	2KG3461 - ■■■ D50-8 ■■■	
	3.6	209	179	0.66	3.3	2KG3461 - ■■■ D48-8 ■■■	
	Gearbox size C62 – motor frame size 63M – 4 poles						
	3.7	204	364	0.66	3.3	2KG3461 - ■■■ A55-4 ■■■	44
	4.2	185	324	0.67	3.7	2KG3461 - ■■■ A54-4 ■■■	
	4.8	163	281	0.68	4.2	2KG3461 - ■■■ A53-4 ■■■	
	5.1	154	262	0.69	4.4	2KG3461 - ■■■ A52-4 ■■■	
	5.9	137	231	0.7	5	2KG3461 - ■■■ A51-4 ■■■	
	6.7	122	202	0.71	5.6	2KG3461 - ■■■ A50-4 ■■■	
	Gearbox size C42 – motor frame size 71M – 8 poles						
	2.0	315	321	0.55	1.2	2KG3441 - ■■■ D44-8 ■■■	32
	2.3	284	285	0.56	1.3	2KG3441 - ■■■ D43-8 ■■■	
	2.6	254	250	0.57	1.4	2KG3441 - ■■■ D42-8 ■■■	
	2.9	231	223	0.58	1.6	2KG3441 - ■■■ D41-8 ■■■	
	3.3	209	198	0.59	1.8	2KG3441 - ■■■ D40-8 ■■■	
	Gearbox size C42 – motor frame size 63M – 4 poles						
	4.2	169	321	0.62	2.2	2KG3441 - ■■■ A44-4 ■■■	26
	4.7	153	285	0.63	2.4	2KG3441 - ■■■ A43-4 ■■■	
	5.4	137	250	0.64	2.7	2KG3441 - ■■■ A42-4 ■■■	
	6.0	124	223	0.66	3	2KG3441 - ■■■ A41-4 ■■■	
	6.8	112	198	0.67	3.3	2KG3441 - ■■■ A40-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6

A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8

A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

A to D

For voltage/frequency, see page 6/7

1, 3, 5, 6 or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.12 Gearbox size C32 – motor frame size 63M – 4 poles							
	4.2	160	321	0.59	1.4	2KG3431 - ■■■ A44-4 ■■■	17
	4.7	145	285	0.6	1.6	2KG3431 - ■■■ A43-4 ■■■	
	5.4	130	250	0.61	1.7	2KG3431 - ■■■ A42-4 ■■■	
	6.0	118	223	0.62	1.9	2KG3431 - ■■■ A41-4 ■■■	
	6.8	106	198	0.63	2.1	2KG3431 - ■■■ A40-4 ■■■	
	7.8	95	174	0.64	2.4	2KG3431 - ■■■ A38-4 ■■■	
	8.8	85	153	0.65	2.7	2KG3431 - ■■■ A37-4 ■■■	
	9.8	77	138	0.66	3	2KG3431 - ■■■ A36-4 ■■■	
	11.2	68	120	0.66	3.4	2KG3431 - ■■■ A35-4 ■■■	
	12.5	61	108	0.67	3.7	2KG3431 - ■■■ A34-4 ■■■	
	13.8	56	97.5	0.67	4.1	2KG3431 - ■■■ A33-4 ■■■	
	15.3	51	88.4	0.67	4.5	2KG3431 - ■■■ A32-4 ■■■	
	16.8	46	80.4	0.68	4.7	2KG3431 - ■■■ A31-4 ■■■	
	19.0	41	71.1	0.68	5.2	2KG3431 - ■■■ A30-4 ■■■	
	20.6	38	65.7	0.68	5.5	2KG3431 - ■■■ A28-4 ■■■	
	22.4	44	60.3	0.85	4.6	2KG3431 - ■■■ A27-4 ■■■	
	25.2	39	53.5	0.86	6.1	2KG3431 - ■■■ A26-4 ■■■	
	28.8	34	46.9	0.86	6.6	2KG3431 - ■■■ A25-4 ■■■	
	32.1	31	42.0	0.87	7	2KG3431 - ■■■ A24-4 ■■■	
	36.2	28	37.3	0.87	8.2	2KG3431 - ■■■ A23-4 ■■■	
	41.3	24	32.7	0.87	7.8	2KG3431 - ■■■ A22-4 ■■■	
	47.0	21	28.7	0.88	9.5	2KG3431 - ■■■ A21-4 ■■■	

0.18	Gearbox size C82 – motor frame size 71M – 6 poles						
	1.9	568	441	0.63	2.6	2KG3481 -   C57-6  	80
	2.1	514	390	0.64	3.1	2KG3481 -   C56-6  	
	2.4	475	355	0.65	3.3	2KG3481 -   C55-6  	
	2.6	435	319	0.66	3.7	2KG3481 -   C54-6  	
	Gearbox size C82 – motor frame size 63M – 4 poles						
	3.1	381	441	0.68	4.2	2KG3481 -   B57-4  	73
	3.5	343	390	0.69	4.6	2KG3481 -   B56-4  	
	3.8	316	355	0.7	5	2KG3481 -   B55-4  	
	4.2	287	319	0.71	5.5	2KG3481 -   B54-4  	
	4.9	249	273	0.72	6.1	2KG3481 -   B53-4  	
	Gearbox size C62 – motor frame size 71M – 6 poles						
	2.3	458	364	0.61	1.5	2KG3461 -   C55-6  	50
	2.6	415	324	0.62	1.6	2KG3461 -   C54-6  	
	3.0	369	281	0.64	1.8	2KG3461 -   C53-6  	
3.2	348	262	0.64	2	2KG3461 -   C52-6  		
3.6	312	231	0.66	2.2	2KG3461 -   C51-6  		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

For shaft designs, see page 6/6

For gearbox mounting positions acc. to the figure, see page 6/8

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

For voltage/frequency, see page 6/7

0, 1, 2, 3, 6 or 9

A, B, F, G, H, L, M, N, R, S, T, Z

A to F

A to D

1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.18	Gearbox size C62 – motor frame size 63M – 4 poles						44
	3.7	306	364	0.66	2.2	2KG3461 - ■ ■ B55-4 ■ ■ ■	
	4.2	277	324	0.67	2.5	2KG3461 - ■ ■ B54-4 ■ ■ ■	
	4.8	245	281	0.68	2.8	2KG3461 - ■ ■ B53-4 ■ ■ ■	
	5.1	231	262	0.69	3	2KG3461 - ■ ■ B52-4 ■ ■ ■	
	5.9	206	231	0.7	3.3	2KG3461 - ■ ■ B51-4 ■ ■ ■	
	6.7	183	202	0.71	3.7	2KG3461 - ■ ■ B50-4 ■ ■ ■	
	7.6	163	179	0.72	4.1	2KG3461 - ■ ■ B48-4 ■ ■ ■	
	Gearbox size C42 – motor frame size 71M – 6 poles						32
	2.6	379	321	0.57	0.97	2KG3441 - ■ ■ C44-6 ■ ■ ■	
	2.9	343	285	0.58	1.1	2KG3441 - ■ ■ C43-6 ■ ■ ■	
	3.3	307	250	0.6	1.2	2KG3441 - ■ ■ C42-6 ■ ■ ■	
	3.7	280	223	0.61	1.3	2KG3441 - ■ ■ C41-6 ■ ■ ■	
	Gearbox size C42 – motor frame size 63M – 4 poles						26
	4.2	253	321	0.62	1.5	2KG3441 - ■ ■ B44-4 ■ ■ ■	
	4.7	229	285	0.63	1.6	2KG3441 - ■ ■ B43-4 ■ ■ ■	
	5.4	205	250	0.64	1.8	2KG3441 - ■ ■ B42-4 ■ ■ ■	
	6.0	186	223	0.66	2	2KG3441 - ■ ■ B41-4 ■ ■ ■	
	6.8	168	198	0.67	2.2	2KG3441 - ■ ■ B40-4 ■ ■ ■	
	7.8	150	174	0.68	2.5	2KG3441 - ■ ■ B38-4 ■ ■ ■	
	8.8	133	153	0.69	2.8	2KG3441 - ■ ■ B37-4 ■ ■ ■	
	9.8	121	138	0.69	3.1	2KG3441 - ■ ■ B36-4 ■ ■ ■	
	11.2	107	120	0.7	3.5	2KG3441 - ■ ■ B35-4 ■ ■ ■	
	12.5	96	108	0.7	3.9	2KG3441 - ■ ■ B34-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

For shaft designs, see page 6/6

For gearbox mounting positions acc. to the figure, see page 6/8

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

For voltage/frequency, see page 6/7

0, 1, 2, 3, 6 or 9

A, B, F, G, H, L, M, N, R, S, T, Z

A to F

A to D

1, 3, 5, 6 or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.18	Gearbox size C32 – motor frame size 63M – 4 poles						17
	4.2	240	321	0.59	0.94	2KG3431 - ■■ B44-4 ■■■	
	4.7	217	285	0.6	1	2KG3431 - ■■ B43-4 ■■■	
	5.4	194	250	0.61	1.2	2KG3431 - ■■ B42-4 ■■■	
	6.0	177	223	0.62	1.3	2KG3431 - ■■ B41-4 ■■■	
	6.8	160	198	0.63	1.4	2KG3431 - ■■ B40-4 ■■■	
	7.8	142	174	0.64	1.6	2KG3431 - ■■ B38-4 ■■■	
	8.8	127	153	0.65	1.8	2KG3431 - ■■ B37-4 ■■■	
	9.8	116	138	0.66	2	2KG3431 - ■■ B36-4 ■■■	
	11.2	102	120	0.66	2.2	2KG3431 - ■■ B35-4 ■■■	
	12.5	92	108	0.67	2.5	2KG3431 - ■■ B34-4 ■■■	
	13.8	83	97.5	0.67	2.8	2KG3431 - ■■ B33-4 ■■■	
	15.3	76	88.4	0.67	3	2KG3431 - ■■ B32-4 ■■■	
	16.8	69	80.4	0.68	3.2	2KG3431 - ■■ B31-4 ■■■	
	19.0	61	71.1	0.68	3.4	2KG3431 - ■■ B30-4 ■■■	
	20.6	57	65.7	0.68	3.6	2KG3431 - ■■ B28-4 ■■■	
	22.4	65	60.3	0.85	3	2KG3431 - ■■ B27-4 ■■■	
	25.2	58	53.5	0.86	4.1	2KG3431 - ■■ B26-4 ■■■	
	28.8	52	46.9	0.86	4.4	2KG3431 - ■■ B25-4 ■■■	
	32.1	46	42.0	0.87	4.7	2KG3431 - ■■ B24-4 ■■■	
	36.2	41	37.3	0.87	5.5	2KG3431 - ■■ B23-4 ■■■	
	41.3	36	32.7	0.87	5.2	2KG3431 - ■■ B22-4 ■■■	
	47.0	32	28.7	0.88	6.4	2KG3431 - ■■ B21-4 ■■■	
	52.0	29	26.0	0.88	7.1	2KG3431 - ■■ B20-4 ■■■	
	59.7	25	22.6	0.88	8	2KG3431 - ■■ B18-4 ■■■	
	66.5	23	20.3	0.88	8.5	2KG3431 - ■■ B17-4 ■■■	
	73.6	21	18.3	0.88	9.9	2KG3431 - ■■ B16-4 ■■■	

0.25	Gearbox size C82 – motor frame size 71M – 6 poles						80
	1.9	793	441	0.63	1.9	2KG3481 -   D57-6  	
	2.1	718	390	0.64	2.2	2KG3481 -   D56-6  	
	2.3	664	355	0.65	2.4	2KG3481 -   D55-6  	
	2.6	607	319	0.66	2.6	2KG3481 -   D54-6  	
	Gearbox size C82 – motor frame size 71M – 4 poles						78
	3.1	530	441	0.68	3	2KG3481 -   C57-4  	
	3.5	477	390	0.69	3.3	2KG3481 -   C56-4  	
	3.8	439	355	0.7	3.6	2KG3481 -   C55-4  	
	4.2	399	319	0.71	4	2KG3481 -   C54-4  	
	4.9	346	273	0.72	4.4	2KG3481 -   C53-4  	
	5.5	315	247	0.72	4.6	2KG3481 -   C52-4  	
	5.9	292	228	0.72	4.8	2KG3481 -   C51-4  	
	Gearbox size C62 – motor frame size 71M – 6 poles						50
	2.3	640	364	0.61	1.1	2KG3461 -   D55-6  	
	2.6	580	324	0.62	1.2	2KG3461 -   D54-6  	
	3.0	514	281	0.64	1.3	2KG3461 -   D53-6  	
	3.2	486	262	0.64	1.4	2KG3461 -   D52-6  	
	3.6	436	231	0.66	1.6	2KG3461 -   D51-6  	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 ——— 0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6 ——— A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 ——— A to D

For voltage/frequency, see page 6/7 ——— 1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.25	Gearbox size C62 – motor frame size 71M – 4 poles						49
	3.7	425	364	0.66	1.6	2KG3461 - ■■ C55-4 ■■■	
	4.2	385	324	0.67	1.8	2KG3461 - ■■ C54-4 ■■■	
	4.8	340	281	0.68	2	2KG3461 - ■■ C53-4 ■■■	
	5.1	321	262	0.69	2.1	2KG3461 - ■■ C52-4 ■■■	
	5.9	286	231	0.7	2.4	2KG3461 - ■■ C51-4 ■■■	
	6.7	254	202	0.71	2.7	2KG3461 - ■■ C50-4 ■■■	
	7.6	227	179	0.72	2.9	2KG3461 - ■■ C48-4 ■■■	
	8.3	207	162	0.72	3.1	2KG3461 - ■■ C47-4 ■■■	
	9.4	183	143	0.73	3.4	2KG3461 - ■■ C46-4 ■■■	
	10.5	166	129	0.73	3.6	2KG3461 - ■■ C45-4 ■■■	
	11.5	151	117	0.73	3.8	2KG3461 - ■■ C44-4 ■■■	
	12.7	138	107	0.73	4.1	2KG3461 - ■■ C43-4 ■■■	
	13.8	126	97.5	0.73	4.3	2KG3461 - ■■ C42-4 ■■■	
	15.0	136	90.0	0.85	4.5	2KG3461 - ■■ C41-4 ■■■	
	16.1	127	84.1	0.86	4.9	2KG3461 - ■■ C40-4 ■■■	
	18.3	113	74.0	0.86	5.3	2KG3461 - ■■ C38-4 ■■■	
	20.8	99	64.8	0.86	6.3	2KG3461 - ■■ C37-4 ■■■	
	23.6	88	57.3	0.87	7.6	2KG3461 - ■■ C36-4 ■■■	
	26.0	80	51.9	0.87	8.1	2KG3461 - ■■ C35-4 ■■■	
	29.5	71	45.8	0.87	8.8	2KG3461 - ■■ C34-4 ■■■	
	32.6	64	41.4	0.87	9.4	2KG3461 - ■■ C33-4 ■■■	
	35.5	59	38.0	0.88	7.2	2KG3461 - ■■ C23-4 ■■■	
	36.0	58	37.5	0.87	10	2KG3461 - ■■ C32-4 ■■■	
	40.2	53	33.6	0.88	8.1	2KG3461 - ■■ C22-4 ■■■	
	44.3	48	30.5	0.88	8.1	2KG3461 - ■■ C21-4 ■■■	
	50.2	42	26.9	0.88	9.5	2KG3461 - ■■ C20-4 ■■■	
	Gearbox size C42 – motor frame size 71M – 4 poles						31
	4.2	352	321	0.62	1	2KG3441 - ■■ C44-4 ■■■	
	4.7	318	285	0.63	1.2	2KG3441 - ■■ C43-4 ■■■	
	5.4	285	250	0.64	1.3	2KG3441 - ■■ C42-4 ■■■	
	6.0	259	223	0.66	1.4	2KG3441 - ■■ C41-4 ■■■	
	6.8	234	198	0.67	1.6	2KG3441 - ■■ C40-4 ■■■	
	7.8	208	174	0.68	1.8	2KG3441 - ■■ C38-4 ■■■	
	8.8	185	153	0.69	2	2KG3441 - ■■ C37-4 ■■■	
	9.8	169	138	0.69	2.2	2KG3441 - ■■ C36-4 ■■■	
	11.2	148	120	0.7	2.5	2KG3441 - ■■ C35-4 ■■■	
	12.5	134	108	0.7	2.8	2KG3441 - ■■ C34-4 ■■■	
	13.8	121	97.5	0.7	3	2KG3441 - ■■ C33-4 ■■■	
	15.3	110	88.4	0.71	3.2	2KG3441 - ■■ C32-4 ■■■	
	16.8	101	80.4	0.71	3.4	2KG3441 - ■■ C31-4 ■■■	
	19.0	89	71.1	0.71	3.7	2KG3441 - ■■ C30-4 ■■■	
	20.6	82	65.7	0.71	3.9	2KG3441 - ■■ C28-4 ■■■	
	23.9	71	56.6	0.71	4.4	2KG3441 - ■■ C27-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6

A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8

A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

A to D

For voltage/frequency, see page 6/7

1, 3, 5, 6 or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.25 Gearbox size C32 – motor frame size 71M – 4 poles							
	6.0	246	223	0.62	0.92	2KG3431 - ■■ C41-4 ■■■	22
	6.8	222	198	0.63	1	2KG3431 - ■■ C40-4 ■■■	
	7.8	198	174	0.64	1.1	2KG3431 - ■■ C38-4 ■■■	
	8.8	176	153	0.65	1.3	2KG3431 - ■■ C37-4 ■■■	
	9.8	161	138	0.66	1.4	2KG3431 - ■■ C36-4 ■■■	
	11.2	141	120	0.66	1.6	2KG3431 - ■■ C35-4 ■■■	
	12.5	128	108	0.67	1.8	2KG3431 - ■■ C34-4 ■■■	
	13.8	116	97.5	0.67	2	2KG3431 - ■■ C33-4 ■■■	
	15.3	105	88.4	0.67	2.1	2KG3431 - ■■ C32-4 ■■■	
	16.8	96	80.4	0.68	2.3	2KG3431 - ■■ C31-4 ■■■	
	19.0	85	71.1	0.68	2.5	2KG3431 - ■■ C30-4 ■■■	
	20.6	79	65.7	0.68	2.6	2KG3431 - ■■ C28-4 ■■■	
	22.4	91	60.3	0.85	2.2	2KG3431 - ■■ C27-4 ■■■	
	25.2	81	53.5	0.86	2.9	2KG3431 - ■■ C26-4 ■■■	
	28.8	72	46.9	0.86	3.2	2KG3431 - ■■ C25-4 ■■■	
	32.1	64	42.0	0.87	3.4	2KG3431 - ■■ C24-4 ■■■	
	36.2	57	37.3	0.87	4	2KG3431 - ■■ C23-4 ■■■	
	41.3	51	32.7	0.87	3.7	2KG3431 - ■■ C22-4 ■■■	
	47.0	45	28.7	0.88	4.6	2KG3431 - ■■ C21-4 ■■■	
	52.0	40	26.0	0.88	5.1	2KG3431 - ■■ C20-4 ■■■	
	59.7	35	22.6	0.88	5.8	2KG3431 - ■■ C18-4 ■■■	
	66.5	32	20.3	0.88	6.1	2KG3431 - ■■ C17-4 ■■■	
	73.6	29	18.3	0.88	7.1	2KG3431 - ■■ C16-4 ■■■	
	81.2	26	16.6	0.88	7.5	2KG3431 - ■■ C15-4 ■■■	
	89.2	24	15.1	0.88	7.8	2KG3431 - ■■ C14-4 ■■■	
	101	21	13.4	0.88	7.8	2KG3431 - ■■ C13-4 ■■■	
	109	19	12.4	0.88	8.8	2KG3431 - ■■ C12-4 ■■■	

0.37	Gearbox size C82 – motor frame size 80M – 6 poles						
	2.1	1079	441	0.64	1.4	2KG3481 -   E57-6  	81
	2.4	976	390	0.65	1.6	2KG3481 -   E56-6  	
	2.6	902	355	0.66	1.8	2KG3481 -   E55-6  	
	2.9	824	319	0.67	1.9	2KG3481 -   E54-6  	
	Gearbox size C82 – motor frame size 71M – 4 poles						
	3.1	774	441	0.68	2.1	2KG3481 -   D57-4  	79
	3.5	697	390	0.69	2.3	2KG3481 -   D56-4  	
	3.9	641	355	0.7	2.5	2KG3481 -   D55-4  	
	4.3	582	319	0.71	2.7	2KG3481 -   D54-4  	
	5.0	505	273	0.72	3	2KG3481 -   D53-4  	
	5.5	460	247	0.72	3.1	2KG3481 -   D52-4  	
	6.0	426	228	0.73	3.3	2KG3481 -   D51-4  	
	6.9	373	198	0.73	3.6	2KG3481 -   D50-4  	
	7.6	339	180	0.73	3.8	2KG3481 -   D48-4  	
8.3	310	164	0.73	4.1	2KG3481 -   D47-4  		
9.1	285	151	0.73	4.3	2KG3481 -   D46-4  		
9.9	263	139	0.73	4.5	2KG3481 -   D45-4  		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 ——— **0, 1, 2, 3, 6 or 9** ——— ↑↑↑

For shaft designs, see page 6/6 ——— **A, B, F, G, H, L, M, N, R, S, T, Z** ——— ↑↑↑

For gearbox mounting positions acc. to the figure, see page 6/8 ——— **A to F** ——— ↑↑↑

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 ——— **A to D** ——— ↑↑↑

For voltage/frequency, see page 6/7 ——— **1, 3, 5, 6 or 9** ——— ↑↑↑

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.37	Gearbox size C62 – motor frame size 71M – 4 poles						50
	3.8	621	364	0.66	1.1	2KG3461 - ■■■ D55-4 ■■■	
	4.2	562	324	0.67	1.2	2KG3461 - ■■■ D54-4 ■■■	
	4.9	497	281	0.69	1.4	2KG3461 - ■■■ D53-4 ■■■	
	5.2	468	262	0.69	1.5	2KG3461 - ■■■ D52-4 ■■■	
	5.9	418	231	0.7	1.6	2KG3461 - ■■■ D51-4 ■■■	
	6.8	370	202	0.71	1.8	2KG3461 - ■■■ D50-4 ■■■	
	7.7	331	179	0.72	2	2KG3461 - ■■■ D48-4 ■■■	
	8.5	301	162	0.72	2.1	2KG3461 - ■■■ D47-4 ■■■	
	9.6	268	143	0.73	2.3	2KG3461 - ■■■ D46-4 ■■■	
	10.6	242	129	0.73	2.5	2KG3461 - ■■■ D45-4 ■■■	
	11.7	220	117	0.73	2.6	2KG3461 - ■■■ D44-4 ■■■	
	12.9	201	107	0.73	2.8	2KG3461 - ■■■ D43-4 ■■■	
	14.1	184	97.5	0.73	3	2KG3461 - ■■■ D42-4 ■■■	
	15.2	198	90.0	0.85	3.1	2KG3461 - ■■■ D41-4 ■■■	
	16.3	186	84.1	0.86	3.3	2KG3461 - ■■■ D40-4 ■■■	
	18.5	164	74.0	0.86	3.6	2KG3461 - ■■■ D38-4 ■■■	
	21.2	144	64.8	0.86	4.3	2KG3461 - ■■■ D37-4 ■■■	
	23.9	128	57.3	0.87	5.2	2KG3461 - ■■■ D36-4 ■■■	
	Gearbox size C42 – motor frame size 71M – 4 poles						32
	6.1	378	223	0.66	0.98	2KG3441 - ■■■ D41-4 ■■■	
	6.9	341	198	0.67	1.1	2KG3441 - ■■■ D40-4 ■■■	
	7.9	304	173.7	0.68	1.2	2KG3441 - ■■■ D38-4 ■■■	
	9.0	270	153	0.69	1.4	2KG3441 - ■■■ D37-4 ■■■	
	9.9	246	138	0.69	1.5	2KG3441 - ■■■ D36-4 ■■■	
	11.4	217	120	0.7	1.7	2KG3441 - ■■■ D35-4 ■■■	
	12.7	195	108	0.7	1.9	2KG3441 - ■■■ D34-4 ■■■	
	14.1	177	97.5	0.7	2.1	2KG3441 - ■■■ D33-4 ■■■	
	15.5	161	88.4	0.71	2.2	2KG3441 - ■■■ D32-4 ■■■	
	17.0	147	80.4	0.71	2.3	2KG3441 - ■■■ D31-4 ■■■	
	19.3	130	71.1	0.71	2.6	2KG3441 - ■■■ D30-4 ■■■	
	20.9	120	65.7	0.71	2.7	2KG3441 - ■■■ D28-4 ■■■	
	24.2	103	56.6	0.71	3	2KG3441 - ■■■ D27-4 ■■■	
	26.6	94	51.4	0.71	3.2	2KG3441 - ■■■ D26-4 ■■■	
	29.2	106	46.9	0.87	2.7	2KG3441 - ■■■ D25-4 ■■■	
	32.6	95	42.0	0.88	3.3	2KG3441 - ■■■ D24-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 ——— 0, 1, 2, 3, 6 or 9 ———

For shaft designs, see page 6/6 ——— A, B, F, G, H, L, M, N, R, S, T, Z ———

For gearbox mounting positions acc. to the figure, see page 6/8 ——— A to F ———

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 ——— A to D ———

For voltage/frequency, see page 6/7 ——— 1, 3, 5, 6 or 9 ———

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.37 Gearbox size C32 – motor frame size 71M – 4 poles							
	9.9	234	138	0.66	0.97	2KG3431 - ■■■ D36-4 ■■■	23
	11.4	206	120	0.67	1.1	2KG3431 - ■■■ D35-4 ■■■	
	12.7	186	108	0.67	1.2	2KG3431 - ■■■ D34-4 ■■■	
	14.1	169	97.5	0.67	1.4	2KG3431 - ■■■ D33-4 ■■■	
	15.5	154	88.4	0.67	1.5	2KG3431 - ■■■ D32-4 ■■■	
	17.0	140	80.4	0.68	1.6	2KG3431 - ■■■ D31-4 ■■■	
	19.3	124	71.1	0.68	1.7	2KG3431 - ■■■ D30-4 ■■■	
	20.9	115	65.7	0.68	1.8	2KG3431 - ■■■ D28-4 ■■■	
	22.7	132	60.3	0.85	1.5	2KG3431 - ■■■ D27-4 ■■■	
	25.6	118	53.5	0.86	2	2KG3431 - ■■■ D26-4 ■■■	
	29.2	104	46.9	0.86	2.2	2KG3431 - ■■■ D25-4 ■■■	
	32.6	94	42.0	0.87	2.3	2KG3431 - ■■■ D24-4 ■■■	
	36.7	84	37.3	0.87	2.7	2KG3431 - ■■■ D23-4 ■■■	
	41.9	74	32.7	0.87	2.6	2KG3431 - ■■■ D22-4 ■■■	
	47.7	65	28.7	0.88	3.1	2KG3431 - ■■■ D21-4 ■■■	
	52.8	59	26.0	0.88	3.5	2KG3431 - ■■■ D20-4 ■■■	
	60.6	51	22.6	0.88	4	2KG3431 - ■■■ D18-4 ■■■	
	67.5	46	20.3	0.88	4.2	2KG3431 - ■■■ D17-4 ■■■	
	74.7	42	18.3	0.88	4.9	2KG3431 - ■■■ D16-4 ■■■	
	82.4	38	16.6	0.88	5.1	2KG3431 - ■■■ D15-4 ■■■	
	90.5	34	15.1	0.88	5.4	2KG3431 - ■■■ D14-4 ■■■	
	102	30	13.4	0.88	5.4	2KG3431 - ■■■ D13-4 ■■■	
	111	28	12.4	0.88	6	2KG3431 - ■■■ D12-4 ■■■	
	129	24	10.6	0.88	7.2	2KG3431 - ■■■ D11-4 ■■■	
	142	22	9.67	0.88	7.7	2KG3431 - ■■■ D10-4 ■■■	

0.55 Gearbox size C82 – motor frame size 80M – 6 poles							
	2.1	1618	441	0.64	0.94	2KG3481 - ■■■ F57-6 ■■■	83
	2.3	1464	390	0.65	1.1	2KG3481 - ■■■ F56-6 ■■■	
	2.6	1353	355	0.66	1.2	2KG3481 - ■■■ F55-6 ■■■	
	2.9	1236	319	0.67	1.3	2KG3481 - ■■■ F54-6 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5	0, 1, 2, 3, 6 or 9
For shaft designs, see page 6/6	A, B, F, G, H, L, M, N, R, S, T, Z
For gearbox mounting positions acc. to the figure, see page 6/8	A to F
For pos. of the connection system acc. to fig., see pages 6/7 to 6/8	A to D
For voltage/frequency, see page 6/7	1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.55	Gearbox size C82 – motor frame size 80M – 4 poles						81
	3.2	1133	441	0.68	1.4	2KG3481 - ■ ■ ■ E57-4 ■ ■ ■	
	3.6	1020	390	0.69	1.6	2KG3481 - ■ ■ ■ E56-4 ■ ■ ■	
	3.9	937	355	0.7	1.7	2KG3481 - ■ ■ ■ E55-4 ■ ■ ■	
	4.4	851	319	0.71	1.9	2KG3481 - ■ ■ ■ E54-4 ■ ■ ■	
	5.1	739	273	0.72	2	2KG3481 - ■ ■ ■ E53-4 ■ ■ ■	
	5.6	672	247	0.72	2.1	2KG3481 - ■ ■ ■ E52-4 ■ ■ ■	
	6.1	623	228	0.73	2.2	2KG3481 - ■ ■ ■ E51-4 ■ ■ ■	
	7.0	544	198	0.73	2.4	2KG3481 - ■ ■ ■ E50-4 ■ ■ ■	
	7.8	495	180	0.73	2.6	2KG3481 - ■ ■ ■ E48-4 ■ ■ ■	
	8.5	453	164	0.73	2.8	2KG3481 - ■ ■ ■ E47-4 ■ ■ ■	
	9.3	416	151	0.73	2.9	2KG3481 - ■ ■ ■ E46-4 ■ ■ ■	
	10.0	383	139	0.73	3.1	2KG3481 - ■ ■ ■ E45-4 ■ ■ ■	
	11.1	348	126	0.73	3.3	2KG3481 - ■ ■ ■ E44-4 ■ ■ ■	
	12.1	317	115	0.73	3.5	2KG3481 - ■ ■ ■ E43-4 ■ ■ ■	
	12.9	347	109	0.85	3.8	2KG3481 - ■ ■ ■ E42-4 ■ ■ ■	
	14.2	314	98.2	0.85	4.5	2KG3481 - ■ ■ ■ E41-4 ■ ■ ■	
	15.4	291	90.6	0.85	4.2	2KG3481 - ■ ■ ■ E40-4 ■ ■ ■	
	17.7	253	78.8	0.85	5.2	2KG3481 - ■ ■ ■ E38-4 ■ ■ ■	
	Gearbox size C62 – motor frame size 80M – 4 poles						52
	5.0	727	281	0.69	0.94	2KG3461 - ■ ■ ■ E53-4 ■ ■ ■	
	5.3	685	262	0.69	1	2KG3461 - ■ ■ ■ E52-4 ■ ■ ■	
	6.0	611	231	0.7	1.1	2KG3461 - ■ ■ ■ E51-4 ■ ■ ■	
	6.9	542	202	0.71	1.3	2KG3461 - ■ ■ ■ E50-4 ■ ■ ■	
	7.8	483	179	0.72	1.4	2KG3461 - ■ ■ ■ E48-4 ■ ■ ■	
	8.6	440	162	0.72	1.4	2KG3461 - ■ ■ ■ E47-4 ■ ■ ■	
	9.8	391	143	0.73	1.6	2KG3461 - ■ ■ ■ E46-4 ■ ■ ■	
	10.8	354	129	0.73	1.7	2KG3461 - ■ ■ ■ E45-4 ■ ■ ■	
	11.9	322	117	0.73	1.8	2KG3461 - ■ ■ ■ E44-4 ■ ■ ■	
	13.1	293	107	0.73	1.9	2KG3461 - ■ ■ ■ E43-4 ■ ■ ■	
	14.3	269	97.5	0.73	2	2KG3461 - ■ ■ ■ E42-4 ■ ■ ■	
	15.5	289	90.0	0.85	2.1	2KG3461 - ■ ■ ■ E41-4 ■ ■ ■	
	16.6	271	84.1	0.86	2.3	2KG3461 - ■ ■ ■ E40-4 ■ ■ ■	
	18.9	240	74.0	0.86	2.5	2KG3461 - ■ ■ ■ E38-4 ■ ■ ■	
	21.5	211	64.8	0.87	3	2KG3461 - ■ ■ ■ E37-4 ■ ■ ■	
	24.3	187	57.3	0.87	3.5	2KG3461 - ■ ■ ■ E36-4 ■ ■ ■	
	26.9	170	51.9	0.87	3.7	2KG3461 - ■ ■ ■ E35-4 ■ ■ ■	
	30.4	150	45.8	0.87	4.1	2KG3461 - ■ ■ ■ E34-4 ■ ■ ■	
	33.7	136	41.4	0.87	4.4	2KG3461 - ■ ■ ■ E33-4 ■ ■ ■	
	36.7	126	38.0	0.88	3.4	2KG3461 - ■ ■ ■ E23-4 ■ ■ ■	
	37.2	123	37.5	0.87	4.7	2KG3461 - ■ ■ ■ E32-4 ■ ■ ■	
	40.8	112	34.2	0.87	5	2KG3461 - ■ ■ ■ E31-4 ■ ■ ■	
	41.5	112	33.6	0.88	3.8	2KG3461 - ■ ■ ■ E22-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

For shaft designs, see page 6/6

For gearbox mounting positions acc. to the figure, see page 6/8

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

For voltage/frequency, see page 6/7

0, 1, 2, 3, 6 or 9

A, B, F, G, H, L, M, N, R, S, T, Z

A to F

A to D

1, 3, 5, 6 or 9

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1	n_2	M_2	i	η	f_B		kg
kW	rpm	Nm					
0.55	Gearbox size C42 – motor frame size 80M – 4 poles						
	9.1	395	153	0.69	0.94	2KG3441 - ■■ E37-4 ■■■■	34
	10.1	360	138	0.69	1	2KG3441 - ■■ E36-4 ■■■■	
	11.6	316	120	0.7	1.2	2KG3441 - ■■ E35-4 ■■■■	
	12.9	286	108	0.7	1.3	2KG3441 - ■■ E34-4 ■■■■	
	14.3	259	97.5	0.7	1.4	2KG3441 - ■■ E33-4 ■■■■	
	15.8	235	88.4	0.71	1.5	2KG3441 - ■■ E32-4 ■■■■	
	17.3	214	80.4	0.71	1.6	2KG3441 - ■■ E31-4 ■■■■	
	19.6	190	71.1	0.71	1.7	2KG3441 - ■■ E30-4 ■■■■	
	21.2	175	65.7	0.71	1.8	2KG3441 - ■■ E28-4 ■■■■	
	24.7	151	56.6	0.71	2	2KG3441 - ■■ E27-4 ■■■■	
	27.1	137	51.4	0.71	2.2	2KG3441 - ■■ E26-4 ■■■■	
	29.7	154	46.9	0.87	1.9	2KG3441 - ■■ E25-4 ■■■■	
	33.2	139	42.0	0.88	2.3	2KG3441 - ■■ E24-4 ■■■■	
	37.4	123	37.3	0.88	2.1	2KG3441 - ■■ E23-4 ■■■■	
	42.7	108	32.7	0.88	2.4	2KG3441 - ■■ E22-4 ■■■■	
	48.6	96	28.7	0.88	3	2KG3441 - ■■ E21-4 ■■■■	
	53.8	86	26.0	0.88	3.2	2KG3441 - ■■ E20-4 ■■■■	
	61.7	75	22.6	0.88	3.5	2KG3441 - ■■ E18-4 ■■■■	
	Gearbox size C32 – motor frame size 80M – 4 poles						
	14.3	247	97.5	0.67	0.93	2KG3431 - ■■ E33-4 ■■■■	25
	15.8	224	88.4	0.67	1	2KG3431 - ■■ E32-4 ■■■■	
	17.3	205	80.4	0.68	1.1	2KG3431 - ■■ E31-4 ■■■■	
	19.6	181	71.1	0.68	1.1	2KG3431 - ■■ E30-4 ■■■■	
	21.2	167	65.7	0.68	1.2	2KG3431 - ■■ E28-4 ■■■■	
	23.1	193	60.3	0.85	1	2KG3431 - ■■ E27-4 ■■■■	
	26.1	173	53.5	0.86	1.4	2KG3431 - ■■ E26-4 ■■■■	
	29.7	152	46.9	0.86	1.5	2KG3431 - ■■ E25-4 ■■■■	
	33.2	137	42.0	0.87	1.6	2KG3431 - ■■ E24-4 ■■■■	
	37.4	122	37.3	0.87	1.9	2KG3431 - ■■ E23-4 ■■■■	
	42.7	108	32.7	0.87	1.8	2KG3431 - ■■ E22-4 ■■■■	
	48.6	95	28.7	0.88	2.2	2KG3431 - ■■ E21-4 ■■■■	
	53.8	86	26.0	0.88	2.4	2KG3431 - ■■ E20-4 ■■■■	
	61.7	75	22.6	0.88	2.7	2KG3431 - ■■ E18-4 ■■■■	
	68.7	67	20.3	0.88	2.9	2KG3431 - ■■ E17-4 ■■■■	
	76.1	61	18.3	0.88	3.3	2KG3431 - ■■ E16-4 ■■■■	
83.9	55	16.6	0.88	3.5	2KG3431 - ■■ E15-4 ■■■■		
92.2	50	15.1	0.88	3.7	2KG3431 - ■■ E14-4 ■■■■		
104	44	13.4	0.88	3.7	2KG3431 - ■■ E13-4 ■■■■		
113	41	12.4	0.88	4.1	2KG3431 - ■■ E12-4 ■■■■		
131	35	10.6	0.88	4.9	2KG3431 - ■■ E11-4 ■■■■		
144	32	9.67	0.88	5.2	2KG3431 - ■■ E10-4 ■■■■		
All values apply at 50 Hz							
For types of construction, see pages 6/3 to 6/5					0, 1, 2, 3, 6 or 9		
For shaft designs, see page 6/6					A, B, F, G, H, L, M, N, R, S, T, Z		
For gearbox mounting positions acc. to the figure, see page 6/8					A to F		
For pos. of the connection system acc. to fig., see pages 6/7 to 6/8					A to D		
For voltage/frequency, see page 6/7					1, 3, 5, 6 or 9		

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.75	Gearbox size C82 – motor frame size 80M – 4 poles						
	3.2	1545	441	0.68	1	2KG3481 - ■ ■ F57-4 ■ ■ ■	83
	3.6	1390	390	0.69	1.1	2KG3481 - ■ ■ F56-4 ■ ■ ■	
	3.9	1278	355	0.7	1.2	2KG3481 - ■ ■ F55-4 ■ ■ ■	
	4.4	1161	319	0.71	1.4	2KG3481 - ■ ■ F54-4 ■ ■ ■	
	5.1	1007	273	0.72	1.5	2KG3481 - ■ ■ F53-4 ■ ■ ■	
	5.6	917	247	0.72	1.6	2KG3481 - ■ ■ F52-4 ■ ■ ■	
	6.1	850	228	0.73	1.6	2KG3481 - ■ ■ F51-4 ■ ■ ■	
	7.0	742	198	0.73	1.8	2KG3481 - ■ ■ F50-4 ■ ■ ■	
	7.8	675	180	0.73	1.9	2KG3481 - ■ ■ F48-4 ■ ■ ■	
	8.5	618	164	0.73	2	2KG3481 - ■ ■ F47-4 ■ ■ ■	
	9.3	567	151	0.73	2.1	2KG3481 - ■ ■ F46-4 ■ ■ ■	
	10.0	523	139	0.73	2.3	2KG3481 - ■ ■ F45-4 ■ ■ ■	
	11.1	475	126	0.73	2.4	2KG3481 - ■ ■ F44-4 ■ ■ ■	
	12.1	433	115	0.73	2.6	2KG3481 - ■ ■ F43-4 ■ ■ ■	
	12.9	473	109	0.85	2.8	2KG3481 - ■ ■ F42-4 ■ ■ ■	
	14.2	429	98.2	0.85	3.3	2KG3481 - ■ ■ F41-4 ■ ■ ■	
	15.4	396	90.6	0.85	3.1	2KG3481 - ■ ■ F40-4 ■ ■ ■	
	17.7	345	78.8	0.85	3.8	2KG3481 - ■ ■ F38-4 ■ ■ ■	
	19.5	314	71.5	0.85	4.1	2KG3481 - ■ ■ F37-4 ■ ■ ■	
	21.4	287	65.3	0.86	4.3	2KG3481 - ■ ■ F36-4 ■ ■ ■	
	23.3	263	59.9	0.86	4.6	2KG3481 - ■ ■ F35-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 ——— 0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6 ——— A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8 ——— A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 ——— A to D

For voltage/frequency, see page 6/7 ——— 1, 3, 5, 6 or 9

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	η	f_B		kg
0.75	Gearbox size C62 – motor frame size 80M – 4 poles						54
	6.9	739	202	0.71	0.93	2KG3461 - ■■■ F50-4 ■■■	
	7.8	659	179	0.72	1	2KG3461 - ■■■ F48-4 ■■■	
	8.6	601	162	0.72	1.1	2KG3461 - ■■■ F47-4 ■■■	
	9.8	533	143	0.73	1.1	2KG3461 - ■■■ F46-4 ■■■	
	10.8	482	129	0.73	1.2	2KG3461 - ■■■ F45-4 ■■■	
	11.9	438	117	0.73	1.3	2KG3461 - ■■■ F44-4 ■■■	
	13.1	400	107	0.73	1.4	2KG3461 - ■■■ F43-4 ■■■	
	14.3	366	97.5	0.73	1.5	2KG3461 - ■■■ F42-4 ■■■	
	15.5	395	90.0	0.85	1.5	2KG3461 - ■■■ F41-4 ■■■	
	16.6	370	84.1	0.86	1.7	2KG3461 - ■■■ F40-4 ■■■	
	18.9	327	74.0	0.86	1.8	2KG3461 - ■■■ F38-4 ■■■	
	21.5	288	64.8	0.87	2.2	2KG3461 - ■■■ F37-4 ■■■	
	24.3	255	57.3	0.87	2.6	2KG3461 - ■■■ F36-4 ■■■	
	26.9	232	51.9	0.87	2.7	2KG3461 - ■■■ F35-4 ■■■	
	30.4	205	45.8	0.87	3	2KG3461 - ■■■ F34-4 ■■■	
	33.7	185	41.4	0.87	3.2	2KG3461 - ■■■ F33-4 ■■■	
	36.7	172	38.0	0.88	2.5	2KG3461 - ■■■ F23-4 ■■■	
	37.2	168	37.5	0.87	3.4	2KG3461 - ■■■ F32-4 ■■■	
	40.8	153	34.2	0.87	3.6	2KG3461 - ■■■ F31-4 ■■■	
	41.5	153	33.6	0.88	2.8	2KG3461 - ■■■ F22-4 ■■■	
	44.6	140	31.3	0.87	3.9	2KG3461 - ■■■ F30-4 ■■■	
	45.8	138	30.5	0.88	2.8	2KG3461 - ■■■ F21-4 ■■■	
	49.9	125	27.9	0.87	4.2	2KG3461 - ■■■ F28-4 ■■■	
	51.9	122	26.9	0.89	3.3	2KG3461 - ■■■ F20-4 ■■■	
	54.4	115	25.7	0.87	4.4	2KG3461 - ■■■ F27-4 ■■■	
	57.5	110	24.3	0.89	3.6	2KG3461 - ■■■ F18-4 ■■■	
	Gearbox size C42 – motor frame size 80M – 4 poles						35
	12.9	389	108	0.7	0.96	2KG3441 - ■■■ F34-4 ■■■	
	14.3	353	97.5	0.7	1	2KG3441 - ■■■ F33-4 ■■■	
	15.8	320	88.4	0.71	1.1	2KG3441 - ■■■ F32-4 ■■■	
	17.3	292	80.4	0.71	1.2	2KG3441 - ■■■ F31-4 ■■■	
	19.6	259	71.1	0.71	1.3	2KG3441 - ■■■ F30-4 ■■■	
	21.2	239	65.7	0.71	1.3	2KG3441 - ■■■ F28-4 ■■■	
	24.7	206	56.6	0.71	1.5	2KG3441 - ■■■ F27-4 ■■■	
27.1	187	51.4	0.71	1.6	2KG3441 - ■■■ F26-4 ■■■		
29.7	211	46.9	0.87	1.4	2KG3441 - ■■■ F25-4 ■■■		
33.2	189	42.0	0.88	1.7	2KG3441 - ■■■ F24-4 ■■■		
37.4	168	37.3	0.88	1.6	2KG3441 - ■■■ F23-4 ■■■		
42.7	148	32.7	0.88	1.8	2KG3441 - ■■■ F22-4 ■■■		
48.6	130	28.7	0.88	2.2	2KG3441 - ■■■ F21-4 ■■■		
53.8	118	26.0	0.88	2.3	2KG3441 - ■■■ F20-4 ■■■		
61.7	103	22.6	0.88	2.6	2KG3441 - ■■■ F18-4 ■■■		
68.7	92	20.3	0.88	3	2KG3441 - ■■■ F17-4 ■■■		
76.1	83	18.3	0.88	3.5	2KG3441 - ■■■ F16-4 ■■■		
83.9	76	16.6	0.89	3.8	2KG3441 - ■■■ F15-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 ——— **0, 1, 2, 3, 6 or 9** ———

For shaft designs, see page 6/6 ——— **A, B, F, G, H, L, M, N, R, S, T, Z** ———

For gearbox mounting positions acc. to the figure, see page 6/8 ——— **A to F** ———

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 ——— **A to D** ———

For voltage/frequency, see page 6/7 ——— **1, 3, 5, 6 or 9** ———

Gear motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.75 Gearbox size C32 – motor frame size 80M – 4 poles							
	26.1	236	53.5	0.86	1	2KG3431 - ■■■ F26-4 ■■■	27
	29.7	208	46.9	0.86	1.1	2KG3431 - ■■■ F25-4 ■■■	
	33.2	187	42.0	0.87	1.2	2KG3431 - ■■■ F24-4 ■■■	
	37.4	167	37.3	0.87	1.4	2KG3431 - ■■■ F23-4 ■■■	
	42.7	147	32.7	0.87	1.3	2KG3431 - ■■■ F22-4 ■■■	
	48.6	129	28.7	0.88	1.6	2KG3431 - ■■■ F21-4 ■■■	
	53.8	117	26.0	0.88	1.8	2KG3431 - ■■■ F20-4 ■■■	
	61.7	102	22.6	0.88	2	2KG3431 - ■■■ F18-4 ■■■	
	68.7	92	20.3	0.88	2.1	2KG3431 - ■■■ F17-4 ■■■	
	76.1	83	18.3	0.88	2.5	2KG3431 - ■■■ F16-4 ■■■	
	83.9	75	16.6	0.88	2.6	2KG3431 - ■■■ F15-4 ■■■	
	92.2	68	15.1	0.88	2.7	2KG3431 - ■■■ F14-4 ■■■	
	104	61	13.4	0.88	2.7	2KG3431 - ■■■ F13-4 ■■■	
	113	56	12.4	0.88	3	2KG3431 - ■■■ F12-4 ■■■	
	131	48	10.6	0.88	3.6	2KG3431 - ■■■ F11-4 ■■■	
	144	44	9.67	0.88	3.8	2KG3431 - ■■■ F10-4 ■■■	

1.1 Gearbox size C82 – motor frame size 90S – 4 poles							
	4.4	1681	319	0.71	0.94	2KG3481 - ■■■ G54-4 ■■■	86
	5.2	1458	273	0.72	1	2KG3481 - ■■■ G53-4 ■■■	
	5.7	1327	247	0.72	1.1	2KG3481 - ■■■ G52-4 ■■■	
	6.2	1229	228	0.73	1.1	2KG3481 - ■■■ G51-4 ■■■	
	7.1	1074	198	0.73	1.2	2KG3481 - ■■■ G50-4 ■■■	
	7.9	977	180	0.73	1.3	2KG3481 - ■■■ G48-4 ■■■	
	8.6	893	164	0.73	1.4	2KG3481 - ■■■ G47-4 ■■■	
	9.4	820	151	0.73	1.5	2KG3481 - ■■■ G46-4 ■■■	
	10.2	756	139	0.73	1.6	2KG3481 - ■■■ G45-4 ■■■	
	11.2	687	126	0.73	1.7	2KG3481 - ■■■ G44-4 ■■■	
	12.3	626	115	0.73	1.8	2KG3481 - ■■■ G43-4 ■■■	
	13.0	684	109	0.85	1.9	2KG3481 - ■■■ G42-4 ■■■	
	14.4	620	98.2	0.85	2.3	2KG3481 - ■■■ G41-4 ■■■	
	15.6	573	90.6	0.85	2.2	2KG3481 - ■■■ G40-4 ■■■	
	18.0	500	78.8	0.85	2.6	2KG3481 - ■■■ G38-4 ■■■	
	19.8	454	71.5	0.85	2.8	2KG3481 - ■■■ G37-4 ■■■	
	21.7	415	65.3	0.86	3	2KG3481 - ■■■ G36-4 ■■■	
	23.6	381	59.9	0.86	3.1	2KG3481 - ■■■ G35-4 ■■■	
	25.6	351	55.2	0.86	3.3	2KG3481 - ■■■ G34-4 ■■■	
	28.2	319	50.2	0.86	3.5	2KG3481 - ■■■ G33-4 ■■■	
	31.0	290	45.7	0.86	3.7	2KG3481 - ■■■ G32-4 ■■■	
	33.8	266	41.9	0.86	4	2KG3481 - ■■■ G31-4 ■■■	
	37.9	237	37.3	0.86	4.3	2KG3481 - ■■■ G30-4 ■■■	
	41.8	227	33.9	0.9	3.5	2KG3481 - ■■■ G22-4 ■■■	
	42.5	212	33.3	0.86	4.7	2KG3481 - ■■■ G28-4 ■■■	
	45.8	208	30.9	0.9	3.9	2KG3481 - ■■■ G21-4 ■■■	
	49.9	191	28.4	0.9	4.2	2KG3481 - ■■■ G20-4 ■■■	
	50.0	180	28.3	0.86	5.2	2KG3481 - ■■■ G27-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 — 0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6 — A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8 — A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 — A to D

For voltage/frequency, see page 6/7 — 1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight	
P_1	n_2	M_2	i	η	f_B		kg	
kW	rpm	Nm						
1.1	Gearbox size C62 – motor frame size 90S – 4 poles							
	13.3	578	107	0.73	0.96	2KG3461 - ■■ G43-4 ■■■	56	
	14.5	530	97.5	0.73	1	2KG3461 - ■■ G42-4 ■■■		
	15.7	571	90.0	0.85	1.1	2KG3461 - ■■ G41-4 ■■■		
	16.8	535	84.1	0.86	1.2	2KG3461 - ■■ G40-4 ■■■		
	19.1	473	74.0	0.86	1.3	2KG3461 - ■■ G38-4 ■■■		
	21.8	416	64.8	0.87	1.5	2KG3461 - ■■ G37-4 ■■■		
	24.7	369	57.3	0.87	1.8	2KG3461 - ■■ G36-4 ■■■		
	27.3	335	51.9	0.87	1.9	2KG3461 - ■■ G35-4 ■■■		
	30.9	296	45.8	0.87	2.1	2KG3461 - ■■ G34-4 ■■■		
	34.2	267	41.4	0.87	2.2	2KG3461 - ■■ G33-4 ■■■		
	37.2	249	38.0	0.88	1.7	2KG3461 - ■■ G23-4 ■■■		
	37.7	243	37.5	0.87	2.4	2KG3461 - ■■ G32-4 ■■■		
	41.4	221	34.2	0.87	2.5	2KG3461 - ■■ G31-4 ■■■		
	42.1	221	33.6	0.88	1.9	2KG3461 - ■■ G22-4 ■■■		
	45.3	202	31.3	0.87	2.7	2KG3461 - ■■ G30-4 ■■■		
	46.5	200	30.5	0.88	1.9	2KG3461 - ■■ G21-4 ■■■		
	50.6	181	27.9	0.87	2.9	2KG3461 - ■■ G28-4 ■■■		
	52.6	177	26.9	0.89	2.3	2KG3461 - ■■ G20-4 ■■■		
	55.1	166	25.7	0.87	3.1	2KG3461 - ■■ G27-4 ■■■		
	58.3	159	24.3	0.89	2.5	2KG3461 - ■■ G18-4 ■■■		
	61.2	150	23.1	0.87	3.3	2KG3461 - ■■ G26-4 ■■■		
	64.3	145	22.0	0.89	2.9	2KG3461 - ■■ G17-4 ■■■		
	70.6	132	20.0	0.89	3.2	2KG3461 - ■■ G16-4 ■■■		
	71.1	129	19.9	0.87	3.6	2KG3461 - ■■ G25-4 ■■■		
	77.2	120	18.3	0.89	3.4	2KG3461 - ■■ G15-4 ■■■		
	Gearbox size C42 – motor frame size 90S – 4 poles							
	21.5	345	65.7	0.71	0.92	2KG3441 - ■■ G28-4 ■■■	38	
	25.0	298	56.6	0.71	1	2KG3441 - ■■ G27-4 ■■■		
	27.5	271	51.4	0.71	1.1	2KG3441 - ■■ G26-4 ■■■		
	30.2	305	46.9	0.87	0.94	2KG3441 - ■■ G25-4 ■■■		
	33.7	274	42.0	0.88	1.1	2KG3441 - ■■ G24-4 ■■■		
	38.0	244	37.3	0.88	1.1	2KG3441 - ■■ G23-4 ■■■		
	43.3	214	32.7	0.88	1.2	2KG3441 - ■■ G22-4 ■■■		
	49.3	188	28.7	0.88	1.5	2KG3441 - ■■ G21-4 ■■■		
	54.5	170	26.0	0.88	1.6	2KG3441 - ■■ G20-4 ■■■		
	62.6	148	22.6	0.88	1.8	2KG3441 - ■■ G18-4 ■■■		
	69.7	133	20.3	0.88	2.1	2KG3441 - ■■ G17-4 ■■■		
77.2	120	18.3	0.88	2.5	2KG3441 - ■■ G16-4 ■■■			
85.1	109	16.6	0.89	2.6	2KG3441 - ■■ G15-4 ■■■			
93.5	99	15.1	0.89	2.6	2KG3441 - ■■ G14-4 ■■■			
106	88	13.4	0.89	2.6	2KG3441 - ■■ G13-4 ■■■			
115	81	12.4	0.89	3	2KG3441 - ■■ G12-4 ■■■			

