

# Automation systems

# Drive solutions

Controls

Inverter

**Motors**

**Gearboxes**

Engineering Tools



**Motors:** IE2 MH three-phase AC motors, IE1 MD three-phase AC motors

**Gearboxes:** g500-H helical gearboxes, g500-S shaft-mounted helical gearbox, g500-B bevel gearbox



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 Selected portfolio  
 Additional portfolio

# Lenze makes many things easy for you.

With our motivated and committed approach, we work together with you to create the best possible solution and set your ideas in motion - whether you are looking to optimise an existing machine or develop a new one. We always strive to make things easy and seek perfection therein. This is anchored in our thinking, in our services and in every detail of our products. It's as easy as that!

**1**

## **Developing ideas**

Are you looking to build the best machine possible and already have some initial ideas? Then get these down on paper together with us, starting with small innovative details and stretching all the way to completely new machines. Working together, we will develop an intelligent and sustainable concept that is perfectly aligned with your specific requirements.

**2**

## **Drafting concepts**

We see welcome challenges in your machine tasks, supporting you with our comprehensive expertise and providing valuable impetus for your innovations. We take a holistic view of the individual motion and control functions here and draw up consistent, end-to-end drive and automation solutions for you - keeping everything as easy as possible and as extensive as necessary.

**3**

## **Implementing solutions**

Our easy formula for satisfied customers is to establish an active partnership with fast decision making processes and an individually tailored offer. We have been using this principle to meet the ever more specialised customer requirements in the field of machine engineering for many years.

**4**

## **Manufacturing machines**

Functional diversity in perfect harmony: as one of the few full-range providers in the market, we can provide you with precisely those products that you actually need for any machine task – no more and no less. Our L-force product portfolio, a consistent platform for implementing drive and automation tasks, is invaluable in this regard.

**5**

## **Ensuring productivity**

Productivity, reliability and new performance peaks on a daily basis – these are our key success factors for your machine. After delivery, we offer you cleverly devised service concepts to ensure continued safe operation. The primary focus here is on technical support, based on the excellent application expertise of our highly-skilled and knowledgeable after-sales team.

# A matter of principle: the right products for every application.

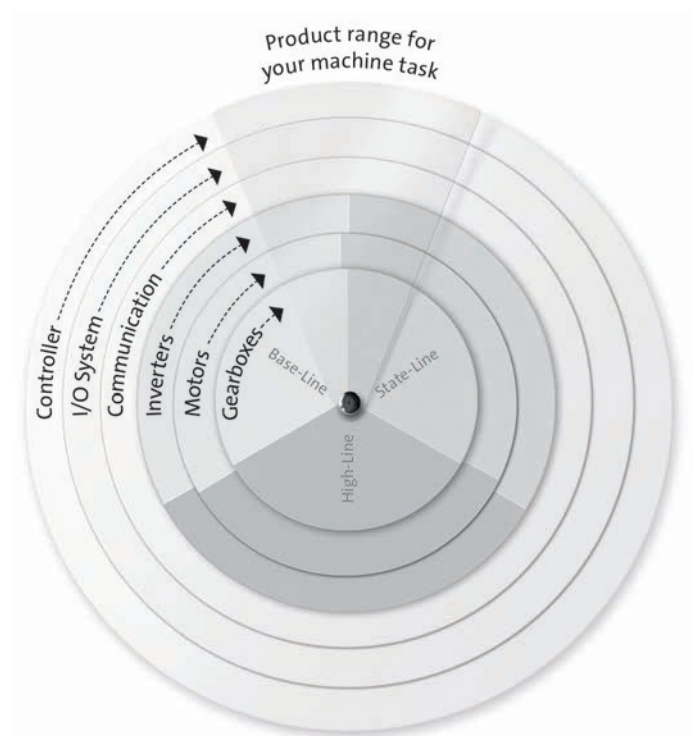
Lenze's extensive L-force product portfolio follows a very simple principle. The functions of our finely scaled products are assigned to the three lines Base-Line, State-Line or High-Line.

But what does this mean for you? It allows you to quickly recognise which products represent the best solution for your own specific requirements.

#### Powerful products with a major impact:

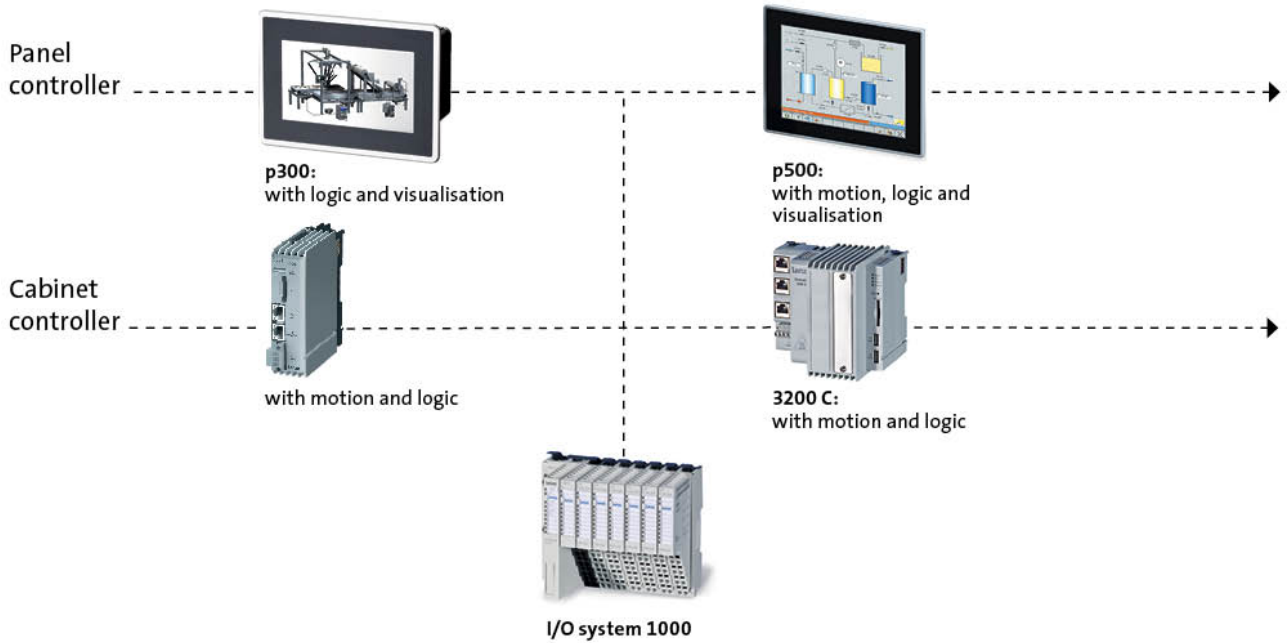
- Easy handling
- High quality and durability
- Reliable technologies in tune with the latest developments

Lenze products undergo the most stringent testing in our own laboratory. This allows us to ensure that you will receive consistently high quality and a long service life. In addition to this, five logistics centres ensure that the Lenze products you select are available for quick delivery anywhere across the globe. It's as easy as that!

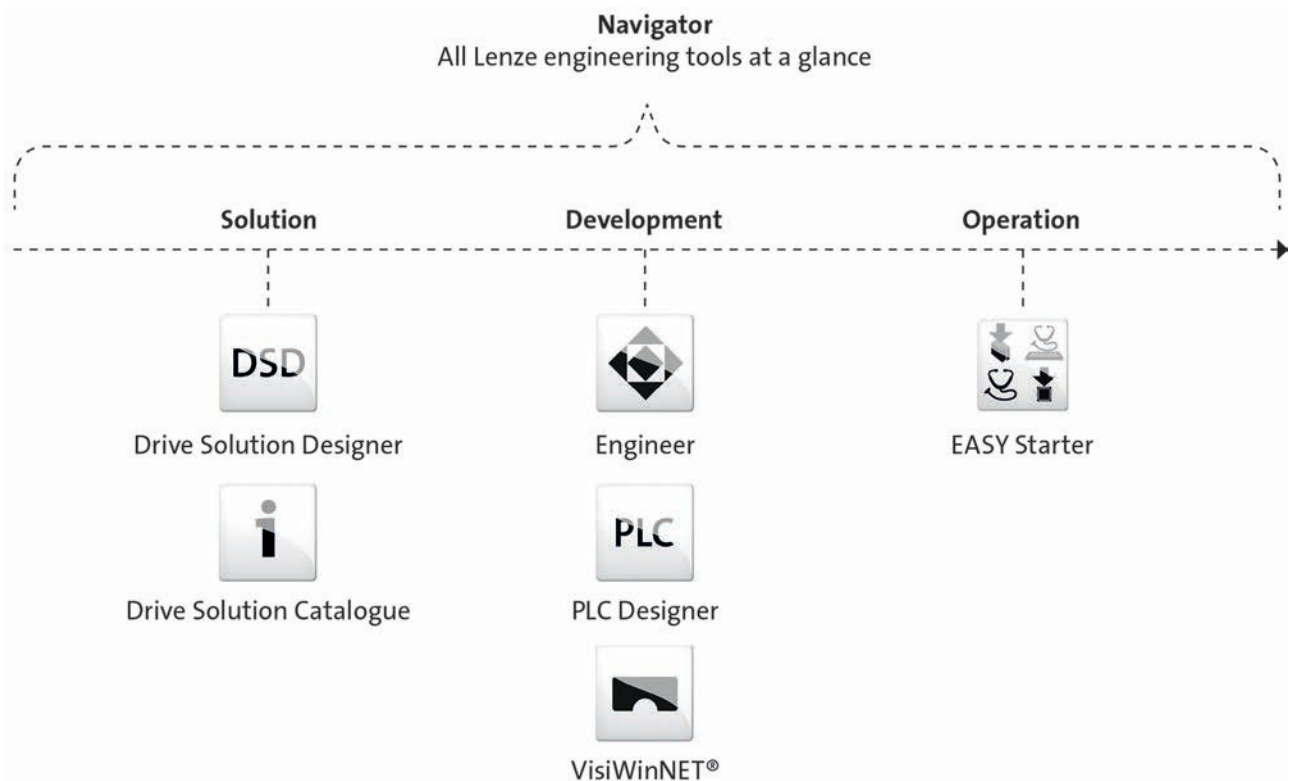


# L-force product portfolio

## Controls

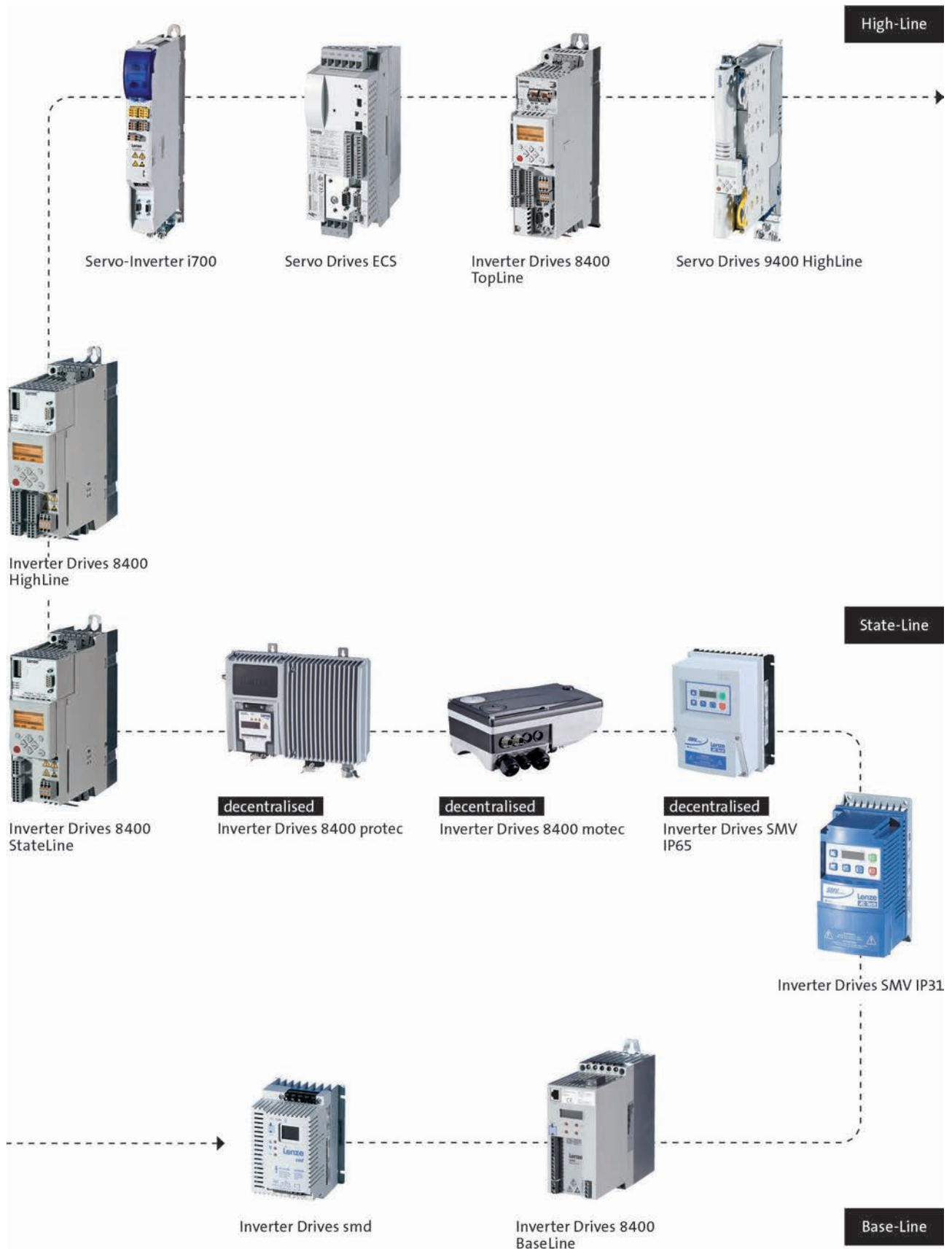


## Engineering Tools



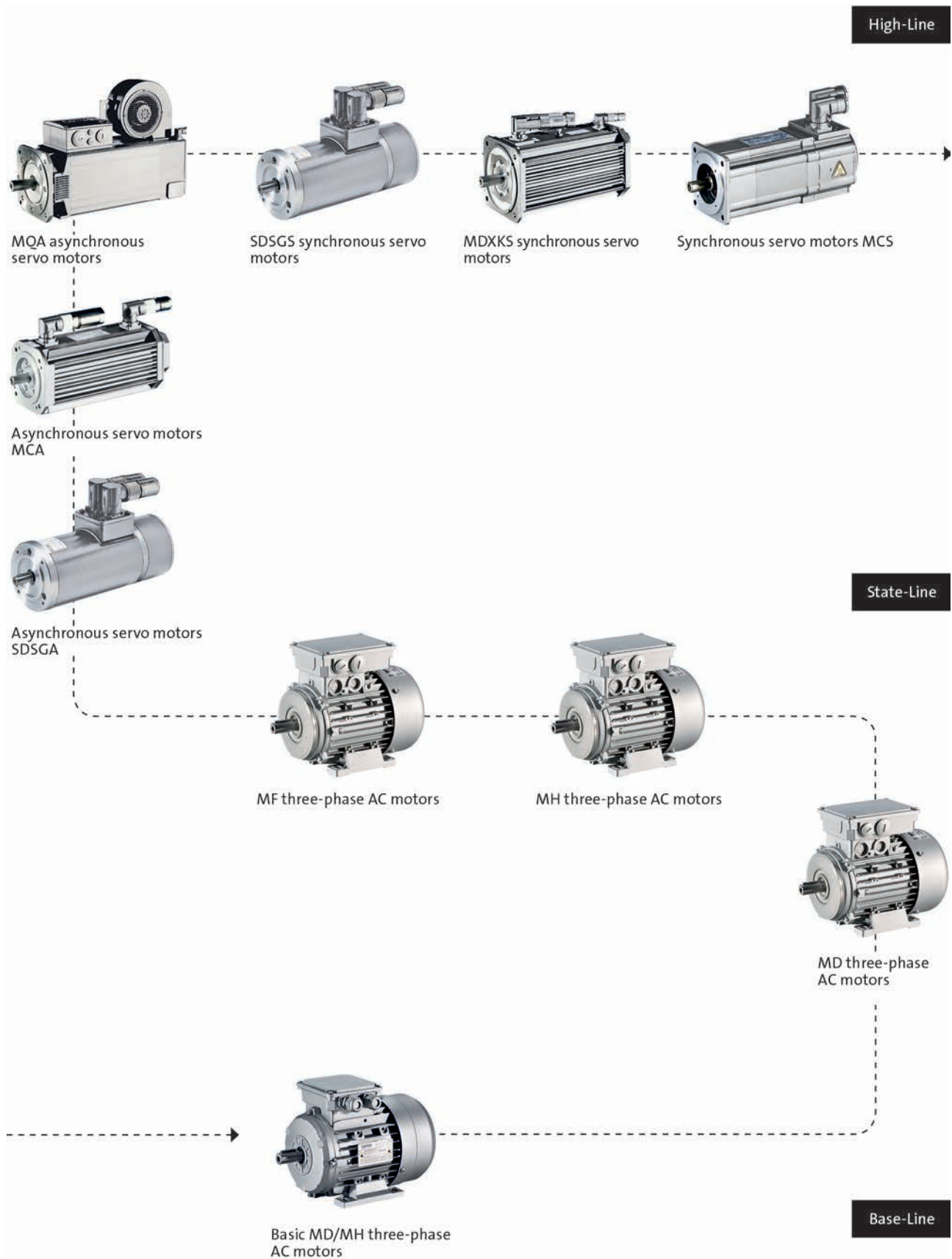
# L-force product portfolio

## Inverter



# L-force product portfolio

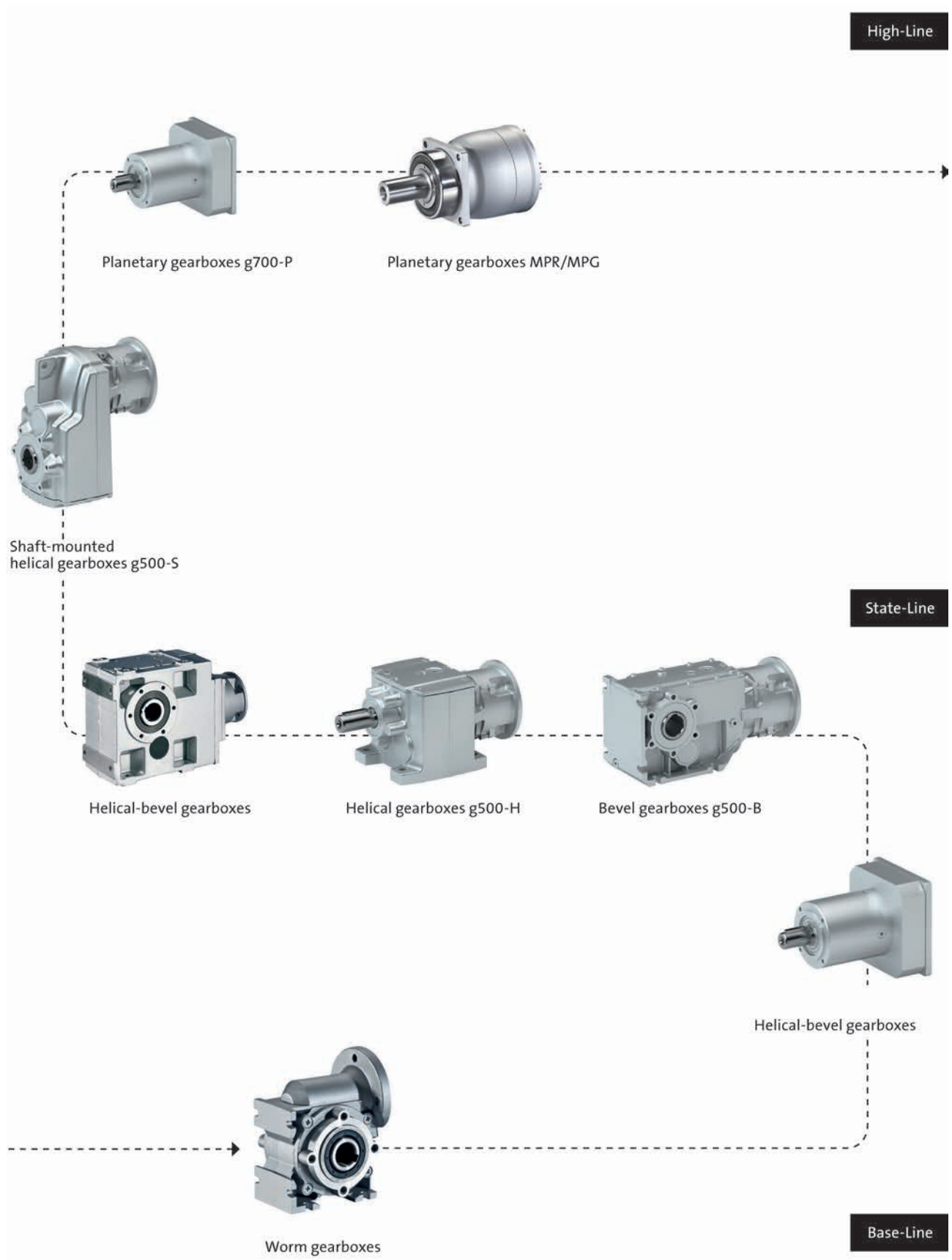
## Motors





# L-force product portfolio

## Gearboxes





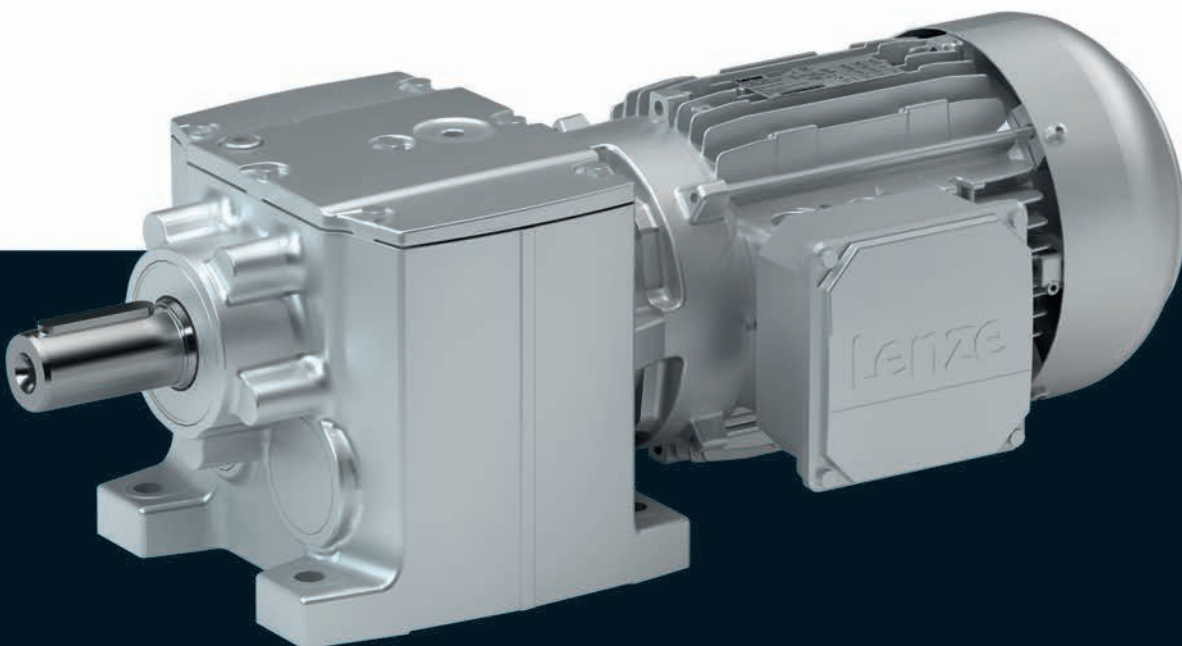
Gearboxes

# g500-H helical geared motors

**Inverter/mains operation**

**0.06 ... 0.55 kW (efficiency class IE1)**

**0.75 ... 7.5 kW (efficiency class IE2)**





# g500-H helical geared motors



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# g500-H helical geared motors

## General information



### List of abbreviations

$\alpha$	[rad/s <sup>2</sup> ]	Max. permissible angular acceleration
$\eta_{50\%}$	[%]	Efficiency
$\eta_{75\%}$	[%]	Efficiency
$\eta_{100\%}$	[%]	Efficiency
$\eta_a$		Efficiency
$\eta_{c=1}$		Efficiency
c		Load capacity
$\cos \phi$		Power factor
du/dt	[kV/ $\mu$ s]	Insulation resistance
$F_{ax,-}$	[N]	Min. axial force
$F_{ax,+}$	[N]	Max. axial force
$F_{ax,max}$	[N]	Max. axial force
$f_{in,max}$	[Hz]	Max. input frequency
$f_{max}$	[kHz]	Limit frequency
$f_{max}$	[kHz]	Max. switching frequency
$f_N$	[Hz]	Rated frequency
$F_{rad,max}$	[N]	Max. radial force
$f_z$		Additional radial force factor
$H_{max}$	[m]	Site altitude
$I_0$	[A]	Standstill current
i		Ratio
$I_{in,max}$	[A]	Max. input current
$I_{max}$	[A]	Max. current consumption
$I_{max}$	[A]	Max. current
$I_{max}$	[A]	Max. current consumption
$I_{max}$	[A]	Max. current
$I_{max}$	[A]	Max. short-time DC-bus current
$I_{max}$	[A]	Max. DC-bus current
$I_N$	[A]	Rated current
$I_{N,\Delta}$	[A]	Rated current
$I_{N,Y}$	[A]	Rated current
J	[kgcm <sup>2</sup> ]	Moment of inertia
$J_{MB}$	[kgcm <sup>2</sup> ]	Moment of inertia
$KE_{LL\ 150^\circ C}$	[V/(1000 r/min)]	Voltage constant
$Kt_{0\ 150^\circ C}$	[Nm/A]	Torque constant
$L_{10}$	[h]	Bearing service life
L	[mH]	Mutual inductance
$L_{1\sigma}$	[mH]	Stator leakage inductance
$L_{2\sigma}$	[mH]	Rotor leakage inductance
$L_N$	[mH]	Rated inductance
m	[kg]	Mass
$M_2$	[Nm]	Output torque
$M_{22}$	[Nm]	Output torque
$M_0$	[Nm]	Stall torque
$M_{0,max}$	[Nm]	Max. standstill torque
$M_{2,GM}$	[Nm]	Output torque
$M_{2,max}$	[Nm]	Max. output torque
$M_{2,not}$	[Nm]	Emergency off-torque

$M_a$	[Nm]	Starting torque
$M_{a,1}$	[Nm]	Starting torque
$M_{a,2}$	[Nm]	Starting torque
$M_{av}$	[Nm]	Average dynamic torque
$M_b$	[Nm]	Stalling torque
$M_B$	[Nm]	Braking torque
$M_k$	[Nm]	Rated torque
$M_{max}$	[Nm]	Max. torque
$M_N$	[Nm]	Rated torque
$n_2$	[r/min]	Output speed
$n_{21}$	[r/min]	Output speed
$n_{22}$	[r/min]	Output speed
$n_{1,max}$	[r/min]	Max. gearbox input speed
$n_{1,max\ 50\%}$	[r/min]	Max. gearbox input speed
$n_{eto}$	[r/min]	Transition speed
$n_k$	[r/min]	Speed
$n_{max}$	[r/min]	Max. speed
$n_N$	[r/min]	Rated speed
$P_{max}$	[kW]	Max. power input
$Q_{BW}$	[MJ]	Friction energy
$Q_E$	[J]	Maximum switching energy
$Q_E$	[kJ]	Maximum switching energy
$R_1$	[ $\Omega$ ]	Stator impedance
$R_2$	[ $\Omega$ ]	Rotor impedance
R	[ $\Omega$ ]	Insulation resistance
R	[ $\Omega$ ]	Min. insulation resistance
$R_{UV\ 150^\circ C}$	[ $\Omega$ ]	Stator impedance
$R_{UV\ 20^\circ C}$	[ $\Omega$ ]	Stator impedance
$S_{h\ddot{u}}$	[1/h]	Transition operating frequency
$t_1$	[ms]	Engagement time
$t_2$	[ms]	Disengagement time
$t_{11}$	[ms]	Delay time
$t_{12}$	[ms]	Rise time
T	[ $^\circ C$ ]	Max. surface temperature
T	[ $^\circ C$ ]	Min. ambient temperature for transport
T	[ $^\circ C$ ]	Max. ambient temperature for transport
T	[ $^\circ C$ ]	Max. ambient temperature of bearing
T	[ $^\circ C$ ]	Min. ambient storage temperature
T	[ $^\circ C$ ]	Ambient temperature
T	[ $^\circ C$ ]	Operating temperature
T	[ $^\circ C$ ]	Rated temperature
t	[h]	Service life
$T_{opr}$		Ambient operating temperature
$T_{opr,max}$	[ $^\circ C$ ]	Max. ambient operating temperature
$T_{opr,min}$	[ $^\circ C$ ]	Min. ambient operating temperature
$t_{re}$	[s]	Recovery time
$t_{\ddot{u}}$	[ms]	Overexcitation time
$U_{\Delta}$	[V]	Voltage range
$U_{AC}$	[V]	Mains voltage range

# g500-H helical geared motors

## General information



### List of abbreviations

$U_{AC}$	[V]	Mains voltage
$U_{in,max}$	[V]	Max. input voltage
$U_{in,min}$	[V]	Min. input voltage
$U_{max}$	[V]	Max. input voltage
$U_{max}$	[V]	Max. mains voltage
$U_{min}$	[V]	Min. mains voltage
$U_{N,\Delta}$	[V]	Rated voltage
$U_{N,AC}$	[V]	Rated voltage
$U_{N,DC}$	[V]	Rated voltage
$U_{N,Y}$	[V]	Rated voltage
$Z_g$		Number of teeth
$Z_{ro}$	[ $\Omega$ ]	Rotor impedance
$Z_{rs}$	[ $\Omega$ ]	Impedance
$Z_{so}$	[ $\Omega$ ]	Stator impedance
$Z_t$		Number of teeth

CCC	China Compulsory Certificate
CE	Communauté Européenne
CEL	China Energy Label
CSA	Canadian Standards Association
CSAULE	Energy Verified Certificate
cURus	Combined certification marks of UL for the USA and Canada
DIN	Deutsches Institut für Normung e.V.
EAC	Customs union Russia / Belarus / Kazakhstan certificate
EMC	Electromagnetic compatibility
EN	European standard
IM	International Mounting Code
IP	International Protection Code
NEMA	National Electrical Manufacturers Association
UkrSEPRO	Certificate for Ukraine
UL	Underwriters Laboratory Listed Product
UR	Underwriters Laboratory Recognized Product
VDE	Verband deutscher Elektrotechniker (Association of German Electrical Engineers)

# g500-H helical geared motors

## General information



### Product information

In combination with three-phase AC motors, our helical gearboxes form a compact and powerful drive unit. Numerous options at the input and output end provide for the drive to be exactly adapted to your application.

The robust helical gearboxes feature high permissible radial forces, closely stepped ratios and a low backlash. They are available in 2-stage and 3-stage design with a output torque up to 3000 Nm and a ratio of up to  $i=370$ .

#### Versions

- Fine-scaling of size / torque - provides for an optimum machine adaptation
- Standardised shaft and flange dimensions for an easy machine integration
- High efficiency

#### Three-phase AC motors as a basis for geared motors

In a power range of 0.06 to 7.5 kW, Lenze offers inverter-compatible three-phase AC motors for comprehensive tasks. These drives come in different efficiency classes and can be used for the versions required for open-loop or closed-loop controlled inverter operation.

- IE1 motors up to a power of 0.55 kW
- IE2 motors from 0.75 kW to 7.5 kW

#### Customer benefit:

- Different efficiency classes for the greatest economic benefit
- Space-saving thanks to compact direct attachment to Lenze gearboxes
- Can be used universally for a wide range of machine tasks due to the market-oriented modular system

### The product name

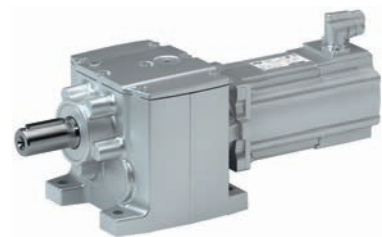
Gearbox type	Product range	Design	Rated torque [Nm]	Product	
Helical gearbox	g500	-	H	45	g500-H45
				100	g500-H100
				140	g500-H140
				210	g500-H210
				320	g500-H320
				450	g500-H450
				600	g500-H600
				850	g500-H850
				1500	g500-H1500
				3000	g500-H3000



g500-H helical gearbox with three-phase AC motor



g500-H helical gearbox with three-phase AC motor and 8400 motec inverter



g500-H helical gearbox with servo motor



# g500-H helical geared motors

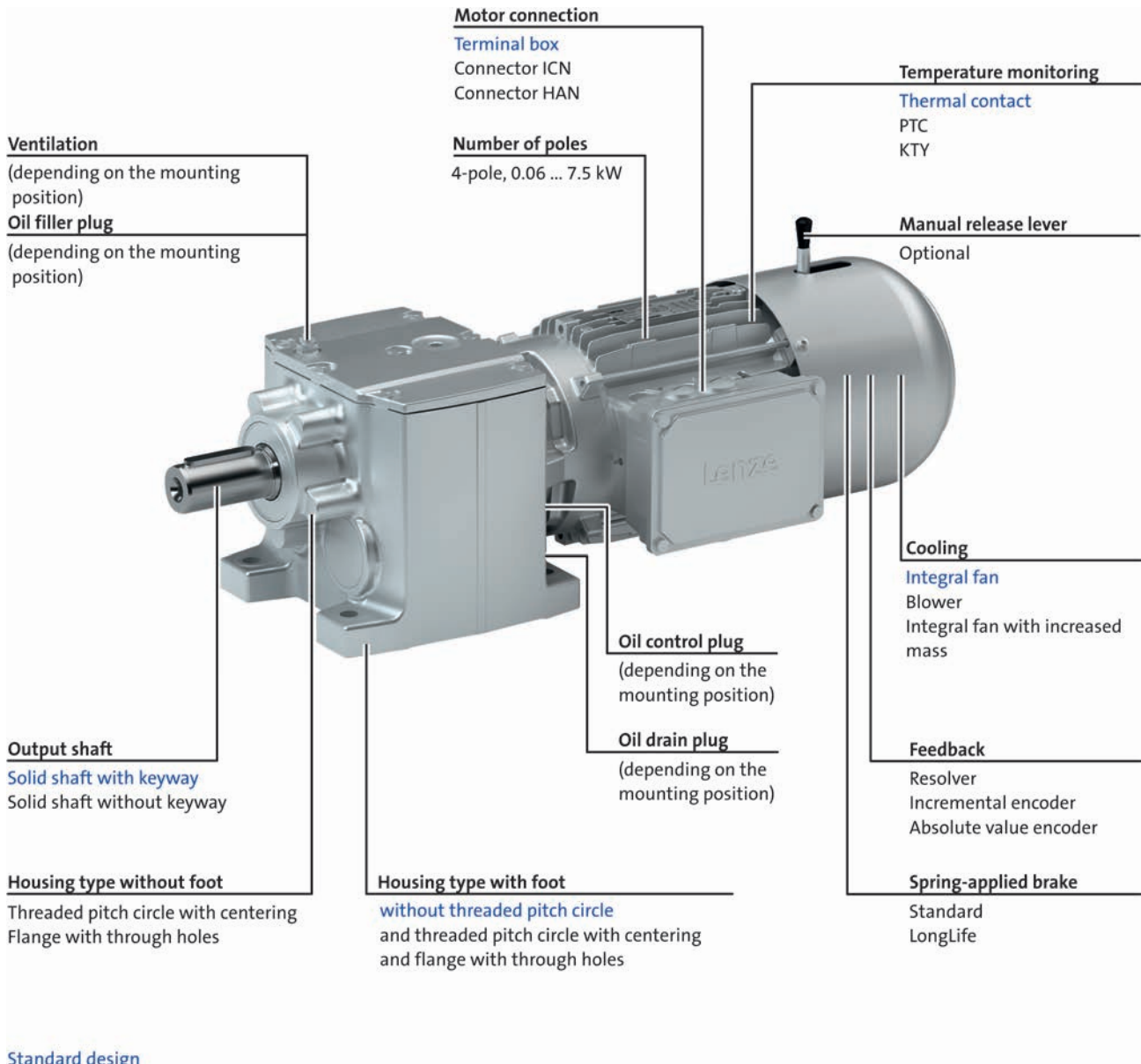
## General information



## Equipment

### Overview

The equipment includes all the options available as standard and all the built-on accessories of the product.



10 - Detailed information on housing type.

# g500-H helical geared motors

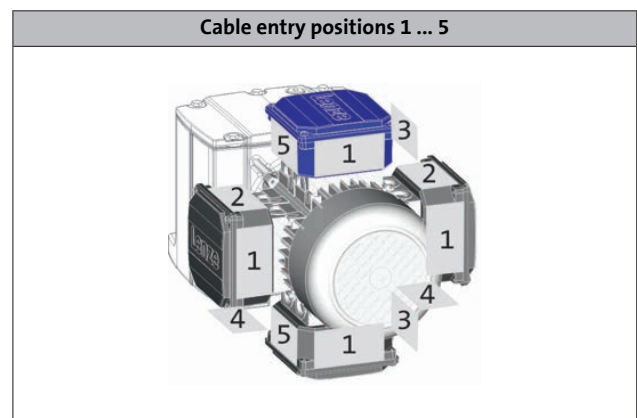
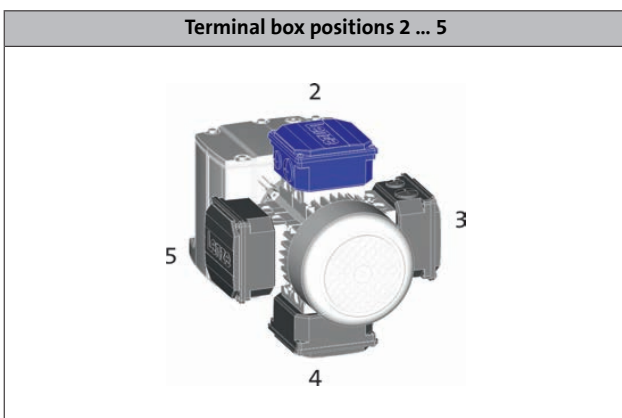
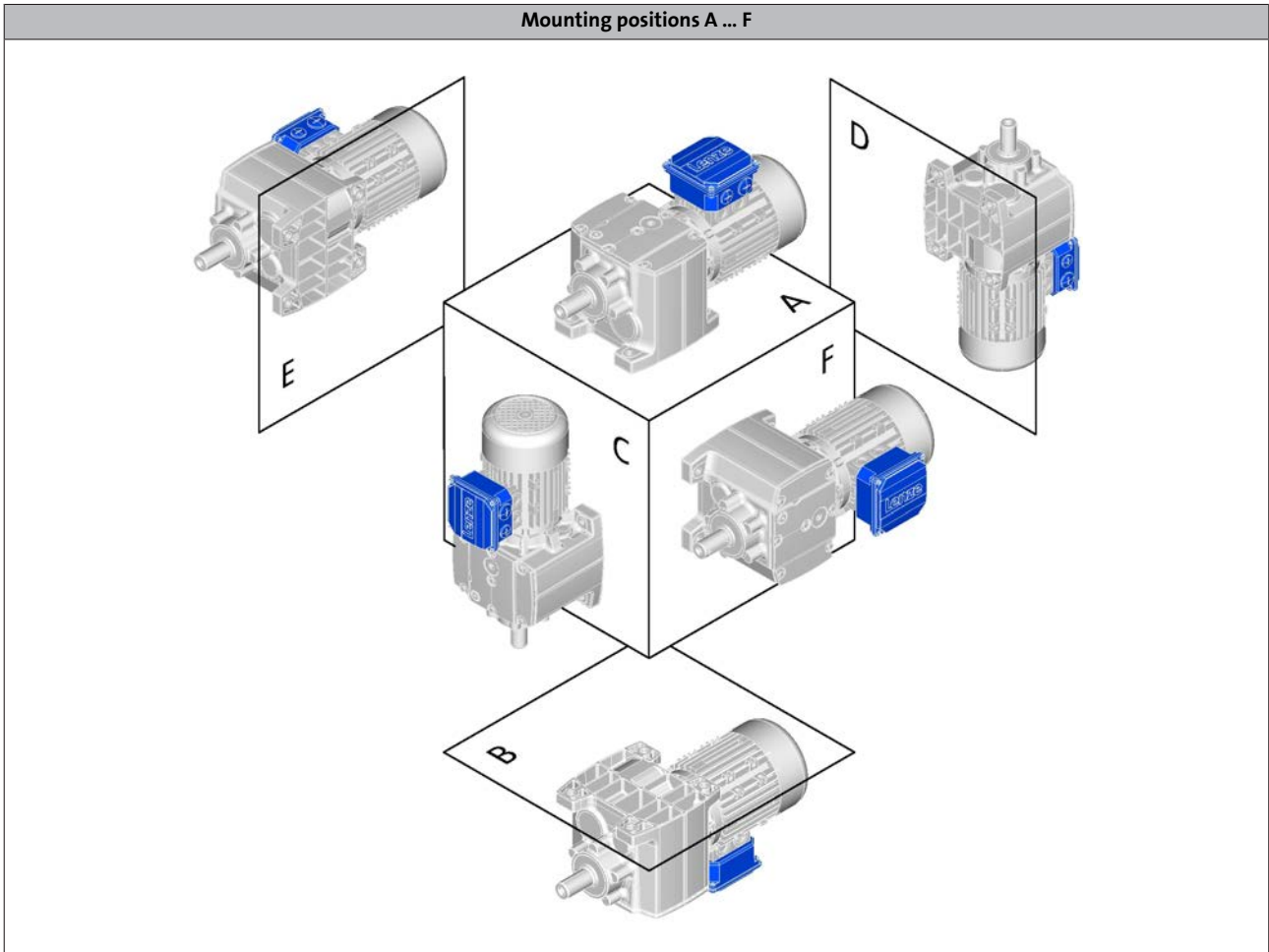
## General information



### Equipment

#### Mounting position, position of system components

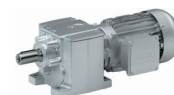
- ▶ In the following graphics, the terminal box in position 2 is colour-coded. If the mounting position (A ... F) changes, the terminal box positions 2 ... 5 are rotated accordingly.
- ▶ To reduce the number of different versions, the gearboxes can also be ordered with combined mounting positions:
  - g500-H45 in mounting position ABCDEF
  - g500-H100 ... H450 in mounting position AEF



- ▶ For details regarding the cable entry see motor chapter/product extensions.

# g500-H helical geared motors

## General information



### The geared motor kit

#### g500-H45 ... H450

Product						
Gearbox	g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Motor assignment min.	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063
Motor assignment max.	MD□MA□□-071	MH□MA□□-090	MH□MA□□-090	MH□MA□□-100	MH□MA□□-112	MH□MA□□-132
Technical data						
Output torque max.	45 Nm	100 Nm	140 Nm	210 Nm	320 Nm	450 Nm
Drive power min.	0.06 kW	0.12 kW	0.12 kW	0.12 kW	0.12 kW	0.12 kW
Drive power max.	0.55 kW	1.5 kW	1.5 kW	3.0 kW	4.0 kW	7.5 kW
Dimensions [mm]						
Solid shaft with featherkey	14 x 28 20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	30 x 60 35 x 70
Solid shaft without keyway	20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	35 x 70
Output flange	120/140/160	120/140/160	120/140/160	120/140/160/200	160/200	160/200/250

- ▶ The designs are only available for the gearboxes displayed above in the table.
- ▶ Values printed in bold are standard versions.  
Values not printed in bold are possible extensions, some for an additional charge.

Design	
Conformity	<b>CE</b> EAC
Approval	<b>Without</b> CCC/CSA/cURus
Degree of protection	<b>IP55</b> IP65/IP66
Surface and corrosion protection	<b>Without</b> Different types of OKS
Colour	<b>Not coated</b> Primed/RAL colours
Solid shaft	<b>With featherkey (V□□)</b> Without keyway
Shaft material	<b>Steel</b> stainless steel
Shaft sealing ring material	<b>NBR</b> FKM (Viton)
Driven shaft bearing	<b>Normal</b> Reinforced
Paste for shaft mounting	<b>Without</b> Enclosed
Gearbox type	<b>With foot (VBR)</b> <b>With centering (VCR)</b> With output flange (VCK) With output flange (VCP) With foot and centering (VAR) With foot and output flange (VAK)
Lubricant	<b>Mineral oil</b> Synthetic oil Food-compatible oil

Design	
Mounting position	<b>A/B/C/D/E/F</b> Combined
Power connection	<b>Terminal box</b> Plug connectors
Spring-applied brake	<b>Without</b> Brake design: Standard/Longlife Brake version: Standard/Overexcited/Cold Brake
Feedback	<b>Without</b> Resolver Absolute value encoder Incremental encoder
Cooling	<b>Integral fan</b> Blower
Temperature monitoring	<b>TKO thermal contact</b> PTC thermistor KTY thermal detector

# g500-H helical geared motors

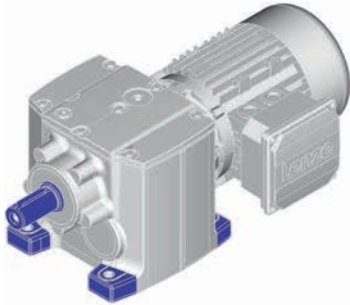
General information



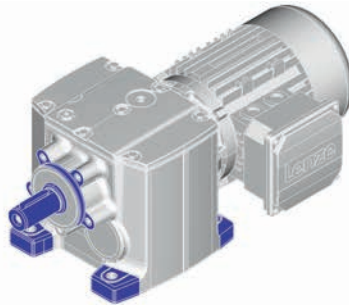
## The geared motor kit

g500-H45 ... H450

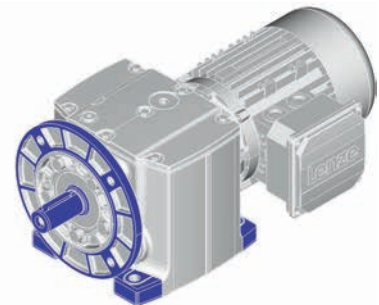
### Gearbox design: solid shaft, with foot



Without centring (VBR)

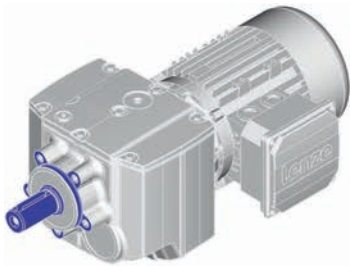


With centering (VAR)

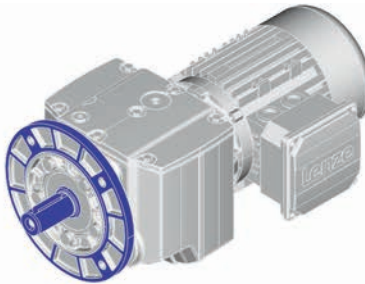


Flange with through holes (VAK)

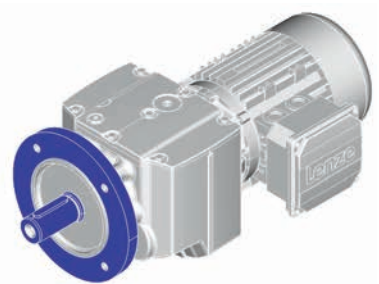
### Gearbox design: solid shaft, without foot



With centering (VCR)



Flange with through holes (VCK)

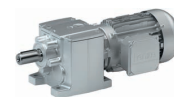


Flange with through holes (VCP)

- ▶ VCP (reinforced flange) for transmitting particularly high radial and axial forces.

# g500-H helical geared motors

## General information



### The geared motor kit

#### g500-H600 ... H3000

Product	g500-H600	g500-H850	g500-H1500	g500-H3000
Gearbox				
Motor assignment min.	MD□MA□□-063	MD□MA□□-063	MD□MA□□-071	MH□MA□□-090
Motor assignment max.	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132
<b>Technical data</b>				
Output torque max.	600 Nm	850 Nm	1500 Nm	3000 Nm
Drive power min.	0.12 kW	0.25 kW	0.55 kW	1.1 kW
Drive power max.	7.5 kW	7.5 kW	7.5 kW	7.5 kW
<b>Dimensions [mm]</b>				
Solid shaft with featherkey	35 x 70 40 x 80	40 x 80	50 x 100	60 x 120
Solid shaft without keyway	35 x 70	40 x 80	50 x 100	60 x 120
Output flange	200/250	250/300	250/300/350	300/350/450

- ▶ The designs are only available for the gearboxes displayed above in the table.
- ▶ Values printed in bold are standard versions.  
Values not printed in bold are possible extensions, some for an additional charge.

Design	
Conformity	<b>CE</b> EAC
Approval	<b>Without</b> CCC/CSA/cURus
Degree of protection	<b>IP55</b> IP65/IP66
Surface and corrosion protection	<b>OKS-S</b> Different types of OKS
Colour	<b>Painted in RAL colours</b> Primed
Solid shaft	<b>With featherkey (V□□)</b> Without keyway
Shaft material	<b>Steel</b> stainless steel
Shaft sealing ring material	<b>NBR</b> FKM (Viton)
Driven shaft bearing	<b>Normal</b> Reinforced
Paste for shaft mounting	<b>Without</b> Enclosed
Gearbox type	<b>With foot (VBR)</b> <b>With centering (VCR)</b> With output flange (VCK) With foot and centering (VAR) With foot and output flange (VAK)
Lubricant	<b>Mineral oil</b> Synthetic oil Food-compatible oil

Design	
Mounting position	<b>A/B/C/D/E/F</b>
Power connection	<b>Terminal box</b> Plug connectors
Spring-applied brake	<b>Without</b> Brake design: Standard/Longlife Brake version: Standard/Overexcited/Cold Brake
Feedback	<b>Without</b> Resolver Absolute value encoder Incremental encoder
Cooling	<b>Integral fan</b> Blower
Temperature monitoring	<b>TKO thermal contact</b> PTC thermistor KTY thermal detector

# g500-H helical geared motors

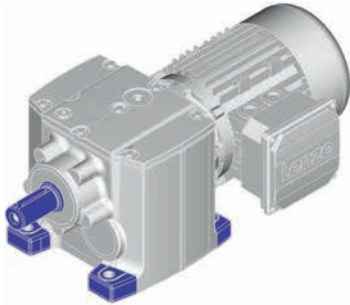
General information



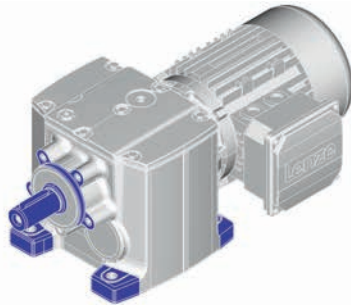
## The geared motor kit

g500-H600 ... H3000

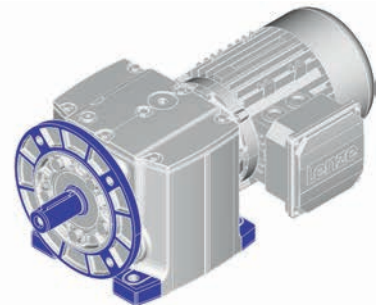
### Gearbox design: solid shaft, with foot



Without centring (VBR)

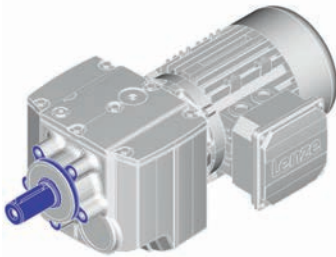


With centering (VAR)

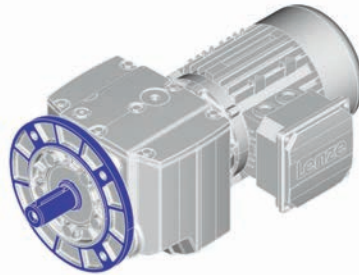


Flange with through holes (VAK)

### Gearbox design: solid shaft, without foot



With centering (VCR)



Flange with through holes (VCK)



### General information about the data provided in this catalogue

The powers, torques and speeds specified in this catalogue are rounded values and are valid under the following conditions:

- Operating time/day = 8 h (100% OT)
- Duty class I for up to 10 switching operations/h
- Mounting positions and designs in this catalogue
- Standard lubricant
- $T_{amb} = 20\text{ °C}$  for gearboxes,  
 $T_{amb} = 40\text{ °C}$  for motors (in accordance with EN 60034)
- Site altitude  $\leq 1000\text{ m amsl}$
- The selection tables provide the permissible mechanical powers and torques. For notes on the thermal power limit, see chapter drive dimensioning.
- The rated power specified for motors and geared motors applies to operating mode S1 (in accordance with EN 60034).

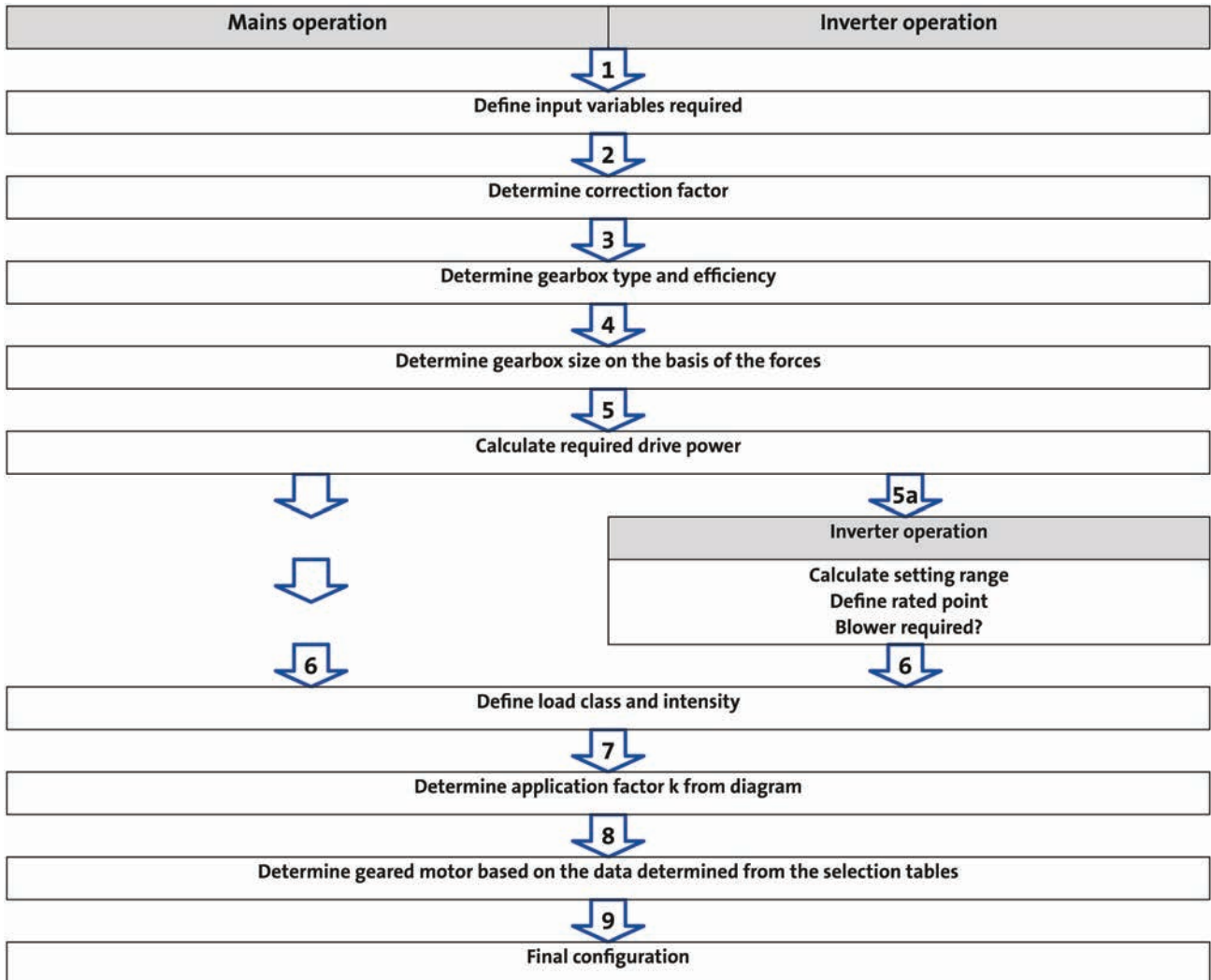
Under different operating conditions, the values obtained may vary from those listed here.

In the case of extreme operating conditions, please consult your Lenze sales office.



## Procedure of a configuration process

### Workflow



You can use our configuring software Drive Solution Designer for precise drive dimensioning.

The Drive Solution Designer helps you to carry out a fast and high-quality drive dimensioning.

The software includes well-founded and proven knowledge on drive applications and electro-mechanical drive components.

Please contact your Lenze sales office.





### Procedure of a configuration process

#### 1 required input variables

Load torque		$M_{L,max} =$	[Nm]
	In inverter operation	$M_{L,min} =$	[Nm]
Load speed		$n_{L,max} =$	[r/min]
	In inverter operation	$n_{L,min} =$	[r/min]
External moments of inertia		$J_{ext} =$	[kgcm <sup>2</sup> ]
Operating time / day		BD =	[h]
Switching operations per h		$S_h =$	[1/h]
Runtime for $M_{L,max}$	In inverter operation		[%]

#### 2 determine correction factor

Operating modes and operating time						
S1	ED	[%]	100			
	$k_L =$		1.0			
S2	ED	[%]	10	30	60	90
	$k_L =$		1.4 - 1.5	1.15 - 1.2	1.07 - 1.1	1.0 - 1.05
S3	ED	[%]	15	25	40	60
	$k_L =$		1.4 - 1.5	1.3 - 1.4	1.15 - 1.2	1.05 - 1.1
S6	ED	[%]	15	25	40	60
	$k_L =$		1.5 - 1.6	1.4 - 1.5	1.3 - 1.4	1.15 - 1.2
Site altitude						
	H	[m]	≤ 1000	≤ 2000	≤ 3000	≤ 4000
	$k_H =$		1	0.95	0.9	0.85
Ambient temperature						
	$T_U =$	[°C]	≤ 40	≤ 45	≤ 50	≤ 55
	$k_{TU} =$		1	0.95	0.9	0.8

22 - Operating modes



### Procedure of a configuration process

#### 3 determine gearbox type and efficiency

Gearbox type			Axial gearboxes		Right-angle gearboxes
			Helical gearbox	Shaft-mounted	Bevel gearbox
Product			g500-H	g500-S	g500-B
Gearbox efficiency	2-stage gearboxes	$\eta_G$	0.96	0.96	0.96
	3-stage gearboxes	$\eta_G$	0.95	0.95	0.95

#### 4 determine gearbox size based on the forces on the output

Transmission element		Gear wheels	Sprockets	Toothed belt pulleys (depending on the initial stress)	Narrow V-belt (depending on the initial stress)
Additional radial force factor	$f_z =$	$\geq 17$ teeth = 1.0 $< 17$ teeth = 1.15	$\geq 20$ teeth = 1.0 $< 20$ teeth = 1.25 $< 13$ teeth = 1.4	With belt tightener = 2.0 - 2.5 Without belt tightener = 2.5 - 3.0	1.5 - 2.0
		Calculation		Check	
Radial force	[N]	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{d_w}$		$F_{rad} \leq f_w \times F_{rad,max}$	
Axial force	[N]			$F_{ax} \leq F_{rad,max} \times 0.5$	

$d_w$  = effective diameter [mm] transmission element  
 $f_w$  = additional load factor

- For permissible radial and axial forces and additional load factor see the "Technical data" chapter

#### 5 calculate drive power

		Calculation	
Drive power required	[kW]	$P_1 = \frac{M_{L,max} \times \eta_{L,max}}{9549 \times k_L \times k_H \times k_{Tu} \times \eta_g}$	

$k_L$  = Correction factor - operating mode  
 $k_H$  = correction factor - installation height  
 $k_{Tu}$  = correction factor - ambient temperature



### Procedure of a configuration process - mains operation

#### 6 calculate intensity and determine duty class

Load class	Load type	Intensity
I	Smooth operation, small or light jolts	$F_1 \leq 1.25$
II	Uneven operation, average jolts	$1.25 < F_1 \leq 4$
III	Uneven operation, severe jolts and/or alternating load	$F_1 > 4$

#### 23 - Duty classes

	Calculation	
Intensity	$F_1 = \frac{\frac{J_L + J_M + J_B + J_Z}{i^2}}{J_M + J_B + J_Z}$	

$i$  = gearbox ratio

$J_L$  = moment of inertia of the load

$J_M$  = moment of inertia of the motor

$J_B$  = moment of inertia of the brake

$J_Z$  = additional moment of inertia (handwheel, 2nd shaft end ...)

#### 7 determine application factor $k$ from diagram

#### 26 - Load capacity and application factor

# g500-H helical geared motors

## Project planning



### Procedure of a configuration process - mains operation

8 determine geared motor based on the data determined from the selection tables

Selection table		Check
Drive power $P_N$	[kW]	$P_1 \leq P_N$
Output speed $n_2$	[r/min]	$n_{L,max} \approx n_2$
Output torque $M_2$	[Nm]	$M_{L,max} \leq M_2$
Load factor $c$		$k \leq c$
Order information		Example
Number of stages		2
Ratio $i$		3.267
Product gearbox		g500-H140
Product motor		MHxMAxx090-32

26 - Load capacity and application factor

#### Example: structure of a selection table

50 Hz:  $P_N = 1.5$  kW ← Rated power  $P_N$   
 87 Hz:  $P_N = 2.7$  kW

2-stage gearboxes ← Number of the gear stage

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c			
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79

↑ ↑ ↑  
 Output speed  $n_2$   
 Output torque  $M_2$   
 Load capacity  $c$

↑ ↑ ↑  
 Ratio  $i$   
 Product Gearbox  
 Product Motor



### Procedure of a configuration process - inverter operation

#### 5a calculate range of adjustment and determine rated point

		Calculation	
Setting range		$V = \frac{n_{L,max}}{n_{L,min}}$	
Setting range	Motor with integral fan	$\leq 2.5$ (20 ... 50 Hz)	$\leq 4.35$ (20 ... 87 Hz)
	Motor with blower	$\leq 10$ (5 ... 50 Hz)	$\leq 17.4$ (5 ... 87 Hz)
Rated point at		50 Hz	87 Hz

#### 6 calculate intensity and determine duty class

		Calculation	
Intensity	$M_I = \frac{M_{L,max}}{M_{L,min}}$	For alternating load, select load class III!	
Load class	Load type	Intensity	
I	Smooth operation, small or light jolts	$M_I \leq 1.5$	
II	Uneven operation, average jolts	$1.5 < M_I \leq 2$	
III	Uneven operation, severe jolts and/or alternating load	$2 < M_I \leq 2.5$	

23 - Duty classes

#### 7 determine application factor k from diagram

26 - Load capacity and application factor

# g500-H helical geared motors



## Project planning

### Procedure of a configuration process - inverter operation

8 determine geared motor based on the data determined from the selection tables

Selection table			Check	
Drive power $P_N$		[kW]	$P_1 \leq P_N$	
Max. output speed $n_2$		[r/min]	$n_{L,max} \approx n_2$	
Min. output speed $n_{21}$	Self-ventilated	[r/min]	$n_{L,min} \approx n_{21}$	Setting range 2.5 (50 Hz) Setting range $\leq 4.35$ (87 Hz)
Min. output speed $n_{22}$	Forced-ventilated	[r/min]	$n_{L,min} \approx n_{22}$	Setting range $\leq 10$ (50 Hz) Setting range $\leq 17.4$ (87 Hz)
	Self-ventilated (Reduced output torque)	[r/min]	$n_{L,min} \approx n_{22}$	
Output torque $M_2$		[Nm]	$M_{L,max} \leq M_2$	
Load factor $c$			$k \leq c$	
Order information			Example	
Number of stages			2	
Ratio $i$			3.267	
Product gearbox			g500-H140	
Product motor			MHxMAxx090-32	

26 - Load capacity and application factor

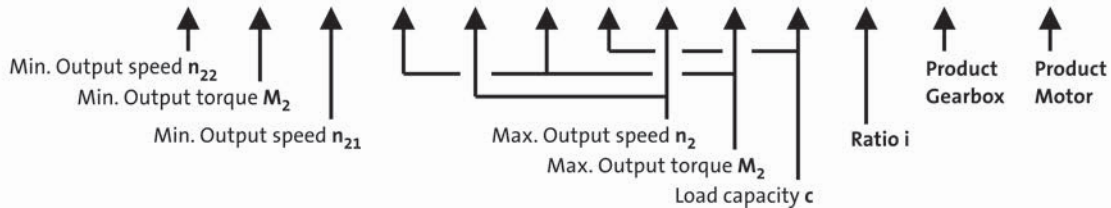
29 - Torque derating at low motor frequencies

### Example: structure of a selection table

50 Hz:  $P_N = 1.5$  kW  
87 Hz:  $P_N = 2.7$  kW ← Rated power  $P_N$

2-stage gearboxes ← Number of the gear stage

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79

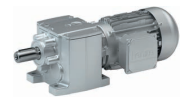




### Procedure of a configuration process

#### 9 Final configuration

More information regarding the final configuration can be found under:	
<ul style="list-style-type: none"> <li>- The modular geared motor system</li> <li>- Product extensions for gearboxes, motors</li> </ul>	
Check operating conditions	<ul style="list-style-type: none"> <li>- Operating temperature (observe lubricant, material of shaft sealing ring)</li> <li>- Degree of protection</li> <li>- Supply voltage</li> <li>- Surface protection required</li> <li>- Approvals</li> <li>- Conformity</li> </ul>
Check and define connection dimensions	<ul style="list-style-type: none"> <li>- Driven shaft</li> <li>- Foot, output flange, centering with threaded pitch circle</li> </ul>
Determine mounting position and position of the system blocks	<ul style="list-style-type: none"> <li>- Mounting position A/B/C/D/E/F or combined</li> <li>- Terminal box position, shaft position, flange position</li> </ul>
Select product extensions at the gearbox (differing depending on the gearbox type)	<ul style="list-style-type: none"> <li>- Torque plate at the base, threaded pitch circle, rubber buffer</li> <li>- Hollow shaft cover, shrink disc cover</li> </ul>
Select product extensions at the motor	<ul style="list-style-type: none"> <li>- Connection type (terminal box, connector)</li> <li>- Brake</li> <li>- Blower (inverter operation)</li> <li>- Feedback</li> <li>- Temperature monitoring</li> </ul>



### Standards

#### Operating modes

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

#### The most important operating modes

Continuous operation S1	Short-time operation S2
<p>Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.</p>	<p>Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.</p>
Intermittent operation S3	Non-intermittent periodic operation S6
<p>Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.</p>	<p>Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.</p>



# g500-H helical geared motors

## Project planning



### Standards

#### Duty classes

Depending on the load type, the duty classes or impacts are divided as follows:

Duty class	Load type
I	Smooth operation, small or light jolts
II	Uneven operation, average jolts
III	Uneven operation, severe jolts and/or alternating load

In order to support you in classifying your driven machine regarding the right duty class, the following shows sample applications with the corresponding duty class. Depending on, for instance, the operating frequency, driven machines can also have a higher impact. In case of uncertainties, please contact your Lenze sales office.

Drive	Duty class
Construction machines	II
Chemical industry	II
Conveyors	II
Fans	II
Plastics industry	II
Wood working	III
Hoists	III
Metal working	III
Food	II
Paper industry	III
Stones	III
Textile industry	II



### Standards

#### Degrees of protection

The degree of protection indicates the suitability of a motor for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The degrees of protection are classified by EN 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust.  
The second code number refers to the protection against the ingress of humidity.

Code number	Degree of protection	Code number	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in the case of deliberate access	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or similar	2	Protection against diagonally falling water (dripping water), $15^\circ$ compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires and the like	3	Protection against spraying water, up to $60^\circ$ to the vertical
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wires and the like	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

# g500-H helical geared motors



## Project planning

### Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible permanent gearbox power.

It is affected by:

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the gears;
- the load and the speed;
- the ambient conditions: temperature, air circulation, input or dissipation of heat via shafts and the foundations.

We ask you to make a thermal check with the Drive Solution Designer (DSD) or contact the Lenze office responsible for you

- if the input speed  $n_1 > 1500$  r/min is exceeded in case of the gearbox ratios given in the following (can be e.g. recognised by the empty cells in the selection tables):

g500 thermal power limit	
Product	Ratio i
g500-H850 ... H3000	≤ 10
g500-S2100 ... S4500	≤ 16
g500-B1500 ... B4300	≤ 25

g500 thermal power limit	
Product	Ratio i
g500-H5000 ... H14000	≤ 25
g500-S8000 ... S19000	≤ 40
g500-B8000 ... B20000	≤ 60

- If the drive speeds mentioned in the following will be exceeded as a function of the mounting position:

g500 thermal power limit			
Product	Mounting position A	Mounting position A, B, E, F	Mounting position C, D
MD□MA□□063 ... 100 MH□MA□□063 ... 100	4000 r/min	3500 rpm	3000 r/min
MD□MA□□112 ... 132 MH□MA□□112 ... 132 m240-P112 ... P132 m550-P112 ... P132	3000 r/min	2600 rpm	1500 r/min
MD□MA□□160 ... 180 MH□MA□□160 ... 180 m240-P160 ... P180 m550-P160 ... P180	2000 r/min	1800 rpm	1500 r/min
m540-P90 ... P250	1500 r/min	1500 r/min	1500 r/min

- ▶ For a short period of time up to 5 min, 30 % higher speeds are permissible

### Possible ways of extending the application area

- Synthetic lubricant (option)
- Shaft sealing rings made from FKM material/Viton (option)
- Reduction in lubricant quantity (after consultation with Lenze)
- Cooling of the geared motor by means of air convection on the machine/system



### Load capacity and application factor

#### Load capacity $c$ of gearboxes

Rated value for the load capacity of Lenze geared motors.

- $c$  is the ratio of the permissible rated torque of the gearbox to the rated torque supplied by the drive component (e.g. the built-in Lenze motor).
- The value of  $c$  must always be greater than the value of the application factor  $k$  calculated for the application.

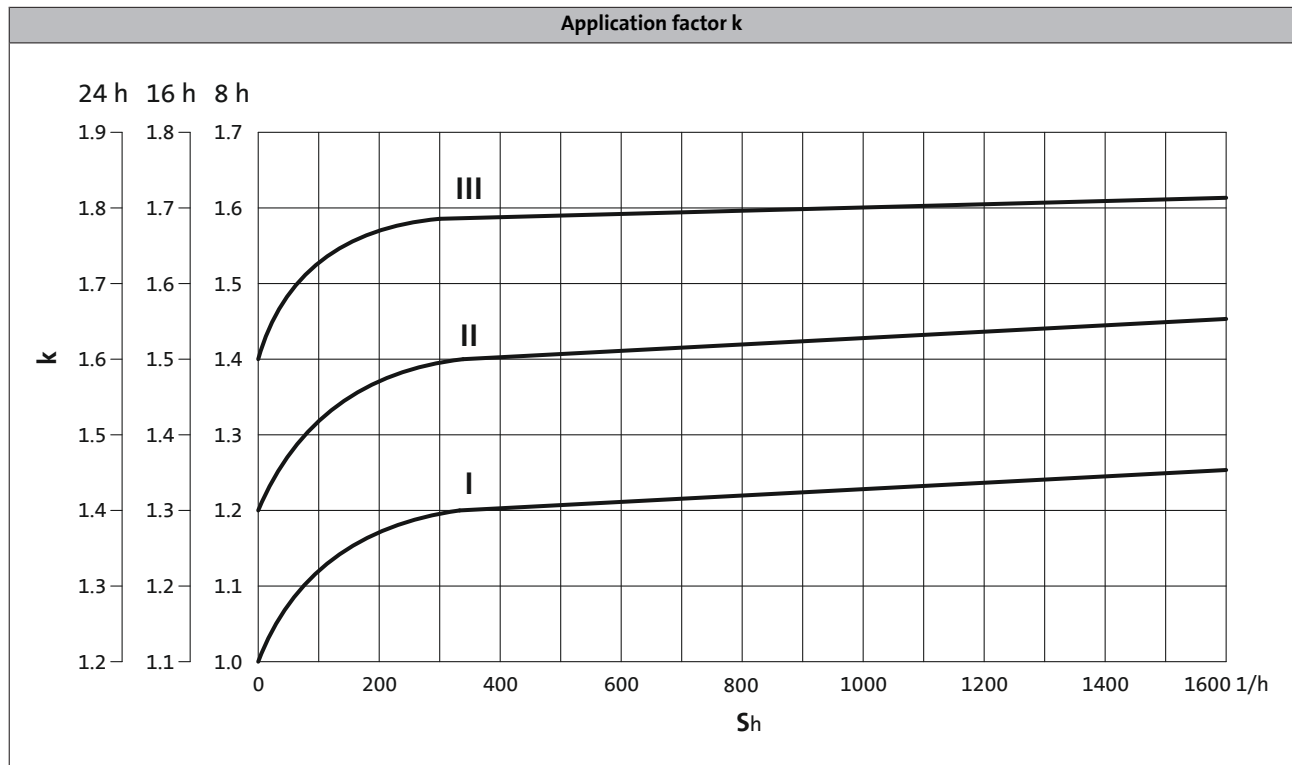
Required:  $c \geq k$

#### Application factor $k$ (according to DIN 3990)

Takes into account the influence of temporally variable loads which are actually present during the anticipated operating time of gearboxes and geared motors.

$k$  is determined by:

- the type of load
- the load intensity
- temporal influences



►  $S_h$  = switchings/h

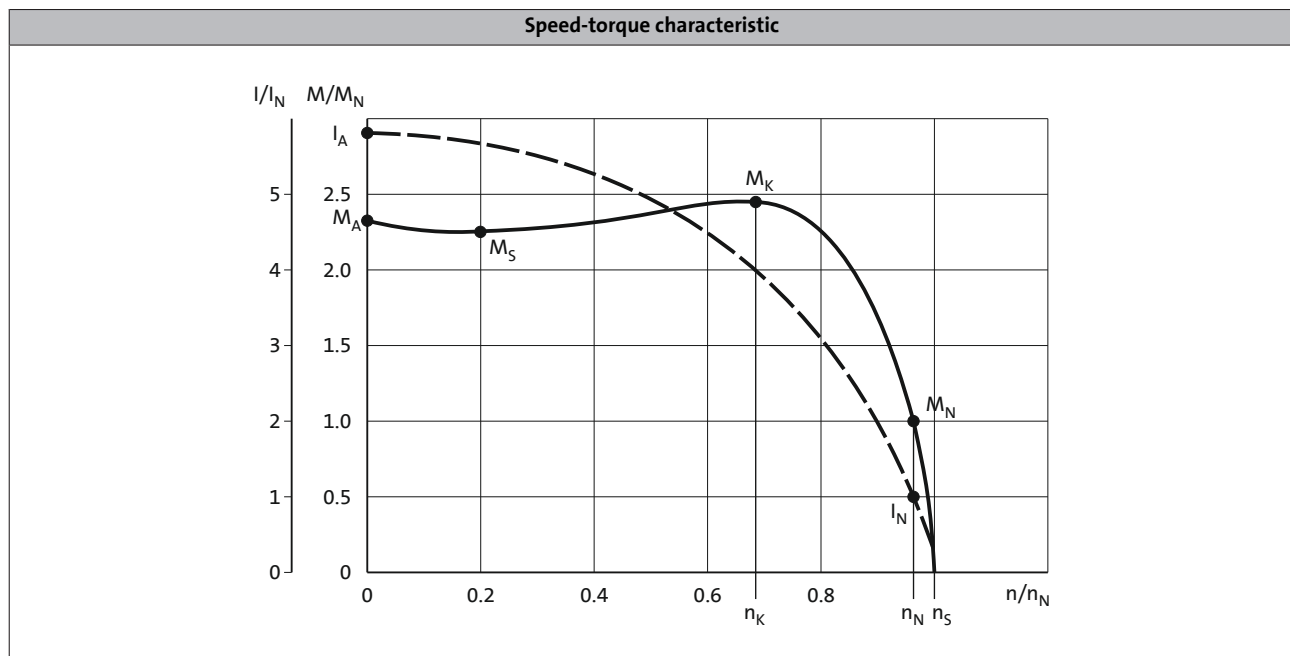


### Operational performance of three-phase AC geared motors

The g500 geared motors can be actuated directly on the mains or via an inverter. When actuated in mains operation, the motor runs at a fixed speed, for inverter operation the speed is variable. Thanks to their high degree of protection, the robust three-phase drives can be basically used in a variety of applications.

#### Mains operation

During mains operation, when switched on, the three-phase AC motor starts up according to the speed-torque characteristic. It passes through this characteristic until it reaches its stable operating point. This operating point has been reached if the load torque or rated torque ( $M_{\text{rated}}$ ) is lower than the starting torque ( $M_{\Delta}$ ) and pull-up torque ( $M_S$ ). The rated speed ( $n_{\text{rated}}$ ) of the drive is always lower than the calculated synchronous speed ( $n_S$ ). The difference between rated speed and synchronous speed relating to the synchronous speed is referred to as the "slip".





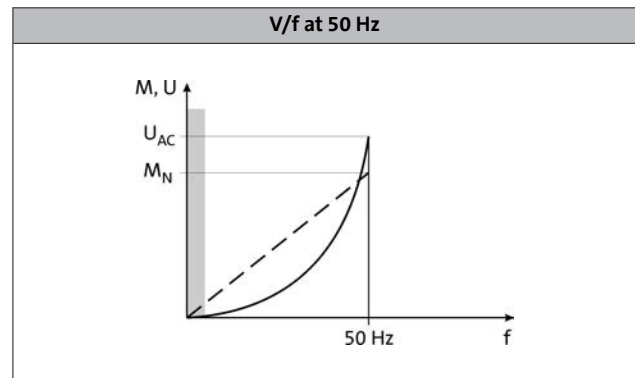
### Operational performance of three-phase AC geared motors

#### Operation on the inverter

An inverter enables energy-efficient operation of a system in virtually all application cases. The various operating modes, which can be created by making just a few simple settings, facilitate this. The following characteristics and corresponding specifications listed on the following pages can be used to calculate the optimum operating mode during the project planning phase.

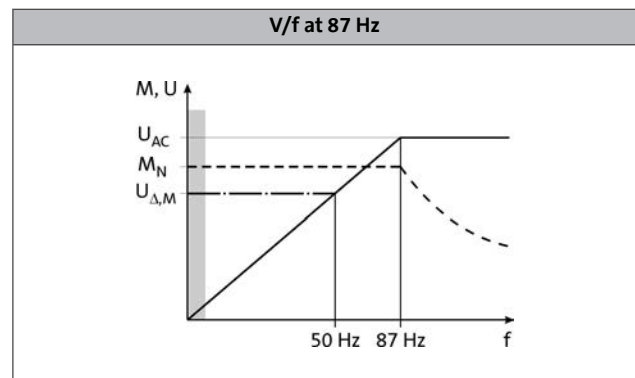
#### Standard setting

In its initial state when delivered, the inverter is set up for basic operation with a three-phase AC motor with vector control. When operated in this mode, the rated torque of the motor is available in a setting range up to 50 Hz.



#### Extended setting range up to 87 Hz

If the V/f reference point on the inverter is set to 87 Hz, the rated torque can be used across an extended setting range. Here, a 230/400V motor is for example used and operated in a delta layout with a 400V inverter. The setting range is then increased by 40 %. The inverter must be dimensioned for a rated motor current of 230 V.

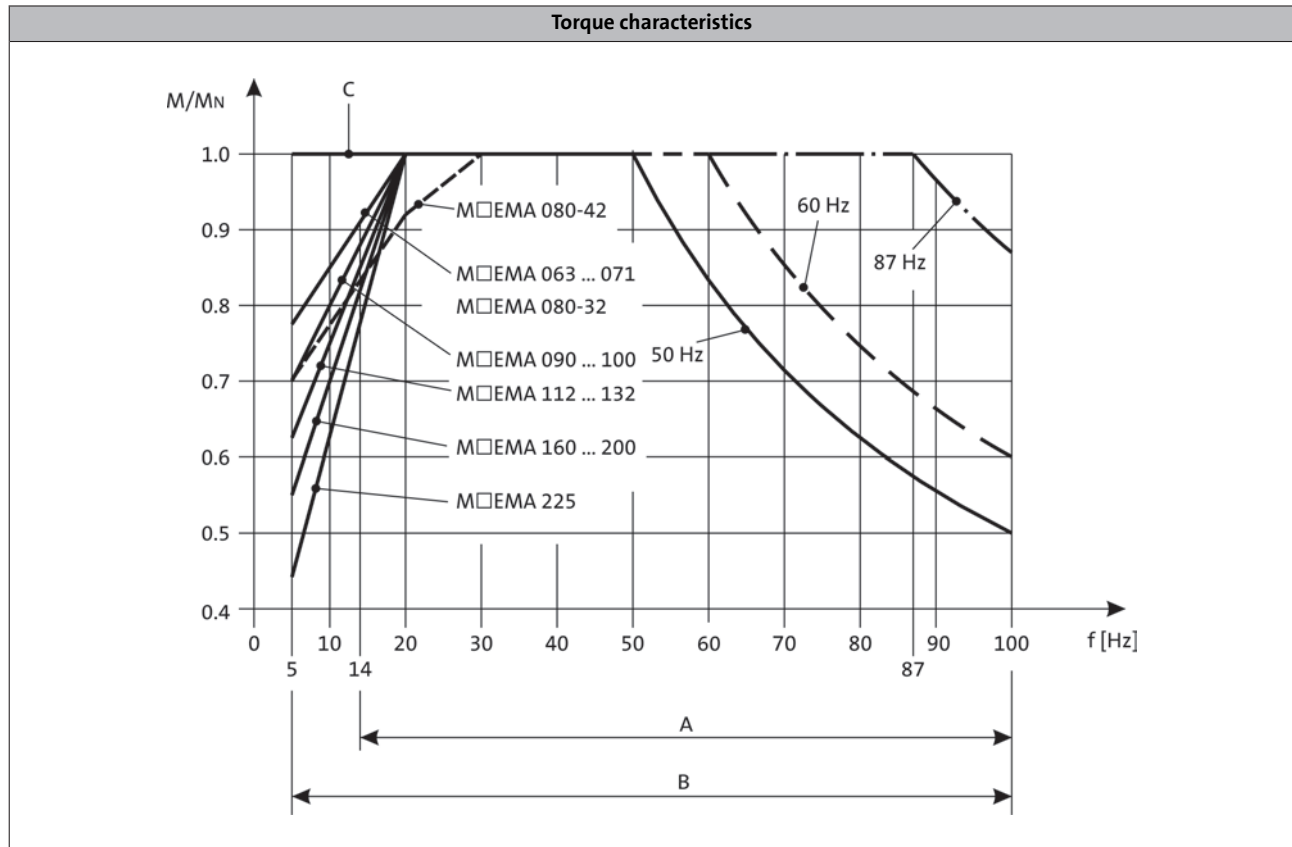




## Operational performance of three-phase AC geared motors

### Torque derating at low motor frequencies

The diagram shows the motor frame size-dependent torque reduction for self-ventilated motors, taking the thermal behaviour during actuation of the inverter into consideration.

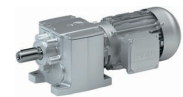


A = Operation with integral fan and brake

C = operation with blower

B = Operation with integral fan and brake control "Holding current reduction"

# g500-H helical geared motors



## Project planning

### Technical data at a glance

The following tables contain the most important data of the gearbox with the motors that can be attached for an approximate dimensioning process of a geared motor. Detailed information can be found in the following chapters.

The data given in the tables apply to

- input speed  $n_1 = 1400$  r/min
- application factor  $c = 1.0$

In order to calculate the exact ratio, the number of teeth  $z_g$  (driven) can be divided by the number of teeth  $z_t$  (driving). These are rounded values.

The data for the max. radial force refer to

- foot mounting (VBR)
- normal storage
- application factor  $c = 1.3$

For further designs see the "Technical data" chapter.

- The rated torque can be gathered from the last digits of the product name e.g. g500-H45 (45 Nm).

### g500-H45, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad}, \max}$		$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	$\pm 20\%$	[kW]	[kW]
541	18	1.05	2.597	345	896	470	41	0.18	0.55
412	19	0.84	3.413	75	256	620	39	0.18	0.55
322	21	0.73	4.368	315	1376	670	39	0.18	0.55
264	27	0.77	5.312	253	1344	700	29	0.18	0.55
236	29	0.74	5.965	115	686	720	28	0.18	0.55
201	30	0.65	6.982	55	384	760	28	0.12	0.55
179	32	0.62	7.840	25	196	780	27	0.12	0.55
157	33	0.56	8.935	77	688	810	27	0.12	0.55
140	35	0.53	10.033	30	301	840	27	0.09	0.55
123	35	0.46	11.429	7	80	870	27	0.09	0.55
110	38	0.45	12.833	6	77	900	26	0.09	0.55
95.0	39	0.40	14.836	55	816	950	26	0.09	0.37
85.0	41	0.37	16.660	50	833	1000	26	0.09	0.37
74.0	42	0.34	19.013	77	1464	1050	26	0.06	0.37
66.0	44	0.31	21.350	20	427	1090	26	0.06	0.37
56.0	45	0.27	24.595	121	2976	1170	26	0.06	0.25
50.0	45	0.24	27.618	55	1519	1250	25	0.06	0.25
43.0	45	0.21	32.000	1	32	1340	26	0.06	0.25
38.0	45	0.18	35.933	15	539	1400	25	0.06	0.18
33.0	45	0.16	41.455	11	456	1450	26	0.06	0.18
31.0	45	0.15	46.550	20	931	1470	25	0.06	0.12
27.0	45	0.13	52.909	11	582	1500	26	0.06	0.12
24.0	45	0.12	59.413	80	4753	1500	25	0.06	0.12



# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H100, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
430	62	2.88	3.354	48	161	1180	29	0.25	1.50
314	72	2.44	4.600	5	23	1340	28	0.25	1.50
279	75	2.26	5.167	6	31	1410	25	0.25	1.50
245	81	2.14	5.887	168	989	1480	27	0.25	1.50
224	83	2.01	6.440	25	161	1540	27	0.18	1.50
204	86	1.89	7.086	35	248	1600	24	0.25	1.50
176	92	1.74	8.214	14	115	1700	27	0.18	1.50
159	96	1.65	9.068	147	1333	1770	24	0.25	1.50
143	99	1.53	10.063	16	161	1850	27	0.25	1.50
127	100	1.37	11.360	25	284	1940	22	0.18	1.50
114	100	1.23	12.653	49	620	2030	24	0.18	1.50
100	100	1.08	14.490	49	710	2150	22	0.18	1.10
93.0	100	1.01	15.500	2	31	2210	23	0.25	1.10
82.0	100	0.88	17.750	4	71	2330	22	0.25	0.75
74.0	100	0.80	19.486	35	682	2430	23	0.12	0.75
65.0	100	0.70	22.314	35	781	2560	22	0.12	0.75
58.0	100	0.62	25.095	21	527	2590	23	0.12	0.75
49.0	100	0.53	28.738	42	1207	2620	22	0.12	0.55
44.0	100	0.48	31.805	77	2449	2640	22	0.12	0.37
39.0	100	0.42	36.422	154	5609	2650	21	0.12	0.37
35.0	100	0.38	39.857	7	279	2650	22	0.12	0.37
31.0	100	0.33	45.643	14	639	2650	21	0.12	0.37
26.0	70	0.20	52.510	49	2573	2650	22	0.12	0.18
23.0	80	0.20	60.133	98	5893	2650	21	0.12	0.18

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H140, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
441	82	3.91	3.267	15	49	1750	25	0.25	1.50
322	94	3.27	4.480	25	112	2000	24	0.25	1.50
252	103	2.80	5.733	15	86	2180	24	0.25	1.50
230	105	2.61	6.272	125	784	2260	23	0.18	1.50
198	106	2.27	7.269	26	189	2370	18	0.25	1.50
180	117	2.28	8.000	1	8	2430	24	0.18	1.50
160	117	2.02	9.029	35	316	2540	19	0.25	1.50
147	125	1.98	9.800	5	49	2630	23	0.25	1.50
125	128	1.72	11.554	294	3397	2800	18	0.25	1.50
114	132	1.63	12.640	25	316	2880	18	0.18	1.50
103	136	1.52	13.957	325	4536	2950	17	0.18	1.50
89.0	140	1.35	16.122	49	790	3050	18	0.18	1.50
81.0	140	1.22	17.802	91	1620	3150	18	0.18	1.50
73.0	140	1.10	19.750	4	79	3210	18	0.25	1.10
66.0	140	1.00	21.808	26	567	3300	17	0.25	1.10
58.0	140	0.88	24.829	35	869	3400	18	0.12	0.75
53.0	140	0.80	27.415	65	1782	3520	17	0.12	0.75
45.0	140	0.68	31.976	42	1343	3630	18	0.12	0.75
41.0	140	0.62	35.308	13	459	3700	17	0.12	0.75
35.0	140	0.53	40.526	154	6241	3850	17	0.12	0.37
32.0	140	0.48	44.748	143	6399	3920	17	0.12	0.37
28.0	129	0.39	50.786	14	711	4000	17	0.12	0.37
25.0	140	0.38	56.077	13	729	4050	17	0.12	0.37
20.0	89	0.20	66.908	98	6557	4100	17	0.12	0.18
18.0	98	0.20	73.879	91	6723	4150	17	0.12	0.18

# g500-H helical geared motors

Project planning



## Technical data at a glance

### g500-H210, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
428	126	5.82	3.389	18	61	1980	23	0.55	3.00
312	143	4.81	4.648	105	488	2250	23	1.10	3.00
260	159	4.45	5.583	12	67	2400	19	0.55	3.00
232	158	3.95	6.250	4	25	2500	18	0.55	3.00
189	172	3.51	7.657	35	268	2680	19	1.10	3.00
169	171	3.12	8.571	7	60	2780	18	1.10	3.00
148	182	2.91	9.799	294	2881	2960	18	0.55	3.00
135	189	2.76	10.720	25	268	3030	18	0.25	3.00
121	186	2.43	12.000	1	12	3200	17	0.25	3.00
106	201	2.30	13.673	49	670	3350	18	0.25	2.20
95.0	200	2.05	15.306	49	750	3470	17	0.25	2.20
87.0	210	1.97	16.750	4	67	3590	18	0.55	2.20
77.0	210	1.74	18.750	4	75	3720	17	0.55	1.50
66.0	210	1.50	21.802	126	2747	3870	18	0.25	1.50
59.0	210	1.34	24.405	42	1025	3900	17	0.25	1.50
53.0	210	1.21	27.119	42	1139	3900	17	0.25	1.50
48.0	210	1.08	30.357	14	425	3900	17	0.25	1.10
41.0	210	0.94	35.095	21	737	3900	17	0.12	0.75
37.0	210	0.84	39.286	7	275	4020	16	0.12	0.75
33.0	183	0.65	42.593	140	5963	4100	17	0.12	0.55
30.0	206	0.66	47.679	28	1335	4220	16	0.12	0.55
26.0	137	0.38	54.438	16	871	4350	17	0.12	0.37
23.0	155	0.39	60.938	16	975	4450	16	0.12	0.37

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H210, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
33.0	210	0.77	43.390	105	4556	4120	17	0.18	0.75
30.0	210	0.69	48.571	7	340	4240	16	0.12	0.75
26.0	210	0.60	55.529	882	48977	4350	17	0.12	0.75
23.0	210	0.52	62.160	294	18275	4470	16	0.12	0.55
20.0	210	0.46	71.026	882	62645	4620	17	0.12	0.55
18.0	210	0.41	79.507	294	23375	4740	16	0.12	0.37
15.0	210	0.35	92.205	210	19363	4800	17	0.12	0.37
14.0	210	0.32	103.214	14	1445	4800	16	0.12	0.37
12.0	210	0.27	118.162	588	69479	4800	17	0.12	0.25
10.0	210	0.24	132.270	196	25925	4800	16	0.12	0.25
9.00	210	0.21	152.853	231	35309	4800	17	0.12	0.25
8.00	210	0.18	171.104	77	13175	4800	16	0.12	0.18
7.00	210	0.16	198.873	63	12529	4800	17	0.12	0.18
6.00	210	0.15	222.619	21	4675	4800	16	0.12	0.12
6.00	210	0.13	257.631	84	21641	4800	17	0.12	0.12
5.00	210	0.11	288.393	28	8075	4800	16	0.12	0.12

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H320, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
429	165	7.65	3.389	18	61	2180	20	0.55	4.00
313	189	6.38	4.648	105	488	2460	20	1.10	4.00
239	227	5.86	6.083	12	73	2670	16	0.55	4.00
210	218	4.95	6.910	78	539	2800	15	0.55	4.00
174	249	4.69	8.343	35	292	2950	16	1.10	4.00
153	238	3.94	9.477	65	616	3100	15	1.10	4.00
136	265	3.89	10.677	294	3139	3250	16	0.55	4.00
124	271	3.64	11.680	25	292	3330	16	0.25	4.00
120	254	3.28	12.128	39	473	3360	15	0.55	4.00
109	262	3.09	13.268	325	4312	3440	15	0.25	3.00
97.0	294	3.08	14.898	49	730	3600	15	0.25	3.00
86.0	281	2.60	16.923	13	220	3760	15	0.25	3.00
79.0	313	2.68	18.250	4	73	3870	15	0.55	3.00
70.0	299	2.26	20.731	26	539	4020	15	0.55	2.20
61.0	320	2.10	23.754	126	2993	4210	15	0.25	1.50
53.0	320	1.84	26.983	117	3157	4420	15	0.25	1.50
49.0	320	1.69	29.548	42	1241	4540	15	0.25	1.50
43.0	320	1.49	33.564	39	1309	4750	15	0.25	1.50
38.0	251	1.03	38.238	21	803	4970	15	0.12	0.75
33.0	285	1.03	43.436	39	1694	5190	14	0.12	0.75
30.0	218	0.71	46.407	140	6497	5310	15	0.12	0.55
27.0	248	0.71	52.715	130	6853	5550	14	0.12	0.55

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H320, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
31.0	320	1.08	47.276	105	4964	5350	15	0.18	0.75
27.0	320	0.95	53.703	195	10472	5570	15	0.18	0.75
24.0	320	0.84	60.502	882	53363	5600	15	0.18	0.75
21.0	320	0.74	68.726	117	8041	5670	15	0.18	0.75
19.0	320	0.66	77.387	882	68255	5680	15	0.12	0.75
16.0	320	0.56	87.906	117	10285	5700	15	0.12	0.55
14.0	320	0.49	100.462	210	21097	5700	15	0.12	0.55
12.0	320	0.43	114.118	195	22253	5700	15	0.12	0.37
11.0	320	0.39	128.743	588	75701	5700	15	0.12	0.37
10.0	320	0.34	146.244	78	11407	5700	15	0.12	0.37
8.00	320	0.30	166.541	231	38471	5700	15	0.12	0.37
6.00	315	0.22	216.683	63	13651	5700	15	0.12	0.25
6.00	320	0.19	246.137	117	28798	5700	14	0.12	0.18
5.00	269	0.15	280.702	84	23579	5700	15	0.12	0.12
4.00	305	0.15	318.859	78	24871	5700	14	0.12	0.12

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H450, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
429	256	11.8	3.444	9	31	2550	19	2.20	7.50
313	293	9.89	4.724	105	496	2850	18	2.20	7.50
260	315	8.85	5.678	90	511	3010	15	2.20	7.50
244	323	8.52	6.045	441	2666	3070	17	1.10	7.50
223	334	8.05	6.613	75	496	3160	17	1.10	7.50
190	354	7.25	7.787	75	584	3350	14	2.20	7.50
168	370	6.69	8.800	5	44	3470	14	2.20	7.50
148	385	6.15	9.965	315	3139	3650	14	1.10	7.50
130	400	5.59	11.262	42	473	3800	14	1.10	5.50
118	411	5.26	12.320	25	308	3900	13	1.10	5.50
105	426	4.83	13.905	21	292	4030	14	0.55	5.50
93.0	441	4.42	15.714	7	110	4240	13	0.55	5.50
85.0	450	4.14	17.033	30	511	4360	14	1.10	4.00
76.0	448	3.65	19.250	4	77	4520	13	1.10	4.00
65.0	450	3.18	22.170	135	2993	4720	14	0.55	3.00
58.0	450	2.81	25.056	18	451	4920	13	0.55	3.00
52.0	450	2.55	27.578	45	1241	5090	13	0.55	3.00
47.0	450	2.26	31.167	6	187	5280	13	0.55	2.20
40.0	450	1.96	35.689	45	1606	5490	13	0.25	1.50
36.0	450	1.74	40.333	3	121	5880	13	0.25	1.50
33.0	322	1.16	43.313	150	6497	6000	13	0.25	1.10
30.0	366	1.16	48.950	20	979	6300	13	0.25	1.10
26.0	270	0.75	54.750	4	219	6500	13	0.25	0.55
23.0	305	0.75	61.875	8	495	6700	13	0.25	0.55