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

For shaft designs, see page 6/6

For gearbox mounting positions acc. to the figure, see page 6/8

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

For voltage/frequency, see page 6/7

0, 1, 2, 3, 6 or 9

A, B, F, G, H, L, M, N, R, S, T, Z

A to F

A to D

1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	η	f_B		kg
1.1	Gearbox size C32 – motor frame size 90S – 4 poles						30
	38.0	241	37.3	0.87	0.94	2KG3431 - ■■ G23-4 ■■■	
	49.3	187	28.7	0.88	1.1	2KG3431 - ■■ G21-4 ■■■	
	54.5	169	26.0	0.88	1.2	2KG3431 - ■■ G20-4 ■■■	
	62.6	148	22.6	0.88	1.4	2KG3431 - ■■ G18-4 ■■■	
	69.7	133	20.3	0.88	1.5	2KG3431 - ■■ G17-4 ■■■	
	77.2	120	18.3	0.88	1.7	2KG3431 - ■■ G16-4 ■■■	
	85.1	109	16.6	0.88	1.8	2KG3431 - ■■ G15-4 ■■■	
	93.5	99	15.1	0.88	1.9	2KG3431 - ■■ G14-4 ■■■	
	106	87	13.4	0.88	1.9	2KG3431 - ■■ G13-4 ■■■	
	115	81	12.4	0.88	2.1	2KG3431 - ■■ G12-4 ■■■	
	133	70	10.6	0.88	2.5	2KG3431 - ■■ G11-4 ■■■	
146	63	9.67	0.88	2.6	2KG3431 - ■■ G10-4 ■■■		
1.5	Gearbox size C82 – motor frame size 90L – 4 poles						89
	7.2	1459	198	0.73	0.91	2KG3481 - ■■ H50-4 ■■■	
	7.9	1327	180	0.73	0.97	2KG3481 - ■■ H48-4 ■■■	
	8.6	1214	164	0.73	1	2KG3481 - ■■ H47-4 ■■■	
	9.4	1114	151	0.73	1.1	2KG3481 - ■■ H46-4 ■■■	
	10.2	1027	139	0.73	1.1	2KG3481 - ■■ H45-4 ■■■	
	11.3	933	126	0.73	1.2	2KG3481 - ■■ H44-4 ■■■	
	12.4	850	115	0.73	1.3	2KG3481 - ■■ H43-4 ■■■	
	13.1	929	109	0.85	1.4	2KG3481 - ■■ H42-4 ■■■	
	14.5	843	98.2	0.85	1.7	2KG3481 - ■■ H41-4 ■■■	
	15.7	779	90.6	0.85	1.6	2KG3481 - ■■ H40-4 ■■■	
	18.0	679	78.8	0.85	1.9	2KG3481 - ■■ H38-4 ■■■	
	19.8	617	71.5	0.85	2.1	2KG3481 - ■■ H37-4 ■■■	
	21.7	563	65.3	0.86	2.2	2KG3481 - ■■ H36-4 ■■■	
	23.7	517	59.9	0.86	2.3	2KG3481 - ■■ H35-4 ■■■	
	25.7	477	55.2	0.86	2.4	2KG3481 - ■■ H34-4 ■■■	
	28.3	433	50.2	0.86	2.6	2KG3481 - ■■ H33-4 ■■■	
	31.1	394	45.7	0.86	2.8	2KG3481 - ■■ H32-4 ■■■	
	33.9	361	41.9	0.86	2.9	2KG3481 - ■■ H31-4 ■■■	
	38.0	322	37.3	0.86	3.2	2KG3481 - ■■ H30-4 ■■■	
	41.9	309	33.9	0.9	2.6	2KG3481 - ■■ H22-4 ■■■	
	42.6	288	33.3	0.86	3.4	2KG3481 - ■■ H28-4 ■■■	
	46.0	282	30.9	0.9	2.9	2KG3481 - ■■ H21-4 ■■■	
	50.1	259	28.4	0.9	3.1	2KG3481 - ■■ H20-4 ■■■	
	50.2	244	28.3	0.86	3.8	2KG3481 - ■■ H27-4 ■■■	
	54.3	239	26.1	0.9	3.4	2KG3481 - ■■ H18-4 ■■■	
	59.8	217	23.7	0.9	3.5	2KG3481 - ■■ H17-4 ■■■	
	60.3	203	23.6	0.86	4.3	2KG3481 - ■■ H26-4 ■■■	
	65.7	197	21.6	0.9	4.1	2KG3481 - ■■ H16-4 ■■■	
	71.7	181	19.8	0.9	4.4	2KG3481 - ■■ H15-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6

A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8

A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

A to D

For voltage/frequency, see page 6/7

1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
1.5	Gearbox size C62 – motor frame size 90L – 4 poles						60
	19.2	643	74.0	0.86	0.93	2KG3461 - ■■■ H38-4 ■■■	
	21.9	566	64.8	0.87	1.1	2KG3461 - ■■■ H37-4 ■■■	
	24.8	502	57.3	0.87	1.3	2KG3461 - ■■■ H36-4 ■■■	
	27.3	455	51.9	0.87	1.4	2KG3461 - ■■■ H35-4 ■■■	
	31.0	402	45.8	0.87	1.5	2KG3461 - ■■■ H34-4 ■■■	
	34.3	363	41.4	0.87	1.6	2KG3461 - ■■■ H33-4 ■■■	
	37.4	339	38.0	0.88	1.3	2KG3461 - ■■■ H23-4 ■■■	
	37.9	330	37.5	0.87	1.7	2KG3461 - ■■■ H32-4 ■■■	
	41.6	300	34.2	0.87	1.8	2KG3461 - ■■■ H31-4 ■■■	
	42.2	300	33.6	0.88	1.4	2KG3461 - ■■■ H22-4 ■■■	
	45.4	275	31.3	0.87	2	2KG3461 - ■■■ H30-4 ■■■	
	46.6	272	30.5	0.88	1.4	2KG3461 - ■■■ H21-4 ■■■	
	50.8	246	27.9	0.87	2.1	2KG3461 - ■■■ H28-4 ■■■	
	52.8	240	26.9	0.89	1.7	2KG3461 - ■■■ H20-4 ■■■	
	55.3	226	25.7	0.87	2.2	2KG3461 - ■■■ H27-4 ■■■	
	58.5	217	24.3	0.89	1.8	2KG3461 - ■■■ H18-4 ■■■	
	61.4	203	23.1	0.87	2.4	2KG3461 - ■■■ H26-4 ■■■	
	64.5	196	22.0	0.89	2.1	2KG3461 - ■■■ H17-4 ■■■	
	70.9	179	20.0	0.89	2.4	2KG3461 - ■■■ H16-4 ■■■	
	71.4	175	19.9	0.87	2.7	2KG3461 - ■■■ H25-4 ■■■	
	77.5	164	18.3	0.89	2.5	2KG3461 - ■■■ H15-4 ■■■	
	86.6	146	16.4	0.89	2.7	2KG3461 - ■■■ H14-4 ■■■	
	94.4	134	15.1	0.89	2.9	2KG3461 - ■■■ H13-4 ■■■	
	105	121	13.6	0.89	3.4	2KG3461 - ■■■ H12-4 ■■■	
	122	104	11.7	0.89	3.6	2KG3461 - ■■■ H11-4 ■■■	
	Gearbox size C42 – motor frame size 90L – 4 poles						41
	49.4	256	28.7	0.88	1.1	2KG3441 - ■■■ H21-4 ■■■	
	54.7	231	26.0	0.88	1.2	2KG3441 - ■■■ H20-4 ■■■	
	62.8	202	22.6	0.88	1.3	2KG3441 - ■■■ H18-4 ■■■	
	69.9	181	20.3	0.88	1.5	2KG3441 - ■■■ H17-4 ■■■	
	77.5	164	18.3	0.88	1.8	2KG3441 - ■■■ H16-4 ■■■	
	85.4	148	16.6	0.89	1.9	2KG3441 - ■■■ H15-4 ■■■	
	93.9	135	15.1	0.89	1.9	2KG3441 - ■■■ H14-4 ■■■	
	106	119	13.4	0.89	1.9	2KG3441 - ■■■ H13-4 ■■■	
	115	110	12.4	0.89	2.2	2KG3441 - ■■■ H12-4 ■■■	
	134	95	10.6	0.89	2.6	2KG3441 - ■■■ H11-4 ■■■	
	147	86	9.67	0.89	2.8	2KG3441 - ■■■ H10-4 ■■■	
	Gearbox size C32 – motor frame size 90L – 4 poles						33
	62.8	201	22.6	0.88	1	2KG3431 - ■■■ H18-4 ■■■	
	69.9	180	20.3	0.88	1.1	2KG3431 - ■■■ H17-4 ■■■	
	77.5	163	18.3	0.88	1.2	2KG3431 - ■■■ H16-4 ■■■	
	85.4	148	16.6	0.88	1.3	2KG3431 - ■■■ H15-4 ■■■	
	93.9	134	15.1	0.88	1.4	2KG3431 - ■■■ H14-4 ■■■	
	106	119	13.4	0.88	1.4	2KG3431 - ■■■ H13-4 ■■■	
	115	110	12.4	0.88	1.5	2KG3431 - ■■■ H12-4 ■■■	
134	95	10.6	0.88	1.8	2KG3431 - ■■■ H11-4 ■■■		
147	86	9.67	0.88	1.9	2KG3431 - ■■■ H10-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5 ——— **0, 1, 2, 3, 6 or 9** ———

For shaft designs, see page 6/6 ——— **A, B, F, G, H, L, M, N, R, S, T, Z** ———

For gearbox mounting positions acc. to the figure, see page 6/8 ——— **A to F** ———

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8 ——— **A to D** ———

For voltage/frequency, see page 6/7 ——— **1, 3, 5, 6 or 9** ———

Gearmotors

Helical-worm geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	η	f_B		kg
2.2	Gearbox size C82 – motor frame size 100L – 4 poles						95
	13.1	1363	109	0.85	0.97	2KG3481 - ■■ J42-4 ■■■	
	14.5	1236	98.2	0.85	1.1	2KG3481 - ■■ J41-4 ■■■	
	15.7	1143	90.6	0.85	1.1	2KG3481 - ■■ J40-4 ■■■	
	18.0	996	78.8	0.85	1.3	2KG3481 - ■■ J38-4 ■■■	
	19.8	905	71.5	0.85	1.4	2KG3481 - ■■ J37-4 ■■■	
	21.7	826	65.3	0.86	1.5	2KG3481 - ■■ J36-4 ■■■	
	23.7	758	59.9	0.86	1.6	2KG3481 - ■■ J35-4 ■■■	
	25.7	699	55.2	0.86	1.7	2KG3481 - ■■ J34-4 ■■■	
	28.3	635	50.2	0.86	1.8	2KG3481 - ■■ J33-4 ■■■	
	31.1	578	45.7	0.86	1.9	2KG3481 - ■■ J32-4 ■■■	
	33.9	530	41.9	0.86	2	2KG3481 - ■■ J31-4 ■■■	
	38.0	473	37.3	0.86	2.2	2KG3481 - ■■ J30-4 ■■■	
	41.9	453	33.9	0.9	1.8	2KG3481 - ■■ J22-4 ■■■	
	42.6	422	33.3	0.86	2.3	2KG3481 - ■■ J28-4 ■■■	
	46.0	414	30.9	0.9	1.9	2KG3481 - ■■ J21-4 ■■■	
	50.1	380	28.4	0.9	2.1	2KG3481 - ■■ J20-4 ■■■	
	50.2	358	28.3	0.86	2.6	2KG3481 - ■■ J27-4 ■■■	
	54.3	350	26.1	0.9	2.3	2KG3481 - ■■ J18-4 ■■■	
	59.8	318	23.7	0.9	2.4	2KG3481 - ■■ J17-4 ■■■	
	60.3	298	23.6	0.86	2.9	2KG3481 - ■■ J26-4 ■■■	
	65.7	289	21.6	0.9	2.8	2KG3481 - ■■ J16-4 ■■■	
	71.7	265	19.8	0.9	3	2KG3481 - ■■ J15-4 ■■■	
	80.4	237	17.7	0.9	3.3	2KG3481 - ■■ J14-4 ■■■	
	90.0	211	15.8	0.9	3.6	2KG3481 - ■■ J13-4 ■■■	
	106	179	13.4	0.9	4.3	2KG3481 - ■■ J12-4 ■■■	
Gearbox size C62 – motor frame size 100L – 4 poles						66	
27.3	668	51.9	0.87	0.95	2KG3461 - ■■ J35-4 ■■■		
31.0	590	45.8	0.87	1	2KG3461 - ■■ J34-4 ■■■		
34.3	533	41.4	0.87	1.1	2KG3461 - ■■ J33-4 ■■■		
37.9	484	37.5	0.87	1.2	2KG3461 - ■■ J32-4 ■■■		
41.6	441	34.2	0.87	1.3	2KG3461 - ■■ J31-4 ■■■		
42.2	440	33.6	0.88	0.97	2KG3461 - ■■ J22-4 ■■■		
45.4	403	31.3	0.87	1.3	2KG3461 - ■■ J30-4 ■■■		
46.6	399	30.5	0.88	0.97	2KG3461 - ■■ J21-4 ■■■		
50.8	360	27.9	0.87	1.4	2KG3461 - ■■ J28-4 ■■■		
52.8	352	26.9	0.89	1.1	2KG3461 - ■■ J20-4 ■■■		
55.3	331	25.7	0.87	1.5	2KG3461 - ■■ J27-4 ■■■		
58.5	318	24.3	0.89	1.2	2KG3461 - ■■ J18-4 ■■■		
61.4	298	23.1	0.87	1.6	2KG3461 - ■■ J26-4 ■■■		
64.5	288	22.0	0.89	1.5	2KG3461 - ■■ J17-4 ■■■		
70.9	263	20.0	0.89	1.6	2KG3461 - ■■ J16-4 ■■■		
71.4	257	19.9	0.87	1.8	2KG3461 - ■■ J25-4 ■■■		
77.5	240	18.3	0.89	1.7	2KG3461 - ■■ J15-4 ■■■		
86.6	215	16.4	0.89	1.8	2KG3461 - ■■ J14-4 ■■■		
94.4	197	15.1	0.89	2	2KG3461 - ■■ J13-4 ■■■		
105	178	13.6	0.89	2.3	2KG3461 - ■■ J12-4 ■■■		
122	153	11.7	0.89	2.4	2KG3461 - ■■ J11-4 ■■■		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6

A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8

A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

A to D

For voltage/frequency, see page 6/7

1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1 kW	n_2 rpm	M_2 Nm	i	η	f_B		kg
2.2	Gearbox size C42 – motor frame size 100L – 4 poles						
	77.5	240	18.3	0.88	1.2	2KG3441 - ■■■J16-4■■■■	48
	85.4	218	16.6	0.89	1.3	2KG3441 - ■■■J15-4■■■■	
	93.9	198	15.1	0.89	1.3	2KG3441 - ■■■J14-4■■■■	
	106	175	13.4	0.89	1.3	2KG3441 - ■■■J13-4■■■■	
	115	162	12.4	0.89	1.5	2KG3441 - ■■■J12-4■■■■	
	134	139	10.6	0.89	1.8	2KG3441 - ■■■J11-4■■■■	
	147	127	9.67	0.89	1.9	2KG3441 - ■■■J10-4■■■■	
	Gearbox size C32 – motor frame size 100L – 4 poles						
	93.9	197	15.1	0.88	0.93	2KG3431 - ■■■J14-4■■■■	39
	106	174	13.4	0.88	0.93	2KG3431 - ■■■J13-4■■■■	
	115	161	12.4	0.88	1.1	2KG3431 - ■■■J12-4■■■■	
	134	139	10.6	0.88	1.2	2KG3431 - ■■■J11-4■■■■	
	147	126	9.67	0.88	1.3	2KG3431 - ■■■J10-4■■■■	

3	Gearbox size C82 – motor frame size 100L – 4 poles						98
	18.0	1358	78.8	0.85	0.96	2KG3481 -   K38-4  	
	19.8	1234	71.5	0.85	1	2KG3481 -   K37-4  	
	21.7	1127	65.3	0.86	1.1	2KG3481 -   K36-4  	
	23.7	1034	59.9	0.86	1.2	2KG3481 -   K35-4  	
	25.7	953	55.2	0.86	1.2	2KG3481 -   K34-4  	
	28.3	866	50.2	0.86	1.3	2KG3481 -   K33-4  	
	31.1	789	45.7	0.86	1.4	2KG3481 -   K32-4  	
	33.9	723	41.9	0.86	1.5	2KG3481 -   K31-4  	
	38.0	645	37.3	0.86	1.6	2KG3481 -   K30-4  	
	41.9	618	33.9	0.9	1.3	2KG3481 -   K22-4  	
	42.6	575	33.3	0.86	1.7	2KG3481 -   K28-4  	
	46.0	564	30.9	0.9	1.4	2KG3481 -   K21-4  	
	50.1	518	28.4	0.9	1.6	2KG3481 -   K20-4  	
	50.2	489	28.3	0.86	1.9	2KG3481 -   K27-4  	
	54.3	477	26.1	0.9	1.7	2KG3481 -   K18-4  	
	59.8	433	23.7	0.9	1.7	2KG3481 -   K17-4  	
	60.3	407	23.6	0.86	2.1	2KG3481 -   K26-4  	
	65.7	395	21.6	0.9	2	2KG3481 -   K16-4  	
	71.7	361	19.8	0.9	2.2	2KG3481 -   K15-4  	
	80.4	323	17.7	0.9	2.4	2KG3481 -   K14-4  	
	90.0	288	15.8	0.9	2.7	2KG3481 -   K13-4  	
	106	244	13.4	0.9	3.1	2KG3481 -   K12-4  	
127	204	11.2	0.9	3.3	2KG3481 -   K11-4  		

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5	0, 1, 2, 3, 6 or 9
For shaft designs, see page 6/6	A, B, F, G, H, L, M, N, R, S, T, Z
For gearbox mounting positions acc. to the figure, see page 6/8	A to F
For pos. of the connection system acc. to fig., see pages 6/7 to 6/8	A to D
For voltage/frequency, see page 6/7	1, 3, 5, 6 or 9

Gear motors

Helical-worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
3	Gearbox size C62 – motor frame size 100L – 4 poles						69
	41.6	601	34.2	0.87	0.92	2KG3461 - ■■ K31-4 ■■■	
	45.4	550	31.3	0.87	0.98	2KG3461 - ■■ K30-4 ■■■	
	50.8	492	27.9	0.87	1.1	2KG3461 - ■■ K28-4 ■■■	
	55.3	451	25.7	0.87	1.1	2KG3461 - ■■ K27-4 ■■■	
	58.5	433	24.3	0.89	0.91	2KG3461 - ■■ K18-4 ■■■	
	61.4	407	23.1	0.87	1.2	2KG3461 - ■■ K26-4 ■■■	
	64.5	393	22.0	0.89	1.1	2KG3461 - ■■ K17-4 ■■■	
	70.9	358	20.0	0.89	1.2	2KG3461 - ■■ K16-4 ■■■	
	71.4	350	19.9	0.87	1.3	2KG3461 - ■■ K25-4 ■■■	
	77.5	327	18.3	0.89	1.3	2KG3461 - ■■ K15-4 ■■■	
	86.6	293	16.4	0.89	1.3	2KG3461 - ■■ K14-4 ■■■	
	94.4	269	15.1	0.89	1.5	2KG3461 - ■■ K13-4 ■■■	
	105	242	13.6	0.89	1.7	2KG3461 - ■■ K12-4 ■■■	
	122	208	11.7	0.89	1.8	2KG3461 - ■■ K11-4 ■■■	
	Gearbox size C42 – motor frame size 100L – 4 poles						51
	85.4	297	16.6	0.89	0.97	2KG3441 - ■■ K15-4 ■■■	
	93.9	270	15.1	0.89	0.97	2KG3441 - ■■ K14-4 ■■■	
	106	239	13.4	0.89	0.97	2KG3441 - ■■ K13-4 ■■■	
	115	221	12.4	0.89	1.1	2KG3441 - ■■ K12-4 ■■■	
	134	190	10.6	0.89	1.3	2KG3441 - ■■ K11-4 ■■■	
	Gearbox size C32 – motor frame size 100L – 4 poles						42
	147	173	9.67	0.89	1.4	2KG3441 - ■■ K10-4 ■■■	
	134	189	10.6	0.88	0.91	2KG3431 - ■■ K11-4 ■■■	
	147	172	9.7	0.88	0.97	2KG3431 - ■■ K10-4 ■■■	
4	Gearbox size C82 – motor frame size 112M – 4 poles						104
	26.1	1253	55.2	0.86	0.92	2KG3481 - ■■ L34-4 ■■■	
	28.7	1138	50.2	0.86	0.98	2KG3481 - ■■ L33-4 ■■■	
	31.5	1037	45.7	0.86	1	2KG3481 - ■■ L32-4 ■■■	
	34.4	950	41.9	0.86	1.1	2KG3481 - ■■ L31-4 ■■■	
	38.6	848	37.3	0.86	1.2	2KG3481 - ■■ L30-4 ■■■	
	42.5	812	33.9	0.9	0.99	2KG3481 - ■■ L22-4 ■■■	
	43.2	757	33.3	0.86	1.3	2KG3481 - ■■ L28-4 ■■■	
	46.6	742	30.9	0.9	1.1	2KG3481 - ■■ L21-4 ■■■	
	50.8	681	28.4	0.9	1.2	2KG3481 - ■■ L20-4 ■■■	
	50.9	642	28.3	0.86	1.4	2KG3481 - ■■ L27-4 ■■■	
	55.1	627	26.1	0.9	1.3	2KG3481 - ■■ L18-4 ■■■	
	60.7	570	23.7	0.9	1.3	2KG3481 - ■■ L17-4 ■■■	
	61.1	535	23.6	0.86	1.6	2KG3481 - ■■ L26-4 ■■■	
	66.6	519	21.6	0.9	1.5	2KG3481 - ■■ L16-4 ■■■	
	72.7	475	19.8	0.9	1.7	2KG3481 - ■■ L15-4 ■■■	
	81.5	424	17.7	0.9	1.8	2KG3481 - ■■ L14-4 ■■■	
	91.3	379	15.8	0.9	2	2KG3481 - ■■ L13-4 ■■■	
	108	321	13.4	0.9	2.4	2KG3481 - ■■ L12-4 ■■■	
	129	268	11.2	0.9	2.5	2KG3481 - ■■ L11-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6

A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8

A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

A to D

For voltage/frequency, see page 6/7

1, 3, 5, 6 or 9

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
4	Gearbox size C62 – motor frame size 112M – 4 poles						75
	62.3	535	23.1	0.87	0.91	2KG3461 -   L26-4  	
	72.4	460	19.9	0.87	1	2KG3461 -   L25-4  	
	78.6	431	18.3	0.89	0.97	2KG3461 -   L15-4  	
	87.9	385	16.4	0.89	1	2KG3461 -   L14-4  	
	95.7	353	15.1	0.89	1.1	2KG3461 -   L13-4  	
	106	319	13.6	0.89	1.3	2KG3461 -   L12-4  	
123	274	11.7	0.89	1.4	2KG3461 -   L11-4  		
5.5	Gearbox size C82 – motor frame size 132S – 4 poles						116
	43.7	1030	33.3	0.86	0.95	2KG3481 -   M28-4  	
	51.4	874	28.3	0.86	1.1	2KG3481 -   M27-4  	
	55.7	854	26.1	0.9	0.94	2KG3481 -   M18-4  	
	61.3	775	23.7	0.9	0.97	2KG3481 -   M17-4  	
	61.8	728	23.6	0.86	1.2	2KG3481 -   M26-4  	
	67.3	706	21.6	0.9	1.1	2KG3481 -   M16-4  	
	73.5	647	19.8	0.9	1.2	2KG3481 -   M15-4  	
	82.3	577	17.7	0.9	1.4	2KG3481 -   M14-4  	
	92.3	515	15.8	0.9	1.5	2KG3481 -   M13-4  	
	109	437	13.4	0.9	1.7	2KG3481 -   M12-4  	
	130	364	11.2	0.9	1.8	2KG3481 -   M11-4  	
7.5	Gearbox size C82 – motor frame size 132M – 4 poles						122
	82.3	787	17.7	0.9	1	2KG3481 -   N14-4  	
	92.3	702	15.8	0.9	1.1	2KG3481 -   N13-4  	
	109	596	13.4	0.9	1.3	2KG3481 -   N12-4  	
	130	497	11.2	0.9	1.4	2KG3481 -   N11-4  	

All values apply at 50 Hz

For types of construction, see pages 6/3 to 6/5

0, 1, 2, 3, 6 or 9

For shaft designs, see page 6/6

A, B, F, G, H, L, M, N, R, S, T, Z

For gearbox mounting positions acc. to the figure, see page 6/8

A to F

For pos. of the connection system acc. to fig., see pages 6/7 to 6/8

A to D

For voltage/frequency, see page 6/7

1, 3, 5, 6 or 9

Geared motors

Helical-worm geared motors

Selection and ordering

Ratios and maximum torques

Gearbox size	Max. gearbox torque	Ratio code order no.	Ratio	Efficiency	Output speed	Max. torque	Motor frame size							
		11th position	12th position	i	η	n_2 rpm	M_2 Nm	63	71	80	90	100	112	132
4-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)														
C32	170 to 243	1 0	9.67	0.89	150	170			•	•	•	•		
		1 1	10.6	0.89	136	173			•	•	•	•		
		1 2	12.4	0.89	117	172			•	•	•	•		
		1 3	13.4	0.89	108	165			•	•	•	•		
		1 4	15.1	0.89	96.0	187			•	•	•	•		
		1 5	16.6	0.89	87.0	196			•	•	•			
		1 6	18.3	0.89	79.0	206	•	•	•	•				
		1 7	20.3	0.89	71.0	196	•	•	•	•				
		1 8	22.6	0.89	64.0	206	•	•	•	•				
		2 0	26.0	0.89	56.0	208	•	•	•	•				
		2 1	28.7	0.89	50.0	207	•	•	•	•				
		2 2	32.7	0.89	44.0	192	•	•	•	•				
		2 3	37.3	0.89	39.0	231	•	•	•					
		2 4	42.0	0.88	35.0	220	•	•	•					
		2 5	46.9	0.88	31.0	231	•	•	•					
		2 6	53.5	0.87	27.0	243	•	•	•					
		2 7	60.3	0.87	24.0	202	•	•	•					
		2 8	65.7	0.69	22.0	204	•	•	•					
		3 0	71.1	0.69	20.0	210	•	•	•					
		3 1	80.4	0.69	18.0	217	•	•	•					
		3 2	88.4	0.69	16.4	224	•	•	•					
		3 3	97.5	0.68	14.9	230	•	•	•					
		3 4	108	0.68	13.4	229	•	•						
		3 5	120	0.68	12.1	229	•	•						
		3 6	138	0.67	10.5	228	•	•						
		3 7	153	0.67	9.5	227	•	•						
		3 8	174	0.66	8.3	227	•	•						
		4 0	198	0.65	7.3	226	•	•						
		4 1	223	0.64	6.5	226	•	•						
		4 2	250	0.63	5.8	226	•							
		4 3	285	0.62	5.1	225	•							
		4 4	321	0.60	4.5	225	•							
C42	229 to 387	1 0	9.67	0.90	150	229			•	•	•			
		1 1	10.6	0.90	136	252			•	•	•			
		1 2	12.4	0.90	117	249		•	•	•	•			
		1 3	13.4	0.90	108	236		•	•	•	•			
		1 4	15.1	0.90	96.0	266		•	•	•	•			
		1 5	16.6	0.90	87.0	293		•	•	•	•			
		1 6	18.3	0.90	79.0	300		•	•	•	•			
		1 7	20.3	0.90	71.0	281		•	•	•				
		1 8	22.6	0.90	64.0	270		•	•	•				
		2 0	26.0	0.90	56.0	277	•	•	•	•				
		2 1	28.7	0.90	50.0	289	•	•	•	•				
		2 2	32.7	0.90	44.0	266	•	•	•	•				
		2 3	37.3	0.89	39.0	267	•	•	•	•				
		2 4	42.0	0.89	35.0	318	•	•	•	•				
		2 5	46.9	0.89	31.0	292	•	•	•	•				
		2 6	51.4	0.72	28.0	387	•	•	•	•				
		2 7	56.6	0.72	26.0	386	•	•	•	•				
		2 8	65.7	0.72	22.0	384	•	•	•	•				
		3 0	71.1	0.72	20.0	382	•	•	•					
		3 1	80.4	0.72	18.0	381	•	•	•					

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size							
		11th position	12th position					i	η	n_2 rpm	M_2 Nm	63	71	80	90
C42	229 to 387	3	2	88.4	0.72	16.4	380	•	•	•					
		3	3	97.5	0.72	14.9	378	•	•	•					
		3	4	108	0.71	13.4	377	•	•	•					
		3	5	120	0.71	12.1	376	•	•	•					
		3	6	138	0.71	10.5	375	•	•	•					
		3	7	153	0.70	9.5	374	•	•	•					
		3	8	174	0.69	8.3	373	•	•						
		4	0	198	0.68	7.3	372	•	•						
		4	1	223	0.67	6.5	371	•	•						
		4	2	250	0.66	5.8	370	•	•						
		4	3	285	0.65	5.1	369	•	•						
		4	4	321	0.64	4.5	369	•	•						
C62	378 to 694	1	1	11.7	0.90	124	378			•	•	•	•		
		1	2	13.6	0.90	107	420			•	•	•	•		
		1	3	15.1	0.90	96.0	401			•	•	•	•		
		1	4	16.4	0.90	88.0	401			•	•	•	•		
		1	5	18.3	0.90	79.0	422		•	•	•	•	•		
		2	5	19.9	0.89	73.0	534			•	•	•	•		
		1	6	20.0	0.90	72.0	432		•	•	•	•			
		1	7	22.0	0.90	66.0	427		•	•	•	•			
		2	6	23.1	0.89	63.0	557		•	•	•	•	•		
		1	8	24.3	0.90	60.0	401		•	•	•	•			
		2	7	25.7	0.89	57.0	571		•	•	•	•			
		2	0	26.9	0.90	54.0	406		•	•	•	•			
		2	8	27.9	0.89	52.0	593		•	•	•	•			
		2	1	30.5	0.90	48.0	394		•	•	•	•			
		3	0	31.3	0.89	46.0	545		•	•	•	•			
		2	2	33.6	0.90	43.0	435		•	•	•	•			
		3	1	34.2	0.89	42.0	561		•	•	•	•			
		3	2	37.5	0.88	39.0	645		•	•	•	•			
		2	3	38.0	0.90	38.0	436		•	•	•				
		3	3	41.4	0.88	35.0	594		•	•	•	•			
		3	4	45.8	0.88	32.0	681		•	•	•	•			
		3	5	51.9	0.88	28.0	660		•	•	•	•			
		3	6	57.3	0.88	25.0	661		•	•	•				
		3	7	64.8	0.88	22.0	638	•	•	•	•				
		3	8	74.0	0.88	19.6	544	•	•	•	•				
		4	0	84.1	0.87	17.2	528	•	•	•	•				
		4	1	90.0	0.87	16.1	344	•	•	•	•				
		4	2	97.5	0.74	14.9	694	•	•	•	•				
		4	3	107	0.74	13.6	559	•	•	•	•				
		4	4	117	0.74	12.4	691	•	•	•					
		4	5	129	0.74	11.2	595	•	•	•					
		4	6	143	0.74	10.1	616	•	•	•					
		4	7	162	0.73	9.0	687	•	•	•					
		4	8	179	0.73	8.1	662	•	•	•					
		5	0	202	0.72	7.2	685	•	•	•					
		5	1	231	0.72	6.3	684	•	•	•					
		5	2	262	0.71	5.5	683	•	•	•					
		5	3	281	0.70	5.2	682	•	•	•					
		5	4	324	0.69	4.5	681	•	•						
		5	5	364	0.68	4.0	680	•	•						
C82	681 to 1590	1	1	11.2	0.92	130	681				•	•	•	•	
		1	2	13.4	0.92	108	776				•	•	•	•	

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size						
		11th position	12th position					i	η	n_2 rpm	M_2 Nm	63	71	80
C82	681 to 1590	1	3	15.8	0.92	92.0	781				•	•	•	•
		1	4	17.7	0.92	82.0	795			•	•	•	•	•
		1	5	19.8	0.92	73.0	802			•	•	•	•	•
		1	6	21.6	0.92	67.0	814			•	•	•	•	•
		2	6	23.6	0.87	62.0	1000			•	•	•	•	•
		1	7	23.7	0.92	61.0	763			•	•	•	•	•
		1	8	26.1	0.92	56.0	815			•	•	•	•	•
		2	7	28.3	0.87	51.0	943			•	•	•	•	•
		2	0	28.4	0.92	51.0	815			•	•	•	•	
		2	1	30.9	0.92	47.0	817			•	•	•	•	
		2	8	33.3	0.87	44.0	1130			•	•	•	•	•
		2	2	33.9	0.92	43.0	817			•	•	•	•	
		3	0	37.3	0.87	39.0	1177			•	•	•	•	
		3	1	41.9	0.87	35.0	1214			•	•	•	•	
		3	2	45.7	0.87	32.0	1250			•	•	•	•	
		3	3	50.2	0.87	29.0	1301			•	•	•	•	
		3	4	55.2	0.87	26.0	1174		•	•	•	•	•	
		3	5	59.9	0.87	24.0	1206		•	•	•	•		
		3	6	65.3	0.87	22.0	1242		•	•	•	•		
		3	7	71.5	0.87	20.0	1282		•	•	•	•		
		3	8	78.8	0.87	18.4	1318		•	•	•	•		
		4	0	90.6	0.87	16.0	1255		•	•	•	•		
		4	1	98.2	0.86	14.8	1426		•	•	•	•		
		4	2	109	0.86	13.4	1347		•	•	•	•		
		4	3	115	0.74	12.6	1109		•	•	•			
		4	4	126	0.74	11.5	1539	•	•	•	•			
		4	5	139	0.74	10.4	1187	•	•	•	•			
		4	6	151	0.74	9.6	1220	•	•	•	•			
		4	7	164	0.74	8.8	1257	•	•	•	•			
		4	8	180	0.74	8.1	1591	•	•	•	•			
		5	0	198	0.74	7.3	1337	•	•	•	•			
		5	1	228	0.74	6.4	1591	•	•	•	•			
		5	2	247	0.74	5.9	1591	•	•	•	•			
		5	3	273	0.73	5.3	1506	•	•	•	•			
		5	4	319	0.72	4.6	1591	•	•	•	•			
		5	5	355	0.72	4.1	1590	•	•	•				
		5	6	390	0.71	3.7	1590	•	•	•				
		5	7	441	0.70	3.3	1590	•	•	•				
6-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)														
C32	176 to 230	1	0	9.67	0.89	98.0	176		•	•	•	•		
		1	1	10.6	0.89	89.0	183		•	•	•	•		
		1	2	12.4	0.89	77.0	172		•	•	•	•		
		1	3	13.4	0.89	71.0	165		•	•	•			
		1	4	15.1	0.89	63.0	186		•	•	•			
		1	5	16.6	0.89	57.0	196		•	•	•			
		1	6	18.3	0.89	52.0	206		•	•	•			
		1	7	20.3	0.89	47.0	195		•	•	•			
		1	8	22.6	0.89	42.0	205		•	•	•			
		2	0	26.0	0.88	37.0	206	•	•	•	•			
		2	1	28.7	0.88	33.0	205	•	•	•	•			
		2	2	32.7	0.87	29.0	189	•	•	•				
		2	3	37.3	0.87	25.0	227	•	•	•				
		2	4	42.0	0.86	23.0	216	•	•	•				
		2	5	46.9	0.86	20.0	225	•	•	•				

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size						
		11th position	12th position					63	71	80	90	100	112	132
C32	176 to 230	2	6	53.5	0.85	17.7	236	•	•	•				
		2	7	60.3	0.84	15.8	196	•	•	•				
		2	8	65.7	0.68	14.5	230	•	•	•				
		3	0	71.1	0.68	13.4	229	•	•	•				
		3	1	80.4	0.68	11.8	229	•	•	•				
		3	2	88.4	0.67	10.7	228	•	•	•				
		3	3	97.5	0.67	9.7	228	•	•	•				
		3	4	108	0.66	8.8	227	•	•					
		3	5	120	0.65	7.9	227	•	•					
		3	6	138	0.64	6.9	226	•	•					
		3	7	153	0.63	6.2	226	•	•					
		3	8	174	0.62	5.5	225	•	•					
		4	0	198	0.61	4.8	225	•	•					
		4	1	223	0.60	4.3	225	•						
		4	2	250	0.59	3.8	224	•						
		4	3	285	0.58	3.3	224	•						
		4	4	321	0.56	3.0	224	•						
C42	243 to 376	1	0	9.67	0.90	98.0	243		•	•	•	•		
		1	1	10.6	0.90	89.0	254		•	•	•	•		
		1	2	12.4	0.90	77.0	249		•	•	•	•		
		1	3	13.4	0.90	71.0	235		•	•	•	•		
		1	4	15.1	0.90	63.0	266		•	•	•	•		
		1	5	16.6	0.90	57.0	293		•	•	•	•		
		1	6	18.3	0.90	52.0	299		•	•	•	•		
		1	7	20.3	0.90	47.0	280		•	•	•			
		1	8	22.6	0.90	42.0	269		•	•	•			
		2	0	26.0	0.89	37.0	276		•	•	•			
		2	1	28.7	0.89	33.0	286		•	•	•			
		2	2	32.7	0.89	29.0	263	•	•	•	•			
		2	3	37.3	0.88	25.0	263	•	•	•	•			
		2	4	42.0	0.88	23.0	313	•	•	•	•			
		2	5	46.9	0.87	20.0	286	•	•	•				
		2	6	51.4	0.72	18.5	338	•	•	•	•			
		2	7	56.6	0.72	16.8	348	•	•	•	•			
		2	8	65.7	0.72	14.5	363	•	•	•	•			
		3	0	71.1	0.71	13.4	373	•	•	•	•			
		3	1	80.4	0.71	11.8	376	•	•	•				
		3	2	88.4	0.71	10.7	375	•	•	•				
		3	3	97.5	0.70	9.7	374	•	•	•				
		3	4	108	0.70	8.8	373	•	•	•				
		3	5	120	0.69	7.9	372	•	•	•				
		3	6	138	0.68	6.9	371	•	•	•				
		3	7	153	0.67	6.2	370	•	•	•				
		3	8	174	0.66	5.5	370	•	•					
		4	0	198	0.64	4.8	369	•	•					
		4	1	223	0.63	4.3	368	•	•					
		4	2	250	0.62	3.8	368	•	•					
		4	3	285	0.61	3.3	367	•	•					
		4	4	321	0.59	3.0	367	•	•					
C62	378 to 682	1	1	11.7	0.90	81.0	378			•	•	•	•	
		1	2	13.6	0.90	70.0	419			•	•	•	•	
		1	3	15.1	0.90	63.0	400			•	•	•	•	
		1	4	16.4	0.90	58.0	401		•	•	•	•	•	
		1	5	18.3	0.90	52.0	422		•	•	•	•	•	

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque Nm	Ratio code order no.		Ratio <i>i</i>	Efficiency η	Output speed n_2 rpm	Max. torque M_2 Nm	Motor frame size						
		11th position	12th position					63	71	80	90	100	112	132
C62	378 to 682	2	5	19.9	0.89	48.0	544			•	•	•	•	
		1	6	20.0	0.90	47.0	432		•	•	•	•	•	
		1	7	22.0	0.90	43.0	427		•	•	•	•	•	
		2	6	23.1	0.89	41.0	570			•	•	•	•	
		1	8	24.3	0.90	39.0	400		•	•	•	•		
		2	7	25.7	0.88	37.0	587		•	•	•	•	•	
		2	0	26.9	0.90	35.0	405		•	•	•	•		
		2	8	27.9	0.88	34.0	605		•	•	•	•	•	
		2	1	30.5	0.89	31.0	392		•	•	•	•		
		3	0	31.3	0.88	30.0	628		•	•	•	•	•	
		2	2	33.6	0.89	28.0	432		•	•	•	•		
		3	1	34.2	0.88	28.0	641		•	•	•	•	•	
		3	2	37.5	0.89	25.0	433		•	•	•	•		
		2	3	38.0	0.88	25.0	663		•	•	•			
		3	3	41.4	0.88	23.0	669		•	•	•	•		
		3	4	45.8	0.88	21.0	676		•	•	•	•		
		3	5	51.9	0.87	18.3	653		•	•	•	•		
		3	6	57.3	0.87	16.6	718		•	•	•	•		
		3	7	64.8	0.86	14.7	627	•	•	•	•			
		3	8	74.0	0.86	12.8	533	•	•	•	•			
		4	0	84.1	0.85	11.3	515	•	•	•	•			
		4	1	90.0	0.85	10.6	335	•	•	•	•			
		4	2	97.5	0.74	9.7	621	•	•	•	•			
		4	3	107	0.73	8.9	637	•	•	•	•			
		4	4	117	0.73	8.1	654	•	•	•	•			
		4	5	129	0.73	7.4	671	•	•	•	•			
		4	6	143	0.72	6.6	684	•	•	•				
		4	7	162	0.71	5.9	683	•	•	•				
		4	8	179	0.70	5.3	682	•	•	•				
		5	0	202	0.69	4.7	681	•	•	•				
		5	1	231	0.68	4.1	681	•	•	•				
		5	2	262	0.67	3.6	680	•	•	•				
		5	3	281	0.66	3.4	680	•	•	•				
		5	4	324	0.65	2.9	679	•	•					
		5	5	364	0.63	2.6	678	•	•					
C82	681 to 1590	1	1	11.2	0.92	85.0	681				•	•	•	•
		1	2	13.4	0.92	71.0	806				•	•	•	•
		1	3	15.8	0.92	60.0	781			•	•	•	•	•
		1	4	17.7	0.92	54.0	795			•	•	•	•	•
		1	5	19.8	0.92	48.0	802			•	•	•	•	•
		1	6	21.6	0.92	44.0	814			•	•	•	•	•
		2	6	23.6	0.87	40.0	1011			•	•	•	•	•
		1	7	23.7	0.92	40.0	763			•	•	•	•	•
		1	8	26.1	0.92	36.0	814			•	•	•	•	•
		2	7	28.3	0.87	34.0	1079			•	•	•	•	•
		2	0	28.4	0.92	34.0	814			•	•	•	•	•
		2	1	30.9	0.92	31.0	816		•	•	•	•	•	•
		2	8	33.3	0.87	29.0	1136			•	•	•	•	•
		2	2	33.9	0.92	28.0	815		•	•	•	•	•	
		3	0	37.3	0.87	25.0	1189			•	•	•	•	•
		3	1	41.9	0.87	23.0	1221			•	•	•	•	•
		3	2	45.7	0.87	21.0	1256			•	•	•	•	•
		3	3	50.2	0.87	18.9	1304			•	•	•	•	•
		3	4	55.2	0.87	17.2	1344			•	•	•	•	•

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size							
		11th position	12th position					i	η	n_2 rpm	M_2 Nm	63	71	80	90
C82	681 to 1590	3	5	59.9	0.87	15.9	1379		•	•	•	•	•		
		3	6	65.3	0.86	14.5	1420		•	•	•	•	•		
		3	7	71.5	0.86	13.3	1295		•	•	•	•	•		
		3	8	78.8	0.86	12.1	1354		•	•	•	•			
		4	0	90.6	0.85	10.5	1239		•	•	•	•			
		4	1	98.2	0.85	9.7	1403		•	•	•	•			
		4	2	109	0.85	8.8	1321		•	•	•	•			
		4	3	115	0.74	8.3	1271		•	•	•	•			
		4	4	126	0.74	7.5	1317		•	•	•	•			
		4	5	139	0.74	6.8	1359		•	•	•				
		4	6	151	0.74	6.3	1392		•	•	•				
		4	7	164	0.73	5.8	1428		•	•	•				
		4	8	180	0.73	5.3	1466			•	•	•			
		5	0	198	0.73	4.8	1506			•	•	•			
		5	1	228	0.72	4.2	1559	•	•	•	•				
		5	2	247	0.71	3.8	1590	•	•	•	•				
		5	3	273	0.70	3.5	1590	•	•	•	•				
		5	4	319	0.69	3.0	1590	•	•	•	•				
		5	5	355	0.68	2.7	1590	•	•	•					
		5	6	390	0.67	2.4	1590	•	•	•					
		5	7	441	0.65	2.2	1555	•	•	•					
8-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)															
C32	176 to 231	1	0	9.67	0.89	72.0	176				•	•	•		
		1	1	10.6	0.89	66.0	182				•	•	•		
		1	2	12.4	0.89	57.0	172			•	•	•	•		
		1	3	13.4	0.89	52.0	164			•	•	•	•		
		1	4	15.1	0.89	46.0	186			•	•	•	•		
		1	5	16.6	0.89	42.0	195			•	•	•	•		
		1	6	18.3	0.88	38.0	204			•	•	•	•		
		1	7	20.3	0.88	34.0	193			•	•	•			
		1	8	22.6	0.88	31.0	202			•	•	•			
		2	0	26.0	0.87	27.0	204			•	•	•			
		2	1	28.7	0.87	24.0	202			•	•	•			
		2	2	32.7	0.86	21.0	185			•	•	•			
		2	3	37.3	0.85	18.8	222			•	•	•			
		2	4	42.0	0.85	16.7	211			•	•	•			
		2	5	46.9	0.84	14.9	220			•	•	•			
		2	6	53.5	0.83	13.1	231			•	•				
		2	7	60.3	0.82	11.6	192			•	•				
		2	8	65.7	0.67	10.7	228			•	•	•			
		3	0	71.1	0.67	9.8	228			•	•	•			
		3	1	80.4	0.66	8.7	227			•	•				
		3	2	88.4	0.65	7.9	227			•	•				
		3	3	97.5	0.65	7.2	226			•	•				
		3	4	108	0.64	6.5	226			•	•				
		3	5	120	0.63	5.8	226			•	•				
		3	6	138	0.62	5.1	225			•	•				
		3	7	153	0.61	4.6	225			•	•				
		3	8	174	0.59	4.0	224			•					
		4	0	198	0.58	3.5	224			•					
		4	1	223	0.57	3.1	224			•					
		4	2	250	0.56	2.8	224								
		4	3	285	0.55	2.5	224								
		4	4	321	0.54	2.2	223								

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size						
		11th position	12th position					63	71	80	90	100	112	132
C42	243 to 376	1	0	9.67	0.90	72.0	243			•	•	•		
		1	1	10.6	0.90	66.0	254			•	•	•		
		1	2	12.4	0.90	57.0	248			•	•	•		
		1	3	13.4	0.90	52.0	235			•	•	•		
		1	4	15.1	0.90	46.0	266			•	•	•		
		1	5	16.6	0.90	42.0	292			•	•	•		
		1	6	18.3	0.89	38.0	298			•	•	•		
		1	7	20.3	0.89	34.0	279		•	•	•			
		1	8	22.6	0.89	31.0	267		•	•	•			
		2	0	26.0	0.88	27.0	273		•	•	•			
		2	1	28.7	0.88	24.0	283		•	•	•			
		2	2	32.7	0.87	21.0	259		•	•	•			
		2	3	37.3	0.87	18.8	258		•	•	•			
		2	4	42.0	0.86	16.7	306		•	•	•			
		2	5	46.9	0.85	14.9	280		•	•	•			
		2	6	51.4	0.71	13.6	372		•	•	•	•		
		2	7	56.6	0.71	12.4	376		•	•	•			
		2	8	65.7	0.71	10.7	375		•	•	•			
		3	0	71.1	0.70	9.8	374		•	•	•			
		3	1	80.4	0.69	8.7	373		•	•	•			
		3	2	88.4	0.69	7.9	372		•	•	•			
		3	3	97.5	0.68	7.2	371		•	•	•			
		3	4	108	0.67	6.5	371		•	•	•			
		3	5	120	0.66	5.8	370		•	•	•			
		3	6	138	0.65	5.1	369		•	•				
		3	7	153	0.64	4.6	369		•	•				
		3	8	174	0.62	4.0	368		•	•				
		4	0	198	0.61	3.5	368		•	•				
		4	1	223	0.60	3.1	367		•	•				
		4	2	250	0.59	2.8	367		•	•				
		4	3	285	0.58	2.5	366		•					
		4	4	321	0.57	2.2	366		•					
C62	377 to 712	1	1	11.7	0.90	60.0	377				•	•	•	
		1	2	13.6	0.90	52.0	419			•	•	•	•	
		1	3	15.1	0.90	47.0	400			•	•	•	•	
		1	4	16.4	0.90	43.0	400		•	•	•	•	•	
		1	5	18.3	0.90	38.0	421		•	•	•	•	•	
		2	5	19.9	0.88	35.0	604			•	•	•	•	
		1	6	20.0	0.90	35.0	431		•	•	•	•	•	
		1	7	22.0	0.89	32.0	425		•	•	•	•	•	
		2	6	23.1	0.88	30.0	632		•	•	•	•	•	
		1	8	24.3	0.89	29.0	399		•	•	•	•	•	
		2	7	25.7	0.88	27.0	651		•	•	•	•	•	
		2	0	26.9	0.89	26.0	402		•	•	•	•		
		2	8	27.9	0.88	25.0	668			•	•	•	•	
		2	1	30.5	0.89	23.0	389		•	•	•	•		
		3	0	31.3	0.88	22.0	693			•	•	•	•	
		2	2	33.6	0.88	21.0	428		•	•	•	•		
		3	1	34.2	0.88	20.0	712			•	•	•	•	
		3	2	37.5	0.87	18.7	708			•	•	•	•	
		2	3	38.0	0.88	18.4	427		•	•	•	•		
		3	3	41.4	0.87	16.9	662			•	•	•	•	
		3	4	45.8	0.87	15.3	667		•	•	•	•		
		3	5	51.9	0.86	13.5	643		•	•	•	•		

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size						
		11th position	12th position					63	71	80	90	100	112	132
C62	377 to 712 Nm	3	6	57.3	0.85	12.2	705		•	•	•	•		
		3	7	64.8	0.85	10.8	614		•	•	•	•		
		3	8	74.0	0.84	9.5	521		•	•	•			
		4	0	84.1	0.83	8.3	502		•	•	•			
		4	1	90.0	0.82	7.8	326		•	•	•			
		4	2	97.5	0.72	7.2	675		•	•	•	•		
		4	3	107	0.72	6.6	684		•	•	•			
		4	4	117	0.71	6.0	683		•	•	•			
		4	5	129	0.71	5.4	682		•	•	•			
		4	6	143	0.70	4.9	682		•	•	•			
		4	7	162	0.69	4.3	681		•	•	•			
		4	8	179	0.68	3.9	680		•	•	•			
		5	0	202	0.66	3.5	680		•	•	•			
		5	1	231	0.65	3.0	679		•	•				
		5	2	262	0.64	2.7	678		•	•				
		5	3	281	0.63	2.5	678		•	•				
		5	4	324	0.62	2.2	678		•					
		5	5	364	0.60	1.9	677		•					
C82	681 to 1590 Nm	1	1	11.2	0.92	63.0	681				•	•	•	•
		1	2	13.4	0.92	52.0	806				•	•	•	•
		1	3	15.8	0.92	44.0	781				•	•	•	•
		1	4	17.7	0.92	40.0	795				•	•	•	•
		1	5	19.8	0.92	35.0	802				•	•	•	•
		1	6	21.6	0.92	32.0	813				•	•	•	•
		2	6	23.6	0.87	30.0	1112				•	•	•	•
		1	7	23.7	0.92	30.0	762			•	•	•	•	•
		1	8	26.1	0.92	27.0	813			•	•	•	•	•
		2	7	28.3	0.87	25.0	1195				•	•	•	•
		2	0	28.4	0.92	25.0	812			•	•	•	•	•
		2	1	30.9	0.91	23.0	813			•	•	•	•	•
		2	8	33.3	0.87	21.0	1264				•	•	•	•
		2	2	33.9	0.91	21.0	812			•	•	•	•	
		3	0	37.3	0.87	18.7	1308				•	•	•	•
		3	1	41.9	0.87	16.7	1355				•	•	•	•
		3	2	45.7	0.87	15.3	1391				•	•	•	•
		3	3	50.2	0.86	14.0	1434			•	•	•	•	•
		3	4	55.2	0.86	12.7	1431			•	•	•	•	•
		3	5	59.9	0.86	11.7	1515			•	•	•	•	•
		3	6	65.3	0.86	10.7	1556			•	•	•	•	•
		3	7	71.5	0.85	9.8	1279			•	•	•	•	
		3	8	78.8	0.85	8.9	1334			•	•	•	•	
		4	0	90.6	0.84	7.7	1215		•	•	•	•		
		4	1	98.2	0.83	7.1	1373		•	•	•	•		
		4	2	109	0.83	6.5	1290		•	•	•	•		
		4	3	115	0.74	6.1	1397		•	•	•	•		
		4	4	126	0.73	5.5	1444		•	•	•	•		
		4	5	139	0.73	5.0	1484		•	•	•	•		
		4	6	151	0.72	4.6	1518		•	•	•	•		
		4	7	164	0.72	4.3	1543		•	•	•	•		
		4	8	180	0.71	3.9	1581		•	•	•	•		
		5	0	198	0.70	3.5	1590		•	•	•	•		
		5	1	228	0.69	3.1	1590		•	•	•	•		
		5	2	247	0.68	2.8	1590		•	•	•	•		
		5	3	273	0.67	2.6	1590		•	•	•			