# g500-H helical geared motors

Project planning



## Technical data at a glance

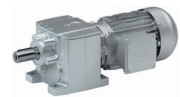
g500-H450, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
33.0	450	1.61	44.124	225	9928	6050	14	0.25	1.50
29.0	450	1.43	49.867	15	748	6320	13	0.25	1.50
26.0	450	1.26	56.469	945	53363	6550	14	0.25	1.50
23.0	450	1.15	61.774	1125	69496	6700	14	0.18	1.10
21.0	450	1.02	69.813	75	5236	6860	13	0.18	1.10
18.0	450	0.90	78.794	63	4964	7000	14	0.18	1.10
16.0	450	0.80	89.048	21	1870	7100	13	0.18	0.75
15.0	450	0.74	96.522	90	8687	7100	14	0.25	0.75
13.0	450	0.66	109.083	12	1309	7100	13	0.25	0.75
12.0	450	0.57	121.342	225	27302	7100	14	0.12	0.55
10.0	450	0.50	137.133	15	2057	7100	13	0.12	0.55
9.00	450	0.44	156.274	135	21097	7100	14	0.12	0.55
8.00	450	0.39	176.611	18	3179	7100	13	0.12	0.37
7.00	450	0.35	198.059	495	98039	7100	14	0.12	0.37
6.00	450	0.31	223.833	6	1343	7100	13	0.12	0.37
6.00	450	0.27	248.200	5	1241	7100	14	0.12	0.25
5.00	450	0.24	280.500	2	561	7100	13	0.12	0.25
4.00	428	0.20	326.994	315	103003	7100	14	0.12	0.18
4.00	450	0.18	369.548	42	15521	7100	13	0.12	0.18



# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H600, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
452	240	11.7	3.267	15	49	4680	17	2.20	7.50
330	297	10.6	4.480	25	112	5080	15	2.20	7.50
258	339	9.42	5.733	15	86	5420	15	1.10	7.50
229	404	9.97	6.456	90	581	5600	14	2.20	7.50
204	435	9.56	7.250	4	29	5770	13	2.20	7.50
167	487	8.77	8.853	75	664	6080	13	2.20	7.50
148	510	8.17	9.943	35	348	6270	12	2.20	7.50
130	537	7.55	11.330	315	3569	6490	13	1.10	7.50
119	553	7.12	12.395	375	4648	6640	12	1.10	7.50
106	578	6.62	13.920	25	348	6850	12	1.10	7.50
93.0	600	6.05	15.810	21	332	7080	12	0.55	7.50
82.0	600	5.32	17.755	49	870	7300	12	0.55	5.50
75.0	600	4.88	19.367	30	581	7470	12	1.10	5.50
67.0	600	4.33	21.750	4	87	7700	12	1.10	4.00
58.0	600	3.73	25.207	135	3403	8000	12	0.55	4.00
51.0	600	3.32	28.310	42	1189	8260	12	0.55	4.00
46.0	600	2.99	31.356	45	1411	8480	12	0.55	3.00
41.0	600	2.66	35.214	14	493	8500	12	0.55	3.00
36.0	558	2.14	40.578	45	1826	8500	12	0.25	1.50
32.0	600	2.05	45.571	7	319	8500	12	0.25	1.50
29.0	456	1.44	49.247	150	7387	8500	12	0.25	1.10
26.0	513	1.44	55.307	140	7743	8500	12	0.25	1.10
23.0	307	0.75	62.250	4	249	8500	12	0.25	0.55
20.0	345	0.75	69.911	56	3915	8500	11	0.25	0.55

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H600, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
46.0	600	3.05	31.197	1575	49136	8470	13	1.10	3.00
41.0	600	2.72	35.037	245	8584	8500	13	1.10	3.00
36.0	600	2.39	39.925	6615	264106	8500	13	0.55	2.20
33.0	600	2.18	43.676	1125	49136	8500	13	0.25	2.20
30.0	600	1.95	49.051	175	8584	8500	12	0.25	2.20
26.0	600	1.70	55.710	441	24568	8500	13	0.25	1.50
23.0	600	1.51	62.566	343	21460	8500	12	0.25	1.50
21.0	600	1.39	68.244	45	3071	8500	13	0.55	1.50
19.0	600	1.24	76.643	14	1073	8500	12	0.55	1.50
16.0	600	1.07	88.826	2835	251822	8500	13	0.25	1.10
14.0	600	0.95	99.757	441	43993	8500	12	0.25	1.10
13.0	600	0.86	110.491	945	104414	8500	13	0.25	0.75
12.0	600	0.77	124.088	147	18241	8500	12	0.25	0.75
10.0	600	0.66	142.988	945	135124	8500	13	0.12	0.75
9.00	600	0.57	160.585	147	23606	8500	12	0.12	0.55
8.00	600	0.53	173.536	1575	273319	8500	13	0.12	0.55
7.00	600	0.47	194.892	490	95497	8500	12	0.12	0.55
6.00	600	0.42	221.794	180	39923	8500	13	0.12	0.37
6.00	600	0.37	249.089	56	13949	8500	12	0.12	0.37

# g500-H helical geared motors

Project planning



## Technical data at a glance

### g500-H850, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
469	306	15.5	3.147	551	1734	5070	16	4.00	7.50
339	379	13.8	4.362	152	663	5610	15	4.00	7.50
275	430	12.8	5.368	19	102	5980	14	2.20	7.50
248	551	14.8	5.946	203	1207	6170	13	4.00	7.50
222	578	13.9	6.644	87	578	6390	13	4.00	7.50
179	615	11.9	8.241	112	923	6830	13	4.00	7.50
160	649	11.2	9.208	24	221	7070	12	4.00	7.50
146	667	10.5	10.143	7	71	7280	12	2.20	7.50
130	696	9.77	11.360	25	284	7550	12	2.20	7.50
116	725	9.10	12.693	75	952	7810	12	2.20	7.50
102	758	8.34	14.490	49	710	8140	12	1.10	7.50
91.0	792	7.79	16.190	21	340	8420	12	1.10	7.50
83.0	814	7.31	17.750	4	71	8660	12	2.20	7.50
74.0	833	6.70	19.833	6	119	8970	12	2.20	7.50
63.0	850	5.80	23.103	126	2911	9400	12	1.10	5.50
57.0	850	5.19	25.815	27	697	9730	11	1.10	5.50
51.0	850	4.71	28.315	168	4757	10000	11	1.10	4.00
46.0	850	4.21	31.639	36	1139	10400	11	1.10	4.00
39.0	850	3.58	37.190	21	781	10900	11	0.55	3.00
35.0	850	3.20	41.556	9	374	11000	11	0.55	3.00
32.0	850	2.95	45.136	140	6319	11000	11	0.55	2.20
29.0	850	2.64	50.433	30	1513	11000	11	0.55	2.20

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H850, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
49.0	850	4.60	29.536	125	3692	10100	13	2.20	5.50
44.0	850	4.10	33.003	375	12376	10500	12	2.20	4.00
38.0	850	3.58	37.799	1050	39689	10900	13	1.10	4.00
35.0	850	3.27	41.350	625	25844	11000	13	1.10	4.00
31.0	850	2.92	46.204	1875	86632	11000	12	1.10	3.00
28.0	850	2.56	52.743	35	1846	11000	13	0.55	3.00
25.0	850	2.29	58.933	15	884	11000	12	0.55	2.20
22.0	850	2.10	64.610	100	6461	11000	13	1.10	2.20
20.0	850	1.87	72.193	150	10829	11000	12	1.10	2.20
17.0	850	1.59	84.096	450	37843	11000	13	0.55	1.50
15.0	850	1.43	93.966	675	63427	11000	12	0.55	1.50
14.0	850	1.29	104.607	150	15691	11000	12	0.55	1.50
12.0	850	1.15	116.884	225	26299	11000	12	0.55	1.10
11.0	850	1.00	135.373	75	10153	11000	12	0.25	1.10
10.0	850	0.88	151.262	225	34034	11000	12	0.25	1.10
9.00	850	0.82	164.294	500	82147	11000	12	0.25	0.75
8.00	850	0.74	183.577	750	137683	11000	12	0.25	0.75
7.00	850	0.63	207.675	40	8307	11000	12	0.25	0.55
6.00	850	0.57	232.050	20	4641	11000	12	0.25	0.55

# g500-H helical geared motors

Project planning



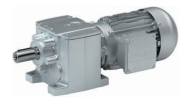
## Technical data at a glance

### g500-H1500, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
395	775	33.0	3.743	440	1647	8500	14	5.50	30.00
311	924	31.0	4.758	500	2379	8900	13	5.50	30.00
274	1021	30.2	5.400	5	27	9200	11	5.50	30.00
237	1098	28.1	6.245	420	2623	9440	13	4.00	30.00
215	1157	26.9	6.864	125	858	9690	11	5.50	30.00
195	1217	25.6	7.592	125	949	9970	10	5.50	30.00
164	1320	23.4	9.010	105	946	10500	10	4.00	22.00
144	1380	21.5	10.267	15	154	10900	10	4.00	22.00
130	1400	19.7	11.356	45	511	11200	10	4.00	22.00
120	1420	18.4	12.362	105	1298	11400	10	2.20	22.00
108	1430	16.8	13.673	315	4307	11800	10	2.20	18.50
98.0	1440	15.2	15.156	45	682	12100	10	4.00	18.50
88.0	1450	13.7	16.763	135	2263	12500	10	4.00	15.00
72.0	1500	11.6	20.533	15	308	13200	10	2.20	7.50
65.0	1500	10.5	22.711	45	1022	13600	10	2.20	7.50
59.0	1500	9.58	24.933	15	374	13900	10	2.20	7.50
54.0	1500	8.68	27.578	45	1241	14300	9	2.20	7.50
45.0	1440	7.00	32.267	15	484	15000	10	1.10	4.00
41.0	1500	6.59	35.689	45	1606	15400	9	1.10	4.00
37.0	1463	5.86	39.160	25	979	15800	10	1.10	4.00
34.0	1500	5.42	43.313	150	6497	16300	9	1.10	4.00
29.0	1250	3.95	49.500	2	99	16900	10	1.10	2.20
26.0	1382	3.95	54.750	4	219	17000	9	1.10	2.20

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H1500, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
36.0	1500	5.92	40.517	60	2431	16000	11	4.00	5.50
33.0	1500	5.36	44.814	360	16133	16400	10	4.00	5.50
29.0	1500	4.82	49.867	15	748	17000	10	2.20	5.50
26.0	1500	4.27	55.851	375	20944	17000	10	2.20	4.00
24.0	1500	3.86	61.774	1125	69496	17000	10	2.20	4.00
20.0	1500	3.35	71.238	21	1496	17000	10	1.10	4.00
18.0	1500	3.02	78.794	63	4964	17000	10	1.10	3.00
17.0	1500	2.73	87.267	15	1309	17000	10	2.20	3.00
15.0	1500	2.47	96.522	90	8687	17000	10	2.20	3.00
13.0	1500	2.10	113.585	135	15334	17000	10	1.10	2.20
12.0	1500	1.91	125.632	405	50881	17000	10	1.10	2.20
10.0	1500	1.71	139.211	90	12529	17000	10	1.10	1.50
9.00	1500	1.55	153.976	540	83147	17000	10	1.10	1.50
8.00	1500	1.30	182.844	45	8228	17000	10	0.55	1.50
7.00	1500	1.17	202.237	135	27302	17000	10	0.55	1.10
6.00	1500	1.07	221.907	75	16643	17000	10	0.55	1.10
6.00	1500	0.97	245.442	450	110449	17000	10	0.55	1.10
5.00	1500	0.85	280.500	2	561	17000	10	0.55	0.75
5.00	1500	0.77	310.250	4	1241	17000	10	0.55	0.75

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H3000, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
329	1360	48.3	4.496	425	1911	9600	12	11.00	30.00
250	1610	43.5	5.902	51	301	10200	12	11.00	30.00
233	1910	48.0	6.344	125	793	10500	10	11.00	30.00
212	2025	46.4	6.968	125	871	11000	9	11.00	30.00
178	2155	41.3	8.327	315	2623	11400	9	11.00	30.00
162	2225	38.8	9.146	315	2881	11600	9	11.00	30.00
148	2300	36.7	10.005	375	3752	12000	9	7.50	30.00
127	2400	33.0	11.619	21	244	12600	9	4.00	30.00
116	2475	30.9	12.762	21	268	13000	9	4.00	30.00
104	2530	28.4	14.233	30	427	13400	9	5.50	22.00
95.0	2610	26.7	15.633	30	469	13800	9	5.50	22.00
79.0	2750	23.4	18.752	270	5063	14600	9	4.00	22.00
72.0	2815	21.9	20.596	270	5561	15100	9	4.00	22.00
64.0	2900	20.1	23.044	45	1037	15600	9	4.00	22.00
58.0	2965	18.7	25.311	45	1139	16000	8	4.00	22.00
50.0	3000	16.0	29.822	45	1342	16900	9	2.20	7.50
45.0	3000	14.6	32.756	45	1474	17400	8	2.20	7.50
41.0	3000	13.2	36.193	150	5429	17900	9	2.20	7.50
37.0	3000	12.1	39.753	150	5963	18500	8	2.20	7.50
32.0	1712	5.88	45.750	4	183	19300	9	2.20	4.00
29.0	1880	5.87	50.250	4	201	19800	8	2.20	4.00

# g500-H helical geared motors

Project planning



## Technical data at a glance

g500-H3000, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	Standard	$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
31.0	2830	9.71	47.186	945	44591	19500	9	4.00	11.00
28.0	2910	9.09	51.828	945	48977	20000	9	4.00	11.00
28.0	2950	8.89	53.770	135	7259	20000	9	4.00	11.00
25.0	3000	8.22	59.059	135	7973	20000	9	4.00	7.50
23.0	3000	7.50	64.744	945	61183	20000	9	2.20	7.50
21.0	3000	6.84	71.112	945	67201	20000	9	2.20	7.50
19.0	3000	6.11	79.375	405	32147	20000	9	4.00	7.50
17.0	3000	5.49	87.183	405	35309	20000	9	4.00	5.50
14.0	3000	4.47	107.541	135	14518	20000	9	2.20	5.50
12.0	3000	4.04	118.119	135	15946	20000	9	2.20	4.00
11.0	3000	3.65	130.585	135	17629	20000	9	2.20	4.00
10.0	3000	3.32	143.430	135	19363	20000	9	2.20	4.00
9.00	3000	2.83	168.993	135	22814	20000	9	1.10	3.00
8.00	3000	2.56	185.615	135	25058	20000	9	1.10	3.00
7.00	3000	2.33	205.096	450	92293	20000	9	1.10	2.20
6.00	3000	2.10	225.269	450	101371	20000	9	1.10	2.20
6.00	3000	1.84	259.250	4	1037	20000	9	1.10	2.20
5.00	3000	1.68	284.750	4	1139	20000	9	1.10	1.50



# g500-H helical geared motors

## Project planning



### Surface and corrosion protection

For optimum protection of geared motors against ambient conditions, the surface and corrosion protection system (OKS) offers tailor-made solutions.

Various surface coatings combined with other protective measures ensure that the geared motors operate reliably even at high air humidity, in outdoor installations or in the presence of atmospheric impurities. Any colour from the RAL Classic collection can be chosen for the top coat. The geared motors are also available unpainted (no surface and corrosion protection).

Surface and corrosion protection	Applications	Product	
		g500-H45 ... H450 g500-S130 ... S660 g500-B45 ... B450	g500-H600 ... H3000 g500-S950 ... S4500 g500-B600 ... B4300
Without OKS(uncoated) <sup>1)</sup>	<ul style="list-style-type: none"> <li>Interior installation, no special corrosion protection required</li> <li>Paint provided by the customer</li> </ul>	Standard	
OKS-G (primed)	<ul style="list-style-type: none"> <li>Dependent on subsequent top coat applied</li> </ul>	Optional	Optional
OKS-S (small)	<ul style="list-style-type: none"> <li>Standard applications</li> <li>Internal installation in heated buildings</li> <li>Air humidity up to 90%</li> </ul>		Standard
OKS-M (medium)	<ul style="list-style-type: none"> <li>Internal installation in non-heated buildings</li> <li>Covered, protected external installation</li> <li>Air humidity up to 95%</li> </ul>		Optional
OKS-L (large)	<ul style="list-style-type: none"> <li>External installation</li> <li>Air humidity above 95%</li> <li>Chemical industry plants</li> <li>Food industry</li> </ul>		Optional
OKS-XL (extra Large) <sup>2)</sup>	<ul style="list-style-type: none"> <li>External installation</li> <li>Air humidity above 95 %</li> <li>Chemical industry plants</li> <li>Food industry</li> <li>Coastal areas with moderate salinity</li> </ul>		Optional

<sup>1)</sup> Aluminium parts are uncoated, fan covers are zinc-coated or primed in grey, cast iron parts primed in grey.  
Light colour deviations of the components are possible.

<sup>2)</sup> On request



### Surface and corrosion protection

#### Structure of surface coating

Surface and corrosion protection	Corrosivity category	Surface coating	Colour	Coating thickness
	DIN EN ISO 12944-2	Structure		
Without OKS(uncoated)		<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> </ul>		30 ... 50 µm
OKS-G (primed)		<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K PUR priming coat</li> </ul>		60 ... 90 µm
OKS-S (small)	Comparable to C1	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K-PUR top coat</li> </ul>	<ul style="list-style-type: none"> <li>Standard: RAL 7012</li> <li>Optional: RAL Classic</li> </ul>	80 ... 120 µm
OKS-M (medium)	Comparable to C2	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> </ul>		110 ... 160 µm
OKS-L (large)	Comparable to C3	<ul style="list-style-type: none"> <li>2K PUR priming coat</li> <li>2K-PUR top coat</li> </ul>		140 ... 200 µm
OKS-XL (extra Large) <sup>1)</sup>	Comparable to C4	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K-EP priming coat (two times)</li> <li>2K-PUR top coat</li> </ul>		160 ... 240 µm

<sup>1)</sup> On request

# g500-H helical geared motors



## Project planning

### Lubricants

Lenze gearboxes and geared motors are ready for operation on delivery and are filled with lubricants specific to both the drive and the design. The mounting position and design specified in the order are key factors in choosing the volume of lubricant.

The amount and type of lubricant contained in the gearbox are given on the nameplate.

The following gearboxes are lubricated for life:

- Helical gearbox g500-H45 ... 140
- Shaft-mounted helical gearbox g500-S130
- Bevel gearbox g500-B45 ... 240

### Lubricant table

The following lubricants are recommended:

Mode	CLP 220	CLP 460	CLP HC 220
Ambient temperature [°C]	0 ... +40		-25 ... +50
Specification	Mineral oil with EP additives		Synthetic oil (polyalphaolefins basis)
Changing interval	16000 operating hours After 3 years at the latest Oil temperature 70 °C		25000 operating hours After 4 years at the latest Oil temperature 70 °C
Fuchs	Renolin CLP 220 CLP Plus 220	Renolin CLP 460 CLP Plus 460	Renolin Unisyn CLP 220 XT220
Klüber	Klüberoil GEM 1-220 N	Klüberoil GEM 1-460 N	Klübersynth GEM 4-220 N
Shell	Shell Omala S2 G 220 S2 GX 220	Shell Omala S2 G 460 S2 GX 460	Shell Omala S4 GX HD 220

Mode	CLP HC 320	CLP HC 220 USDA H1	CLP PG 460 USDA H1
Ambient temperature [°C]	-25 ... +50	-20 ... +40	
Specification	Synthetic oil (polyalphaolefins basis)		Synthetic oil (polyglycol basis)
Changing interval	25000 operating hours After 4 years at the latest Oil temperature 70 °C	16000 operating hours After 3 years at the latest Oil temperature 70 °C	
Fuchs	Renolin Unisyn CLP 320 XT 320	Cassida Fluid GL 220	Cassida Fluid WG 460
Klüber	Klübersynth GEM 4-320 N	Klüberoil 4 UH1-220 N	Klüberoil UH1 6-460
Shell	Shell Omala S4 GX HD 320		

- Please contact your Lenze sales office if you are operating at ambient temperatures in areas up to < -20 °C bzw. > or up to +40 °C.

### Shaft sealing rings

By default, the gearboxes come with NBR shaft sealing rings at the output end. At high speed and unfavourable ambient conditions such as high temperature, reduced circulation of air etc., Lenze recommends the use of FKM (Viton) shaft sealing rings.

Please consider this in your order.

# g500-H helical geared motors

## Project planning

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### Ventilation

#### Non-ventilated gearboxes

No ventilation is required for the gearboxes g500-H45 ...H210.

#### Ventilated gearboxes

From g500-H320 onwards, the gearboxes are supplied with a breather element as standard.

#### Gearbox in combined mounting position

For reducing the number of versions, the gearboxes can also be ordered in a combined mounting position:

- g500-H45 in mounting position ABCDEF
- g500-H100 ... H450 in mounting position AEF

In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and have to be mounted before commissioning depending on the mounting position.

A gearbox can be used for several mounting positions.

# g500-H helical geared motors

## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-H210 ... H450

Mounting position A	Mounting position B	Mounting position C	
	Filling		Drain
	Breathing		Control

# g500-H helical geared motors





## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-H210 ... H450

Mounting position D	Mounting position E	Mounting position F
 Filling	 Drain	
 Breathing	 Control	

# g500-H helical geared motors

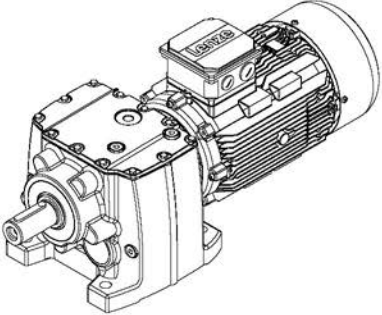
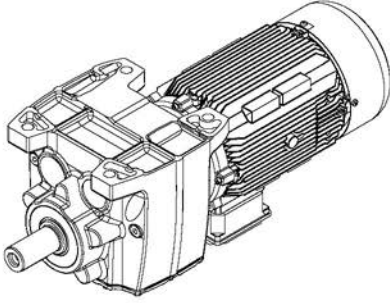
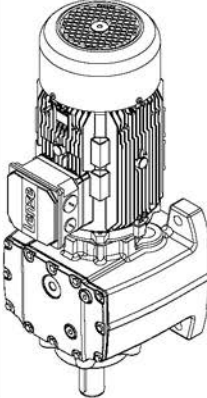
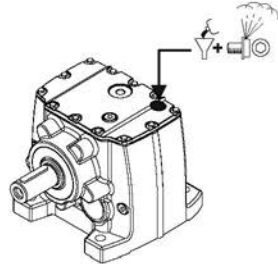
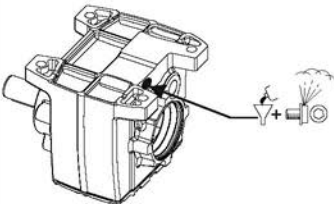
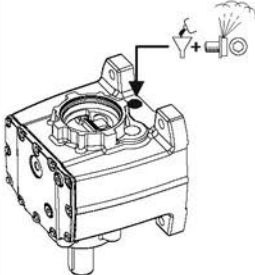
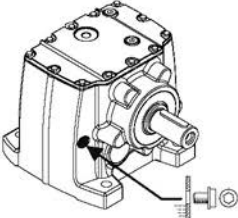
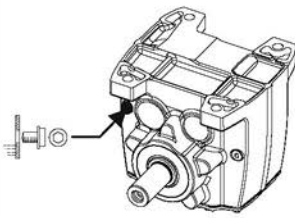
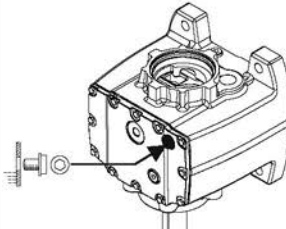
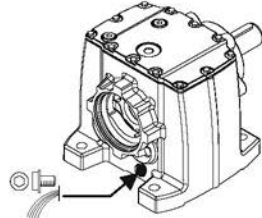
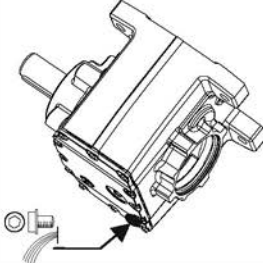
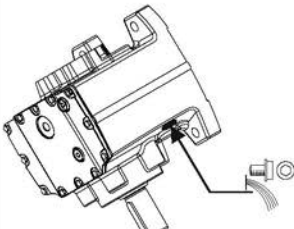




## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-H600 ... H3000

Mounting position A		Mounting position B		Mounting position C	
					
					
					
					
	Filling		Drain		
	Breathing		Control		

6.3

# g500-H helical geared motors





## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-H600 ... H3000

Mounting position D	Mounting position E	Mounting position F
 Filling	 Drain	
 Breathing	 Control	



# g500-H helical geared motors

Technical data



## Standards and operating conditions

### Geared motor data

Product			MD□MA□□	MH□MA□□
Motor				
<b>Degree of protection</b>				
EN 60529			IP55 <sup>1)</sup> IP65 <sup>1)</sup> IP66 <sup>1)</sup>	
<b>Energy efficiency class</b>				
IEC 60034-30			IE1	IE2
IEC 60034-2-1			Methodology for measuring efficiency	
10 CFR Part 431 (U.S. Integral hp Rule)				
GB18613-2012 (China Energy Label optional)				
<b>Conformity</b>				
CE			Low-Voltage Directive 2006/95/EC	
EAC			TP TC 004/2011 (TR CU 004/2011)	
<b>Approval</b>				
CCC			GB Standard 12350-2009	
CSA			CSA 22.2 No. 100	CSA 22.2 No. 100 CSA C390-10
cURus <sup>-1)</sup>			UL 1004-1 UL 1004-8 File-No. E210321	
<b>Temperature class</b>				
IEC/EN 60034-1; utilisation			B	
IEC/EN 60034-1; insulation system (enamel-insulated wire)			F	
<b>Min. ambient operating temperature</b>				
	$T_{opr,min}$	[°C]	-20	
<b>Max. ambient temperature for operation</b>				
	$T_{opr,max}$	[°C]	40	
With power reduction	$T_{opr,max}$	[°C]	60 <sup>2)</sup>	
<b>Site altitude</b>				
Current derating at over 1000 m		[%/1000 m]	5.00	
Amsl	$H_{max}$	[m]	4000	

<sup>1)</sup> Designs with different degrees of protection:  
IP55 with brake (IP54 with manual release lever).  
IP54 with resolver RS1.  
IP54 with HTL incremental encoder IG128-24V-H.

<sup>2)</sup> In case of cURus max. 40 °C are permissible.

- In the European Union, the ErP Directive stipulates minimum efficiency levels for three-phase AC motors. Geared three-phase AC motors that do not conform with this Directive do not meet CE requirements and must not be marketed in the European Economic Area. For further information about the ErP Directive, the efficiency regulations in other countries and the Lenze products concerned, please refer to the brochure "International efficiency directives for three-phase AC motors".



### Permissible radial and axial forces at output

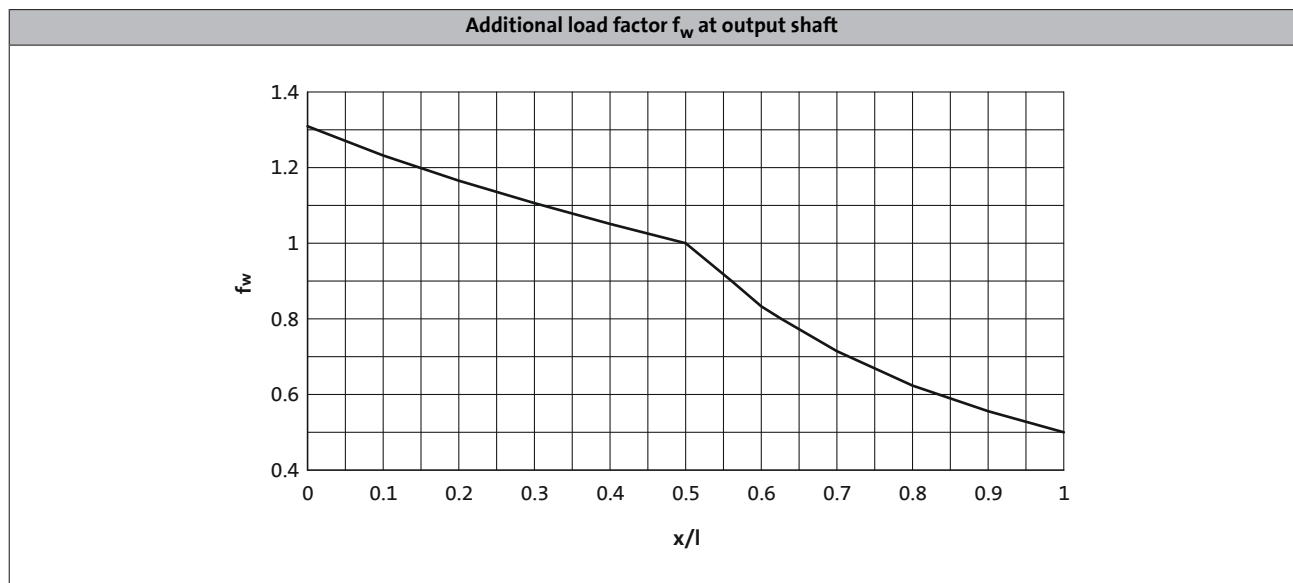
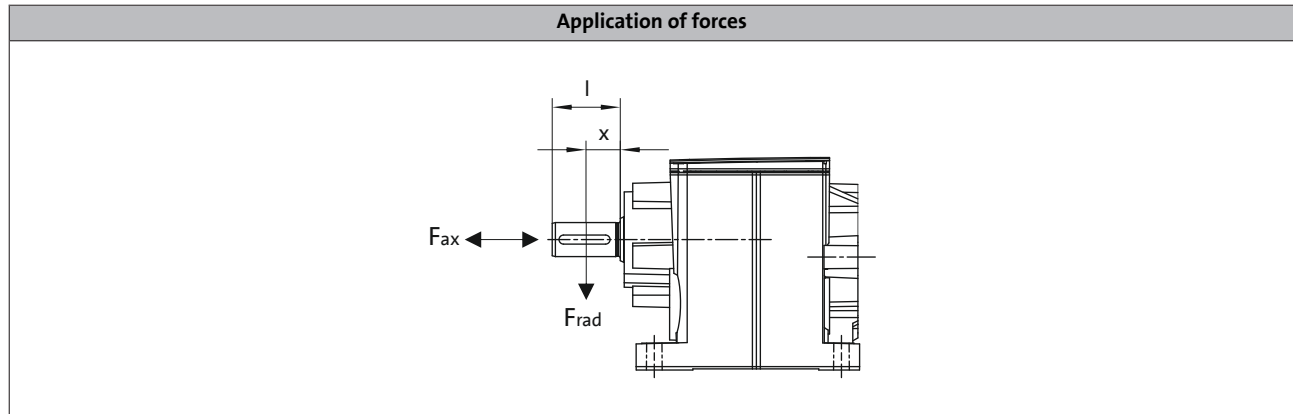
#### Permissible radial force

$$F_{rad,perm} = f_w \times F_{rad,max}$$

► If  $F_{rad}$  and  $F_{ax} \neq 0$ , please contact Lenze.

#### Permissible axial force

If there is no radial force, the maximum permissible axial force is 50 % of the table value  $F_{rad,max}$



# g500-H helical geared motors



## Technical data

### Permissible radial and axial forces at output

The values given in the table refer to the center shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated for the motor/gearbox combination with a load capacity of  $c= 1.3$  and an input speed of 1400 rpm.

In case of different operating conditions, considerably higher forces can be transmitted. Please contact Lenze.

#### Gearbox with foot with threaded pitch circle (VBR)

Product	$n_2$ [r/min]						
	250	160	100	63	40	25	≤16
	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]
g500-H45	700	800	900	1100	1400	1500	1500
g500-H100	1500	1800	2100	2600	2700	2700	2700
g500-H140	2200	2500	3000	3300	3700	4100	4200
g500-H210	2400	2800	3400	3900	3900	4400	4800
g500-H320	2600	3000	3500	4100	4800	5600	5700
g500-H450	3000	3500	4100	4700	5500	6600	7100
g500-H600	5400	6090	6920	7850	8500	8500	8500
g500-H850	6500	7500	8500	9500	10700	11000	11000
g500-H1500	9200	10400	12000	13700	15600	17000	17000
g500-H3000	10000	11500	13500	15600	18000	20000	20000

#### Reinforced bearings

	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]
g500-H100	1800	2200	2700	3200	3300	3300	3300
g500-H140	2700	3100	3700	4100	4600	5100	5300
g500-H210	3000	3500	4200	4900	4900	5500	6000
g500-H320	3300	3800	4400	5100	6000	7000	7100
g500-H450	3800	4300	5100	5900	6900	8300	8900
g500-H600	8900	9700	10400	10900	11300	11700	12000
g500-H850	11500	12600	13500	14200	14800	15200	15600
g500-H1500	13000	17000	18200	19100	19800	20500	21000
g500-H3000	15000	21000	22100	23200	24000	25000	25000

# g500-H helical geared motors

Technical data



## Permissible radial and axial forces at output

Gearbox with/without foot with threaded pitch circle (VAR/VCR)  
Gearbox with/without foot with flange (VAK/VCK)

Product	$n_2$ [r/min]						
	250	160	100	63	40	25	≤16
	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]
g500-H45	700	800	900	1100	1400	1500	1500
g500-H100	1500	1700	1700	1700	1700	1700	1700
g500-H140	2200	2500	2600	2600	2600	2600	2600
g500-H210	2400	2800	3000	3000	3000	3000	3000
g500-H320	2600	3000	3500	3600	3600	3600	3600
g500-H450	3000	3500	4100	4400	4400	4400	4400
g500-H600	5400	6000	6000	6000	6000	6000	6000
g500-H850	6050	6950	7800	7800	7800	7800	7800
g500-H1500	9200	10400	10500	10500	10500	10500	10500
g500-H3000	10000	11500	12500	12500	12500	12500	12500

## Reinforced bearings

	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]
g500-H100	1700	1700	1700	1700	1700	1700	1700
g500-H140	2600	2600	2600	2600	2600	2600	2600
g500-H210	3000	3000	3000	3000	3000	3000	3000
g500-H320	3300	3600	3600	3600	3600	3600	3600
g500-H450	3800	4300	4400	4400	4400	4400	4400
g500-H600	6000	6000	6000	6000	6000	6000	6000
g500-H850	7800	7800	7800	7800	7800	7800	7800
g500-H1500	10500	10500	10500	10500	10500	10500	10500
g500-H3000	12500	12500	12500	12500	12500	12500	12500

# g500-H helical geared motors

Technical data



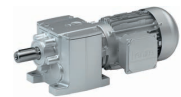
## Permissible radial and axial forces at output

Gearbox without foot with reinforced flange (VCP)

For transmitting particularly high radial and axial forces

Product	$n_2$ [r/min]						
	250	160	100	63	40	25	$\leq 16$
	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]
g500-H100	3330	3650	3890	4060	4160	4240	4280
g500-H140	5510	5950	6270	6480	6620	6710	6770
g500-H210	6170	6670	7060	7330	7500	7620	7700
g500-H320	7040	7690	8210	8570	8810	8970	9080
g500-H450	7810	8550	9160	9590	9880	10100	10200

# g500-H helical geared motors



## Technical data

### Selection tables, notes

#### Notes on the selection tables with 4-pole motors

The selection tables show the available combinations of gearbox type, number of stages, ratio and motor. They are used only to provide basic orientation.

The following legend indicates the structure of the selection tables.

**Rated power  $P_{rated}$  of the drive motor depending on the rated frequency**

50 Hz:  $P_N = 1.5 \text{ kW}$   
87 Hz:  $P_N = 2.7 \text{ kW}$

**2-stufige Getriebe** ← **Number of the gear stage of the gearbox**

**Torque diagram**

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$	$M_2$	c	$n_{22}$	$M_{22}$	$n_{21}$	$M_2$	$n_2$	$M_2$	c	$n_2$	$M_2$	c	Ratio i	Product Gearbox	Product Motor	Page number for dimensions	
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82	
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79	

**Load capacity c of the gearbox**  
c is the ratio between the permissible rated torque of the gearbox and the rated torque of the three-phase AC motor (converted to the driven shaft).  
c must be always higher than the service factor k determined for the application k.

$$c = \frac{M_{2,zul}}{M_{1N} \cdot i \cdot \eta_{Getr}} > k$$

**Mains operation**  
Output speed  $n_2$   
Output torque  $M_2$

**Inverter operation**  
The speed and torque data are valid for self-ventilated and forced ventilated drives. Forced ventilated drives can always output the torque  $M_2$  in the entire setting ranges. In the case of self-ventilated drives, a reduction to  $M_{22}$  is required in the lower speed range.

### 6.3

#### Motor voltages

The power values and torques indicated in the selection tables relate to the following motor voltages:

- 50 Hz :  $\Delta 230 \text{ V} / Y 400 \text{ V}$
- 60 Hz : 230 V or 460 V
- 87 Hz :  $\Delta 400 \text{ V}$

#### Operation at 87 Hz

In 87 Hz operation, the three-phase AC motor (which is designed for a voltage of  $\Delta 230 \text{ V} / Y 400 \text{ V}$  at 50 Hz) is operated on an inverter with 400 V rated voltage in a delta connection. It is important to note here that the inverter must be configured for 87Hz output.

This offers the following advantages over 50 Hz operation:

- the setting range of the motor is increased by a factor of 1.73.
- the motor can then provide around 1.73 times greater output, which in turn allows a smaller and more affordable motor to be selected for the application.
- the efficiency of the motor is also improved.

# g500-H helical geared motors

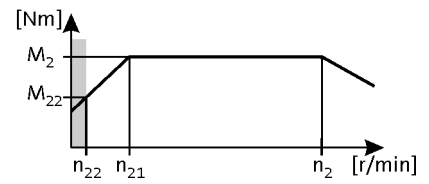


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.06$  kW  
 87 Hz:  $P_N = 0.11$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
75	7.0	5.7	7.6	7.4	32	7.0	75	7.0	5.7	133	8.0	5.2	19.013	-H45	063-02	117
67	8.0	5.3	6.8	8.3	28	8.0	67	8.0	5.3	119	9.0	4.9	21.350	-H45	063-02	117
58	10	4.7	5.9	9.6	24	10	58	10	4.7	103	10	4.3	24.595	-H45	063-02	117
52	11	4.2	5.3	11	22	11	52	11	4.2	92	11	3.9	27.618	-H45	063-02	117
45	12	3.6	4.5	13	19	12	45	12	3.6	79	13	3.3	32.000	-H45	063-02	117
40	14	3.2	4.0	14	17	14	40	14	3.2	71	14	3.0	35.933	-H45	063-02	117
34	16	2.8	3.5	16	15	16	34	16	2.8	61	17	2.6	41.455	-H45	063-02	117
31	18	2.5	3.1	18	13	18	31	18	2.5	55	19	2.4	46.550	-H45	063-02	117
27	21	2.2	2.7	21	11	21	27	21	2.2	48	21	2.1	52.909	-H45	063-02	117
24	23	1.9	2.4	23	10	23	24	23	1.9	43	24	1.9	59.413	-H45	063-02	117

# g500-H helical geared motors

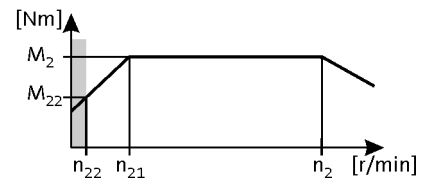


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.09$  kW  
 87 Hz:  $P_N = 0.16$  kW

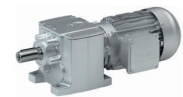
2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
137	6.0	5.8	15	6.0	60	6.0	137	6.0	5.8	248	6.0	4.9	10.033	-H45	063-22	117
120	7.0	5.1	13	6.8	53	7.0	120	7.0	5.1	217	7.0	4.3	11.429	-H45	063-22	117
107	8.0	4.9	11	7.7	47	8.0	107	8.0	4.9	194	8.0	4.2	12.833	-H45	063-22	117
93	9.0	4.3	9.8	8.9	40	9.0	93	9.0	4.3	168	9.0	3.7	14.836	-H45	063-22	117
83	10	4.1	8.7	10	36	10	83	10	4.1	149	10	4.0	16.660	-H45	063-22	117
72	12	3.6	7.6	11	32	11	72	12	3.6	131	11	3.6	19.013	-H45	063-22	117
64	13	3.4	6.8	13	28	13	64	13	3.4	116	13	3.3	21.350	-H45	063-22	117
56	15	3.0	5.9	15	24	15	56	15	3.0	101	15	3.0	24.595	-H45	063-22	117
50	17	2.7	5.3	17	22	16	50	17	2.7	90	16	2.6	27.618	-H45	063-22	117
43	19	2.3	4.5	19	19	19	43	19	2.3	78	19	2.3	32.000	-H45	063-22	117
38	22	2.1	4.0	21	17	21	38	22	2.1	69	21	2.0	35.933	-H45	063-22	117
33	25	1.8	3.5	25	15	25	33	25	1.8	60	25	1.8	41.455	-H45	063-22	117
30	28	1.6	3.1	28	13	28	30	28	1.6	53	28	1.6	46.550	-H45	063-22	117
26	32	1.4	2.7	32	11	32	26	32	1.4	47	32	1.4	52.909	-H45	063-22	117
23	36	1.3	2.4	35	10	35	23	36	1.3	42	35	1.3	59.413	-H45	063-22	117



# g500-H helical geared motors

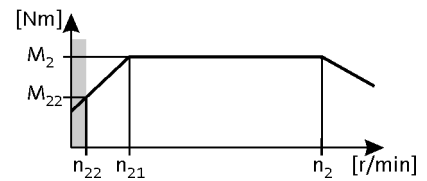


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.12$  kW  
 87 Hz:  $P_N = 0.21$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
204	5.0	5.5	21	4.2	86	5.0	204	5.0	5.5	363	5.0	4.7	6.982	-H45	063-12	117
182	6.0	5.2	19	4.7	77	6.0	182	6.0	5.2	323	6.0	4.5	7.840	-H45	063-12	117
160	7.0	4.7	16	5.4	67	7.0	160	7.0	4.7	284	7.0	4.0	8.935	-H45	063-12	117
142	8.0	4.5	15	6.0	60	8.0	142	8.0	4.5	253	8.0	3.8	10.033	-H45	063-12	117
125	9.0	3.9	13	6.9	53	9.0	125	9.0	3.9	222	9.0	3.4	11.429	-H45	063-12	117
111	10	3.8	11	7.7	47	10	111	10	3.8	198	10	3.2	12.833	-H45	063-12	117
96	12	3.4	9.8	8.9	40	11	96	12	3.4	171	11	2.9	14.836	-H45	063-12	117
86	13	3.2	8.7	10	36	13	86	13	3.2	152	13	3.1	16.660	-H45	063-12	117
75	15	2.8	7.6	11	32	15	75	15	2.8	133	15	2.8	19.013	-H45	063-12	117
73	15	5.5	7.4	12	31	15	73	15	5.5	130	15	4.7	19.486	-H100	063-12	120
67	17	2.6	6.8	13	28	16	67	17	2.6	119	16	2.6	21.350	-H45	063-12	117
64	17	5.5	6.5	13	27	17	64	17	5.5	114	17	4.7	22.314	-H100	063-12	120
58	19	2.4	5.9	15	24	19	58	19	2.4	103	19	2.3	24.595	-H45	063-12	117
57	19	5.5	5.8	15	24	19	57	19	5.5	102	19	4.7	24.829	-H140	063-12	124
57	20	4.6	5.8	15	24	19	57	20	4.6	101	19	3.9	25.095	-H100	063-12	120
52	21	5.5	5.3	17	22	21	52	21	5.5	93	21	5.3	27.415	-H140	063-12	124
52	22	2.1	5.3	17	22	21	52	22	2.1	92	21	2.0	27.618	-H45	063-12	117
50	22	4.5	5.0	17	21	22	50	22	4.5	88	22	4.3	28.738	-H100	063-12	120
45	25	4.0	4.6	19	19	24	45	25	4.0	80	24	3.9	31.805	-H100	063-12	120
45	25	4.6	4.5	19	19	25	45	25	4.6	79	25	4.5	31.976	-H140	063-12	124
45	25	1.8	4.5	19	19	25	45	25	1.8	79	25	1.8	32.000	-H45	063-12	117
41	27	4.6	4.1	21	17	27	41	27	4.6	72	27	4.5	35.095	-H210	063-12	128
40	28	4.6	4.1	21	17	27	40	28	4.6	72	27	4.5	35.308	-H140	063-12	124
40	28	1.6	4.0	22	17	28	40	28	1.6	71	28	1.6	35.933	-H45	063-12	117
39	28	3.5	4.0	22	17	28	39	28	3.5	70	28	3.4	36.422	-H100	063-12	120
37	30	4.6	3.8	23	16	29	37	30	4.6	66	29	4.5	38.238	-H320	063-12	132
36	31	4.6	3.7	24	15	30	36	31	4.6	65	30	4.5	39.286	-H210	063-12	128
36	31	3.2	3.6	24	15	31	36	31	3.2	64	31	3.1	39.857	-H100	063-12	120
35	32	4.0	3.6	24	15	31	35	32	4.0	63	31	4.1	40.526	-H140	063-12	124
34	32	1.4	3.5	25	15	32	34	32	1.4	61	32	1.4	41.455	-H45	063-12	117
34	33	4.0	3.4	26	14	33	34	33	4.0	60	33	4.1	42.593	-H210	063-12	128
33	34	4.6	3.3	26	14	33	33	34	4.6	58	33	4.7	43.436	-H320	063-12	132
32	35	4.0	3.2	27	13	34	32	35	4.0	57	34	4.1	44.748	-H140	063-12	124
31	36	2.8	3.2	27	13	35	31	36	2.8	56	35	2.9	45.643	-H100	063-12	120
31	36	4.0	3.1	28	13	36	31	36	4.0	55	36	4.1	46.407	-H320	063-12	132

# g500-H helical geared motors

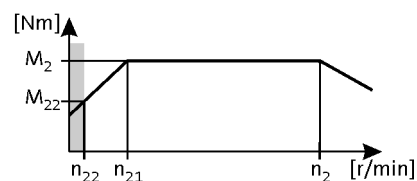


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.12$  kW  
 87 Hz:  $P_N = 0.21$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
31	36	1.2	3.1	28	13	36	31	36	1.2	55	36	1.3	46.550	-H45	063-12	117
30	37	4.0	3.0	29	13	37	30	37	4.0	53	37	4.1	47.679	-H210	063-12	128
28	40	3.3	2.9	31	12	39	28	40	3.3	50	39	3.3	50.786	-H140	063-12	124
27	41	1.7	2.8	32	11	40	27	41	1.7	48	40	1.7	52.510	-H100	063-12	120
27	41	4.0	2.8	32	11	40	27	41	4.0	48	40	4.1	52.715	-H320	063-12	132
27	41	1.1	2.7	32	11	41	27	41	1.1	48	41	1.1	52.909	-H45	063-12	117
26	42	3.1	2.7	33	11	42	26	42	3.1	47	42	3.2	54.438	-H210	063-12	128
25	44	3.2	2.6	34	11	43	25	44	3.2	45	43	3.3	56.077	-H140	063-12	124
24	46	1.0	2.4	36	10	46	24	46	1.0	43	46	1.0	59.413	-H45	063-12	117
24	47	1.7	2.4	36	10	46	24	47	1.7	42	46	1.7	60.133	-H100	063-12	120
23	48	3.1	2.4	37	9.8	47	23	48	3.1	42	47	3.2	60.938	-H210	063-12	128
21	52	1.7	2.2	40	9.0	51	21	52	1.7	38	51	1.7	66.908	-H140	063-12	124
19	58	1.7	2.0	44	8.1	57	19	58	1.7	34	57	1.7	73.879	-H140	063-12	124

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
29	37	5.6	3.0	29	12	37	29	37	5.6	52	37	5.5	48.571	-H210	063-12	128
26	43	4.9	2.6	33	11	42	26	43	4.9	46	42	4.8	55.529	-H210	063-12	128
23	48	4.4	2.3	37	9.7	47	23	48	4.4	41	47	4.3	62.160	-H210	063-12	128
20	55	3.9	2.0	42	8.4	54	20	55	3.9	36	54	3.7	71.026	-H210	063-12	128
18	59	5.4	1.9	46	7.8	59	18	59	5.4	33	59	5.2	77.387	-H320	063-12	132
18	61	3.4	1.8	47	7.5	60	18	61	3.4	32	60	3.3	79.507	-H210	063-12	128
16	68	4.7	1.6	52	6.8	66	16	68	4.7	29	66	4.8	87.906	-H320	063-12	132
16	71	3.0	1.6	55	6.5	70	16	71	3.0	28	70	3.0	92.205	-H210	063-12	128
14	77	4.1	1.4	59	6.0	76	14	77	4.1	25	76	4.2	100.462	-H320	063-12	132
14	79	2.7	1.4	61	5.8	78	14	79	2.7	25	78	2.7	103.214	-H210	063-12	128
13	88	3.7	1.3	68	5.3	86	13	88	3.7	22	86	3.7	114.118	-H320	063-12	132
12	91	2.3	1.2	70	5.1	89	12	91	2.3	22	89	2.4	118.162	-H210	063-12	128
12	93	4.8	1.2	72	4.9	92	12	93	4.8	21	92	4.9	121.342	-H450	063-12	136
11	99	3.2	1.1	76	4.7	97	11	99	3.2	20	97	3.3	128.743	-H320	063-12	132
11	102	2.1	1.1	78	4.5	100	11	102	2.1	19	100	2.1	132.270	-H210	063-12	128
10	105	4.3	1.1	81	4.4	104	10	105	4.3	19	104	4.3	137.133	-H450	063-12	136
10	110	4.6	1.0	85	4.2	108	10	110	4.6	18	108	4.7	142.988	-H600	063-12	144
9.7	112	2.9	1.0	87	4.1	111	9.7	112	2.9	17	111	2.9	146.244	-H320	063-12	132
9.3	117	1.8	0.9	91	3.9	116	9.3	117	1.8	17	116	1.8	152.853	-H210	063-12	128
9.1	120	3.8	0.9	93	3.8	118	9.1	120	3.8	16	118	3.8	156.274	-H450	063-12	136
8.9	123	4.6	0.9	95	3.7	121	8.9	123	4.6	16	121	4.7	160.585	-H600	063-12	144
8.6	128	2.5	0.9	99	3.6	126	8.6	128	2.5	15	126	2.5	166.541	-H320	063-12	132

# g500-H helical geared motors

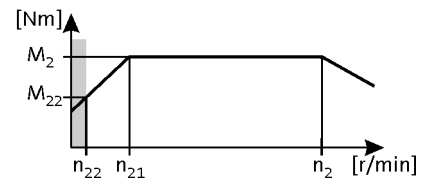


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.12$  kW  
 87 Hz:  $P_N = 0.21$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
8.3	131	1.6	0.8	101	3.5	129	8.3	131	1.6	15	129	1.6	171.104	-H210	063-12	128
8.2	133	4.0	0.8	103	3.5	131	8.2	133	4.0	15	131	4.1	173.536	-H600	063-12	144
8.1	136	3.3	0.8	105	3.4	134	8.1	136	3.3	14	134	3.4	176.611	-H450	063-12	136
7.5	145	2.2	0.8	112	3.2	143	7.5	145	2.2	13	143	2.2	189.179	-H320	063-12	132
7.3	150	4.0	0.7	115	3.1	147	7.3	150	4.0	13	147	4.1	194.892	-H600	063-12	144
7.2	152	3.0	0.7	117	3.0	150	7.2	152	3.0	13	150	3.0	198.059	-H450	063-12	136
7.2	153	1.4	0.7	118	3.0	150	7.2	153	1.4	13	150	1.4	198.873	-H210	063-12	128
6.6	167	1.9	0.7	128	2.8	164	6.6	167	1.9	12	164	1.9	216.683	-H320	063-12	132
6.4	170	3.1	0.7	131	2.7	168	6.4	170	3.1	11	168	3.2	221.794	-H600	063-12	144
6.4	171	1.2	0.7	132	2.7	168	6.4	171	1.2	11	168	1.3	222.619	-H210	063-12	128
6.4	172	2.6	0.6	133	2.7	169	6.4	172	2.6	11	169	2.7	223.833	-H450	063-12	136
5.8	189	1.7	0.6	146	2.4	186	5.8	189	1.7	10	186	1.7	246.137	-H320	063-12	132
5.7	191	2.4	0.6	147	2.4	188	5.7	191	2.4	10	188	2.4	248.200	-H450	063-12	136
5.7	191	3.1	0.6	147	2.4	188	5.7	191	3.1	10	188	3.2	249.089	-H600	063-12	144
5.5	198	1.1	0.6	153	2.3	195	5.5	198	1.1	9.8	195	1.1	257.631	-H210	063-12	128
5.1	216	2.1	0.5	166	2.1	212	5.1	216	2.1	9.0	212	2.1	280.500	-H450	063-12	136
5.1	216	1.3	0.5	166	2.1	212	5.1	216	1.3	9.0	212	1.3	280.702	-H320	063-12	132
4.9	222	1.0	0.5	171	2.1	218	4.9	222	1.0	8.8	218	1.0	288.393	-H210	063-12	128
4.5	245	1.3	0.5	189	1.9	241	4.5	245	1.3	8.0	241	1.3	318.859	-H320	063-12	132
4.4	251	1.7	0.4	194	1.8	247	4.4	251	1.7	7.8	247	1.7	326.994	-H450	063-12	136
3.9	284	1.6	0.4	219	1.6	279	3.9	284	1.6	6.9	279	1.6	369.548	-H450	063-12	136

# g500-H helical geared motors

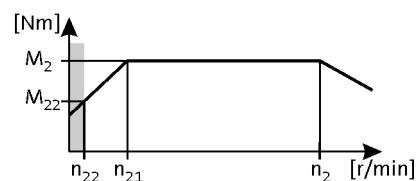


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
526	3.0	4.7	56	2.4	231	3.0	526	3.0	4.7	953	3.0	3.9	2.597	-H45	063-32	117
400	4.0	4.5	43	3.2	176	4.0	400	4.0	4.5	725	4.0	3.7	3.413	-H45	063-32	117
313	5.0	3.9	33	4.1	137	5.0	313	5.0	3.9	567	5.0	3.3	4.368	-H45	063-32	117
257	6.0	4.2	27	5.0	113	6.0	257	6.0	4.2	466	7.0	3.5	5.312	-H45	063-32	117
229	7.0	4.0	24	5.6	101	7.0	229	7.0	4.0	415	7.0	3.3	5.965	-H45	063-32	117
218	8.0	4.5	23	5.9	96	8.0	218	8.0	4.5	395	8.0	3.7	6.272	-H140	063-32	124
212	8.0	4.5	23	6.1	93	8.0	212	8.0	4.5	384	8.0	3.7	6.440	-H100	063-32	120
196	9.0	3.5	21	6.6	86	9.0	196	9.0	3.5	355	9.0	2.9	6.982	-H45	063-32	117
174	10	3.3	19	7.4	77	10	174	10	3.3	316	10	2.8	7.840	-H45	063-32	117
171	10	4.1	18	7.5	75	10	171	10	4.1	309	10	3.5	8.000	-H140	063-32	124
166	10	4.1	18	7.7	73	10	166	10	4.1	301	10	3.5	8.214	-H100	063-32	120
153	11	3.0	16	8.4	67	11	153	11	3.0	277	11	2.5	8.935	-H45	063-32	117
136	12	2.9	15	9.4	60	12	136	12	2.9	247	12	2.4	10.033	-H45	063-32	117
120	14	4.5	13	11	53	14	120	14	4.5	218	14	3.7	11.360	-H100	063-32	120
119	14	2.5	13	11	53	14	119	14	2.5	217	14	2.1	11.429	-H45	063-32	117
108	15	4.5	12	12	48	15	108	15	4.5	196	16	3.7	12.640	-H140	063-32	124
108	15	4.1	12	12	47	15	108	15	4.1	196	16	3.5	12.653	-H100	063-32	120
106	16	2.4	11	12	47	16	106	16	2.4	193	16	2.0	12.833	-H45	063-32	117
98	17	4.5	10	13	43	17	98	17	4.5	177	17	3.7	13.957	-H140	063-32	124
94	18	4.1	10	14	41	18	94	18	4.1	171	18	3.5	14.490	-H100	063-32	120
92	18	2.2	9.8	14	40	18	92	18	2.2	167	18	1.8	14.836	-H45	063-32	117
85	20	4.1	9.0	15	37	20	85	20	4.1	154	20	3.5	16.122	-H140	063-32	124
82	20	2.0	8.7	16	36	20	82	20	2.0	149	21	1.9	16.660	-H45	063-32	117
77	22	4.1	8.1	17	34	22	77	22	4.1	139	22	3.5	17.802	-H140	063-32	124
72	23	1.8	7.6	18	32	23	72	23	1.8	130	23	1.7	19.013	-H45	063-32	117
70	24	3.5	7.4	18	31	24	70	24	3.5	127	24	2.9	19.486	-H100	063-32	120
64	26	1.7	6.8	20	28	26	64	26	1.7	116	26	1.6	21.350	-H45	063-32	117
61	27	3.5	6.5	21	27	27	61	27	3.5	111	28	2.9	22.314	-H100	063-32	120
56	30	1.5	5.9	23	24	30	56	30	1.5	101	30	1.4	24.595	-H45	063-32	117
55	30	3.5	5.8	23	24	30	55	30	3.5	100	31	2.9	24.829	-H140	063-32	124
54	31	2.9	5.8	24	24	31	54	31	2.9	99	31	2.5	25.095	-H100	063-32	120
50	33	3.5	5.3	26	22	33	50	33	3.5	90	34	3.3	27.415	-H140	063-32	124
49	34	1.3	5.3	26	22	34	49	34	1.3	90	34	1.3	27.618	-H45	063-32	117
48	35	2.9	5.0	27	21	35	48	35	2.9	86	36	2.7	28.738	-H100	063-32	120
43	39	2.6	4.6	30	19	39	43	39	2.6	78	39	2.4	31.805	-H100	063-32	120

# g500-H helical geared motors

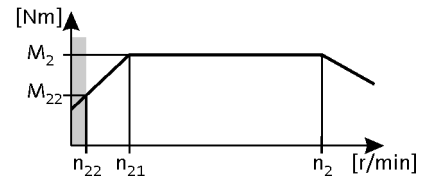


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
87 Hz:  $P_N = 0.33$  kW

2-stage gearboxes

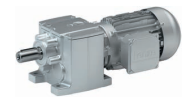


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
43	39	2.9	4.5	30	19	39	43	39	2.9	77	40	2.8	31.976	-H140	063-32	124
43	39	1.2	4.5	30	19	39	43	39	1.2	77	40	1.1	32.000	-H45	063-32	117
39	43	2.9	4.1	33	17	43	39	43	2.9	71	43	2.8	35.095	-H210	063-32	128
39	43	2.9	4.1	33	17	43	39	43	2.9	70	44	2.8	35.308	-H140	063-32	124
38	44	1.0	4.0	34	17	44	38	44	1.0	69	44	1.0	35.933	-H45	063-32	117
38	44	2.3	4.0	34	17	44	38	44	2.3	68	45	2.1	36.422	-H100	063-32	120
36	47	2.9	3.8	36	16	47	36	47	2.9	65	47	2.8	38.238	-H320	063-32	132
35	48	2.9	3.7	37	15	48	35	48	2.9	63	49	2.8	39.286	-H210	063-32	128
34	49	2.1	3.6	38	15	49	34	49	2.1	62	49	2.0	39.857	-H100	063-32	120
34	50	2.6	3.6	38	15	50	34	50	2.6	61	50	2.5	40.526	-H140	063-32	124
33	51	0.9	3.5	39	15	51	33	51	0.9	60	51	0.8	41.455	-H45	063-32	117
32	52	2.6	3.4	40	14	52	32	52	2.6	58	53	2.5	42.593	-H210	063-32	128
31	53	2.9	3.3	41	14	53	31	53	2.9	57	54	2.9	43.436	-H320	063-32	132
31	55	2.6	3.2	42	13	55	31	55	2.6	55	55	2.5	44.748	-H140	063-32	124
30	56	1.8	3.2	43	13	56	30	56	1.8	54	56	1.8	45.643	-H100	063-32	120
29	57	2.6	3.1	44	13	57	29	57	2.6	53	57	2.5	46.407	-H320	063-32	132
29	58	2.6	3.0	45	13	58	29	58	2.6	52	59	2.5	47.679	-H210	063-32	128
27	62	2.1	2.9	48	12	62	27	62	2.1	49	63	2.1	50.786	-H140	063-32	124
26	64	1.1	2.8	49	11	64	26	64	1.1	47	65	1.1	52.510	-H100	063-32	120
26	64	2.6	2.8	50	11	64	26	64	2.6	47	65	2.5	52.715	-H320	063-32	132
25	67	2.0	2.7	51	11	67	25	67	2.0	46	67	2.0	54.438	-H210	063-32	128
24	69	2.0	2.6	53	11	69	24	69	2.0	44	69	2.0	56.077	-H140	063-32	124
23	73	1.1	2.4	57	10	73	23	73	1.1	41	74	1.1	60.133	-H100	063-32	120
22	74	2.0	2.4	57	9.8	74	22	74	2.0	41	75	2.0	60.938	-H210	063-32	128
20	82	1.1	2.2	63	9.0	82	20	82	1.1	37	83	1.1	66.908	-H140	063-32	124
19	90	1.1	2.0	70	8.1	90	19	90	1.1	34	91	1.1	73.879	-H140	063-32	124

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
32	52	4.0	3.3	40	14	52	32	52	4.0	57	53	3.4	43.390	-H210	063-32	128
29	57	4.5	3.1	44	13	57	29	57	4.5	52	58	4.2	47.276	-H320	063-32	132
28	58	3.6	3.0	45	12	58	28	58	3.6	51	59	3.4	48.571	-H210	063-32	128
25	65	4.5	2.7	50	11	65	25	65	4.5	46	65	4.2	53.703	-H320	063-32	132
25	67	3.1	2.6	52	11	67	25	67	3.1	45	68	3.0	55.529	-H210	063-32	128
23	73	4.1	2.4	56	9.9	73	23	73	4.1	41	74	3.9	60.502	-H320	063-32	132
22	74	4.5	2.3	57	9.7	74	22	74	4.5	40	75	4.2	61.774	-H450	063-32	136
22	75	2.8	2.3	58	9.7	75	22	75	2.8	40	76	2.7	62.160	-H210	063-32	128
20	83	3.9	2.1	64	8.7	83	20	83	3.9	36	84	3.7	68.726	-H320	063-32	132

# g500-H helical geared motors

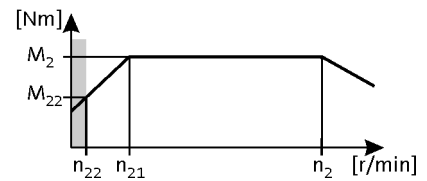


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
20	84	4.5	2.1	65	8.6	84	20	84	4.5	36	85	4.2	69.813	-H450	063-32	136
19	85	2.5	2.0	66	8.4	85	19	85	2.5	35	86	2.3	71.026	-H210	063-32	128
18	93	3.4	1.9	72	7.8	93	18	93	3.4	32	94	3.3	77.387	-H320	063-32	132
17	95	4.1	1.8	73	7.6	95	17	95	4.1	31	96	3.9	78.794	-H450	063-32	136
17	96	2.2	1.8	74	7.5	96	17	96	2.2	31	97	2.1	79.507	-H210	063-32	128
16	106	3.0	1.6	82	6.8	106	16	106	3.0	28	107	3.0	87.906	-H320	063-32	132
15	107	4.1	1.6	83	6.7	107	15	107	4.1	28	108	4.1	89.048	-H450	063-32	136
15	111	1.9	1.6	85	6.5	111	15	111	1.9	27	112	1.9	92.205	-H210	063-32	128
14	121	2.7	1.4	93	6.0	121	14	121	2.7	25	122	2.6	100.462	-H320	063-32	132
13	124	1.7	1.4	96	5.8	124	13	124	1.7	24	126	1.7	103.214	-H210	063-32	128
12	137	2.3	1.3	106	5.3	137	12	137	2.3	22	139	2.3	114.118	-H320	063-32	132
12	142	1.5	1.2	110	5.1	142	12	142	1.5	21	144	1.5	118.162	-H210	063-32	128
11	146	3.1	1.2	112	4.9	146	11	146	3.1	20	148	3.1	121.342	-H450	063-32	136
11	155	2.1	1.1	119	4.7	155	11	155	2.1	19	157	2.0	128.743	-H320	063-32	132
10	159	1.3	1.1	123	4.5	159	10	159	1.3	19	161	1.3	132.270	-H210	063-32	128
10	165	2.7	1.1	127	4.4	165	10	165	2.7	18	167	2.7	137.133	-H450	063-32	136
9.5	172	2.9	1.0	133	4.2	172	9.5	172	2.9	17	174	2.9	142.988	-H600	063-32	144
9.3	176	1.8	1.0	136	4.1	176	9.3	176	1.8	17	178	1.8	146.244	-H320	063-32	132
8.9	184	1.1	0.9	142	3.9	184	8.9	184	1.1	16	186	1.1	152.853	-H210	063-32	128
8.7	188	2.4	0.9	145	3.8	188	8.7	188	2.4	16	190	2.4	156.274	-H450	063-32	136
8.5	193	2.9	0.9	149	3.7	193	8.5	193	2.9	15	195	2.9	160.585	-H600	063-32	144
8.2	200	1.6	0.9	154	3.6	200	8.2	200	1.6	15	203	1.6	166.541	-H320	063-32	132
8.0	206	1.0	0.8	159	3.5	206	8.0	206	1.0	15	208	1.0	171.104	-H210	063-32	128
7.9	209	2.6	0.8	161	3.5	209	7.9	209	2.6	14	211	2.5	173.536	-H600	063-32	144
7.7	213	2.1	0.8	164	3.4	213	7.7	213	2.1	14	215	2.1	176.611	-H450	063-32	136
7.2	228	1.4	0.8	175	3.2	228	7.2	228	1.4	13	230	1.4	189.179	-H320	063-32	132
7.0	235	2.6	0.7	181	3.1	235	7.0	235	2.6	13	237	2.5	194.892	-H600	063-32	144
6.9	238	1.9	0.7	184	3.0	238	6.9	238	1.9	13	241	1.9	198.059	-H450	063-32	136
6.9	239	0.9	0.7	184	3.0	239	6.9	239	0.9	12	242	0.9	198.873	-H210	063-32	128
6.3	261	1.2	0.7	201	2.8	261	6.3	261	1.2	11	264	1.2	216.683	-H320	063-32	132
6.2	267	2.0	0.7	206	2.7	267	6.2	267	2.0	11	270	2.0	221.794	-H600	063-32	144
6.1	269	1.7	0.6	207	2.7	269	6.1	269	1.7	11	272	1.7	223.833	-H450	063-32	136
5.5	296	1.1	0.6	228	2.4	296	5.5	296	1.1	10	299	1.1	246.137	-H320	063-32	132
5.5	299	1.5	0.6	230	2.4	299	5.5	299	1.5	10	302	1.5	248.200	-H450	063-32	136
5.5	300	2.0	0.6	231	2.4	300	5.5	300	2.0	9.9	303	2.0	249.089	-H600	063-32	144

# g500-H helical geared motors

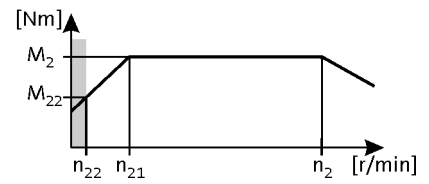
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
4.9	338	1.3	0.5	260	2.1	338	4.9	338	1.3	8.8	341	1.3	280.500	-H450	063-32	136
4.2	394	1.1	0.4	303	1.8	394	4.2	394	1.1	7.6	398	1.1	326.994	-H450	063-32	136
3.7	445	1.0	0.4	342	1.6	445	3.7	445	1.0	6.7	450	1.0	369.548	-H450	063-32	136

# g500-H helical geared motors

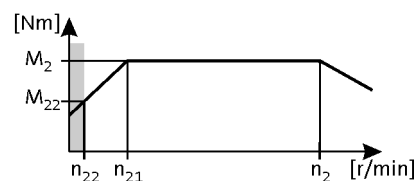


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

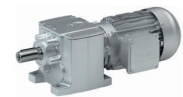
2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
528	4.0	4.1	56	3.4	231	4.0	528	4.0	4.1	955	4.0	3.5	2.597	-H45	063-42	117	
419	6.0	5.6	44	4.3	184	5.0	419	6.0	5.6	759	5.0	4.8	3.267	-H140	063-42	124	
408	6.0	5.6	43	4.4	179	6.0	408	6.0	5.6	739	6.0	4.8	3.354	-H100	063-42	120	
401	6.0	3.3	43	4.4	176	6.0	401	6.0	3.3	727	6.0	2.8	3.413	-H45	063-42	117	
314	7.0	2.8	33	5.7	137	7.0	314	7.0	2.8	568	7.0	2.4	4.368	-H45	063-42	117	
306	8.0	5.6	32	5.8	134	8.0	306	8.0	5.6	554	8.0	4.8	4.480	-H140	063-42	124	
298	8.0	5.6	32	6.0	130	8.0	298	8.0	5.6	539	8.0	4.8	4.600	-H100	063-42	120	
265	9.0	5.6	28	6.7	116	9.0	265	9.0	5.6	480	9.0	4.8	5.167	-H100	063-42	120	
258	9.0	3.0	27	6.9	113	9.0	258	9.0	3.0	467	9.0	2.6	5.312	-H45	063-42	117	
239	10	5.2	25	7.5	105	10	239	10	5.2	433	10	4.4	5.733	-H140	063-42	124	
233	10	5.2	25	7.7	102	10	233	10	5.2	421	10	4.4	5.887	-H100	063-42	120	
230	10	2.9	24	7.8	101	10	230	10	2.9	416	10	2.5	5.965	-H45	063-42	117	
218	11	5.2	23	8.2	96	11	218	11	5.2	395	11	4.4	6.272	-H140	063-42	124	
213	11	5.2	23	8.4	93	11	213	11	5.2	385	11	4.4	6.440	-H100	063-42	120	
196	12	2.5	21	9.1	86	12	196	12	2.5	355	12	2.2	6.982	-H45	063-42	117	
193	12	5.6	21	9.2	85	12	193	12	5.6	350	12	4.8	7.086	-H100	063-42	120	
189	12	5.6	20	9.5	83	12	189	12	5.6	341	12	4.8	7.269	-H140	063-42	124	
175	13	2.4	19	10	77	13	175	13	2.4	316	13	2.1	7.840	-H45	063-42	117	
171	14	4.8	18	10	75	13	171	14	4.8	310	13	4.1	8.000	-H140	063-42	124	
167	14	4.8	18	11	73	14	167	14	4.8	302	14	4.1	8.214	-H100	063-42	120	
153	15	2.2	16	12	67	15	153	15	2.2	278	15	1.9	8.935	-H45	063-42	117	
152	15	5.6	16	12	67	15	152	15	5.6	275	15	4.8	9.029	-H140	063-42	124	
151	15	5.2	16	12	66	15	151	15	5.2	274	15	4.4	9.068	-H100	063-42	120	
140	17	4.3	15	13	61	16	140	17	4.3	253	16	3.7	9.800	-H140	063-42	124	
137	17	2.1	15	13	60	17	137	17	2.1	247	17	1.8	10.033	-H45	063-42	117	
136	17	4.3	14	13	60	17	136	17	4.3	247	17	3.7	10.063	-H100	063-42	120	
128	18	5.6	14	14	56	18	128	18	5.6	231	18	4.8	10.720	-H210	063-42	128	
121	19	5.2	13	15	53	19	121	19	5.2	218	19	4.4	11.360	-H100	063-42	120	
120	19	1.8	13	15	53	19	120	19	1.8	217	19	1.5	11.429	-H45	063-42	117	
119	20	5.2	13	15	52	19	119	20	5.2	215	19	4.4	11.554	-H140	063-42	124	
117	20	5.6	12	15	51	20	117	20	5.6	212	20	4.8	11.680	-H320	063-42	132	
114	20	5.6	12	16	50	20	114	20	5.6	207	20	4.8	12.000	-H210	063-42	128	
108	21	5.2	12	17	48	21	108	21	5.2	196	21	4.4	12.640	-H140	063-42	124	
108	21	4.7	12	17	47	21	108	21	4.7	196	21	4.0	12.653	-H100	063-42	120	
107	22	1.8	11	17	47	22	107	22	1.8	193	22	1.5	12.833	-H45	063-42	117	



# g500-H helical geared motors

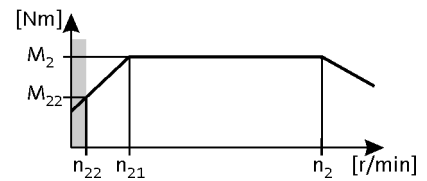


## Technical data

### Selection tables, 4-pole motors

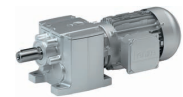
50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
103	22	5.6	11	17	45	22	103	22	5.6	187	22	4.8	13.268	-H320	063-42	132
100	23	5.2	11	18	44	23	100	23	5.2	181	23	4.4	13.673	-H210	063-42	128
98	24	5.2	10	18	43	23	98	24	5.2	178	23	4.4	13.957	-H140	063-42	124
95	24	4.1	10	19	41	24	95	24	4.1	171	24	3.5	14.490	-H100	063-42	120
92	25	1.6	9.8	19	40	25	92	25	1.6	167	25	1.3	14.836	-H45	063-42	117
92	25	5.2	9.7	19	40	25	92	25	5.2	167	25	4.4	14.898	-H320	063-42	132
90	26	5.2	9.5	20	39	26	90	26	5.2	162	26	4.4	15.306	-H210	063-42	128
88	26	3.8	9.4	20	39	26	88	26	3.8	160	26	3.3	15.500	-H100	063-42	120
85	27	4.8	9.0	21	37	27	85	27	4.8	154	27	4.1	16.122	-H140	063-42	124
82	28	1.5	8.7	22	36	28	82	28	1.5	149	28	1.4	16.660	-H45	063-42	117
81	29	5.2	8.6	22	36	28	81	29	5.2	147	28	4.4	16.923	-H320	063-42	132
77	30	3.3	8.2	23	34	30	77	30	3.3	140	30	2.8	17.750	-H100	063-42	120
77	30	4.7	8.1	23	34	30	77	30	4.7	139	30	4.0	17.802	-H140	063-42	124
72	32	1.3	7.6	25	32	32	72	32	1.3	130	32	1.3	19.013	-H45	063-42	117
70	33	3.0	7.4	25	31	33	70	33	3.0	127	33	2.6	19.486	-H100	063-42	120
69	33	4.2	7.3	26	30	33	69	33	4.2	126	33	3.6	19.750	-H140	063-42	124
64	36	1.2	6.8	28	28	36	64	36	1.2	116	36	1.2	21.350	-H45	063-42	117
63	37	4.3	6.7	28	28	37	63	37	4.3	114	37	3.7	21.802	-H210	063-42	128
63	37	3.8	6.6	28	28	37	63	37	3.8	114	37	3.2	21.808	-H140	063-42	124
61	38	2.7	6.5	29	27	38	61	38	2.7	111	38	2.3	22.314	-H100	063-42	120
58	40	4.3	6.1	31	25	40	58	40	4.3	104	40	3.7	23.754	-H320	063-42	132
56	41	4.3	5.9	32	25	41	56	41	4.3	102	41	3.7	24.405	-H210	063-42	128
56	42	1.1	5.9	32	24	41	56	42	1.1	101	41	1.1	24.595	-H45	063-42	117
55	42	3.3	5.8	32	24	42	55	42	3.3	100	42	2.8	24.829	-H140	063-42	124
55	42	2.4	5.8	33	24	42	55	42	2.4	99	42	2.0	25.095	-H100	063-42	120
51	46	4.3	5.4	35	22	45	51	46	4.3	92	45	4.2	26.983	-H320	063-42	132
51	46	3.7	5.3	35	22	46	51	46	3.7	91	46	3.5	27.119	-H210	063-42	128
50	46	3.0	5.3	36	22	46	50	46	3.0	91	46	2.9	27.415	-H140	063-42	124
50	47	1.0	5.3	36	22	46	50	47	1.0	90	46	0.9	27.618	-H45	063-42	117
48	49	2.1	5.0	37	21	48	48	49	2.1	86	48	2.0	28.738	-H100	063-42	120
46	50	3.7	4.9	39	20	50	46	50	3.7	84	50	3.5	29.548	-H320	063-42	132
45	51	3.7	4.8	40	20	51	45	51	3.7	82	51	3.5	30.357	-H210	063-42	128
43	54	1.9	4.6	41	19	53	43	54	1.9	78	53	1.8	31.805	-H100	063-42	120
43	54	2.6	4.5	42	19	54	43	54	2.6	78	54	2.5	31.976	-H140	063-42	124
43	54	0.8	4.5	42	19	54	43	54	0.8				32.000	-H45	063-42	117

# g500-H helical geared motors

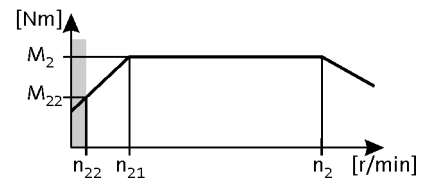


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
41	57	3.7	4.3	44	18	56	41	57	3.7	74	56	3.5	33.564	-H320	063-42	132
39	59	3.3	4.1	46	17	59	39	59	3.3	71	59	3.2	35.095	-H210	063-42	128
39	60	2.4	4.1	46	17	59	39	60	2.4	70	59	2.3	35.308	-H140	063-42	124
38	60	3.7	4.1	47	17	60	38	60	3.7	70	60	3.5	35.689	-H450	063-42	136
38	62	1.6	4.0	47	17	61	38	62	1.6	68	61	1.6	36.422	-H100	063-42	120
36	65	3.3	3.8	50	16	64	36	65	3.3	65	64	3.2	38.238	-H320	063-42	132
35	66	3.2	3.7	51	15	66	35	66	3.2	63	66	3.1	39.286	-H210	063-42	128
34	67	1.2	3.6	52	15	67	34	67	1.2	62	67	1.2	39.857	-H100	063-42	120
34	68	3.7	3.6	53	15	68	34	68	3.7	62	68	3.7	40.333	-H450	063-42	136
34	69	2.0	3.6	53	15	68	34	69	2.0	61	68	2.1	40.526	-H140	063-42	124
34	69	3.7	3.6	53	15	68	34	69	3.7	61	68	3.7	40.578	-H600	063-42	144
32	72	2.5	3.4	55	14	72	32	72	2.5	58	72	2.6	42.593	-H210	063-42	128
32	73	3.2	3.3	56	14	73	32	73	3.2	57	73	3.2	43.313	-H450	063-42	136
32	73	3.3	3.3	57	14	73	32	73	3.3	57	73	3.3	43.436	-H320	063-42	132
31	76	1.9	3.2	58	13	75	31	76	1.9	55	75	1.9	44.748	-H140	063-42	124
30	77	3.7	3.2	59	13	77	30	77	3.7	54	77	3.7	45.571	-H600	063-42	144
30	77	1.2	3.2	59	13	77	30	77	1.2	54	77	1.2	45.643	-H100	063-42	120
30	78	2.8	3.1	60	13	78	30	78	2.8	53	78	2.8	46.407	-H320	063-42	132
29	81	2.6	3.0	62	13	80	29	81	2.6	52	80	2.6	47.679	-H210	063-42	128
28	83	3.2	3.0	64	12	82	28	83	3.2	51	82	3.2	48.950	-H450	063-42	136
28	83	3.2	2.9	64	12	83	28	83	3.2	50	83	3.2	49.247	-H600	063-42	144
27	86	1.2	2.9	66	12	85	27	86	1.2	49	85	1.2	50.786	-H140	063-42	124
26	89	2.8	2.8	69	11	89	26	89	2.8	47	89	2.8	52.715	-H320	063-42	132
25	92	1.4	2.7	71	11	92	25	92	1.4	46	92	1.4	54.438	-H210	063-42	128
25	93	2.6	2.6	71	11	92	25	93	2.6	45	92	2.6	54.750	-H450	063-42	136
25	94	3.2	2.6	72	11	93	25	94	3.2	45	93	3.2	55.307	-H600	063-42	144
24	95	1.2	2.6	73	11	94	24	95	1.2	44	94	1.2	56.077	-H140	063-42	124
23	103	1.4	2.4	79	9.8	102	23	103	1.4	41	102	1.4	60.938	-H210	063-42	128
22	105	2.6	2.3	81	9.7	104	22	105	2.6	40	104	2.6	61.875	-H450	063-42	136
22	105	2.6	2.3	81	9.6	105	22	105	2.6	40	105	2.6	62.250	-H600	063-42	144
20	118	2.6	2.1	91	8.6	118	20	118	2.6	36	118	2.6	69.911	-H600	063-42	144

# g500-H helical geared motors

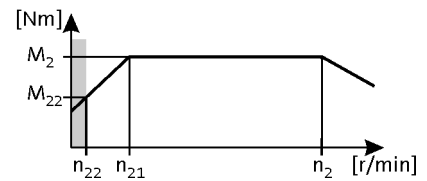


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
32	72	2.9	3.3	56	14	72	32	72	2.9	57	72	2.5	43.390	-H210	063-42	128
31	73	5.6	3.3	56	14	72	31	73	5.6	57	72	4.8	43.676	-H600	063-42	144
31	73	5.6	3.3	57	14	73	31	73	5.6	56	73	4.8	44.124	-H450	063-42	136
29	79	4.1	3.1	61	13	78	29	79	4.1	53	78	3.9	47.276	-H320	063-42	132
28	81	2.6	3.0	62	12	80	28	81	2.6	51	80	2.5	48.571	-H210	063-42	128
28	82	5.6	3.0	63	12	81	28	82	5.6	51	81	5.4	49.051	-H600	063-42	144
28	83	5.4	2.9	64	12	83	28	83	5.4	50	83	5.2	49.867	-H450	063-42	136
26	89	3.6	2.7	69	11	89	26	89	3.6	46	89	3.5	53.703	-H320	063-42	132
25	92	2.3	2.6	71	11	92	25	92	2.3	45	92	2.2	55.529	-H210	063-42	128
25	93	5.2	2.6	71	11	92	25	93	5.2	45	92	5.1	55.710	-H600	063-42	144
24	94	4.8	2.6	72	11	94	24	94	4.8	44	94	4.6	56.469	-H450	063-42	136
23	101	3.2	2.4	78	9.9	100	23	101	3.2	41	100	3.1	60.502	-H320	063-42	132
22	103	4.4	2.3	79	9.7	102	22	103	4.4	40	102	4.2	61.774	-H450	063-42	136
22	104	2.0	2.3	80	9.7	103	22	104	2.0	40	103	2.0	62.160	-H210	063-42	128
22	104	5.2	2.3	80	9.6	104	22	104	5.2	40	104	5.1	62.566	-H600	063-42	144
20	114	2.8	2.1	88	8.7	114	20	114	2.8	36	114	2.7	68.726	-H320	063-42	132
20	116	3.9	2.1	90	8.6	116	20	116	3.9	36	116	3.7	69.813	-H450	063-42	136
19	118	1.8	2.0	91	8.4	118	19	118	1.8	35	118	1.7	71.026	-H210	063-42	128
18	129	2.5	1.9	99	7.8	128	18	129	2.5	32	128	2.4	77.387	-H320	063-42	132
17	131	3.4	1.8	101	7.6	130	17	131	3.4	32	130	3.3	78.794	-H450	063-42	136
17	132	1.6	1.8	102	7.5	132	17	132	1.6	31	132	1.5	79.507	-H210	063-42	128
16	146	2.2	1.6	113	6.8	146	16	146	2.2	28	146	2.2	87.906	-H320	063-42	132
15	148	4.1	1.6	114	6.8	147	15	148	4.1	28	147	4.1	88.826	-H600	063-42	144
15	148	3.0	1.6	114	6.7	147	15	148	3.0	28	147	3.1	89.048	-H450	063-42	136
15	154	1.4	1.6	118	6.5	153	15	154	1.4	27	153	1.4	92.205	-H210	063-42	128
14	161	2.8	1.5	124	6.2	160	14	161	2.8	26	160	2.8	96.522	-H450	063-42	136
14	166	3.6	1.5	128	6.0	165	14	166	3.6	25	165	3.6	99.757	-H600	063-42	144
14	167	1.9	1.4	129	6.0	166	14	167	1.9	25	166	1.9	100.462	-H320	063-42	132
13	172	1.2	1.4	132	5.8	171	13	172	1.2	24	171	1.2	103.214	-H210	063-42	128
13	182	2.5	1.3	140	5.5	181	13	182	2.5	23	181	2.5	109.083	-H450	063-42	136
12	184	3.3	1.3	142	5.4	183	12	184	3.3	22	183	3.3	110.491	-H600	063-42	144
12	190	1.7	1.3	146	5.3	189	12	190	1.7	22	189	1.7	114.118	-H320	063-42	132
12	197	1.1	1.2	152	5.1	196	12	197	1.1	21	196	1.1	118.162	-H210	063-42	128
11	202	2.2	1.2	156	4.9	201	11	202	2.2	20	201	2.2	121.342	-H450	063-42	136
11	207	2.9	1.2	159	4.8	205	11	207	2.9	20	205	2.9	124.088	-H600	063-42	144

# g500-H helical geared motors

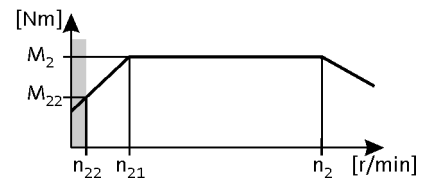


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
87 Hz:  $P_N = 0.45$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
11	214	1.5	1.1	165	4.7	213	11	214	1.5	19	213	1.5	128.743	-H320	063-42	132
10	220	1.0	1.1	170	4.5	219	10	220	1.0	19	219	1.0	132.270	-H210	063-42	128
10	225	3.7	1.1	174	4.4	224	10	225	3.7	18	224	3.7	135.373	-H850	063-42	150
10	228	2.0	1.1	176	4.4	227	10	228	2.0	18	227	2.0	137.133	-H450	063-42	136
9.6	238	2.5	1.0	183	4.2	237	9.6	238	2.5	17	237	2.5	142.988	-H600	063-42	144
9.4	244	1.3	1.0	188	4.1	242	9.4	244	1.3	17	242	1.3	146.244	-H320	063-42	132
9.1	252	3.4	1.0	194	4.0	250	9.1	252	3.4	16	250	3.4	151.262	-H850	063-42	150
9.0	255	0.8	0.9	196	3.9	253	9.0	255	0.8	16	253	0.8	152.853	-H210	063-42	128
8.8	260	1.7	0.9	200	3.8	259	8.8	260	1.7	16	259	1.7	156.274	-H450	063-42	136
8.5	267	2.2	0.9	206	3.7	266	8.5	267	2.2	15	266	2.3	160.585	-H600	063-42	144
8.3	274	3.1	0.9	211	3.7	272	8.3	274	3.1	15	272	3.1	164.294	-H850	063-42	150
8.2	277	1.2	0.9	214	3.6	276	8.2	277	1.2	15	276	1.2	166.541	-H320	063-42	132
7.9	289	2.1	0.8	223	3.5	287	7.9	289	2.1	14	287	2.1	173.536	-H600	063-42	144
7.8	294	1.5	0.8	227	3.4	292	7.8	294	1.5	14	292	1.5	176.611	-H450	063-42	136
7.5	306	2.8	0.8	235	3.3	304	7.5	306	2.8	14	304	2.8	183.577	-H850	063-42	150
7.2	315	1.0	0.8	243	3.2	313	7.2	315	1.0	13	313	1.0	189.179	-H320	063-42	132
7.0	325	1.9	0.7	250	3.1	323	7.0	325	1.9	13	323	1.9	194.892	-H600	063-42	144
6.9	330	1.4	0.7	254	3.0	328	6.9	330	1.4	13	328	1.4	198.059	-H450	063-42	136
6.6	346	2.5	0.7	266	2.9	344	6.6	346	2.5	12	344	2.5	207.675	-H850	063-42	150
6.3	361	0.9	0.7	278	2.8	359	6.3	361	0.9	11	359	0.9	216.683	-H320	063-42	132
6.2	369	1.4	0.7	284	2.7	367	6.2	369	1.4	11	367	1.4	221.794	-H600	063-42	144
6.1	373	1.2	0.6	287	2.7	371	6.1	373	1.2	11	371	1.2	223.833	-H450	063-42	136
5.9	386	2.2	0.6	298	2.6	384	5.9	386	2.2	11	384	2.2	232.050	-H850	063-42	150
5.5	413	1.1	0.6	318	2.4	411	5.5	413	1.1	10	411	1.1	248.200	-H450	063-42	136
5.5	415	1.4	0.6	319	2.4	412	5.5	415	1.4	10	412	1.4	249.089	-H600	063-42	144
4.9	467	1.0	0.5	360	2.1	464	4.9	467	1.0	8.8	464	1.0	280.500	-H450	063-42	136

# g500-H helical geared motors

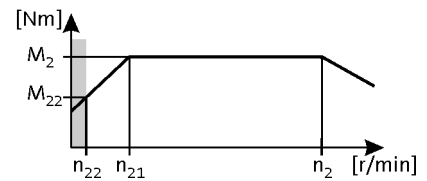


## Technical data

### Selection tables, 4-pole motors

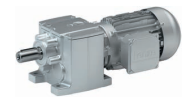
50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
543	6.0	2.9	56	4.9	231	6.0	543	6.0	2.9	970	6.0	2.4	2.597	-H45	071-32	117
432	8.0	4.9	44	6.1	184	8.0	432	8.0	4.9	771	8.0	4.1	3.267	-H140	071-32	124
420	8.0	4.9	43	6.3	179	8.0	420	8.0	4.9	751	8.0	4.1	3.354	-H100	071-32	120
413	8.0	2.3	43	6.4	176	8.0	413	8.0	2.3	738	8.0	1.9	3.413	-H45	071-32	117
323	11	2.0	33	8.2	137	11	323	11	2.0	577	11	1.7	4.368	-H45	071-32	117
315	11	4.9	32	8.4	134	11	315	11	4.9	563	11	4.1	4.480	-H140	071-32	124
307	11	4.9	32	8.6	130	11	307	11	4.9	548	11	4.1	4.600	-H100	071-32	120
273	13	4.9	28	9.7	116	13	273	13	4.9	488	13	4.1	5.167	-H100	071-32	120
265	13	2.1	27	9.9	113	13	265	13	2.1	474	13	1.8	5.312	-H45	071-32	117
246	14	4.5	25	11	105	14	246	14	4.5	440	14	3.8	5.733	-H140	071-32	124
240	14	4.5	25	11	102	14	240	14	4.5	428	14	3.8	5.887	-H100	071-32	120
236	15	2.0	24	11	101	14	236	15	2.0	422	14	1.7	5.965	-H45	071-32	117
225	15	4.5	23	12	96	15	225	15	4.5	402	15	3.8	6.272	-H140	071-32	124
219	16	4.5	23	12	93	16	219	16	4.5	391	16	3.8	6.440	-H100	071-32	120
202	17	1.8	21	13	86	17	202	17	1.8	361	17	1.5	6.982	-H45	071-32	117
199	17	4.9	21	13	85	17	199	17	4.9	356	17	4.1	7.086	-H100	071-32	120
194	18	4.9	20	14	83	18	194	18	4.9	347	18	4.1	7.269	-H140	071-32	124
180	19	1.7	19	15	77	19	180	19	1.7	321	19	1.4	7.840	-H45	071-32	117
176	19	4.2	18	15	75	19	176	19	4.2	315	19	3.5	8.000	-H140	071-32	124
172	20	4.2	18	15	73	20	172	20	4.2	307	20	3.5	8.214	-H100	071-32	120
158	22	1.5	16	17	67	22	158	22	1.5	282	22	1.3	8.935	-H45	071-32	117
156	22	4.9	16	17	67	22	156	22	4.9	279	22	4.1	9.029	-H140	071-32	124
156	22	4.4	16	17	66	22	156	22	4.4	278	22	3.7	9.068	-H100	071-32	120
144	24	3.7	15	18	61	24	144	24	3.7	257	24	3.2	9.800	-H140	071-32	124
141	24	1.4	15	19	60	24	141	24	1.4	251	24	1.2	10.033	-H45	071-32	117
140	24	3.7	14	19	60	24	140	24	3.7	250	24	3.2	10.063	-H100	071-32	120
132	26	4.9	14	20	56	26	132	26	4.9	235	26	4.1	10.720	-H210	071-32	128
124	28	3.6	13	21	53	28	124	28	3.6	222	28	3.1	11.360	-H100	071-32	120
123	28	1.3	13	21	53	28	123	28	1.3	221	28	1.1	11.429	-H45	071-32	117
122	28	4.5	13	22	52	28	122	28	4.5	218	28	3.8	11.554	-H140	071-32	124
121	28	4.9	12	22	51	28	121	28	4.9	216	28	4.1	11.680	-H320	071-32	132
118	29	4.9	12	23	50	29	118	29	4.9	210	29	4.1	12.000	-H210	071-32	128
112	31	4.3	12	24	48	31	112	31	4.3	199	31	3.6	12.640	-H140	071-32	124
111	31	3.3	12	24	47	31	111	31	3.3	199	31	2.7	12.653	-H100	071-32	120
110	31	1.2	11	24	47	31	110	31	1.2	196	31	1.0	12.833	-H45	071-32	117

# g500-H helical geared motors

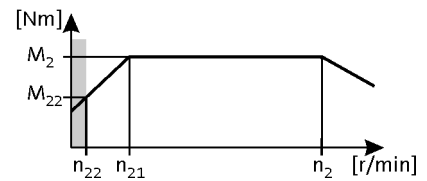


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
106	32	4.9	11	25	45	32	106	32	4.9	190	32	4.1	13.268	-H320	071-32	132
103	33	4.5	11	26	44	33	103	33	4.5	184	33	3.8	13.673	-H210	071-32	128
101	34	4.0	10	26	43	34	101	34	4.0	181	34	3.4	13.957	-H140	071-32	124
97	35	2.8	10	27	41	35	97	35	2.8	174	35	2.4	14.490	-H100	071-32	120
95	36	1.1	9.8	28	40	36	95	36	1.1	170	36	0.9	14.836	-H45	071-32	117
95	36	4.5	9.7	28	40	36	95	36	4.5	169	36	3.8	14.898	-H320	071-32	132
92	37	4.5	9.5	29	39	37	92	37	4.5	165	37	3.8	15.306	-H210	071-32	128
91	38	2.7	9.4	29	39	38	91	38	2.7	163	38	2.2	15.500	-H100	071-32	120
88	39	3.6	9.0	30	37	39	88	39	3.6	156	39	3.0	16.122	-H140	071-32	124
85	41	1.0	8.7	31	36	40	85	41	1.0	151	40	1.0	16.660	-H45	071-32	117
83	41	4.5	8.6	32	36	41	83	41	4.5	149	41	3.8	16.923	-H320	071-32	132
79	43	2.3	8.2	33	34	43	79	43	2.3	142	43	2.0	17.750	-H100	071-32	120
79	43	3.2	8.1	33	34	43	79	43	3.2	142	43	2.7	17.802	-H140	071-32	124
74	46	0.9	7.6	36	32	46	74	46	0.9	133	46	0.9	19.013	-H45	071-32	117
72	47	2.1	7.4	37	31	47	72	47	2.1	129	47	1.8	19.486	-H100	071-32	120
71	48	2.9	7.3	37	30	48	71	48	2.9	128	48	2.5	19.750	-H140	071-32	124
66	52	0.9	6.8	40	28	52	66	52	0.9	118	52	0.8	21.350	-H45	071-32	117
65	53	3.7	6.7	41	28	53	65	53	3.7	116	53	3.2	21.802	-H210	071-32	128
65	53	2.6	6.6	41	28	53	65	53	2.6	116	53	2.2	21.808	-H140	071-32	124
63	54	1.8	6.5	42	27	54	63	54	1.8	113	54	1.6	22.314	-H100	071-32	120
59	58	3.7	6.1	45	25	58	59	58	3.7	106	58	3.2	23.754	-H320	071-32	132
58	59	3.5	5.9	46	25	59	58	59	3.5	103	59	3.0	24.405	-H210	071-32	128
57	60	2.3	5.8	47	24	60	57	60	2.3	102	60	2.0	24.829	-H140	071-32	124
56	61	1.6	5.8	47	24	61	56	61	1.6	100	61	1.4	25.095	-H100	071-32	120
52	66	3.7	5.4	51	22	65	52	66	3.7	93	65	3.6	26.983	-H320	071-32	132
52	66	3.2	5.3	51	22	66	52	66	3.2	93	66	3.0	27.119	-H210	071-32	128
51	67	2.1	5.3	51	22	67	51	67	2.1	92	67	2.0	27.415	-H140	071-32	124
49	70	1.4	5.0	54	21	70	49	70	1.4	88	70	1.4	28.738	-H100	071-32	120
48	72	3.2	4.9	55	20	72	48	72	3.2	85	72	3.0	29.548	-H320	071-32	132
46	74	2.9	4.8	57	20	74	46	74	2.9	83	74	2.7	30.357	-H210	071-32	128
44	77	1.3	4.6	60	19	77	44	77	1.3	79	77	1.2	31.805	-H100	071-32	120
44	78	1.8	4.5	60	19	78	44	78	1.8	79	78	1.7	31.976	-H140	071-32	124
42	82	3.2	4.3	63	18	81	42	82	3.2	75	81	3.0	33.564	-H320	071-32	132
40	85	2.5	4.1	66	17	85	40	85	2.5	72	85	2.4	35.095	-H210	071-32	128
40	86	1.6	4.1	66	17	86	40	86	1.6	71	86	1.6	35.308	-H140	071-32	124