Geared motors

Helical-worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Efficiency	Output speed	Max. torque	Motor frame size						
		11th position	12th position					63	71	80	90	100	112	132
C82	Nm 681 to 1590	5	4	319	0.65	2.2	1590		•	•	•			
		5	5	355	0.64	2.0	1590		•	•	•			
		5	6	390	0.63	1.8	1590		•	•	•			
		5	7	441	0.62	1.6	1471		•	•				

C32 gearbox (two-stage), foot-mounted type (0 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	201	78	445	261	75
71	C or D	145	111	75	201	78	445	261	75
80	E or F	162	120	75	210	77	468	284	75
90	G or H	181	128	75	218	77	500	316	75
100	J or K	202	135	120	225	95	549	365	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

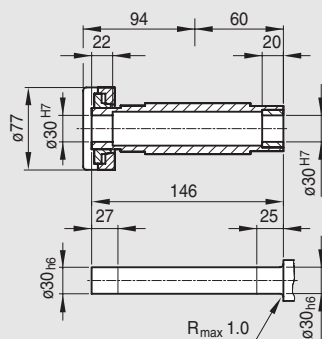
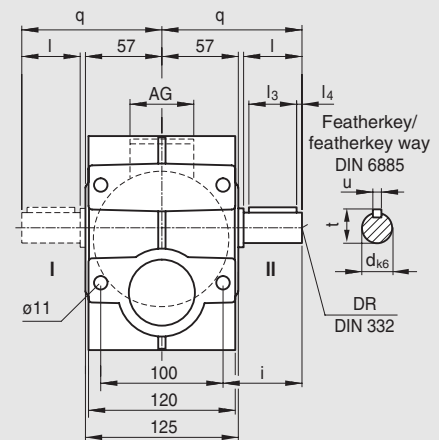
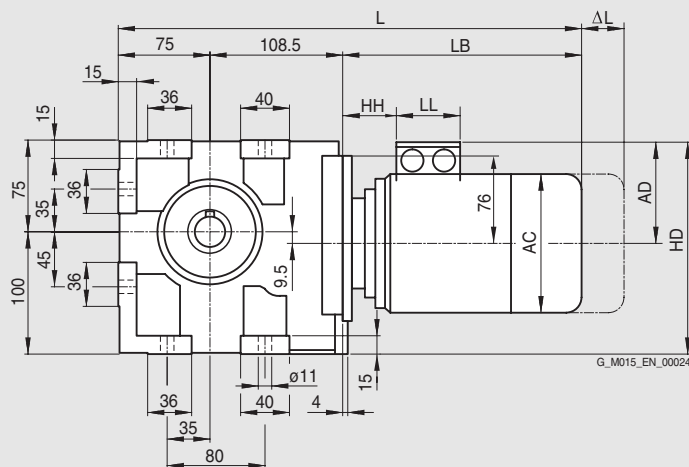
d	l	i	q	DR
25	50	60	110	M10x22

Solid shaft with featherkey

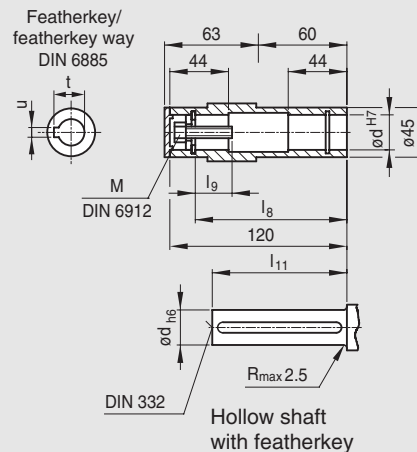
d	l	l ₃	l ₄	t	u	i	q	DR
25	50	40	5	28	8	60	110	M10x22

Hollow shaft with featherkey

d	l ₉	l ₈	l ₁₁	M	t	u
25	17	105	100	M10	28	8
30	31	102	90	M10	33	8



Hollow shaft with shrink disk

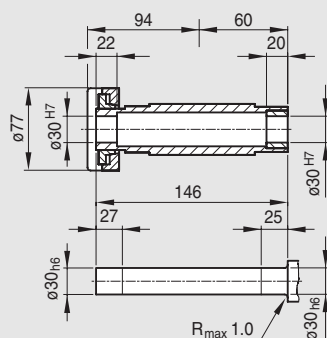
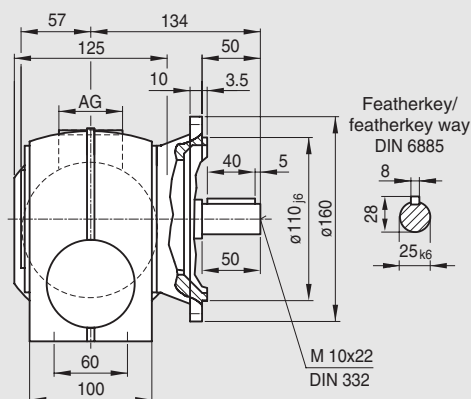


Hollow shaft with featherkey

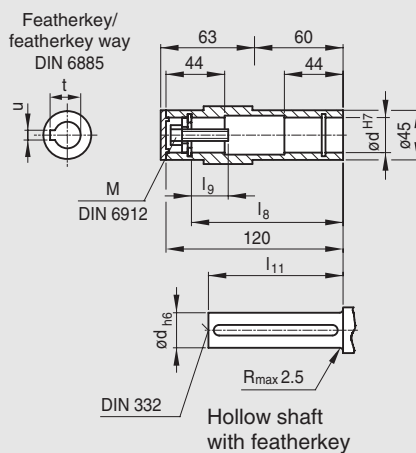
Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	201	78	445	261	75
71	C or D	145	111	75	201	78	445	261	75
80	E or F	162	120	75	210	77	468	284	75
90	G or H	181	128	75	218	77	500	316	75
100	J or K	202	135	120	225	95	549	365	120

Hollow shaft with featherkey

[illegible]

Hollow shaft
with shrink disk



Hollow shaft
with featherkey

6

Dimensions

Hollow shaft with featherkey

Siemens M 15 · June 2005

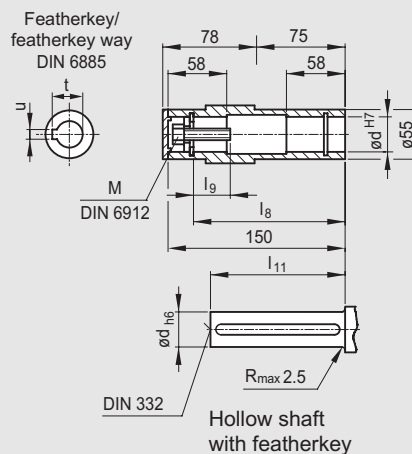
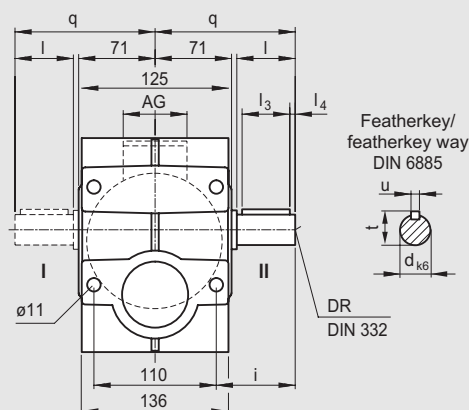
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ΔL see Section 8, "Dimensions of built-on accessories".

Solid shaft with featherkey

d	l	l ₃	l ₄	t	u	i	q	DR
30	60	50	3.5	33	8	80	135	M10x22

d	l_9	l_8	l_{11}	M	t	u
30	17	132	127	M10	33.3	8
35	40	128	115	M12	38.3	10
40	48	128	115	M16	43.8	12



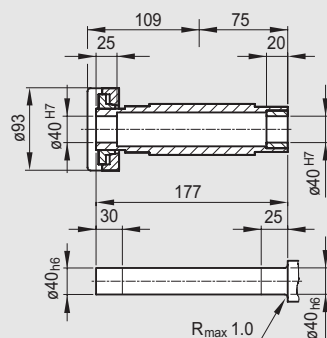
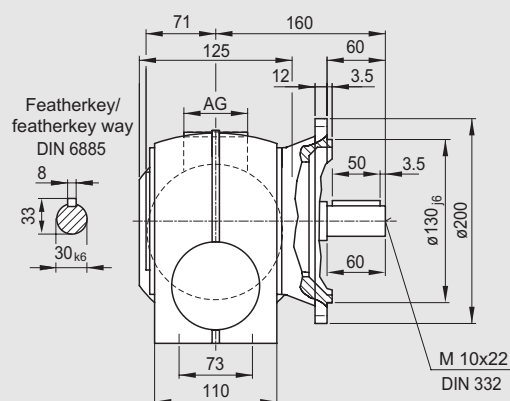
Hollow shaft
with shrink disk

Hollow shaft
with featherkey

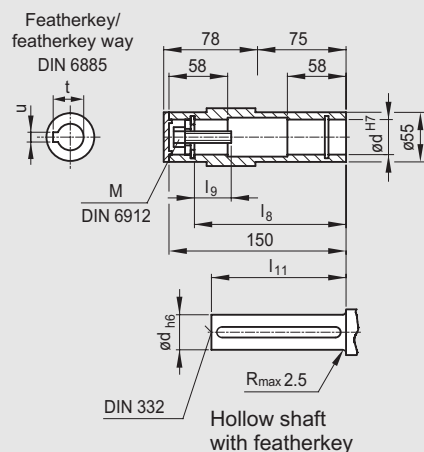
Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	201	78	462	261	75
71	C or D	145	111	75	201	78	462	261	75
80	E or F	162	120	75	210	77	485	284	75
90	G or H	181	128	75	218	77	517	316	75
100	J or K	202	135	120	225	95	566	365	120

Hollow shaft with featherkey

[illegible]

Hollow shaft
with shrink disk



Hollow shaft
with featherkey

6

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

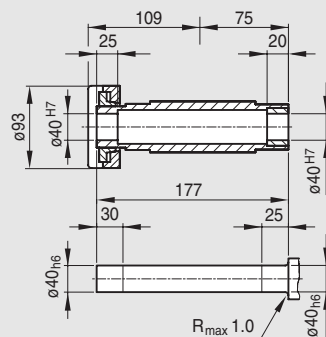
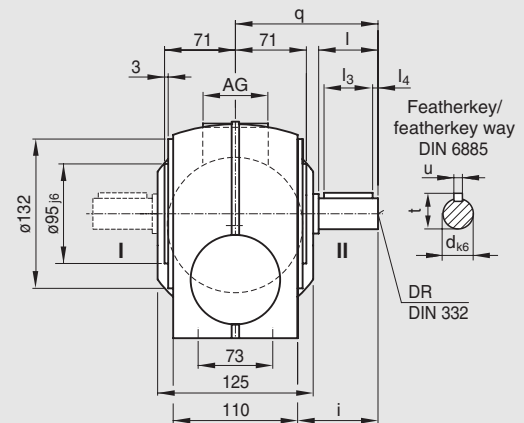
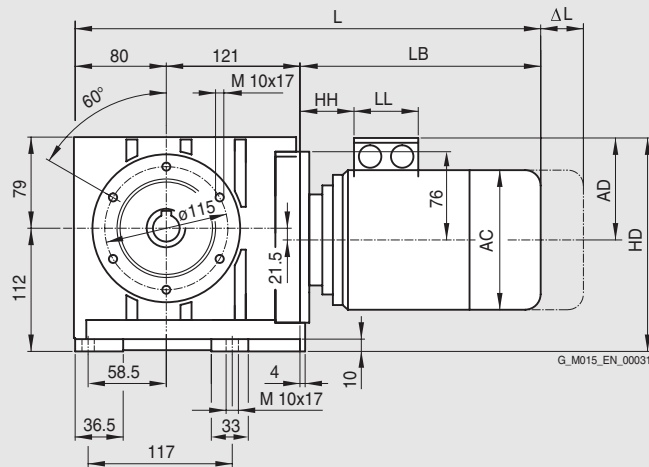
d	l	i	q	DR
30	60	80	135	M10x22

Solid shaft with featherkey

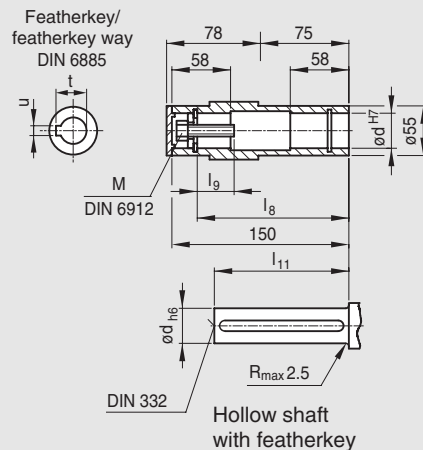
d	l	l₃	l₄	t	u	i	q	DR
30	60	50	3.5	33	8	80	135	M10x22

Hollow shaft with featherkey

d	l_9	l_8	l_{11}	M	t	u
30	17	132	127	M10	33.3	8
35	40	128	115	M12	38.3	10
40	48	128	115	M16	43.3	12



Hollow shaft
with shrink disk

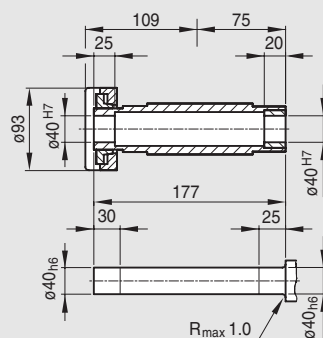
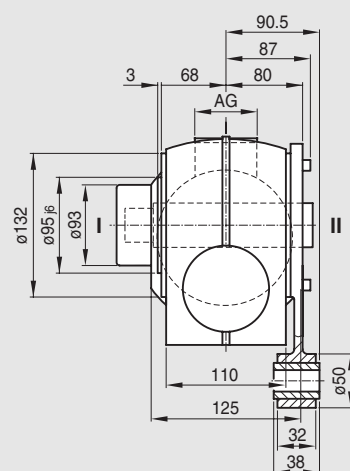
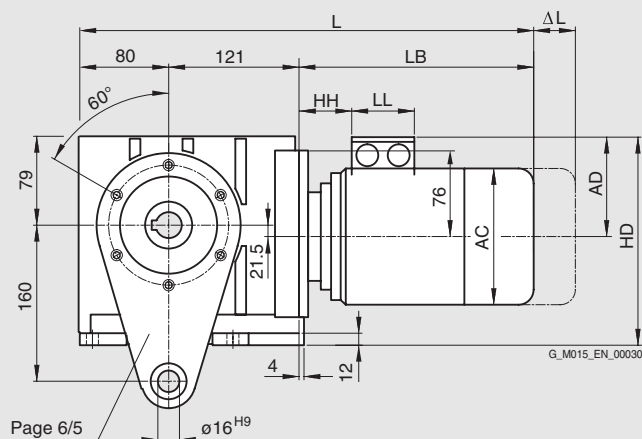


Hollow shaft
with featherkey

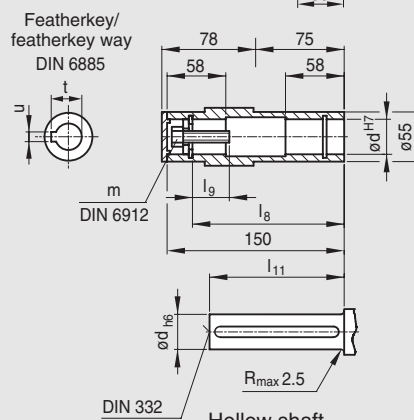
Dimensions

Hollow shaft with featherkey

d	l_9	l_8	l_{11}	M	t	u
30	17	132	127	M10	33.3	8
35	40	128	115	M12	38.3	10
40	48	128	115	M16	43.3	12



Hollow shaft
with shrink disk



Hollow shaft
with featherkey

6

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

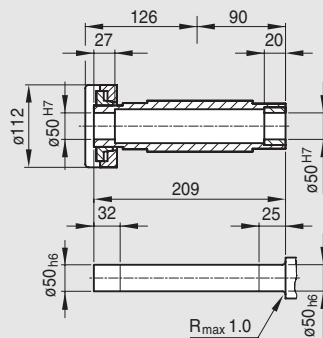
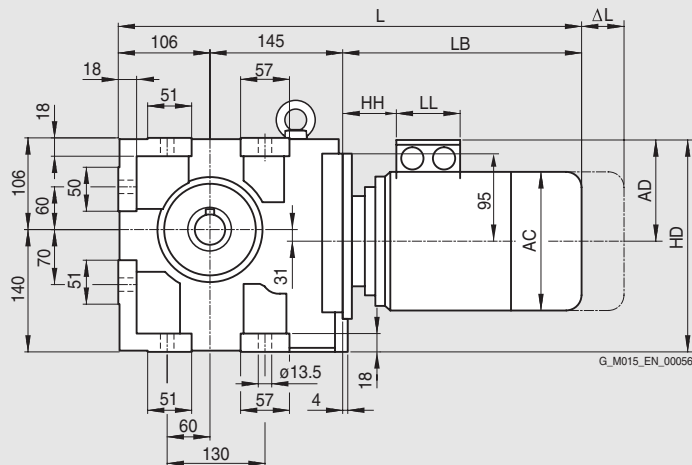
d	l	i	q	DR
40	80	105	170	M16x36

Solid shaft with featherkey

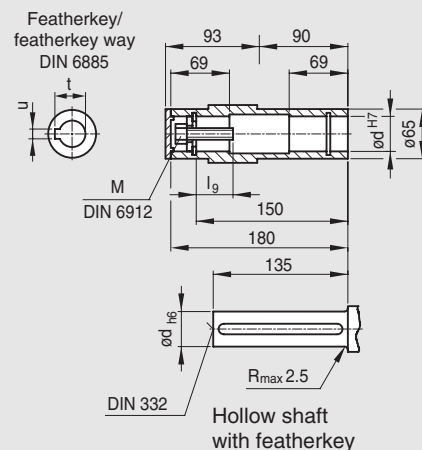
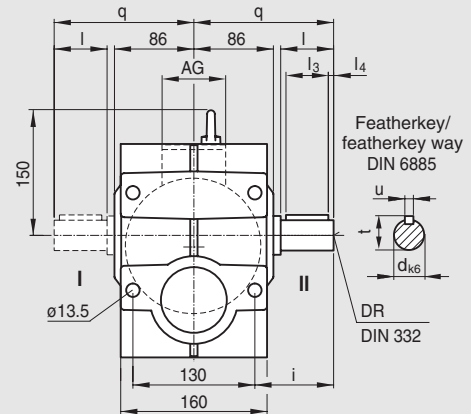
d	l	l₃	l₄	t	u	i	q	DR
35	70	56	5	38	10	95	160	M12x28
40	80	70	5	43	12	105	170	M16x36

Hollow shaft with featherkey

d	lg	M	t	u
40	48	M16	43.3	12
45	47	M16	48.8	14



Hollow shaft
with shrink disk



Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	220	72	508	256	75
71	C or D	145	111	75	220	72	508	256	75
80	E or F	162	120	75	229	72	531	279	75
90	G or H	181	128	75	237	72	563	311	75
100	J or K	202	135	120	244	89	611	359	120
112	L	227	148	120	257	94	637	385	120

Plain solid shaft and flange size

Solid shafts with featherkey and flange size

Hollow shafts with featherkey and flange sizes

Flange dimensions

Hollow shaft
with featherkey

C62 gearbox (two-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	220	72	508	256	75
71	C or D	145	111	75	220	72	508	256	75
80	E or F	162	120	75	229	72	531	279	75
90	G or H	181	128	75	237	72	563	311	75
100	J or K	202	135	120	244	89	611	359	120
112	L	227	148	120	257	94	637	385	120

ΔL see Section 8, "Dimensions of built-on accessories".

Plain solid shaft

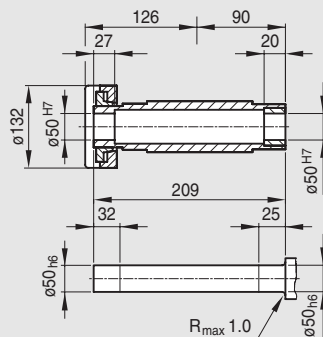
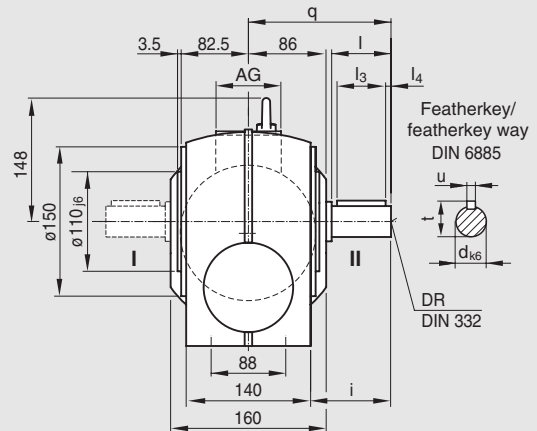
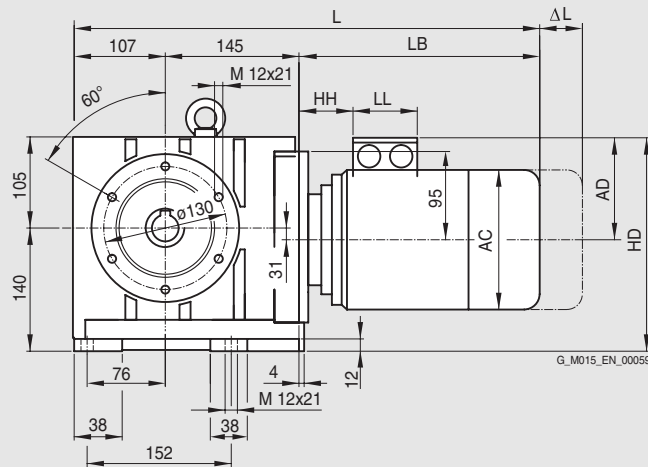
d	l	i	q	DR
40	80	100	170	M16x36

Solid shaft with featherkey

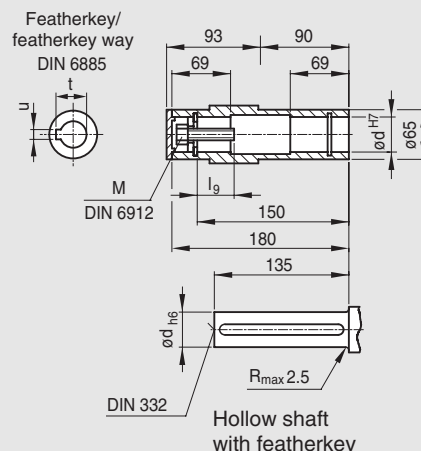
d	l	l ₃	l ₄	t	u	i	q	DR
35	70	56	5	38	10	90	160	M12x28
40	80	70	5	43	12	100	170	M16x36

Hollow shaft with featherkey

d	l _g	M	t	u
40	48	M16	43.3	12
45	47	M16	48.8	14



Hollow shaft with shrink disk



Hollow shaft with featherkey

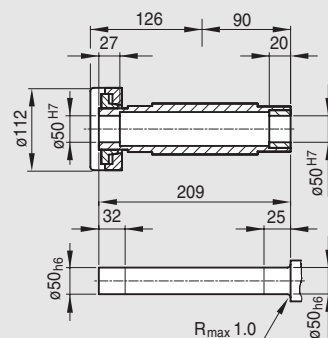
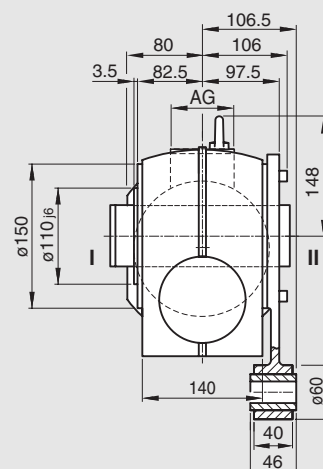
Dimensions

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	220	72	508	256	75
71	C or D	145	111	75	220	72	508	256	75
80	E or F	162	120	75	229	72	531	279	75
90	G or H	181	128	75	237	72	563	311	75
100	J or K	202	135	120	244	89	611	359	120
112	L	227	148	120	257	94	637	385	120

Hollow shaft with featherkey

Technical drawing of the front view of a mechanical component. The drawing includes the following dimensions and labels:

- Dimensions:**
 - 107 (Top left horizontal distance)
 - 145 (Top middle horizontal distance)
 - LB (Top right horizontal distance)
 - 105 (Left vertical distance from top to center)
 - 200 (Left vertical distance from top to bottom)
 - 31 (Middle vertical distance from center to bottom flange)
 - 4 (Bottom horizontal distance from center to right flange)
 - 12 (Bottom horizontal distance from right flange to right edge)
 - HH (Horizontal distance between two top holes)
 - LL (Horizontal distance between two top holes)
 - 95 (Vertical distance from top flange to bottom flange)
 - AD (Right vertical distance from top flange to bottom flange)
 - HD (Right vertical distance from top flange to bottom edge)
 - ΔL (Top right horizontal distance from LB to right edge)
- Labels:**
 - 60° (Angle of the top left corner)
 - $\varnothing 25^{H9}$ (Bottom hole diameter)
 - AC (Label for the central vertical section)
- Reference:** G. M015_EN_00058



Featherkey/
featherkey way
DIN 6885

$\varnothing d_{H7}$

$\varnothing 65$

M
DIN 6912

l_9

93

90

69

69

150

180

135

$\varnothing d_{h6}$

$R_{max} 2.5$

DIN 332

Hollow shaft
with featherkey

Dimensions

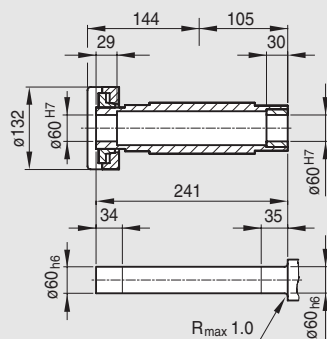
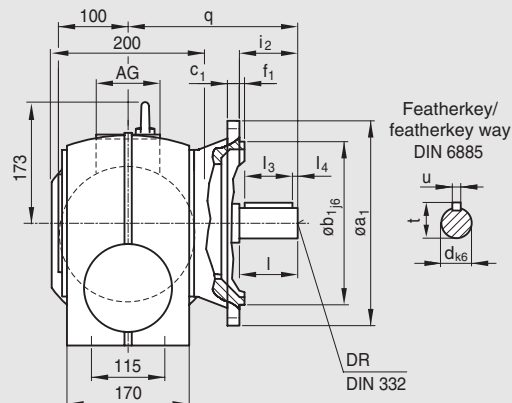
Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	250	66	533	250	75
71	C or D	145	111	75	250	66	533	250	75
80	E or F	162	120	75	259	66	556	273	75
90	G or H	181	128	75	267	66	588	305	75
100	J or K	202	135	120	274	83	637	353	120
112	L	227	148	120	287	86	661	377	120
132	M or N or P	266	167	140	306	117	715	431	140

d	l	i	q	DR	Flange
50	100	100	242	M16x36	A300

d	l	l₃	l₄	t	u	i₂	q	DR	Flange
45	90	80	2.5	48	14	90	240.5	M16x36	A250
50	100	80	10	53.5	14	100	242	M16x36	A300

d	l _g	M	t	u	Flange
50	44.5	M16	53.8	14	A250, A300
60	54	M20	64.4	18	A250, A300

Flange	a_1	b_1	c_1	e_1	f_1	s_1
A250	250	180	15	215	4	13.5
A300	300	230	16	265	4	13.5



Featherkey/
featherkey way
DIN 6885

D_1

t

D_2

108

105

78

78

180

210

165

108

105

78

78

180

210

165

ϕd_{H7}

ϕd_{H8}

M

DIN 6912

$R_{max 2.5}$

DIN 332

Hollow shaft
with featherkey

6

6/55

Geared motors

Helical-worm geared motors

Notes

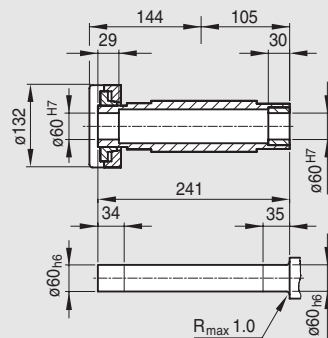
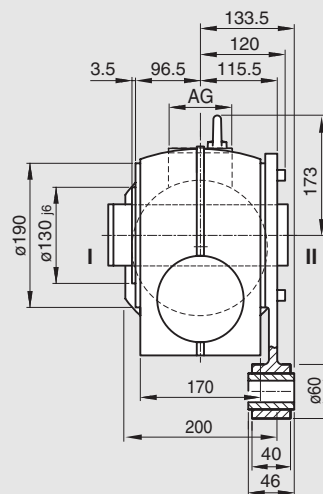
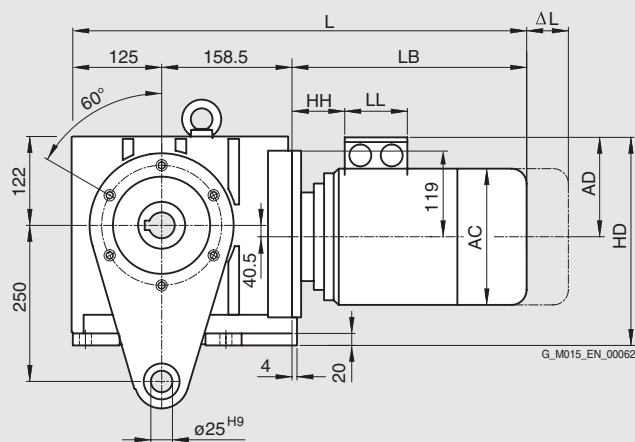
C82 gearbox (two-stage) with torque arm design 1, for designs see page 6/5 (2 in 8th position of the order number)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	145	111	75	250	66	533	250	75
71	C or D	145	111	75	250	66	533	250	75
80	E or F	162	120	75	259	66	556	273	75
90	G or H	181	128	75	267	66	588	305	75
100	J or K	202	135	120	274	83	637	353	120
112	L	227	148	120	287	86	661	377	120
132	M or N or P	266	167	140	306	117	715	431	140

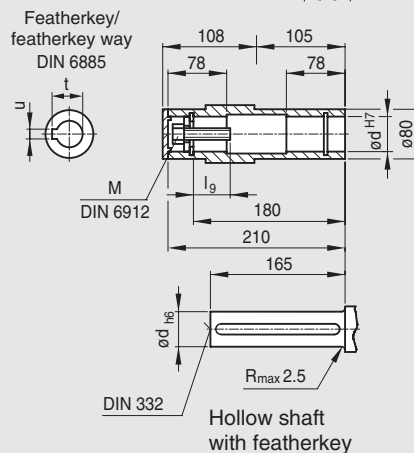
ΔL see Section 8, "Dimensions of built-on accessories".

Hollow shaft with featherkey

d	l _g	M	t	u
50	44.5	M16	53.8	14
60	54	M20	64.4	18



Hollow shaft
with shrink disk



Hollow shaft
with featherkey

7

Worm geared motors



Structure of the order number and how to complete it

- 7/2 Structure of the order number for worm geared motors
- 7/3 Completing the order number
- 7/7 Mounting positions and position of the connection system
- 7/8 Selection example

Selection and ordering

- 7/9 Preliminary selection of the geared motor according to power, speed and torque
- 7/10 Selection and ordering data
- 7/15 Ratios and maximum torques

Dimensions

- 7/18 T31 gearbox
- 7/22 T51 gearbox
- 7/26 T61 gearbox

Geared motors

Worm geared motors

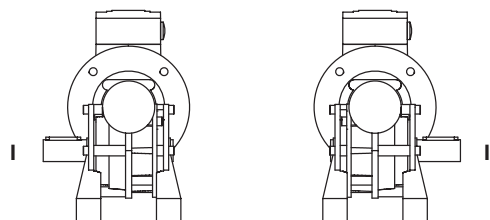
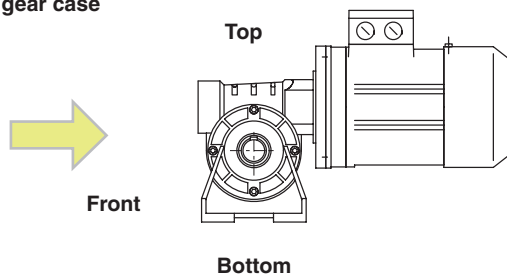
Structure of the order number and how to complete it

Structure of the order number for worm geared motors

Order number	position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
		2	K	G	3	5	□	1	-	□	□	□	□	-	□	□	□	- Z
Generation																		
Worm gearbox T																		
Gearbox size																		
Basic version motor																		
Gear case type																		
Shaft design																		
Motor frame size																		
Ratio code																		
Number of poles on the motor																		
Mounting position of the gearbox																		
Position of the connection system																		
Voltage and frequency																		
Special versions																		

Definition of sides

Facing the gear case



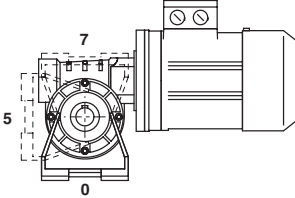
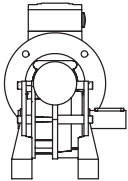
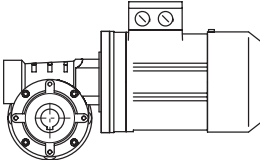
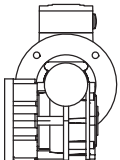
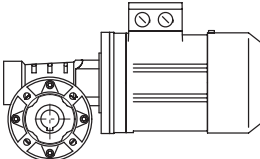
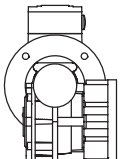
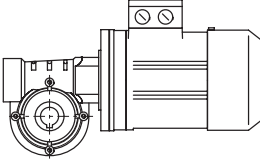
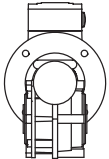
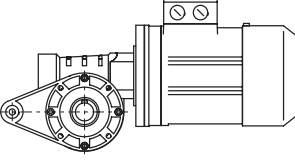
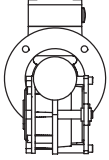
Position of solid shaft and output flange

G_M015_EN_00020

The **order number of the worm geared motor** is shown in the selection and ordering data, but must be completed in certain places.

Completing the order number

8th position: Gear case type

Gear case models	8 th position of order number		
Foot-mounted type	0, 5, 7		
Flange-mounted type B5 model (short) B5 model (long) with order code H1F in position I	1 9		
Flange-mounted type B5 model (short) B5 model (long) with order code H6F in position II	6 9		
Flange-mounted type B14 model	3		
Torque arm (see also page 7/5)	2		

G_M015_EN_00021

Geared motors

Worm geared motors

Structure of the order number and how to complete it

Worm gearbox (T)

Type	8th position of the order number	Order code	Surcharge T31	T51	T61
Foot-mounted type B3 Foot at bottom	0	–	✓	✓	✓
Short flange-mounted type B5 in position I	1	–	✓	✓	✓
Torque arm	2	–	✓	✓	✓
Flange-mounted type B14	3	–	✓	✓	✓
Foot-mounted type B3 Foot at front	5	–	✓	✓	✓
Short flange-mounted type B5 in position II	6	–	✓	✓	✓
Foot-mounted type B3 Foot at top	7	–	✓	✓	✓
Long flange-mounted type B5 in position I	9	H1F	✓	✓	✓
Long flange-mounted type B5 in position II	9	H6F	✓	✓	✓

See also page 7/3.

9th position: Shaft design

Worm gearbox (T)

Shaft design	9th position of the order number	T31 d x l mm	Surcharge	T51 d x l mm	Surcharge	T61 d x l mm	Surcharge
Hollow shaft with featherkey	G	20	✓	–	–	–	–
Hollow shaft with featherkey (basic version)	H	18	✓	25	✓	25	✓
Solid shaft with featherkey II	U	18 x 40	✓	25 x 50	✓	25 x 60	✓
Solid shaft with featherkey I	V	18 x 40	✓	25 x 50	✓	25 x 60	✓
Solid shaft with featherkey I + II	W	18 x 40	✓	25 x 50	✓	25 x 60	✓

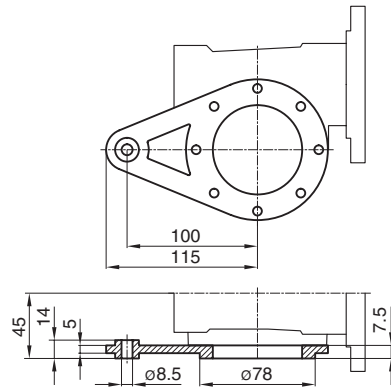
– Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

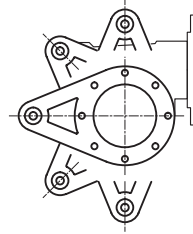
Torque arm

The torque arm can be screwed onto the gear case in any of five positions of 45° about the main pinion drive. The torque arm will be supplied as a loose part if **2** is entered in the 8th digit of the order number.

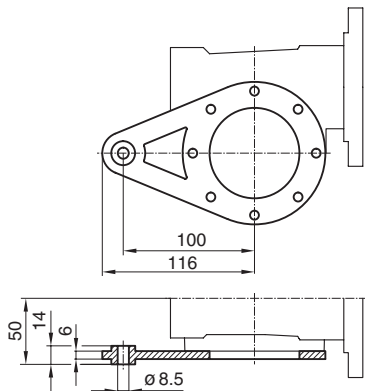
T31



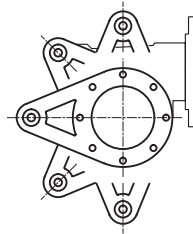
Possible mounting positions



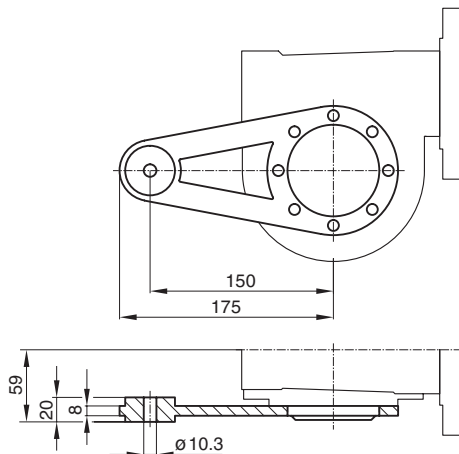
T51



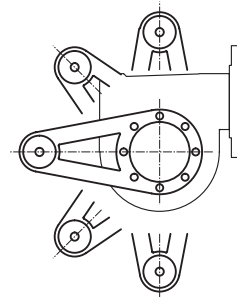
Possible mounting positions



T61



Possible mounting positions



G_M015_EN_00049

Geared motors

Worm geared motors

Structure of the order number and how to complete it

14th position: Mounting position of worm geared motor

The letters from **A to F** correspond to the figures on page 7/7, and must be inserted into the 14th position of the order number (without surcharge).

15th position: Position of the connection system

The motor terminal box can be mounted in four different positions (position of connection system). When facing the gearbox, the positions are defined by **A, B, C**, or **D**, see figures on page 7/7 (without surcharge). This letter must be inserted into the 15th position of the order number.

16th position: Voltage and frequency

The last position of the order number contains the voltage and frequency of the geared motor.

1 = 230 VΔ/400 VΥ, 50 Hz

3 = 500 VΥ, 50 Hz

5 = 500 VΔ, 50 Hz

6 = 400 VΔ/690 VΥ, 50 Hz

9 = other voltages, see Section 8, "Other voltages and/or frequencies".

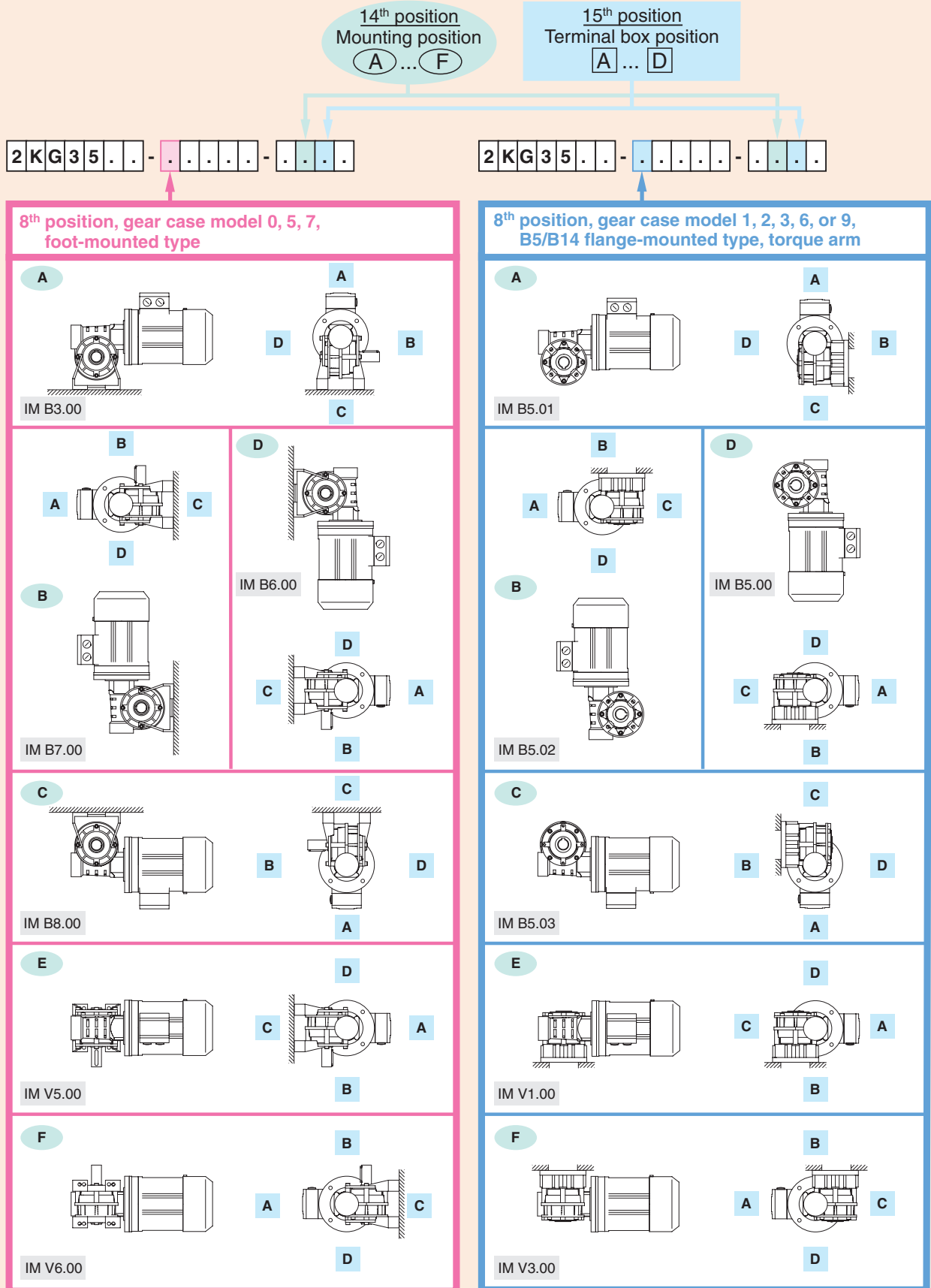
1, 3, 5, 6 without surcharge, **9** with surcharge.

***-Z:** Special versions*

Special gearbox and/or motor designs should be ordered using the order number addition **-Z** and the order code, and is usually subject to a surcharge.

For a description of the options, see Sections 8, 9 and 10; for ordering data, see Section 11.

Mounting positions and position of the connection system



G_M015_EN_00022a

Worm geared motors

Structure of the order number and how to complete it

Selection example

A geared motor with 0.12 kW, an output speed of around 17 rpm and a service factor of approximately 2.1 is needed.

From the table on page 7/11:

Order no.: **2KG3551-□□A80-4□□□**

With the T51 gearbox, the output speed is 16.9 rpm, the service factor 2.2, the motor frame size 63 M and there are four poles.

Worm geared motor T51, flange design B14 with hollow shaft and featherkey, model IM B5.01, and terminal box at top (for figure, see page 7/7) and a voltage of 230 VΔ/400 VY, 50 Hz (see page 7/6)

Order no.: **2KG3551-3HA80-4AA1**

Torque arm design

Order no.: **2KG3551-2HA80-4AA1**

Surcharge (for torque arm only), see page 7/4.

With standard brake for connection 1 AC 50 Hz 230 V
(see Section 8)

Order number: **2KG3551-2HA80-4AA1-Z**
G21

Surcharges have to be considered.

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight
P_1	n_2	M_2	i	η	f_B		
kW	rpm	Nm					kg
0.12	Gearbox size T51 – motor frame size 63M – 4 poles						
	13.5	41	100	0.48	1.8	2KG3551 - A00-4	7
	16.9	37	80.0	0.54	2.2	2KG3551 - A80-4	
	22.5	30	60.0	0.59	2.6	2KG3551 - A60-4	
	27.0	26	50.0	0.62	2.9	2KG3551 - A50-4	
	33.8	22	40.0	0.65	3.4	2KG3551 - A40-4	
	45.0	18	30.0	0.69	4.2	2KG3551 - A30-4	
	54.0	15	25.0	0.71	4.8	2KG3551 - A25-4	
	67.5	13	20.0	0.79	5.4	2KG3551 - A20-4	
	90.0	10	15.0	0.82	6.9	2KG3551 - A15-4	
135	7.4	10.0	0.87	9.7	2KG3551 - A10-4		

All values apply at 50 Hz

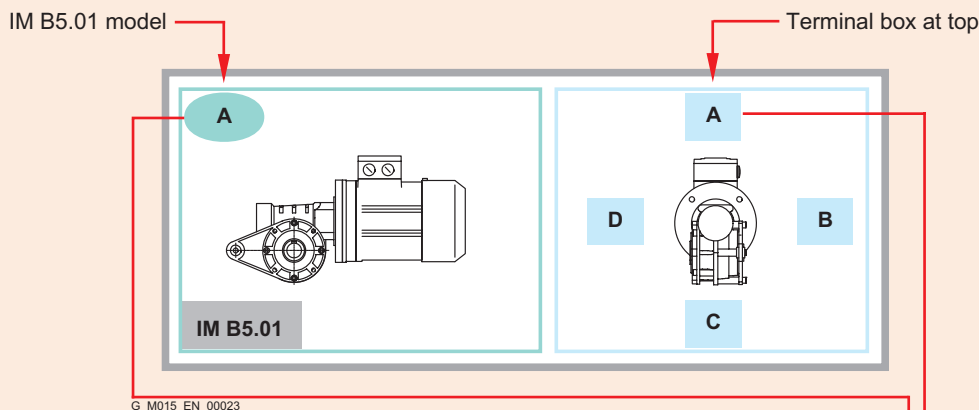
For types, see pages 7/3 to 7/4 **0, 1, 2, 3, 5, 6, 7 or 9**

For shaft designs, see page 7/4 — **G, H, U, V, W**

For gearbox mounting positions acc. to the figure, see page 7/7 — **A to F**

For pos. of the connection system acc. to fig., see pages 7/6 to 7/7 — **A to D**

For voltage/frequency, see page 7/6 ————— 1, 3, 5, 6 or 9



Order no. **2KG3551-2HA80-4AA1**

Preliminary selection of the geared motor according to power, speed and torque

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Detailed selection and ordering data Page
0.09	6.3 – 90	74 – 8.7	100 – 7	0.54 – 0.91	1.2 – 8.7	7/10
0.12	6.5 – 193	96 – 5.4	100 – 7	0.48 – 0.91	1.4 – 9.7	7/10 – 7/11
0.18	8.3 – 193	111 – 8.1	100 – 7	0.48 – 0.91	1.1 – 8.8	7/11 – 7/12
0.25	13.5 – 193	96 – 11	100 – 7	0.54 – 0.91	1 – 9.4	7/12
0.37	13.7 – 196	139 – 16	100 – 7	0.54 – 0.92	0.94 – 8.9	7/13
0.55	23.2 – 199	149 – 24	60 – 7	0.66 – 0.91	1.1 – 4.4	7/13
0.75	27.9 – 199	175 – 33	50 – 7	0.68 – 0.92	0.92 – 4.5	7/14
1.1	47.2 – 202	165 – 48	30 – 7	0.74 – 0.92	0.93 – 3.1	7/14
1.5	71 – 203	167 – 65	20 – 7	0.83 – 0.92	0.91 – 2.3	7/14

Geared motors

Worm geared motors

Selection and ordering

Selection and ordering data

Output speed P_1 kW	Output torque n_2 rpm	Gear ratio M_2 Nm	Efficiency i	Service factor η	Order No.	Weight kg
0.09						
Gearbox size T61 – motor frame size 71M – 8 poles						
6.3	74	100	0.54	1.8	2KG3561 - C00-8	12
7.9	67	80.0	0.61	2.5	2KG3561 - C80-8	
10.5	54	60.0	0.66	3	2KG3561 - C60-8	
12.6	46	50.0	0.68	3.5	2KG3561 - C50-8	
15.8	39	40.0	0.71	4.1	2KG3561 - C40-8	
21.0	30	30.0	0.74	5.1	2KG3561 - C30-8	
25.2	26	25.0	0.76	5.9	2KG3561 - C25-8	
31.5	23	20.0	0.83	6.7	2KG3561 - C20-8	
42.0	17	15.0	0.85	8.7	2KG3561 - C15-8	
Gearbox size T51 – motor frame size 71M – 8 poles						
7.9	59	80.0	0.54	1.4	2KG3551 - C80-8	10
10.5	48	60.0	0.59	1.6	2KG3551 - C60-8	
12.6	42	50.0	0.62	1.8	2KG3551 - C50-8	
15.8	36	40.0	0.65	2.1	2KG3551 - C40-8	
21.0	28	30.0	0.69	2.6	2KG3551 - C30-8	
25.2	24	25.0	0.71	3	2KG3551 - C25-8	
31.5	22	20.0	0.79	3.4	2KG3551 - C20-8	
42.0	17	15.0	0.82	4.3	2KG3551 - C15-8	
63.0	12	10.0	0.87	6.1	2KG3551 - C10-8	
90.0	8.7	7.00	0.91	8.2	2KG3551 - C07-8	
Gearbox size T31 – motor frame size 71M – 8 poles						
15.8	37	40.0	0.68	1.2	2KG3531 - C40-8	9
21.0	29	30.0	0.71	1.4	2KG3531 - C30-8	
25.2	25	25.0	0.74	1.6	2KG3531 - C25-8	
31.5	22	20.0	0.82	1.8	2KG3531 - C20-8	
42.0	17	15.0	0.84	2.4	2KG3531 - C15-8	
63.0	12	10.0	0.88	3.3	2KG3531 - C10-8	
90.0	8.7	7.00	0.91	4.6	2KG3531 - C07-8	
0.12						
Gearbox size T61 – motor frame size 71M – 8 poles						
6.5	96	100	0.54	1.4	2KG3561 - D00-8	12
8.1	87	80.0	0.61	1.9	2KG3561 - D80-8	
10.8	70	60.0	0.66	2.3	2KG3561 - D60-8	
12.9	60	50.0	0.68	2.7	2KG3561 - D50-8	
16.1	51	40.0	0.71	3.2	2KG3561 - D40-8	
21.5	39	30.0	0.74	3.9	2KG3561 - D30-8	
25.8	34	25.0	0.76	4.5	2KG3561 - D25-8	
32.2	30	20.0	0.83	5.2	2KG3561 - D20-8	
43.0	23	15.0	0.85	6.7	2KG3561 - D15-8	
64.5	16	10.0	0.9	9.4	2KG3561 - D10-8	
All values apply at 50 Hz						
For types of construction, see pages 7/3 to 7/5					0, 1, 2, 3, 5, 6, 7 or 9	
For shaft designs, see page 7/4					G, H, U, V, W	
For gearbox mounting positions acc. to the figure, see page 7/7					A to F	
For pos. of the connection system acc. to fig., see pages 7/6 to 7/7					A to D	
For voltage/frequency, see page 7/6					1, 3, 5, 6 or 9	