# g500-H helical geared motors

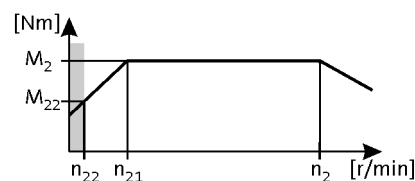


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes

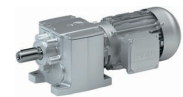


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	
40	87	3.2	4.1	67	17	87	40	87	3.2	71	87	3.0	35.689	-H450	071-32	136
39	89	1.1	4.0	68	17	88	39	89	1.1	69	88	1.1	36.422	-H100	071-32	120
37	93	2.7	3.8	72	16	93	37	93	2.7	66	93	2.6	38.238	-H320	071-32	132
36	96	2.2	3.7	74	15	95	36	96	2.2	64	95	2.1	39.286	-H210	071-32	128
35	97	1.0	3.6	75	15	97	35	97	1.0	63	97	1.0	39.857	-H100	071-32	120
35	98	3.2	3.6	76	15	98	35	98	3.2	63	98	3.2	40.333	-H450	071-32	136
35	99	1.4	3.6	76	15	98	35	99	1.4	62	98	1.4	40.526	-H140	071-32	124
35	99	3.2	3.6	76	15	98	35	99	3.2	62	98	3.2	40.578	-H600	071-32	144
33	104	1.8	3.4	80	14	103	33	104	1.8	59	103	1.8	42.593	-H210	071-32	128
33	105	2.8	3.3	81	14	105	33	105	2.8	58	105	2.8	43.313	-H450	071-32	136
33	106	2.7	3.3	81	14	105	33	106	2.7	58	105	2.7	43.436	-H320	071-32	132
32	109	1.3	3.2	84	13	109	32	109	1.3	56	109	1.3	44.748	-H140	071-32	124
31	111	3.2	3.2	85	13	111	31	111	3.2	55	111	3.2	45.571	-H600	071-32	144
31	111	0.9	3.2	85	13	111	31	111	0.9	55	111	0.9	45.643	-H100	071-32	120
30	113	1.9	3.1	87	13	113	30	113	1.9	54	113	1.9	46.407	-H320	071-32	132
30	116	1.8	3.0	89	13	116	30	116	1.8	53	116	1.8	47.679	-H210	071-32	128
29	119	2.8	3.0	92	12	119	29	119	2.8	52	119	2.8	48.950	-H450	071-32	136
29	120	2.8	2.9	92	12	119	29	120	2.8	51	119	2.8	49.247	-H600	071-32	144
28	123	1.1	2.9	95	12	123	28	123	1.1	50	123	1.1	50.786	-H140	071-32	124
27	128	1.9	2.8	99	11	128	27	128	1.9	48	128	1.9	52.715	-H320	071-32	132
26	132	1.0	2.7	102	11	132	26	132	1.0	46	132	1.0	54.438	-H210	071-32	128
26	133	2.1	2.6	103	11	133	26	133	2.1	46	133	2.1	54.750	-H450	071-32	136
26	134	2.8	2.6	104	11	134	26	134	2.8	46	134	2.8	55.307	-H600	071-32	144
25	136	1.0	2.6	105	11	136	25	136	1.0	45	136	1.0	56.077	-H140	071-32	124
23	148	1.1	2.4	114	9.8	148	23	148	1.1	41	148	1.1	60.938	-H210	071-32	128
23	150	2.0	2.3	116	9.7	150	23	150	2.0	41	150	2.0	61.875	-H450	071-32	136
23	151	2.2	2.3	117	9.6	151	23	151	2.2	41	151	2.3	62.250	-H600	071-32	144
20	170	2.2	2.1	131	8.6	170	20	170	2.2	36	170	2.3	69.911	-H600	071-32	144

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	
33	104	2.0	3.3	80	14	104	33	104	2.0	58	104	1.7	43.390	-H210	071-32	128
32	105	4.9	3.3	81	14	104	32	105	4.9	58	104	4.1	43.676	-H600	071-32	144
32	106	4.3	3.3	81	14	105	32	106	4.3	57	105	3.6	44.124	-H450	071-32	136
30	113	2.8	3.1	87	13	113	30	113	2.8	53	113	2.7	47.276	-H320	071-32	132
29	116	1.8	3.0	90	12	116	29	116	1.8	52	116	1.7	48.571	-H210	071-32	128
29	117	4.9	3.0	90	12	117	29	117	4.9	51	117	4.7	49.051	-H600	071-32	144
28	119	3.8	2.9	92	12	119	28	119	3.8	51	119	3.6	49.867	-H450	071-32	136

# g500-H helical geared motors

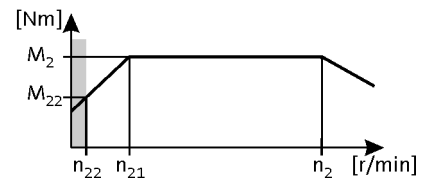


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
26	129	2.5	2.7	99	11	128	26	129	2.5	47	128	2.4	53.703	-H320	071-32	132
25	133	1.6	2.6	102	11	133	25	133	1.6	45	133	1.5	55.529	-H210	071-32	128
25	133	4.5	2.6	103	11	133	25	133	4.5	45	133	4.3	55.710	-H600	071-32	144
25	135	3.3	2.6	104	11	135	25	135	3.3	45	135	3.2	56.469	-H450	071-32	136
23	145	2.2	2.4	112	9.9	145	23	145	2.2	42	145	2.1	60.502	-H320	071-32	132
23	148	3.0	2.3	114	9.7	148	23	148	3.0	41	148	2.9	61.774	-H450	071-32	136
23	149	1.4	2.3	115	9.7	149	23	149	1.4	41	149	1.4	62.160	-H210	071-32	128
23	150	4.0	2.3	115	9.6	150	23	150	4.0	40	150	3.8	62.566	-H600	071-32	144
21	165	1.9	2.1	127	8.7	164	21	165	1.9	37	164	1.9	68.726	-H320	071-32	132
20	167	2.7	2.1	129	8.6	167	20	167	2.7	36	167	2.6	69.813	-H450	071-32	136
20	170	1.2	2.0	131	8.4	170	20	170	1.2	36	170	1.2	71.026	-H210	071-32	128
18	185	1.7	1.9	143	7.8	185	18	185	1.7	33	185	1.7	77.387	-H320	071-32	132
18	189	2.4	1.8	145	7.6	188	18	189	2.4	32	188	2.3	78.794	-H450	071-32	136
18	190	1.1	1.8	147	7.5	190	18	190	1.1	32	190	1.1	79.507	-H210	071-32	128
16	211	1.5	1.6	162	6.8	210	16	211	1.5	29	210	1.5	87.906	-H320	071-32	132
16	213	2.8	1.6	164	6.8	212	16	213	2.8	28	212	2.8	88.826	-H600	071-32	144
16	213	2.1	1.6	164	6.7	213	16	213	2.1	28	213	2.1	89.048	-H450	071-32	136
15	221	1.0	1.6	170	6.5	220	15	221	1.0	27	220	1.0	92.205	-H210	071-32	128
15	231	2.0	1.5	178	6.2	231	15	231	2.0	26	231	2.0	96.522	-H450	071-32	136
14	239	2.5	1.5	184	6.0	238	14	239	2.5	25	238	2.5	99.757	-H600	071-32	144
14	241	1.3	1.4	185	6.0	240	14	241	1.3	25	240	1.3	100.462	-H320	071-32	132
14	247	0.9	1.4	190	5.8	247	14	247	0.9	24	247	0.9	103.214	-H210	071-32	128
13	261	1.7	1.3	201	5.5	261	13	261	1.7	23	261	1.7	109.083	-H450	071-32	136
13	265	2.3	1.3	204	5.4	264	13	265	2.3	23	264	2.3	110.491	-H600	071-32	144
12	273	1.2	1.3	210	5.3	273	12	273	1.2	22	273	1.2	114.118	-H320	071-32	132
12	291	1.6	1.2	224	4.9	290	12	291	1.6	21	290	1.6	121.342	-H450	071-32	136
11	297	2.0	1.2	229	4.8	297	11	297	2.0	20	297	2.0	124.088	-H600	071-32	144
11	308	1.0	1.1	237	4.7	308	11	308	1.0	20	308	1.0	128.743	-H320	071-32	132
10	324	2.6	1.1	250	4.4	324	10	324	2.6	19	324	2.6	135.373	-H850	071-32	150
10	328	1.4	1.1	253	4.4	328	10	328	1.4	18	328	1.4	137.133	-H450	071-32	136
9.9	342	1.8	1.0	264	4.2	342	9.9	342	1.8	18	342	1.8	142.988	-H600	071-32	144
9.6	350	0.9	1.0	270	4.1	350	9.6	350	0.9	17	350	0.9	146.244	-H320	071-32	132
9.3	362	2.4	1.0	279	4.0	362	9.3	362	2.4	17	362	2.4	151.262	-H850	071-32	150
9.0	374	1.2	0.9	288	3.8	374	9.0	374	1.2	16	374	1.2	156.274	-H450	071-32	136
8.8	385	1.6	0.9	296	3.7	384	8.8	385	1.6	16	384	1.6	160.585	-H600	071-32	144



# g500-H helical geared motors

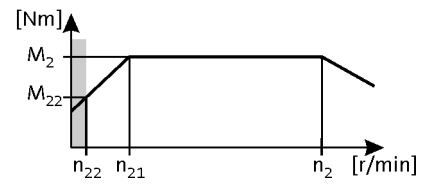


Technical data

## Selection tables, 4-pole motors

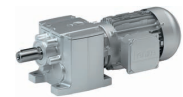
50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
8.6	393	2.2	0.9	303	3.7	393	8.6	393	2.2	15	393	2.2	164.294	-H850	071-32	150
8.1	416	1.4	0.8	320	3.5	415	8.1	416	1.4	15	415	1.5	173.536	-H600	071-32	144
8.0	423	1.1	0.8	326	3.4	422	8.0	423	1.1	14	422	1.1	176.611	-H450	071-32	136
7.7	440	1.9	0.8	339	3.3	439	7.7	440	1.9	14	439	1.9	183.577	-H850	071-32	150
7.2	467	1.3	0.7	359	3.1	466	7.2	467	1.3	13	466	1.3	194.892	-H600	071-32	144
7.1	474	1.0	0.7	365	3.0	473	7.1	474	1.0	13	473	1.0	198.059	-H450	071-32	136
6.8	497	1.7	0.7	383	2.9	496	6.8	497	1.7	12	496	1.7	207.675	-H850	071-32	150
6.4	531	1.1	0.7	409	2.7	530	6.4	531	1.1	11	530	1.1	221.794	-H600	071-32	144
6.3	536	0.8	0.6	413	2.7	535	6.3	536	0.8	11	535	0.8	223.833	-H450	071-32	136
6.1	556	1.5	0.6	428	2.6	555	6.1	556	1.5	11	555	1.5	232.050	-H850	071-32	150
5.7	597	1.0	0.6	459	2.4	595	5.7	597	1.0	10	595	1.0	249.089	-H600	071-32	144

# g500-H helical geared motors

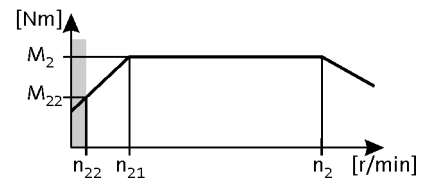


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
541	9.0	1.9	56	7.3	231	10	541	9.0	1.9	968	10	1.6	2.597	-H45	071-42	117
430	12	4.5	44	9.1	184	12	430	12	4.5	770	12	3.8	3.267	-H140	071-42	124
419	12	4.5	43	9.4	179	12	419	12	4.5	750	12	3.8	3.354	-H100	071-42	120
415	12	5.1	43	9.5	177	12	415	12	5.1	742	12	4.3	3.389	-H210	071-42	128
415	12	5.1	43	9.5	177	12	415	12	5.1	742	12	4.3	3.389	-H320	071-42	132
412	12	1.5	43	9.5	176	12	412	12	1.5	737	13	1.3	3.413	-H45	071-42	117
322	16	1.3	33	12	137	16	322	16	1.3	576	16	1.1	4.368	-H45	071-42	117
314	16	4.5	32	13	134	16	314	16	4.5	561	17	3.8	4.480	-H140	071-42	124
305	17	4.3	32	13	130	17	305	17	4.3	547	17	3.6	4.600	-H100	071-42	120
272	19	4.0	28	14	116	19	272	19	4.0	487	19	3.3	5.167	-H100	071-42	120
265	19	1.4	27	15	113	19	265	19	1.4	473	20	1.2	5.312	-H45	071-42	117
252	20	5.1	26	16	108	20	252	20	5.1	450	21	4.3	5.583	-H210	071-42	128
245	21	4.2	25	16	105	21	245	21	4.2	439	21	3.5	5.733	-H140	071-42	124
239	21	3.8	25	16	102	21	239	21	3.8	427	22	3.1	5.887	-H100	071-42	120
236	22	1.3	24	17	101	22	236	22	1.3	422	22	1.1	5.965	-H45	071-42	117
231	22	5.1	24	17	99	22	231	22	5.1	413	22	4.3	6.083	-H320	071-42	132
225	23	5.1	23	18	96	23	225	23	5.1	402	23	4.3	6.250	-H210	071-42	128
224	23	4.2	23	18	96	23	224	23	4.2	401	23	3.5	6.272	-H140	071-42	124
218	23	3.6	23	18	93	23	218	23	3.6	391	24	2.9	6.440	-H100	071-42	120
203	25	5.1	21	19	87	25	203	25	5.1	364	25	4.3	6.910	-H320	071-42	132
201	25	1.2	21	20	86	25	201	25	1.2	360	26	1.0	6.982	-H45	071-42	117
198	26	3.4	21	20	85	26	198	26	3.4	355	26	2.8	7.086	-H100	071-42	120
193	26	4.0	20	20	83	26	193	26	4.0	346	27	3.3	7.269	-H140	071-42	124
179	28	1.1	19	22	77	28	179	28	1.1	321	29	0.9	7.840	-H45	071-42	117
176	29	3.8	18	22	75	29	176	29	3.8	314	29	3.2	8.000	-H140	071-42	124
171	30	3.1	18	23	73	30	171	30	3.1	306	30	2.6	8.214	-H100	071-42	120
157	32	1.0	16	25	67	32	157	32	1.0	282	33	0.8	8.935	-H45	071-42	117
156	33	3.6	16	25	67	33	156	33	3.6	279	33	3.0	9.029	-H140	071-42	124
155	33	2.9	16	25	66	33	155	33	2.9	277	33	2.4	9.068	-H100	071-42	120
143	36	4.5	15	27	61	36	143	36	4.5	257	36	3.7	9.799	-H210	071-42	128
143	36	3.4	15	27	61	36	143	36	3.4	257	36	2.8	9.800	-H140	071-42	124
140	36	1.0	15	28	60	36	140	36	1.0				10.033	-H45	071-42	117
140	36	2.7	14	28	60	36	140	36	2.7	250	37	2.3	10.063	-H100	071-42	120
132	39	4.5	14	30	56	39	132	39	4.5	236	39	3.7	10.677	-H320	071-42	132
131	39	4.5	14	30	56	39	131	39	4.5	235	39	3.8	10.720	-H210	071-42	128

# g500-H helical geared motors

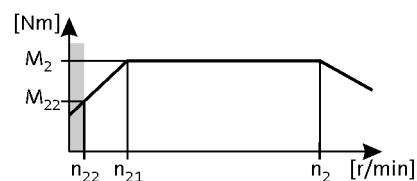


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
124	41	2.4	13	32	53	41	124	41	2.4	221	42	2.0	11.360	-H100	071-42	120
123	41	0.8	13	32	53	41	123	41	0.8				11.429	-H45	071-42	117
122	42	3.1	13	32	52	42	122	42	3.1	218	43	2.5	11.554	-H140	071-42	124
120	42	4.5	12	33	51	42	120	42	4.5	215	43	3.8	11.680	-H320	071-42	132
117	44	4.3	12	34	50	44	117	44	4.3	210	44	3.5	12.000	-H210	071-42	128
116	44	4.5	12	34	50	44	116	44	4.5	207	45	3.7	12.128	-H320	071-42	132
111	46	2.9	12	35	48	46	111	46	2.9	199	47	2.4	12.640	-H140	071-42	124
111	46	2.2	12	35	47	46	111	46	2.2	199	47	1.8	12.653	-H100	071-42	120
110	47	0.8	11	36	47	47	110	47	0.8				12.833	-H45	071-42	117
106	48	4.5	11	37	45	48	106	48	4.5	190	49	3.8	13.268	-H320	071-42	132
103	50	4.1	11	38	44	50	103	50	4.1	184	50	3.4	13.673	-H210	071-42	128
101	50	4.5	10	39	43	50	101	50	4.5	181	51	3.7	13.905	-H450	071-42	136
101	51	2.7	10	39	43	51	101	51	2.7	180	51	2.2	13.957	-H140	071-42	124
97	53	1.9	10	41	41	53	97	53	1.9	174	53	1.6	14.490	-H100	071-42	120
94	54	4.2	9.7	42	40	54	94	54	4.2	169	55	3.5	14.898	-H320	071-42	132
92	56	3.6	9.5	43	39	56	92	56	3.6	164	56	3.0	15.306	-H210	071-42	128
91	56	1.8	9.4	43	39	56	91	56	1.8	162	57	1.5	15.500	-H100	071-42	120
89	57	4.5	9.2	44	38	57	89	57	4.5	160	58	3.7	15.714	-H450	071-42	136
89	57	4.5	9.2	44	38	57	89	57	4.5	159	58	3.7	15.810	-H600	071-42	144
87	58	2.4	9.0	45	37	58	87	58	2.4	156	59	2.0	16.122	-H140	071-42	124
84	61	3.5	8.7	47	36	61	84	61	3.5	150	62	2.9	16.750	-H210	071-42	128
83	61	4.2	8.6	47	36	61	83	61	4.2	149	62	3.5	16.923	-H320	071-42	132
79	64	1.6	8.2	50	34	64	79	64	1.6	142	65	1.3	17.750	-H100	071-42	120
79	64	4.5	8.2	50	34	64	79	64	4.5	142	65	3.7	17.755	-H600	071-42	144
79	65	2.2	8.1	50	34	65	79	65	2.2	141	66	1.8	17.802	-H140	071-42	124
77	66	3.7	7.9	51	33	66	77	66	3.7	138	67	3.1	18.250	-H320	071-42	132
75	68	3.1	7.7	52	32	68	75	68	3.1	134	69	2.6	18.750	-H210	071-42	128
72	71	1.4	7.4	54	31	71	72	71	1.4	129	72	1.2	19.486	-H100	071-42	120
71	72	2.0	7.3	55	30	72	71	72	2.0	127	73	1.6	19.750	-H140	071-42	124
68	75	3.7	7.0	58	29	75	68	75	3.7	121	76	3.1	20.731	-H320	071-42	132
64	79	2.7	6.7	61	28	79	64	79	2.7	115	80	2.2	21.802	-H210	071-42	128
64	79	1.8	6.6	61	28	79	64	79	1.8	115	80	1.5	21.808	-H140	071-42	124
63	80	3.7	6.5	62	27	80	63	80	3.7	113	82	3.1	22.170	-H450	071-42	136
63	81	1.2	6.5	62	27	81	63	81	1.2	113	82	1.0	22.314	-H100	071-42	120
59	86	3.4	6.1	66	25	86	59	86	3.4	106	88	2.8	23.754	-H320	071-42	132

# g500-H helical geared motors

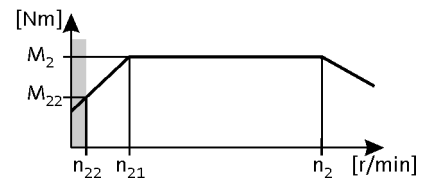


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
58	89	2.4	5.9	68	25	89	58	89	2.4	103	90	2.0	24.405	-H210	071-42	128
57	90	1.6	5.8	69	24	90	57	90	1.6	101	91	1.3	24.829	-H140	071-42	124
56	91	3.7	5.8	70	24	91	56	91	3.7	100	92	3.1	25.056	-H450	071-42	136
56	91	1.1	5.8	70	24	91	56	91	1.1	100	92	0.9	25.095	-H100	071-42	120
56	91	3.7	5.8	70	24	91	56	91	3.7	100	93	3.1	25.207	-H600	071-42	144
52	98	3.3	5.4	75	22	98	52	98	3.3	93	99	3.1	26.983	-H320	071-42	132
52	98	2.1	5.3	76	22	100	52	98	2.1	93	100	2.0	27.119	-H210	071-42	128
51	99	1.4	5.3	77	22	101	51	99	1.4	92	101	1.3	27.415	-H140	071-42	124
51	100	3.2	5.3	77	22	100	51	100	3.2	91	102	3.0	27.578	-H450	071-42	136
50	103	3.7	5.1	79	21	103	50	103	3.7	89	104	3.5	28.310	-H600	071-42	144
49	104	1.0	5.0	80	21	104	49	104	1.0	88	106	0.9	28.738	-H100	071-42	120
48	107	2.9	4.9	83	20	107	48	107	2.9	85	109	2.7	29.548	-H320	071-42	132
46	110	1.9	4.8	85	20	110	46	110	1.9	83	112	1.8	30.357	-H210	071-42	128
45	113	3.2	4.7	87	19	113	45	113	3.2	81	115	3.0	31.167	-H450	071-42	136
45	114	3.2	4.6	88	19	114	45	114	3.2	80	116	3.0	31.356	-H600	071-42	144
44	116	1.2	4.5	89	19	116	44	116	1.2	79	118	1.1	31.976	-H140	071-42	124
42	122	2.6	4.3	94	18	122	42	122	2.6	75	124	2.5	33.564	-H320	071-42	132
40	127	1.7	4.1	98	17	127	40	127	1.7	72	129	1.6	35.095	-H210	071-42	128
40	128	3.2	4.1	98	17	128	40	128	3.2	71	130	3.0	35.214	-H600	071-42	144
40	128	1.1	4.1	99	17	128	40	128	1.1	71	130	1.0	35.308	-H140	071-42	124
39	129	2.9	4.1	100	17	129	39	129	2.9	71	131	2.7	35.689	-H450	071-42	136
38	135	3.2	3.9	104	16	135	38	135	3.2	68	137	3.0	37.190	-H850	071-42	150
37	139	1.8	3.8	107	16	139	37	139	1.8	66	141	1.7	38.238	-H320	071-42	132
36	142	1.5	3.7	110	15	142	36	142	1.5	64	145	1.4	39.286	-H210	071-42	128
35	146	2.9	3.6	113	15	146	35	146	2.9	62	149	2.8	40.333	-H450	071-42	136
35	147	2.9	3.6	113	15	147	35	147	2.9	62	149	2.8	40.578	-H600	071-42	144
34	151	3.2	3.5	116	14	151	34	151	3.2	61	153	3.1	41.556	-H850	071-42	150
33	154	1.2	3.4	119	14	154	33	154	1.2	59	157	1.2	42.593	-H210	071-42	128
32	157	2.1	3.3	121	14	157	32	157	2.1	58	160	2.0	43.313	-H450	071-42	136
32	158	1.8	3.3	121	14	158	32	158	1.8	58	160	1.8	43.436	-H320	071-42	132
31	164	2.8	3.2	126	13	164	31	164	2.8	56	166	2.7	45.136	-H850	071-42	150
31	165	2.9	3.2	127	13	165	31	165	2.9	55	168	2.8	45.571	-H600	071-42	144
30	168	1.3	3.1	130	13	168	30	168	1.3	54	171	1.3	46.407	-H320	071-42	132
30	173	1.2	3.0	133	13	173	30	173	1.2	53	176	1.2	47.679	-H210	071-42	128
29	178	2.1	3.0	137	12	178	29	178	2.1	51	180	2.0	48.950	-H450	071-42	136

# g500-H helical geared motors

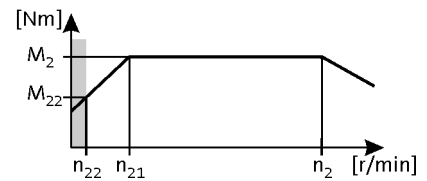


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
29	179	2.4	2.9	138	12	179	29	179	2.4	51	181	2.4	49.247	-H600	071-42	144
28	183	2.8	2.9	141	12	183	28	183	2.8	50	186	2.7	50.433	-H850	071-42	150
27	191	1.3	2.8	147	11	191	27	191	1.3	48	194	1.3	52.715	-H320	071-42	132
26	199	1.4	2.6	153	11	199	26	199	1.4	46	202	1.3	54.750	-H450	071-42	136
25	201	2.4	2.6	155	11	201	25	201	2.4	46	204	2.4	55.307	-H600	071-42	144
23	224	1.4	2.3	173	9.7	224	23	224	1.4	41	228	1.3	61.875	-H450	071-42	136
23	226	1.4	2.3	174	9.6	226	23	226	1.4	40	229	1.3	62.250	-H600	071-42	144
20	254	1.4	2.1	195	8.6	254	20	254	1.4	36	258	1.3	69.911	-H600	071-42	144

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
35	143	4.2	3.6	110	15	143	35	143	4.2	63	145	3.5	39.925	-H600	071-42	144
32	155	1.4	3.3	119	14	155	32	155	1.4	58	157	1.1	43.390	-H210	071-42	128
32	156	3.9	3.3	120	14	156	32	156	3.9	58	158	3.2	43.676	-H600	071-42	144
32	158	2.9	3.3	121	14	158	32	158	2.9	57	160	2.4	44.124	-H450	071-42	136
30	169	1.9	3.1	130	13	169	30	169	1.9	53	172	1.8	47.276	-H320	071-42	132
29	174	1.2	3.0	134	12	174	29	174	1.2	52	176	1.1	48.571	-H210	071-42	128
29	175	3.4	3.0	135	12	175	29	175	3.4	51	178	3.2	49.051	-H600	071-42	144
28	178	2.5	2.9	137	12	178	28	178	2.5	50	181	2.4	49.867	-H450	071-42	136
27	188	4.5	2.7	145	11	188	27	188	4.5	48	191	4.2	52.743	-H850	071-42	150
26	192	1.7	2.7	148	11	192	26	192	1.7	47	195	1.6	53.703	-H320	071-42	132
25	198	1.1	2.6	153	11	198	25	198	1.1	45	201	1.0	55.529	-H210	071-42	128
25	199	3.0	2.6	153	11	199	25	199	3.0	45	202	2.8	55.710	-H600	071-42	144
25	202	2.2	2.6	155	11	202	25	202	2.2	45	205	2.1	56.469	-H450	071-42	136
24	211	4.0	2.5	162	10	211	24	211	4.0	43	214	3.8	58.933	-H850	071-42	150
23	216	1.5	2.4	166	9.9	216	23	216	1.5	42	220	1.4	60.502	-H320	071-42	132
23	221	2.0	2.3	170	9.7	221	23	221	2.0	41	224	1.9	61.774	-H450	071-42	136
23	222	1.0	2.3	171	9.7	222	23	222	1.0	41	226	0.9	62.160	-H210	071-42	128
23	224	2.7	2.3	172	9.6	224	23	224	2.7	40	227	2.5	62.566	-H600	071-42	144
21	244	2.5	2.1	188	8.8	244	21	244	2.5	37	248	2.3	68.244	-H600	071-42	144
20	246	1.3	2.1	189	8.7	246	20	246	1.3	37	249	1.2	68.726	-H320	071-42	132
20	249	1.8	2.1	192	8.6	249	20	249	1.8	36	253	1.7	69.813	-H450	071-42	136
20	254	0.8	2.0	195	8.4	254	20	254	0.8				71.026	-H210	071-42	128
18	274	2.2	1.9	211	7.8	274	18	274	2.2	33	278	2.1	76.643	-H600	071-42	144
18	276	1.2	1.9	213	7.8	276	18	276	1.2	33	281	1.1	77.387	-H320	071-42	132
18	281	1.6	1.8	217	7.6	281	18	281	1.6	32	286	1.5	78.794	-H450	071-42	136
17	300	2.8	1.7	231	7.1	300	17	300	2.8	30	305	2.8	84.096	-H850	071-42	150
16	314	1.0	1.6	242	6.8	314	16	314	1.0	29	319	1.0	87.906	-H320	071-42	132

# g500-H helical geared motors

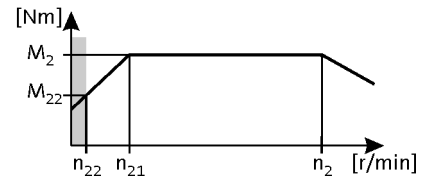


## Technical data

### Selection tables, 4-pole motors

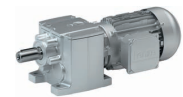
50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
16	317	1.9	1.6	244	6.8	317	16	317	1.9	28	322	1.9	88.826	-H600	071-42	144
16	318	1.4	1.6	245	6.7	318	16	318	1.4	28	323	1.4	89.048	-H450	071-42	136
15	336	2.5	1.5	259	6.4	336	15	336	2.5	27	341	2.5	93.966	-H850	071-42	150
15	345	1.3	1.5	266	6.2	345	15	345	1.3	26	350	1.3	96.522	-H450	071-42	136
14	356	1.7	1.5	274	6.0	356	14	356	1.7	25	362	1.7	99.757	-H600	071-42	144
14	359	0.9	1.4	276	6.0	359	14	359	0.9	25	365	0.9	100.462	-H320	071-42	132
13	374	2.3	1.4	288	5.7	374	13	374	2.3	24	380	2.2	104.607	-H850	071-42	150
13	390	1.2	1.3	300	5.5	390	13	390	1.2	23	396	1.1	109.083	-H450	071-42	136
13	395	1.5	1.3	304	5.4	395	13	395	1.5	23	401	1.5	110.491	-H600	071-42	144
12	418	2.0	1.2	322	5.1	418	12	418	2.0	22	424	2.0	116.884	-H850	071-42	150
12	433	1.0	1.2	334	4.9	433	12	433	1.0	21	440	1.0	121.342	-H450	071-42	136
11	443	1.4	1.2	341	4.8	443	11	443	1.4	20	450	1.3	124.088	-H600	071-42	144
10	484	1.8	1.1	372	4.4	484	10	484	1.8	19	491	1.7	135.373	-H850	071-42	150
10	490	0.9	1.1	377	4.4	490	10	490	0.9	18	498	0.9	137.133	-H450	071-42	136
9.8	511	1.2	1.0	393	4.2	511	9.8	511	1.2	18	519	1.2	142.988	-H600	071-42	144
9.3	540	1.6	1.0	416	4.0	540	9.3	540	1.6	17	549	1.6	151.262	-H850	071-42	150
9.0	558	0.8	0.9	430	3.8	558	9.0	558	0.8				156.274	-H450	071-42	136
8.7	574	1.1	0.9	442	3.7	574	8.7	574	1.1	16	583	1.0	160.585	-H600	071-42	144
8.6	587	1.5	0.9	452	3.7	587	8.6	587	1.5	15	596	1.4	164.294	-H850	071-42	150
8.1	620	1.0	0.8	477	3.5	620	8.1	620	1.0	15	630	1.0	173.536	-H600	071-42	144
7.7	653	2.3	0.8	503	3.3	653	7.7	653	2.3	14	663	2.3	182.844	-H1500	071-42	153
7.7	656	1.3	0.8	505	3.3	656	7.7	656	1.3	14	666	1.3	183.577	-H850	071-42	150
7.2	696	0.9	0.7	536	3.1	696	7.2	696	0.9	13	707	0.9	194.892	-H600	071-42	144
6.9	722	2.1	0.7	556	3.0	722	6.9	722	2.1	12	734	2.0	202.237	-H1500	071-42	153
6.8	742	1.2	0.7	571	2.9	742	6.8	742	1.2	12	754	1.1	207.675	-H850	071-42	150
6.3	793	1.9	0.7	610	2.7	793	6.3	793	1.9	11	805	1.9	221.907	-H1500	071-42	153
6.1	829	1.0	0.6	638	2.6	829	6.1	829	1.0	11	842	1.0	232.050	-H850	071-42	150
5.7	877	1.7	0.6	675	2.4	877	5.7	877	1.7	10	891	1.7	245.442	-H1500	071-42	153
5.0	1002	1.5	0.5	772	2.1	1002	5.0	1002	1.5	9.0	1018	1.5	280.500	-H1500	071-42	153
4.5	1108	1.4	0.5	853	1.9	1108	4.5	1108	1.4	8.1	1126	1.3	310.250	-H1500	071-42	153

# g500-H helical geared motors

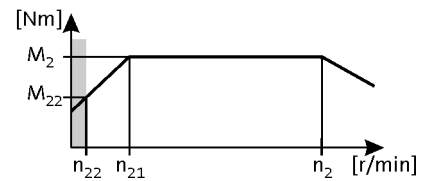


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
432	16	4.2	44	12	184	16	432	16	4.2	771	16	3.5	3.267	-H140	080-32	124
420	17	3.8	43	13	179	17	420	17	3.8	751	17	3.1	3.354	-H100	080-32	120
416	17	4.7	43	13	177	17	416	17	4.7	744	17	3.9	3.389	-H210	080-32	128
416	17	4.7	43	13	177	17	416	17	4.7	744	17	3.9	3.389	-H320	080-32	132
315	22	4.2	32	17	134	22	315	22	4.2	563	22	3.5	4.480	-H140	080-32	124
307	23	3.2	32	18	130	23	307	23	3.2	548	23	2.7	4.600	-H100	080-32	120
273	25	3.0	28	20	116	25	273	25	3.0	488	26	2.5	5.167	-H100	080-32	120
253	28	4.7	26	21	108	28	253	28	4.7	451	28	3.9	5.583	-H210	080-32	128
246	28	3.7	25	22	105	28	246	28	3.7	440	28	3.0	5.733	-H140	080-32	124
240	29	2.8	25	22	102	29	240	29	2.8	428	29	2.3	5.887	-H100	080-32	120
232	30	4.7	24	23	99	30	232	30	4.7	414	30	3.9	6.083	-H320	080-32	132
226	31	4.7	23	24	96	31	226	31	4.7	403	31	3.9	6.250	-H210	080-32	128
225	31	3.4	23	24	96	31	225	31	3.4	402	31	2.8	6.272	-H140	080-32	124
219	32	2.6	23	24	93	32	219	32	2.6	391	32	2.2	6.440	-H100	080-32	120
204	34	4.7	21	26	87	34	204	34	4.7	365	34	3.9	6.910	-H320	080-32	132
199	35	2.5	21	27	85	35	199	35	2.5	356	35	2.1	7.086	-H100	080-32	120
194	36	3.0	20	28	83	36	194	36	3.0	347	36	2.5	7.269	-H140	080-32	124
176	39	3.0	18	30	75	39	176	39	3.0	315	40	2.5	8.000	-H140	080-32	124
172	40	2.3	18	31	73	40	172	40	2.3	307	41	1.9	8.214	-H100	080-32	120
156	44	2.6	16	34	67	44	156	44	2.6	279	45	2.2	9.029	-H140	080-32	124
156	45	2.2	16	34	66	45	156	45	2.2	278	45	1.8	9.068	-H100	080-32	120
144	48	3.8	15	37	61	48	144	48	3.8	257	49	3.2	9.799	-H210	080-32	128
144	48	2.6	15	37	61	48	144	48	2.6	257	49	2.2	9.800	-H140	080-32	124
140	50	2.0	14	38	60	50	140	50	2.0	250	50	1.7	10.063	-H100	080-32	120
132	53	4.1	14	41	56	53	132	53	4.1	236	53	3.5	10.677	-H320	080-32	132
132	53	3.6	14	41	56	53	132	53	3.6	235	53	3.0	10.720	-H210	080-32	128
124	56	1.8	13	43	53	56	124	56	1.8	222	56	1.5	11.360	-H100	080-32	120
122	57	2.3	13	44	52	57	122	57	2.3	218	57	1.9	11.554	-H140	080-32	124
121	58	4.2	12	44	51	58	121	58	4.2	216	58	3.5	11.680	-H320	080-32	132
118	59	3.2	12	46	50	59	118	59	3.2	210	60	2.6	12.000	-H210	080-32	128
116	60	4.1	12	46	50	60	116	60	4.1	208	60	3.5	12.128	-H320	080-32	132
112	62	2.1	12	48	48	62	112	62	2.1	199	63	1.8	12.640	-H140	080-32	124
111	62	1.6	12	48	47	62	111	62	1.6	199	63	1.3	12.653	-H100	080-32	120
106	65	4.0	11	50	45	65	106	65	4.0	190	66	3.3	13.268	-H320	080-32	132
103	67	3.0	11	52	44	67	103	67	3.0	184	68	2.5	13.673	-H210	080-32	128

# g500-H helical geared motors

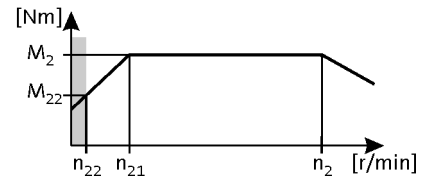


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

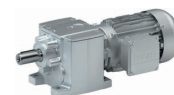
2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
101	69	4.1	10	53	43	69	101	69	4.1	181	69	3.5	13.905	-H450	080-32	136
101	69	2.0	10	53	43	69	101	69	2.0	181	69	1.7	13.957	-H140	080-32	124
97	71	1.4	10	55	41	71	97	71	1.4	174	72	1.2	14.490	-H100	080-32	120
95	73	3.9	9.7	57	40	73	95	73	3.9	169	74	3.2	14.898	-H320	080-32	132
92	75	2.7	9.5	58	39	75	92	75	2.7	165	76	2.2	15.306	-H210	080-32	128
91	76	1.3	9.4	59	39	76	91	76	1.3	163	77	1.1	15.500	-H100	080-32	120
90	77	4.1	9.2	60	38	77	90	77	4.1	160	78	3.5	15.714	-H450	080-32	136
89	78	4.1	9.2	60	38	78	89	78	4.1	159	78	3.5	15.810	-H600	080-32	144
88	79	1.8	9.0	61	37	79	88	79	1.8	156	80	1.5	16.122	-H140	080-32	124
84	83	2.5	8.7	64	36	83	84	83	2.5	150	83	2.1	16.750	-H210	080-32	128
83	83	3.4	8.6	64	36	83	83	83	3.4	149	84	2.8	16.923	-H320	080-32	132
79	87	1.1	8.2	67	34	87	79	87	1.1	142	88	1.0	17.750	-H100	080-32	120
79	88	4.1	8.2	67	34	88	79	88	4.1	142	88	3.5	17.755	-H600	080-32	144
79	88	1.6	8.1	68	34	88	79	88	1.6	142	88	1.3	17.802	-H140	080-32	124
77	90	3.4	7.9	69	33	90	77	90	3.4	138	91	2.9	18.250	-H320	080-32	132
75	92	2.3	7.7	71	32	92	75	92	2.3	134	93	1.9	18.750	-H210	080-32	128
72	96	1.0	7.4	74	31	96	72	96	1.0	129	97	0.9	19.486	-H100	080-32	120
71	97	1.4	7.3	75	30	97	71	97	1.4	128	98	1.2	19.750	-H140	080-32	124
68	102	2.9	7.0	79	29	102	68	102	2.9	122	103	2.5	20.731	-H320	080-32	132
65	107	2.0	6.7	83	28	107	65	107	2.0	116	108	1.6	21.802	-H210	080-32	128
65	107	1.3	6.6	83	28	107	65	107	1.3	116	108	1.1	21.808	-H140	080-32	124
64	109	3.4	6.5	84	27	109	64	109	3.4	114	110	2.9	22.170	-H450	080-32	136
63	110	0.9	6.5	85	27	110	63	110	0.9				22.314	-H100	080-32	120
59	117	2.7	6.1	90	25	117	59	117	2.7	106	118	2.3	23.754	-H320	080-32	132
58	120	1.8	5.9	93	25	120	58	120	1.8	103	121	1.5	24.405	-H210	080-32	128
57	122	1.1	5.8	94	24	122	57	122	1.1	102	123	1.0	24.829	-H140	080-32	124
56	123	3.4	5.8	95	24	123	56	123	3.4	101	124	2.9	25.056	-H450	080-32	136
56	124	0.8	5.8	95	24	124	56	124	0.8				25.095	-H100	080-32	120
56	124	3.4	5.8	96	24	124	56	124	3.4	100	125	2.9	25.207	-H600	080-32	144
52	133	2.4	5.4	102	22	133	52	133	2.4	93	134	2.3	26.983	-H320	080-32	132
52	134	1.6	5.3	103	22	134	52	134	1.6	93	135	1.5	27.119	-H210	080-32	128
51	135	1.0	5.3	104	22	135	51	135	1.0	92	136	1.0	27.415	-H140	080-32	124
51	136	2.9	5.3	105	22	136	51	136	2.9	91	137	2.8	27.578	-H450	080-32	136
50	140	3.4	5.1	107	21	140	50	140	3.4	89	141	3.3	28.310	-H600	080-32	144
48	146	2.2	4.9	112	20	146	48	146	2.2	85	147	2.1	29.548	-H320	080-32	132



# g500-H helical geared motors

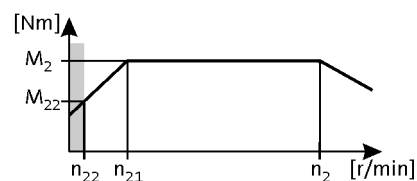


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

2-stage gearboxes



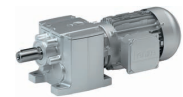
Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
46	150	1.4	4.8	115	20	150	46	150	1.4	83	151	1.3	30.357	-H210	080-32	128
45	154	2.9	4.7	118	19	154	45	154	2.9	81	155	2.8	31.167	-H450	080-32	136
45	155	2.9	4.6	119	19	155	45	155	2.9	80	156	2.8	31.356	-H600	080-32	144
44	158	0.9	4.5	121	19	158	44	158	0.9	79	159	0.8	31.976	-H140	080-32	124
42	165	1.9	4.3	127	18	165	42	165	1.9	75	167	1.8	33.564	-H320	080-32	132
40	173	1.2	4.1	133	17	173	40	173	1.2	72	174	1.2	35.095	-H210	080-32	128
40	174	2.9	4.1	134	17	174	40	174	2.9	72	175	2.8	35.214	-H600	080-32	144
40	176	2.6	4.1	135	17	176	40	176	2.6	71	177	2.4	35.689	-H450	080-32	136
38	183	2.9	3.9	141	16	183	38	183	2.9	68	185	2.8	37.190	-H850	080-32	150
37	188	1.3	3.8	145	16	188	37	188	1.3	66	190	1.3	38.238	-H320	080-32	132
36	194	1.1	3.7	149	15	194	36	194	1.1	64	195	1.0	39.286	-H210	080-32	128
35	199	2.3	3.6	153	15	199	35	199	2.3	63	200	2.3	40.333	-H450	080-32	136
35	200	2.6	3.6	154	15	200	35	200	2.6	62	201	2.6	40.578	-H600	080-32	144
34	205	2.9	3.5	158	14	205	34	205	2.9	61	206	2.9	41.556	-H850	080-32	150
33	210	0.9	3.4	162	14	210	33	210	0.9	59	211	0.9	42.593	-H210	080-32	128
33	213	1.5	3.3	164	14	213	33	213	1.5	58	215	1.5	43.313	-H450	080-32	136
33	214	1.3	3.3	165	14	214	33	214	1.3	58	216	1.3	43.436	-H320	080-32	132
31	222	2.6	3.2	171	13	222	31	222	2.6	56	224	2.5	45.136	-H850	080-32	150
31	225	2.6	3.2	173	13	225	31	225	2.6	55	226	2.6	45.571	-H600	080-32	144
30	229	1.0	3.1	176	13	229	30	229	1.0	54	230	1.0	46.407	-H320	080-32	132
30	235	0.9	3.0	181	13	235	30	235	0.9	53	237	0.9	47.679	-H210	080-32	128
29	241	1.5	3.0	186	12	241	29	241	1.5	52	243	1.5	48.950	-H450	080-32	136
29	243	1.9	2.9	187	12	243	29	243	1.9	51	244	1.9	49.247	-H600	080-32	144
28	249	2.6	2.9	191	12	249	28	249	2.6	50	250	2.5	50.433	-H850	080-32	150
27	260	1.0	2.8	200	11	260	27	260	1.0	48	262	1.0	52.715	-H320	080-32	132
26	270	1.0	2.6	208	11	270	26	270	1.0	46	272	1.0	54.750	-H450	080-32	136
26	273	1.9	2.6	210	11	273	26	273	1.9	46	275	1.9	55.307	-H600	080-32	144
23	305	1.0	2.3	235	9.7	305	23	305	1.0	41	307	1.0	61.875	-H450	080-32	136
23	307	1.2	2.3	236	9.6	307	23	307	1.2	41	309	1.2	62.250	-H600	080-32	144
20	345	1.2	2.1	265	8.6	345	20	345	1.2	36	347	1.2	69.911	-H600	080-32	144

6.3

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
35	194	3.1	3.6	149	15	194	35	194	3.1	63	195	2.6	39.925	-H600	080-32	144
33	211	1.0	3.3	162	14	211	33	211	1.0	58	212	0.8	43.390	-H210	080-32	128
32	212	2.8	3.3	163	14	212	32	212	2.8	58	214	2.4	43.676	-H600	080-32	144
32	214	2.1	3.3	165	14	214	32	214	2.1	57	216	1.8	44.124	-H450	080-32	136
30	229	1.4	3.1	177	13	229	30	229	1.4	53	231	1.3	47.276	-H320	080-32	132