Output	Output speed	Output torque	Gear ratio	Efficiency	Service factor	Order No.	Weight	
P_1	n_2	M_2	i	η	f_B		kg	
kW	rpm	Nm						
0.12	Gearbox size T51 – motor frame size 63M – 4 poles							
	13.5	41	100	0.48	1.8	2KG3551 - ■ ■ A00-4 ■ ■ ■	7	
	16.9	37	80.0	0.54	2.2	2KG3551 - ■ ■ A80-4 ■ ■ ■		
	22.5	30	60.0	0.59	2.6	2KG3551 - ■ ■ A60-4 ■ ■ ■		
	27.0	26	50.0	0.62	2.9	2KG3551 - ■ ■ A50-4 ■ ■ ■		
	33.8	22	40.0	0.65	3.4	2KG3551 - ■ ■ A40-4 ■ ■ ■		
	45.0	18	30.0	0.69	4.2	2KG3551 - ■ ■ A30-4 ■ ■ ■		
	54.0	15	25.0	0.71	4.8	2KG3551 - ■ ■ A25-4 ■ ■ ■		
	67.5	13	20.0	0.79	5.4	2KG3551 - ■ ■ A20-4 ■ ■ ■		
	90.0	10	15.0	0.82	6.9	2KG3551 - ■ ■ A15-4 ■ ■ ■		
	135	7.4	10.0	0.87	9.7	2KG3551 - ■ ■ A10-4 ■ ■ ■		
	Gearbox size T31 – motor frame size 63M – 4 poles							
	22.5	32	60.0	0.62	1.3	2KG3531 - ■ ■ A60-4 ■ ■ ■	6	
	27.0	28	50.0	0.65	1.6	2KG3531 - ■ ■ A50-4 ■ ■ ■		
	33.8	23	40.0	0.68	1.9	2KG3531 - ■ ■ A40-4 ■ ■ ■		
	45.0	18	30.0	0.71	2.3	2KG3531 - ■ ■ A30-4 ■ ■ ■		
	54.0	16	25.0	0.74	2.6	2KG3531 - ■ ■ A25-4 ■ ■ ■		
	67.5	14	20.0	0.82	2.9	2KG3531 - ■ ■ A20-4 ■ ■ ■		
	90.0	11	15.0	0.84	3.8	2KG3531 - ■ ■ A15-4 ■ ■ ■		
	135	7.5	10.0	0.88	5.4	2KG3531 - ■ ■ A10-4 ■ ■ ■		
	193	5.4	7.00	0.91	7.4	2KG3531 - ■ ■ A07-4 ■ ■ ■		
	0.18	Gearbox size T61 – motor frame size 71M – 6 poles						
		8.3	111	100	0.54	1.2	2KG3561 - ■ ■ C00-6 ■ ■ ■	12
		10.4	100	80.0	0.61	1.7	2KG3561 - ■ ■ C80-6 ■ ■ ■	
		13.9	82	60.0	0.66	2	2KG3561 - ■ ■ C60-6 ■ ■ ■	
16.7		70	50.0	0.68	2.3	2KG3561 - ■ ■ C50-6 ■ ■ ■		
20.9		59	40.0	0.71	2.7	2KG3561 - ■ ■ C40-6 ■ ■ ■		
27.8		46	30.0	0.74	3.3	2KG3561 - ■ ■ C30-6 ■ ■ ■		
33.4		39	25.0	0.76	3.9	2KG3561 - ■ ■ C25-6 ■ ■ ■		
Gearbox size T51 – motor frame size 63M – 4 poles								
13.5		61	100	0.48	1.2	2KG3551 - ■ ■ B00-4 ■ ■ ■	7	
16.9		55	80.0	0.54	1.5	2KG3551 - ■ ■ B80-4 ■ ■ ■		
22.5		45	60.0	0.59	1.7	2KG3551 - ■ ■ B60-4 ■ ■ ■		
27.0		40	50.0	0.62	1.9	2KG3551 - ■ ■ B50-4 ■ ■ ■		
33.8		33	40.0	0.65	2.2	2KG3551 - ■ ■ B40-4 ■ ■ ■		
45.0		26	30.0	0.69	2.8	2KG3551 - ■ ■ B30-4 ■ ■ ■		
54.0		23	25.0	0.71	3.2	2KG3551 - ■ ■ B25-4 ■ ■ ■		
67.5		20	20.0	0.79	3.6	2KG3551 - ■ ■ B20-4 ■ ■ ■		
90.0		16	15.0	0.82	4.6	2KG3551 - ■ ■ B15-4 ■ ■ ■		
135		11	10.0	0.87	6.5	2KG3551 - ■ ■ B10-4 ■ ■ ■		
193		8.1	7.00	0.91	8.8	2KG3551 - ■ ■ B07-4 ■ ■ ■		
All values apply at 50 Hz								
For types of construction, see pages 7/3 to 7/5					0, 1, 2, 3, 5, 6, 7 or 9			
For shaft designs, see page 7/4					G, H, U, V, W			
For gearbox mounting positions acc. to the figure, see page 7/7					A to F			
For pos. of the connection system acc. to fig., see pages 7/6 to 7/7					A to D			
For voltage/frequency, see page 7/6					1, 3, 5, 6 or 9			

Geared motors

Worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.18 Gearbox size T31 – motor frame size 63M – 4 poles							
	27.0	41	50.0	0.65	1.1	2KG3531 - ■ ■ B50-4 ■ ■ ■	7
	33.8	35	40.0	0.68	1.2	2KG3531 - ■ ■ B40-4 ■ ■ ■	
	45.0	27	30.0	0.71	1.5	2KG3531 - ■ ■ B30-4 ■ ■ ■	
	54.0	24	25.0	0.74	1.7	2KG3531 - ■ ■ B25-4 ■ ■ ■	
	67.5	21	20.0	0.82	2	2KG3531 - ■ ■ B20-4 ■ ■ ■	
	90.0	16	15.0	0.84	2.6	2KG3531 - ■ ■ B15-4 ■ ■ ■	
	135	11	10.0	0.88	3.6	2KG3531 - ■ ■ B10-4 ■ ■ ■	
	193	8.1	7.0	0.91	4.9	2KG3531 - ■ ■ B07-4 ■ ■ ■	
0.25 Gearbox size T61 – motor frame size 71M – 4 poles							
	13.5	96	100	0.54	1.4	2KG3561 - ■ ■ C00-4 ■ ■ ■	11
	16.9	86	80.0	0.61	1.9	2KG3561 - ■ ■ C80-4 ■ ■ ■	
	22.5	70	60.0	0.66	2.3	2KG3561 - ■ ■ C60-4 ■ ■ ■	
	27.0	60	50.0	0.68	2.7	2KG3561 - ■ ■ C50-4 ■ ■ ■	
	33.8	50	40.0	0.71	3.2	2KG3561 - ■ ■ C40-4 ■ ■ ■	
	45.0	39	30.0	0.74	3.9	2KG3561 - ■ ■ C30-4 ■ ■ ■	
	54.0	34	25.0	0.76	4.5	2KG3561 - ■ ■ C25-4 ■ ■ ■	
	67.5	29	20.0	0.83	5.2	2KG3561 - ■ ■ C20-4 ■ ■ ■	
	90.0	23	15.0	0.85	6.7	2KG3561 - ■ ■ C15-4 ■ ■ ■	
	135	16	10.0	0.9	9.4	2KG3561 - ■ ■ C10-4 ■ ■ ■	
Gearbox size T51 – motor frame size 71M – 4 poles							
	16.9	76	80.0	0.54	1	2KG3551 - ■ ■ C80-4 ■ ■ ■	10
	22.5	63	60.0	0.59	1.2	2KG3551 - ■ ■ C60-4 ■ ■ ■	
	27.0	55	50.0	0.62	1.4	2KG3551 - ■ ■ C50-4 ■ ■ ■	
	33.8	46	40.0	0.65	1.6	2KG3551 - ■ ■ C40-4 ■ ■ ■	
	45.0	37	30.0	0.69	2	2KG3551 - ■ ■ C30-4 ■ ■ ■	
	54.0	31	25.0	0.71	2.3	2KG3551 - ■ ■ C25-4 ■ ■ ■	
	67.5	28	20.0	0.79	2.6	2KG3551 - ■ ■ C20-4 ■ ■ ■	
	90.0	22	15.0	0.82	3.3	2KG3551 - ■ ■ C15-4 ■ ■ ■	
	135	15	10.0	0.87	4.7	2KG3551 - ■ ■ C10-4 ■ ■ ■	
	193	11	7.00	0.91	6.3	2KG3551 - ■ ■ C07-4 ■ ■ ■	
Gearbox size T31 – motor frame size 71M – 4 poles							
	45.0	38	30.0	0.71	1.1	2KG3531 - ■ ■ C30-4 ■ ■ ■	7
	54.0	33	25.0	0.74	1.3	2KG3531 - ■ ■ C25-4 ■ ■ ■	
	67.5	29	20.0	0.82	1.4	2KG3531 - ■ ■ C20-4 ■ ■ ■	
	90.0	22	15.0	0.84	1.8	2KG3531 - ■ ■ C15-4 ■ ■ ■	
	135	16	10.0	0.88	2.6	2KG3531 - ■ ■ C10-4 ■ ■ ■	
	193	11	7.00	0.91	3.6	2KG3531 - ■ ■ C07-4 ■ ■ ■	

All values apply at 50 Hz

For types of construction, see pages 7/3 to 7/5 ——— 0, 1, 2, 3, 5, 6, 7 or 9 ———

For shaft designs, see page 7/4 ——— G, H, U, V, W ———

For gearbox mounting positions acc. to the figure, see page 7/7 ——— A to F ———

For pos. of the connection system acc. to fig., see pages 7/6 to 7/7 ——— A to D ———

For voltage/frequency, see page 7/6 ——— 1, 3, 5, 6 or 9 ———

Output speed P_1 kW	Output torque n_2 rpm	Gear ratio M_2 Nm	Efficiency i η	Service factor f_B	Order No.	Weight kg
0.37						
Gearbox size T61 – motor frame size 71M – 4 poles						
13.7	139	100	0.54	0.95	2KG3561 - ■■■ D00-4 ■■■■	12
17.1	126	80.0	0.61	1.3	2KG3561 - ■■■ D80-4 ■■■■	
22.8	102	60.0	0.66	1.6	2KG3561 - ■■■ D60-4 ■■■■	
27.4	88	50.0	0.68	1.8	2KG3561 - ■■■ D50-4 ■■■■	
34.2	73	40.0	0.71	2.2	2KG3561 - ■■■ D40-4 ■■■■	
45.7	57	30.0	0.74	2.7	2KG3561 - ■■■ D30-4 ■■■■	
54.8	49	25.0	0.76	3.1	2KG3561 - ■■■ D25-4 ■■■■	
68.5	43	20.0	0.83	3.6	2KG3561 - ■■■ D20-4 ■■■■	
91.3	33	15.0	0.85	4.6	2KG3561 - ■■■ D15-4 ■■■■	
137	23	10.0	0.9	6.5	2KG3561 - ■■■ D10-4 ■■■■	
196	17	7.00	0.92	8.9	2KG3561 - ■■■ D07-4 ■■■■	
Gearbox size T51 – motor frame size 71M – 4 poles						
27.4	80	50.0	0.62	0.94	2KG3551 - ■■■ D50-4 ■■■■	10
34.2	67	40.0	0.65	1.1	2KG3551 - ■■■ D40-4 ■■■■	
45.7	53	30.0	0.69	1.4	2KG3551 - ■■■ D30-4 ■■■■	
54.8	46	25.0	0.71	1.6	2KG3551 - ■■■ D25-4 ■■■■	
68.5	41	20.0	0.79	1.8	2KG3551 - ■■■ D20-4 ■■■■	
91.3	32	15.0	0.82	2.3	2KG3551 - ■■■ D15-4 ■■■■	
137	22	10.0	0.87	3.2	2KG3551 - ■■■ D10-4 ■■■■	
196	16	7.00	0.91	4.3	2KG3551 - ■■■ D07-4 ■■■■	
Gearbox size T31 – motor frame size 71M – 4 poles						
68.5	42	20.0	0.82	0.97	2KG3531 - ■■■ D20-4 ■■■■	8
91.3	33	15.0	0.84	1.3	2KG3531 - ■■■ D15-4 ■■■■	
137	23	10.0	0.88	1.8	2KG3531 - ■■■ D10-4 ■■■■	
196	16	7.00	0.91	2.4	2KG3531 - ■■■ D07-4 ■■■■	

0.55	Gearbox size T61 – motor frame size 80M – 4 poles						
	23.2	149	60.0	0.66	1.1	2KG3561 -   E60-4  	14
	27.9	128	50.0	0.68	1.3	2KG3561 -   E50-4  	
	34.9	107	40.0	0.71	1.5	2KG3561 -   E40-4  	
	46.5	84	30.0	0.74	1.8	2KG3561 -   E30-4  	
	55.8	72	25.0	0.76	2.1	2KG3561 -   E25-4  	
	69.8	63	20.0	0.83	2.4	2KG3561 -   E20-4  	
	93.0	48	15.0	0.85	3.2	2KG3561 -   E15-4  	
	140	34	10.0	0.9	4.4	2KG3561 -   E10-4  	
	Gearbox size T51 – motor frame size 80M – 4 poles						
	46.5	78	30.0	0.69	0.94	2KG3551 -   E30-4  	12
	55.8	67	25.0	0.71	1.1	2KG3551 -   E25-4  	
	69.8	60	20.0	0.79	1.2	2KG3551 -   E20-4  	
	93.0	46	15.0	0.82	1.6	2KG3551 -   E15-4  	
	140	33	10.0	0.87	2.2	2KG3551 -   E10-4  	
199	24	7.00	0.91	3	2KG3551 -   E07-4  		

All values apply at 50 Hz

For types of construction, see pages 7/3 to 7/5 ——— **0, 1, 2, 3, 5, 6, 7 or 9** ———

For shaft designs, see page 7/4 ——— **G, H, U, V, W** ———

For gearbox mounting positions acc. to the figure, see page 7/7 ——— **A to F** ———

For pos. of the connection system acc. to fig., see pages 7/6 to 7/7 ——— **A to D** ———

For voltage/frequency, see page 7/6 ——— **1, 3, 5, 6 or 9** ———

Geared motors

Worm geared motors

Selection and ordering

Output P_1 kW	Output speed n_2 rpm	Output torque M_2 Nm	Gear ratio i	Efficiency η	Service factor f_B	Order No.	Weight kg
0.75	Gearbox size T61 – motor frame size 80M – 4 poles						15
	27.9	175	50.0	0.68	0.92	2KG3561 - ■■■ F50-4 ■■■	
	34.9	146	40.0	0.71	1.1	2KG3561 - ■■■ F40-4 ■■■	
	46.5	114	30.0	0.74	1.3	2KG3561 - ■■■ F30-4 ■■■	
	55.8	98	25.0	0.76	1.6	2KG3561 - ■■■ F25-4 ■■■	
	69.8	85	20.0	0.83	1.8	2KG3561 - ■■■ F20-4 ■■■	
	93.0	66	15.0	0.85	2.3	2KG3561 - ■■■ F15-4 ■■■	
	140	46	10.0	0.9	3.2	2KG3561 - ■■■ F10-4 ■■■	
	199	33	7.00	0.92	4.5	2KG3561 - ■■■ F07-4 ■■■	
	Gearbox size T51 – motor frame size 80M – 4 poles						13
	93.0	63	15.0	0.82	1.1	2KG3551 - ■■■ F15-4 ■■■	
	140	45	10.0	0.87	1.6	2KG3551 - ■■■ F10-4 ■■■	
	199	33	7.00	0.91	2.2	2KG3551 - ■■■ F07-4 ■■■	
1.1	Gearbox size T61 – motor frame size 90S – 4 poles						18
	47.2	165	30.0	0.74	0.93	2KG3561 - ■■■ G30-4 ■■■	
	56.6	141	25.0	0.76	1.1	2KG3561 - ■■■ G25-4 ■■■	
	70.8	123	20.0	0.83	1.2	2KG3561 - ■■■ G20-4 ■■■	
	94.3	95	15.0	0.85	1.6	2KG3561 - ■■■ G15-4 ■■■	
	142	67	10.0	0.9	2.2	2KG3561 - ■■■ G10-4 ■■■	
1.5	Gearbox size T61 – motor frame size 90L – 4 poles						21
	71	167	20.0	0.83	0.91	2KG3561 - ■■■ H20-4 ■■■	
	94.7	129	15.0	0.85	1.2	2KG3561 - ■■■ H15-4 ■■■	
	142	91	10.0	0.9	1.7	2KG3561 - ■■■ H10-4 ■■■	
	203	65	7.00	0.92	2.3	2KG3561 - ■■■ H07-4 ■■■	

All values apply at 50 Hz

For types of construction, see pages 7/3 to 7/5 ——— 0, 1, 2, 3, 5, 6, 7 or 9 ———

For shaft designs, see page 7/4 ——— G, H, U, V, W ———

For gearbox mounting positions acc. to the figure, see page 7/7 ——— A to F ———

For pos. of the connection system acc. to fig., see pages 7/6 to 7/7 ——— A to D ———

For voltage/frequency, see page 7/6 ——— 1, 3, 5, 6 or 9 ———

Ratios and maximum torques

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Lead angle of the worm approx. ¹⁾	Efficiency	Output speed	Max. torque	Motor frame size					
		11th position	12th position						<i>i</i>	γ_m °	η	n_2 rpm	M_2 Nm	63
	Nm													
4-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)														
T31	40 to 44	0	7	7.00	23	0.91	201	40	•	•				
		1	0	10.0	17	0.88	141	40	•	•				
		1	5	15.0	11	0.84	94	41	•	•				
		2	0	20.0	9.5	0.82	71	41	•	•				
		2	5	25.0	6.5	0.74	56	41	•	•				
		3	0	30.0	5.5	0.71	47	41	•	•				
		4	0	40.0	4.5	0.68	35	43	•					
		5	0	50.0	4	0.65	28	44	•					
		6	0	60.0	3.5	0.62	23	42	•					
T51	71 to 80	0	7	7.00	21	0.91	201	71	•	•	•			
		1	0	10.0	15	0.87	141	72	•	•	•			
		1	5	15.0	10	0.82	94	72	•	•	•			
		2	0	20.0	8.5	0.79	71	73	•	•	•			
		2	5	25.0	6	0.71	56	73	•	•	•			
		3	0	30.0	5	0.69	47	73	•	•	•			
		4	0	40.0	4.5	0.65	35	74	•	•				
		5	0	50.0	3.5	0.62	28	75	•	•				
		6	0	60.0	3	0.59	23	78	•	•				
		8	0	80.0	2.5	0.54	17	80	•	•				
		0	0	100	2	0.48	14	72	•					
T61	148 to 166	0	7	7.00	24	0.92	201	148		•	•	•		
		1	0	10.0	18	0.90	141	150		•	•	•		
		1	5	15.0	12	0.85	94	152		•	•	•		
		2	0	20.0	10	0.83	71	152		•	•	•		
		2	5	25.0	7	0.76	56	152		•	•	•		
		3	0	30.0	6	0.74	47	153		•	•	•		
		4	0	40.0	5	0.71	35	159		•	•			
		5	0	50.0	4.5	0.68	28	161		•	•			
		6	0	60.0	4	0.66	23	164		•	•			
		8	0	80.0	3	0.61	17	166		•				
		0	0	100	2.5	0.54	14	133		•				
6-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)														
T31	48 to 51	0	7	7.00	23	0.90	129	48	•	•				
		1	0	10.0	17	0.87	90	49	•	•				
		1	5	15.0	11	0.82	60	50	•	•				
		2	0	20.0	9.5	0.80	45	50	•	•				
		2	5	25.0	6.5	0.71	36	50	•	•				
		3	0	30.0	5.5	0.70	30	50	•	•				
		4	0	40.0	4.5	0.66	23	51	•					
		5	0	50.0	4	0.63	18	51	•					
		6	0	60.0	3.5	0.60	15	51	•					
T51	72 to 93	0	7	7.00	21	0.89	129	84		•	•			
		1	0	10.0	15	0.86	90	85	•	•	•			
		1	5	15.0	10	0.80	60	85	•	•	•			

1) If it is not possible to start up from a standstill with a driving worm gear, the worm gearbox is "self-locking at a standstill". The "self-locking at a standstill" function only becomes active for worm gearboxes if the lead angle is $< 5^\circ$. Shocks can override this self-locking function. Therefore, self-locking gearing cannot always be used to replace a brake or backstop.

Geared motors

Worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque	Ratio code order no.		Ratio	Lead angle of the worm approx. ¹⁾	Efficiency	Output speed	Max. torque	Motor frame size										
		11th	12th						<i>i</i>	γ_m °	η	n_2 rpm	M_2 Nm	63	71	80	90		
	Nm		position																
T51	72 to 93	2	0	20.0	8.5	0.77	45	85	•	•	•								
		2	5	25.0	6	0.69	36	85	•	•	•								
		3	0	30.0	5	0.66	30	86	•	•	•								
		4	0	40.0	4.5	0.63	23	90	•	•									
		5	0	50.0	3.5	0.59	18	90	•	•									
		6	0	60.0	3	0.57	15	93	•	•									
		8	0	80.0	2.5	0.51	11	93	•										
		0	0	100	2	0.43	9	72	•										
T61	134 to 185	0	7	7.00	24	0.91	129	170		•	•	•							
		1	0	10.0	18	0.88	90	175		•	•	•							
		1	5	15.0	12	0.83	60	175		•	•	•							
		2	0	20.0	10	0.81	45	175		•	•	•							
		2	5	25.0	7	0.73	36	175		•	•	•							
		3	0	30.0	6	0.71	30	176		•	•								
		4	0	40.0	5	0.68	23	181		•	•								
		5	0	50.0	4.5	0.65	18	183		•	•								
		6	0	60.0	4	0.63	15	185		•	•								
		8	0	80.0	3	0.57	11	184		•									
		0	0	100	2.5	0.49	9	134		•									
8-pole motor, 50 Hz (with service factor $f_B = 1$ and an ambient temperature of 20 °C)																			
T31	51 to 64	0	7	7.00	23	0.89	71	58		•									
		1	0	10.0	17	0.85	50	61		•									
		1	5	15.0	11	0.80	33	62		•									
		2	0	20.0	9.5	0.78	25	62		•									
		2	5	25.0	6.5	0.69	20	62		•									
		3	0	30.0	5.5	0.67	17	63		•									
		4	0	40.0	4.5	0.63	13	64		•									
		5	0	50.0	4	0.59	10	59											
		6	0	60.0	3.5	0.55	8.3	51											
T51	72 to 116	0	7	7.00	21	0.88	71	107		•	•								
		1	0	10.0	15	0.84	50	109		•	•								
		1	5	15.0	10	0.78	33	109		•	•								
		2	0	20.0	8.5	0.75	25	109		•	•								
		2	5	25.0	6	0.66	20	109		•	•								
		3	0	30.0	5	0.64	17	110		•	•								
		4	0	40.0	4.5	0.60	13	113		•									
		5	0	50.0	3.5	0.56	10	115		•									
		6	0	60.0	3	0.54	8.3	116		•									
		8	0	80.0	2.5	0.46	6.3	93		•									
		0	0	100	2	0.38	5	72											
T61	134 to 231	0	7	7.00	24	0.89	71	205			•	•							
		1	0	10.0	18	0.86	50	212		•	•	•							
		1	5	15.0	12	0.81	33	212		•	•	•							
		2	0	20.0	10	0.79	25	212		•	•	•							
		2	5	25.0	7	0.70	20	212		•	•	•							
		3	0	30.0	6	0.68	17	216		•	•	•							
		4	0	40.0	5	0.64	13	220		•	•								

1) If it is not possible to start up from a standstill with a driving worm gear, the worm gearbox is "self-locking at a standstill". The "self-locking at a standstill" function only becomes active for worm gearboxes if the lead angle is $< 5^\circ$. Shocks can override this self-locking function. Therefore, self-locking gearing cannot always be used to replace a brake or backstop.

Geared motors

Worm geared motors

Selection and ordering

Gearbox size	Max. gearbox torque Nm	Ratio code order no.	Ratio	Lead angle of the worm approx. ¹⁾	Efficiency	Output speed	Max. torque	Motor frame size			
		11th 12th position	i	γ_m °	η	n_2 rpm	M_2 Nm	63	71	80	90
T61	134 to 231	5 0	50.0	4.5	0.62	10	224		•	•	
		6 0	60.0	4	0.60	8.3	231		•	•	
		8 0	80.0	3	0.52	6.3	185		•	•	
		0 0	100	2.5	0.44	5	134		•		

1) If it is not possible to start up from a standstill with a driving worm gear, the worm gearbox is "self-locking at a standstill". The "self-locking at a standstill" function only becomes active for worm gearboxes if the lead angle is $< 5^\circ$. Shocks can override this self-locking function. Therefore, self-locking gearing cannot always be used to replace a brake or backstop.

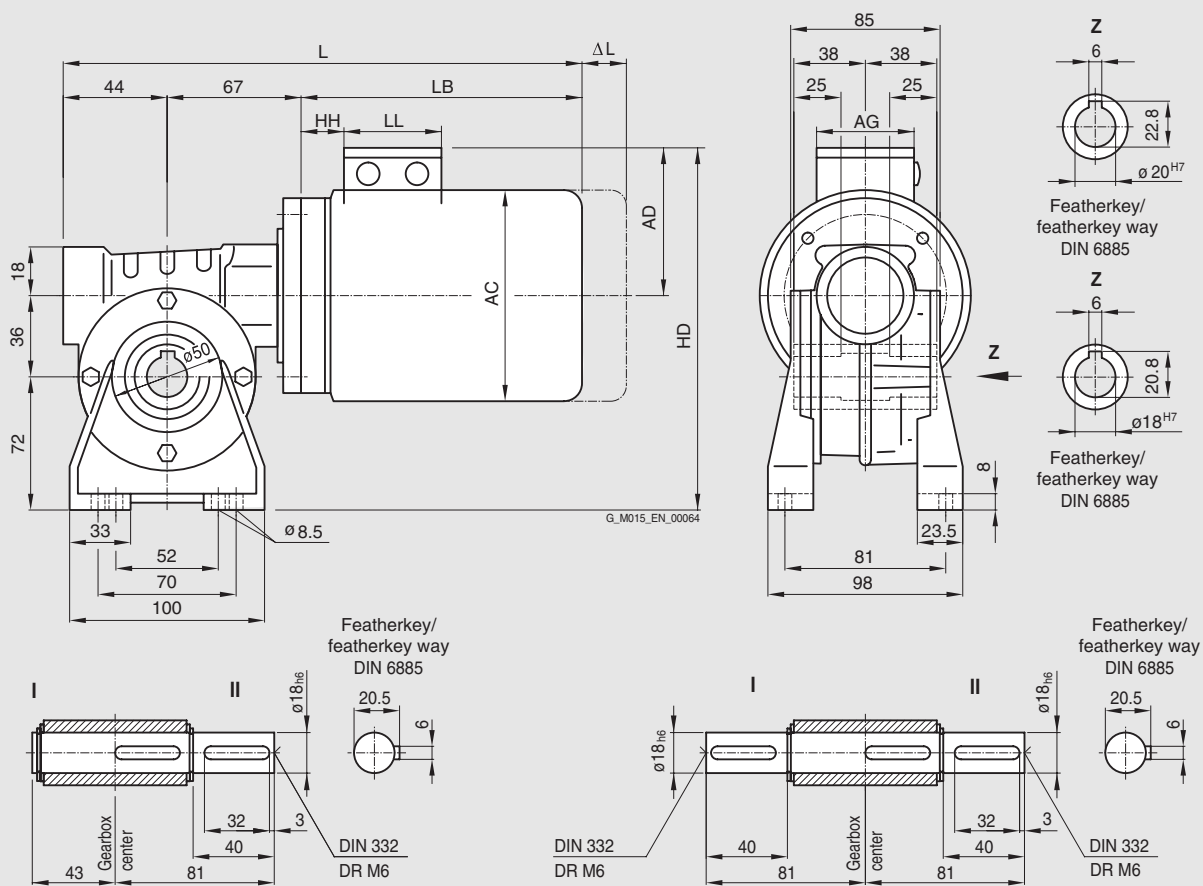
Worm geared motors

Dimensions

T31 gearbox (single-stage), foot-mounted type (0, 5 or 7 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	209	33	291	180	74
71	C or D	145	111	74	219	27	321	210	74

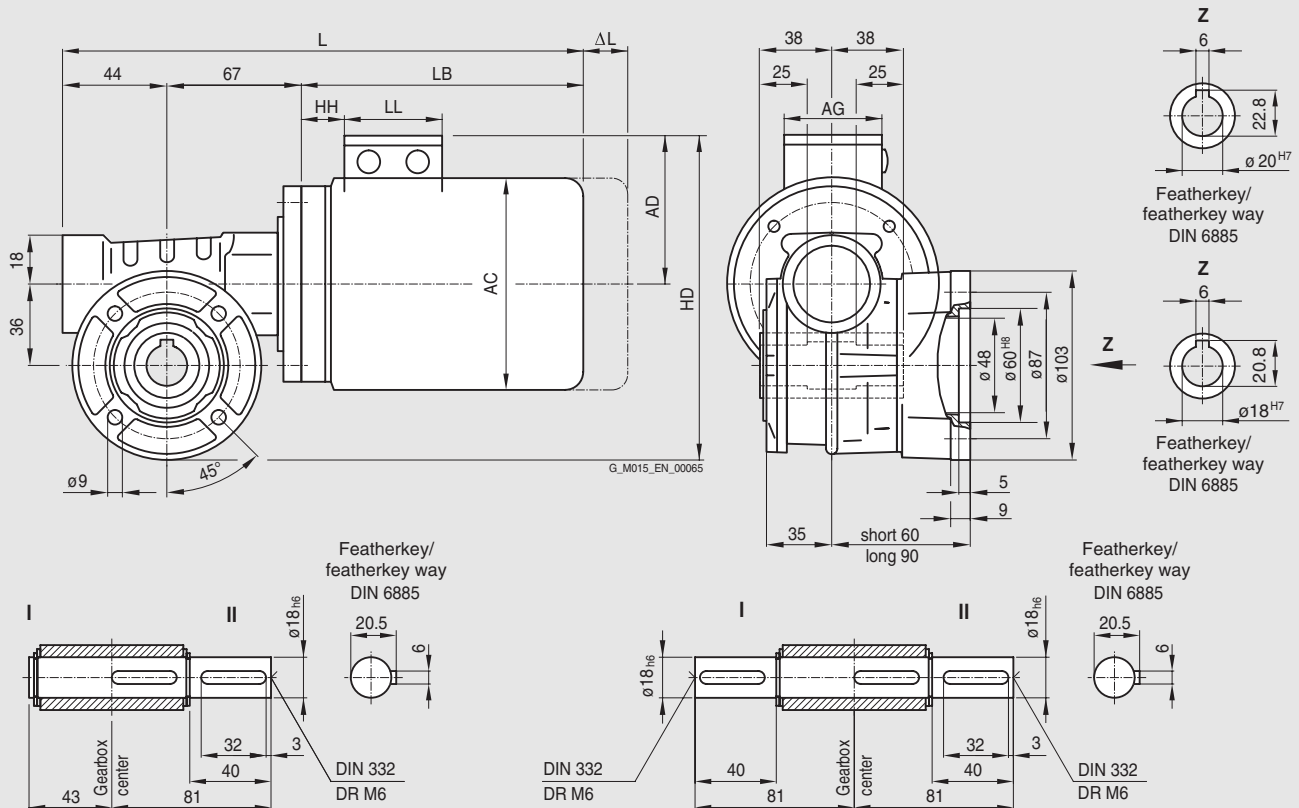
ΔL see Section 8, "Dimensions of built-on accessories".



T31 gearbox (single-stage), flange-mounted type B5 (1, 6 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	189	33	291	180	74
71	C or D	145	111	74	199	27	321	210	74

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

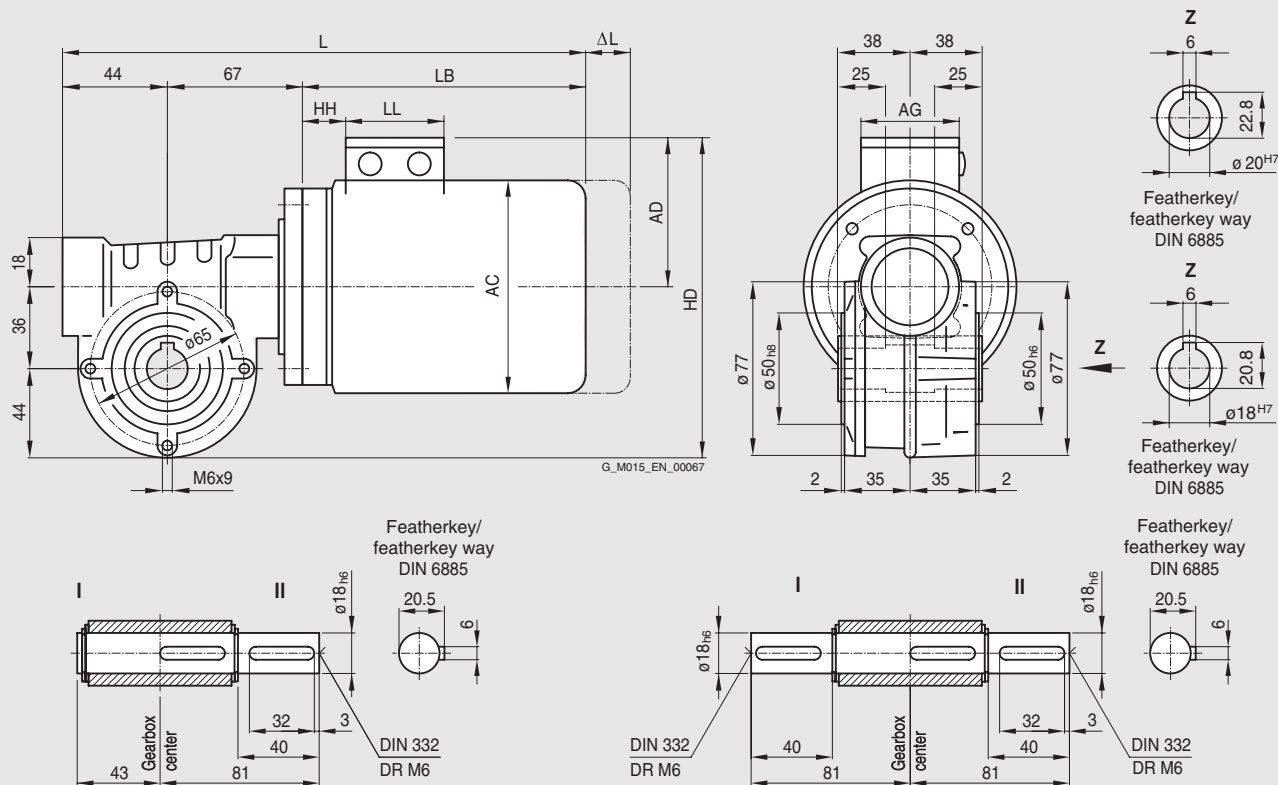
Worm geared motors

Dimensions

T31 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	181	33	291	180	74
71	C or D	145	111	74	191	27	321	210	74

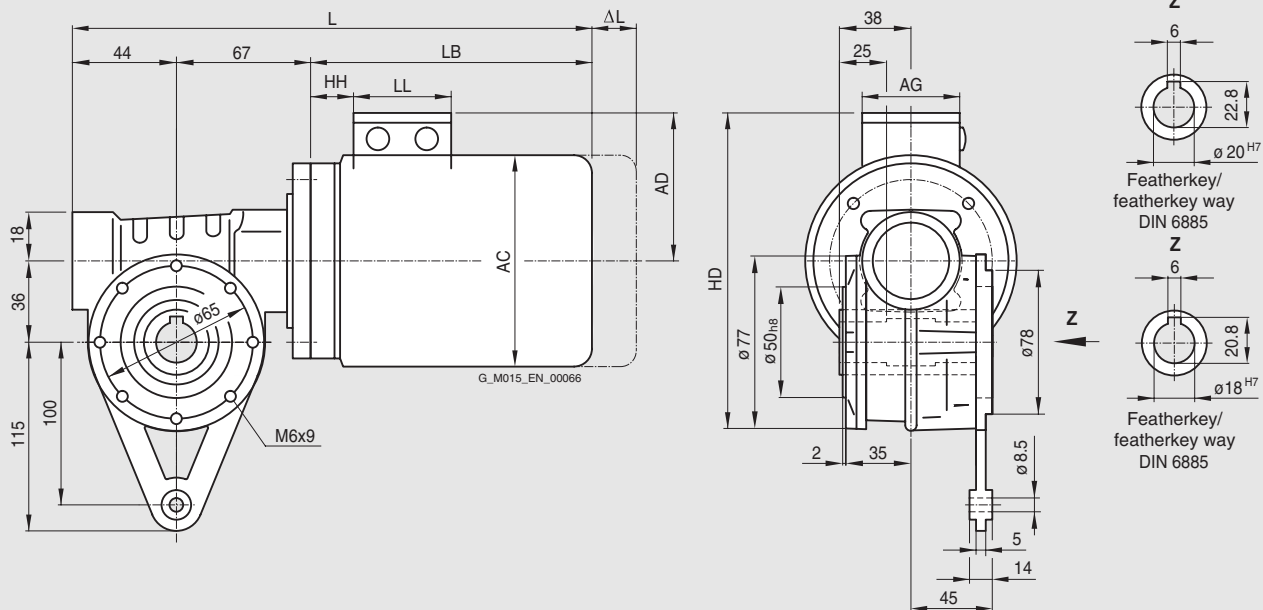
ΔL see Section 8, "Dimensions of built-on accessories".



T31 gearbox (single-stage) with torque arm, for mounting positions see page 7/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	176	33	291	180	74
71	C or D	145	111	74	186	27	321	210	74

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

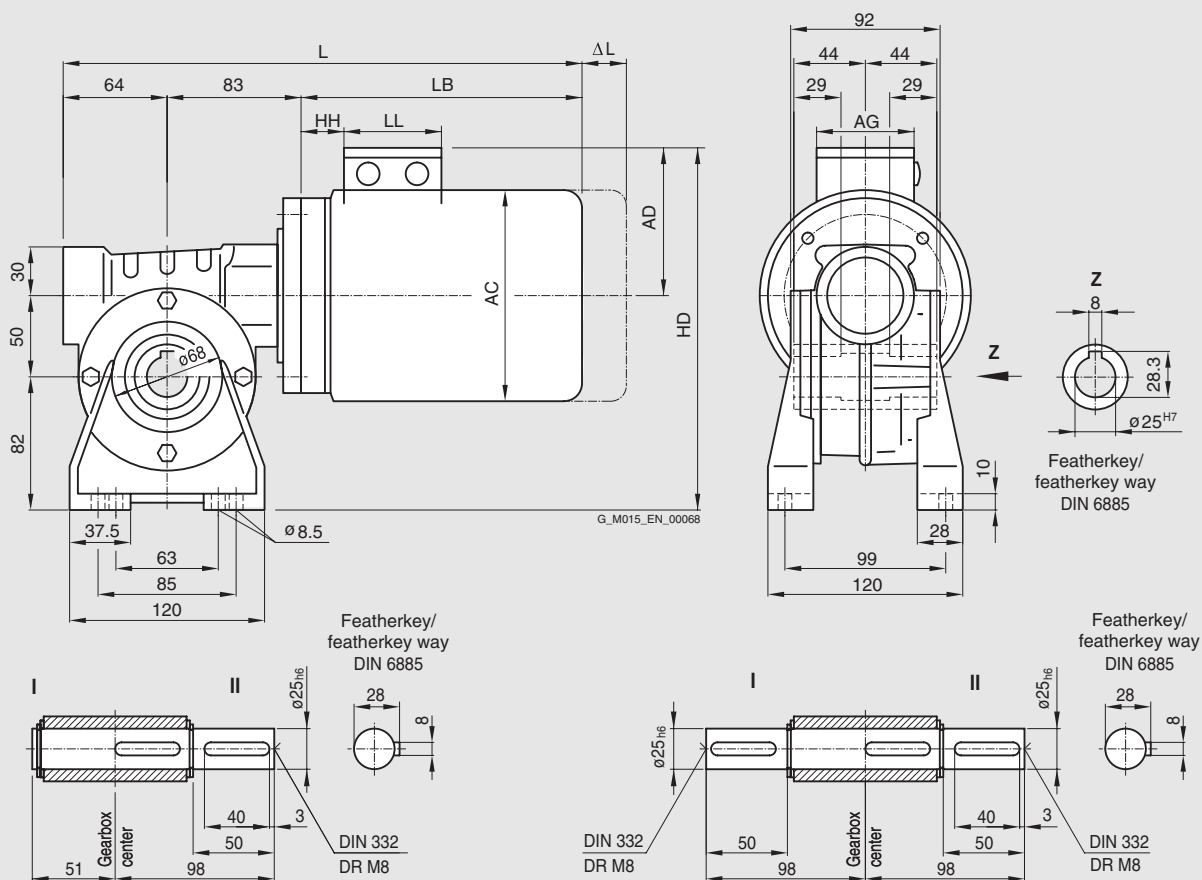
Worm geared motors

Dimensions

T51 gearbox (single-stage), foot-mounted type (0, 5 or 7 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	233	33	327	180	74
71	C or D	145	111	74	243	27	357	210	74
80	E or F	163	120	75	252	26	381	234	75

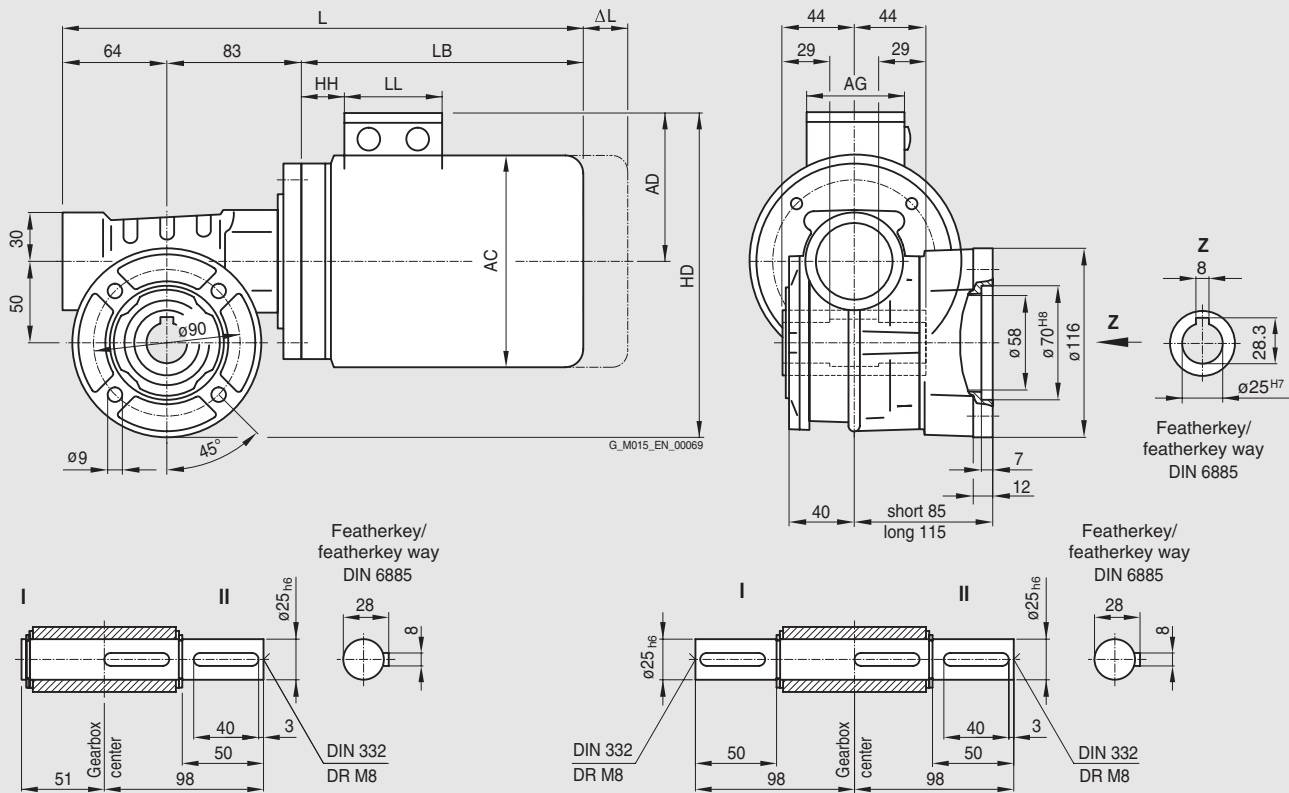
ΔL see Section 8, "Dimensions of built-on accessories".



T51 gearbox (single-stage), flange-mounted type B5 (1, 6 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	209	33	327	180	74
71	C or D	145	111	74	219	27	357	210	74
80	E or F	163	120	75	228	26	381	234	75

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

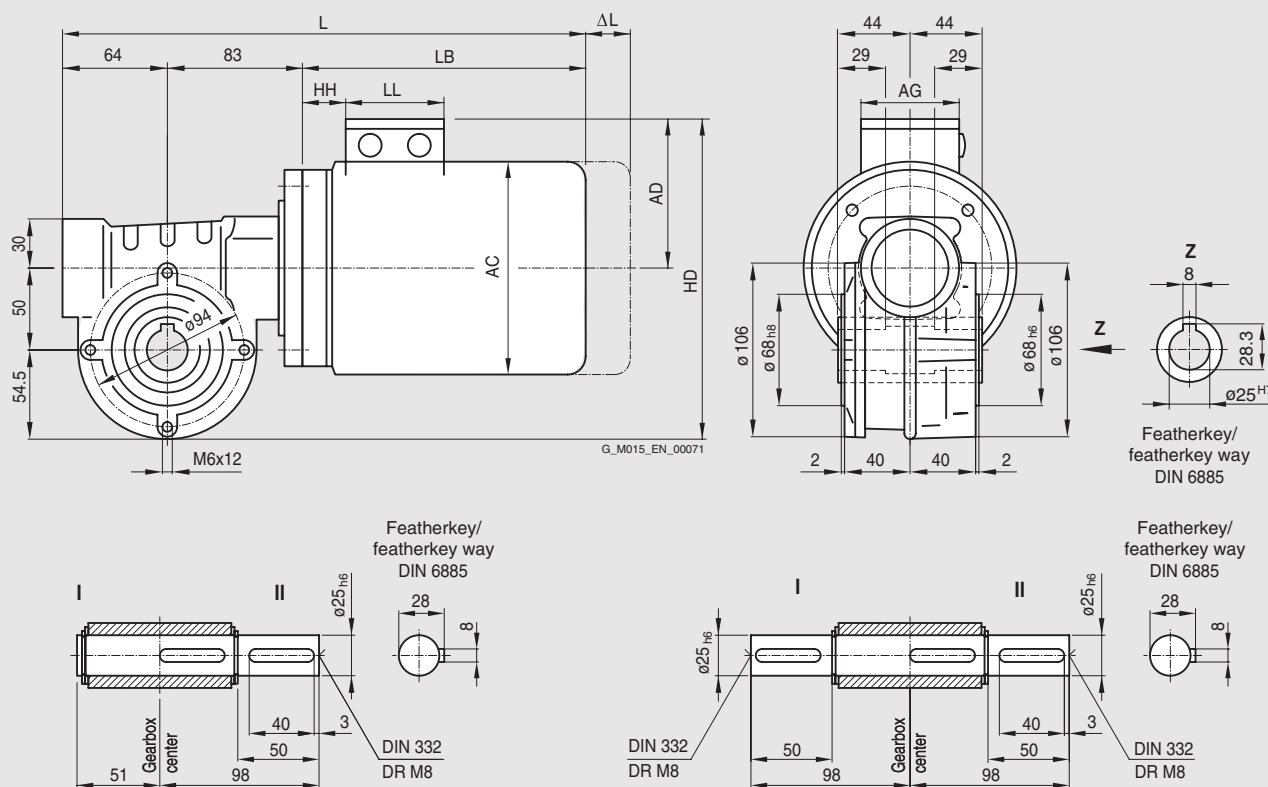
Worm geared motors

Dimensions

T51 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	206	33	327	180	74
71	C or D	145	111	74	216	27	357	210	74
80	E or F	163	120	75	225	26	381	234	75

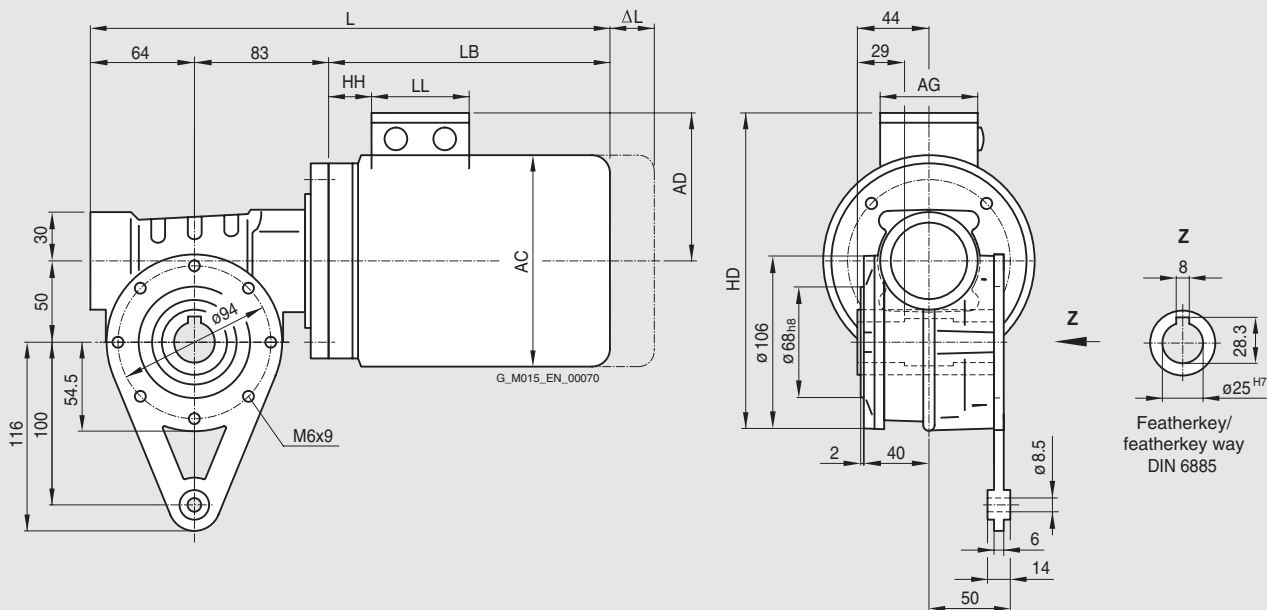
ΔL see Section 8, "Dimensions of built-on accessories".



T51 gearbox (single-stage) with torque arm, for mounting positions see page 7/5 (2 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
63	A or B	124	101	74	206	33	327	180	74
71	C or D	145	111	74	216	27	357	210	74
80	E or F	163	120	75	225	26	381	234	75

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

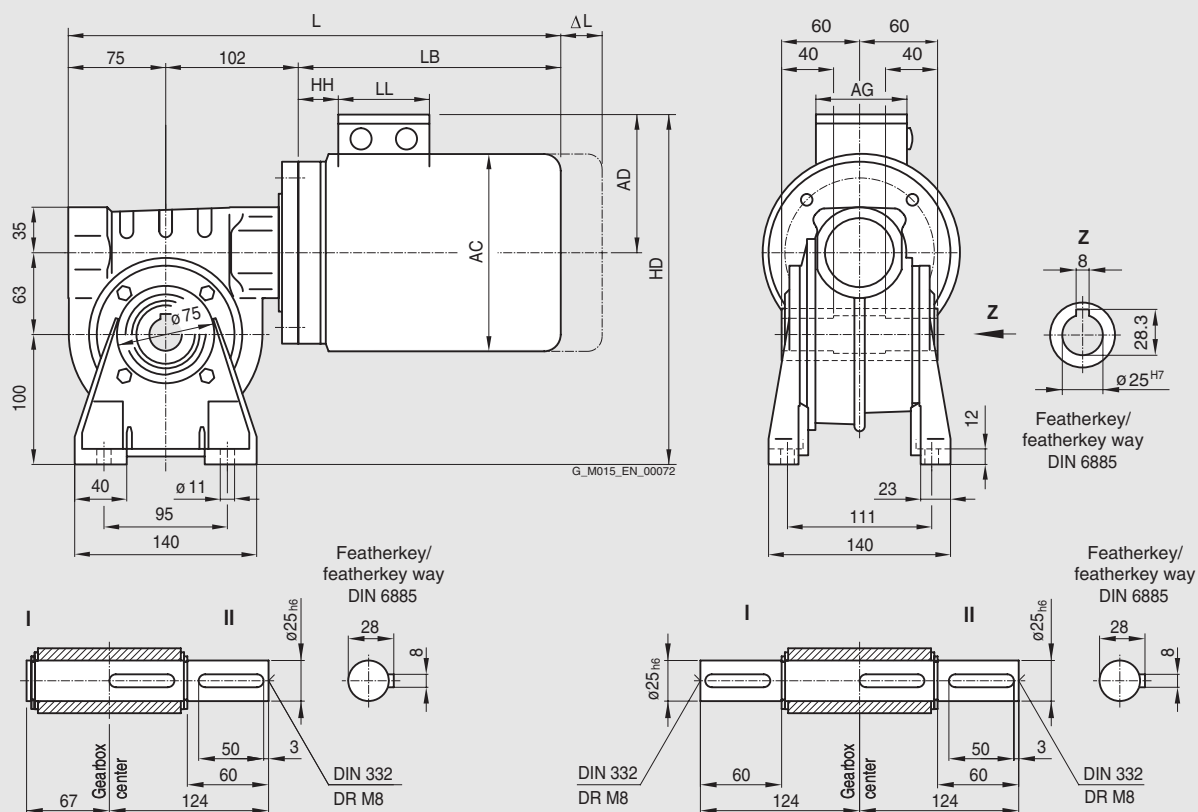
Worm geared motors

Dimensions

T61 gearbox (single-stage), foot-mounted type (0, 5 or 7 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
71	C or D	145	111	74	274	27	387	210	74
80	E or F	163	120	75	283	26	411	234	75
90	G or H	180	128	75	291	42	458	281	75

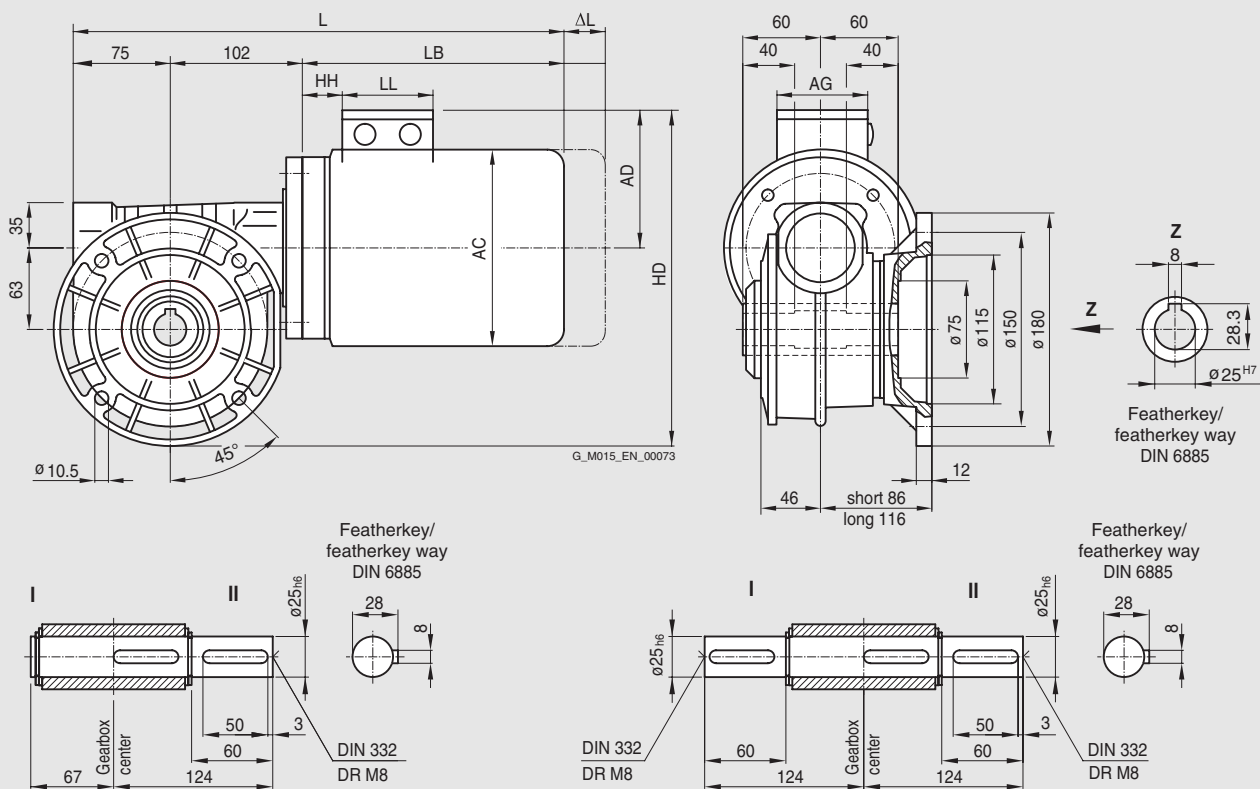
ΔL see Section 8, "Dimensions of built-on accessories".



T61 gearbox (single-stage), flange-mounted type B5 (1, 6 or 9 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
71	C or D	145	111	74	264	27	387	210	74
80	E or F	163	120	75	273	26	411	234	75
90	G or H	180	128	75	281	42	458	281	75

ΔL see Section 8, "Dimensions of built-on accessories".



Geared motors

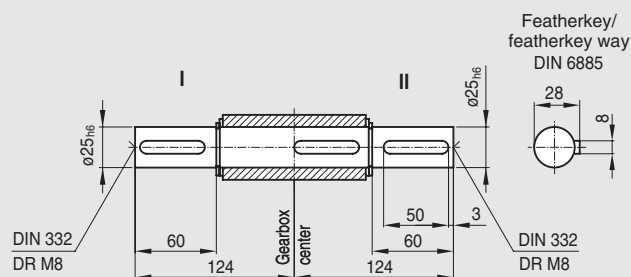
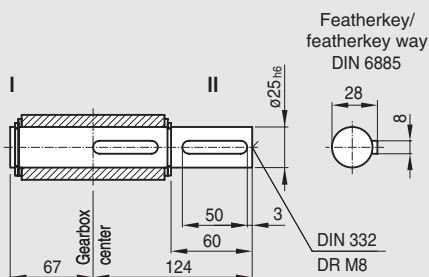
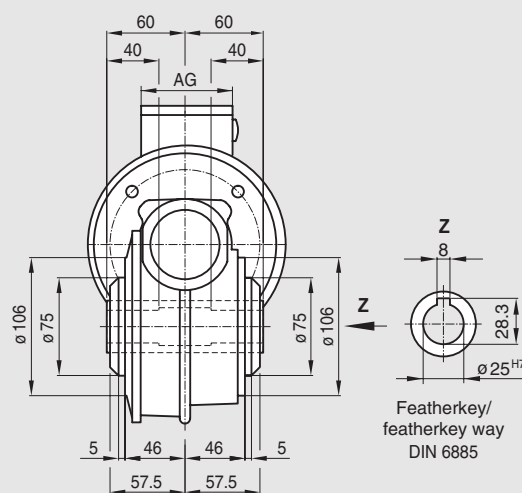
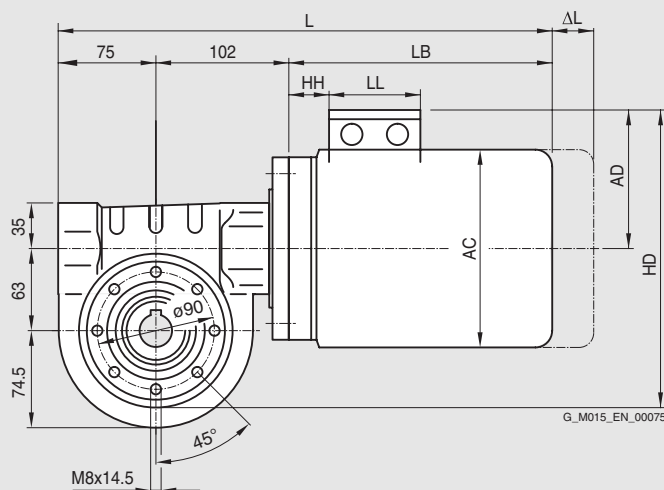
Worm geared motors

Dimensions

T61 gearbox (single-stage), flange-mounted type B14 (3 in the 8th position of the order no.)

Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
71	C or D	145	111	74	249	27	387	210	74
80	E or F	163	120	75	258	26	411	234	75
90	G or H	180	128	75	266	42	458	281	75

ΔL see Section 8, "Dimensions of built-on accessories".



Shaft height of the motor	10th position of the order number for geared motors	AC	AD	AG	HD	HH	L	LB	LL
71	C or D	145	111	74	249	27	387	210	74
80	E or F	163	120	75	258	26	411	234	75
90	G or H	180	128	75	266	42	458	281	75

Technical drawing of a mechanical component, showing front and side views with dimensions.

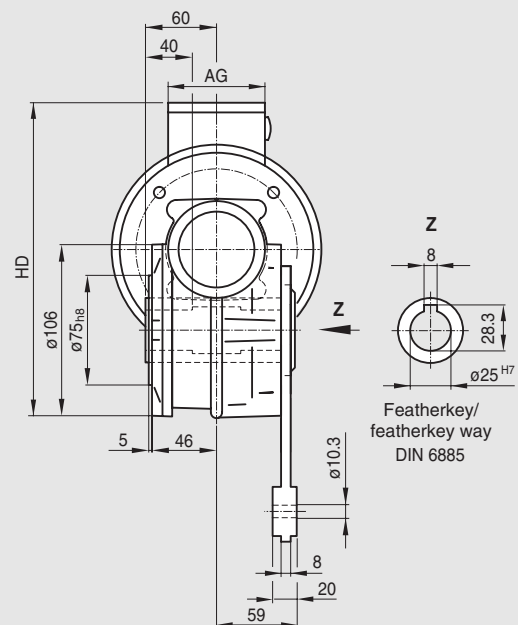
Front View Dimensions:

- Overall width: 175
- Overall height: 150
- Top flange width: 75
- Top flange height: 35
- Mounting hole diameter: $\varnothing 90$
- Mounting hole pitch circle diameter: 102
- Mounting hole diameter: M8x14.5
- Bottom flange width: 74.5

Side View Dimensions:

- Overall length: L
- Top flange length: 102
- Top flange height: HH
- Top flange width: LL
- Top flange thickness: LB
- Top flange height: AC
- Top flange width: AD

Reference: G_M015_EN_00074



Geared motors

Worm geared motors

Notes

7

Technical explanations and options for motors

8



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Standards and regulations

Both motors with and without brakes comply with relevant standards and regulations, in particular those listed below:

Title	DIN EN	IEC
General specifications, rotating electrical machines	DIN EN 60034-1	IEC 60034-1, IEC 60085
Degrees of protection for rotating electrical machines	DIN EN 60034-5	IEC 60034-5
Cooling methods, rotating electrical machines	DIN EN 60034-6	IEC 60034-6
Types of construction and installation	DIN EN 60034-7	IEC 60034-7
Terminal designations and direction of rotation, rotating electrical machines	DIN EN 60034-8	IEC 60034-8
Noise limit values, rotating electrical machines	DIN EN 60034-9	IEC 60034-9
Built-in thermal protection	–	IEC 60034-11
Restart characteristics, rotating electrical machines	DIN EN 60034-12	IEC 60034-12
Mechanical vibrations, rotating electrical machines	DIN EN 60034-14	IEC 60034-14
IEC standard voltages	DIN IEC 60038	IEC 60038
Entry to terminal box	DIN 42925	–

VIK design

The geared motors can be supplied in motor frame sizes of up to 160 L, according to the technical requirements of the VIK (Verband der Industriellen Energie-und Kraftwirtschaft e. V. - German association for industrial energy and power generation).
Order code **K30**

Compliance with standards

UL (Underwriters Laboratories Inc.) listing

2KG series motors up to 600 V are UL listed (recognition mark = R/C).
Order code **D31** (surcharge)
Marking on rating plate:



The motors can be operated with a frequency converter (either separate or built-on) at 50/60 Hz. Deviating frequency settings must be tested at final acceptance.

Necessary built-on or built-in components are listed by UL-R/C, CSA-C, US or are used by the manufacturers in accordance with relevant regulations. A decision may have to be made on whether or not the motor is suitable for use in the application in question.

This applies to built-on or built-in components such as:

- Motor protection
- Heating element
- Forced ventilation
- Brakes
- Encoders
- Plug-in connection

CSA – Canadian Standard Association

2KG series motors up to 690 V are approved by the CSA.
Order code **D40** – (surcharge)
Marking on rating plate:



Built-on or built-in components used are listed by CSA or are used by the manufacturers in accordance with regulations. A decision may have to be made on whether or not the motor is suitable for use in the application in question.

Special features for Canada - CSA Energy Efficiency Verification

Motors which comply with the CSA Energy Efficiency Verification program also bear the CSA-E marking on their rating plates.



These increased-efficiency motors must fulfill the efficiency regulations of the CSA C390-M1985 standard.

These motors are designed to work perfectly with the modular gearbox system and the associated options, and can be designed with or without brakes. The motors' performance range runs from 0.09 to 45 kW.

Brake motors are used if high-speed standstill of the driven machine is required.

The separately-triggered brake can be used to remotely release the brake with ease.

Degrees of protection

The geared motors are supplied with IP55 as standard. All motors can be supplied with IP56 or IP65, on request.

Brief explanation of degrees of protection:

IP55: Protection against damaging dust deposits and hose-water from all directions

IP56 (non-heavy sea):
Protection against damaging dust deposits and powerful hose-water from all directions
Order code **K52**

IP65: Complete protection against damaging dust deposits and hose-water from all directions
Order code **K50**

A detailed description of these degrees of protection is contained in EN 60529, along with test conditions. If the motors are operated or stored outdoors, a shielding or an additional cover is recommended, so as to avoid long-term damaging effects when exposed to direct, intensive sunlight, rain, snow, ice, or dust. Consultation/technical coordination with Siemens may be appropriate.

Increased air humidity

A design suitable for up to 100% air humidity can be ordered, if the motor will be exposed to extremely high air humidity. In this case, the motor winding is designed to humidity rating 2 and the fan cowl is painted internally. With brake motors, the end shield on the ventilation side is also painted externally. A friction plate or a chromium-plated flange is needed for this, and can only be ordered using order code **P10** or **P11**.

100% air humidity design order code **P65**
Available for worm gearboxes on request.

Protective cover

Vertical geared motors (air inlet at top) can also be provided with a protective cover.

This is particularly applicable if the IP65 degree of protection is used or if the drive is to be installed in the open air (e.g. IP55 W), whereby the motor must be protected from exposure to intense, prolonged sunlight. The protective cover prevents small parts from falling in to the motor; if the installation takes place in the open air, its primary function is as a rain shield.

Order code **K33**

Balance and vibration severity

The rotor is dynamically balanced.

Standard design motors comply with and fall below the DIN EN 60034-14 vibration severity grade N (normal). Vibration severity grade R (reduced) is available on payment of a surcharge. Order code **K01**

Noise

The motor noise values fall below the limit values (A-weighted sound power level) specified in EN 60034-9/05.96.

To prevent structure-borne noise vibrations being transferred from the motor case to the fan cowl, the fan cowl is mechanically isolated using a rubber buffer.

Reduced-noise fan cowl order code **P60**

Available for worm gearboxes on request.

Maximum speed

The motors can be operated in both directions of rotation with maximum speeds according to IEC 60034-1. However, with converter operation in particular, it must be ensured that the gearbox input speed does not exceed 3600 rpm.

Cooling and ventilation

Standard design motors have a radial-flow fan for surface cooling.

Ensure that cooling air has unobstructed access. The hot air may not be drawn-in again immediately.

Metal fan impeller

On payment of a surcharge, the standard plastic fan impeller can be replaced by one made of metal.

Order code **K35**

Bearings

The motors are equipped with sealed 2Z deep-groove ball bearings, with lifetime lubrication.

Connection, switching and terminal boxes

The motor winding ends are connected to a terminal board within the terminal box.

The number of winding ends depends on the winding design. AC motors are connected to the three external conductors (L1, L2, L3) of a three-phase system. In the operating connection, the rated motor voltage must agree with the external conductor voltages of the network.

If the three phases follow on from one another chronologically and are then connected to the motor terminals in alphabetical order U1, V1, W1, the rotation is clockwise, as seen from the motor shaft. The direction of rotation of the motor can be changed by swapping over two connecting leads.

A ground terminal is provided in the terminal box for grounding purposes. An external ground terminal can be provided on the motor case on request.

Order code **L13**

If a brake control system or thermal protection is present, the connections are also provided in the terminal box.

The motors are suitable for direct-on-line starting.

Geared motors

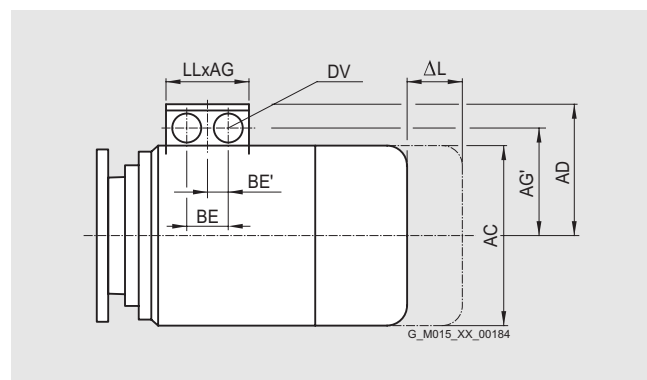
Technical explanations and options for motors

Mechanical design

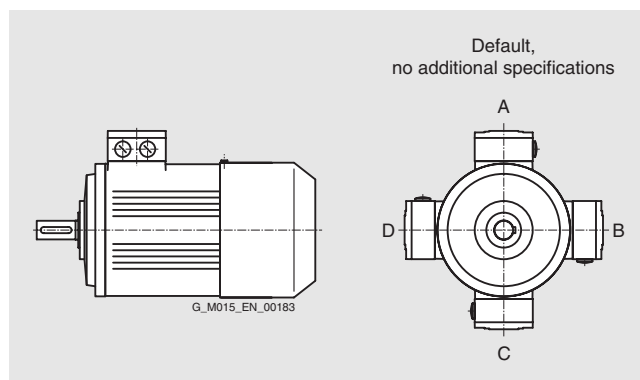
Terminal boxes

Frame size of motor	Terminal box type	Number of terminals	Thread for the terminal screw	Max. connectable conductor mm ²	Sealing range mm	Cable entry Size	Number of cable entries
63 71 80 90	gk 030 (gk 127)	6	M4	2.5	9 – 17 4.5 – 10	M25x15 M16x1.5	1 per hole with plug
100 112	gk 127	6	M4	4	11 – 21	M32x1.5	4 knockout openings sealed by a skin. 2 on left, 2 on right, terminal box is cast-on.
132	gk 230	6	M4	6	11 – 21	M32x1.5	
160	gk 330	6	M5	16	19 – 28	M40x1.5	
180	gk 330	6	M5	16	19 – 28	M40x1.5	2 holes with plug
200	gk 430	6	M6	25	27 – 35	M50x1.5	
225	gk 431	6	M8	35	27 – 35	M50x1.5	

(gk 127) With frame sizes 63-90, a larger terminal box is required if a brake is additionally installed. The specified values do not change.



Terminal box dimensions



Designation of terminal box position/connector case

Frame size of motor	Terminal box type	AC	AD	AG	AG'	BE	BE'	DV	LL
63*	gk030 (gk127)	124	101 (115)	74 (90)	78 (86)	32	18 (16)	M16x1.5 + M25x1.5	74 (90)
71	gk030 (gk127)	145	111 (125)	74 (90)	88 (96)	32	18 (16)	M16x1.5 + M25x1.5	74 (90)
80	gk030 (gk127)	163	120 (134)	75 (90)	97 (105)	32	18 (16)	M16x1.5 + M25x1.5	75 (90)
90	gk030 (gk127)	180	128 (142)	75 (90)	105 (113)	32	18 (16)	M16x1.5 + M25x1.5	75 (90)
100	gk130	203	135 [164]	120	78 [123]	42	21	2xM32x1.5	120
112	gk130	227	148 [177]	120	91 [136]	42	21	2xM32x1.5	120
132	gk230	267	167 [195]	140	107 [154.4]	42	21	2xM32x1.5	140
160	gk330	320	197 [227]	165	127 [183.4]	54	27	2xM40x1.5	165
180	gk330	363	258	152	216	54	27	2xM40x1.5	132
200	gk430	402	305	260	252	85	42.5	2xM50x1.5	192
225	gk431	402	305	260	252	85	42.5	2xM50x1.5	192

* For all gearbox types except worm gearboxes, size 71 is used for motor frame size 63. In such cases, the dimensions for frame size 63 are to be taken from frame size 71.

() Dimensions in round brackets apply when additionally installing a brake. If this is the case, a larger terminal box is needed for frame sizes 63 to 90, and the values are changed. No change occurs for frame sizes 100 to 225.

[] Dimensions in square brackets apply when rotating the terminal box for the K83 and K84 options. For an explanation of the options, see page 8/5.
Δ L For the dimensions of built-on accessories, see page 8/33.

Cable entry on the terminal box

With geared motors, the desired position of the terminal box can be selected with the aid of the diagrams in Sections 3 to 7.

If no further specifications are made, the cable entry remains in the default position, as shown in the diagram of the selected terminal box position below.

Terminal boxes can also be rotated in such a way that the cable entry lies in the gearbox direction (DS)

(order code **K83**)

or ventilation (VS) direction

(order code **K84**).

With the **K83** and **K84** options, frame size 100 to 160 motors require an additional terminal box top. This serves to raise the terminal box. The AD and HD dimensions increase by approximately 30 mm, the AG' dimension changes by approximately 45 to 47 mm, depending on the frame size. For the exact values of AD and AG', see the table on page 8/4.

If the cable entry is to be rotated by 180°, special measures are only required for motors with frame sizes 63 to 90 and 180 to 225 (without changing the dimensions).

Order code **K85**

With frame sizes 100 to 160, the knockout openings provided on the terminal box can be used.

The terminal box dimensions depend on the frame size and should be taken from the Table "Terminal box dimensions" on page 8/4.

If the position of the terminal box (right side, left side or below) is changed, the cable entry position must be checked and, if necessary, ordered using the appropriate order code (**K83**; **K84**; **K85**).

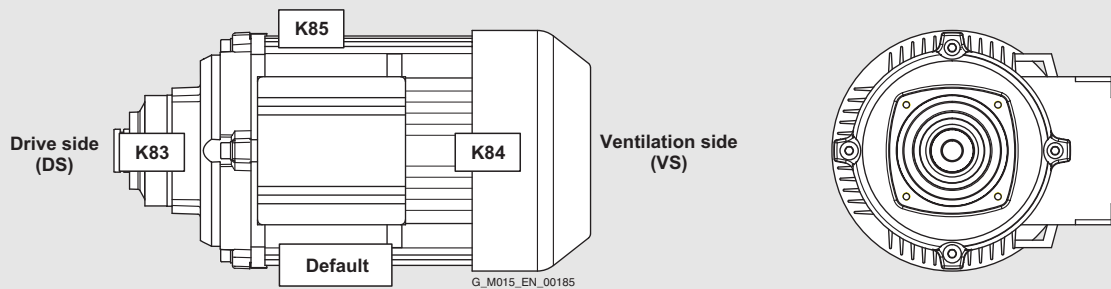
Order example

Terminal box in position B:

Without specification of an order code: Cable entry on underside of the geared motor

With order code **K85**:

Cable entry on top side of the geared motor



Example: picture with position B of the terminal box

Geared motors

Technical explanations and options for motors

Mechanical design

Inserting the ECOFAST motor connector

With geared motors, the desired position of the connector case can be selected with the aid of the diagrams in Sections 3 to 7. If no further specifications are made, the motor connector is inserted in the direction of the ventilation side, as shown in the diagram below.

The motor connector can also be rotated in such a way that it is inserted in the direction of the gearbox.

Order code **P83**

If the motor connector is rotated 90° counterclockwise, the insertion direction is on the left side (seen from the drive side).

Order code **P85**

If the motor connector is rotated 90° clockwise, the insertion direction is on the right side (seen from the drive side).

Order code **P86**

The ECOFAST motor connector dimensions depend on the motor frame size and are available on request.

If the position of the ECOFAST motor connector (right side, left side or below) is changed, the connector insertion direction must be checked and, if necessary, ordered using the appropriate order code (**P83**; **P85**; **P86**).

Checks are particularly necessary with order code **P83** (for collision with gearbox) and if a brake with a manual release lever is used (for collision between motor connector and manual release lever).

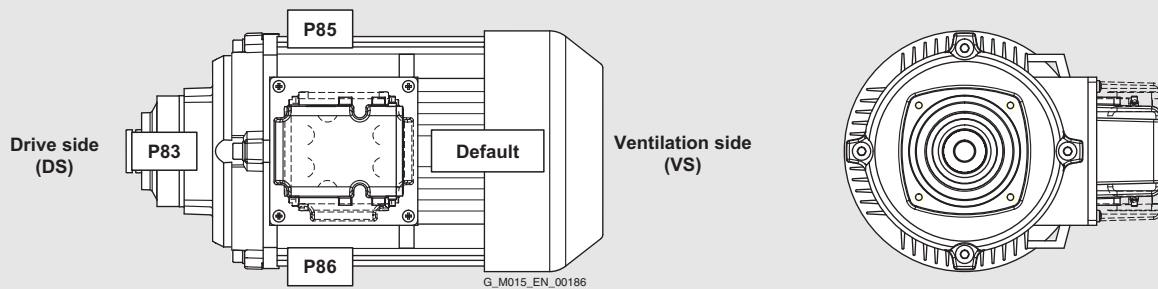
Order example

Connector case in position B:

ECOFAST motor connector on right side (from direction of drive side)

With order code **P86**:

Insertion direction from underside of the geared motor



Example: picture with position B of the connector case

Manual release lever

Brakes can be equipped or retrofitted with a manual release lever, enabling transient manual release of the brakes in an idle state. Manual release is used in applications in which the brake must be released in an idle state, e.g. to move an output shaft to a certain position if the geared motor has a rigid coupling, or as an emergency release in the event of a power failure. Manual release can be used with motors of frame size 63 to 225. Order code **K82**

The brake must always be mounted in the factory for safety reasons.

The manual release lever position must be considered when facing the motor's gearbox side (drive side).

The manual release lever's default position is at the top (as with terminal box position A).

The brakes can also be built-on in such a way that the manual release lever on the motor is rotated by $\pm 90^\circ$ or 180° .

This is used if the manual release lever has to be moved for reasons of accessibility or as a result of interference contours.

The following options are possible:

Manual release lever to left of motor (as with terminal box position D)

Order code **P08**

Manual release lever to right of motor (as with terminal box position B)

Order code **P09**

Manual release lever below motor (as with terminal box position C)

Order code **P07**

If the manual release lever is rotated, the position of the terminal box/motor connector must be checked, particularly if interference contours have occurred, as options P07, P08 and P09 do not effect any change to the position of the terminal box or motor connector.

The terminal box/motor connector position must be considered separately when facing the motor's gearbox side. If the position of the terminal box/motor connector is changed, the position of the cable entry/insertion direction must be checked and, if necessary, ordered with the appropriate order code. See page 8/6.

A locking mechanism is used to hold down the manual release lever when manually releasing the brake in an idle state.

The geared motor may only be restarted once the manual release lever's locking mechanism has been released.

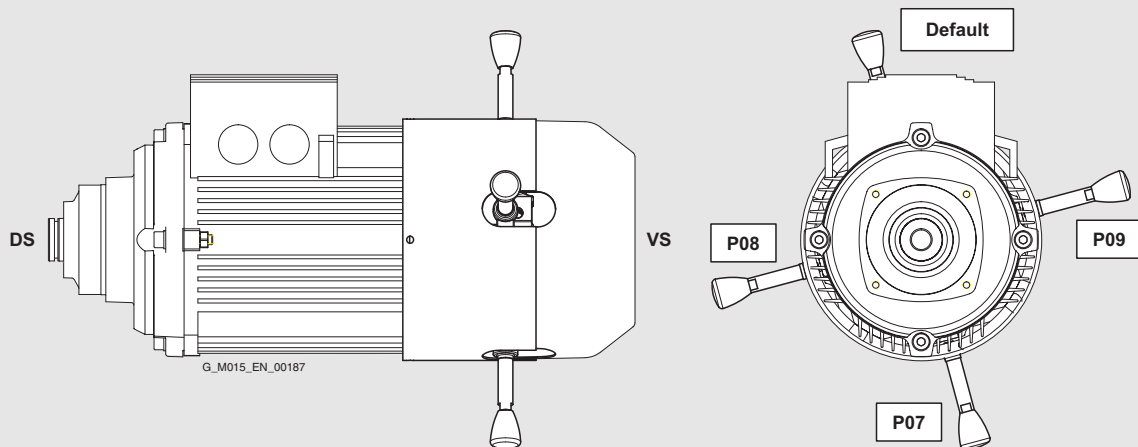
Therefore, a locking mechanism may not be used for the manual release lever without electronic monitoring. For safety reasons, this function is only available in conjunction with the **P18** option.

If another safety system is used by the system operator to protect against faulty operation (operation with a released brake), this option can be omitted. It is possible to retrofit the locking mechanism for the manual release lever. The locking mechanism can only be used in conjunction with the manual release lever. Order code **P17**

The manual release lever dimensions depend on the frame size, see the table on page 8/8.

If an ECOFAST motor connector/motor starter/converter is used in conjunction with a manual release lever, the position of these components must be checked to ensure collisions do not occur. If problems occur or you have any questions, please contact Siemens.

Position of the manual release lever



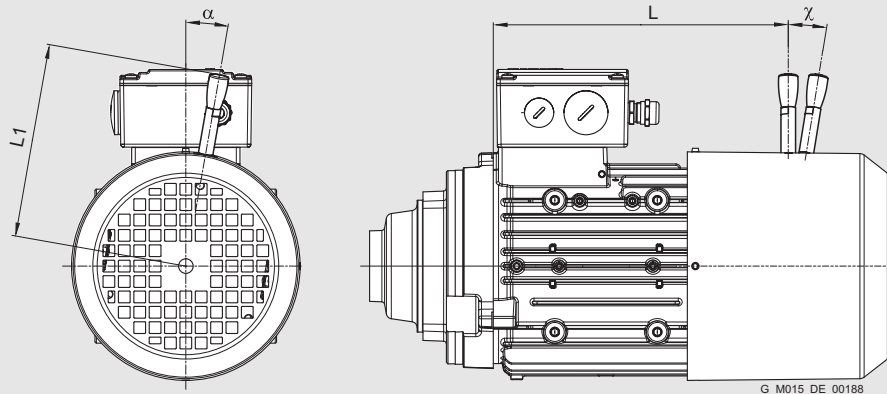
Geared motors

Technical explanations and options for motors

Mechanical design

Manual release lever dimensions

Size	G21/P01/P03 option					P00/P02/P04 option				
	Brake	Distance from DS centering flange case to manual lever	Distance from motor axis to manual lever	Angle to manual release lever	Manual release lever angle when brake is released	Brake	Distance from DS centering flange case to manual lever	Distance from motor axis to manual lever	Angle to manual release lever	Manual release lever angle when brake is released
		L	L1	α	χ		L	L1	α	χ
63 (A / B)	06E	136.3	109.2	10°	12°					
71 (C / D)	08E	170.3	118	10°	10°	06E	169.8	109.2	10°	12°
80 (E / F)	10E	201.4	134	10°	9°	08E	190.3	118	10°	10°
90 (G / H)	12E	224.9	163.5	10°	10°	10E	222.9	134	10°	9°
100 (J / K)	14E	263	195.5	15°	9°	12E	259.4	163.5	10°	10°
112 (L)	16E	283.5	240	15°	10°	14E	279	195.5	10°	9°
132 (M / N / P)	18E	301.1	279	15°	9°	16E	297.5	240	10°	10°
160 (Q / R / S)	20E	392.1	418	10°	10°	18E	385.6	279	10°	9°
180 (T / U)		468.6		0°		20E	468.6	418	0°	10°
200 (V / W)	25E	541.7	504	0°	10°	25E	541.7	504	0°	10°
225 (X / Y)										



For an explanation of the G21/P00/P01/P02/P03/P04 options, see page 8/14 onwards.

Electrical design

Insulation

The DURIGNIT[®] IR 2000 insulation system comprises high-grade enameled wires and insulating sheet materials combined with solvent-free impregnating resin. This guarantees a high mechanical and electrical strength, high quality and a long motor lifetime. The insulation offers general protection for the windings against corrosive gases, vapors, dust, oil and increased humidity, and resists the normal stresses of vibration. The motor insulation is tropics-proof. Please inquire about extreme applications.

All motors are designed for class F. Utilization of motors for rated output and mains-fed operation for class B.

Non-standard voltages and/or frequencies

The motors are listed in the selection tables for 230 VΔ /400 VY, 500 VY or 400 VΔ /690 VY with a voltage tolerance of ±10% at a frequency of 50 Hz. Other voltages must be ordered using the voltage code number 9 in the 16th position of the order code. Please inquire about other, more extreme designs. The tolerance laid down by DIN EN 60034-1 applies to all non-standard voltages.

Standard winding:

Order code **R8Y**

Non-standard winding (between 200 V and 690 V)

Order code **R1Y**

Plain text must be specified when ordering (**R8Y**, **R1Y**):

voltage, frequency, connection, and required rated output in kW.

Power and tolerances

The rated output refers to continuous operation according to DIN EN 60034-1 at a frequency of 50 Hz, a coolant temperature (CT) of 40 °C and a site altitude of up to 1000 m above sea level (SA).

The 4-pole motors correspond to the "improved efficiency" efficiency class **EFF2**.

The following tolerances are permissible for rated data according to EN 60034-1 (IEC 34-1):

Efficiency at

$P_{\text{rated}} \leq 50 \text{ kW}$ -0.15 (1- η)

Power factor -(1-cos φ)/6

Minimum

Maximum

0.02

0.07

Slip ±20% ¹⁾

Locked-rotor current +20%

Locked-rotor torque -15% to +25%

Stalling torque -10%

Moment of inertia ±10%

All motors are intended to withstand 1.5 times the rated current for up to 2 minutes at rated voltage and frequency (DIN EN 60034).

Ambient temperature

All standard-design motors can be used at ambient temperatures of -20 °C to +40 °C. Using them at up to +60 °C results in power reduction. Special design measures are necessary for other ambient temperatures. Inquiry is necessary if brakes are needed for subzero temperatures.

1) Permissible for motors < 1 kW ±30%.

Voltage at 50 Hz	Required output at 50 Hz	Order code for 50 Hz
220 V/380 VY	–	R1R
380 V/660 VY	–	R1L
415 VY	–	R1C
415 VΔ	–	R1D
60 Hz	60 Hz	60 Hz
220 V/380 VY	50 Hz output	R2A
220 V/380 VY	60 Hz output	R2B
380 V/660 VY	50 Hz output	R2C
380 V/660 VY	60 Hz output	R2D
440 VY	50 Hz output	R2Q
440 VY	60 Hz output	R2W
440 VΔ	50 Hz output	R2R
440 VΔ	60 Hz output	R2X
460 VY	50 Hz output	R2S
460 VY	60 Hz output	R2E
460 VΔ	50 Hz output	R2T
460 VΔ	60 Hz output	R2F
575 VY	50 Hz output	R2U
575 VY	60 Hz output	R2L
575 VΔ	50 Hz output	R2V
575 VΔ	60 Hz output	R2M
87 Hz	87 Hz	87 Hz
400 VΔ	87 Hz output	R3A

Rated currents in rated voltage range 380 V to 420 V

Frame size ²⁾	Currents at voltage							
	380 V 2-pole A	420 V A	380 V 4-pole A	420 V A	380 V 6-pole A	420 V A	380 V 8-pole A	420 V A
A	0.52	0.53	0.42	0.44	–	–	–	–
B	0.68	0.70	0.56	0.57	0.48	0.5	–	–
C	1.05	1.02	0.80	0.77	0.66	0.64	0.36	0.36
D	1.38	1.41	1.07	1.06	0.80	0.80	0.51	0.52
E	1.75	1.79	1.50	1.50	1.18	1.25	0.73	0.80
F	2.45	2.50	1.90	1.92	1.62	1.66	1.01	1.10
G	3.40	3.35	2.60	2.60	2.10	2.15	1.15	1.18
H	4.70	4.65	3.50	3.50	3.0	2.95	1.63	1.60
J	6.25	6.15	4.8	4.8	4.0	4.1	2.25	2.2
K	–	–	6.5	6.8	–	–	3.0	3.0
L	8.2	7.7	8.4	8.3	5.4	5.3	4.1	4.2
M	10.6	10.4	11.4	11.9	7.3	7.5	5.9	6.0
N	14.1	13.8	–	–	–	–	–	–
O	–	–	15.4	15.5	9.5	9.7	7.9	7.9
P	–	–	–	–	13.0	13.1	–	–
Q	21.0	20.5	22.3	21.5	17.5	17.3	9.9	10.6
R	28.0	26.0	–	–	–	–	13.1	13.4
S	34.0	32.0	29.5	28.5	24.8	24.7	17.6	18.4
T	40	38	36	35	–	–	–	–
U	–	–	42	41	32.7	31	26.5	23.5
V	55	52	–	–	37	24.5	–	–
W	67	64	57	54	46.5	45.5	34	31
X	–	–	69	64	–	–	40	37
Y	81	76	84	78	64	63	47	43

2) 10th position of the order number

Geared motors

Technical explanations and options for motors

Electrical design

Efficiency and power factor

The efficiency η and power factor $\cos \varphi$ values for each rated output are listed in the selection tables in the individual sections of this catalog.

The part-load values stated in the table opposite are averages; precise values can be provided on request.

- If the voltage deviates from its nominal value within the allowed limits, the locked-rotor torque, the pull-up torque and the breakdown torque vary with the approximate square of the value, while the locked-rotor current varies approximately linearly.

In the case of squirrel-cage motors, the locked-rotor torque and the breakdown torque are listed in the selection tables as multiples of the rated torque.

Part-load efficiency % at				
1/4 of the full load	1/2	3/4	4/4	5/4
93	96	97	97	96.5
92	95	96	96	95.5
90	93.5	95	95	94.5
89	92.5	94	94	93.5
88	91.5	93	93	92.5
87	91	92	92	91.5
86	90	91	91	90
85	89	90	90	89
84	88	89	89	88
80	87	88	88	87
79	86	87	87	86
78	85	86	86	85
76	84	85	85	83.5
74	83	84	84	82.5
72	82	83	83	81.5
70	81	82	82	80.5
68	80	81	81	79.5
66	79	80	80	78.5
64	77	79.5	79	77.5
62	75.5	78.5	78	76.5
60	74	77.5	77	75
58	73	76	76	74
56	72	75	75	73
55	71	74	74	72
54	70	73	73	71
53	68	72	72	70
52	67	71	71	69
51	66	70	70	68
50	65	69	69	67
49	64	67.5	68	66
48	62	66.5	67	65
47	61	65	66	64
46	60	64	65	63
45	59	63	64	62
44	57	62	63	61
43	56	60.5	62	60.5
42	55	59.5	61	59.5
41	54	58.5	60	58.5

Part-load power factor at				
1/4 of the full load	1/2	3/4	4/4	5/4
0.70	0.86	0.90	0.92	0.92
0.65	0.85	0.89	0.91	0.91
0.63	0.83	0.88	0.90	0.90
0.61	0.80	0.86	0.89	0.89
0.57	0.78	0.85	0.88	0.88
0.53	0.76	0.84	0.87	0.87
0.51	0.75	0.83	0.86	0.86
0.49	0.73	0.81	0.85	0.86
0.47	0.71	0.80	0.84	0.85
0.45	0.69	0.79	0.83	0.84
0.43	0.67	0.77	0.82	0.83
0.41	0.66	0.76	0.81	0.82
0.40	0.65	0.75	0.80	0.81
0.38	0.63	0.74	0.79	0.80
0.36	0.61	0.72	0.78	0.80
0.34	0.59	0.71	0.77	0.79
0.32	0.58	0.70	0.76	0.78
0.30	0.56	0.69	0.75	0.78
0.29	0.55	0.68	0.74	0.77
0.28	0.54	0.67	0.73	0.77
0.27	0.52	0.63	0.72	0.76
0.26	0.50	0.62	0.71	0.76

Switching frequency

The no-load operating frequency is specified in the lists as z_0 . This is the permissible number of starts per hour without a load or additional inertia. The number of possible starts, z , depends on the application and can be ascertained from Section 2. This does not apply to brake motors.

Operating mode

The values for continuous operation (S1) are specified in the motor data lists.

If other operating modes are established, the listed motor powers must be converted in accordance with Section 2.

Anti-condensation heating

Order code **K45**

Supply voltage 230 V

Order code **K46**

Supply voltage 115 V

Anti-condensation heaters can be fitted to motors, whose windings are exposed to a risk of condensation due to the ambient climate, e.g. stationary motors in a damp environment or motors subjected to considerable fluctuations in temperature.

An additional M16 x 1.5 or M20 x 1.5 cable entry is provided in the terminal box for the connecting lead.

The anti-condensation heater may not be switched on during operation.

Alternative option (without surcharge):

Connecting a voltage which is around 4% to 10% of the rated motor voltage, to the U1 and V1 primary terminals; 20% to 30% of the rated motor current will provide sufficient heating.

Frame size	Heat output (W) for order code K45 (230 V)/K46 (115 V)
63 to 80	25
90 to 112	50
132 to 200	100
225	78

Motor protection

A distinction is made between protective devices dependent on current and those dependent on the motor temperature.

Current-dependent protective devices

Fusible links

These are only used to protect power supply cables in case of short circuit. They are not suitable for protecting the motor from overload, but should always be provided in case of a short circuit.

Motor protection switches offer sufficient protection for normal operation with short startups and starting currents that are not too high, and for low switching frequencies. Motor protection switches are unsuitable for heavy starting and high switching frequencies. When setting the circuit-breaker to the rated current, differences between the thermal time constants of the protective device and of the motor lead to unnecessary early tripping.

Motor temperature-dependent protective devices

Thermal protectors built in to the motor winding are suitable protective devices if the motor temperature increases slowly. These thermal time-delay switches (normally closed contacts) can shut down an auxiliary circuit when a temperature limit is reached. The electric circuit cannot be reclosed until it has cooled down considerably. Due to their large thermal time constants, these switches are not suitable for motor currents, which increase rapidly (e.g. short circuit).

Order code **A31**

PTC thermistor detectors, which are built in to the motor winding, offer the most comprehensive protection against thermal overload of the motor. Their low thermal capacity and the internal thermal contact to the winding allow the winding temperature to be tracked accurately.

PTC thermistors change their resistance abruptly when a temperature limit is reached (rated operating temperature). This is evaluated by tripping units and can be used to open auxiliary circuits. The PTC thermistor detectors cannot be loaded with high currents or voltages. This would damage the semiconductor. At 1-3 K, the temperature tolerance of the switch is very low. This also makes it possible to rapidly restart the drive. Motors with this type of protection can be used for heavy starting, switchgear operation and on fluctuating supply systems.

3 PTC thermistors for shutting down

Order code **A11**

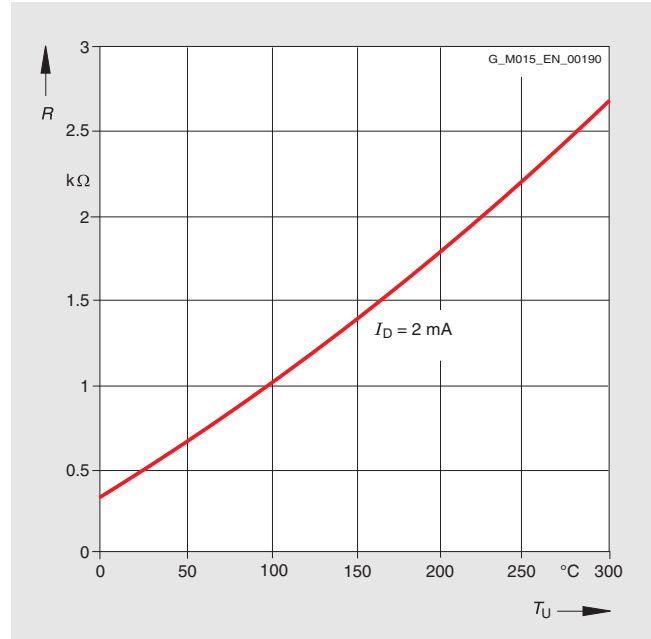
6 PTC thermistors for warning and shutting down

Order code **A12**

Detecting the motor temperature for converter operation

KTY 84-130 temperature sensor

This sensor is a PTC thermistor. Its resistance varies, depending on the temperature, in accordance with a defined curve.



Siemens converters calculate the motor temperature according to the resistance of the temperature sensor. They can be set to a user-definable temperature for alarms and tripping.

The temperature sensor is embedded in the motor winding overhang in the same way as a PTC thermistor.

The evaluation (see Catalog M 11) takes place, for example, in the converter.

Order code **A23**

Geared motors

Technical explanations and options for motors

Technical data

Rated output	Frame size	10th digit of the order number	Operating data at rated output					Locked-rotor torque	Locked-rotor current	Stalling torque	Torque class	No-load operating frequency ¹⁾	Moment of inertia
			Rated speed	Efficiency	Power factor cos φ	Rated current at 400 V	Rated torque						
			For direct-on-line starting as multiple of the rated torque										
kW			rpm	%		A	Nm					z_0 h ⁻¹	J kg m ²
1500 rpm, 4-pole, 50 Hz													
0.12	63 M	A	1350	55	0.75	0.42	0.85	1.9	2.8	2.0	13	20000	0.00029
0.18		B	1350	60	0.77	0.56	1.3	1.9	3.0	1.9	13	20000	0.00037
0.25 0.37	71 M	C D	1350 1370	60 65	0.78 0.78	0.77 1.06	1.8 2.6	1.9 1.9	3.0 3.3	1.9 2.1	13 13	15000 15000	0.00052 0.00077
0.55 0.75	80 M	E F	1395 1395	67 72	0.82 0.81	1.44 1.86	3.8 5.1	2.2 2.3	3.9 4.2	2.2 2.3	16 16	10000 10000	0.0014 0.0017
1.1 1.5	90 S 90 L	G H	1415 1420	77 79	0.81 0.81	2.55 3.4	7.4 10	2.3 2.4	4.6 5.3	2.4 2.6	16 16	8000 8000	0.0024 0.0033
2.2 3	100 L	J K	1420 1420	82 83	0.82 0.82	4.7 6.4	15 20	2.5 2.7	5.6 5.6	2.8 3.0	16 16	7000 7000	0.0047 0.0055
4	112 M	L	1440	85	0.83	8.2	27	2.7	6.0	3.0	16	5000	0.012
5.5 7.5	132 S 132 M	M N	1455 1455	86 87	0.81 0.82	11.4 15.2	36 49	2.5 2.7	6.3 6.7	3.1 3.2	16 16	3000 3000	0.018 0.023
11 15	160 M 160 L	Q S	1460 1460	88.5 90.0	0.84 0.84	21.5 28.5	72 98	2.2 2.6	6.2 6.5	2.7 3.0	16 16	2000 2000	0.043 0.055
18.5 22	180 M 180 L	T U	1460 1460	90.5 91.2	0.83 0.84	35.5 ²⁾ 41.5 ²⁾	121 144	2.3 2.3	7.5 7.5	3.0 3.0	16 16	1000 1000	0.13 0.15
30	200 L	W	1465	91.8	0.86	55	196	2.6	7.0	3.2	16	700	0.24
37 45	225 S 225 M	X Y	1470 1470	92.9 93.4	0.87 0.87	66 ²⁾ 80 ²⁾	240 292	2.8 2.8	7.0 7.7	3.2 3.3	16 16	600 600	0.32 0.36
1000 rpm, 6-pole, 50 Hz													
0.09	63 M	B	850	45	0.66	0.44	1.0	1.8	2.0	1.9	13	20000	0.00037
0.18 0.25	71 M	C D	850 860	53 61	0.73 0.76	0.67 0.79	2.0 2.8	2.1 2.2	2.3 2.7	1.9 2.0	16 16	15000 15000	0.00055 0.00080
0.37 0.55	80 M	E F	920 910	62 67	0.72 0.74	1.20 1.60	3.8 5.8	1.9 2.1	3.1 3.4	2.1 2.2	16 16	12000 12000	0.0014 0.0017
0.75 1.1	90 S 90 L	G H	915 915	69 72	0.76 0.77	2.05 2.85	7.8 11.0	2.2 2.3	3.7 3.8	2.2 2.3	16 16	10000 10000	0.0024 0.0033
1.5	100 L	J	925	74	0.75	3.9	15	2.3	4.0	2.3	16	9000	0.0047
2.2	112 M	L	940	78	0.78	5.2	22	2.2	4.6	2.5	16	8000	0.0091
3 4 5.5	132 S 132 M 132 M	M N P	950 950 950	79 80.5 83	0.76 0.76 0.76	7.2 9.4 12.8	30 40 55	1.9 2.1 2.3	4.2 4.5 5	2.2 2.4 2.6	16 16 16	6000 6000 5000	0.015 0.019 0.025
7.5 11	160 M 160 L	Q S	960 960	86.0 87.5	0.74 0.74	17.0 24.5	75 109	2.1 2.3	4.6 4.8	2.5 2.6	16 16	4000 4000	0.044 0.063
15	180 L	U	970	89.5	0.77	31.5	148	2.0	5.2	2.4	16	2000	0.15
18.5 22	200 L	V W	975 975	90.2 90.8	0.77 0.77	38.5 45.5	181 215	2.7 2.8	5.5 5.5	2.8 2.9	16 16	1500 1500	0.24 0.28
30	225 M	Y	978	91.8	0.77	61 ²⁾	293	2.8	5.7	2.9	16	1200	0.36

1) The no-load operating frequencies do not apply to brake motors.

2) For connection to 230 V, parallel supply cables are required.

Geared motors

Technical explanations and options for motors

Technical data

Rated output	Frame size	10th digit of the order number	Operating data at rated output					Locked-rotor torque	Locked-rotor current	Stalling torque	Torque class	No-load operating frequency ¹⁾	Moment of inertia
			Rated speed	Efficiency	Power factor cos φ	Rated current at 400 V	Rated torque	For direct-on-line starting as multiple of the rated torque					
			rpm	%		A	Nm				z_0 h ⁻¹	J kg m ²	
750 rpm, 8-pole, 50 Hz													
0.09	71 M	C	630	53	0.68	0.36	1.4	1.9	2.2	1.7	13	25000	0.00080
0.12		D	645	53	0.64	0.51	1.8	2.2	2.2	2.0	13	25000	0.00080
0.18	80 M	E	675	51	0.68	0.75	2.5	1.7	2.3	1.9	13	20000	0.0014
0.25		F	685	55	0.64	1.02	3.5	2.0	2.6	2.2	13	20000	0.0017
0.37	90 S	G	675	63	0.75	1.14	5.2	1.6	2.9	1.8	13	20000	0.0023
0.55	90 L	H	675	66	0.76	1.58	7.8	1.7	3.0	1.9	13	20000	0.0031
0.75	100 L	J	680	66	0.76	2.15	11	1.6	3.0	1.9	13	15000	0.0051
1.1		K	680	72	0.76	2.90	15	1.8	3.3	2.1	13	15000	0.0063
1.5	112 M	L	705	74	0.76	3.85	20	1.8	3.7	2.1	13	10000	0.013
2.2	132 S	M	700	75	0.74	5.7	30	1.9	3.9	2.3	13	7000	0.014
3		N	700	77	0.74	7.6	41	2.1	4.1	2.4	13	7000	0.019
4	160 M	Q	715	80	0.72	10.0	53	2.2	4.5	2.6	13	6000	0.036
5.5	160 M	R	710	83.5	0.73	13.0	74	2.3	4.7	2.7	13	6000	0.046
7.5	160 L	S	715	85.5	0.72	17.6	100	2.7	5.3	3.0	13	6000	0.064
11	180 L	U	725	87	0.75	24.5	145	2.0	5.0	2.2	13	2500	0.21
15	200 L	W	725	87.5	0.78	31.5	198	2.1	5.0	2.2	13	1500	0.37
18.5	225 S	X	725	89.2	0.79	38	244	2.1	4.5	2.2	13	1500	0.37
22	225 M	Y	725	90.6	0.79	44.5	290	2.2	4.8	2.3	13	1500	0.45

1) The no-load operating frequencies do not apply to brake motors.

Built-on accessories

The range of potential applications for the motors can be broadened considerably in combination with the built-on accessories below (e.g. the motors can be used as brake motors).

- With a brake
Frame sizes 63 to 225
(for worm geared motors, only the G21 standard brake is available for frame size 63, and the P02 brake is available for frame sizes 71 to 90)
- With pulse generator
Frame sizes 63 to 225
(not possible for worm gearboxes)

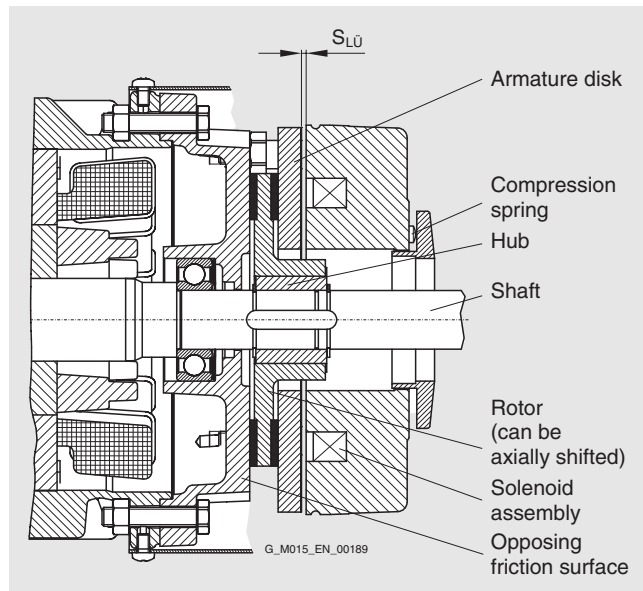
- With separately driven fan
Frame sizes 63 to 225
(for worm gearboxes only available of frame size 71 and larger)
- The brake must always be mounted in the factory, due to safety reasons.
The pulse generator and/or separately driven fan can also be fitted separately.
With modular mounting technology, the motor degree of protection is IP55.

Mechanical part of the spring-operated disk brake

Design and mode of operation

Single-disk brakes with two braking surfaces are used. The braking torque is generated by friction when pressure is applied by compression springs in an idle state. The brake is electro-magnetically released.

When the motor brakes, the compression springs press the rotor - which can be axially shifted on the hub or the shaft - against the opposing frictional surfaces via the armature disk. When the brake is actuated, there is an air gap $S_{L\ddot{U}}$ between the armature disk and the solenoid assembly. A DC voltage is applied to the solenoid coil to release the brake. The magnetic force generated attracts the armature disk to the solenoid against the spring force. This means that the rotor can then freely rotate.



Brakes with differing braking torques can be selected for each motor frame size. A maximum of six braking torques are available for selection.