# g500-H helical geared motors

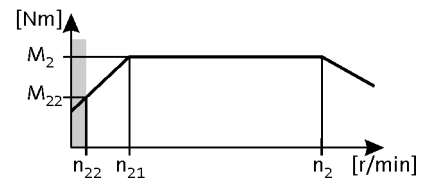


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
29	236	0.9	3.0	182	12	236	29	236	0.9	52	237	0.9	48.571	-H210	080-32	128
29	238	2.5	3.0	183	12	238	29	238	2.5	51	240	2.4	49.051	-H600	080-32	144
28	242	1.9	2.9	186	12	242	28	242	1.9	51	244	1.8	49.867	-H450	080-32	136
27	256	3.3	2.7	197	11	256	27	256	3.3	48	258	3.2	52.743	-H850	080-32	150
26	261	1.2	2.7	201	11	261	26	261	1.2	47	263	1.2	53.703	-H320	080-32	132
25	270	2.2	2.6	208	11	270	25	270	2.2	45	272	2.1	55.710	-H600	080-32	144
25	274	1.6	2.6	211	11	274	25	274	1.6	45	276	1.6	56.469	-H450	080-32	136
24	286	3.0	2.5	220	10	286	24	286	3.0	43	288	2.8	58.933	-H850	080-32	150
23	294	1.1	2.4	226	9.9	294	23	294	1.1	42	296	1.0	60.502	-H320	080-32	132
23	300	1.5	2.3	231	9.7	300	23	300	1.5	41	302	1.4	61.774	-H450	080-32	136
23	304	2.0	2.3	234	9.6	304	23	304	2.0	40	306	1.9	62.566	-H600	080-32	144
21	331	1.8	2.1	255	8.8	331	21	331	1.8	37	334	1.7	68.244	-H600	080-32	144
21	334	1.0	2.1	257	8.7	334	21	334	1.0	37	336	0.9	68.726	-H320	080-32	132
20	339	1.3	2.1	261	8.6	339	20	339	1.3	36	341	1.3	69.813	-H450	080-32	136
18	372	1.6	1.9	286	7.8	372	18	372	1.6	33	375	1.5	76.643	-H600	080-32	144
18	376	0.9	1.9	289	7.8	376	18	376	0.9	33	378	0.8	77.387	-H320	080-32	132
18	382	1.2	1.8	294	7.6	382	18	382	1.2	32	385	1.1	78.794	-H450	080-32	136
17	408	2.1	1.7	314	7.1	408	17	408	2.1	30	411	2.1	84.096	-H850	080-32	150
16	431	1.4	1.6	332	6.8	431	16	431	1.4	28	434	1.4	88.826	-H600	080-32	144
16	432	1.0	1.6	333	6.7	432	16	432	1.0	28	435	1.0	89.048	-H450	080-32	136
15	456	1.9	1.5	351	6.4	456	15	456	1.9	27	459	1.9	93.966	-H850	080-32	150
15	469	1.0	1.5	361	6.2	469	15	469	1.0	26	472	1.0	96.522	-H450	080-32	136
14	484	1.2	1.5	373	6.0	484	14	484	1.2	25	488	1.2	99.757	-H600	080-32	144
14	508	1.7	1.4	391	5.7	508	14	508	1.7	24	511	1.7	104.607	-H850	080-32	150
13	530	0.9	1.3	408	5.5	530	13	530	0.9	23	533	0.8	109.083	-H450	080-32	136
13	536	1.1	1.3	413	5.4	536	13	536	1.1	23	540	1.1	110.491	-H600	080-32	144
12	567	1.5	1.2	437	5.1	567	12	567	1.5	22	571	1.5	116.884	-H850	080-32	150
11	602	1.0	1.2	464	4.8	602	11	602	1.0	20	607	1.0	124.088	-H600	080-32	144
10	657	1.3	1.1	506	4.4	657	10	657	1.3	19	662	1.3	135.373	-H850	080-32	150
9.9	694	0.9	1.0	534	4.2	694	9.9	694	0.9	18	699	0.9	142.988	-H600	080-32	144
9.3	734	1.2	1.0	565	4.0	734	9.3	734	1.2	17	740	1.2	151.262	-H850	080-32	150
8.6	798	1.1	0.9	614	3.7	798	8.6	798	1.1	15	803	1.1	164.294	-H850	080-32	150
7.7	888	1.7	0.8	683	3.3	888	7.7	888	1.7	14	894	1.7	182.844	-H1500	080-32	153
7.7	891	1.0	0.8	686	3.3	891	7.7	891	1.0	14	897	1.0	183.577	-H850	080-32	150
7.0	982	1.5	0.7	756	3.0	982	7.0	982	1.5	13	989	1.5	202.237	-H1500	080-32	153

# g500-H helical geared motors

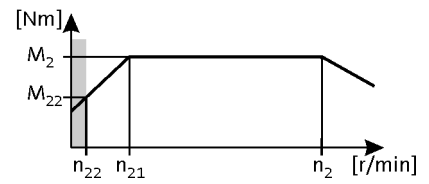
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
6.8	1008	0.8	0.7	776	2.9	1008	6.8	1008	0.8	12	1015	0.8	207.675	-H850	080-32	150
6.4	1077	1.4	0.7	829	2.7	1077	6.4	1077	1.4	11	1085	1.4	221.907	-H1500	080-32	153
5.7	1191	1.3	0.6	917	2.4	1191	5.7	1191	1.3	10	1200	1.3	245.442	-H1500	080-32	153
5.0	1362	1.1	0.5	1048	2.1	1362	5.0	1362	1.1	9.0	1371	1.1	280.500	-H1500	080-32	153
4.5	1506	1.0	0.5	1159	1.9	1506	4.5	1506	1.0	8.1	1517	1.0	310.250	-H1500	080-32	153

# g500-H helical geared motors

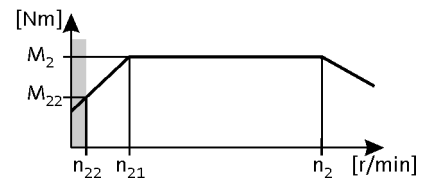


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
438	23	3.5	44	16	184	23	438	23	3.5	778	24	2.9	3.267	-H140	090-12	124
426	24	2.6	43	17	179	24	426	24	2.6	757	24	2.1	3.354	-H100	090-12	120
422	24	5.2	43	17	177	24	422	24	5.2	750	25	4.3	3.389	-H210	090-12	128
422	24	5.8	43	17	177	24	422	24	5.8	750	25	4.8	3.389	-H320	090-12	132
319	32	2.9	32	22	134	32	319	32	2.9	567	33	2.4	4.480	-H140	090-12	124
311	33	2.2	32	23	130	33	311	33	2.2	552	34	1.8	4.600	-H100	090-12	120
308	33	4.3	31	23	129	33	308	33	4.3	547	34	3.5	4.648	-H210	090-12	128
308	33	5.7	31	23	129	33	308	33	5.7	547	34	4.7	4.648	-H320	090-12	132
277	37	2.0	28	26	116	37	277	37	2.0	492	38	1.7	5.167	-H100	090-12	120
256	40	4.0	26	28	108	40	256	40	4.0	455	41	3.3	5.583	-H210	090-12	128
249	41	5.7	25	29	105	41	249	41	5.7	443	42	4.7	5.733	-H600	090-12	144
249	41	2.5	25	29	105	41	249	41	2.5	443	42	2.1	5.733	-H140	090-12	124
243	42	1.9	25	29	102	42	243	42	1.9	432	43	1.6	5.887	-H100	090-12	120
237	43	5.7	24	30	99	43	237	43	5.7	420	44	4.7	6.045	-H450	090-12	136
235	43	5.2	24	30	99	43	235	43	5.2	418	44	4.3	6.083	-H320	090-12	132
229	45	3.6	23	31	96	45	229	45	3.6	406	46	2.9	6.250	-H210	090-12	128
228	45	2.4	23	31	96	45	228	45	2.4	405	46	1.9	6.272	-H140	090-12	124
222	46	1.8	23	32	93	46	222	46	1.8	394	47	1.5	6.440	-H100	090-12	120
216	47	5.8	22	33	91	47	216	47	5.8	384	48	4.8	6.613	-H450	090-12	136
207	49	4.4	21	35	87	49	207	49	4.4	368	50	3.6	6.910	-H320	090-12	132
202	50	1.7	21	35	85	50	202	50	1.7	359	52	1.4	7.086	-H100	090-12	120
197	52	2.1	20	36	83	52	197	52	2.1	349	53	1.7	7.269	-H140	090-12	124
187	55	3.2	19	38	78	55	187	55	3.2	332	56	2.6	7.657	-H210	090-12	128
179	57	2.1	18	40	75	57	179	57	2.1	318	58	1.7	8.000	-H140	090-12	124
174	59	1.6	18	41	73	59	174	59	1.6	309	60	1.3	8.214	-H100	090-12	120
171	59	4.2	17	42	72	59	171	59	4.2	305	61	3.4	8.343	-H320	090-12	132
167	61	2.8	17	43	70	61	167	61	2.8	296	63	2.3	8.571	-H210	090-12	128
158	64	1.8	16	45	67	64	158	64	1.8	281	66	1.5	9.029	-H140	090-12	124
158	65	1.5	16	45	66	65	158	65	1.5	280	66	1.2	9.068	-H100	090-12	120
151	68	3.5	15	47	63	68	151	68	3.5	268	69	2.9	9.477	-H320	090-12	132
146	70	2.6	15	49	61	70	146	70	2.6	259	71	2.1	9.799	-H210	090-12	128
146	70	1.8	15	49	61	70	146	70	1.8	259	71	1.5	9.800	-H140	090-12	124
144	71	5.4	15	50	60	71	144	71	5.4	255	73	4.4	9.965	-H450	090-12	136
142	72	1.4	14	50	60	72	142	72	1.4	252	73	1.1	10.063	-H100	090-12	120
134	76	3.5	14	53	56	76	134	76	3.5	238	78	2.9	10.677	-H320	090-12	132

# g500-H helical geared motors

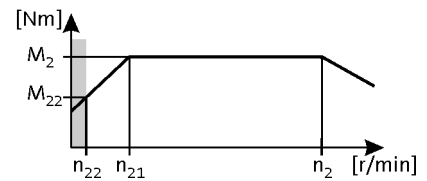


## Technical data

### Selection tables, 4-pole motors

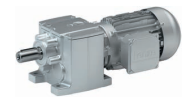
50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
133	76	2.5	14	54	56	76	133	76	2.5	237	78	2.0	10.720	-H210	090-12	128
127	80	5.0	13	56	53	80	127	80	5.0	226	82	4.1	11.262	-H450	090-12	136
126	81	5.7	13	57	53	81	126	81	5.7	224	83	4.7	11.330	-H600	090-12	144
126	81	1.2	13	57	53	81	126	81	1.2	224	83	1.0	11.360	-H100	090-12	120
124	82	1.6	13	58	52	82	124	82	1.6	220	84	1.3	11.554	-H140	090-12	124
122	83	3.3	12	58	51	83	122	83	3.3	218	85	2.7	11.680	-H320	090-12	132
119	86	2.2	12	60	50	86	119	86	2.2	212	88	1.8	12.000	-H210	090-12	128
118	86	2.9	12	61	50	86	118	86	2.9	209	88	2.4	12.128	-H320	090-12	132
116	88	4.7	12	62	49	88	116	88	4.7	206	90	3.8	12.320	-H450	090-12	136
115	88	5.8	12	62	48	88	115	88	5.8	205	90	4.8	12.395	-H600	090-12	144
113	90	1.5	12	63	48	90	113	90	1.5	201	92	1.2	12.640	-H140	090-12	124
113	90	1.1	12	63	47	90	113	90	1.1	201	92	0.9	12.653	-H100	090-12	120
108	95	2.8	11	66	45	95	108	95	2.8	191	97	2.3	13.268	-H320	090-12	132
105	97	2.1	11	68	44	100	105	97	2.1	186	100	1.7	13.673	-H210	090-12	128
103	99	4.3	10	69	43	101	103	99	4.3	183	101	3.5	13.905	-H450	090-12	136
103	99	5.8	10	69	43	102	103	99	5.8	183	102	4.8	13.920	-H600	090-12	144
103	99	1.4	10	70	43	102	103	99	1.4	182	102	1.1	13.957	-H140	090-12	124
99	103	5.7	10	72	41	103	99	103	5.7	175	106	4.7	14.490	-H850	090-12	150
99	103	1.0	10	72	41	103	99	103	1.0				14.490	-H100	090-12	120
96	106	2.8	9.7	74	40	106	96	106	2.8	171	109	2.3	14.898	-H320	090-12	132
93	109	1.8	9.5	76	39	109	93	109	1.8	166	112	1.5	15.306	-H210	090-12	128
92	110	0.9	9.4	77	39	110	92	110	0.9				15.500	-H100	090-12	120
91	112	3.9	9.2	78	38	112	91	112	3.9	162	115	3.2	15.714	-H450	090-12	136
91	113	5.3	9.2	79	38	113	91	113	5.3	161	115	4.4	15.810	-H600	090-12	144
89	115	1.2	9.0	80	37	115	89	115	1.2	158	118	1.0	16.122	-H140	090-12	124
88	115	5.7	9.0	81	37	115	88	115	5.7	157	118	4.7	16.190	-H850	090-12	150
85	119	1.8	8.7	84	36	119	85	119	1.8	152	122	1.4	16.750	-H210	090-12	128
85	121	2.3	8.6	84	36	121	85	121	2.3	150	123	1.9	16.923	-H320	090-12	132
84	121	3.7	8.5	85	35	121	84	121	3.7	149	124	3.0	17.033	-H450	090-12	136
81	127	4.7	8.2	89	34	127	81	127	4.7	143	130	3.9	17.755	-H600	090-12	144
80	127	1.1	8.1	89	34	127	80	127	1.1	143	130	0.9	17.802	-H140	090-12	124
78	130	2.4	7.9	91	33	130	78	130	2.4	139	133	2.0	18.250	-H320	090-12	132
76	134	1.6	7.7	94	32	134	76	134	1.6	136	137	1.3	18.750	-H210	090-12	128
74	137	3.3	7.5	96	31	137	74	137	3.3	132	140	2.7	19.250	-H450	090-12	136
74	138	4.4	7.5	97	31	138	74	138	4.4	131	141	3.6	19.367	-H600	090-12	144

# g500-H helical geared motors

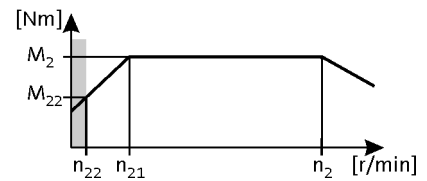


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
72	141	1.0	7.3	99	30	141	72	141	1.0	129	144	0.8	19.750	-H140	090-12	124
69	148	2.0	7.0	103	29	148	69	148	2.0	123	151	1.7	20.731	-H320	090-12	132
66	155	3.9	6.7	109	28	155	66	155	3.9	117	159	3.2	21.750	-H600	090-12	144
66	155	1.4	6.7	109	28	155	66	155	1.4	117	159	1.1	21.802	-H210	090-12	128
66	155	0.9	6.6	109	28	155	66	155	0.9				21.808	-H140	090-12	124
65	158	2.9	6.5	111	27	158	65	158	2.9	115	162	2.3	22.170	-H450	090-12	136
62	165	4.8	6.3	115	26	165	62	165	4.8	110	169	3.9	23.103	-H850	090-12	150
60	169	1.9	6.1	119	25	169	60	169	1.9	107	173	1.6	23.754	-H320	090-12	132
59	174	1.2	5.9	122	25	174	59	174	1.2	104	178	1.0	24.405	-H210	090-12	128
57	179	2.5	5.8	125	24	179	57	179	2.5	101	183	2.1	25.056	-H450	090-12	136
57	180	3.3	5.8	126	24	180	57	180	3.3	101	184	2.7	25.207	-H600	090-12	144
55	184	4.6	5.6	129	23	184	55	184	4.6	98	188	3.8	25.815	-H850	090-12	150
53	192	1.7	5.4	135	22	192	53	192	1.7	94	197	1.6	26.983	-H320	090-12	132
53	193	1.1	5.3	135	22	193	53	193	1.1	94	198	1.0	27.119	-H210	090-12	128
52	197	2.3	5.3	138	22	197	52	197	2.3	92	201	2.1	27.578	-H450	090-12	136
51	202	3.0	5.1	141	21	202	51	202	3.0	90	207	2.8	28.310	-H600	090-12	144
51	202	4.0	5.1	141	21	202	51	202	4.0	90	207	3.7	28.315	-H850	090-12	150
48	211	1.5	4.9	147	20	211	48	211	1.5	86	216	1.4	29.548	-H320	090-12	132
47	216	1.0	4.8	152	20	216	47	216	1.0	84	221	0.9	30.357	-H210	090-12	128
46	222	2.0	4.7	156	19	222	46	222	2.0	82	227	1.9	31.167	-H450	090-12	136
46	223	2.7	4.6	156	19	223	46	223	2.7	81	229	2.5	31.356	-H600	090-12	144
45	225	3.8	4.6	158	19	225	45	225	3.8	80	231	3.5	31.639	-H850	090-12	150
44	230	4.0	4.5	161	19	230	44	230	4.0	79	235	3.7	32.267	-H1500	090-12	153
43	239	1.3	4.3	168	18	239	43	239	1.3	76	245	1.3	33.564	-H320	090-12	132
41	251	2.4	4.1	176	17	251	41	251	2.4	72	257	2.2	35.214	-H600	090-12	144
40	254	1.8	4.1	178	17	254	40	254	1.8	71	260	1.7	35.689	-H450	090-12	136
40	254	4.0	4.1	178	17	254	40	254	4.0	71	260	3.7	35.689	-H1500	090-12	153
39	265	3.2	3.9	186	16	265	39	265	3.2	68	271	3.0	37.190	-H850	090-12	150
37	279	3.5	3.7	195	15	279	37	279	3.5	65	286	3.2	39.160	-H1500	090-12	153
36	287	1.6	3.6	201	15	287	36	287	1.6	63	294	1.5	40.333	-H450	090-12	136
35	289	1.9	3.6	203	15	289	35	289	1.9	63	296	1.9	40.578	-H600	090-12	144
34	296	2.9	3.5	207	14	296	34	296	2.9	61	303	2.8	41.556	-H850	090-12	150
33	309	1.0	3.3	216	14	309	33	309	1.0	59	316	1.0	43.313	-H450	090-12	136
33	309	3.5	3.3	216	14	309	33	309	3.5	59	316	3.4	43.313	-H1500	090-12	153
32	322	2.6	3.2	225	13	322	32	322	2.6	56	329	2.6	45.136	-H850	090-12	150

# g500-H helical geared motors

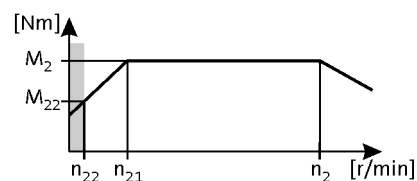


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
31	325	1.9	3.2	227	13	325	31	325	1.9	56	332	1.8	45.571	-H600	090-12	144
29	349	1.1	3.0	244	12	349	29	349	1.1	52	357	1.0	48.950	-H450	090-12	136
29	351	1.3	2.9	246	12	351	29	351	1.3	52	359	1.3	49.247	-H600	090-12	144
29	353	2.7	2.9	247	12	353	29	353	2.7	51	361	2.6	49.500	-H1500	090-12	153
28	359	2.4	2.9	252	12	359	28	359	2.4	50	368	2.3	50.433	-H850	090-12	150
26	390	2.7	2.6	273	11	390	26	390	2.7	46	399	2.6	54.750	-H1500	090-12	153
26	394	1.3	2.6	276	11	394	26	394	1.3	46	403	1.3	55.307	-H600	090-12	144

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
46	219	2.7	4.6	153	19	219	46	219	2.7	81	224	2.3	31.197	-H600	090-12	144
41	246	2.4	4.1	172	17	246	41	246	2.4	73	252	2.0	35.037	-H600	090-12	144
38	265	3.2	3.8	186	16	265	38	265	3.2	67	272	2.6	37.799	-H850	090-12	150
36	280	2.1	3.6	196	15	280	36	280	2.1	64	287	1.8	39.925	-H600	090-12	144
35	290	2.9	3.5	203	15	290	35	290	2.9	61	297	2.4	41.350	-H850	090-12	150
33	307	2.0	3.3	215	14	307	33	307	2.0	58	314	1.6	43.676	-H600	090-12	144
32	310	1.5	3.3	217	14	310	32	310	1.5	58	317	1.2	44.124	-H450	090-12	136
31	324	2.6	3.1	227	13	324	31	324	2.6	55	332	2.4	46.204	-H850	090-12	150
29	344	1.7	3.0	241	12	344	29	344	1.7	52	352	1.6	49.051	-H600	090-12	144
29	350	1.3	2.9	245	12	350	29	350	1.3	51	358	1.2	49.867	-H450	090-12	136
27	370	2.3	2.7	259	11	370	27	370	2.3	48	379	2.1	52.743	-H850	090-12	150
26	391	1.5	2.6	274	11	391	26	391	1.5	46	400	1.4	55.710	-H600	090-12	144
25	396	1.1	2.6	278	11	396	25	396	1.1	45	406	1.1	56.469	-H450	090-12	136
24	414	2.1	2.5	290	10	414	24	414	2.1	43	423	1.9	58.933	-H850	090-12	150
23	434	1.0	2.3	304	9.7	434	23	434	1.0	41	444	1.0	61.774	-H450	090-12	136
23	439	1.4	2.3	308	9.6	439	23	439	1.4	41	450	1.3	62.566	-H600	090-12	144
22	454	1.9	2.2	318	9.3	454	22	454	1.9	39	464	1.8	64.610	-H850	090-12	150
21	479	1.3	2.1	335	8.8	479	21	479	1.3	37	490	1.2	68.244	-H600	090-12	144
21	490	0.9	2.1	343	8.6	490	21	490	0.9	36	502	0.9	69.813	-H450	090-12	136
20	500	3.0	2.0	350	8.4	500	20	500	3.0	36	512	2.8	71.238	-H1500	090-12	153
20	507	1.7	2.0	355	8.3	507	20	507	1.7	35	519	1.6	72.193	-H850	090-12	150
19	538	1.1	1.9	377	7.8	538	19	538	1.1	33	551	1.0	76.643	-H600	090-12	144
18	553	0.8	1.8	387	7.6	553	18	553	0.8				78.794	-H450	090-12	136
18	553	2.7	1.8	387	7.6	553	18	553	2.7	32	566	2.5	78.794	-H1500	090-12	153
17	590	1.4	1.7	413	7.1	590	17	590	1.4	30	604	1.4	84.096	-H850	090-12	150
16	624	1.0	1.6	437	6.8	624	16	624	1.0	29	638	0.9	88.826	-H600	090-12	144
15	660	1.3	1.5	462	6.4	660	15	660	1.3	27	675	1.3	93.966	-H850	090-12	150
14	700	0.9	1.5	490	6.0	700	14	700	0.9	26	717	0.8	99.757	-H600	090-12	144

# g500-H helical geared motors

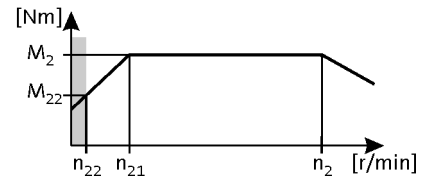


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

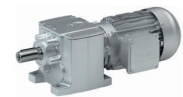
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
14	734	1.2	1.4	514	5.7	734	14	734	1.2	24	752	1.1	104.607	-H850	090-12	150
13	797	1.9	1.3	558	5.3	797	13	797	1.9	22	816	1.8	113.585	-H1500	090-12	153
12	821	1.0	1.2	574	5.1	821	12	821	1.0	22	840	1.0	116.884	-H850	090-12	150
11	882	1.7	1.2	617	4.8	882	11	882	1.7	20	903	1.7	125.632	-H1500	090-12	153
11	950	0.9	1.1	665	4.4	950	11	950	0.9	19	973	0.9	135.373	-H850	090-12	150
10	977	1.5	1.0	684	4.3	1000	10	977	1.5	18	1000	1.5	139.211	-H1500	090-12	153
9.3	1081	1.4	0.9	757	3.9	1081	9.3	1081	1.4	17	1106	1.4	153.976	-H1500	090-12	153
8.5	1186	2.5	0.9	831	3.6	1186	8.5	1186	2.5	15	1214	2.5	168.993	-H3000	090-12	156
7.8	1284	1.2	0.8	899	3.3	1284	7.8	1284	1.2	14	1314	1.1	182.844	-H1500	090-12	153
7.7	1303	2.3	0.8	912	3.2	1303	7.7	1303	2.3	14	1334	2.3	185.615	-H3000	090-12	156
7.1	1420	1.1	0.7	994	3.0	1420	7.1	1420	1.1	13	1453	1.0	202.237	-H1500	090-12	153
7.0	1440	2.1	0.7	1008	2.9	1440	7.0	1440	2.1	12	1474	2.0	205.096	-H3000	090-12	156
6.4	1558	1.0	0.7	1091	2.7	1558	6.4	1558	1.0	11	1595	0.9	221.907	-H1500	090-12	153
6.3	1581	1.9	0.6	1107	2.7	1581	6.3	1581	1.9	11	1619	1.9	225.269	-H3000	090-12	156
5.8	1723	0.9	0.6	1206	2.4	1723	5.8	1723	0.9	10	1764	0.9	245.442	-H1500	090-12	153
5.5	1820	1.7	0.6	1274	2.3	1820	5.5	1820	1.7	9.8	1863	1.6	259.250	-H3000	090-12	156
5.0	1999	1.5	0.5	1399	2.1	1999	5.0	1999	1.5	8.9	2046	1.5	284.750	-H3000	090-12	156



# g500-H helical geared motors

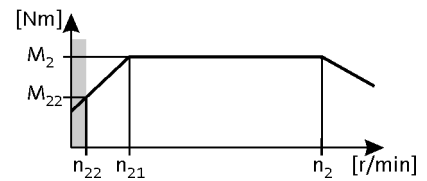


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
439	32	2.6	44	22	184	32	439	32	2.6	779	32	2.1	3.267	-H140	090-32	124
428	32	1.9	43	23	179	32	428	32	1.9	759	33	1.6	3.354	-H100	090-32	120
423	33	3.8	43	23	177	33	423	33	3.8	751	33	3.2	3.389	-H210	090-32	128
423	33	4.3	43	23	177	33	423	33	4.3	751	33	3.5	3.389	-H320	090-32	132
320	43	2.2	32	30	134	43	320	43	2.2	568	44	1.8	4.480	-H140	090-32	124
312	45	1.6	32	31	130	45	312	45	1.6	553	45	1.3	4.600	-H100	090-32	120
309	45	3.2	31	32	129	45	309	45	3.2	548	46	2.6	4.648	-H210	090-32	128
309	45	4.2	31	32	129	45	309	45	4.2	548	46	3.5	4.648	-H320	090-32	132
278	50	1.5	28	35	116	50	278	50	1.5				5.167	-H100	090-32	120
257	54	2.9	26	38	108	54	257	54	2.9	456	55	2.4	5.583	-H210	090-32	128
250	56	4.2	25	39	105	56	250	56	4.2	444	56	3.5	5.733	-H600	090-32	144
250	56	1.9	25	39	105	56	250	56	1.9	444	56	1.5	5.733	-H140	090-32	124
244	57	1.4	25	40	102	57	244	57	1.4	432	58	1.2	5.887	-H100	090-32	120
237	59	4.2	24	41	99	59	237	59	4.2	421	59	3.5	6.045	-H450	090-32	136
236	59	3.9	24	41	99	59	236	59	3.9	418	60	3.2	6.083	-H320	090-32	132
230	61	2.6	23	42	96	61	230	61	2.6				6.250	-H210	090-32	128
229	61	1.7	23	43	96	61	229	61	1.7	406	62	1.4	6.272	-H140	090-32	124
223	62	1.3	23	44	93	62	223	62	1.3	395	63	1.1	6.440	-H100	090-32	120
217	64	4.3	22	45	91	64	217	64	4.3	385	65	3.5	6.613	-H450	090-32	136
208	67	3.3	21	47	87	67	208	67	3.3	368	68	2.7	6.910	-H320	090-32	132
203	69	1.3	21	48	85	69	203	69	1.3	359	70	1.0	7.086	-H100	090-32	120
197	70	1.5	20	49	83	70	197	70	1.5				7.269	-H140	090-32	124
187	74	2.3	19	52	78	74	187	74	2.3	332	75	1.9	7.657	-H210	090-32	128
179	77	1.5	18	54	75	77	179	77	1.5	318	79	1.3	8.000	-H140	090-32	124
175	80	1.2	18	56	73	80	175	80	1.2	310	81	1.0	8.214	-H100	090-32	120
172	81	3.1	17	57	72	81	172	81	3.1	305	82	2.6	8.343	-H320	090-32	132
167	83	2.1	17	58	70	83	167	83	2.1	297	84	1.7	8.571	-H210	090-32	128
159	87	1.3	16	61	67	87	159	87	1.3	282	89	1.1	9.029	-H140	090-32	124
158	88	1.1	16	62	66	88	158	88	1.1	281	89	0.9	9.068	-H100	090-32	120
151	92	2.6	15	64	63	92	151	92	2.6	269	93	2.1	9.477	-H320	090-32	132
146	95	1.9	15	66	61	95	146	95	1.9	260	96	1.6	9.799	-H210	090-32	128
146	95	1.3	15	66	61	95	146	95	1.3	260	96	1.1	9.800	-H140	090-32	124
144	97	4.0	15	68	60	97	144	97	4.0	255	98	3.3	9.965	-H450	090-32	136
143	97	1.0	14	68	60	97	143	97	1.0	253	99	0.8	10.063	-H100	090-32	120
134	103	2.6	14	72	56	103	134	103	2.6	238	105	2.1	10.677	-H320	090-32	132

# g500-H helical geared motors

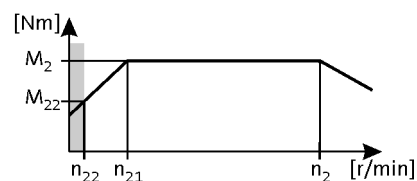


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
134	104	1.8	14	73	56	104	134	104	1.8	237	105	1.5	10.720	-H210	090-32	128
127	109	3.7	13	76	53	109	127	109	3.7	226	111	3.0	11.262	-H450	090-32	136
127	110	4.2	13	77	53	110	127	110	4.2	225	111	3.5	11.330	-H600	090-32	144
126	110	0.9	13	77	53	110	126	110	0.9				11.360	-H100	090-32	120
124	112	1.1	13	78	52	112	124	112	1.1	220	114	0.9	11.554	-H140	090-32	124
123	113	2.4	12	79	51	113	123	113	2.4	218	115	2.0	11.680	-H320	090-32	132
120	116	1.6	12	81	50	116	120	116	1.6	212	118	1.3	12.000	-H210	090-32	128
118	117	2.2	12	82	50	117	118	117	2.2	210	119	1.8	12.128	-H320	090-32	132
117	119	3.4	12	84	49	119	117	119	3.4	207	121	2.8	12.320	-H450	090-32	136
116	120	4.3	12	84	48	120	116	120	4.3	205	122	3.5	12.395	-H600	090-32	144
114	122	1.1	12	86	48	122	114	122	1.1	201	124	0.9	12.640	-H140	090-32	124
113	123	0.8	12	86	47	123	113	123	0.8				12.653	-H100	090-32	120
108	128	2.0	11	90	45	128	108	128	2.0	192	130	1.7	13.268	-H320	090-32	132
105	132	1.5	11	93	44	132	105	132	1.5	186	134	1.3	13.673	-H210	090-32	128
103	135	3.2	10	94	43	135	103	135	3.2	183	137	2.6	13.905	-H450	090-32	136
103	135	4.3	10	94	43	135	103	135	4.3	183	137	3.5	13.920	-H600	090-32	144
103	135	1.0	10	95	43	135	103	135	1.0	182	137	0.8	13.957	-H140	090-32	124
99	140	4.2	10	98	41	140	99	140	4.2	176	142	3.5	14.490	-H850	090-32	150
96	144	2.0	9.7	101	40	144	96	144	2.0	171	146	1.7	14.898	-H320	090-32	132
94	148	1.4	9.5	104	39	148	94	148	1.4	166	150	1.1	15.306	-H210	090-32	128
91	152	2.9	9.2	107	38	152	91	152	2.9	162	154	2.4	15.714	-H450	090-32	136
91	153	3.9	9.2	107	38	153	91	153	3.9	161	155	3.2	15.810	-H600	090-32	144
89	156	0.9	9.0	109	37	156	89	156	0.9				16.122	-H140	090-32	124
89	157	4.2	9.0	110	37	157	89	157	4.2	157	159	3.5	16.190	-H850	090-32	150
86	162	1.3	8.7	114	36	162	86	162	1.3	152	165	1.1	16.750	-H210	090-32	128
85	164	1.7	8.6	115	36	164	85	164	1.7	150	166	1.4	16.923	-H320	090-32	132
84	165	2.7	8.5	116	35	165	84	165	2.7	149	167	2.3	17.033	-H450	090-32	136
81	172	3.5	8.2	120	34	172	81	172	3.5	143	175	2.9	17.755	-H600	090-32	144
81	172	0.8	8.1	121	34	172	81	172	0.8				17.802	-H140	090-32	124
79	177	1.8	7.9	124	33	177	79	177	1.8	140	179	1.5	18.250	-H320	090-32	132
77	182	1.2	7.7	127	32	182	77	182	1.2	136	184	1.0	18.750	-H210	090-32	128
75	186	2.4	7.5	131	31	186	75	186	2.4	132	189	2.0	19.250	-H450	090-32	136
74	188	3.2	7.5	131	31	188	74	188	3.2	131	190	2.6	19.367	-H600	090-32	144
69	201	1.5	7.0	141	29	201	69	201	1.5	123	204	1.2	20.731	-H320	090-32	132
66	211	2.9	6.7	148	28	211	66	211	2.9	117	214	2.4	21.750	-H600	090-32	144

# g500-H helical geared motors

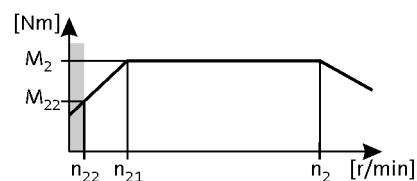


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
66	211	1.0	6.7	148	28	211	66	211	1.0	117	214	0.8	21.802	-H210	090-32	128
65	215	2.1	6.5	150	27	215	65	215	2.1	115	218	1.7	22.170	-H450	090-32	136
62	224	3.5	6.3	157	26	224	62	224	3.5	110	227	2.9	23.103	-H850	090-32	150
60	230	1.4	6.1	161	25	230	60	230	1.4	107	233	1.2	23.754	-H320	090-32	132
59	236	0.9	5.9	166	25	236	59	236	0.9				24.405	-H210	090-32	128
57	243	1.9	5.8	170	24	243	57	243	1.9	102	246	1.5	25.056	-H450	090-32	136
57	244	2.5	5.8	171	24	244	57	244	2.5	101	248	2.0	25.207	-H600	090-32	144
56	250	3.4	5.6	175	23	250	56	250	3.4	99	254	2.8	25.815	-H850	090-32	150
53	261	1.2	5.4	183	22	261	53	261	1.2	94	265	1.2	26.983	-H320	090-32	132
52	267	1.7	5.3	187	22	267	52	267	1.7	92	271	1.6	27.578	-H450	090-32	136
51	274	2.2	5.1	192	21	274	51	274	2.2	90	278	2.1	28.310	-H600	090-32	144
51	274	2.9	5.1	192	21	274	51	274	2.9	90	278	2.7	28.315	-H850	090-32	150
49	286	1.1	4.9	200	20	286	49	286	1.1	86	290	1.1	29.548	-H320	090-32	132
46	302	1.5	4.7	211	19	302	46	302	1.5	82	306	1.4	31.167	-H450	090-32	136
46	304	2.0	4.6	213	19	304	46	304	2.0	81	308	1.9	31.356	-H600	090-32	144
45	306	2.8	4.6	215	19	306	45	306	2.8	80	311	2.6	31.639	-H850	090-32	150
45	312	2.9	4.5	219	19	312	45	312	2.9	79	317	2.7	32.267	-H1500	090-32	153
43	325	1.0	4.3	228	18	325	43	325	1.0	76	330	0.9	33.564	-H320	090-32	132
41	341	1.8	4.1	239	17	341	41	341	1.8	72	346	1.7	35.214	-H600	090-32	144
40	346	1.3	4.1	242	17	346	40	346	1.3	71	351	1.2	35.689	-H450	090-32	136
40	346	2.9	4.1	242	17	346	40	346	2.9	71	351	2.7	35.689	-H1500	090-32	153
39	360	2.4	3.9	252	16	360	39	360	2.4	68	366	2.2	37.190	-H850	090-32	150
37	379	2.6	3.7	266	15	379	37	379	2.6	65	385	2.4	39.160	-H1500	090-32	153
36	391	1.2	3.6	273	15	391	36	391	1.2	63	396	1.1	40.333	-H450	090-32	136
35	393	1.4	3.6	275	15	393	35	393	1.4	63	399	1.4	40.578	-H600	090-32	144
35	402	2.1	3.5	282	14	402	35	402	2.1	61	408	2.1	41.556	-H850	090-32	150
33	419	2.6	3.3	294	14	419	33	419	2.6	59	426	2.5	43.313	-H1500	090-32	153
32	437	1.9	3.2	306	13	437	32	437	1.9	56	444	1.9	45.136	-H850	090-32	150
32	441	1.4	3.2	309	13	441	32	441	1.4	56	448	1.3	45.571	-H600	090-32	144
29	477	1.0	2.9	334	12	477	29	477	1.0	52	484	0.9	49.247	-H600	090-32	144
29	479	2.0	2.9	336	12	479	29	479	2.0	51	487	1.9	49.500	-H1500	090-32	153
29	488	1.7	2.9	342	12	488	29	488	1.7	51	496	1.7	50.433	-H850	090-32	150
26	530	2.0	2.6	371	11	530	26	530	2.0	47	538	1.9	54.750	-H1500	090-32	153
26	536	1.0	2.6	375	11	536	26	536	1.0	46	544	0.9	55.307	-H600	090-32	144

# g500-H helical geared motors

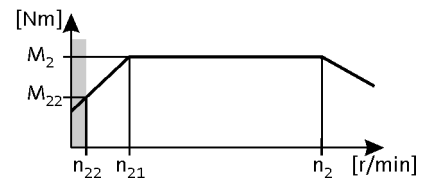


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
46	298	2.0	4.6	208	19	298	46	298	2.0	82	302	1.7	31.197	-H600	090-32	144
41	334	1.8	4.1	234	17	334	41	334	1.8	73	339	1.5	35.037	-H600	090-32	144
38	361	2.4	3.8	252	16	361	38	361	2.4	67	366	2.0	37.799	-H850	090-32	150
36	381	1.6	3.6	267	15	381	36	381	1.6	64	387	1.3	39.925	-H600	090-32	144
35	394	2.2	3.5	276	15	394	35	394	2.2	62	400	1.8	41.350	-H850	090-32	150
33	417	1.4	3.3	292	14	417	33	417	1.4	58	423	1.2	43.676	-H600	090-32	144
33	421	1.1	3.3	295	14	421	33	421	1.1	58	427	0.9	44.124	-H450	090-32	136
31	441	1.9	3.1	309	13	441	31	441	1.9	55	447	1.8	46.204	-H850	090-32	150
29	468	1.3	3.0	328	12	468	29	468	1.3	52	475	1.2	49.051	-H600	090-32	144
29	476	1.0	2.9	333	12	476	29	476	1.0	51	483	0.9	49.867	-H450	090-32	136
27	503	1.7	2.7	352	11	503	27	503	1.7	48	511	1.6	52.743	-H850	090-32	150
26	531	1.1	2.6	372	11	531	26	531	1.1	46	539	1.1	55.710	-H600	090-32	144
25	539	0.8	2.6	377	11	539	25	539	0.8				56.469	-H450	090-32	136
24	562	1.5	2.5	394	10	562	24	562	1.5	43	571	1.4	58.933	-H850	090-32	150
23	597	1.0	2.3	418	9.6	597	23	597	1.0	41	606	0.9	62.566	-H600	090-32	144
22	616	1.4	2.2	432	9.3	616	22	616	1.4	39	626	1.3	64.610	-H850	090-32	150
21	651	0.9	2.1	456	8.8	651	21	651	0.9	37	661	0.9	68.244	-H600	090-32	144
20	680	2.2	2.0	476	8.4	680	20	680	2.2	36	690	2.1	71.238	-H1500	090-32	153
20	689	1.2	2.0	482	8.3	689	20	689	1.2	35	699	1.2	72.193	-H850	090-32	150
19	731	0.8	1.9	512	7.8	731	19	731	0.8				76.643	-H600	090-32	144
18	752	2.0	1.8	526	7.6	752	18	752	2.0	32	763	1.9	78.794	-H1500	090-32	153
17	802	1.1	1.7	562	7.1	802	17	802	1.1	30	814	1.0	84.096	-H850	090-32	150
15	896	1.0	1.5	628	6.4	896	15	896	1.0	27	910	0.9	93.966	-H850	090-32	150
14	998	0.9	1.4	699	5.7	1013	14	998	0.9	24	1013	0.8	104.607	-H850	090-32	150
13	1084	1.4	1.3	759	5.3	1084	13	1084	1.4	22	1100	1.4	113.585	-H1500	090-32	153
11	1198	1.3	1.2	839	4.8	1198	11	1198	1.3	20	1216	1.2	125.632	-H1500	090-32	153
10	1328	1.1	1.0	930	4.3	1328	10	1328	1.1	18	1348	1.1	139.211	-H1500	090-32	153
9.3	1469	1.0	0.9	1028	3.9	1469	9.3	1469	1.0	17	1491	1.0	153.976	-H1500	090-32	153
8.5	1612	1.9	0.9	1129	3.6	1612	8.5	1612	1.9	15	1636	1.8	168.993	-H3000	090-32	156
7.8	1744	0.9	0.8	1221	3.3	1744	7.8	1744	0.9	14	1770	0.9	182.844	-H1500	090-32	153
7.7	1771	1.7	0.8	1240	3.2	1771	7.7	1771	1.7	14	1797	1.7	185.615	-H3000	090-32	156
7.0	1956	1.5	0.7	1370	2.9	1956	7.0	1956	1.5	12	1986	1.5	205.096	-H3000	090-32	156
6.4	2149	1.4	0.6	1504	2.7	2149	6.4	2149	1.4	11	2181	1.4	225.269	-H3000	090-32	156
5.5	2473	1.2	0.6	1731	2.3	2473	5.5	2473	1.2	9.8	2510	1.2	259.250	-H3000	090-32	156
5.0	2716	1.1	0.5	1902	2.1	2716	5.0	2716	1.1	8.9	2757	1.1	284.750	-H3000	090-32	156

# g500-H helical geared motors

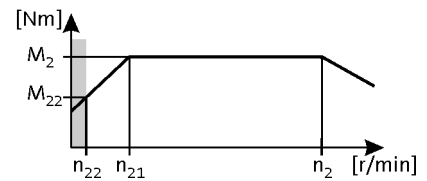


## Technical data

### Selection tables, 4-pole motors

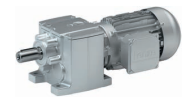
50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
442	46	5.2	44	32	184	46	442	46	5.2				3.267	-H600	100-12	144	
426	48	2.6	43	33	177	48	426	48	2.6				3.389	-H210	100-12	128	
426	48	3.5	43	33	177	48	426	48	3.5	754	48	2.9	3.389	-H320	100-12	132	
420	49	5.3	42	34	174	49	420	49	5.3				3.444	-H450	100-12	136	
323	63	4.7	32	44	134	63	323	63	4.7	570	63	3.9	4.480	-H600	100-12	144	
311	66	2.2	31	46	129	66	311	66	2.2	550	66	1.8	4.648	-H210	100-12	128	
311	66	2.9	31	46	129	66	311	66	2.9	550	66	2.4	4.648	-H320	100-12	132	
306	67	4.4	31	47	127	67	306	67	4.4	541	67	3.7	4.724	-H450	100-12	136	
269	76	5.7	27	53	112	76	269	76	5.7	476	76	4.7	5.368	-H850	100-12	150	
259	79	2.0	26	55	108	79	259	79	2.0				5.583	-H210	100-12	128	
255	80	3.9	26	56	106	80	255	80	3.9				5.678	-H450	100-12	136	
252	81	4.2	25	57	105	81	252	81	4.2	446	81	3.5	5.733	-H600	100-12	144	
239	85	3.8	24	60	99	85	239	85	3.8	423	85	3.2	6.045	-H450	100-12	136	
238	86	2.7	24	60	99	86	238	86	2.7				6.083	-H320	100-12	132	
231	88	1.8	23	62	96	88	231	88	1.8				6.250	-H210	100-12	128	
224	91	4.4	23	64	93	91	224	91	4.4				6.456	-H600	100-12	144	
219	93	3.6	22	65	91	93	219	93	3.6	386	94	3.0	6.613	-H450	100-12	136	
209	97	2.2	21	68	87	97	209	97	2.2				6.910	-H320	100-12	132	
199	102	4.3	20	71	83	102	199	102	4.3				7.250	-H600	100-12	144	
189	108	1.6	19	75	78	108	189	108	1.6				7.657	-H210	100-12	128	
186	110	3.2	19	77	77	110	186	110	3.2	328	110	2.7	7.787	-H450	100-12	136	
173	118	2.1	17	82	72	118	173	118	2.1	306	118	1.8	8.343	-H320	100-12	132	
169	121	1.4	17	84	70	121	169	121	1.4				8.571	-H210	100-12	128	
164	124	3.0	17	87	68	124	164	124	3.0	290	124	2.5	8.800	-H450	100-12	136	
163	125	3.9	16	87	68	125	163	125	3.9	289	125	3.3	8.853	-H600	100-12	144	
153	134	1.8	15	93	63	134	153	134	1.8				9.477	-H320	100-12	132	
148	138	1.3	15	97	61	138	148	138	1.3				9.799	-H210	100-12	128	
145	140	3.6	15	98	60	140	145	140	3.6	257	141	3.0	9.943	-H600	100-12	144	
145	141	2.7	15	98	60	141	145	141	2.7	256	141	2.3	9.965	-H450	100-12	136	
143	143	4.7	14	100	59	143	143	143	4.7	252	143	3.9	10.143	-H850	100-12	150	
135	151	1.8	14	105	56	151	135	151	1.8	239	151	1.5	10.677	-H320	100-12	132	
135	151	1.3	14	106	56	151	135	151	1.3	238	152	1.0	10.720	-H210	100-12	128	
128	159	2.5	13	111	53	159	128	159	2.5	227	159	2.1	11.262	-H450	100-12	136	
128	160	3.4	13	112	53	160	128	160	3.4	226	160	2.8	11.330	-H600	100-12	144	
127	160	4.3	13	112	53	160	127	160	4.3	225	161	3.6	11.360	-H850	100-12	150	

# g500-H helical geared motors

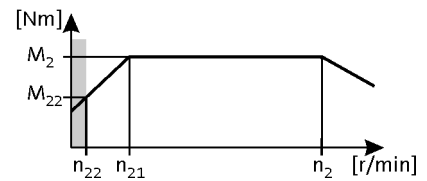


## Technical data

### Selection tables, 4-pole motors

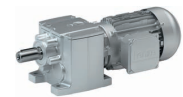
50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
124	165	1.7	12	115	51	165	124	165	1.7	219	165	1.4	11.680	-H320	100-12	132
120	169	1.1	12	118	50	169	120	169	1.1				12.000	-H210	100-12	128
119	171	1.5	12	119	50	171	119	171	1.5	211	172	1.2	12.128	-H320	100-12	132
117	174	2.4	12	121	49	174	117	174	2.4	207	174	2.0	12.320	-H450	100-12	136
117	174	5.7	12	122	49	174	117	174	5.7	207	175	4.8	12.362	-H1500	100-12	153
117	175	3.2	12	122	48	175	117	175	3.2	206	175	2.6	12.395	-H600	100-12	144
114	179	4.1	11	125	47	179	114	179	4.1	201	180	3.4	12.693	-H850	100-12	150
109	187	1.4	11	131	45	187	109	187	1.4	193	188	1.2	13.268	-H320	100-12	132
106	193	1.0	11	135	44	193	106	193	1.0	187	193	0.9	13.673	-H210	100-12	128
106	193	5.7	11	135	44	193	106	193	5.7	187	193	4.8	13.673	-H1500	100-12	153
104	196	2.2	10	137	43	196	104	196	2.2				13.905	-H450	100-12	136
104	196	2.9	10	137	43	196	104	196	2.9	184	197	2.5	13.920	-H600	100-12	144
100	204	3.7	10	143	41	204	100	204	3.7	176	205	3.1	14.490	-H850	100-12	150
97	210	1.4	9.7	147	40	210	97	210	1.4	172	211	1.2	14.898	-H320	100-12	132
94	216	0.9	9.5	151	39	216	94	216	0.9				15.306	-H210	100-12	128
92	222	2.0	9.2	155	38	222	92	222	2.0	163	222	1.7	15.714	-H450	100-12	136
91	223	2.7	9.2	156	38	223	91	223	2.7	162	224	2.3	15.810	-H600	100-12	144
89	228	3.5	9.0	159	37	228	89	228	3.5	158	229	2.9	16.190	-H850	100-12	150
86	236	0.9	8.7	165	36	236	86	236	0.9				16.750	-H210	100-12	128
85	239	1.2	8.6	167	36	239	85	239	1.2	151	239	1.0	16.923	-H320	100-12	132
85	240	1.9	8.5	168	35	240	85	240	1.9	150	241	1.6	17.033	-H450	100-12	136
81	250	3.3	8.2	175	34	250	81	250	3.3	144	251	2.7	17.750	-H850	100-12	150
81	250	2.4	8.2	175	34	250	81	250	2.4	144	251	2.0	17.755	-H600	100-12	144
79	257	1.2	7.9	180	33	257	79	257	1.2	140	258	1.0	18.250	-H320	100-12	132
75	272	1.7	7.5	190	31	272	75	272	1.7	133	272	1.4	19.250	-H450	100-12	136
75	273	2.2	7.5	191	31	273	75	273	2.2	132	274	1.8	19.367	-H600	100-12	144
73	280	3.0	7.3	195	30	280	73	280	3.0	129	280	2.5	19.833	-H850	100-12	150
70	290	4.1	7.1	202	29	290	70	290	4.1	124	290	3.4	20.533	-H1500	100-12	153
70	292	1.0	7.0	204	29	292	70	292	1.0	123	293	0.9	20.731	-H320	100-12	132
66	307	2.0	6.7	214	28	307	66	307	2.0	118	308	1.6	21.750	-H600	100-12	144
65	313	1.4	6.5	218	27	313	65	313	1.4	115	314	1.2	22.170	-H450	100-12	136
64	320	4.1	6.4	224	26	320	64	320	4.1	113	321	3.4	22.711	-H1500	100-12	153
63	326	2.6	6.3	228	26	326	63	326	2.6	111	327	2.2	23.103	-H850	100-12	150
58	352	3.5	5.8	246	24	352	58	352	3.5	103	353	2.9	24.933	-H1500	100-12	153
58	353	1.3	5.8	247	24	353	58	353	1.3	102	354	1.1	25.056	-H450	100-12	136