Order code	Explanation (operating brakes)
P01	Brake with increased torque
G21	Brake with standard torque
P03	Brake with lower torque
P02	Brake with increased torque built on to the next motor frame size
P00	Brake with standard torque built on to the next motor frame size
P04	Brake with lower torque built on to the next motor frame size

1) LÜ = air gap

For worm gearboxes, only the "brake with standard torque", or order code **G21**, is available for frame size 63 and the "brake with increased torque built on to the next motor frame size", order code **P02**, is available for frame sizes 71 to 90. The order code for the brake with standard torque (standard brake) is **G21**.

Mounting onto a motor of the next higher frame size results in the motor obtaining a brake with reduced torque (reduced standard brake). Mounting brakes onto higher-level frame size motors results in each frame size having a wider range of available braking torques. The reduced braking torques should be taken into account when dimensioning.

Order code **P00**

Brakes with order code **P01** are provided with a higher braking torque than the **G21** brakes. This increased braking torque is factory-set, whereby stronger compression springs (strong brake) are used in the solenoid assembly or the number of springs is increased. The outside dimensions of the brake remain the same.

Mounting a **P01** brake onto a geared motor of the next frame size results in the brake being reduced (reduced strong brake).

Order code **P02**

Brakes with order code **P03** are provided with a lower braking torque than the **G21** brakes. This lower braking torque is factory-set, whereby weaker compression springs (weaker brake) are used in the solenoid assembly or the number of springs is reduced. The outside dimensions of the brake remain the same.

Mounting a **P03** brake onto a geared motor of the next frame size results in the brake being reduced (reduced weak brake).

Order code **P04**

For technical brake data, see page 8/15.

The brakes are supplied with the torque preset to maximum. There is also the option to reduce the braking torque using a hook wrench on a ring gauge located in the solenoid assembly. Depending on the frame size, the torque is reduced by a fixed value (0.2 to 6.2 Nm/notch) for each notch of the ring gauge which is unscrewed. Torque reduction is independent of the characteristic torque used for the brake. All brakes can be supplied preset to a reduced brake torque. The torque reduction option can be viewed in the tables starting on the page after next. The required torque has to be specified when ordering.

Order code **Y65**

Technical data for brakes

The table below provides an overview of the brakes that are available for the individual motor frame sizes.

Frame size	Order code											
	P01		G21		P03		P02		P00		P04	
	Brake type	Rated braking torque Nm	Brake type	Rated braking torque Nm	Brake type	Rated braking torque Nm	Brake type	Rated braking torque Nm	Brake type	Rated braking torque Nm	Brake type	Rated braking torque Nm
063	06E	4	06E	2,5	06E	1.5	–	–	–	–	–	–
071	08E	8	08E	5	08E	3.5	06E	4	06E	2.5	06E	1.5
080	10E	16	10E	10	10E	7	08E	8	08E	5	08E	3.5
090	12E	32	12E	20	12E	14	10E	16	10E	10	10E	7
100	14E	60	14E	40	14E	25	12E	32	12E	20	12E	14
112	16E	80	16E	60	16E	45	14E	60	14E	40	14E	25
132	18E	150	18E	100	18E	65	16E	80	16E	60	16E	45
160	20E	315	20E	230	20E	145	18E	150	18E	100	18E	65
180	–	–	20E	315	–	–	20E	230	20E	145	20E	115
200	25E	600	25E	400	–	–	–	–	25E	265	25E	175
225	–	–	25E	600	–	–	25E	400	25E	265	25E	175

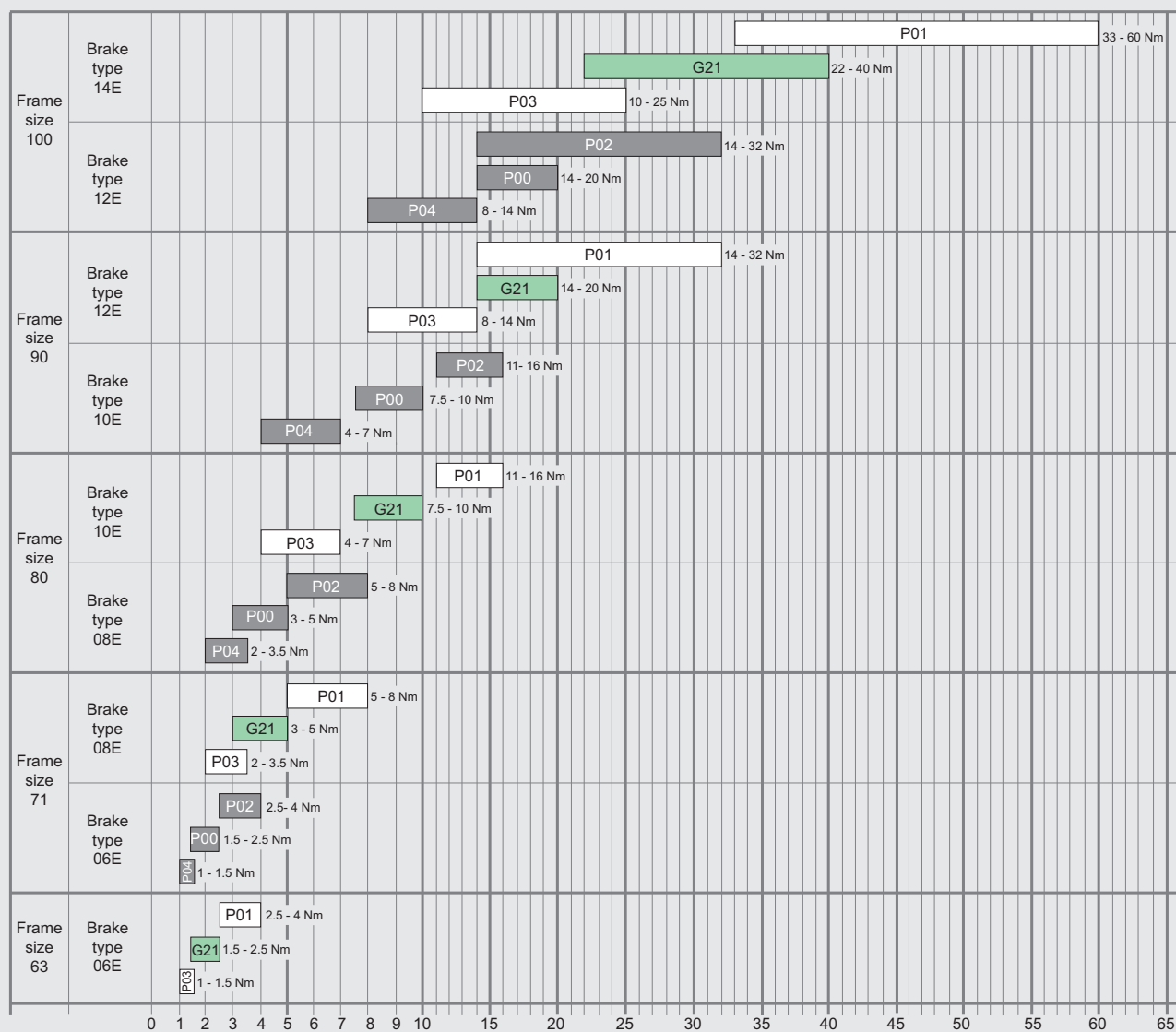
– Brake combination not possible.

There is also the option to supply all brakes with a reduced braking torque. See the tables on the following two pages.

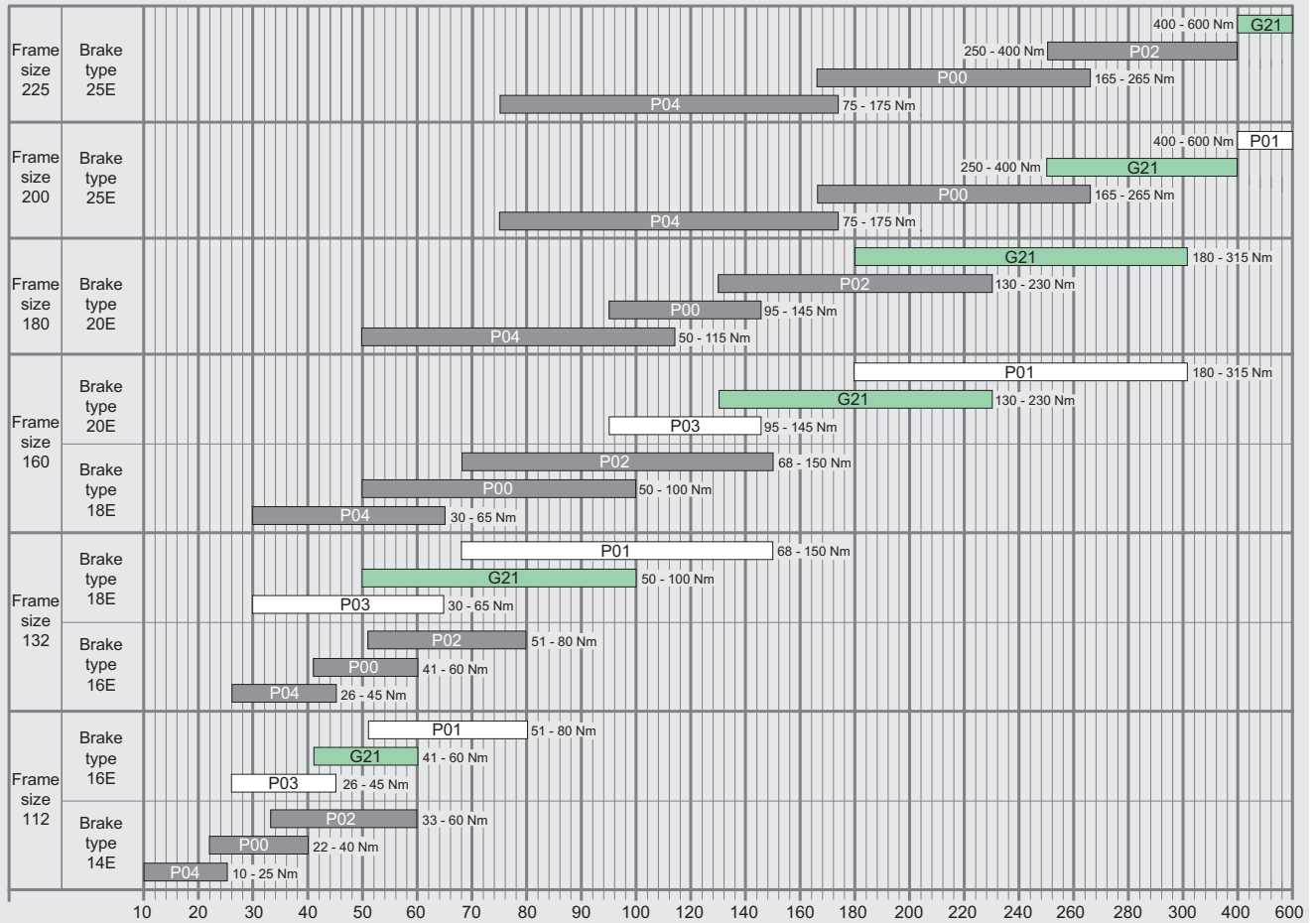
Geared motors

Technical explanations and options for motors

Built-on accessories



G_M015_EN_00192



G_M015_EN_00193

Standard brake

Reduced brake

Built-on accessories

Mechanical manual release

The brakes can be supplied with a mechanical manual release using an actuating lever. Order code **K82**. For more information, see page 8/7.

Rating plate

The standard rating plate contains the brake data.

Terminal box + dimensions

Mounting the brake increases the length of the motor by the ΔL dimension. For an explanation of additional dimensions, see page 8/33 onwards. With frame sizes 63 to 90, a larger terminal box is also used. See page 8/4.

Anti-corrosion protection

An additional friction disk is mounted between the opposing frictional surface (end shield on ventilation side) and the rotor, in order to protect the brake from corrosion (e.g. to prevent it from seizing up). The friction disk is made from rustproof material. This is used if the motor is being used in potentially corrosive ambient conditions (e.g. high air humidity) and/or in the event of long down-times.

With frame size 132 and larger, a chromium-plated flange is installed in place of the friction disk.

Friction disk: frame sizes 63 to 112

Chromium-plated flange: frame sizes 132 to 225

Anti-corrosion protection for brake

Order code **P10**

For increased anti-corrosion protection, the brakes are also provided with a chromium-plated armature disk as well as the rust-proof friction disk between the opposing friction surface (end shield on ventilation side) and the rotor. This is used if the motor is being used in potentially corrosive ambient conditions (e.g. high air humidity, dripping water) and/or in the event of long down-times. With frame size 132 and larger, a chromium-plated flange is installed in place of the friction disk.

Chromium-plated armature disk: frame sizes 63 to 225

Friction disk: frame sizes 63 to 112

Chromium-plated flange: frame sizes 132 to 225

Increased anti-corrosion protection for brake

Order code **P11**

To provide the highest level of anti-corrosion protection, the entire brake (opposing friction surface, rotor, armature disk, and solenoid assembly) is completely encapsulated. This prevents the ingress of moisture or dust. This is used if the motor is being used in aggressive and/or corrosive ambient conditions (e.g. splashwater, salt-laden atmosphere, dust). All motors with frame sizes 63 to 225 can be encapsulated in this way. This is available on request.

Encapsulated brake design

Order code **P12**

Not available for worm gearboxes.

Noise damping

Due to their mode of operation, geared motor brakes do not work noiselessly. When the brake is applied or released, the armature disk strikes the solenoid assembly or the rotor strikes the opposing friction surface. This causes operating noise, as does the mechanical play in the spline shaft hub/rotor connection when the load is being changed. An O-ring can be mounted into the solenoid assembly and a brass ring mounted between the rotor and the opposing friction surface to actively reduce this operating noise. A plastic sleeve in the spline shaft hub/rotor connection reduces the noise produced when changing the load.

Providing the brakes with an external sleeve and a V-ring in the hole on the fan side are additional measures designed to reduce noise. This is used in applications in which the brake operating noise is distracting, e.g. stage technology. All motors with frame sizes 63 to 225 can be supplied with brakes with the highest level of noise reduction. Retrofitting is not possible.

Reduced noise for brake

Order code **P15**

The order code **P16** option is available for applications for which brake noise reduction is not a priority. Unlike complete encapsulation, this option only reduces the operating noise caused by the mechanical play in the spline shaft hub/rotor connection when changing a load. This is achieved by mounting a plastic sleeve in the spline shaft hub/rotor connection, similar to the way in which the option with the **P15** order code operates. Brakes with noise reduction of the hub/rotor connection can be supplied for all motors with frame sizes 63 to 225. Retrofitting is not possible.

Reduced-noise hub/rotor connection for brake

Order code **P16**

Monitoring

The $s_{L\ddot{u}}$ brake air gap is monitored by a microswitch, which is mounted onto the base plate of the solenoid assembly. The motor does not start up until the brake is completely released ($s_{L\ddot{u}} = 0$) and the armature disk is located on the solenoid assembly. The microswitch is operated, which triggers the motor contactor. When the brake is disabled, the armature disk achieves a maximum air gap ($s_{L\ddot{u}max}$) and the microswitch opens. This means that the motor contactor is not triggered and the motor does not start up. This procedure is used for machines and units which require precisely-defined startup and braking characteristics. It is also used for error control of defective rectifiers, broken connecting cables, defective output coils, and excessive air gaps (brake coil no longer tightening the armature disk). Microswitches can be supplied for the purpose of monitoring the release of the brake for all motors with frame sizes 90 to 225.

Microswitch for monitoring release for brake

Order code **P18**

It is not possible to combine this option with anti-corrosion protection, order code **P11** or **P12**.

During the brake's service life, the friction lining of the rotor is subject to wear and becomes thinner. This means that the maximum air gap $s_{L\ddot{u}max}$ becomes larger and the brake requires a longer period of time to be completely applied or released. To ensure that the thickness of the friction lining does not fall below the wear capacity and the air gap does not exceed a predefined value, the $s_{L\ddot{u}}$ air gap is monitored by a microswitch which is mounted onto the base plate of the solenoid assembly. If the air gap fluctuates within a predefined range, the motor contactor is triggered. Once a critical air gap, which has been set previously, is reached, the microswitch opens, the motor contactor is not triggered and both the motor and the brake remain de-energized. This procedure is used for machines and units which are frequently used for braking operations and which have a high switching frequency and, as a result, suffer a large amount of wear. It is also used for error control of excessive air gaps. Microswitches can be supplied for the purpose of monitoring wear for all motors with frame sizes 90 to 225.

Microswitch for monitoring wear for brake

Order code **P19**

It is not possible to combine this option with anti-corrosion protection, order code **P11** or **P12**.

Electrical part of the spring-operated disk brake

Voltage and frequency

Brake supply voltages/special supply voltages

The standard supply voltage for all brakes is 230 V AC, 50/60 Hz. The brakes can also be supplied with supply and coil voltages which differ from this standard supply voltage. The brake coil is connected to a rectifier on an AC line supply. The AC voltage can either be picked off on the motor's connecting terminal plate or via a separate infeed, e.g. with the aid of a motor starter. On a DC line supply, the brake terminals are linked directly to the DC voltage source via a terminal strip.

The various control options are dealt with in the "Brake control" section (see below).

The following supply voltages are available for the brakes:

Order code	Explanation
No	Brake supply voltage 230 V AC, 50/60 Hz (standard)
C01	Brake supply voltage 400 V AC, 50/60 Hz
C00	Brake supply voltage 24 V DC (directly on terminal strip)
C02	Brake supply voltage 180 V DC (directly on terminal strip)
P20	Brake supply voltage 460 V AC, 50/60 Hz
Y66	Special supply voltage 500 V AC, 50/60 Hz
Y66	Special supply voltage 480 V AC, 50/60 Hz
Y66	Special supply voltage 330 V AC, 50/60 Hz

If the brake coils are to be fed with special supply voltages, this requires the use of brakes with special coil voltages. When using order code Y66 in an order, the appropriate voltage must also be specified. Supply voltages which differ from the listed voltages are available on request.

Brake control

The control of brakes for Siemens geared motors benefits from a modular design. Depending on the selected supply voltage, various control modules are available for controlling the DC magnets of the brakes. On an AC line supply, the brake is controlled by a rectifier. You can choose between various special functions. On a DC line supply, the brake terminals are linked directly to the DC voltage source via a terminal strip.

Order code	Explanation
No	Bridge rectifier/half-wave rectifier
G22	Tripping on DC side using current sensing
G23	Tripping on DC side using voltage sensing
G24	Rectifier with over-excitation (high-speed excitation)
G38	Spark quenching for brake (EMC)

Technical data for rectifiers, combinations of rectifiers and special functions and the associated supply voltages are listed in the Table **"SGM brake control"**, see page 8/21.

Bridge rectifier/half-wave rectifier

Basic version bridge and half-wave rectifiers are suitable for braking operations which do not place any special requirements on ambient temperatures or switching frequencies.

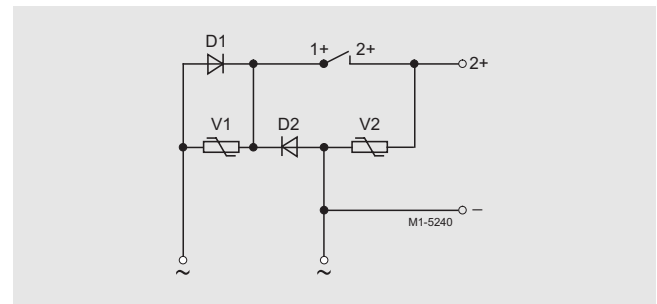
The limits of application for these rectifiers are as follows:

Max. coolant temperature (CT): 40 °C

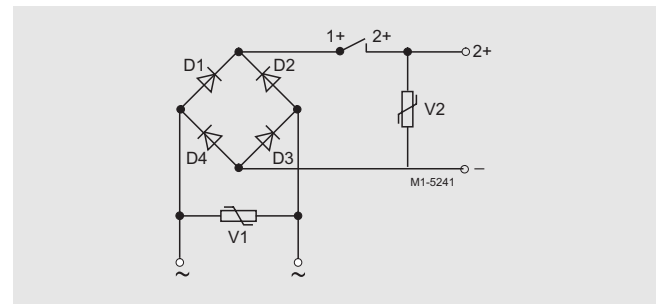
Max. switching frequency:

- Brakes with frame sizes 06E - 12E: 5 min⁻¹
- Brakes with frame sizes 14E - 18E: 4 min⁻¹
- Brakes with frame sizes 20E - 25E: 2 min⁻¹

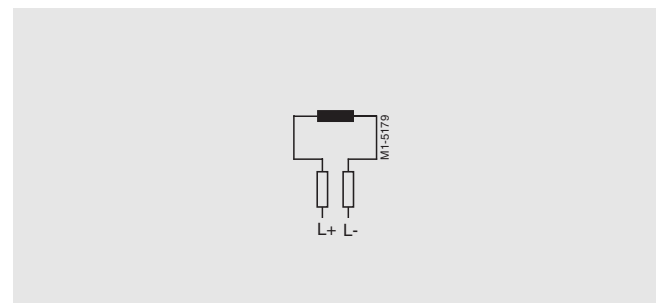
To fulfill additional requirements, appropriate special functions must be used to control the brake.



Half-wave rectifier, 400 V AC



Bridge rectifier, 230 V AC



Brake connection for 24 V DC

Built-on accessories

Tripping on DC side

Electromagnetically released spring-operated disk brakes can be tripped on the AC or the DC side of the rectifier. If they are tripped on the DC side, the inductance and, therefore, the magnetic field in the brake coil are rapidly suppressed. This allows much shorter application times than with tripping on the AC side.

One option for tripping on the DC side is to sense the motor current. If the motor current falls below the sensor current of the rectifier while it is being isolated from the three-phase system, the brake coil is electronically isolated from the DC voltage contactlessly.

As a rule, rectifiers which are used in conjunction with tripping on the DC side using current sensing are suitable for parallel connections with a motor connection. This also applies to applications with driving loads or large moments of inertia. Frequency converter operation is not permitted. Brakes controlled in this way are completely cabled up to the motor's connecting terminal plate.

Tripping on DC side using current sensing

Order code **G22**

Only available for motor frame sizes 63 to 160.

Another option for tripping on the DC side is to sense the rectifier's supply voltage. If the input voltage falls below a certain switching threshold, an integrated switching transistor disconnects the load. As a rule, rectifiers, which are used in conjunction with tripping on the DC side using voltage sensing, are suitable for operating with a separate AC side brake control and an additional switching contact.

It is also possible to wire the rectifier parallel to the motor connection. However, this is not recommended, as the influence of the motor winding impairs the rectifier's shutdown performance. Furthermore, driving loads or high moments of inertia are present in almost all application cases. The no-load voltage generated while the motor is running down, can considerably delay application of the brake, if the switching threshold for voltage sensing is not undershot. If you still require or want the rectifier to be wired parallel to the motor connection despite this, it is recommended that you use tripping on the DC side using current sensing.

Tripping on DC side using voltage sensing

Order code **G23**

Rectifiers with over-excitation operate for approximately 300 to 400 ms with bridge rectification, i.e. the brakes are supplied with a double rated coil voltage for releasing. After this period has expired, the rectifier automatically switches from bridge rectification to half-wave rectification and the brakes are operated with the rated coil voltage. This means that the brake can achieve shorter release times and increased switching frequencies. Furthermore, the friction lining is not subject to as much wear, the permissible friction energy until the air gap has to be adjusted increases and starting losses are reduced. As a rule, rectifiers with over-excitation are suitable for parallel connections with a motor connection or for separate switching when operating with a frequency converter (observe the wiring instructions for tripping on the DC side). Continuous operation at a supply voltage lower than 198 V AC is not permitted. With switchgear operation, the rated power of the brake must not be exceeded.

Rectifier with over-excitation (high-speed excitation)

Order code **G24**

Spark absorbers are used to ensure electromagnetic compatibility (EMC) in respect of the tripping of inductive loads on the DC side. Voltage peaks, which could lead to sparking on switching contacts and could damage insulation and/or contacts as a result, or which could damage upstream components such as rectifiers, are limited by the damping element and the contact load is reduced. EMC errors are reduced by limiting the voltage rise and suppressing switching edges.

Spark absorbers

Order code **G38**

If ordering with codes **G22**, **G23** and/or **G24**, the spark absorber is already integrated.

SGM brake control

The table below gives you an overview of SGM brake control with rectifiers.

Brake control	Supply voltage	Output voltage		Output current up to CT40 ¹⁾		Maximum switching frequency ²⁾	Order code	Suitable for
		Over-excitation voltage	Holding voltage	Over-excitation	Holding current			
	V_1 $V_{AC} \pm 10\%$	V_{2OE} V_{DC}	V_{2H} V_{DC}	I_{2OE} A_{DC}	I_{2H} A_{DC}	min^{-1}		
Basic version rectifier	230	–	$0.89 \times V_1$ (bridge)	–	1.0	$5^{2)}$	–	Braking operation without special requirements
	330 to 500		$0.445 \times V_1$ (half-wave)					
Rectifier and tripping on DC side, current sensing	230	–	$0.89 \times V_1$ (bridge)	–	1.2	$76^{2)}$	G22	Braking operation with high-speed application of the brake
	330 to 460		$0.445 \times V_1$ (half-wave)					
Rectifier and tripping on DC side, voltage sensing	230	–	$0.89 \times V_1$ (bridge)	–	1.2	$76^{2)}$	G23	
	330 to 500		$0.445 \times V_1$ (half-wave)					
Rectifier with over-excitation	330 to 500	$0.89 \times V_1$ –max. 8%	$0.445 \times V_1$	2.4	1.2	$60^{2)3)}$	G24	Braking operation with high-speed release of the brake
Rectifier with over-excitation and tripping on DC side, current sensing	330 to 460	$0.89 \times V_1$ –max. 8%	$0.445 \times V_{11}$	2.4	1.2	$76^{2)3)}$	G24+G22	Braking operation with high-speed release and application of the brake
Rectifier with over-excitation and tripping on DC side, voltage sensing	330 to 500	$0.89 \times V_1$ –max. 8%	$0.445 \times V_1$	2.4	1.2	$76^{2)3)}$	G24+G23	

- 1) Coolant temperature (CT), output current drops at high ambient temperatures; the corresponding values are available on request.
- 2) The maximum switching frequencies specified in the table are upper limit values for each brake control. The switching frequencies are basically dependent on the brake power (see table "Technical data for spring-operated disk brakes" on pages 8/22 to 8/24) and on the permissible switching energy of the brakes, in accordance with the "Permissible switching energy as a function of switching frequency" figure on page 8/25.

- 3) The maximum switching frequencies result from the over-excitation and recovery times and from de-energization in hold mode.

Geared motors

Technical explanations and options for motors

Built-on accessories

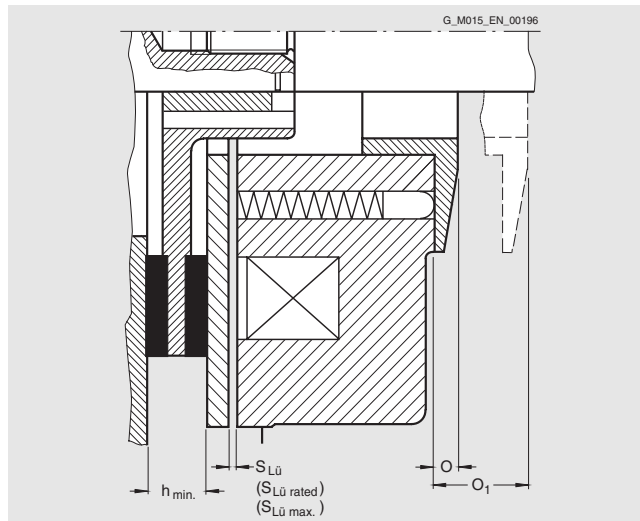
Spring-operated disk brake

Lifetime of the brake disk surface

The braking energy L_{rated} until the brake air gap has to be adjusted depends on various factors. The main influencing factors include the masses to be braked, the operating speed, the switching frequency, and, therefore, the temperature of the frictional surfaces. This means that it is not possible to specify the frictional energy under all operating conditions until the brake should be adjusted.

Maximum permissible speeds

The maximum permissible speeds, from which emergency stops can be made, are listed in the table. These speeds should be considered as nominal values and must be checked under the specific conditions. The maximum permissible friction energies depend on the switching frequency and are listed for individual brakes in the "Permissible switching energy as a function of switching frequency" figure on page 8/25. Increased wear should be expected when using the emergency stop function.



Technical data for spring-operated disk brakes

Brake type	Rated braking torque ¹⁾ Nm	Min. braking torque Nm	Power consumption ²⁾ W	Brake moment of inertia 10 ⁻⁴ kg m ²	Weight of brake with rotor kg	Brake application time ³⁾ ms	Brake release time Standard ms	With over-excitation ⁴⁾ ms	Operating noise dB (Al)
06E	1.5	1	20	0.15	0.85	30	23	16	77
	2.5	1.5	20			33	28	18	
	4	2.5	20			28	45	28	
08E	3.5	2	25	0.61	1.5	25	25	17	74
	5	3	25			40	35	20	
	8	5	25			31	57	38	
10E	7	4	30	2	2.6	33	48	30	75
	10	7.5	30			64	43	36	
	16	11	30			47	76	48	
12E	14	8	40	4.5	3.9	46	65	50	80
	20	14	40			70	72	53	
	32	14	40			53	115	78	
14E	25	10	50	6.3	5.8	47	130	66	77
	40	22	50			55	140	75	
	60	33	50			42	210	90	
16E	45	26	55	15	8.4	60	160	110	75
	60	41	55			68	150	105	
	80	51	55			57	220	130	
18E	65	30	85	29	12.5	60	160	93	79
	100	50	85			93	180	108	
	150	68	85			78	270	160	
20E	115	50	100	73	21	180	230	145	79
	145	95	100					170	
	230	130	100			170	300	185	
	315	180	130			150	410	180	
25E	175	75	110	200	32	275	200	138	94
	265	165	110			275	260	140	
	400	250	110			230	390	185	
	600	400	160			175	585	265	

- 1) With hoists, the brakes should be designed with a safety factor of at least 2 compared with the rated motor torque.
- 2) Coil power in watts at 20 °C, deviation of up to +10% possible as a function of the selected supply voltage.

- 3) The listed switching times apply to switching on the DC side with rated air gap $S_{Lü\text{Rated}}$ and a warm coil. The times are mean values, whose spread depends on the type of rectification and the actual air gap $S_{Lü}$. The application time when switching on the AC side is around 6 to 10 times larger than when switching on the DC side.
- 4) When using over-excitation to utilize greater friction energy, service life can be limited by other brake components, particularly during reversing operation and with small friction energies.

Brake type	Rated braking torque ¹⁾ Nm	Air gap adjustment required after braking energy L_{rated}		Service life of the brake lining 10^6 J	Transfer-ence switching frequency h^{-1}	Max. permissible switching energy with one-time switching 10^3 J	% residual braking torque at			Reduction per notch Nm
		Standard 10^6 J	Over-excitation ⁴⁾ 10^6 J				1500 rpm	3000 rpm	Maximum	
06E	1.5	100	140	350	79	3	87	80	65	0.2
	2.5									
	4	72								
08E	3.5	180	260	650	50	7,5	85	78	66	0.35
	5									
	8	130								
10E	7	220	330	810	40	12	83	76	66	0.8
	10									
	16									
12E	14	560	850	1900	30	24	81	74	66	1.3
	20									
	32	430								
14E	25	620	920	2560	28	30	80	73	67	1.7
	40									
	60	480								
16E	45	800	1200	4600	27	36	79	72	66	1.6
	60									
	80									
18E	65	1200	1800	4600	20	60	77	70	66	3.6
	100									
	150									
20E	115	1800	2800	9000	19	80	75	68	66	5.6
	145									
	230									
	315									
25E	175	2800	4700	16000	15	120	73	68	66	6.2
	265									
	400									
	600									

1) With hoists, the brakes should be designed with a safety factor of at least 2 compared with the rated motor torque.

2) Coil power in watts at 20 °C, deviation of up to +10% possible as a function of the selected supply voltage.

3) The listed switching times apply to switching on the DC side with rated air gap $S_{LüRated}$ and a warm coil. The times are mean values, whose spread depends on the type of rectification and the actual air gap $S_{Lü}$. The application time when switching on the AC side is around 6 to 10 times larger than when switching on the DC side.

4) When using over-excitation to utilize greater friction energy, service life can be limited by other brake components, particularly during reversing operation and with small friction energies.

Geared motors

Technical explanations and options for motors

Built-on accessories

Brake type	Rated braking torque ¹⁾	Max. adjustable height of "O ₁ " ring gauge	Rated air gap S _{Lü} rated standard/over-excitation ⁴⁾	Max. air gap S _{Lü} max.		Min. rotor strength h _{min.}	Max. permissible operating speed with horizontal mounting position	Max. permissible no-load speed with emergency stop function	
	Nm			Standard	Over-excitation ⁴⁾			Horizontal mounting position	Vertical mounting position
06E	1.5	7	0.2	0.6	0.8	4.5	3000	6000	6000
	2.5								
	4			0.5					
08E	3.5	8	0.2	0.6	0.8	5.5	3000	6000	6000
	5								
	8			0.5					
10E	7	7.5	0.2	0.6	0.8	7.5	3000	6000	6000
	10								
	16								
12E	14	12.6	0.3	0.9	1.2	8	3000	6000	6000
	20								
	32			0.75					
14E	25	11	0.3	0.9	1.2	7.5	3000	6000	6000
	40								
	60			0.75					
16E	45	13	0.3	0.9	1.2	8	3000	5300	5000
	60								
	80								
18E	65	14	0.4	1.2	1.6	10	1500	4400	3700
	100								
	150								
20E	115	17	0.4	1.2	1.6	12	1500	3700	3200
	145								
	230								
	315								
25E	175	21	0.5	1.3	1.8	15.5	1500	3000	3000
	265								
	400								
	600								

1) With hoists, the brakes should be designed with a safety factor of at least 2 compared with the rated motor torque.

2) Coil power in watts at 20 °C, deviation of up to +10% possible as a function of the selected supply voltage.

3) The listed switching times apply to switching on the DC side with rated air gap S_{Lü}Rated and a warm coil. The times are mean values, whose spread depends on the type of rectification and the actual air gap S_{Lü}. The application time when switching on the AC side is around 6 to 10 times larger than when switching on the DC side.

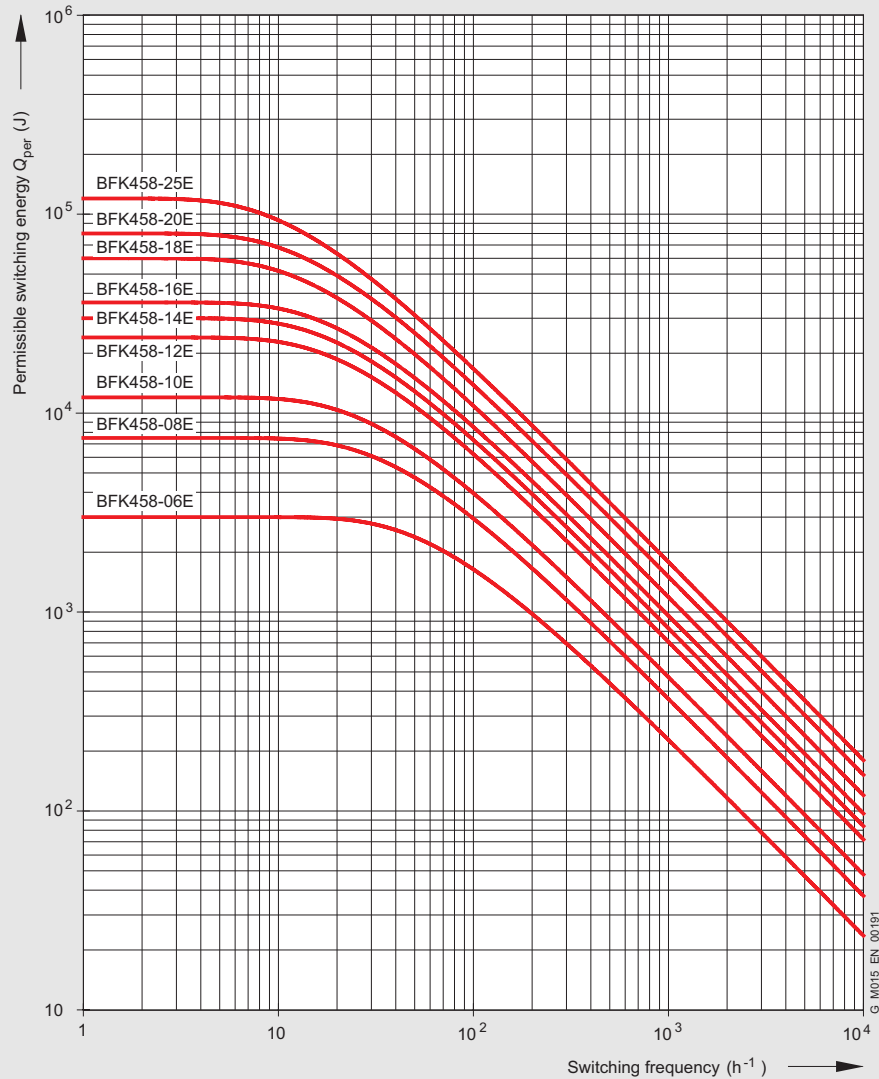
4) When using over-excitation to utilize greater friction energy, service life can be limited by other brake components, particularly during reversing operation and with small friction energies.

Change in braking torque

The brake torque is set at the factory. It is possible to reduce the torque by unscrewing the ring gauge using a hook wrench, to a maximum of Q_1 . For each notch of the ring gauge, the braking torque changes by the values shown in the table on the previous page.

Adjusting the air gap

For normal applications, the brake is practically maintenance-free. The air gap $S_{L\dot{u}}$ must only be checked at specific time intervals when extremely high friction energy is involved. In this case, the rated air gap $S_{L\dot{u} rated}$ must be reset when the maximum air gap $S_{L\dot{u} max}$ is reached at the latest. See instruction manual for more information.



Permissible switching energy as a function of the switching frequency

Built-on accessories

Encoder (mounted underneath fan cowl)

All Siemens geared motors, excluding worm geared motors, can be optionally supplied with a pulse generator, whether or not other built-on accessories such as brakes, load flywheels or separately driven fans are also being used. The uniform design means that any encoder type can be used, regardless of the motor frame size. All 1XP type encoders are mounted underneath the fan cowl, in order to protect them from external mechanical influences, and are supplied according to their series together with an encoder cable of approximately 600 mm in length (around 500 mm fed through) with free wire ends.

A total of nine different encoder types are available for this type:

Encoder type	Explanation	Order code
1XP8002-10	Incremental encoder 1024 HTL pulses	P57
1XP8002-20	Incremental encoder 1024 TTL pulses	P58
1XP8002-11	Incremental encoder 2048 HTL pulses	P34
1XP8002-21	Incremental encoder 2048 TTL pulses	P35
1XP8002-12	Incremental encoder 512 HTL pulses	P36
1XP8002-22	Incremental encoder 512 TTL pulses	P37
1XP8003-10	2-pole resolver	P32
1XP8004-10	Multiturn absolute encoder with EnDat protocol	P30
1XP8004-20	Multiturn absolute encoder with SSI protocol	P31

Incremental encoder (mounted underneath fan cowl)

Incremental encoders are used to determine the position of rotor shafts and to approach a precisely defined angle position. This is achieved by photoelectrically scanning a division which has been applied to a dividing unit. With an incremental method of measurement, the division consists of a regular lattice structure. The positional information is obtained by counting the individual increments (measuring pitches), starting from any fixed zero point. Since an absolute reference is required in order to establish positions, the dividing units have another track, which bears a reference mark. The absolute position determined using the reference mark is specifically assigned to a measuring pitch. The reference mark must be traversed before an absolute reference can be created or the last selected reference point can be found again.

Incremental encoders are used in applications for which it is necessary to approach or find a specifically defined position. With incremental encoders,

the machine must travel to a reference point after each power-off state, as the position is not usually stored in the controller, and machine movements during power-off are not recorded.

The following incremental encoders

- HTL version with 512 pulses, order code **P36**
- TTL version with 512 pulses, order code **P37**
- HTL version with 1024 pulses, order code **P57**
- TTL version with 1024 pulses, order code **P58**
- HTL version with 2048 pulses, order code **P34**
- TTL version with 2048 pulses, order code **P35**

are supplied mounted on the shaft underneath the fan cowl.

It is possible to directly mount the encoder on all motor frame sizes 63 to 225, excluding worm geared motors.

For additional dimensions, see page 8/33 onwards.

Technical data

Pulse generator	1XP8002-10	1XP8002-20	1XP8002-11	1XP8002-21	1XP8002-12	1XP8002-22
Order option	P57	P58	P34	P35	P36	P37
Supply voltage V_B	10 V to 30 V	5 V $\pm$ 10%	10 V to 30 V	5 V $\pm$ 10%	10 V to 30 V	5 V $\pm$ 10%
Maximum current consumption without load	120 mA	150 mA	120 mA	150 mA	120 mA	150 mA
Perm. load per output	$I_L \leq 100$ mA (excluding V_{as} inverted)	$I_L \leq 20$ mA	$I_L \leq 100$ mA (excluding V_{as} inverted)	$I_L \leq 20$ mA	$I_L \leq 100$ mA (excluding V_{as} inverted)	$I_L \leq 20$ mA
Pulses per revolution	1024		2048		512	
Incremental signals	HTL	TTL	HTL	TTL	HTL	TTL
Outputs	HTL:	2 short-circuit proof square-wave pulses V_{a1} , V_{a2}				
		2 short-circuit proof inverted square-wave pulses $\overline{V_{a1}}$, $\overline{V_{a2}}$				
	TTL:	TTL square-wave pulse trains V_{a1} , V_{a2}				
		Inverted TTL square-wave pulse trains $\overline{V_{a1}}$, $\overline{V_{a2}}$				
	HTL and TTL: Zero pulse and inverted zero pulse					
Signal level	$V_{High} > V_B - 3.5$ V at - $I_H = 20$ mA	$V_{High} \geq 2.5$ V at - $I_L = 20$ mA	$V_{High} > V_B - 3.5$ V at - $I_H = 20$ mA	$V_{High} \geq 2.5$ V at - $I_L = 20$ mA	$V_{High} > V_B - 3.5$ V at - $I_H = 20$ mA	$V_{High} \geq 2.5$ V at - $I_L = 20$ mA
	$V_{low} \leq 2.8$ V $I_L = 20$ mA ($V_P = 24$ V)	$V_{low} \leq 0.5$ V at $I_L = 20$ mA	$V_{low} \leq 2.8$ V $I_L = 20$ mA ($V_P = 24$ V)	$V_{low} \leq 0.5$ V at $I_L = 20$ mA	$V_{low} \leq 2.8$ V $I_L = 20$ mA ($V_P = 24$ V)	$V_{low} \leq 0.5$ V at $I_L = 20$ mA
Minimum edge spacing	0.8 μ s at 160 kHz	0.45 μ s at 300 kHz	0.8 μ s at 160 kHz	0.45 μ s at 300 kHz	0.8 μ s at 160 kHz	0.45 μ s at 300 kHz
Switching times (10% to 90%)	$t_+ t_- \leq 200$ ns	$t_+ t_- \leq 50$ ns	$t_+ t_- \leq 200$ ns	$t_+ t_- \leq 50$ ns	$t_+ t_- \leq 200$ ns	$t_+ t_- \leq 50$ ns
Maximum frequency	300 kHz					
Moment of inertia of rotor	3.8 x 10 ⁻⁶ kgm ²					
Maximum permissible mechanical speed	6000 rpm					
Vibration (55 to 2000 Hz)	≤ 300 m/s ² (EN 60068-2-6)					
Shock (6 ms)	≤ 2000 m/s ² (EN 60068-2-27)					
Ambient temperature range						
• Flange socket or fixed cable	−40 °C to +100 °C					
• Moving cable	−10 °C to +100 °C					
Degree of protection	IP66					
Connections	Encoder cable with free wires					
Mass approx.	0.30 kg					

Geared motors

Technical explanations and options for motors

Built-on accessories

Resolver (mounted underneath fan cowl)

Resolvers are non-contact rotary measuring systems, which determine the angle of rotation inductively. They use analog measured-value acquisition, i.e. a measured signal value can always be assigned to every measured variable.

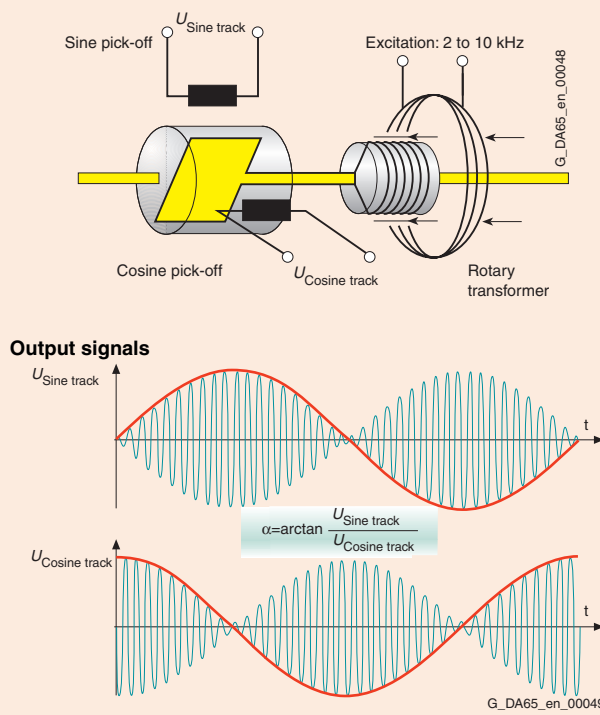
The working principle corresponds largely to that of a rotary transformer consisting of a rotor and a stator. If an AC voltage is applied to the stator winding, the resulting magnetic flux induces an amplitude-modulated voltage of the same frequency in the rotor winding. The periodic amplitude change is modulated by the angle-dependent rotor change. The envelope renders the relevant angular position. The modulated voltage performs a phase shift of 180 electrical degrees at the zero-crossings of these envelopes. In practice, it is usual to use resolvers with multiple stator windings. Unlike the voltage at one of the primary windings, the voltage at the secondary winding changes with the spatial angle constantly in the phase position. A phase discriminator supplies a signal proportional to the angle of rotation. Resolvers are used in applications which do not require positions to be detected as precisely as they can be using incremental encoders (due to their higher resolution). They are used in robust vibration, impact load and/or temperature conditions. The resolver is supplied mounted on the shaft underneath the fan cowl.

It is possible to mount the resolver on all motor frame sizes 63 to 225, excluding worm geared motors.

Order code **P32**

Resolver technical data is available on request.

Functional principle: Inductive scanning, sin/cos evaluation of rotor position



Absolute encoder (mounted underneath fan cowl)

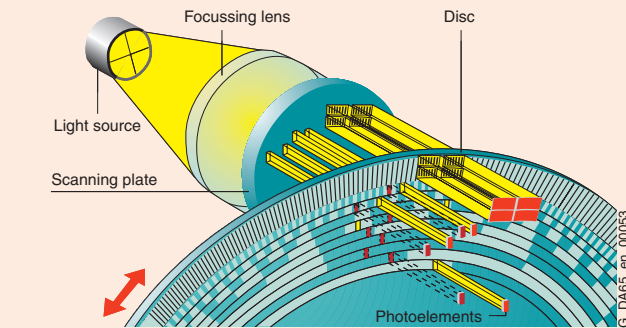
Absolute encoders are used to determine the position of rotor shafts and to approach a precisely defined angle position. With an absolute method of measurement, the position value is available immediately after switching on the measuring instrument and can be retrieved from the electronic sequence at any time. It is not necessary to traverse the axes in order to determine the reference position. The absolute positional information is determined using the dividing unit division, which consists of several division tracks in parallel. The track with the shortest division period is interpolated for the position value and is also used to generate an optional incremental signal. The dividing units are scanned photoelectrically.

With single-turn rotary transducers, the absolute positional information is repeated on each revolution. Multiturn rotary transducers can also differentiate between revolutions.

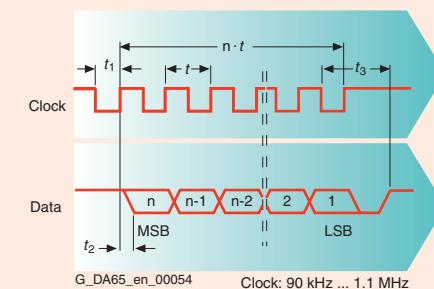
Absolute encoders are used in applications for which it is necessary to approach or find a specifically defined position. It is possible to mount the encoder onto all motor frame sizes 63 to 225, excluding worm geared motors.

The multiturn absolute encoder can be supplied mounted onto the shaft underneath the fan cowl either with an EnDat protocol, order code **P30**, or a SSI protocol, order code **P31**.

Functional principle: Photoelectric scanning



Output signals (serial interface)



Technical data

Pulse generator	1XP8004-10	1XP8004-20
Order option	P30	P31
Supply voltage V_B	5 V $\pm$ 5%	10 V to 30 V
Maximum current consumption without load	250 mA	250 mA
Pulses per revolution	512	
Absolute position values	EnDat	SSI
Code	Dual	Gray
Positions per revolution	8192 (13 bit)	
Distinguishable revolutions	4096	
Moment of inertia of rotor	$4.6 \times 10^{-6} \text{ kgm}^2$	
Maximum permissible mechanical speed	6000 rpm	
Permissible electrical speed with system accuracy	5000 rpm at ± 1 LSB 10000 rpm at ± 100 LSB	
Vibration (55 to 2000 Hz)	$\leq 100 \text{ m/s}^2$ (EN 60068-2-6)	
Shock (6 ms)	$\leq 1000 \text{ m/s}^2$ (EN 60068-2-27)	
Temperature range: • Flange socket or fixed cable • Moving cable	–40 °C to +100 °C –10 °C to +100 °C	–40 °C to +85 °C –10 °C to +85 °C
Degree of protection	IP66	
Connections	Encoder cable with free wires	
Mass approx.	0.30 kg	

Encoder cables

Encoder cable for all encoders in additional terminal boxes

As a rule, all available encoder types are mounted underneath the fan cowl. The encoder cable is then fed through the fan cowl to the outside, using a cable grip. The cable is approximately 600 mm long (around 500 mm fed through) and has free wire ends. The free wire ends can be fed to a terminal strip inside an additional terminal box.

The customer takes over wiring tasks from that point. Additional terminal boxes can be obtained for all encoders available within modular mounting technology. An encoder cable can be supplied in an additional terminal box on request for all motor frame sizes 63 to 225, excluding worm geared motors, by using order code **P42**.

Encoder cable with coupling

Encoder cables can be equipped with couplings, instead of using an additional terminal box. A crimped connection is used to fix the coupling to the encoder cable.

A mating connector and installation instructions are supplied in order to ensure that further wiring tasks can be carried out.

This is used in distributed drive system applications, for example, in which the encoder cables, which may be shielded, have to be fed to a central control cabinet and/or the drives have to be isolated from the power supply quickly and simply. Couplings can be obtained for all encoders available within modular mounting technology and for all motor frame sizes from 63 to 225, excluding worm geared motors.

Order code **P43**

Compatible, prefabricated connecting leads are available for all encoders with couplings, see Catalog DA 65.3.

Built-on accessories

LL 861 900220 pulse generator (mounted on fan cowl)

This generator is very robust and therefore suitable for service in harsh environments. It is shock- and vibration-proof and is fitted with insulated bearings.

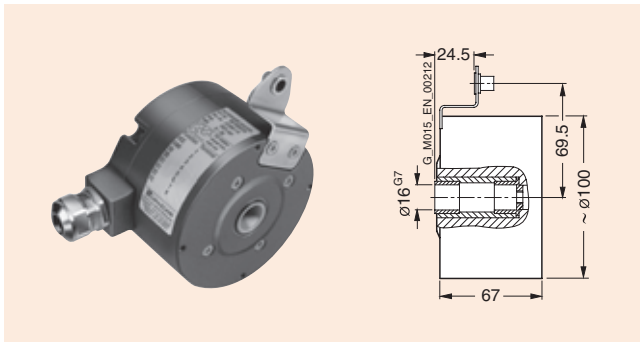
- The LL 861 900 220 pulse generator can be supplied already fitted. It is possible to mount the encoder onto all motor frame sizes 100 to 225, excluding worm geared motors. Order code **H70**
- The LL 861 900 220 pulse generator can also be fitted separately. The motor must be prepared for this purpose. It is possible to mount the encoder onto all motor frame sizes 100 to 225, excluding worm geared motors. Order code **H78** must be specified when ordering the motor. The pulse generator is not part of the scope of supply. Parts required for assembly are also supplied.

The pulse generator with diagnostic system (ADS) can be supplied by Leine und Linde.

Manufacturer:
Leine und Linde (Germany)
GmbH
D-73430 Aalen
Spitalstr. 19
<http://www.leinelinde.de>

Technical data LL 861 900 220 (HTL version)

Supply voltage V_B	+9 V to +30 V
Current input without load	Max. 80 mA
Maximum load current per output	40 mA
Pulses per revolution	1024
Outputs	6 short-circuit proof square-wave pulses A, A', B, B', 0, 0'
Pulse offset between the two outputs	$90^\circ \pm 25^\circ$ el.
Output amplitude	$V_{High} > 20$ V $V_{Low} < 2.5$ V
Pulse duty factor	1 : 1 $\pm$ 10%
Edge steepness	50 V/ μ s (without load)
Maximum frequency	100 kHz with 350 m cable
Maximum speed	4000 rpm
Ambient temperature range	-20 °C to +80 °C
Degree of protection	IP65
Maximum radial cantilever force	300 N
Maximum axial force	100 N
Connections	Terminal strips in generator M20 x 1.5 radial cable connection
Weight	Approximately 1.3 kg

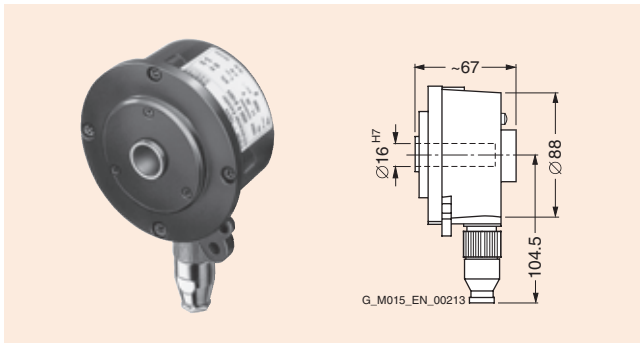


HOG9 D 1024 I pulse generator (mounted on fan cowl)

The generator is fitted with insulated bearings.