# g500-H helical geared motors

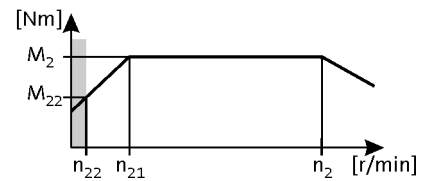


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
57	356	1.7	5.8	248	24	356	57	356	1.7	101	356	1.4	25.207	-H600	100-12	144
56	364	2.3	5.6	254	23	364	56	364	2.3	99	365	2.0	25.815	-H850	100-12	150
52	389	1.2	5.3	272	22	389	52	389	1.2	93	390	1.1	27.578	-H450	100-12	136
52	389	3.5	5.3	272	22	389	52	389	3.5	93	390	3.3	27.578	-H1500	100-12	153
51	399	1.5	5.1	279	21	399	51	399	1.5	90	400	1.4	28.310	-H600	100-12	144
51	399	2.1	5.1	279	21	399	51	399	2.1	90	400	2.0	28.315	-H850	100-12	150
49	421	3.5	4.9	294	20	421	49	421	3.5	86	422	3.3	29.822	-H3000	100-12	156
46	440	1.0	4.7	307	19	440	46	440	1.0	82	441	1.0	31.167	-H450	100-12	136
46	442	1.4	4.6	309	19	442	46	442	1.4	82	443	1.3	31.356	-H600	100-12	144
46	446	1.9	4.6	312	19	446	46	446	1.9	81	447	1.8	31.639	-H850	100-12	150
45	455	2.8	4.5	318	19	455	45	455	2.8	79	456	2.6	32.267	-H1500	100-12	153
44	462	3.5	4.4	323	18	462	44	462	3.5	78	463	3.3	32.756	-H3000	100-12	156
41	497	1.2	4.1	347	17	497	41	497	1.2	73	498	1.2	35.214	-H600	100-12	144
41	503	2.8	4.1	352	17	503	41	503	2.8	72	505	2.6	35.689	-H1500	100-12	153
40	511	2.9	4.0	356	17	511	40	511	2.9	71	512	2.7	36.193	-H3000	100-12	156
39	525	1.6	3.9	366	16	525	39	525	1.6	69	526	1.5	37.190	-H850	100-12	150
37	552	2.3	3.7	386	15	552	37	552	2.3	65	554	2.2	39.160	-H1500	100-12	153
36	561	2.9	3.6	392	15	561	36	561	2.9	64	562	2.7	39.753	-H3000	100-12	156
35	586	1.5	3.5	409	14	586	35	586	1.5	62	588	1.5	41.556	-H850	100-12	150
33	611	2.3	3.3	427	14	611	33	611	2.3	59	613	2.3	43.313	-H1500	100-12	153
32	637	1.3	3.2	445	13	637	32	637	1.3	57	638	1.3	45.136	-H850	100-12	150
32	645	2.3	3.2	451	13	645	32	645	2.3	56	647	2.3	45.750	-H3000	100-12	156
29	698	1.8	2.9	488	12	698	29	698	1.8	52	700	1.8	49.500	-H1500	100-12	153
29	709	2.3	2.9	495	12	709	29	709	2.3	51	711	2.3	50.250	-H3000	100-12	156
29	711	1.2	2.9	497	12	711	29	711	1.2	51	713	1.2	50.433	-H850	100-12	150
26	772	1.8	2.6	539	11	772	26	772	1.8	47	774	1.8	54.750	-H1500	100-12	153

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
49	410	2.1	4.9	287	20	410	49	410	2.1	87	411	1.7	29.536	-H850	100-12	150
46	433	1.4	4.6	303	19	433	46	433	1.4	82	435	1.2	31.197	-H600	100-12	144
44	459	1.9	4.4	320	18	459	44	459	1.9	77	460	1.6	33.003	-H850	100-12	150
41	487	1.2	4.1	340	17	487	41	487	1.2	73	488	1.0	35.037	-H600	100-12	144
38	525	1.6	3.8	367	16	525	38	525	1.6	68	527	1.4	37.799	-H850	100-12	150
36	555	1.1	3.6	387	15	555	36	555	1.1	64	556	0.9	39.925	-H600	100-12	144
35	575	1.5	3.5	401	15	575	35	575	1.5	62	576	1.2	41.350	-H850	100-12	150
33	607	1.0	3.3	424	14	607	33	607	1.0	59	608	0.8	43.676	-H600	100-12	144
31	642	1.3	3.1	448	13	642	31	642	1.3	55	644	1.3	46.204	-H850	100-12	150

# g500-H helical geared motors

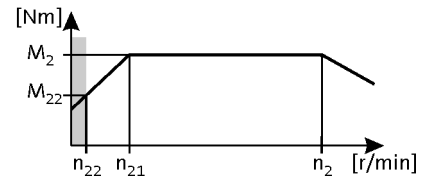


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

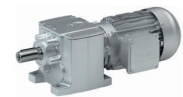
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
30	682	0.9	3.0	476	12	682	30	682	0.9	52	683	0.8	49.051	-H600	100-12	144
29	693	2.2	2.9	484	12	693	29	693	2.2	51	695	2.1	49.867	-H1500	100-12	153
27	733	1.2	2.7	512	11	733	27	733	1.2	48	735	1.1	52.743	-H850	100-12	150
26	776	1.9	2.6	542	11	776	26	776	1.9	46	778	1.8	55.851	-H1500	100-12	153
25	819	1.0	2.5	572	10	819	25	819	1.0	43	821	1.0	58.933	-H850	100-12	150
23	858	1.8	2.3	599	9.7	858	23	858	1.8	41	861	1.7	61.774	-H1500	100-12	153
22	898	1.0	2.2	627	9.3	898	22	898	1.0	40	900	0.9	64.610	-H850	100-12	150
22	900	3.3	2.2	628	9.3	900	22	900	3.3	40	902	3.2	64.744	-H3000	100-12	156
20	988	3.0	2.0	690	8.4	988	20	988	3.0	36	991	2.9	71.112	-H3000	100-12	156
20	990	1.5	2.0	691	8.4	990	20	990	1.5	36	992	1.4	71.238	-H1500	100-12	153
20	1003	0.9	2.0	700	8.3	1003	20	1003	0.9				72.193	-H850	100-12	150
18	1095	1.4	1.8	764	7.6	1095	18	1095	1.4	32	1098	1.3	78.794	-H1500	100-12	153
17	1213	1.2	1.7	847	6.9	1213	17	1213	1.2	29	1216	1.2	87.267	-H1500	100-12	153
15	1341	1.1	1.5	936	6.2	1341	15	1341	1.1	27	1345	1.1	96.522	-H1500	100-12	153
13	1494	2.0	1.3	1043	5.6	1494	13	1494	2.0	24	1498	2.0	107.541	-H3000	100-12	156
13	1578	1.0	1.3	1102	5.3	1578	13	1578	1.0	23	1582	1.0	113.585	-H1500	100-12	153
12	1641	1.8	1.2	1146	5.1	1641	12	1641	1.8	22	1645	1.8	118.119	-H3000	100-12	156
12	1746	0.9	1.2	1219	4.8	1746	12	1746	0.9	20	1750	0.9	125.632	-H1500	100-12	153
11	1814	1.7	1.1	1267	4.6	1814	11	1814	1.7	20	1819	1.7	130.585	-H3000	100-12	156
10	1993	1.5	1.0	1391	4.2	1993	10	1993	1.5	18	1998	1.5	143.430	-H3000	100-12	156
8.6	2348	1.3	0.9	1639	3.6	2348	8.6	2348	1.3	15	2354	1.3	168.993	-H3000	100-12	156
7.8	2579	1.2	0.8	1801	3.2	2579	7.8	2579	1.2	14	2586	1.2	185.615	-H3000	100-12	156
7.0	2850	1.1	0.7	1989	2.9	2850	7.0	2850	1.1	13	2857	1.1	205.096	-H3000	100-12	156
6.4	3130	1.0	0.6	2185	2.7	3130	6.4	3130	1.0	11	3138	1.0	225.269	-H3000	100-12	156
5.6	3602	0.8	0.6	2515	2.3	3602	5.6	3602	0.8	9.9	3611	0.8	259.250	-H3000	100-12	156



# g500-H helical geared motors

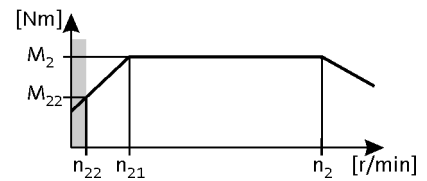


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0$  kW  
 87 Hz:  $P_N = 5.4$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
442	63	3.8	44	44	184	63	442	63	3.8				3.267	-H600	100-32	144	
426	65	1.9	43	46	177	65	426	65	1.9				3.389	-H210	100-32	128	
426	65	2.5	43	46	177	65	426	65	2.5				3.389	-H320	100-32	132	
420	66	3.9	42	46	174	66	420	66	3.9				3.444	-H450	100-32	136	
323	86	3.4	32	60	134	86	323	86	3.4	570	88	2.8	4.480	-H600	100-32	144	
311	89	1.6	31	63	129	89	311	89	1.6				4.648	-H210	100-32	128	
311	89	2.1	31	63	129	89	311	89	2.1	550	91	1.7	4.648	-H320	100-32	132	
306	91	3.2	31	64	127	91	306	91	3.2	541	92	2.7	4.724	-H450	100-32	136	
269	103	4.2	27	72	112	103	269	103	4.2	476	105	3.4	5.368	-H850	100-32	150	
259	107	1.5	26	75	108	107	259	107	1.5				5.583	-H210	100-32	128	
255	109	2.9	26	76	106	109	255	109	2.9				5.678	-H450	100-32	136	
252	110	3.1	25	77	105	110	252	110	3.1	446	112	2.5	5.733	-H600	100-32	144	
239	116	2.8	24	81	99	116	239	116	2.8	423	118	2.3	6.045	-H450	100-32	136	
238	117	1.9	24	82	99	117	238	117	1.9				6.083	-H320	100-32	132	
231	120	1.3	23	84	96	120	231	120	1.3				6.250	-H210	100-32	128	
224	124	3.3	23	87	93	124	224	124	3.3				6.456	-H600	100-32	144	
219	127	2.6	22	89	91	127	219	127	2.6	386	129	2.2	6.613	-H450	100-32	136	
209	133	1.6	21	93	87	133	209	133	1.6				6.910	-H320	100-32	132	
199	139	3.1	20	98	83	139	199	139	3.1				7.250	-H600	100-32	144	
189	147	1.2	19	103	78	147	189	147	1.2				7.657	-H210	100-32	128	
186	150	2.4	19	105	77	150	186	150	2.4				7.787	-H450	100-32	136	
173	160	1.6	17	112	72	160	173	160	1.6				8.343	-H320	100-32	132	
169	165	1.0	17	115	70	165	169	165	1.0				8.571	-H210	100-32	128	
164	169	2.2	17	118	68	169	164	169	2.2				8.800	-H450	100-32	136	
163	170	2.9	16	119	68	170	163	170	2.9				8.853	-H600	100-32	144	
153	182	1.3	15	127	63	182	153	182	1.3				9.477	-H320	100-32	132	
148	188	1.0	15	132	61	188	148	188	1.0				9.799	-H210	100-32	128	
145	191	2.7	15	134	60	191	145	191	2.7				9.943	-H600	100-32	144	
145	192	2.0	15	134	60	192	145	192	2.0				9.965	-H450	100-32	136	
143	195	3.4	14	136	59	195	143	195	3.4				10.143	-H850	100-32	150	
135	205	1.3	14	144	56	205	135	205	1.3				10.677	-H320	100-32	132	
135	206	0.9	14	144	56	206	135	206	0.9				10.720	-H210	100-32	128	
128	217	1.9	13	151	53	217	128	217	1.9				11.262	-H450	100-32	136	
128	218	2.5	13	152	53	218	128	218	2.5	226	222	2.0	11.330	-H600	100-32	144	
127	219	3.2	13	153	53	219	127	219	3.2	225	222	2.6	11.360	-H850	100-32	150	

# g500-H helical geared motors

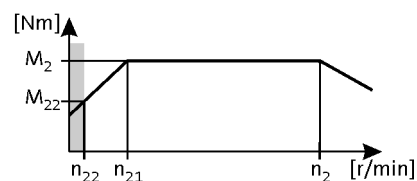


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0$  kW  
 87 Hz:  $P_N = 5.4$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
124	225	1.2	12	157	51	225	124	225	1.2				11.680	-H320	100-32	132	
120	231	0.8	12	161	50	231	120	231	0.8				12.000	-H210	100-32	128	
119	233	1.1	12	163	50	233	119	233	1.1				12.128	-H320	100-32	132	
117	237	1.7	12	166	49	237	117	237	1.7				12.320	-H450	100-32	136	
117	238	4.2	12	166	49	238	117	238	4.2	207	242	3.4	12.362	-H1500	100-32	153	
117	238	2.3	12	167	48	238	117	238	2.3	206	243	1.9	12.395	-H600	100-32	144	
114	244	3.0	11	171	47	244	114	244	3.0				12.693	-H850	100-32	150	
109	255	1.0	11	178	45	255	109	255	1.0				13.268	-H320	100-32	132	
106	263	4.2	11	184	44	263	106	263	4.2	187	268	3.4	13.673	-H1500	100-32	153	
104	267	1.6	10	187	43	267	104	267	1.6				13.905	-H450	100-32	136	
104	268	2.2	10	187	43	268	104	268	2.2	184	273	1.8	13.920	-H600	100-32	144	
100	279	2.7	10	195	41	279	100	279	2.7	176	284	2.2	14.490	-H850	100-32	150	
97	287	1.0	9.7	200	40	287	97	287	1.0				14.898	-H320	100-32	132	
92	302	1.5	9.2	211	38	302	92	302	1.5	163	308	1.2	15.714	-H450	100-32	136	
91	304	2.0	9.2	213	38	304	91	304	2.0	162	310	1.6	15.810	-H600	100-32	144	
89	311	2.5	9.0	218	37	311	89	311	2.5	158	317	2.1	16.190	-H850	100-32	150	
85	326	0.9	8.6	228	36	326	85	326	0.9				16.923	-H320	100-32	132	
85	328	1.4	8.5	229	35	328	85	328	1.4	150	334	1.1	17.033	-H450	100-32	136	
81	341	2.4	8.2	239	34	341	81	341	2.4	144	348	2.0	17.750	-H850	100-32	150	
81	342	1.8	8.2	239	34	342	81	342	1.8	144	348	1.5	17.755	-H600	100-32	144	
79	351	0.9	7.9	245	33	351	79	351	0.9				18.250	-H320	100-32	132	
75	370	1.2	7.5	259	31	370	75	370	1.2	133	377	1.0	19.250	-H450	100-32	136	
75	373	1.6	7.5	260	31	373	75	373	1.6	132	379	1.3	19.367	-H600	100-32	144	
73	381	2.2	7.3	267	30	381	73	381	2.2	129	388	1.8	19.833	-H850	100-32	150	
70	395	3.0	7.1	276	29	395	70	395	3.0	124	402	2.5	20.533	-H1500	100-32	153	
66	418	1.4	6.7	293	28	418	66	418	1.4	118	426	1.2	21.750	-H600	100-32	144	
65	426	1.1	6.5	298	27	426	65	426	1.1	115	434	0.9	22.170	-H450	100-32	136	
64	437	3.0	6.4	305	26	437	64	437	3.0	113	445	2.5	22.711	-H1500	100-32	153	
63	444	1.9	6.3	311	26	444	63	444	1.9	111	452	1.6	23.103	-H850	100-32	150	
58	480	2.5	5.8	335	24	480	58	480	2.5	103	488	2.1	24.933	-H1500	100-32	153	
58	482	0.9	5.8	337	24	482	58	482	0.9				25.056	-H450	100-32	136	
57	485	1.2	5.8	339	24	485	57	485	1.2	101	494	1.0	25.207	-H600	100-32	144	
56	497	1.7	5.6	347	23	497	56	497	1.7	99	505	1.4	25.815	-H850	100-32	150	
52	530	0.9	5.3	371	22	530	52	530	0.9				27.578	-H450	100-32	136	
52	530	2.5	5.3	371	22	530	52	530	2.5	93	540	2.4	27.578	-H1500	100-32	153	

# g500-H helical geared motors

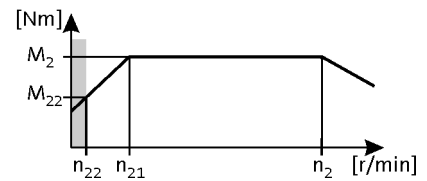


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
51	545	1.1	5.1	381	21	545	51	545	1.1	90	554	1.0	28.310	-H600	100-32	144
51	545	1.6	5.1	381	21	545	51	545	1.6	90	554	1.5	28.315	-H850	100-32	150
49	574	2.5	4.9	401	20	574	49	574	2.5	86	584	2.4	29.822	-H3000	100-32	156
46	603	1.0	4.6	422	19	603	46	603	1.0	82	614	0.9	31.356	-H600	100-32	144
46	609	1.4	4.6	426	19	609	46	609	1.4	81	620	1.3	31.639	-H850	100-32	150
45	621	2.0	4.5	434	19	621	45	621	2.0	79	632	1.9	32.267	-H1500	100-32	153
44	630	2.5	4.4	441	18	630	44	630	2.5	78	641	2.4	32.756	-H3000	100-32	156
41	677	0.9	4.1	474	17	677	41	677	0.9	73	690	0.8	35.214	-H600	100-32	144
41	686	2.0	4.1	480	17	686	41	686	2.0	72	699	1.9	35.689	-H1500	100-32	153
40	696	2.1	4.0	487	17	696	40	696	2.1	71	709	2.0	36.193	-H3000	100-32	156
39	715	1.2	3.9	500	16	715	39	715	1.2	69	728	1.1	37.190	-H850	100-32	150
37	753	1.7	3.7	527	15	753	37	753	1.7	65	767	1.6	39.160	-H1500	100-32	153
36	765	2.1	3.6	535	15	765	36	765	2.1	64	778	2.0	39.753	-H3000	100-32	156
35	799	1.1	3.5	559	14	799	35	799	1.1	62	814	1.0	41.556	-H850	100-32	150
33	833	1.7	3.3	582	14	833	33	833	1.7	59	848	1.7	43.313	-H1500	100-32	153
32	868	1.0	3.2	607	13	868	32	868	1.0	57	884	1.0	45.136	-H850	100-32	150
32	880	1.7	3.2	615	13	880	32	880	1.7	56	896	1.7	45.750	-H3000	100-32	156
29	952	1.3	2.9	666	12	952	29	952	1.3	52	969	1.3	49.500	-H1500	100-32	153
29	967	1.7	2.9	676	12	967	29	967	1.7	51	984	1.7	50.250	-H3000	100-32	156
29	970	0.9	2.9	678	12	970	29	970	0.9	51	988	0.9	50.433	-H850	100-32	150
26	1053	1.3	2.6	736	11	1053	26	1053	1.3	47	1072	1.3	54.750	-H1500	100-32	153

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
49	560	1.5	4.9	391	20	560	49	560	1.5				29.536	-H850	100-32	150
46	591	1.0	4.6	413	19	591	46	591	1.0				31.197	-H600	100-32	144
44	625	1.4	4.4	437	18	625	44	625	1.4				33.003	-H850	100-32	150
41	664	0.9	4.1	464	17	664	41	664	0.9				35.037	-H600	100-32	144
38	716	1.2	3.8	501	16	716	38	716	1.2				37.799	-H850	100-32	150
35	783	1.1	3.5	548	15	783	35	783	1.1				41.350	-H850	100-32	150
31	875	1.0	3.1	612	13	875	31	875	1.0				46.204	-H850	100-32	150
29	945	1.6	2.9	661	12	945	29	945	1.6				49.867	-H1500	100-32	153
27	999	0.9	2.7	699	11	999	27	999	0.9				52.743	-H850	100-32	150
26	1058	1.4	2.6	740	11	1058	26	1058	1.4				55.851	-H1500	100-32	153
23	1170	1.3	2.3	818	9.7	1170	23	1170	1.3				61.774	-H1500	100-32	153
22	1227	2.5	2.2	858	9.3	1227	22	1227	2.5	40	1249	2.3	64.744	-H3000	100-32	156
20	1347	2.2	2.0	942	8.4	1347	20	1347	2.2	36	1372	2.1	71.112	-H3000	100-32	156
20	1350	1.1	2.0	944	8.4	1350	20	1350	1.1	36	1374	1.0	71.238	-H1500	100-32	153

# g500-H helical geared motors

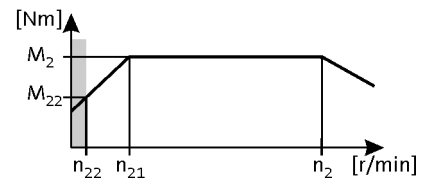
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0$  kW  
87 Hz:  $P_N = 5.4$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
18	1493	1.0	1.8	1044	7.6	1493	18	1493	1.0				78.794	-H1500	100-32	153
17	1653	0.9	1.7	1156	6.9	1653	17	1653	0.9	29	1683	0.9	87.267	-H1500	100-32	153
15	1829	0.8	1.5	1279	6.2	1829	15	1829	0.8				96.522	-H1500	100-32	153
13	2038	1.5	1.3	1424	5.6	2038	13	2038	1.5	24	2074	1.5	107.541	-H3000	100-32	156
12	2238	1.3	1.2	1565	5.1	2238	12	2238	1.3	22	2278	1.3	118.119	-H3000	100-32	156
11	2474	1.2	1.1	1730	4.6	2474	11	2474	1.2	20	2519	1.2	130.585	-H3000	100-32	156
10	2718	1.1	1.0	1900	4.2	2718	10	2718	1.1	18	2766	1.1	143.430	-H3000	100-32	156
8.6	3202	0.9	0.9	2238	3.6	3202	8.6	3202	0.9	15	3259	0.9	168.993	-H3000	100-32	156
7.8	3517	0.9	0.8	2459	3.2	3517	7.8	3517	0.9	14	3580	0.8	185.615	-H3000	100-32	156

# g500-H helical geared motors

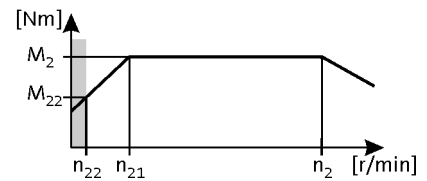


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
462	80	3.8	46	50	191	80	462	80	3.8				3.147	-H850	112-22	150	
445	83	2.9	44	52	184	83	445	83	2.9				3.267	-H600	112-22	144	
429	86	1.9	43	54	177	86	429	86	1.9				3.389	-H320	112-22	132	
422	88	2.9	42	55	174	88	422	88	2.9				3.444	-H450	112-22	136	
334	111	3.4	33	70	138	111	334	111	3.4				4.362	-H850	112-22	150	
325	114	2.6	32	71	134	114	325	114	2.6				4.480	-H600	112-22	144	
313	118	1.6	31	74	129	118	313	118	1.6				4.648	-H320	112-22	132	
308	120	2.4	31	75	127	120	308	120	2.4				4.724	-H450	112-22	136	
271	137	3.1	27	86	112	137	271	137	3.1				5.368	-H850	112-22	150	
256	145	2.2	26	91	106	145	256	145	2.2				5.678	-H450	112-22	136	
254	146	2.3	25	91	105	146	254	146	2.3	447	147	1.9	5.733	-H600	112-22	144	
245	151	3.6	24	95	101	151	245	151	3.6				5.946	-H850	112-22	150	
241	154	2.1	24	96	99	154	241	154	2.1	424	155	1.7	6.045	-H450	112-22	136	
239	155	1.5	24	97	99	155	239	155	1.5				6.083	-H320	112-22	132	
233	159	4.8	23	100	96	159	233	159	4.8				6.245	-H1500	112-22	153	
225	164	2.5	23	103	93	164	225	164	2.5				6.456	-H600	112-22	144	
220	168	2.0	22	106	91	168	220	168	2.0	388	170	1.7	6.613	-H450	112-22	136	
219	169	3.4	22	106	90	169	219	169	3.4				6.644	-H850	112-22	150	
211	176	1.2	21	110	87	176	211	176	1.2				6.910	-H320	112-22	132	
201	185	2.4	20	116	83	185	201	185	2.4				7.250	-H600	112-22	144	
187	198	1.8	19	124	77	198	187	198	1.8				7.787	-H450	112-22	136	
177	210	2.9	18	131	73	210	177	210	2.9				8.241	-H850	112-22	150	
174	212	1.2	17	133	72	212	174	212	1.2				8.343	-H320	112-22	132	
165	224	1.7	17	140	68	224	165	224	1.7				8.800	-H450	112-22	136	
164	226	2.2	16	141	68	226	164	226	2.2				8.853	-H600	112-22	144	
162	229	4.8	16	144	67	229	162	229	4.8				9.010	-H1500	112-22	153	
158	235	2.8	16	147	65	235	158	235	2.8				9.208	-H850	112-22	150	
154	241	1.0	15	151	63	241	154	241	1.0				9.477	-H320	112-22	132	
146	253	2.0	15	159	60	253	146	253	2.0				9.943	-H600	112-22	144	
146	254	1.5	15	159	60	254	146	254	1.5				9.965	-H450	112-22	136	
144	258	2.6	14	162	59	258	144	258	2.6				10.143	-H850	112-22	150	
142	261	4.4	14	164	58	261	142	261	4.4				10.267	-H1500	112-22	153	
136	272	1.0	14	170	56	272	136	272	1.0				10.677	-H320	112-22	132	
129	287	1.4	13	180	53	287	129	287	1.4				11.262	-H450	112-22	136	
128	289	1.9	13	181	53	289	128	289	1.9				11.330	-H600	112-22	144	

# g500-H helical geared motors

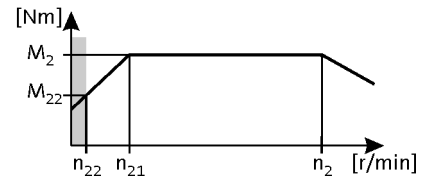


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
128	289	4.4	13	181	53	289	128	289	4.4				11.356	-H1500	112-22	153
128	289	2.4	13	181	53	289	128	289	2.4				11.360	-H850	112-22	150
125	296	4.7	13	185	52	296	125	296	4.7				11.619	-H3000	112-22	156
125	297	0.9	12	186	51	297	125	297	0.9				11.680	-H320	112-22	132
120	309	0.8	12	193	50	309	120	309	0.8				12.128	-H320	112-22	132
118	314	1.3	12	197	49	314	118	314	1.3				12.320	-H450	112-22	136
118	315	3.8	12	197	49	315	118	315	3.8	208	317	3.2	12.362	-H1500	112-22	153
117	316	1.8	12	198	48	316	117	316	1.8				12.395	-H600	112-22	144
115	323	2.2	11	202	47	323	115	323	2.2				12.693	-H850	112-22	150
114	325	4.7	11	204	47	325	114	325	4.7				12.762	-H3000	112-22	156
106	348	3.8	11	218	44	348	106	348	3.8	188	351	3.2	13.673	-H1500	112-22	153
105	354	1.2	10	222	43	354	105	354	1.2				13.905	-H450	112-22	136
105	355	1.6	10	222	43	355	105	355	1.6				13.920	-H600	112-22	144
100	369	2.1	10	231	41	369	100	369	2.1	177	372	1.7	14.490	-H850	112-22	150
96	386	3.3	9.6	242	40	386	96	386	3.3	169	389	2.7	15.156	-H1500	112-22	153
93	400	1.1	9.2	251	38	400	93	400	1.1				15.714	-H450	112-22	136
92	403	1.5	9.2	252	38	403	92	403	1.5	162	405	1.2	15.810	-H600	112-22	144
90	412	1.9	9.0	258	37	412	90	412	1.9				16.190	-H850	112-22	150
87	427	3.3	8.7	267	36	427	87	427	3.3	153	430	2.7	16.763	-H1500	112-22	153
85	434	1.0	8.5	272	35	434	85	434	1.0				17.033	-H450	112-22	136
82	452	1.8	8.2	283	34	452	82	452	1.8	145	455	1.5	17.750	-H850	112-22	150
82	452	1.3	8.2	283	34	452	82	452	1.3				17.755	-H600	112-22	144
78	478	3.3	7.7	299	32	478	78	478	3.3	137	481	2.7	18.752	-H3000	112-22	156
76	490	0.9	7.5	307	31	490	76	490	0.9				19.250	-H450	112-22	136
75	493	1.2	7.5	309	31	493	75	493	1.2	132	497	1.0	19.367	-H600	112-22	144
73	505	1.7	7.3	316	30	505	73	505	1.7	129	509	1.4	19.833	-H850	112-22	150
71	523	2.6	7.1	328	29	523	71	523	2.6	125	527	2.1	20.533	-H1500	112-22	153
71	525	3.3	7.0	329	29	525	71	525	3.3	125	528	2.7	20.596	-H3000	112-22	156
67	554	1.1	6.7	347	28	554	67	554	1.1				21.750	-H600	112-22	144
64	578	2.6	6.4	362	26	578	64	578	2.6	113	582	2.1	22.711	-H1500	112-22	153
63	587	2.7	6.3	368	26	587	63	587	2.7	111	591	2.3	23.044	-H3000	112-22	156
63	588	1.4	6.3	369	26	588	63	588	1.4	111	592	1.2	23.103	-H850	112-22	150
58	635	2.2	5.8	398	24	635	58	635	2.2	103	639	1.8	24.933	-H1500	112-22	153
58	642	0.9	5.8	402	24	642	58	642	0.9				25.207	-H600	112-22	144
58	645	2.7	5.7	404	24	645	58	645	2.7	101	649	2.3	25.311	-H3000	112-22	156

# g500-H helical geared motors

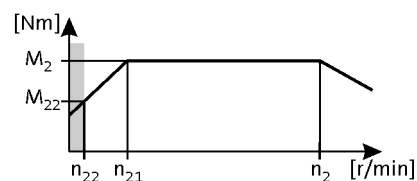


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
87 Hz:  $P_N = 7.1$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
56	658	1.3	5.6	412	23	658	56	658	1.3	99	662	1.1	25.815	-H850	112-22	150	
53	702	2.1	5.3	440	22	702	53	702	2.1	93	707	2.0	27.578	-H1500	112-22	153	
51	721	0.8	5.1	452	21	721	51	721	0.8				28.310	-H600	112-22	144	
51	721	1.2	5.1	452	21	721	51	721	1.2	91	726	1.1	28.315	-H850	112-22	150	
49	760	2.2	4.9	476	20	760	49	760	2.2	86	765	2.1	29.822	-H3000	112-22	156	
46	806	1.1	4.6	505	19	806	46	806	1.1	81	811	1.0	31.639	-H850	112-22	150	
45	822	1.8	4.5	515	19	822	45	822	1.8	80	828	1.7	32.267	-H1500	112-22	153	
44	834	2.2	4.4	522	18	834	44	834	2.2	78	840	2.1	32.756	-H3000	112-22	156	
41	909	1.7	4.1	569	17	909	41	909	1.7	72	915	1.6	35.689	-H1500	112-22	153	
40	922	1.8	4.0	577	17	922	40	922	1.8	71	928	1.7	36.193	-H3000	112-22	156	
37	997	1.5	3.7	625	15	1004	37	997	1.5	66	1004	1.4	39.160	-H1500	112-22	153	
37	1013	1.8	3.6	634	15	1013	37	1013	1.8	65	1020	1.7	39.753	-H3000	112-22	156	
34	1103	1.4	3.3	691	14	1103	34	1103	1.4	59	1111	1.4	43.313	-H1500	112-22	153	
32	1165	1.5	3.2	730	13	1165	32	1165	1.5	56	1173	1.5	45.750	-H3000	112-22	156	
29	1280	1.5	2.9	801	12	1280	29	1280	1.5	51	1289	1.5	50.250	-H3000	112-22	156	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
49	741	1.2	4.9	464	20	741	49	741	1.2				29.536	-H850	112-22	150	
44	828	1.0	4.4	518	18	828	44	828	1.0				33.003	-H850	112-22	150	
39	948	0.9	3.8	594	16	948	39	948	0.9				37.799	-H850	112-22	150	
36	1017	1.5	3.6	637	15	1017	36	1017	1.5				40.517	-H1500	112-22	153	
35	1037	0.8	3.5	650	15	1037	35	1037	0.8				41.350	-H850	112-22	150	
33	1124	1.3	3.2	704	13	1124	33	1124	1.3				44.814	-H1500	112-22	153	
31	1184	2.4	3.1	741	13	1184	31	1184	2.4				47.186	-H3000	112-22	156	
29	1251	1.2	2.9	783	12	1251	29	1251	1.2				49.867	-H1500	112-22	153	
28	1300	2.2	2.8	814	12	1300	28	1300	2.2				51.828	-H3000	112-22	156	
27	1349	2.2	2.7	845	11	1349	27	1349	2.2	48	1358	2.1	53.770	-H3000	112-22	156	
26	1401	1.1	2.6	877	11	1401	26	1401	1.1				55.851	-H1500	112-22	153	
25	1482	2.0	2.5	928	10	1482	25	1482	2.0	43	1492	1.9	59.059	-H3000	112-22	156	
24	1550	1.0	2.3	970	9.7	1550	24	1550	1.0				61.774	-H1500	112-22	153	
23	1624	1.9	2.2	1017	9.3	1624	23	1624	1.9	40	1635	1.7	64.744	-H3000	112-22	156	
21	1784	1.7	2.0	1117	8.4	1784	21	1784	1.7	36	1796	1.6	71.112	-H3000	112-22	156	
20	1787	0.8	2.0	1119	8.4	1787	20	1787	0.8				71.238	-H1500	112-22	153	
18	1991	1.5	1.8	1247	7.6	1991	18	1991	1.5	32	2005	1.4	79.375	-H3000	112-22	156	
17	2187	1.4	1.7	1370	6.9	2187	17	2187	1.4	29	2202	1.4	87.183	-H3000	112-22	156	
14	2698	1.1	1.3	1689	5.6	2698	14	2698	1.1	24	2717	1.1	107.541	-H3000	112-22	156	
12	2963	1.0	1.2	1856	5.1	2963	12	2963	1.0	22	2984	1.0	118.119	-H3000	112-22	156	

# g500-H helical geared motors

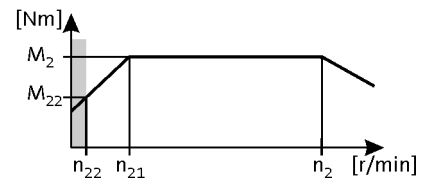
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

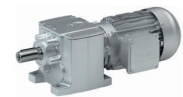
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
11	3276	0.9	1.1	2051	4.6	3276	11	3276	0.9	20	3299	0.9	130.585	-H3000	112-22	156
10	3598	0.8	1.0	2253	4.2	3598	10	3598	0.8	18	3623	0.8	143.430	-H3000	112-22	156



# g500-H helical geared motors

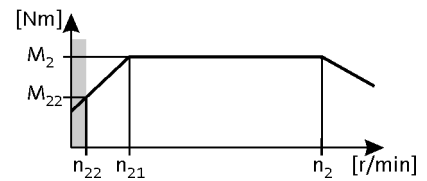


## Technical data

### Selection tables, 4-pole motors

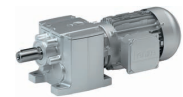
50 Hz:  $P_N = 5.5 \text{ kW}$   
 87 Hz:  $P_N = 9.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
467	109	2.8	46	68	191	109	467	109	2.8				3.147	-H850	132-12	150	
450	113	2.1	44	71	184	113	450	113	2.1				3.267	-H600	132-12	144	
427	119	2.1	42	75	174	119	427	119	2.1				3.444	-H450	132-12	136	
393	130	6.0	39	81	160	130	393	130	6.0				3.743	-H1500	132-12	153	
337	151	2.5	33	94	138	151	337	151	2.5				4.362	-H850	132-12	150	
328	155	1.9	32	97	134	155	328	155	1.9				4.480	-H600	132-12	144	
311	164	1.8	31	102	127	164	311	164	1.8				4.724	-H450	132-12	136	
309	165	5.6	31	103	126	165	309	165	5.6				4.758	-H1500	132-12	153	
274	186	2.3	27	116	112	186	274	186	2.3				5.368	-H850	132-12	150	
272	187	5.5	27	117	111	187	272	187	5.5				5.400	-H1500	132-12	153	
259	197	1.6	26	123	106	197	259	197	1.6				5.678	-H450	132-12	136	
256	199	1.7	25	124	105	199	256	199	1.7				5.733	-H600	132-12	144	
247	206	2.7	24	129	101	206	247	206	2.7				5.946	-H850	132-12	150	
243	210	1.5	24	131	99	210	243	210	1.5				6.045	-H450	132-12	136	
235	216	5.1	23	135	96	216	235	216	5.1				6.245	-H1500	132-12	153	
228	224	1.8	23	140	93	224	228	224	1.8				6.456	-H600	132-12	144	
222	229	1.5	22	143	91	229	222	229	1.5				6.613	-H450	132-12	136	
221	230	2.5	22	144	90	230	221	230	2.5				6.644	-H850	132-12	150	
214	238	4.9	21	149	87	238	214	238	4.9				6.864	-H1500	132-12	153	
203	251	1.7	20	157	83	251	203	251	1.7				7.250	-H600	132-12	144	
194	263	4.6	19	164	79	263	194	263	4.6				7.592	-H1500	132-12	153	
189	270	1.3	19	169	77	270	189	270	1.3				7.787	-H450	132-12	136	
178	286	2.2	18	178	73	286	178	286	2.2				8.241	-H850	132-12	150	
167	305	1.2	17	191	68	305	167	305	1.2				8.800	-H450	132-12	136	
166	307	1.6	16	192	68	307	166	307	1.6				8.853	-H600	132-12	144	
163	312	4.2	16	195	67	312	163	312	4.2				9.010	-H1500	132-12	153	
160	319	2.0	16	199	65	319	160	319	2.0				9.208	-H850	132-12	150	
148	345	1.5	15	215	60	345	148	345	1.5				9.943	-H600	132-12	144	
148	345	1.1	15	216	60	345	148	345	1.1				9.965	-H450	132-12	136	
145	352	1.9	14	220	59	352	145	352	1.9				10.143	-H850	132-12	150	
143	356	3.9	14	222	58	356	143	356	3.9				10.267	-H1500	132-12	153	
131	390	1.0	13	244	53	390	131	390	1.0				11.262	-H450	132-12	136	
130	393	1.4	13	245	53	393	130	393	1.4				11.330	-H600	132-12	144	
130	394	3.6	13	246	53	394	130	394	3.6				11.356	-H1500	132-12	153	
129	394	1.8	13	246	53	394	129	394	1.8				11.360	-H850	132-12	150	

# g500-H helical geared motors

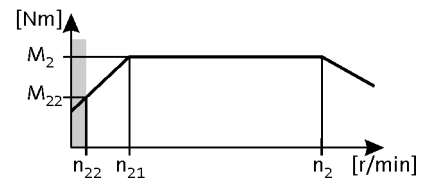


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5 \text{ kW}$   
 87 Hz:  $P_N = 9.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
127	403	6.0	13	252	52	403	127	403	6.0				11.619	-H3000	132-12	156	
119	427	1.0	12	267	49	427	119	427	1.0				12.320	-H450	132-12	136	
119	429	3.3	12	268	49	429	119	429	3.3				12.362	-H1500	132-12	153	
119	430	1.3	12	268	48	430	119	430	1.3				12.395	-H600	132-12	144	
116	440	1.7	11	275	47	440	116	440	1.7				12.693	-H850	132-12	150	
115	442	5.6	11	276	47	442	115	442	5.6				12.762	-H3000	132-12	156	
108	474	3.0	11	296	44	474	108	474	3.0				13.673	-H1500	132-12	153	
106	482	0.9	10	301	43	482	106	482	0.9				13.905	-H450	132-12	136	
106	483	1.2	10	301	43	483	106	483	1.2				13.920	-H600	132-12	144	
103	493	5.1	10	308	42	493	103	493	5.1				14.233	-H3000	132-12	156	
102	502	1.5	10	314	41	502	102	502	1.5				14.490	-H850	132-12	150	
97	525	2.7	9.6	328	40	525	97	525	2.7				15.156	-H1500	132-12	153	
94	542	4.8	9.3	338	38	542	94	542	4.8				15.633	-H3000	132-12	156	
94	545	0.8	9.2	340	38	545	94	545	0.8				15.714	-H450	132-12	136	
93	548	1.1	9.2	342	38	548	93	548	1.1				15.810	-H600	132-12	144	
91	561	1.4	9.0	351	37	561	91	561	1.4				16.190	-H850	132-12	150	
88	581	2.5	8.7	363	36	581	88	581	2.5				16.763	-H1500	132-12	153	
83	615	1.3	8.2	384	34	615	83	615	1.3				17.750	-H850	132-12	150	
83	615	1.0	8.2	384	34	615	83	615	1.0				17.755	-H600	132-12	144	
78	650	4.2	7.7	406	32	650	78	650	4.2				18.752	-H3000	132-12	156	
76	671	0.9	7.5	419	31	671	76	671	0.9				19.367	-H600	132-12	144	
74	688	1.2	7.3	429	30	688	74	688	1.2				19.833	-H850	132-12	150	
72	712	2.1	7.1	445	29	712	72	712	2.1				20.533	-H1500	132-12	153	
71	714	3.9	7.0	446	29	714	71	714	3.9				20.596	-H3000	132-12	156	
65	787	1.9	6.4	492	26	787	65	787	1.9				22.711	-H1500	132-12	153	
64	799	3.6	6.3	499	26	799	64	799	3.6				23.044	-H3000	132-12	156	
64	801	1.1	6.3	500	26	801	64	801	1.1				23.103	-H850	132-12	150	
59	864	1.7	5.8	540	24	864	59	864	1.7				24.933	-H1500	132-12	153	
58	877	3.4	5.7	548	24	877	58	877	3.4				25.311	-H3000	132-12	156	
57	895	1.0	5.6	559	23	895	57	895	1.0				25.815	-H850	132-12	150	
53	956	1.6	5.3	597	22	956	53	956	1.6				27.578	-H1500	132-12	153	
49	1034	2.9	4.9	646	20	1034	49	1034	2.9				29.822	-H3000	132-12	156	
45	1135	2.6	4.4	709	18	1135	45	1135	2.6				32.756	-H3000	132-12	156	
41	1255	2.4	4.0	784	17	1255	41	1255	2.4				36.193	-H3000	132-12	156	
37	1378	2.2	3.6	861	15	1378	37	1378	2.2				39.753	-H3000	132-12	156	

# g500-H helical geared motors

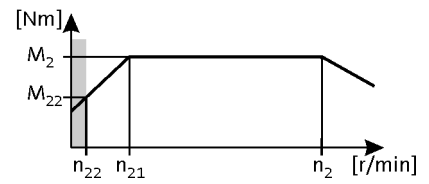
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5 \text{ kW}$   
87 Hz:  $P_N = 9.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
50	1009	0.8	4.9	630	20	1009	50	1009	0.8				29.536	-H850	132-12	150
36	1383	1.1	3.6	864	15	1383	36	1383	1.1				40.517	-H1500	132-12	153
33	1530	1.0	3.2	956	13	1530	33	1530	1.0				44.814	-H1500	132-12	153
31	1611	1.8	3.1	1006	13	1611	31	1611	1.8				47.186	-H3000	132-12	156
30	1703	0.9	2.9	1063	12	1703	30	1703	0.9				49.867	-H1500	132-12	153
28	1770	1.6	2.8	1105	12	1770	28	1770	1.6				51.828	-H3000	132-12	156
27	1836	1.6	2.7	1147	11	1836	27	1836	1.6				53.770	-H3000	132-12	156
25	2017	1.5	2.5	1259	10	2017	25	2017	1.5				59.059	-H3000	132-12	156
23	2211	1.4	2.2	1381	9.3	2211	23	2211	1.4				64.744	-H3000	132-12	156
21	2428	1.2	2.0	1516	8.4	2428	21	2428	1.2				71.112	-H3000	132-12	156
19	2710	1.1	1.8	1693	7.6	2710	19	2710	1.1				79.375	-H3000	132-12	156
17	2977	1.0	1.7	1859	6.9	2977	17	2977	1.0				87.183	-H3000	132-12	156
14	3672	0.8	1.3	2293	5.6	3672	14	3672	0.8				107.541	-H3000	132-12	156

# g500-H helical geared motors

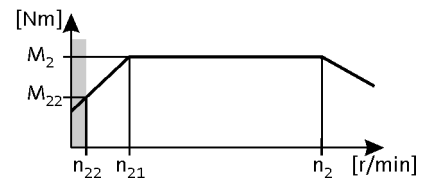


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5 \text{ kW}$   
 87 Hz:  $P_N = 13.2 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
464	150	2.0	46	94	191	150	464	150	2.0				3.147	-H850	132-22	150	
447	155	1.5	44	97	184	155	447	155	1.5				3.267	-H600	132-22	144	
424	164	1.6	42	103	174	164	424	164	1.6				3.444	-H450	132-22	136	
390	178	4.4	39	111	160	178	390	178	4.4				3.743	-H1500	132-22	153	
335	208	1.8	33	130	138	208	335	208	1.8				4.362	-H850	132-22	150	
326	213	1.4	32	133	134	213	326	213	1.4				4.480	-H600	132-22	144	
309	225	1.3	31	141	127	225	309	225	1.3				4.724	-H450	132-22	136	
307	226	4.1	31	142	126	226	307	226	4.1				4.758	-H1500	132-22	153	
272	256	1.7	27	160	112	256	272	256	1.7				5.368	-H850	132-22	150	
270	257	4.0	27	161	111	257	270	257	4.0				5.400	-H1500	132-22	153	
257	270	1.2	26	169	106	270	257	270	1.2				5.678	-H450	132-22	136	
255	273	1.2	25	171	105	273	255	273	1.2				5.733	-H600	132-22	144	
246	283	2.0	24	177	101	283	246	283	2.0				5.946	-H850	132-22	150	
242	288	1.1	24	180	99	288	242	288	1.1				6.045	-H450	132-22	136	
234	297	3.7	23	186	96	297	234	297	3.7				6.245	-H1500	132-22	153	
226	307	1.3	23	192	93	307	226	307	1.3				6.456	-H600	132-22	144	
221	315	1.1	22	197	91	315	221	315	1.1				6.613	-H450	132-22	136	
220	316	1.8	22	198	90	316	220	316	1.8				6.644	-H850	132-22	150	
213	327	3.5	21	204	87	327	213	327	3.5				6.864	-H1500	132-22	153	
201	345	1.3	20	216	83	345	201	345	1.3				7.250	-H600	132-22	144	
192	361	3.4	19	226	79	361	192	361	3.4				7.592	-H1500	132-22	153	
188	371	1.0	19	232	77	371	188	371	1.0				7.787	-H450	132-22	136	
177	392	1.6	18	245	73	392	177	392	1.6				8.241	-H850	132-22	150	
166	419	0.9	17	262	68	419	166	419	0.9				8.800	-H450	132-22	136	
165	421	1.2	16	264	68	421	165	421	1.2				8.853	-H600	132-22	144	
162	429	3.1	16	268	67	429	162	429	3.1				9.010	-H1500	132-22	153	
159	438	1.5	16	274	65	438	159	438	1.5				9.208	-H850	132-22	150	
147	473	1.1	15	296	60	473	147	473	1.1				9.943	-H600	132-22	144	
147	474	0.8	15	297	60	474	147	474	0.8				9.965	-H450	132-22	136	
146	476	4.8	15	298	60	476	146	476	4.8				10.005	-H3000	132-22	156	
144	483	1.4	14	302	59	483	144	483	1.4				10.143	-H850	132-22	150	
142	489	2.8	14	306	58	489	142	489	2.8				10.267	-H1500	132-22	153	
129	539	1.0	13	337	53	539	129	539	1.0				11.330	-H600	132-22	144	
129	540	2.6	13	338	53	540	129	540	2.6				11.356	-H1500	132-22	153	
129	541	1.3	13	338	53	541	129	541	1.3				11.360	-H850	132-22	150	