- The HOG9 D 1024 I pulse generator can be supplied already fitted. It is possible to mount the encoder onto all motor frame sizes 100 to 225, excluding worm geared motors. Order code **H72**
- The HOG9 D 1024 I pulse generator can be fitted separately. The motor must be prepared for this purpose. It is possible to mount the encoder onto all motor frame sizes 100 to 225, excluding worm geared motors. Order code **H79** must be specified when ordering the motor. The pulse generator is not part of the scope of supply. Parts required for assembly are supplied.

Manufacturer:
Hübner Elektromaschinen AG
10967 Berlin
Planufer 92b
Germany
<http://www.huebner-berlin.de>



Technical data HOG9 D 1024 I (HTL version)

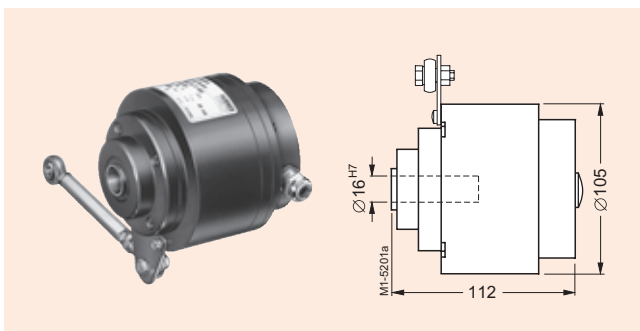
Supply voltage V_B	+9 V to +30 V
Current input without load	50 to 100 mA
Maximum load current per output	60 mA, 300 mA (max.)
Pulses per revolution	1024
Outputs	4 short-circuit proof square-wave pulses A, B and A', B'
Pulse offset between the two outputs	$90^\circ \pm 20\%$
Output amplitude	$V_{High} \geq V_B - 3.5 V$ $V_{Low} \leq 1.5 V$
Pulse duty factor	1 : 1 $\pm 20\%$
Edge steepness	10 V/ μ s
Maximum frequency	120 kHz
Maximum speed	7000 rpm
Ambient temperature range	-20 °C to +100 °C
Degree of protection	IP56
Maximum radial cantilever force	150 N
Maximum axial force	100 N
Connections	Radial right-angle plug (socket is included in the delivery)
Mech. design acc. to Hübner Ident. No.	73 522 B
Weight	Approx. 0.9 kg

HOG10 D 1024 I pulse generator (mounted on fan cowl)

This generator is very robust and, therefore, suitable for service in harsh environments. It is fitted with insulated bearings.

- The HOG10 D 1024 I pulse generator can be supplied already fitted. It is possible to mount the encoder onto all motor frame sizes 100 to 225, excluding worm geared motors. Order code **H73**
- The pulse generator HOG10 D 1024 I can be fitted separately. The motor must be prepared for this purpose. It is possible to mount the encoder onto all motor frame sizes 100 to 225, excluding worm geared motors. Order code **H80** must be specified when ordering the motor. The pulse generator is not part of the scope of supply. Parts required for assembly are supplied.

Manufacturer:
Hübner Elektromaschinen AG
10967 Berlin
Planufer 92b
Germany
<http://www.huebner-berlin.de>



Technical data HOG10 D 1024 I (HTL version)

Supply voltage V_B	+9 V to +30 V
Current input without load	Approx. 100 mA
Maximum load current per output	60 mA, 300 mA (max.)
Pulses per revolution	1024
Outputs	4 short-circuit proof square-wave pulses A, B and A', B'
Pulse offset between the two outputs	$90^\circ \pm 20\%$
Output amplitude	$V_{High} \geq V_B - 3.5 V$ $V_{Low} \leq 1.5 V$
Pulse duty factor	1 : 1 $\pm 20\%$
Edge steepness	10 V/ μ s
Maximum frequency	120 kHz
Maximum speed	7000 rpm
Ambient temperature range	-20 °C to +100 °C
Degree of protection	IP66
Maximum radial cantilever force	150 N
Maximum axial force	80 N
Connections	Terminals, M20 x 1.5 cable connection
Mech. design acc. to Hübner Ident. No.	74055 B
Weight	Approx. 1.6 kg

Separately driven fan

The use of a separately driven fan is recommended to increase motor utilization at low speeds and to limit noise generation at speeds significantly higher than the rated speed. In both cases, this refers to converter-fed operation only. Please enquire about traction and vibratory operation. It is possible to mount a separately driven fan onto all motor frame sizes 63 (71 for worm geared motors) to 225. The separately driven fan can be supplied already fitted.
Order code **G17**

It can also be ordered and fitted separately. Please refer to the spare parts list for ordering data. The separately driven fan has a rating plate with all important data. Please observe the fan's direction of rotation (axial fan) when connecting it. For additional dimensions, see page 8/33 onwards.

Technical data of the separately driven fan

Operating mode	Frame size	Voltage range 50/60 Hz V	Maximum permissible current A	Maximum permitted ambient temperature for 230/400 V, 50 Hz °C
1 ~ Δ (Δ)	63 ¹⁾ /71	230 ... 277	0.12	85
	80	230 ... 277	0.13	85
	90	230 ... 277	0.26	85
	100	230 ... 277	0.28	80
	112	230 ... 277	0.31	70
	132	230 ... 277	0.59	90
	160 ... 225	230 ... 277 ²⁾	1.18	60
3 ~ Y	63 ¹⁾ /71	380 ... 500	0.05	85
	80	380 ... 500	0.05	85
	90	380 ... 500	0.16	80
	100	380 ... 500	0.16	75
	112	380 ... 500	0.16	70
	132	380 ... 500	0.24	85
	160 ... 225	380 ... 500	0.51	75
3 ~ Δ	63 ¹⁾ /71	220 ... 290	0.10	85
	80	220 ... 290	0.10	85
	90	220 ... 290	0.28	80
	100	220 ... 290	0.27	75
	112	220 ... 290	0.27	70
	132	220 ... 290	0.45	85
	160 ... 225	220 ... 290	0.86	75

1) Not available for worm gearboxes.

2) 60 Hz operation only with 277 V.

Load flywheel

All geared motors, excluding worm geared motors, of frame sizes 63 to 112 can be fitted with a load flywheel. The load flywheel aids the soft starting of the motor in order to prevent the gearbox being damaged or destroyed, e.g. in the case of an extremely high load resistance. From a technical point of view, it is only practical to use a load flywheel on 4-pole motors. If a geared motor is supplied with a load flywheel and a brake, the additional moment of inertia and its effect on the braking torque must be taken into account when designing the brake.
Order code **M85**

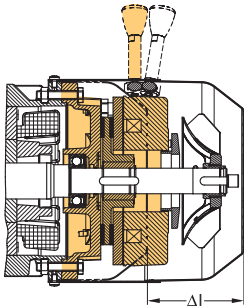
Values from the "Inertias" table can be used to calculate the inertia (see also page 2/10). M85 options can be combined with the mechanical properties of options G21, P00, P01, P02, P03, P04, Y65, K82, P17, P10, P11, P15, P16, P18 (not for frame sizes 63 to 80), and P19 (not for frame sizes 63 to 80).

Inertias for LA-7 motors (4-pole)

Motor frame size	10th position of the order number	Motor inertia J_M 10^{-4} kgm^2	Additional inertia J_{M+} 10^{-4} kgm^2	Motor (drive) inertia $(J_M + J_{M+})$ 10^{-4} kgm^2
71	C	5.20	20.00	25.20
71	D	7.70	20.00	27.70
80	E	14.00	32.00	46.00
80	F	17.00	32.00	49.00
90	G	24.00	100.00	124.00
90	H	33.00	100.00	133.00
100	J	47.00	130.00	177.00
100	K	55.00	130.00	185.00
112	L	120.00	165.00	285.00

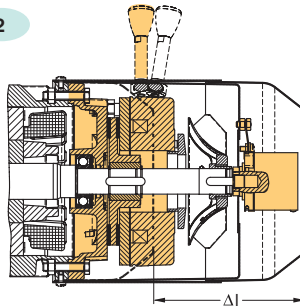
Built-on accessory dimensions

1



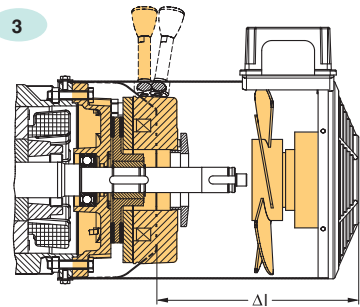
Brake
(G21/P00-P04)
[with manual release (K82)]

2



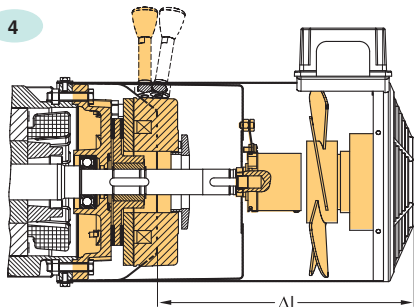
Brake and encoder underneath cowl
(G21/P00-P04 + Pxx)
[with manual release (K82)]

3



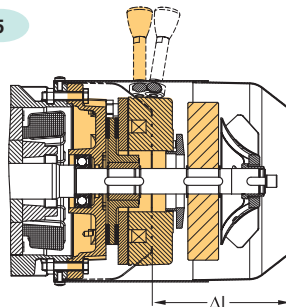
Brake and separately driven fan
(G21/P00-P04 + G17)
[with manual release (K82)]

4



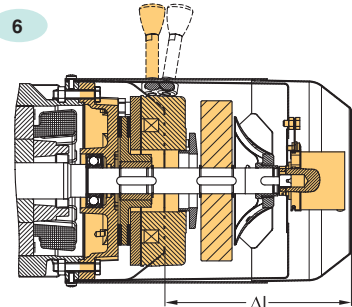
Brake, encoder underneath cowl and separately driven fan
(G21/P00-P04 + Pxx + G17)
[with manual release (K82)]

5



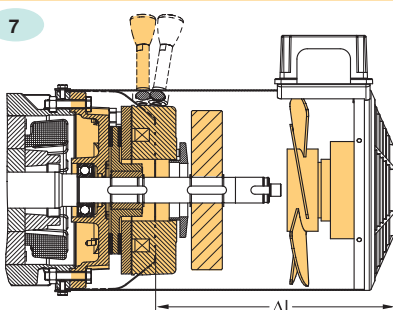
Brake and load flywheel
(G21/P00-P04 + M85)
[with manual release (K82)]

6



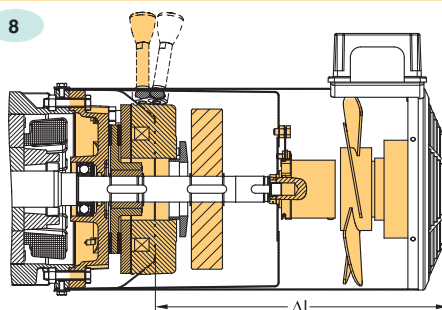
Brake, encoder underneath cowl and load flywheel
(M85 + G21/P00-P04 + Pxx)
[with manual release (K82)]

7



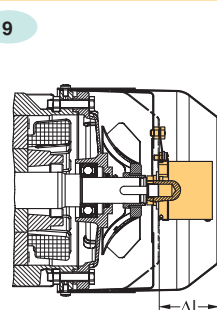
Brake, separately driven fan and load flywheel
(G21/P00-P04 + M85)
[with manual release (K82)]

8



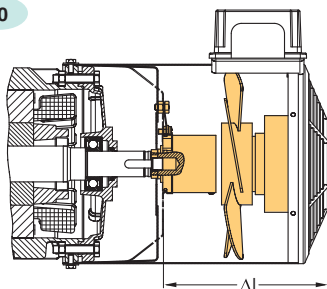
Brake, encoder underneath cowl, separately driven fan and load flywheel
(G21/P00-P04 + M85)
[with manual release (K82)]

9



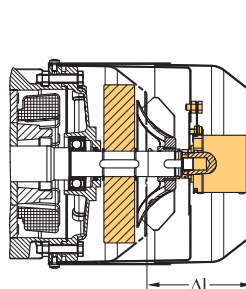
Encoder underneath cowl
(Pxx)

10



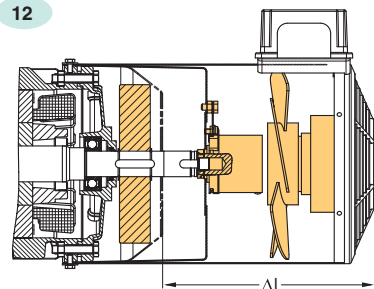
Encoder underneath cowl and separately driven fan
(Pxx + G17)

11



Encoder underneath cowl and load flywheel
(Pxx + M85)

12



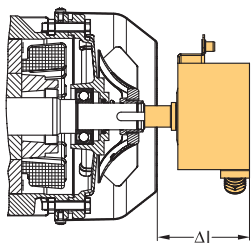
Encoder underneath cowl, separately driven fan and load flywheel
(Pxx + G17 + M85)

Geared motors

Technical explanations and options for motors

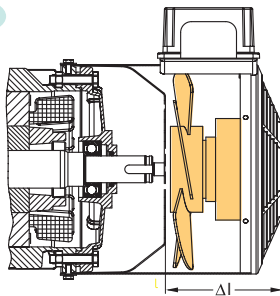
Built-on accessories

13



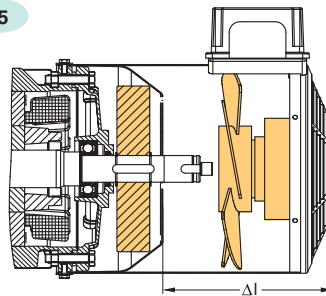
Encoder on cowl (H**)

14



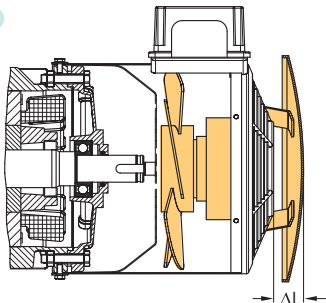
Separately driven fan (G17)

15



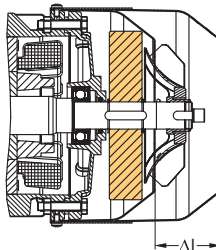
Separately driven fan and load flywheel (G17 + M85)

16



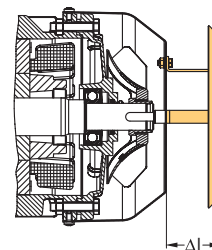
Protective cover (K33) for separately driven fan (G17)

17



Load flywheel (M85)

18



Protective cover (K33) for self-ventilation

G_M015_EN_00044

8

Frame size	Figure 1		2		3		4		5		6							
	Brake 1)		Brake and encoder underneath cowl 3)		Brake + separately driven fan 2)		Brake and encoder underneath cowl and separately driven fan 3)		Brake and load fly-wheel 3)		Brake and encoder underneath cowl and load flywheel 3)							
	G21/ P01/ P03	P00/ P02/ P04	G21/ P01/ P03 + Pxx	P00/ P02/ P04 + Pxx	G21/ P01/ P03 + G17	P00/ P02/ P04 + G17	G21/ P01/ P03 + Pxx + G17	P00/ P02/ P04 + Pxx + G17	G21/ P01/ P03 + M85	P00/ P02/ P04 + M85	G21/ P01/ P03 + Pxx + M85	P00/ P02/ P04 + Pxx + M85						
	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg						
63	56	0.85	–	107	1.35	–	149	3.15	–	201	3.65	–	80	1.7	–	131	2.2	–
71	56	1.5	0.85	107	2	1.35	149	3.8	3.15	201	4.3	3.65	80	2.8	2.2	131	3.3	2.7
80	60	2.6	1.5	111	3.1	2	154	5	3.9	206	5.5	4.4	82	4.3	3.2	134	4.8	3.7
90	78	3.9	2.6	129	4.4	3.1	181	6.9	5.6	234	7.4	6.1	118	8.0	6.7	169	8.5	7.2
100	94	5.8	3.9	147	6.5	4.6	199	9	7.1	251	9.7	7.8	128	10.1	8.2	179	10.8	8.9
112	97	8.4	5.8	149	9.1	6.5	201	11.9	9.3	253	12.6	10	136	13.2	10.6	187	13.9	11.3
132	124	12.5	8.4	174	13.2	9.1	249	17	12.9	301	17.7	13.6	–	–	–	–	–	–
160	138	21	12.5	190	21.7	13.2	289	27.5	19	341	28.2	19.7	–	–	–	–	–	–
180	129	21	21	184	22	22	292	28	28	334	29	29	–	–	–	–	–	–
200	150	32	32	202	33	33	302	39.5	39.5	353	40.5	40.5	–	–	–	–	–	–
225	150	32	32	202	33	33	302	39.5	39.5	353	40.5	40.5	–	–	–	–	–	–

1) In the case of worm geared motors, only the **G21** standard brake is available for frame size 63 and only the **P02** brake is available for frame sizes 71 to 90.

2) Not available for frame size 63 worm geared motors.

3) Not available for worm geared motors.

	Figure 7			8			9		10		11		12	
Frame size	Brake, separately driven fan and load flywheel ³⁾			Brake and encoder underneath cowl, separately driven fan and load flywheel ³⁾			Encoder underneath cowl (Pxx) ³⁾		Encoder underneath cowl and separately driven fan (Pxx + G17) ³⁾		Encoder underneath cowl and load flywheel (M85+Pxx) ³⁾		Encoder underneath cowl, separately driven fan and load flywheel (Pxx + G17 + M85) ³⁾	
	G21/ P01/ P03 + G17 + M85	P00/ P02/ P04 + G17 + M85		G21/ P01/ P03 + Pxx + G17 + M85	P00/ P02/ P04 + Pxx + G17 + M85		Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg
63	174	4.0	–	226	4.5	–	56	0.5	149	2.8	78	1.4	174	3.7
71	174	5.1	4.5	226	5.6	5.0	56	0.5	149	2.8	78	1.8	174	4.1
80	177	6.7	5.6	229	7.2	6.1	53	0.5	147	2.9	78	2.2	173	4.6
90	223	11.0	9.7	274	11.5	10.2	54	0.5	158	3.5	102	4.6	207	7.6
100	233	13.3	11.4	284	14.0	12.1	58	0.7	163	3.9	103	5.0	208	8.2
112	241	16.7	14.1	292	17.4	14.8	57	0.7	161	4.2	104	5.5	209	9.0
132	–	–	–	–	–	–	57	0.7	183	5.2	–	–	–	–
160	–	–	–	–	–	–	58	0.7	208	7.2	–	–	–	–
180	–	–	–	–	–	–	59	1	211	8	–	–	–	–
200	–	–	–	–	–	–	60	1	212	8.5	–	–	–	–
225	–	–	–	–	–	–	60	1	212	8.5	–	–	–	–

Frame size	Figure 13		14		15		16		17		18		Diameter of separately driven fan cowl
	Encoder on cowl (H**) ³⁾⁴⁾		Separately driven fan (G17) ²⁾		Separately driven fan and load fly-wheel (G17 + M85) ³⁾		K33 protective cover ²⁾ for G17 separately driven fan		Load flywheel (M85) ³⁾		K33 protective cover for self-ventilation		
	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	Δl mm	Weight kg	
63	–	–	97	2.3	122	3.2	42	0.4	27	0.9	27	0.4	139
71	–	–	97	2.3	122	3.6	42	0.6	27	1.3	27	0.6	139
80	–	–	95	2.4	121	4.1	45	0.8	26	1.7	27	0.8	157
90	–	–	105	3	158	7.1	35	1.1	51	4.1	52	1.1	177
100	90	2	110	3.2	156	7.5	33	1.4	51	4.3	52	1.4	195
112	90	2	109	3.5	161	8.3	39	1.8	53	4.8	52	1.8	219
132	90	2	132	4.5	–	–	30	2.4	–	–	53	2.4	259
160	90	2	159	6.5	–	–	37	3	–	–	53	3	312
180	90	2	159	7	–	–	37	3.5	–	–	82	3.5	312 [352]
200	90	2	160	7.5	–	–	37	4.3	–	–	82	4.3	312 [392]
225	90	2	160	7.5	–	–	37	4.3	–	–	82	4.3	312 [392]

1) In the case of worm geared motors, only the **G21** standard brake is available for frame size 63 and only the **P02** brake is available for frame sizes 71 to 90.

2) Not available for frame size 63 worm geared motors.

3) Not available for worm geared motors.

4) For encoder mounted on fan cowl H73/H80 Δl is 135 mm for motor frame size 100 to 225.

[] Value of the specified motor diameter (motor flange), as this is greater than the diameter of the separately driven fan cowl.

Converters

MICROMASTER® 411/COMBIMASTER® 411

The new MICROMASTER 411/COMBIMASTER 411 series is included in the DA 51.3 catalog which contains the complete product range along with ordering data, technical details and explanations.

Field of application

The MICROMASTER 411/COMBIMASTER 411 is the ideal solution for distributed drive applications which require a high degree of protection. The devices have been designed for a broad range of drives, from simple individual applications for pumps and fans up to multiple conveyor drives in networked control systems.

They are based on MICROMASTER 420 universal inverters. The inverters are especially characterized by their customer-oriented performance and ease-of-use.

Design

The modular design makes it possible to select individual MICROMASTER 411/COMBIMASTER 411 products including accessories, e.g. electromechanical brake controls or a PROFIBUS module.

Derating data

Pulse frequency

Reduced the rated output current, dependent on the pulse frequency. The pulse frequency is preset at the factory to 4 kHz.

Main characteristics

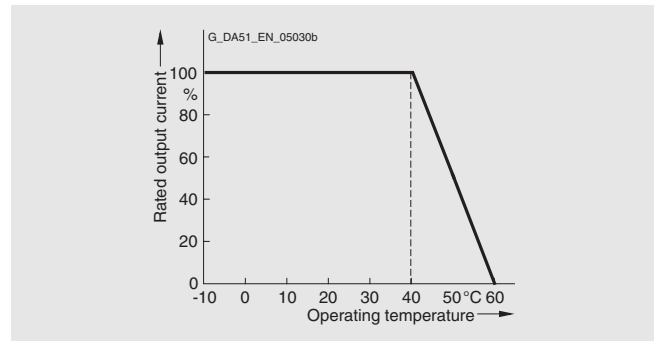
- MICROMASTER 411/COMBIMASTER 411 replace the MICROMASTER integrated/COMBIMASTER (2nd generation) ranges
- IP66 degree of protection (MICROMASTER 411)
- Natural ventilation
- Electrical isolation of electronics and connection terminals
- Parameter sets for fast startup and cost savings
- Modular construction with many accessories
- Operation is possible without an operator panel (when using jumpers and/or control potentiometers)
- Integrated control potentiometer accessible from outside
- A11 motor PTC thermistor can be evaluated using digital input 3 (if a PTC thermistor is present, this is connected at the factory)

For more information, see the "MICROMASTER 411" operating instructions.

Power (at 400 V 3 AC)	Rated output current in A at a pulse frequency of						
kW	4 kHz	6 kHz	8 kHz	10 kHz	12 kHz	14 kHz	16 kHz
0.37	1.2	1.2	1.2	1.2	1.2	1.2	1.2
0.55	1.6	1.6	1.6	1.6	1.6	1.6	1.2
0.75	2.1	2.1	2.1	2.1	1.8	1.8	1.2
1.1	3.0	3.0	2.7	2.7	1.8	1.8	1.2
1.5	4.0	4.0	2.7	2.7	1.8	1.8	1.2
2.2	5.9	5.9	5.1	5.1	3.5	3.5	2.3
3.0	7.7	7.7	5.1	5.1	3.5	3.5	2.3

Operating temperature

The MM 411 data applies to an ambient temperature of up to 40 °C. If the ambient temperature is any higher than this, the output current must be reduced.



Site altitude above sea level

If the site altitude exceeds 1000 m above sea level, the rated output current must be reduced. If the altitude exceeds 2000 m, the permissible mains voltage must also be checked.

Hoist applications

We recommend that you contact the Siemens sales office if you wish to use hoist applications, in order to work out an optimum converter solution.

Torque utilization

The suitability of a motor for use in a particular application depends on the permissible torque characteristic over the speed range.

Typical characteristics for the continuous permissible torque of a self-ventilated motor with a rated frequency of 50 Hz can be seen in the figures opposite. At low speeds, reduced ventilation means that the useful torque is considerably less than it is at 50 Hz. The torque reduction factor is not the same for all motors.

The voltage remains the same for frequencies above the rated frequency f_{rated} , if the converter has reached its maximum output voltage. The motor is operated with field weakening in this range. The thermally useful torque is approximately f_{rated}/f . As the stalling torque decreases with $(f_{rated}/f)^2$, the safety clearance to the stalling torque drops and the drive's load capability is also reduced.

Overload capability

All data applies to S1 operation. Furthermore, the converter can be loaded with 1.5 times the rated output current for 60 s at a cycle time of 300 s.

Noise during converter operation

Increased noise should be expected if operating at over 50 Hz. Therefore, it is recommended that 2-pole motors are not used in such cases.

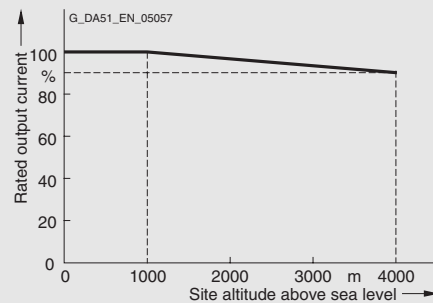
Mounting position with inverter

The mounted 411 inverter can be operated in almost any mounting position on the geared motor, but not with the heat sink facing downwards.

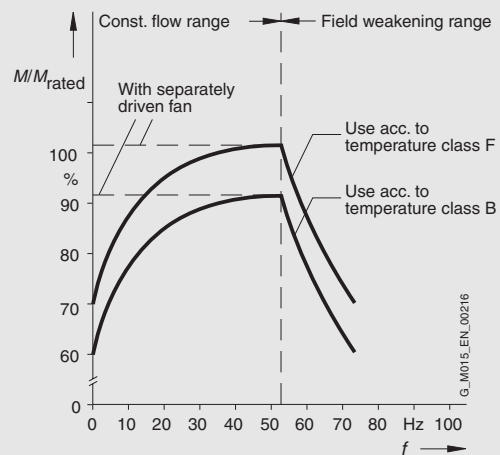
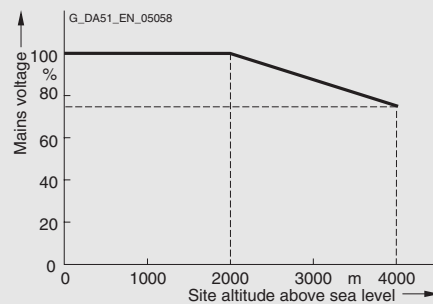
EMC

The mounted inverter can be supplied unfiltered or with a class B RFI suppression filter.

Permissible output current
as % of the rated output current



Permissible mains voltage
as % of the max. possible mains voltage



Geared motors

Technical explanations and options for motors

Distributed drive systems

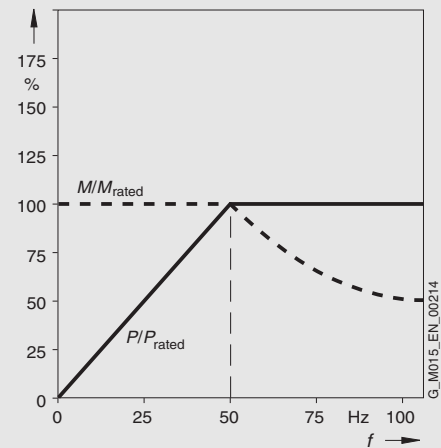
Operation with 87 Hz characteristic

The geared motor can also be operated at higher speeds than the rated speed. The continuous permissible torque available on the motor is reduced proportionally to the increase in speed.

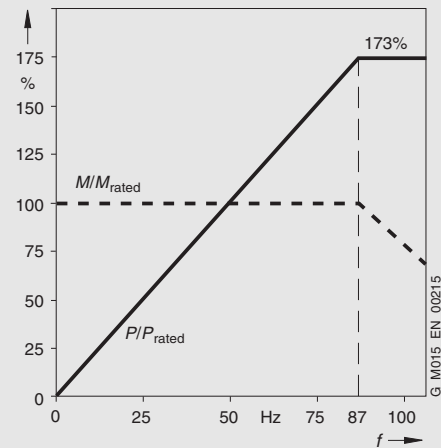
In order to operate the motor with a constant torque at higher speeds than the rated speed, the "87 Hz characteristic" can be used. This means that the motor is delta-connected. In such cases, the converter is designed to the larger resulting motor current. With this operating mode, the continuous permissible motor torque can be kept almost constant at up to 87 Hz. Field weakening does not begin until 87 Hz is exceeded (see diagrams opposite).

Converters for 87 Hz operation can be ordered using voltage code number **9** and order code **R3A** (400 VΔ, 87 Hz), without payment of a surcharge.

Operation at 50 Hz



Operation at 87 Hz



Operation with 50 Hz characteristic

4-pole, Y 50 Hz

Rated power	Frame size	10th position of the order number	Rated speed	Rated current at 400 V	Rated torque
kW			rpm	A	Nm
0.12	63 M	A	1350	0.42	0.85
0.18		B	1350	0.56	1.3
0.25	71 M	C	1350	0.77	1.8
0.37		D	1370	1.06	2.6
0.55	80 M	E	1395	1.44	3.8
0.75		F	1395	1.86	5.1
1.1	90 S	G	1415	2.55	7.4
1.5		H	1420	3.4	10
2.2	100 L	J	1420	4.7	15
3		K	1420	6.4	20
4	112 M	L	1440	8.2	27
5.5	132 S	M	1455	11.4	36
7.5	132 M	N	1455	15.2	49

Operation with 87 Hz characteristic

4-pole, Δ 87 Hz

Rated power	Frame size	10th position of the order number	Rated speed	Rated current at 400 V	Rated torque
kW			rpm	A	Nm
0.20	63 M	A	2460	0.70	0.78
0.30		B	2460	0.95	1.16
0.45	71 M	C	2460	1.40	1.75
0.65		D	2480	1.80	2.5
0.95	80 M	E	2510	2.5	3.61
1.3		F	2510	3.2	5
1.9	90 S	G	2530	4.4	7.2
2.5		H	2540	5.7	9.4
3.6	100 L	J	2540	8.0	13.5
5.0		K	2540	11.0	18.6
6.5	112 M	L	2560	14.0	24.2
9.0	132 S	M	2570	19.5	33.4
12.5	132 M	N	2570	26.0	46.4

Options

- PROFIBUS module, order code **M54**
The PROFIBUS module can be fed by an external 24 V DC power supply and is thus also active when the converter is disconnected from the power supply. The PROFIBUS module is housed in an external case.
- PROFIBUS module with ECOFAST connector.
Order code **M80**
- AS interface module
This module enables a converter to communicate as a slave in an AS (Actuator Sensor) interface communications network. The module is housed in an external case.
Order code **M53**
- DeviceNet module
This module enables a converter to communicate as a node in a DeviceNet communications network. The module is housed in an external case.
Order code **M56**

- EM brake control module, order code **M55**
This module controls an electromechanical brake which is mounted onto the motor. The module is housed in an external case and contains the brake power supply of 180 V DC. Therefore, the brake option C02 must be selected. It is also possible to operate a brake with 230 V, but the power must then be supplied separately. Also, if you wish to supply the brake with 24 V DC, the power must be supplied separately. Options G23 and G24 are always included automatically.
- Brake chopper, order code **M79**
If the motor is being operated in generator mode, the braking energy can be dissipated via a brake resistor. The **M79** option always includes the EM brake control.

Variant-independent options

Options	Order No.	Order code (additional identification code "-Z") for COMBIMASTER only
Basic Operator Panel (BOP)	6SE6400-0BP00-0AA0	–
Advanced Operator Panel (AOP) for MICROMASTER 411/COMBIMASTER 411	6SE6400-0AC00-0AA0	–
AS interface module	6SE6401-1AS00-0AA0	M53
PROFIBUS module	6SE6401-1PB00-0AA0	M54
DeviceNet module	6SE6401-1DN00-0AA0	M56
EM module (electromechanical brake control module)	6SE6401-1EM00-0AA0	M55
REM module (dynamic brake and control module for electromechanical brake)	6SE6401-1RB00-0AA0	M79
Non-Siemens motor packing set (1 set = 13 pieces)	6SE6401-0MG00-0AA0	–
Mounting set operator panel (contains mounting frame and interface link cable)	6SE6401-1DF00-0AA0	–
Serial interface link cable	6SE6401-1BL00-0AA0	–
PC/converter connection set (contains RS 232 standard cable and adapter for mounting set operator panel)	6SE6400-1PC00-0AA0	–
Connection set for PC to AOP	6SE6400-0PA00-0AA0	–
Operator panel door mounting set for single converter	6SE6400-0PM00-0AA0	–
5 m cable set for door mounting set	6SE6401-1CA00-0AA0	–
Wall mounting set for MICROMASTER 411	6SE6401-0WM00-0AA0	–

Geared motors

Technical explanations and options for motors

Distributed drive systems

Variant-dependent options

The options listed here:

- Fuses
- Circuit-breakers

must be selected for their suitability for the converter in question.

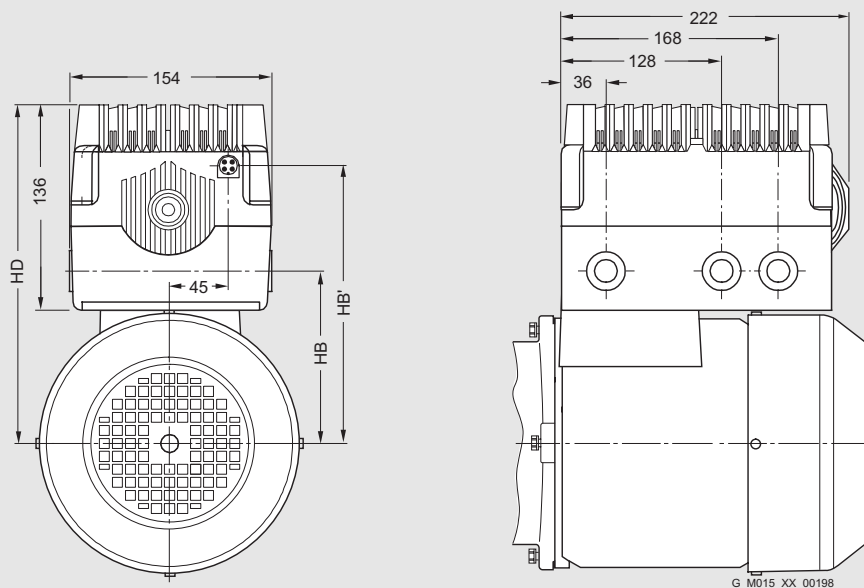
	Output kW	Case size (converter)	Order No. of the accessories	
			Fuse (see Catalog ET B1 04/2004)	Circuit-breaker (see Catalog LV 10 2004)
Mains operating voltage 3 AC 380 V to 480 V				
MICROMASTER 411/COMBIMASTER 411 <i>Without filter</i>	0.37	B	3NA3803	3RV1021-1CA10
	0.55	B		3RV1021-1DA10
	0.75	B		3RV1021-1EA10
	1.1	B		3RV1021-1GA10
	1.5	B		3RV1021-1HA10
	2.2	C	3NA3805	3RV1021-1JA10
	3.0	C		3RV1021-1KA10
MICROMASTER 411/COMBIMASTER 411 <i>With class B filter</i>	0.37	B	3NA3803	3RV1021-1CA10
	0.55	B		3RV1021-1DA10
	0.75	B		3RV1021-1EA10
	1.1	B		3RV1021-1GA10
	1.5	B		3RV1021-1HA10
	2.2	C	3NA3805	3RV1021-1JA10
	3.0	C		3RV1021-1KA10

Documentation

Type of documentation	Language	Order No.
Docu pack , supplied with each MICROMASTER 411, COMBIMASTER 411, containing a CD-ROM ¹⁾ and a Getting Started Guide ²⁾ (paper version)	Multilanguage	6SE6400-5FC00-1AP0
Operating instructions ²⁾ (paper version)	German	6SE6400-5CA00-0AP0
	English	6SE6400-5CA00-0BP0
	French	6SE6400-5CA00-0DP0
	Italian	6SE6400-5CA00-0CP0
	Spanish	6SE6400-5CA00-0EP0
Parameter list ²⁾	German	6SE6400-5CE00-0AP0
	English	6SE6400-5CE00-0BP0
	French	6SE6400-5CE00-0DP0
	Italian	6SE6400-5CE00-0CP0
	Spanish	6SE6400-5CE00-0EP0

Dimensions for mounting onto geared motor

COMBIMASTER 411, case size B



Motor frame size	Dimensions		
	HB	HB'	HD
71	101	164	208
80	110	173	217
90 S	118	181	225
90 L	118	181	225

1) The CD-ROM contains operating instructions, a parameter list and the STARTER (DriveMonitor) commissioning tool, in several languages.

2) Available on the Internet at <http://www.siemens.com/micromaster>.

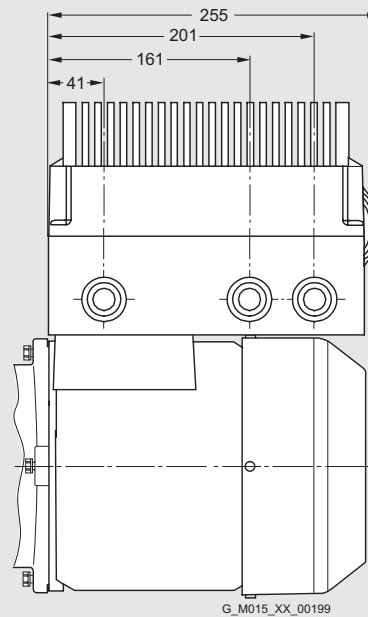
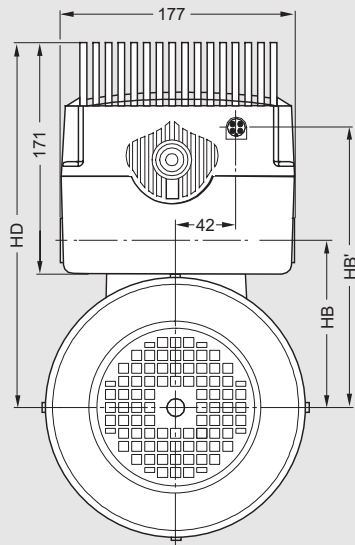
Geared motors

Technical explanations and options for motors

Distributed drive systems

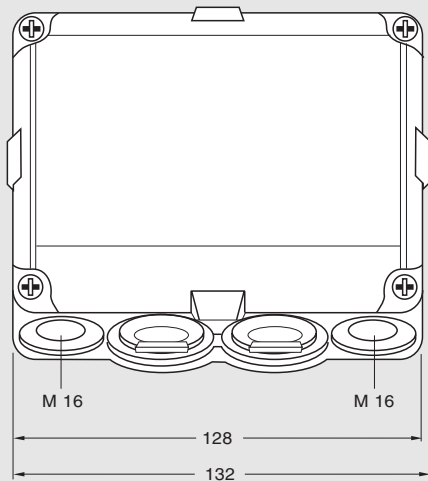
Dimensions for mounting onto geared motor

COMBIMASTER 411, case size C

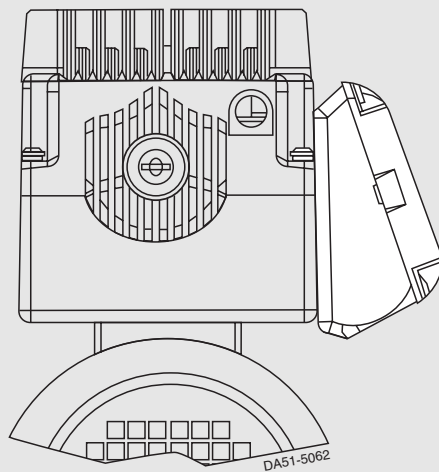
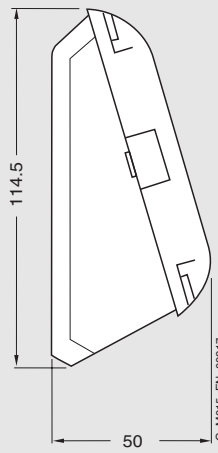


Motor frame size	Dimensions		
	HB	HB'	HD
90 L	112	190	260
100 L	129	200	270
112 M	142	213	283

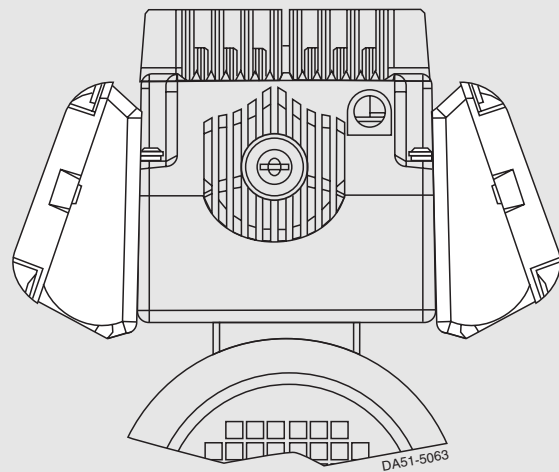
Dimensions for accessories



External case for accessories for PROFIBUS module or electromechanical brake control module



External case on converter e.g. with a PROFIBUS module



Two external cases on converter with electromechanical brake control module and PROFIBUS module

Distributed drive systems

ECOFAST

ECOFAST® is a system which permits extensive decentralization and a modular structure for installation elements on the component level (motor starter, converter, PLC, etc.).

For further explanations of ECOFAST, see Catalog IK PI and Catalog DA 51.3.

ECOFAST Han-Drive 10e motor connector

The motor connector is mounted in the factory and replaces the terminal box with terminal board. It consists of a curved motor connection case which can be rotated by 4 x 90°. A 10-pole (+ ground terminal) pin insert is placed in the case. The winding terminations and, optionally, the brake power supply and the temperature sensor signal cables are connected in the connector.

The ECOFAST motor connector is compatible with other products from the ECOFAST field range system. For more information, please see Catalog IK PI.

Unshielded connection

Order code **G55**

Shielded motor connecting leads must be used for frequency converters and soft starters.

Shielded connection

Order code **G56**

The mounting dimensions of this case correspond to those of standard industrial connectors, meaning that a whole range of different standard inserts can be used (e.g. Han E®, ES, ESS from Harting). The motor connection (star or delta connection) is selected in the mating connector to the motor connection. The required bridges are inserted into the mating connector by the customer.

Any standard socket case with longitudinal locking and frame size 10B (e.g. from Harting) can be used as a case for the mating connector.

In comparison to a terminal box, some of the advantages are:

- Fast assembly of I/O devices belonging to the ECOFAST system
- Reduction of assembly and repair times for end user
- No wiring errors due to connector technology
- Replacement of motor without affecting the electrics.

ECOFAST Han Q4/2 connector

The converter can be supplied with a Han Q4/2 connector. The COMBIMASTER 411 is ideally suited to the ECOFAST distributed system which does not feature a control cabinet when used in conjunction with this connector. The benefits of the fully standardized ECOFAST connection system for communication and power distribution include, for example,

fast assembly, looping through of the line supply and a high degree of protection with an open system architecture. The COMBIMASTER can be delivered in conjunction with an ECOFAST connector up to 2.2 kW.

Order code **W20** for 50 Hz and **W21** for 87 Hz

ECOFAST (contd.)

Ordering data for variant-independent options

Options	Order No.
Basic Operator Panel (BOP)	6SE6400-0BP00-0AA0
Advanced Operator Panel (AOP)	6SE6400-0AC00-0AA0
Mounting set operator panel (contains mounting frame and interface link cable)	6SE6401-1DF00-0AA0
Serial interface link cable	6SE6401-1BL00-0AA0
PC/converter connection set (contains RS 232 standard cable and adapter for mounting set operator panel)	6SE6400-1PC00-0AA0
Connection set for PC to AOP	6SE6400-0PA00-0AA0
Operator panel door mounting set for single converter	6SE6400-0PM00-0AA0
5 m cable set for door mounting set	6SE6401-1CA00-0AA0
PROFIBUS addressing connector	6ES7194-1KB00-0XA0

Variant-dependent options

	Output kW	Case size (converter)	Order No. of the accessories Fuse (see Catalog LV 10)	Circuit-breaker (see Catalog LV 10)
Mains operating voltage 3 AC 380 V to 480 V				
MICROMASTER 411 ECOFAST/ COMBIMASTER 411 ECOFAST Without filter	0.37	B	3NA3803	3RV1021-1CA10
	0.55	B		3RV1021-1DA10
	0.75	B		3RV1021-1EA10
	1.1	B		3RV1021-1GA10
	1.5	B		3RV1021-1HA10
	2.2	C	3NA3805	3RV1021-1JA10
	3.0	C		3RV1021-1KA10
MICROMASTER 411 ECOFAST/ COMBIMASTER 411 ECOFAST With class B filter	0.37	B	3NA3803	3RV1021-1CA10
	0.55	B		3RV1021-1DA10
	0.75	B		3RV1021-1EA10
	1.1	B		3RV1021-1GA10
	1.5	B		3RV1021-1HA10
	2.2	C	3NA3805	3RV1021-1JA10
	3.0	C		3RV1021-1KA10

Documentation

Type of documentation	Language	Order No.
Docu pack , supplied with each MICROMASTER 411/ COMBIMASTER 411, containing a CD-ROM ¹⁾ and a Getting Started Guide ²⁾ (paper version)	Multilanguage	6SE6400-5FC00-1AP0
ECOFAST operating instructions ²⁾ (paper version)	German	6SE6400-5CC00-0AP0
	English	6SE6400-5CC00-0BP0
	French	6SE6400-5CC00-0DP0
	Italian	6SE6400-5CC00-0CP0
	Spanish	6SE6400-5CC00-0EP0
Parameter list ²⁾	German	6SE6400-5CE00-0AP0
	English	6SE6400-5CE00-0BP0
	French	6SE6400-5CE00-0DP0
	Italian	6SE6400-5CE00-0CP0
	Spanish	6SE6400-5CE00-0EP0

1) The CD-ROM contains operating instructions, a parameter list and the STARTER and DriveMonitor commissioning tools, in several languages.

2) Available on the Internet at <http://www.siemens.com/combimaster>.

Geared motors

Technical explanations and options for motors

Distributed drive systems

Distributed motor starter



Distributed motor starters are used locally to switch and protect loads. Variants with graded functionality and different installation options allow for the functional requirements of the process and the constructive layout of the machine or plant. Distributed motor starters are available for PROFIBUS DP and AS interface.

The starters can be installed close to the motor or directly onto the motor.

The following are available:

- Special equipment for distributed motors and
- Isolated solutions (ET 200X) for drives which are close to each other.

The functionality of the ECOFAST system ranges from direct starters via reversing starters and soft starters up to frequency converters.

Brake contacts for the starters are available as an option. The sensors can be operated with only two to four integrated digital inputs.

All starters are equipped with standardized interfaces for data and power, in accordance with the ECOFAST specification (conforming to DESINA):

- HanBrid for PROFIBUS DP
- Han Q8 for the power supply
- Han 10e for the motor connection

To ensure uninterrupted operation, the starters can be installed with T pieces for data and power.

Selection and ordering data

Version					Order No.	
Field bus interface	Switching function	Motor protection	Setting range/ performance range	Brake output		
PROFIBUS DP	mechanical	Thermistor	0.3 to 9 A/4 kW ¹⁾	No	3RK1 303-2AS51-1AA0	
				400 V AC	3RK1 303-2AS51-1AA3	
			thermal motor model	0.3 to 3 A/1.1 kW	No	3RK1 303-5BS41-1AA0
		400 V AC			3RK1 303-5BS41-1AA3	
		2.4 to 9 A/4 kW		No	3RK1 303-5CS41-1AA0	
			400 V AC	3RK1 303-5CS41-1AA3		
	solid-state soft	full motor protection	0.3 to 3 A/1.1 kW	No	3RK1 303-6BS71-1AA0	
				400 V AC	3RK1 303-6BS71-1AA3	
			2.4 to 12 A/5.5 kW	No	3RK1 303-6DS71-1AA0	
		400 V AC		3RK1 303-6DS71-1AA3		
		solid-state soft, several speeds, R255		0.6 to 4 A/1.5 kW	400 V AC	3RK1 303-6ES81-3AA3
AS interface	mechanical	Thermistor	0.3 to 9 A/4 kW ¹⁾	No	3RK1 323-2AS51-1AA0	
				400 V AC	3RK1 323-2AS51-1AA3	
			thermal motor model	0.3 to 3 A/1.1 kW	No	3RK1 323-5BS41-1AA0
		400 V AC			3RK1 323-5BS41-1AA3	
		2.4 to 9 A/4 kW		No	3RK1 323-5CS41-1AA0	
			400 V AC	3RK1 323-5CS41-1AA3		
	solid-state soft	full motor protection	0.3 to 3 A/1.1 kW	No	3RK1 323-6BS71-1AA0	
				400 V AC	3RK1 323-6BS71-1AA3	
			2.4 to 12 A/5.5 kW	No	3RK1 323-6DS71-1AA0	
		400 V AC		3RK1 323-6DS71-1AA3		
		solid-state soft, several speeds, R255		0.6 to 4 A/1.5 kW	400 V AC	3RK1 323-6ES81-3AA3

1) The range from 0.3 to 9 A is fixed (value range) and cannot be set/changed manually.

For more detailed explanations, see Catalog IK PI 2003, Chapter 9.

Technical explanations and options for gearboxes

9



- 9/2 Special lubricants
- 9/2 Oil level indicator
- 9/2 Electric oil monitoring
- 9/2 Gearbox ventilation
- 9/3 Magnetic screw plug
- 9/3 Oil drain cock
- 9/3 Cassette seal
- 9/3 Viton seal
- 9/3 Labyrinth seal
- 9/4 Hollow shaft cap
- 9/5 Shrink disk cap



Special lubricants

The lubricants below can be used for gearbox applications with special requirements:

- For use at expanded ambient temperatures, as on page 2/21: Synthetic oil, adjusted to the application, order code **S12**
Low temperature oil (−40 °C to −20 °C) and oil for use at high operating temperatures (+40 °C to +80 °C) are available on request.

- For use in drinking water areas: Biodegradable oil
Order code **S15**
- For use in various industrial areas: Foodstuff-compatible oil, for example
Order code **S13**

Oil level indicator

For most types and mounting positions, gearboxes can be equipped with an optical oil level indicator (oil level lens).

Order code **S18**

Not available for worm geared motors.

Electric oil monitoring

Electric oil monitoring can be used on request for the majority of gearbox sizes, depending on the mounting position of the gearbox. A capacitive sensor can be used to remotely monitor the gearbox oil level in hard-to-reach areas. The capacitive sensor is only used for initial monitoring, not for continual measuring.

The oil level is checked when the gearbox is at a standstill. Electric oil monitoring is used instead of the screw plug in the oil level bore, in accordance with the mounting position.

Order code **S36**

Not available for worm geared motors.

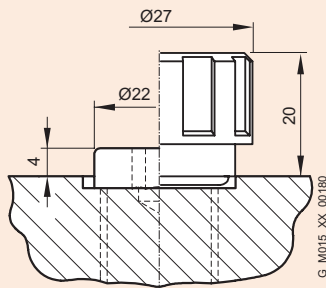
Gearbox ventilation

Ventilation is not required and, therefore, not provided for helical, offset and bevel gearboxes up to size 3, nor for worm gearboxes. A venting screw is supplied as standard for all other gearboxes. The position of the ventilation units can be seen in the

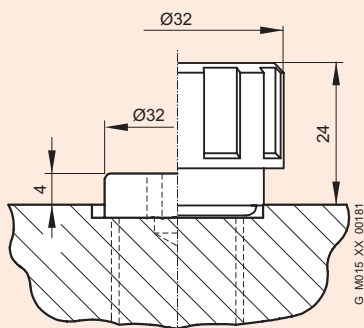
operating instructions. The position of the venting screw in a horizontal type (IM B3, IM B5) is shown in the dimension drawings below.

Vent valves (IP55) can be used, if requested by the customer.

Order code **S19**



Gearbox	Size
Helical gearbox	E41 – E121 H42 – H123
Offset gearbox	O43 – O123
Bevel-helical gearbox	K43 – K123
Helical-worm gearbox	C32 – C82



Gearbox	Size
Helical gearbox	E141 H142 – H183
Offset gearbox	O142 – O183
Bevel-helical gearbox	K143 – K183

Magnetic screw plug

A magnetic screw plug, inserted in the oil drain hole, is available on request for helical, offset and bevel-helical gearboxes size 4 and above and for all helical-worm gearboxes.

This serves to collect iron/steel chips contained in the gearbox oil. Order code **S37**

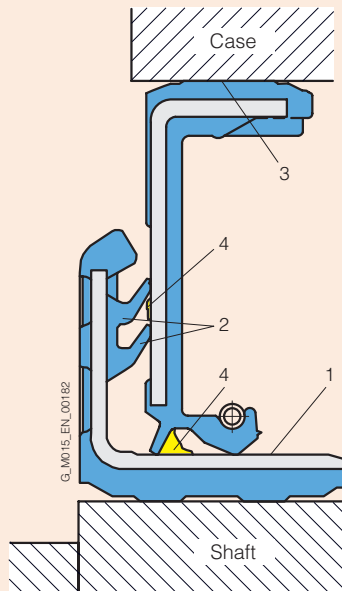
Oil drain cock

An oil drain cock can be supplied on request for helical, offset and bevel-helical gearboxes size 4 and above and for all helical-worm gearboxes.

Depending on the mounting position, the oil cock has either a straight or curved design, complete with a screw plug.

Cassette seal

A cassette seal is available for helical, offset, bevel-helical and helical-worm gearboxes up to and including gearbox size 16. Order code **S35**



- 1 • Protected bearing surface for radial shaft sealing ring
 - No damage caused during mounting
- 2 • Additional sealing lips to protect from dirt
 - Disconnected sealing system prevents the shaft running in due to corrosion or dirt
- 3 • Rubberized inside and outside diameters
- 4 • Grease pad prevents the sealing lips running dry

Viton seal

On request, it is possible to equip all gearbox types with a viton seal (fluorine rubber) for high operating temperatures (+60 °C to +100 °C). Order code **S39**

Labyrinth seal

A labyrinth seal can be supplied on request for offset, bevel-helical and helical-worm gearboxes size 8 and above. This taconite seal is required in certain sectors if abrasive media are used

as a load. Any necessary regreasing operations are carried out directly via the integrated greasing nipple.

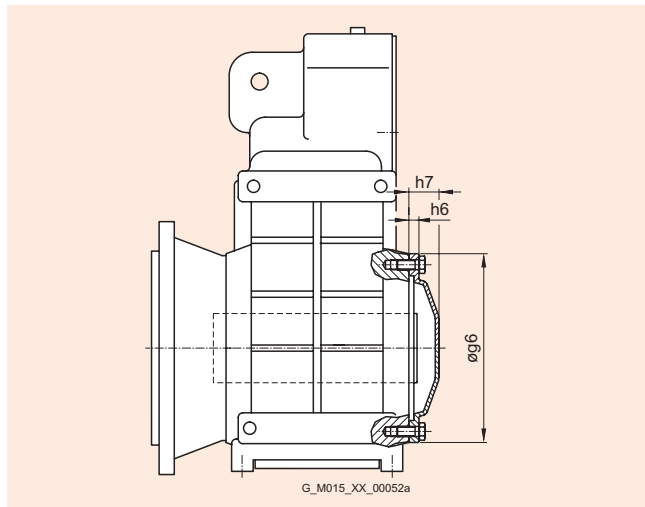
Geared motors

Technical explanations and options for gearboxes

Hollow shaft cap

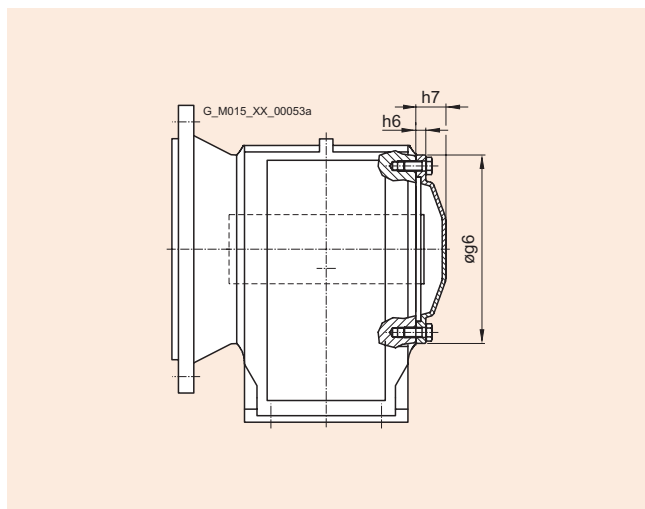
The fixed hollow shaft cap is supplied loose if order code **S30** is used.

Offset gearbox



Type	g6	h6	h7
O32/O33	120	10	33
O42/O43	132	10	33
O62/O63	150	10	37
O82/O83	190	13	50
O102/O103	245	13	55
O122/O123	295	16	48
O142/O143	335	13	50
O162/O163	400	13	50
O182/O183	400	13	50

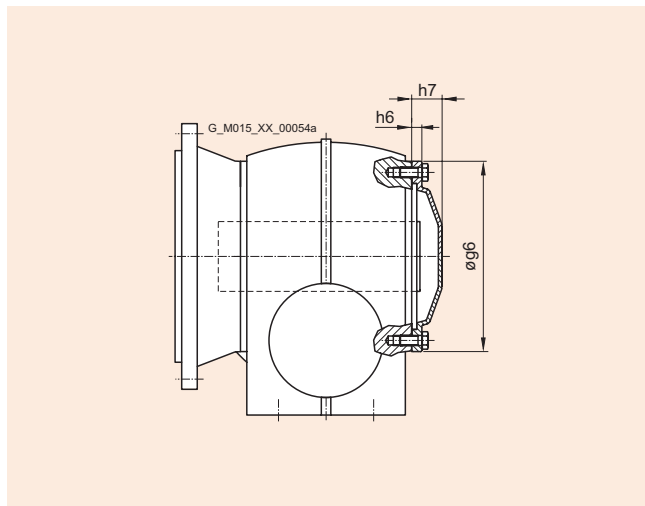
Bevel-helical gearbox



Type	g6	h6	h7
K33 *	120	10	33
K43	132	10	33
K63	150	10	37
K83	190	13	50
K103	245	13	55
K123	295	16	48
K143	335	13	50
K163	400	13	50
K183	400	13	50

* Not available for foot-mounted or torque arm types.

Helical-worm gearbox



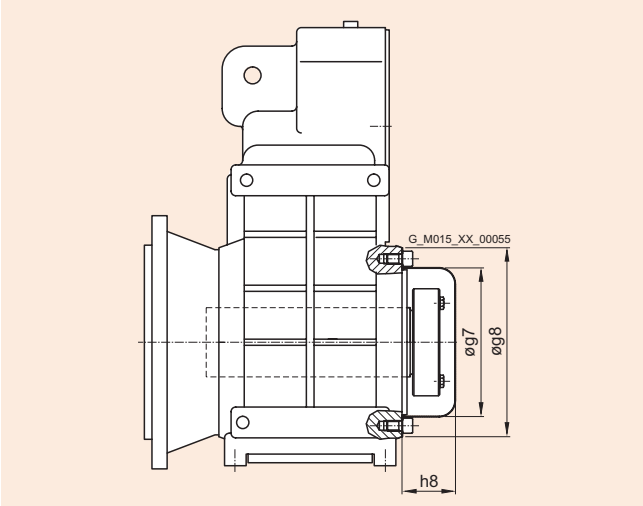
Type	g6	h6	h7
C32 **	120	10	33
C42 **	132	10	33
C62 **	150	10	37
C82 **	190	13	50

** Not available for foot-mounted types.

Shrink disk cap

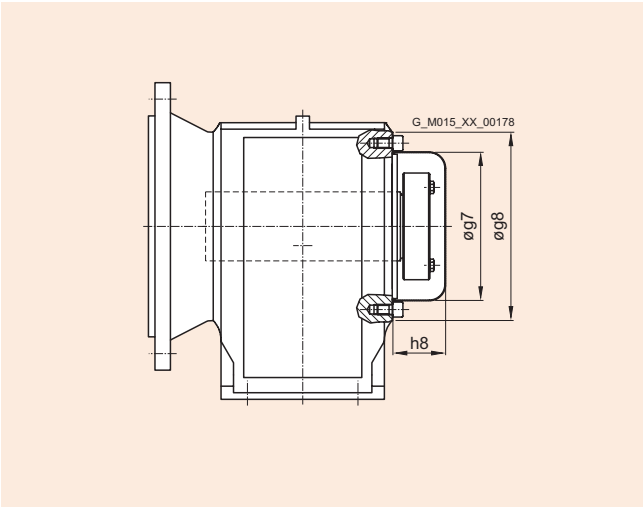
The fixed shrink disk cap is supplied loose if order code **S31** is used.

Offset gearbox



Type	g7	g8	h8
O32/O33	82.2	115	40
O42/O43	99	130	44
O62/O63	115	150	62.5
O82/O83	137	190	70
O102/O103	187	240	80
O122/O123	233	292	85
O142/O143	257.5	334	100
O162/O163	309.5	390	129.5
O182/O183	309.5	390	129.5

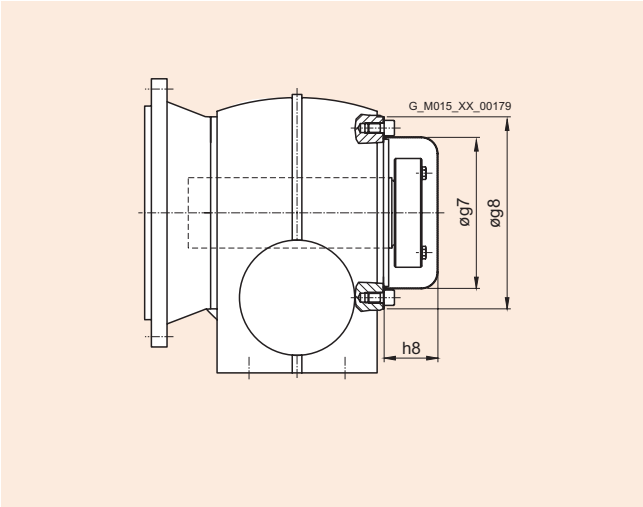
Bevel-helical gearbox



Type	g7	g8	h8
K33 *	82.2	115	40
K43	99	130	44
K63	115	150	62.5
K83	137	190	70
K103	187	240	80
K123	233	292	85
K143	257.5	334	100
K163	309.5	390	129.5
K183	309.5	390	129.5

* Not available for foot-mounted or torque arm types.

Helical-worm gearbox



Type	g7	g8	h8
C32 **	82.2	115	40
C42 **	99	130	44
C62 **	115	150	62.5
C82 **	137	190	70

** Not available for foot-mounted types.

Geared motors

Technical explanations and options for gearboxes

Notes

Technical explanations and options for geared motors

10



10/2	General information
10/2	Rating plate
10/2	Lifting eyes



Geared motors

Technical explanations and options for geared motors

General information

Standard finish

Standard design geared motors fall within the "Moderate" DIN IEC 60721 climate category. RAL 7030 stone gray is the default shade. Other shades can be ordered on payment of a surcharge using order code **Y54** and the relevant RAL number in plain text.

Special paint finish

Geared motors can also be supplied on request with a special paint finish. To order a special paint finish, the RAL number and the paint structure must be given in plain text. Details of surcharges are available on request.

Order code **Y53**

A UV-resistant two-component polyurethane special paint can also be ordered by specifying the correct RAL number. Details of surcharges are available on request.

Order code **P69**

Geared motors can also be supplied on request primed, order code **K24**, or without a paint finish (gray-cast-iron parts are still primed), order code **K23**.

Rating plate

Irrespective of the type of construction or mounting position of the geared motor, the rating plate is attached to the gearbox case.

It is made from Nirosta (stainless steel) and is, therefore, scratch-, heat-, cold-, and acid-resistant.

When ordering spare parts, please state the serial number found on the rating plate. This ensures that the correct spare parts are ordered.

The rating plate is internationally recognized. A second set of loose rating plates can also be ordered for geared motors.

Order code **K31**

An additional plate containing customer information can also be supplied on request.

Order code **Y82**

Serial number		Temperature class	
Weight	Model	Order number	
SIEMENS			
D-91056 Erlangen	25 kg	3~Mot. 2KG3131-0VE35-4AA1	60034
50 Hz	230/400 V Δ/Y	E 0410/403701 09 001	IEC/EN
0.55 kW	0.83/1.44 A	80 M	Th.Cl.F
cos φ 0.82	1395/min	IP55	Oil CLP ISOVG220 0.5 l
BR 55197080004000		1LA7080-4AA19	i=44.12
10 Nm 180 VDC 0.17 A			
Date of manufacture YY MM		Degree of protection	
Brake number		Frame size	

Example of rating plate on a geared motor (with standard brake, order code G21, brake voltage 180 V DC, order code C02, MM411 inverter with B filter at 50 Hz, ECOFAST design, order code W20)

Lifting eyes

Offset and bevel-helical geared motors contain a cast lifting eye which is integrated in the gearbox case. Helical and helical-worm gearboxes, sizes E61 to E141, H62 to H183 and C62 to C82, are supplied with eye-bolts already screwed in. The cast lifting eyes and eye-bolts are rated in accordance with the tare mass of the geared motor in question.

Additionally, suitable methods of support should be used when transporting or installing all other gearbox sizes and types. If attaching the load using multiple chains or cables, just two strands must be capable of taking the whole load. Methods of support must be secured so that they cannot slip out of place. The cast lifting eyes integrated in the motor case in the vicinity of the terminal box may not be used for this purpose.

Surcharge for options



	Geared motors
11/2	Paint finish
11/2	Rating plates and documentation
	Gearboxes
11/3	Helical gearbox special lubricants
11/3	Helical gearbox options
11/4	Offset gearbox special lubricants and options
11/4	Bevel-helical gearbox special lubricants and options
11/5	Helical-worm gearbox special lubricants and options
11/5	Worm gearbox special lubricants and options
	Motors
11/6	Motor protection
11/6	Anti-condensation heating
11/7	Non-standard winding
11/8	Built-on accessories
11/10	Rotation of terminal box
11/10	Special mechanical design
11/11	Higher degrees of protection
11/11	ECOFAST Han-Drive 10e motor connector
	50 Hz operation inverter, outputs 0.37 – 3 kW
11/12	4-pole motor, star connection
11/12	6-pole motor, star connection
11/12	8-pole motor, star connection
	87 Hz operation inverter, outputs 0.37 – 3 kW
11/12	4-pole motor, delta connection
11/12	6-pole motor, delta connection
11/12	8-pole motor, delta connection
	50 Hz operation inverter, ECOFAST design, outputs 0.37 – 3 kW
11/13	4-pole motor, star connection
11/13	6-pole motor, star connection
11/13	8-pole motor, star connection
	87 Hz operation inverter, ECOFAST design, outputs 0.37 – 3 kW
11/13	4-pole motor, delta connection
11/13	6-pole motor, delta connection
11/13	8-pole motor, delta connection
11/14	Inverter options



Geared motors

Surcharge for options

Geared motors

Paint finish

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
Unpainted (cast iron: with primer)	K23	✓	✓	✓	✓	✓	✓
Primer	K24	✓	✓	✓	✓	✓	✓
Other shade	Y54	✓	✓	✓	✓	✓	✓
Special UV-resistant paint	P69	•	•	•	•	•	•
Other special paint	Y53	•	•	•	•	•	•

Surcharge	Order code	Motor frame size				
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y
Unpainted (cast iron: with primer)	K23	✓	✓	✓	✓	✓
Primer	K24	✓	✓	✓	✓	✓
Other shade	Y54	✓	✓	✓	✓	✓
Special UV-resistant paint	P69	•	•	•	•	•
Other special paint	Y53	•	•	•	•	•

Rating plates and documentation

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
Second set of rating plates (supplied loose)	K31	✓	✓	✓	✓	✓	✓
Additional plates with ordering data	Y82	✓	✓	✓	✓	✓	✓
Works test certificate in accordance with EN 10204 2.3	B02	✓	✓	✓	✓	✓	✓

Surcharge	Order code	Motor frame size				
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y
Second set of rating plates (supplied loose)	K31	✓	✓	✓	✓	✓
Additional plates with ordering data	Y82	✓	✓	✓	✓	✓
Works test certificate in accordance with EN 10204 2.3	B02	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Special lubricants for single-stage helical gearboxes

Surcharge	Order code	Gearbox size E31	E41	E61	E81	E101	E121	E141
Synthetic oil	S12	✓	✓	✓	✓	✓	✓	✓
Foodstuff-compatible oil	S13	•	•	•	•	•	•	•
Biodegradable oil	S15	•	•	•	•	•	•	•
Low temperature oil		•	•	•	•	•	•	•
Oil for use at high operating temperatures		•	•	•	•	•	•	•

Special lubricants for two-stage and three-stage helical gearboxes

Surcharge	Order code	Gearbox size H32/33	H42/H43	H62/63	H82/83	H102/103	H122/123	H142/143	H162/163	H182/183
Synthetic oil	S12	✓	✓	✓	✓	✓	✓	✓	✓	✓
Foodstuff-compatible oil	S13	•	•	•	•	•	•	•	•	•
Biodegradable oil	S15	•	•	•	•	•	•	•	•	•
Low temperature oil		•	•	•	•	•	•	•	•	•
Oil for use at high operating temperatures		•	•	•	•	•	•	•	•	•

Options for single-stage, two-stage and three-stage helical gearboxes

Surcharge	Order code	Gearbox size 3	4	6	8	10	12	14	16	18
Oil level indicator (optical)	S18	–	✓	✓	✓	✓	✓	✓	✓	✓
Vent valve	S19	–	✓	✓	✓	✓	✓	✓	✓	✓
Electric oil monitoring	S36	–	•	•	•	•	•	•	•	•
Magnetic screw plug	S37	–	•	•	•	•	•	•	•	•
Oil drain cock		–	•	•	•	•	•	•	•	•
Cassette seal	S35	•	•	•	•	•	•	•	•	–
Viton seal	S39	•	•	•	•	•	•	•	•	•

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Surcharge for options

Gearboxes

Offset gearbox special lubricants and options

Surcharge	Order code	Gearbox size								
		O32/33	042/43	O62/63	O82/83	O102/103	O122/123	O142/143	O162/163	O182/183
Synthetic oil	S12	✓	✓	✓	✓	✓	✓	✓	✓	✓
Foodstuff-compatible oil	S13	•	•	•	•	•	•	•	•	•
Biodegradable oil	S15	•	•	•	•	•	•	•	•	•
Low temperature oil		•	•	•	•	•	•	•	•	•
Oil for use at high operating temperatures		•	•	•	•	•	•	•	•	•
Oil level indicator (optical)	S18	–	✓	✓	✓	✓	✓	✓	✓	✓
Vent valve	S19	–	✓	✓	✓	✓	✓	✓	✓	✓
Electric oil monitoring	S36	–	•	•	•	•	•	•	•	•
Magnetic screw plug	S37	–	•	•	•	•	•	•	•	•
Oil drain cock		–	•	•	•	•	•	•	•	•
Cassette seal	S35	•	•	•	•	•	•	•	•	–
Viton seal	S39	•	•	•	•	•	•	•	•	•
Labyrinth seal		–	–	–	•	•	•	•	•	•
Hollow shaft cap	S30	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shrink disk cap	S31	✓	✓	✓	✓	✓	✓	✓	✓	✓

Bevel-helical gearbox special lubricants and options

Surcharge	Order code	Gearbox size								
		K33	K43	K63	K83	K103	K123	K143	K163	K183
Synthetic oil	S12	✓	✓	✓	✓	✓	✓	✓	✓	✓
Foodstuff-compatible oil	S13	•	•	•	•	•	•	•	•	•
Biodegradable oil	S15	•	•	•	•	•	•	•	•	•
Low temperature oil		•	•	•	•	•	•	•	•	•
Oil for use at high operating temperatures		•	•	•	•	•	•	•	•	•
Oil level indicator (optical)	S18	–	✓	✓	✓	✓	✓	✓	✓	✓
Vent valve	S19	–	✓	✓	✓	✓	✓	✓	✓	✓
Electric oil monitoring	S36	–	•	•	•	•	•	•	•	•
Magnetic screw plug	S37	–	•	•	•	•	•	•	•	•
Oil drain cock		–	•	•	•	•	•	•	•	•
Cassette seal	S35	•	•	•	•	•	•	•	•	–
Viton seal	S39	•	•	•	•	•	•	•	•	•
Labyrinth seal		–	–	–	•	•	•	•	•	•
Hollow shaft cap	S30	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shrink disk cap	S31	✓	✓	✓	✓	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Helical-worm gearbox special lubricants and options

Surcharge	Order code	Gearbox size C32	C42	C62	C82
Synthetic oil	S12	✓	✓	✓	✓
Foodstuff-compatible oil	S13	•	•	•	•
Biodegradable oil	S15	•	•	•	•
Low temperature oil		•	•	•	•
Oil for use at high operating temperatures		•	•	•	•
Oil level indicator (optical)	S18	•	✓	✓	✓
Vent valve	S19	•	✓	✓	✓
Electric oil monitoring	S36	–	•	•	•
Magnetic screw plug	S37	•	•	•	•
Oil drain cock		•	•	•	•
Cassette seal	S35	•	•	•	•
Viton seal	S39	•	•	•	•
Labyrinth seal		–	–	–	•
Hollow shaft cap	S30	✓	✓	✓	✓
Shrink disk cap	S31	✓	✓	✓	✓

Worm gearbox special lubricants and options

Surcharge	Order code	Gearbox size T31	T51	T61
Synthetic oil	S12	✓	✓	✓
Foodstuff-compatible oil	S13	•	•	•
Biodegradable oil	S15	•	•	•
Low temperature oil		•	•	•
Oil for use at high operating temperatures		•	•	•
Viton seal	S39	•	•	•

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Surcharge for options

Motors

Motor protection

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
3 PTC thermistors for shutting down	A11	✓	✓	✓	✓	✓	✓
6 PTC thermistors for shutting down	A12	✓	✓	✓	✓	✓	✓
Thermostatic switch for shutting down	A31	✓	✓	✓	✓	✓	✓
KTY 84-130 temperature sensor	A23	✓	✓	✓	✓	✓	✓
Surcharge	Order code	Motor frame size					
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y	
3 PTC thermistors for shutting down	A11	✓	✓	✓	✓	✓	
6 PTC thermistors for shutting down	A12	✓	✓	✓	✓	✓	
Thermostatic switch for shutting down	A31	✓	✓	✓	✓	✓	
KTY 84-130 temperature sensor	A23	✓	✓	✓	✓	✓	

Anti-condensation heating

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
Anti-condensation heater for 230 V	K45	✓	✓	✓	✓	✓	✓
Anti-condensation heater for 115 V	K46	✓	✓	✓	✓	✓	✓
Surcharge	Order code	Motor frame size					
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y	
Anti-condensation heater for 230 V	K45	✓	✓	✓	✓	✓	
Anti-condensation heater for 115 V	K46	✓	✓	✓	✓	✓	

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Non-standard winding (16th position of order number = 9)

Surcharge	Order code	Motor frame size					
		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
10th position of the order number							
3 AC 220 VΔ /380 VY 50 Hz	R1R	✓	✓	✓	✓	✓	✓
3 AC 380 VΔ /660 VY 50 Hz	R1L						
3 AC 415 VY 50 Hz	R1C						
3 AC 415 VΔ 50 Hz	R1D						
3 AC 220 VΔ /380 VY 60 Hz, P as at 50 Hz	R2A						
3 AC 380 VΔ /660 VY 60 Hz, P as at 50 Hz	R2C						
3 AC 440 VY 60 Hz, P as at 50 Hz	R2Q						
3 AC 440 VΔ 60 Hz, P as at 50 Hz	R2R						
3 AC 460 VY 60 Hz, P as at 50 Hz	R2S						
3 AC 460 VΔ 60 Hz, P as at 50 Hz	R2T						
3 AC 575 VY 60 Hz, P as at 50 Hz	R2U						
3 AC 575 VΔ 60 Hz, P as at 50 Hz	R2V						
3 AC 220 VΔ /380 VY 60 Hz, P = 1.15·P at 50 Hz	R2B						
3 AC 380 VΔ /660 VY 60 Hz, P = 1.15·P at 50 Hz	R2D						
3 AC 440 VY 60 Hz, P = 1.15·P at 50 Hz	R2W						
3 AC 440 VΔ 60 Hz, P = 1.15·P at 50 Hz	R2X						
3 AC 460 VY 60 Hz, P = 1.15·P at 50 Hz	R2E						
3 AC 460 VΔ 60 Hz, P = 1.15·P at 50 Hz	R2F						
3 AC 575 VY 60 Hz, P = 1.15·P at 50 Hz	R2L						
3 AC 575 VΔ 60 Hz, P = 1.15·P at 50 Hz	R2M						
3 AC 400 VΔ 87 Hz, P = 1.73·P at 50 Hz	R3A	✓	✓	✓	✓	✓	✓
Standard winding	R8Y	✓	✓	✓	✓	✓	✓
Non-standard winding (between 200 V and 690 V) (other voltages are available on request)	R1Y	✓	✓	✓	✓	✓	✓

Surcharge	Order code	Motor frame size				
		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y
10th position of the order number						
3 AC 220 VΔ /380 VY 50 Hz	R1R	✓	✓	✓	✓	✓
3 AC 380 VΔ /660 VY 50 Hz	R1L					
3 AC 415 VY 50 Hz	R1C					
3 AC 415 VΔ 50 Hz	R1D					
3 AC 220 VΔ /380 VY 60 Hz, P as at 50 Hz	R2A					
3 AC 380 VΔ /660 VY 60 Hz, P as at 50 Hz	R2C					
3 AC 440 VY 60 Hz, P as at 50 Hz	R2Q					
3 AC 440 VΔ 60 Hz, P as at 50 Hz	R2R					
3 AC 460 VY 60 Hz, P as at 50 Hz	R2S					
3 AC 460 VΔ 60 Hz, P as at 50 Hz	R2T					
3 AC 575 VY 60 Hz, P as at 50 Hz	R2U					
3 AC 575 VΔ 60 Hz, P as at 50 Hz	R2V					
3 AC 220 VΔ /380 VY 60 Hz, P = 1.15·P at 50 Hz	R2B					
3 AC 380 VΔ /660 VY 60 Hz, P = 1.15·P at 50 Hz	R2D					
3 AC 440 VY 60 Hz, P = 1.15·P at 50 Hz	R2W					
3 AC 440 VΔ 60 Hz, P = 1.15·P at 50 Hz	R2X					
3 AC 460 VY 60 Hz, P = 1.15·P at 50 Hz	R2E					
3 AC 460 VΔ 60 Hz, P = 1.15·P at 50 Hz	R2F					
3 AC 575 VY 60 Hz, P = 1.15·P at 50 Hz	R2L					
3 AC 575 VΔ 60 Hz, P = 1.15·P at 50 Hz	R2M					
3 AC 400 VΔ 87 Hz, P = 1.73·P at 50 Hz	R3A	✓	✓	✓	✓	✓
Standard winding	R8Y	✓	✓	✓	✓	✓
Non-standard winding (between 200 V and 690 V) (other voltages are available on request)	R1Y	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Surcharge for options

Motors

Built-on accessories

Surcharge 10th position of the order number	Order code	Motor frame size				
		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K
Pulse generator 1024 HTL pulses *	P57	✓	✓	✓	✓	✓
Pulse generator 1024 TTL pulses *	P58	✓	✓	✓	✓	✓
Pulse generator 2048 HTL pulses *	P34	✓	✓	✓	✓	✓
Pulse generator 2048 TTL pulses *	P35	✓	✓	✓	✓	✓
Pulse generator 512 HTL pulses *	P36	✓	✓	✓	✓	✓
Pulse generator 512 TTL pulses *	P37	✓	✓	✓	✓	✓
Multiturn absolute encoder with EnDat protocol *	P30	✓	✓	✓	✓	✓
Multiturn absolute encoder with SSI protocol *	P31	✓	✓	✓	✓	✓
2-pole resolver *	P32	✓	✓	✓	✓	✓
Encoder cable in additional terminal box *	P42	•	•	•	•	•
Encoder cable with coupling *	P43	✓	✓	✓	✓	✓
Pulse generator LL 861 900 220 *	H70	–	–	–	–	✓
Prepared for mounting pulse generator LL 861 900 220 *	H78	–	–	–	–	✓
Pulse generator HOG 9 D 1024 I *	H72	–	–	–	–	✓
Prepared for mounting pulse generator HOG 9 D 1024 I *	H79	–	–	–	–	✓
Pulse generator HOG 10 D 1024 I *	H73	–	–	–	–	✓
Prepared for mounting pulse generator HOG 10 D 1024 I *	H80	–	–	–	–	✓
Separately driven fan	G17	✓*	✓	✓	✓	✓
Standard brake - 230 V AC	G21	✓	✓*	✓*	✓*	✓
Standard reduced brake - 230 V AC	P00	–	✓*	✓*	✓*	✓
Strong brake - 230 V AC	P01	✓*	✓*	✓*	✓*	✓
Strong reduced brake - 230 V AC	P02	–	✓	✓	✓	✓
Weak brake - 230 V AC	P03	✓*	✓*	✓*	✓*	✓
Weak reduced brake - 230 V AC	P04	–	✓*	✓*	✓*	✓
Braking torque set in accordance with customer requirements	Y65	✓	✓	✓	✓	✓
Brake supply voltage, 24 V DC	C00	✓	✓	✓	✓	✓
Brake supply voltage 400 V AC	C01	✓	✓	✓	✓	✓
Brake supply voltage, 180 V DC	C02	✓	✓	✓	✓	✓
Brake supply voltage 460 V AC	P20	✓	✓	✓	✓	✓
Special AC supply voltage (see page 8/19)	Y66	•	•	•	•	•
Tripping on DC side using current sensing	G22	✓	✓	✓	✓	✓
Tripping on DC side using voltage sensing	G23	✓	✓	✓	✓	✓
Rectifier with over-excitation	G24	✓	✓	✓	✓	✓
Spark quencher	G38	✓	✓	✓	✓	✓
Anti-corrosion protection for brake	P10	✓	✓	✓	✓	✓
Increased anti-corrosion protection for brake	P11	✓	✓	✓	✓	✓
Encapsulated brake design	P12	• *	• *	• *	• *	•
Reduced noise for brake	P15	✓	✓	✓	✓	✓
Reduced-noise connection hub/rotor for brake	P16	✓	✓	✓	✓	✓
Microswitch for monitoring release for brake	P18	–	–	–	✓	✓
Microswitch for monitoring wear for brake	P19	–	–	–	✓	✓
Manual release	K82	✓	✓	✓	✓	✓
Manual release can be locked *	P17	•	•	•	•	•
Manual release lever on right	P09	✓	✓	✓	✓	✓
Manual release lever on left	P08	✓	✓	✓	✓	✓
Manual release lever on bottom	P07	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.
- * Not possible for worm geared motors.

✓ Possible. The price can be obtained from our regional sales partners.

Surcharge	Order code	Motor frame size					
10th position of the order number		112 L	132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y
Pulse generator 1024 HTL pulses *	P57	✓	✓	✓	✓	✓	✓
Pulse generator 1024 TTL pulses *	P58	✓	✓	✓	✓	✓	✓
Pulse generator 2048 HTL pulses *	P34	✓	✓	✓	✓	✓	✓
Pulse generator 2048 TTL pulses *	P35	✓	✓	✓	✓	✓	✓
Pulse generator 512 HTL pulses *	P36	✓	✓	✓	✓	✓	✓
Pulse generator 512 TTL pulses *	P37	✓	✓	✓	✓	✓	✓
Multiturn absolute encoder with EnDat protocol *	P30	✓	✓	✓	✓	✓	✓
Multiturn absolute encoder with SSI protocol *	P31	✓	✓	✓	✓	✓	✓
2-pole resolver *	P32	✓	✓	✓	✓	✓	✓
Encoder cable in additional terminal box *	P42	•	•	•	•	•	•
Encoder cable with coupling *	P43	✓	✓	✓	✓	✓	✓
Pulse generator LL 861 900 220 *	H70	✓	✓	✓	✓	✓	✓
Prepared for mounting pulse generator LL 861 900 220 *	H78	✓	✓	✓	✓	✓	✓
Pulse generator HOG 9 D 1024 I *	H72	✓	✓	✓	✓	✓	✓
Prepared for mounting pulse generator HOG 9 D 1024 I *	H79	✓	✓	✓	✓	✓	✓
Pulse generator HOG 10 D 1024 I *	H73	✓	✓	✓	✓	✓	✓
Prepared for mounting pulse generator HOG 10 D 1024 I *	H80	✓	✓	✓	✓	✓	✓
Separately driven fan	G17	✓	✓	✓	✓	✓	✓
Standard brake - 230 V AC	G21	✓	✓	✓	✓	✓	✓
Standard reduced brake - 230 V AC	P00	✓	✓	✓	✓	✓	✓
Strong brake - 230 V AC	P01	✓	✓	✓	–	✓	–
Strong reduced brake - 230 V AC	P02	✓	✓	✓	✓	–	✓
Weak brake - 230 V AC	P03	✓	✓	✓	–	–	–
Weak reduced brake - 230 V AC	P04	✓	✓	✓	✓	✓	✓
Braking torque set in accordance with customer requirements	Y65	✓	✓	✓	✓	✓	✓
Brake supply voltage, 24 V DC	C00	✓	✓	✓	✓	✓	✓
Brake supply voltage 400 V AC	C01	✓	✓	✓	✓	✓	✓
Brake supply voltage, 180 V DC	C02	✓	✓	✓	✓	✓	✓
Brake supply voltage 460 V AC	P20	✓	✓	✓	✓	✓	✓
Special AC supply voltage (see page 8/19)	Y66	•	•	•	•	•	•
Tripping on DC side using current sensing	G22	✓	✓	✓	–	–	–
Tripping on DC side using voltage sensing	G23	✓	✓	✓	✓	✓	✓
Rectifier with over-excitation	G24	✓	✓	✓	✓	✓	✓
Spark quencher	G38	✓	✓	✓	✓	✓	✓
Anti-corrosion protection for brake	P10	✓	✓	✓	✓	✓	✓
Increased anti-corrosion protection for brake	P11	✓	✓	✓	✓	✓	✓
Encapsulated brake design	P12	•	•	•	•	•	•
Reduced noise for brake	P15	✓	✓	✓	✓	✓	✓
Reduced-noise connection hub/rotor for brake	P16	✓	✓	✓	✓	✓	✓
Microswitch for monitoring release for brake	P18	✓	✓	✓	✓	✓	✓
Microswitch for monitoring wear for brake	P19	✓	✓	✓	✓	✓	✓
Manual release	K82	✓	✓	✓	✓	✓	✓
Manual release can be locked *	P17	•	•	•	•	•	•
Manual release lever on right	P09	✓	✓	✓	✓	✓	✓
Manual release lever on left	P08	✓	✓	✓	✓	✓	✓
Manual release lever on bottom	P07	✓	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.
- * Not possible for worm geared motors.

✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Surcharge for options

Motors

Rotation of terminal box

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
Rotate from 90°, entry gearbox side	K83	✓	✓	✓	✓	✓	✓
Rotate from 90°, entry from non-drive end	K84	✓	✓	✓	✓	✓	✓
Rotate from 180°	K85	✓	✓	✓	✓	✓	✓
Motor connector rotated from 180°, plug-in connection on gearbox side	P83	✓	✓	✓	✓	✓	✓
Motor connector rotated 90° ccw, plug-in connection on left side (seen from the drive side)	P85	✓	✓	✓	✓	✓	✓
Motor connector rotated 90° cw, plug-in connection on the right side (seen from the drive side)	P86	✓	✓	✓	✓	✓	✓

Surcharge	Order code	Motor frame size				
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y
Rotate from 90°, entry gearbox side	K83	✓	✓	✓	✓	✓
Rotate from 90°, entry from non-drive end	K84	✓	✓	✓	✓	✓
Rotate from 180°	K85	✓	✓	✓	✓	✓
Motor connector rotated from 180°, plug-in connection on gearbox side	P83	✓	✓	✓	✓	✓
Motor connector rotated 90° ccw, plug-in connection on left side (seen from the drive side)	P85	✓	✓	✓	✓	✓
Motor connector rotated 90° cw, plug-in connection on the right side (seen from the drive side)	P86	✓	✓	✓	✓	✓

Special mechanical design

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
Design according to UL with "recognition mark"	D31	✓	✓	✓	✓	✓	✓
Canadian regulations (CSA)	D40	✓	✓	✓	✓	✓	✓
Vibration severity R	K01	✓	✓	✓	✓	✓	✓
VIK design	K30	✓	✓	✓	✓	✓	✓
Protective cover	K33	✓	✓	✓	✓	✓	✓
Metal fan wheel ¹⁾	K35	✓	✓	✓	✓	✓	✓
Load flywheel *	M85	✓	✓	✓	✓	•	•
Grounding	L13	✓	✓	✓	✓	✓	✓
Reduced-noise fan cowl ¹⁾	P60	✓	✓	✓	✓	✓	✓
100% air humidity design ¹⁾	P65	✓	✓	✓	✓	✓	✓

Surcharge	Order code	Motor frame size				
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y
Design according to UL with "recognition mark"	D31	✓	✓	✓	✓	✓
Canadian regulations (CSA)	D40	✓	✓	✓	✓	✓
Vibration severity R	K01	✓	✓	✓	✓	✓
VIK design	K30	✓	✓	–	–	–
Protective cover	K33	✓	✓	✓	✓	✓
Metal fan wheel	K35	✓	✓	✓	✓	✓
Load flywheel	M85	–	–	–	–	–
Grounding	L13	✓	✓	✓	✓	✓
Reduced-noise fan cowl	P60	✓	✓	✓	✓	✓
100% air humidity design	P65	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.
- * Not possible for worm geared motors.

- ¹⁾ Available for worm geared motors on request.
- ✓ Possible. The price can be obtained from our regional sales partners.

Higher degrees of protection

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
IP65 (motor only)	K50	✓	✓	✓	✓	✓	✓
IP56 (non-heavy sea) (motor only)	K52	✓	✓	✓	✓	✓	✓

Surcharge	Order code	Motor frame size					
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y	
IP65 (motor only)	K50	✓	✓	✓	✓	✓	
IP56 (non-heavy sea) (motor only)	K52	✓	✓	✓	✓	✓	

ECOFAST Han-Drive 10e motor connector

Surcharge	Order code	Motor frame size					
10th position of the order number		63 A or B	71 C or D	80 E or F	90 G or H	100 J or K	112 L
ECOFAST connector	G55	✓	✓	✓	✓	✓	✓
ECOFAST connector, EMC-shielded	G56	✓	✓	✓	✓	✓	✓

Surcharge	Order code	Motor frame size					
10th position of the order number		132 M, N or P	160 Q, R or S	180 T or U	200 V or W	225 X or Y	
ECOFAST connector	G55	✓*	–	–	–	–	
ECOFAST connector, EMC-shielded	G56	–	–	–	–	–	

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.
- * $P_{\max} = 5.5 \text{ kW}$

Geared motors

Surcharge for options

50 Hz operation inverter,
outputs 0.37 – 3 kW

Can be ordered using voltage code number 1

4-pole motor, star connection

Surcharge	Order code	Motor frame size							
		71	71	80	80	90	90	100	100
10th position of the order number		C	D	E	F	G	H	J	K
MM 411 inverter, 3 AC 400 – 480 V, without filter	W18	–	✓	✓	✓	✓	✓	✓	✓
MM 411 inverter, 3 AC 400 – 480 V, B filter	W19	–	✓	✓	✓	✓	✓	✓	✓

6-pole motor, star connection

Surcharge	Order code	Motor frame size								
		71	71	80	80	90	90	100	100	112
10th position of the order number		C	D	E	F	G	H	J	K	L
MM 411 inverter, 3 AC 400 – 480 V, without filter	W18	–	–	✓	✓	✓	✓	✓	–	✓
MM 411 inverter, 3 AC 400 – 480 V, B filter	W19	–	–	✓	✓	✓	✓	✓	–	✓

8-pole motor, star connection

Surcharge	Order code	Motor frame size								
		71	71	80	80	90	90	100	100	112
10th position of the order number		C	D	E	F	G	H	J	K	L
MM 411 inverter, 3 AC 400 – 480 V, without filter	W18	–	–	–	–	✓	✓	✓	✓	✓
MM 411 inverter, 3 AC 400 – 480 V, B filter	W19	–	–	–	–	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

87 Hz operation inverter,
outputs 0.37 – 3 kW

Can be ordered using voltage code number 9
(16th position of the order number) and order code R3A

4-pole motor, delta connection

Surcharge	Order code	Motor frame size					
		71	71	80	80	90	90
10th position of the order number		C	D	E	F	G	H
MM 411 inverter, 3 AC 400 – 480 V, without filter	W28	✓	✓	✓	✓	✓	✓
MM 411 inverter, 3 AC 400 – 480 V, B filter	W29	✓	✓	✓	✓	✓	✓

6-pole motor, delta connection

Surcharge	Order code	Motor frame size						
		71	71	80	80	90	90	100
10th position of the order number		C	D	E	F	G	H	J
MM 411 inverter, 3 AC 400 – 480 V, without filter	W28	✓	✓	✓	✓	✓	✓	✓
MM 411 inverter, 3 AC 400 – 480 V, B filter	W29	✓	✓	✓	✓	✓	✓	✓

8-pole motor, delta connection

Surcharge	Order code	Motor frame size								
		71	71	80	80	90	90	100	100	112
10th position of the order number		C	D	E	F	G	H	J	K	L
MM 411 inverter, 3 AC 400 – 480 V, without filter	W28	–	–	✓	✓	✓	✓	✓	✓	✓
MM 411 inverter, 3 AC 400 – 480 V, B filter	W29	–	–	✓	✓	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

Can be ordered using voltage code number 1

4-pole motor, star connection

Surcharge	Order code	Motor frame size							
10th position of the order number		71 C	71 D	80 E	80 F	90 G	90 H	100 J	100 K
MM 411 inverter, 3 AC 400 – 480 V, A filter	W20	–	✓	✓	✓	✓	✓	✓	–

6-pole motor, star connection

Surcharge	Order code	Motor frame size								
10th position of the order number		71 C	71 D	80 E	80 F	90 G	90 H	100 J	100 K	112 L
MM 411 inverter, 3 AC 400 – 480 V, A filter	W20	–	–	✓	✓	✓	✓	✓	–	✓

8-pole motor, star connection

Surcharge	Order code	Motor frame size								
10th position of the order number		71 C	71 D	80 E	80 F	90 G	90 H	100 J	100 K	112 L
MM 411 inverter, 3 AC 400 – 480 V, A filter	W20	–	–	–	–	✓	✓	✓	✓	✓

- Possible for larger production quantities on request.
- Not possible.

✓ Possible. The price can be obtained from our regional sales partners.

Can be ordered using voltage code number 9
(16th position of the order number) and order code R3A

87 Hz operation inverter, ECOFAST design,
outputs 0.37 – 3 kW

4-pole motor, delta connection

Surcharge	Order code	Motor frame size					
10th position of the order number		71 C	71 D	80 E	80 F	90 G	90 H
MM 411 inverter, 3 AC 400 – 480 V, A filter	W21	✓	✓	✓	✓	✓	–

6-pole motor, delta connection

Surcharge	Order code	Motor frame size						
		71	71	80	80	90	90	100
10th position of the order number		C	D	E	F	G	H	J
MM 411 inverter, 3 AC 400 – 480 V, A filter	W21	✓	✓	✓	✓	✓	✓	–

8-pole motor, delta connection

Surcharge	Order code	Motor frame size								
10th position of the order number		71 C	71 D	80 E	80 F	90 G	90 H	100 J	100 K	112 L
MM 411 inverter, 3 AC 400 – 480 V, A filter	W21	–	–	✓	✓	✓	✓	✓	✓	–

- Possible for larger production quantities on request.
- Not possible.
- ✓ Possible. The price can be obtained from our regional sales partners.

Geared motors

Surcharge for options

Inverter options

Surcharge 10th position of the order number	Order code	Motor frame size								
		71 C	71 D	80 E	80 F	90 G	90 H	100 J	100 K	112 L
ASI module	M53	✓	✓	✓	✓	✓	✓	✓	✓	✓
PROFIBUS module	M54	✓	✓	✓	✓	✓	✓	✓	✓	✓
PROFIBUS module for ECOFAST variant	M80	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanical brake control	M55	✓	✓	✓	✓	✓	✓	✓	✓	✓
DeviceNet module	M56	✓	✓	✓	✓	✓	✓	✓	✓	✓
Brake chopper/brake resistor	M79	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ Possible. The price can be obtained from our regional sales partners.



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Geared motors

Appendix

Siemens contacts worldwide

The screenshot shows the 'Contacts by country' page on the Siemens website. The header includes the Siemens logo and navigation links: 'Contacts by country', 'Contacts for sectors', and 'Contact for products'. The main content area is titled 'Germany' and asks the user if they are looking for a local contact for 'Automation and Drives' products. It prompts the user to select a city from a dropdown menu (currently showing 'Berlin') and then a sales area from another dropdown menu (currently showing 'Sales'). A 'Next >' button is at the bottom right. The footer contains copyright information for 2003 Siemens, Automation and Drives.

The screenshot shows the 'Contacts for sectors' page. It prompts the user to 'Please select a sector' and provides a search bar and a list of sectors. The sectors listed include: Video Systems, Visualization Systems; Electrical Power; Material Flow Controlling, Distribution and Logistics; Assembly Control; Paper Machines; Production Automation in the Automotive Industry and Suppliers; Production Logistics and Control Systems; Production Machines: Textiles, Plastics, Metal Forming, Welding, Glass, Ceramic processing, Sliver processing, Packaging, Printing, Lifting/Handling; Process Control Systems; and Testing/Prod. Assembly. Below the list, there is a note stating that the list contains only Siemens products from the range of Automation and Drives Systems. A 'Which area does your question concern?' dropdown menu is set to 'Sales'. A 'Next >' button is at the bottom right. The footer contains copyright information for 2003 Siemens, Automation and Drives.

The screenshot shows the 'Contact for products' page. It prompts the user to 'Please select a Siemens product group' and provides a search bar and a list of product groups. The product groups listed include: Drive Technology; Automation systems; Communication networks; Low-voltage switching technology; Electrical installation Technology; Process automation; Sensor technology, measuring and test engineering; Power supplies; Safety systems - Safety Integrated; and System solutions and products for branches. Below the list, there is a note stating that the list contains only Siemens products from the Automation and Drives line of products. A 'Which area does your question concern?' dropdown menu is set to 'Sales'. A 'Next >' button is at the bottom right. The footer contains copyright information for 2003 Siemens, Automation and Drives.

At

www.siemens.com/automation/partner

you can find details of Siemens contact partners worldwide responsible for particular technologies.

You can obtain a contact partner for

- Technical support,
- Spare parts/repairs,
- Service,
- Training,
- Sales or,
- Consultation/engineering.

The selection procedure starts with:

- Country
- Product or
- Sector.

By further specifying the remaining criteria you will find exactly the right contact partner with his/her respective expertise.

A&D in the WWW



A detailed knowledge of the range of products and services available is essential when planning and configuring automation systems. It goes without saying that this information must always be fully up-to-date.

The Siemens Automation and Drives Group (A&D) has therefore built up a comprehensive range of information in the World Wide Web, which offers quick and easy access to all data required.

Under the address

<http://www.siemens.com/automation>

you will find everything you need to know about products, systems and services.

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Errors excepted and subject to change without prior notice.

A&D/VuL/En 14.11.03

Geared motors

Appendix

Please copy this page, fill it out and fax to the nearest Siemens regional office.

<u>To</u> Siemens AG	<u>Sender:</u> Company: Department: Name: Street/P.O. Box: Town, ZIP: Country: Phone: Fax: E-mail:

Request for 2KG geared motors (please check ☒ and fill out)

Required quantity:

< **Basic version**

Gear type

☐ Helical gearbox ☐ Offset gearbox ☐ Bevel-helical gearbox ☐ Helical-worm gearbox ☐ Worm gearbox

Output: kW

Output speed: rpm

Output torque: Nm

Service factor

or
Switching operations/hour c/h

☐ 1-shift operation ☐ 2-shift operation ☐ 3-shift operation
☐ Almost shock-free ☐ Moderate shocks ☐ Heavy shocks

Case type

☐ Foot-mounted type ☐ Flange-mounted type B5 ☐ Flange-mounted typ B14 ☐ With torque arm

Shaft design

☐ Solid shaft with featherkey Other:
☐ Hollow shaft with featherkey

Mains voltage: V

Line frequency: ☐ 50 Hz ☐ Converter operation
☐ 60 Hz Max. Hz

ON duration S / % ED

Brief description of plant:

(e.g., sector, conveyor system, etc.)

< **Additional data (you may select more than one)**

Required options

☐ Brake/voltage: Other:
☐ Manual brake release
☐ Separately driven fan
☐ PTC thermistor
☐ HTL pulse generator ☐ TTL pulse generator
☐ ECOFAST plug connection
☐ Converter
☐ Shade other than RAL 7030:

Special ambient conditions

Temperature: From °C to °C ☐ Outside operation

Other:

Preferred delivery:

Date:

Other information:

Signature:

This page appears in Catalog M 15 June 2005, geared motors

Catalogs of the Automation and Drives Group (A&D)

Further information can be obtained from our branch offices listed
in the appendix or at www.siemens.com/automation/partner

Automation and Drives		<i>Catalog</i>
Interactive catalog on CD-ROM		
• The Offline Mall of Automation and Drives	CA 01	
Automation Systems for Machine Tools		
SINUMERIK & SIMODRIVE	NC 60	
Drive Systems		
<u>Variable-Speed Drives</u>		
SINAMICS G130 Drive Converter Chassis Units,	D 11	
SINAMICS G150 Drive Converter Cabinet Units		
SINAMICS G110 Inverter Chassis Units	D 11.1	
SINAMICS S120 Servo Control Drive System	D 21.2	
SINAMICS S150 Drive Converter Cabinet Units	D 21.3	
DC Motors	DA 12	
SIMOREG DC MASTER 6RA70 Digital Chassis	DA 21.1	
Converters		
SIMOREG K 6RA22 Analog Chassis Converters	DA 21.2	
SIMOREG DC MASTER 6RM70 Digital Converter	DA 22	
Cabinet Units		
SIMOVERT PM Modular Converter Systems	DA 45	
SIEMOSYN Motors	DA 48	
MICROMASTER 410/420/430/440 Inverters	DA 51.2	
MICROMASTER 411/COMBIMASTER 411	DA 51.3	
SIMOVERT MV Medium-Voltage Drives	DA 63	
SIMOVERT MASTERDRIVES Vector Control	DA 65.10	
SIMOVERT MASTERDRIVES Motion Control	DA 65.11	
Synchronous and asynchronous servomotors for	DA 65.3	
SIMOVERT MASTERDRIVES		
SIMODRIVE 611 universal and POSMO	DA 65.4	
<u>Low-Voltage Three-Phase-Motors</u>		
Squirrel-Cage Motors, Totally Enclosed, Fan-Cooled	M 11	
<u>Automation Systems for Machine Tools SIMODRIVE</u>		
• Main Spindle Motors	NC 60	
• Feed Motors		
• Converter Systems SIMODRIVE 611/POSMO		
<u>Drive and Control Components for Hoisting Equipment</u>		
	HE 1	
Electrical Installation Technology		
ALPHA Small Distribution Boards and	ETA A1	
Distribution Boards		
<i>PDF: ALPHA 8HP Molded-Plastic Distribution System</i>	ETA A3	
ALPHA FIX Terminal Blocks	ETA A5	
BETA Modular Installation Devices	ET B1	
DELTA Switches and Outlets	ET D1	
GAMMA Building Management Systems	ET G1	
Factory Automation Sensors		FS 10
Human Machine Interface Systems SIMATIC HMI		ST 80
Industrial Communication for Automation and Drives		IK PI
Low-Voltage Controls and Distribution		<i>Catalog</i>
Low-Voltage Switchgear – Controlgear for Industry		LV 10
Power Distribution – Products and Systems		LV 30
for Low-Voltage Power Distribution		
SIDAC reactors and filters		LV 60
SIVACON 8PS Busbar trunking systems		LV 70
CD, BD01, BD2 up to 1250 A		
Low-Voltage Controlgear, Switchgear and Systems		LV 90
Motion Control System SIMOTION		PM 10
Process Instrumentation and Analytics		
Field Instruments for Process Automation		FI 01
Measuring Instruments for Pressure,		
Differential Pressure, Flow, Level and Temperature,		
Positioners and Liquid Meters		
<i>PDF: Indicators for panel mounting</i>	MP 12	
SIREC Recorders and Accessories	MP 20	
SIPART, Controllers and Software	MP 31	
SIWAREX Weighing Systems	WT 01	
Continuous Weighing and Process Protection	WT 02	
Gas Analysis Equipment for the Process Industry	PA 10	
<i>PDF: Process Analytics,</i>	PA 11	
<i>Components for the System Integration</i>		
SIPAN Liquid Analysis	PA 20	
SIMATIC Industrial Automation Systems		
SIMATIC PCS Process Control System		ST 45
<i>PDF: SIMATIC S5/505 Automation Systems</i>	ST 50	
Products for Totally Integrated Automation and		ST 70
Micro Automation		
SIMATIC PCS 7 Process Control System		ST PCS 7
<i>PDF: Add-ons for the SIMATIC PCS 7</i>	ST PCS 7.A	
<i>Process Control System</i>		
pc-based Automation		ST PC
SIMATIC Control Systems		ST DA
SIPOS Electric Actuators		
Electric Rotary, Linear and Part-turn Actuators		MP 35
Electric Rotary Actuators for Nuclear Plants		MP 35.1/2
Systems Engineering		
Power supplies SITOP power		KT 10.1
System cabling SIMATIC TOP connect		KT 10.2
System Solutions		
Applications and Products for Industry are part of the		
interactive catalog CA 01		
TELEPERM M Process Control System		
<i>PDF: AS 488/TM automation systems</i>	PLT 112	



The information provided in this catalog contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.

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Geared motors

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