# g500-H helical geared motors

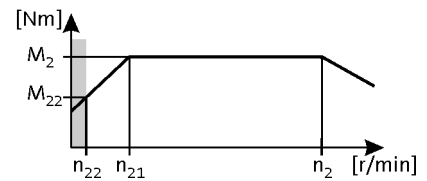


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5 \text{ kW}$   
 87 Hz:  $P_N = 13.2 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
126	553	4.3	13	346	52	553	126	553	4.3				11.619	-H3000	132-22	156	
118	588	2.4	12	368	49	588	118	588	2.4				12.362	-H1500	132-22	153	
118	590	0.9	12	369	48	590	118	590	0.9				12.395	-H600	132-22	144	
115	604	1.2	11	378	47	604	115	604	1.2				12.693	-H850	132-22	150	
114	607	4.1	11	380	47	607	114	607	4.1				12.762	-H3000	132-22	156	
107	651	2.2	11	407	44	651	107	651	2.2				13.673	-H1500	132-22	153	
105	663	0.9	10	415	43	663	105	663	0.9				13.920	-H600	132-22	144	
103	677	3.7	10	424	42	677	103	677	3.7				14.233	-H3000	132-22	156	
101	690	1.1	10	431	41	690	101	690	1.1				14.490	-H850	132-22	150	
96	721	2.0	9.6	451	40	721	96	721	2.0				15.156	-H1500	132-22	153	
93	744	3.5	9.3	466	38	744	93	744	3.5				15.633	-H3000	132-22	156	
90	771	1.0	9.0	482	37	771	90	771	1.0				16.190	-H850	132-22	150	
87	798	1.8	8.7	499	36	798	87	798	1.8				16.763	-H1500	132-22	153	
82	845	1.0	8.2	529	34	845	82	845	1.0				17.750	-H850	132-22	150	
78	892	3.1	7.7	558	32	892	78	892	3.1				18.752	-H3000	132-22	156	
74	944	0.9	7.3	591	30	944	74	944	0.9				19.833	-H850	132-22	150	
71	977	1.5	7.1	611	29	977	71	977	1.5				20.533	-H1500	132-22	153	
71	980	2.9	7.0	613	29	980	71	980	2.9				20.596	-H3000	132-22	156	
64	1081	1.4	6.4	676	26	1081	64	1081	1.4				22.711	-H1500	132-22	153	
63	1097	2.6	6.3	686	26	1097	63	1097	2.6				23.044	-H3000	132-22	156	
59	1187	1.3	5.8	742	24	1187	59	1187	1.3				24.933	-H1500	132-22	153	
58	1205	2.5	5.7	754	24	1205	58	1205	2.5				25.311	-H3000	132-22	156	
53	1313	1.1	5.3	821	22	1313	53	1313	1.1				27.578	-H1500	132-22	153	
49	1419	2.1	4.9	888	20	1419	49	1419	2.1				29.822	-H3000	132-22	156	
45	1559	1.9	4.4	975	18	1559	45	1559	1.9				32.756	-H3000	132-22	156	
40	1723	1.7	4.0	1078	17	1723	40	1723	1.7				36.193	-H3000	132-22	156	
37	1892	1.6	3.6	1184	15	1892	37	1892	1.6				39.753	-H3000	132-22	156	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
31	2212	1.3	3.1	1384	13	2212	31	2212	1.3				47.186	-H3000	132-22	156	
28	2430	1.2	2.8	1520	12	2430	28	2430	1.2				51.828	-H3000	132-22	156	
27	2521	1.2	2.7	1577	11	2521	27	2521	1.2				53.770	-H3000	132-22	156	
25	2769	1.1	2.5	1732	10	2769	25	2769	1.1				59.059	-H3000	132-22	156	
23	3035	1.0	2.2	1899	9.3	3035	23	3035	1.0				64.744	-H3000	132-22	156	
21	3334	0.9	2.0	2086	8.4	3334	21	3334	0.9				71.112	-H3000	132-22	156	
18	3721	0.8	1.8	2328	7.6	3721	18	3721	0.8				79.375	-H3000	132-22	156	

# g500-H helical geared motors

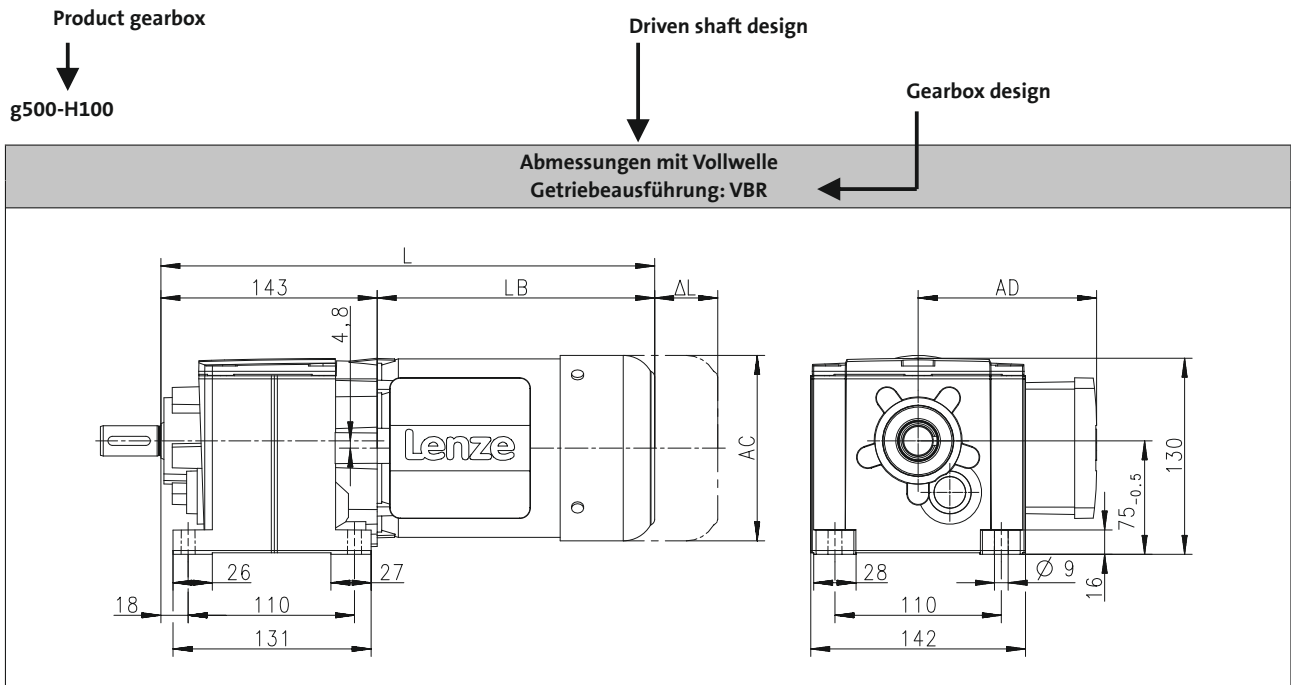


## Technical data

### Dimensions, notes

#### Notes on the dimensions

The following legend shows the layout of the dimension sheets.



#### Product Motor

Produkt			MD□MA□□							
			063-12	063-32	063-42	071-32	071-42	080-32	080-42	090-32
<b>Abmessungen</b>										
Gesamtlänge	L	[mm]		326		346		369		402
Länge Motor	LB	[mm]		183		203		226		259
Länge Motoranbauten	Δ L	[mm]		170		165		183		181
Motordurchmesser	AC	[mm]		123		139		156		176
Abstand Motor/Anschluss	AD	[mm]		100		109		150		157

Distance of motor centre to the end of terminal box

Total length of the drive without built-on accessories

Motor diameter

Motor length without built-on accessories

Additional length of the built-on accessories (longest version)

- If the mounting area (foot support) towards the motor is longer than the gearbox foot, some motors collide with the mounting area!

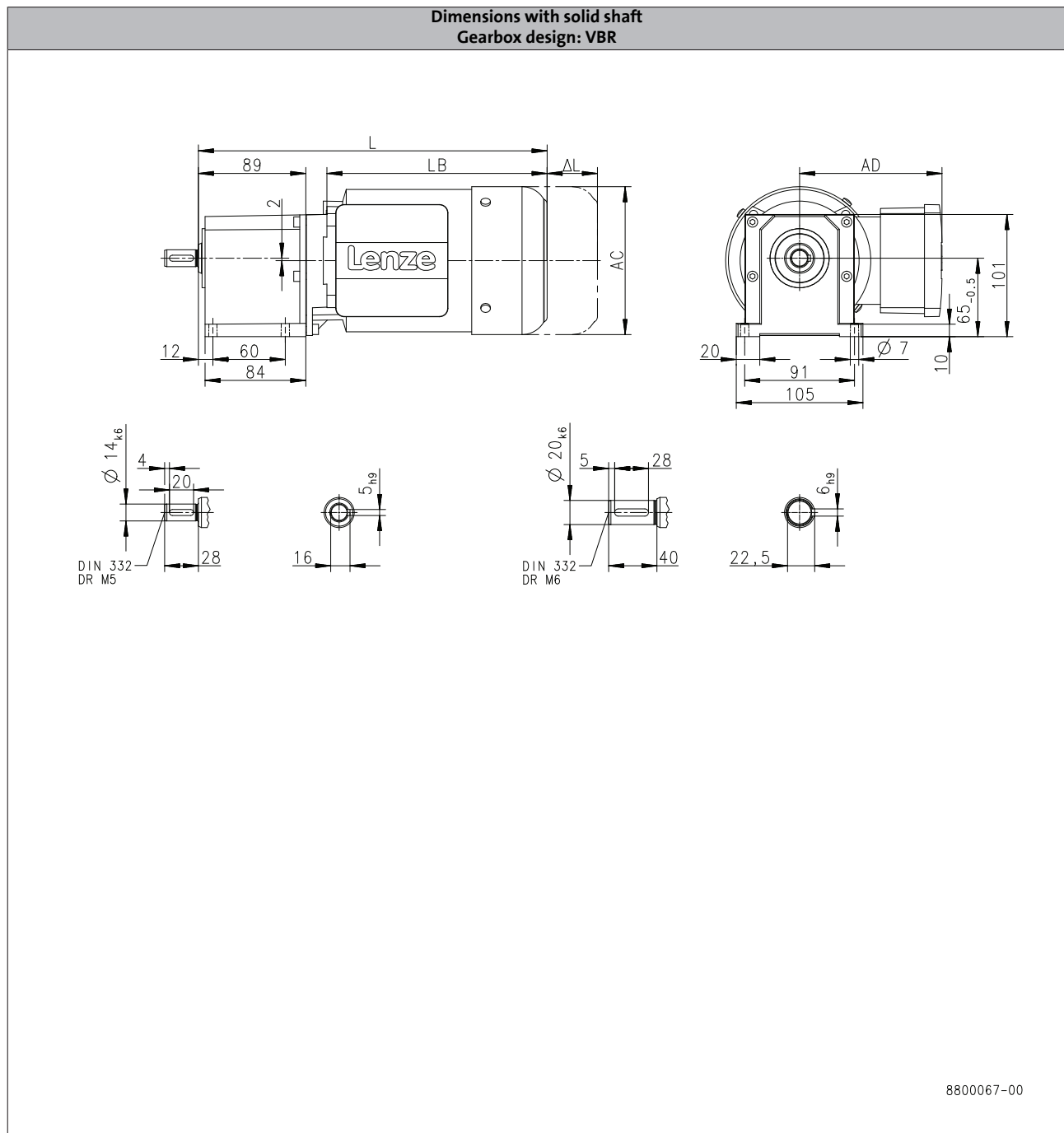
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H45



6.3

Product			MD□MA□□					
			063-02	063-12	063-22	063-32	063-42	071-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	261	288	261	288		308
<b>Motor length</b>	<b>LB</b>	[mm]	156	183	156	183		203
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	135	170	135	170		165
<b>Motor diameter</b>	<b>AC</b>	[mm]			123			139
<b>Distance motor/connection</b>	<b>AD</b>	[mm]			100			109

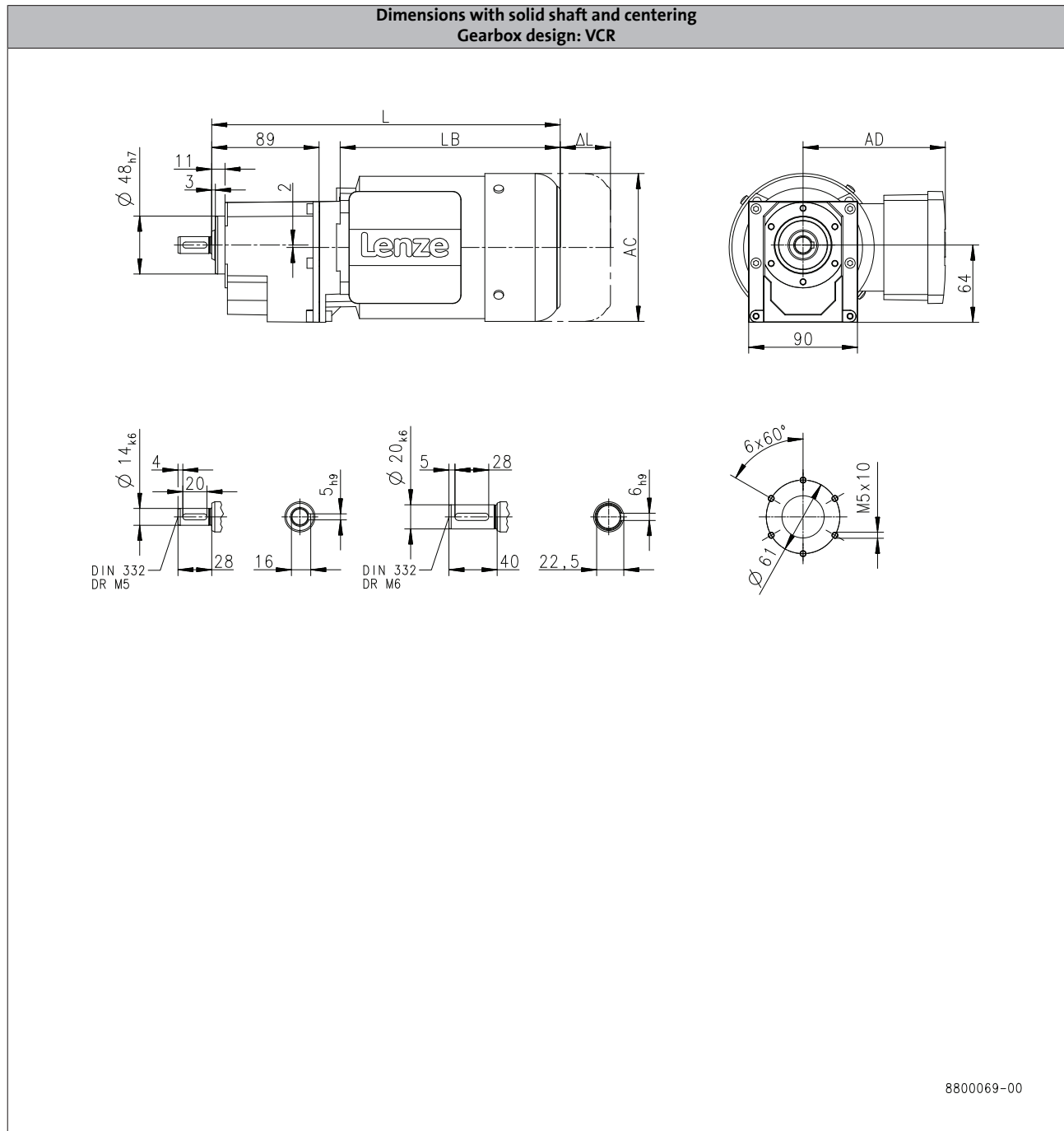
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H45



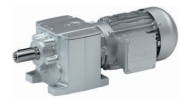
6.3

Product			MD□MA□□					
			063-02	063-12	063-22	063-32	063-42	071-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	261	288	261	288		308
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	156	183	156	183		203
<b>Length of motor options</b>	<b><math>\Delta L</math></b>	<b>[mm]</b>	135	170	135	170		165
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>			123			139
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>			100			109



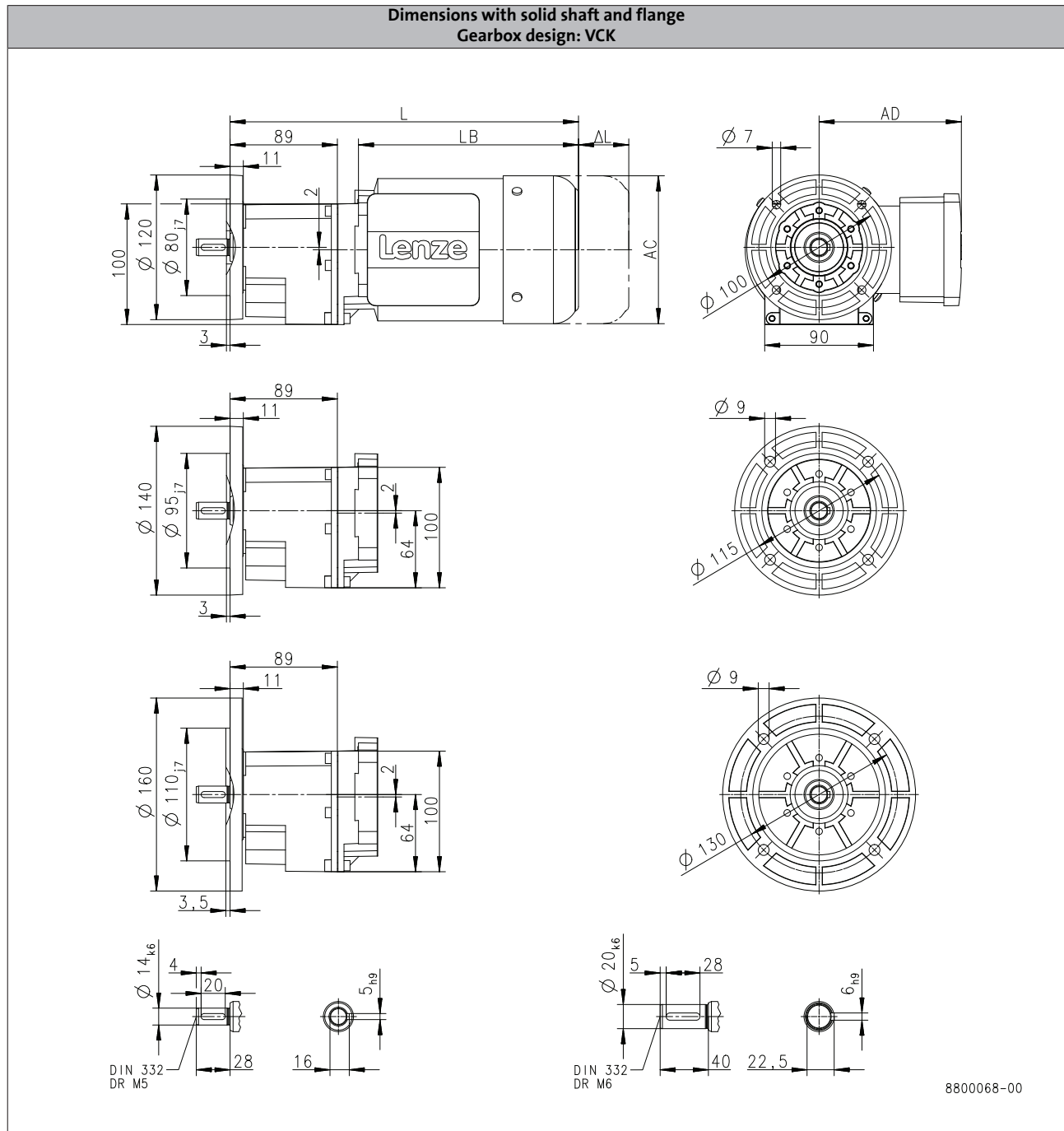
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H45



6.3

Product			MD□MA□□					
			063-02	063-12	063-22	063-32	063-42	071-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	261	288	261	288		308
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	156	183	156	183		203
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	135	170	135	170		165
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>			123			139
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>			100			109

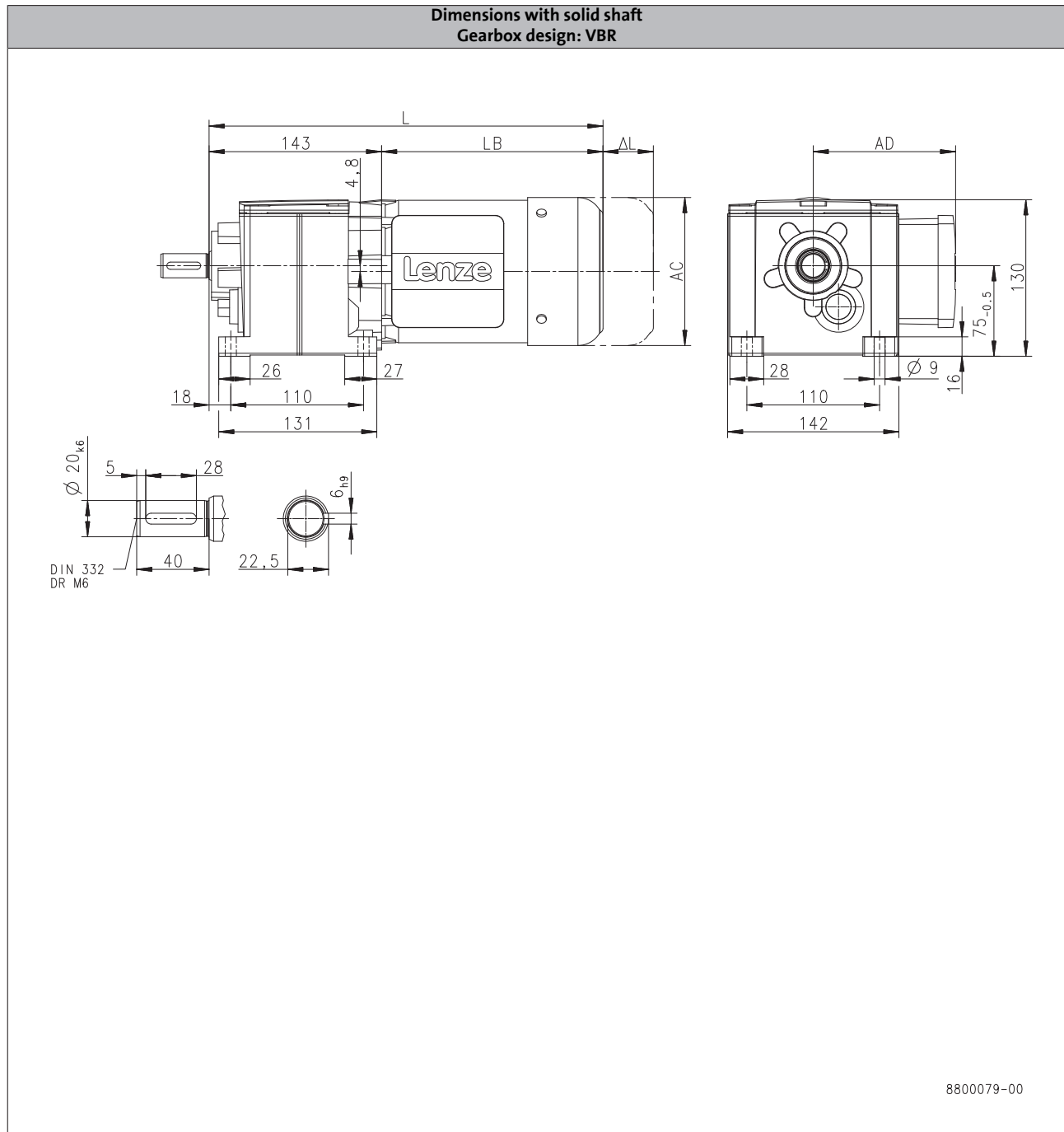
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H100



6.3

Product			MD□MA□□					MH□MA□□		
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		326		346		369		428
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226		285
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183		181
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156		176
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150	152	157

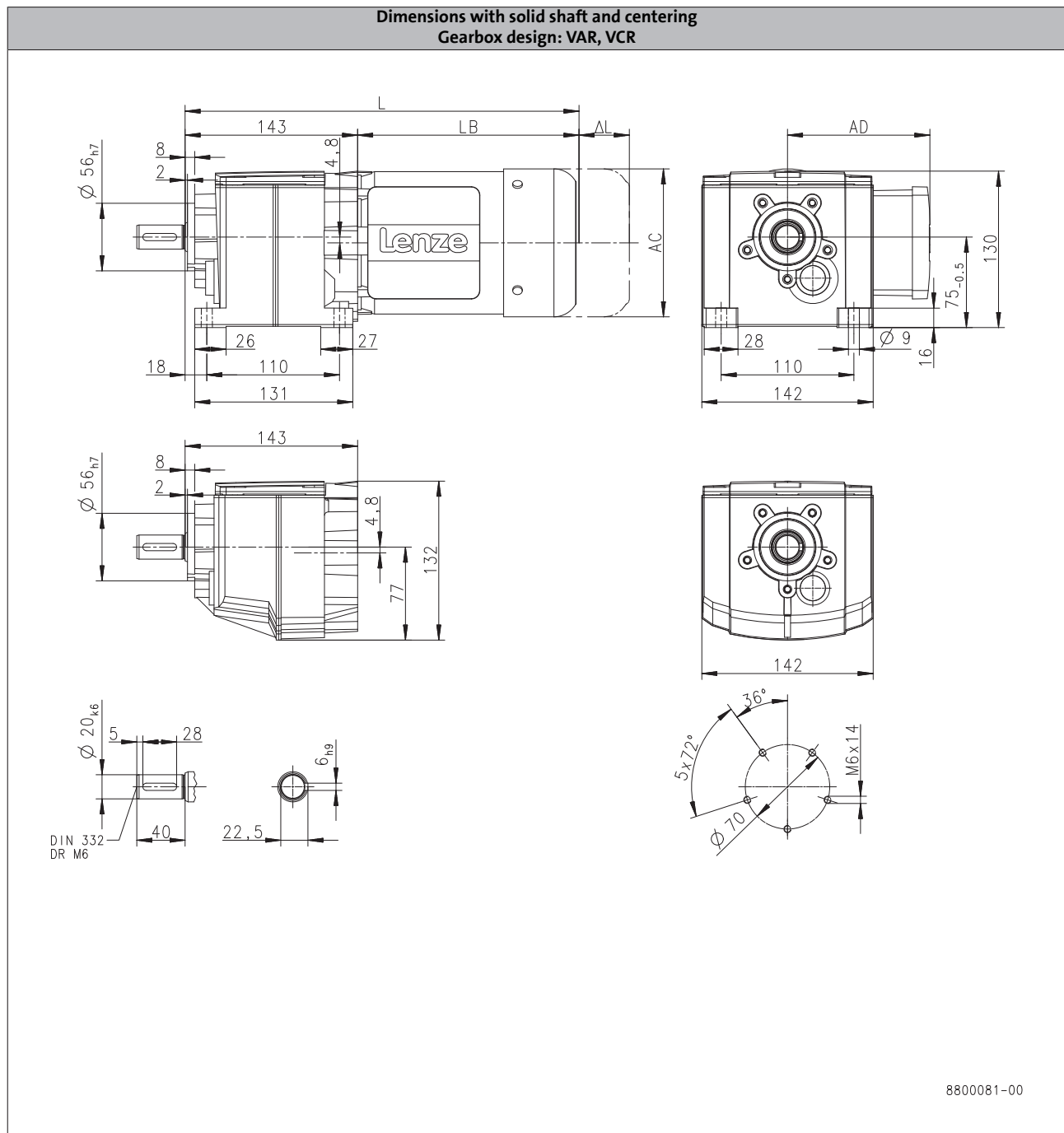
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H100



6.3

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	326		346		369	428	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

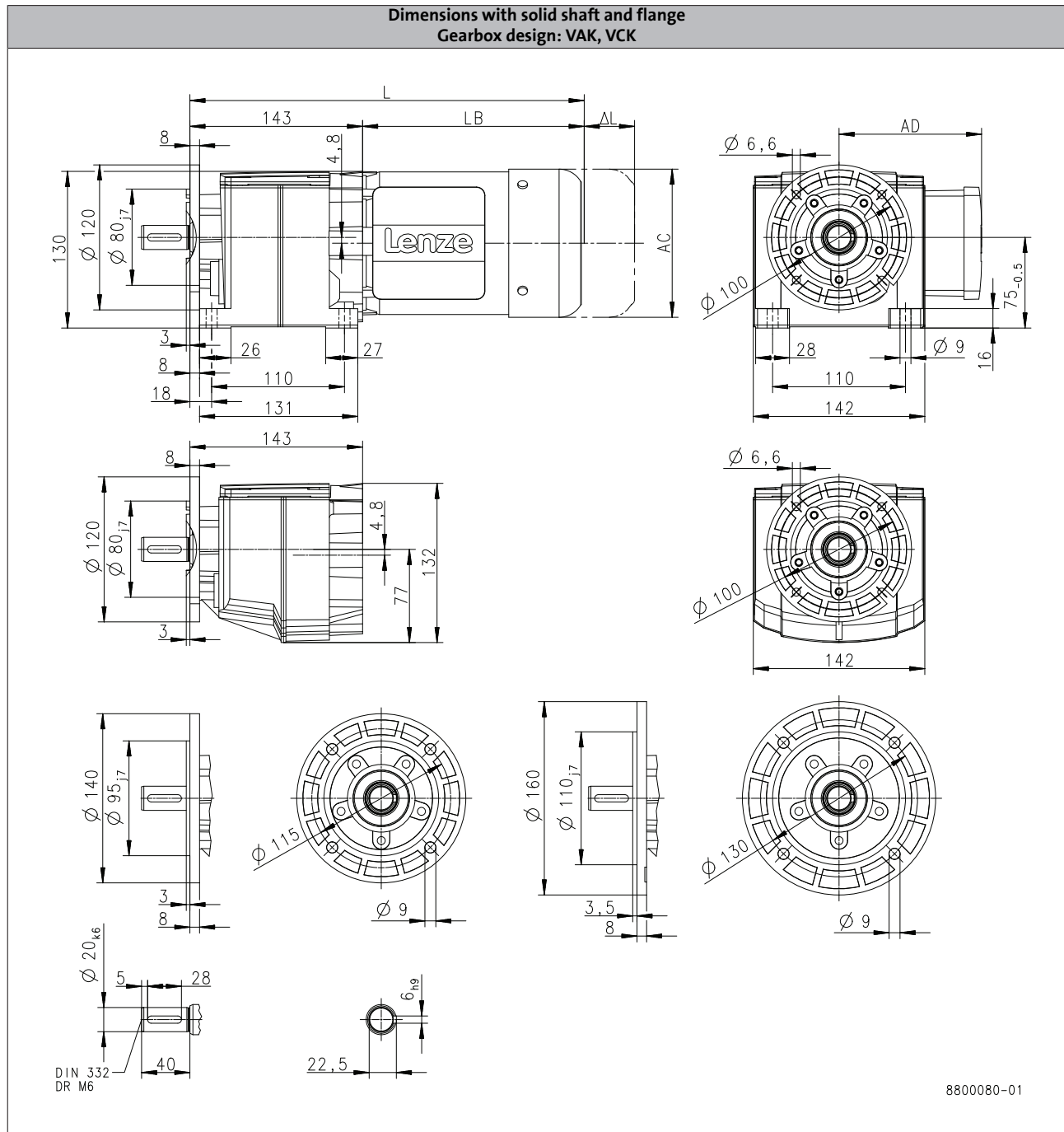
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H100



6.3

Product			MD□MA□□					MH□MA□□		
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		326		346		369		428
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226		285
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183		181
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156		176
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150	152	157

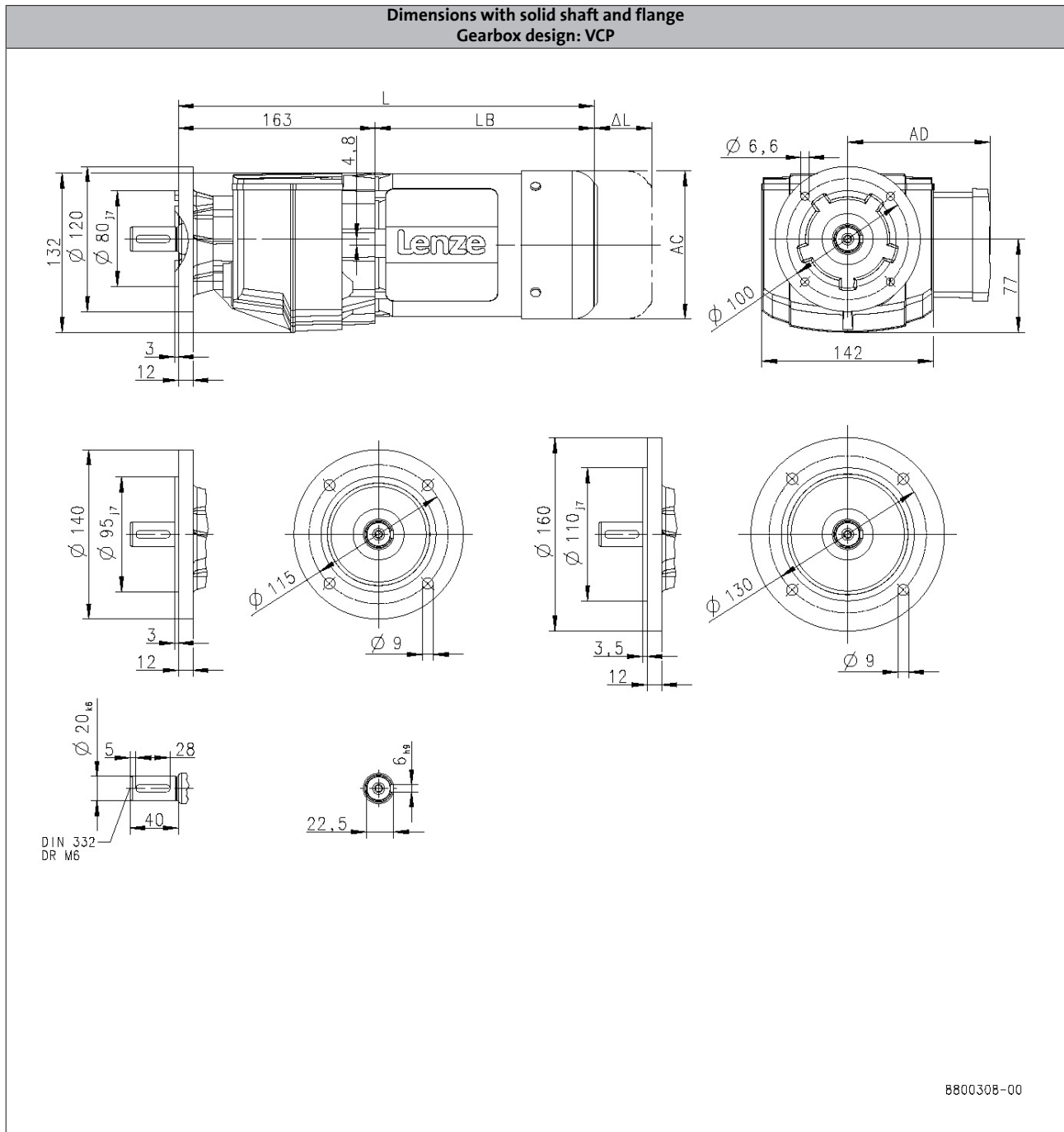
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H100



6.3

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	346		366		389	448	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

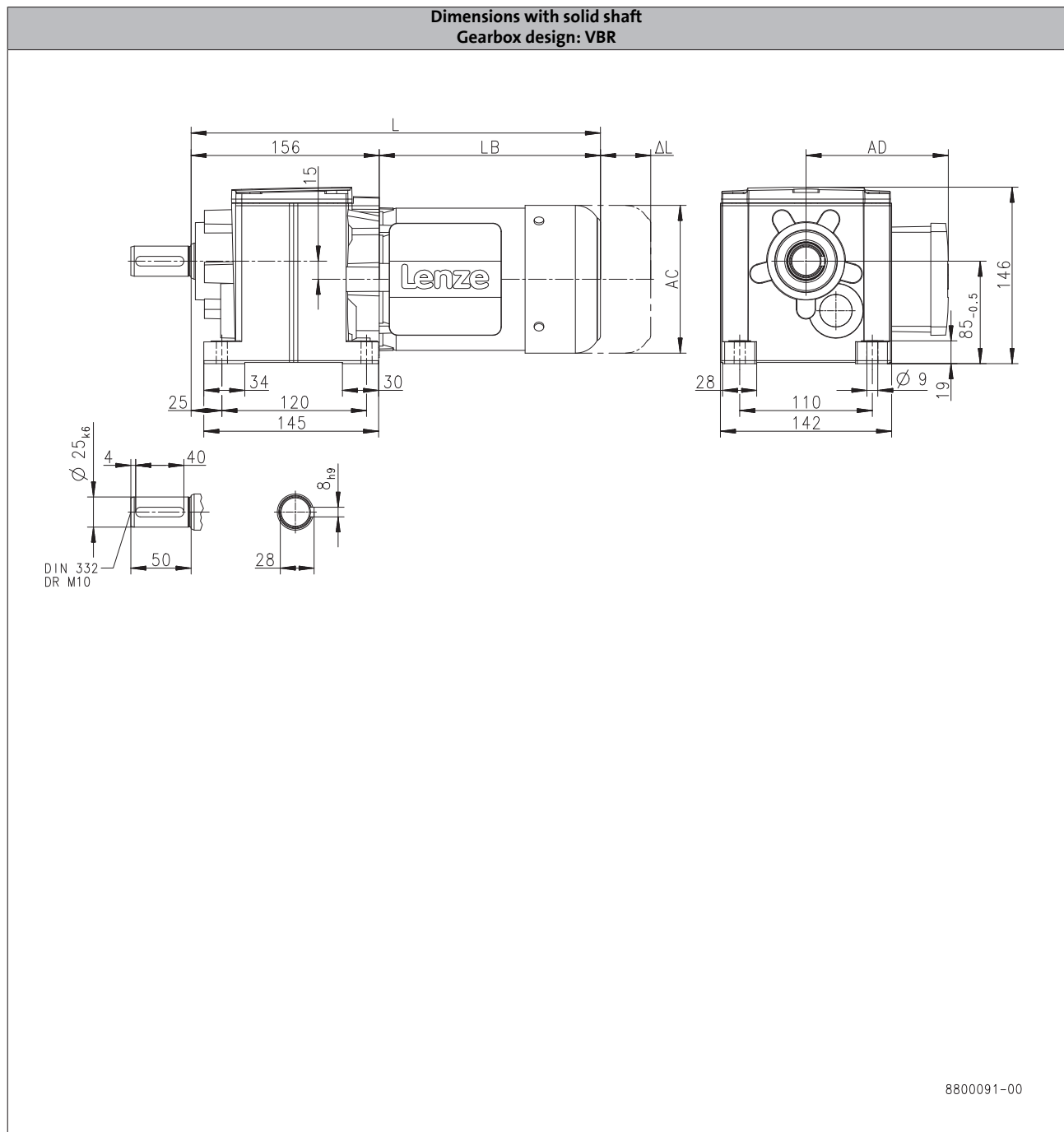
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H140



6.3

Product			MD□MA□□					MH□MA□□		
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		339		359		382	441	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150	152	157

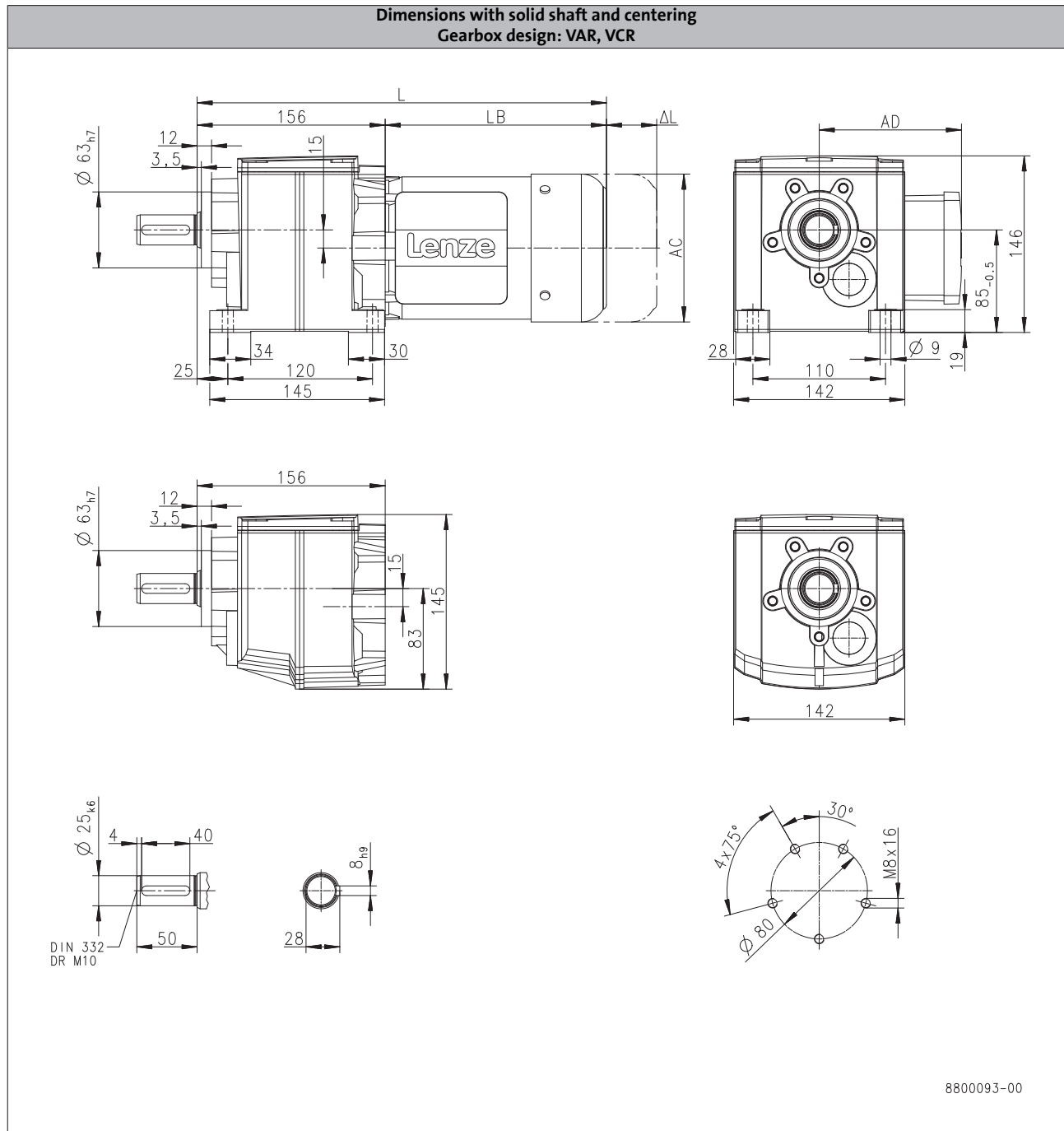
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H140



6.3

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	339		359		382	441	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

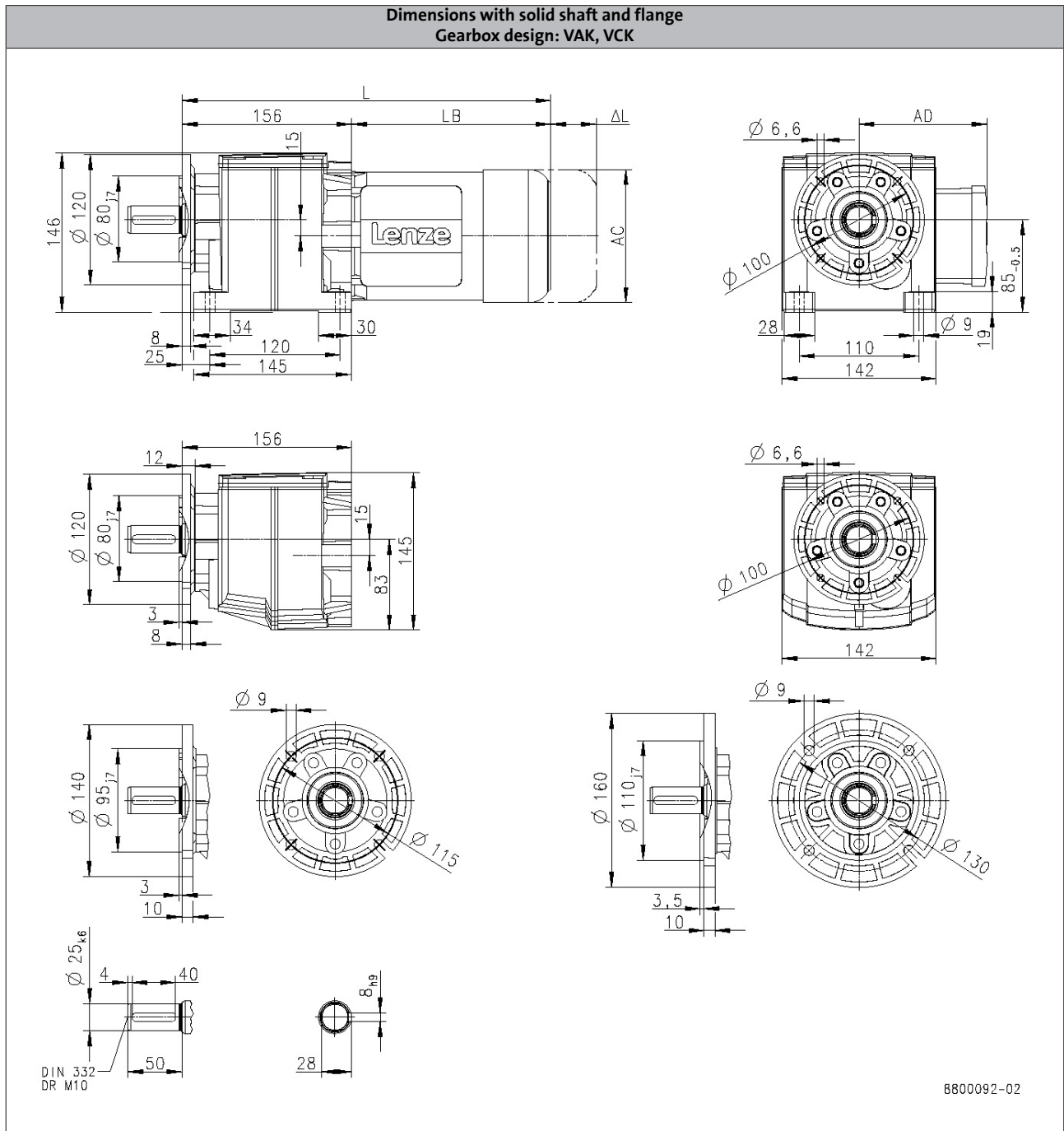
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H140



6.3

Product	MD□MA□□					MH□MA□□		
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>								
<b>Total length</b>	L	[mm]	339		359	382	441	
<b>Motor length</b>	LB	[mm]	183		203	226	285	
<b>Length of motor options</b>	Δ L	[mm]	170		165	183	181	
<b>Motor diameter</b>	AC	[mm]	123		139	156	176	
<b>Distance motor/connection</b>	AD	[mm]	100		109	150	152	157



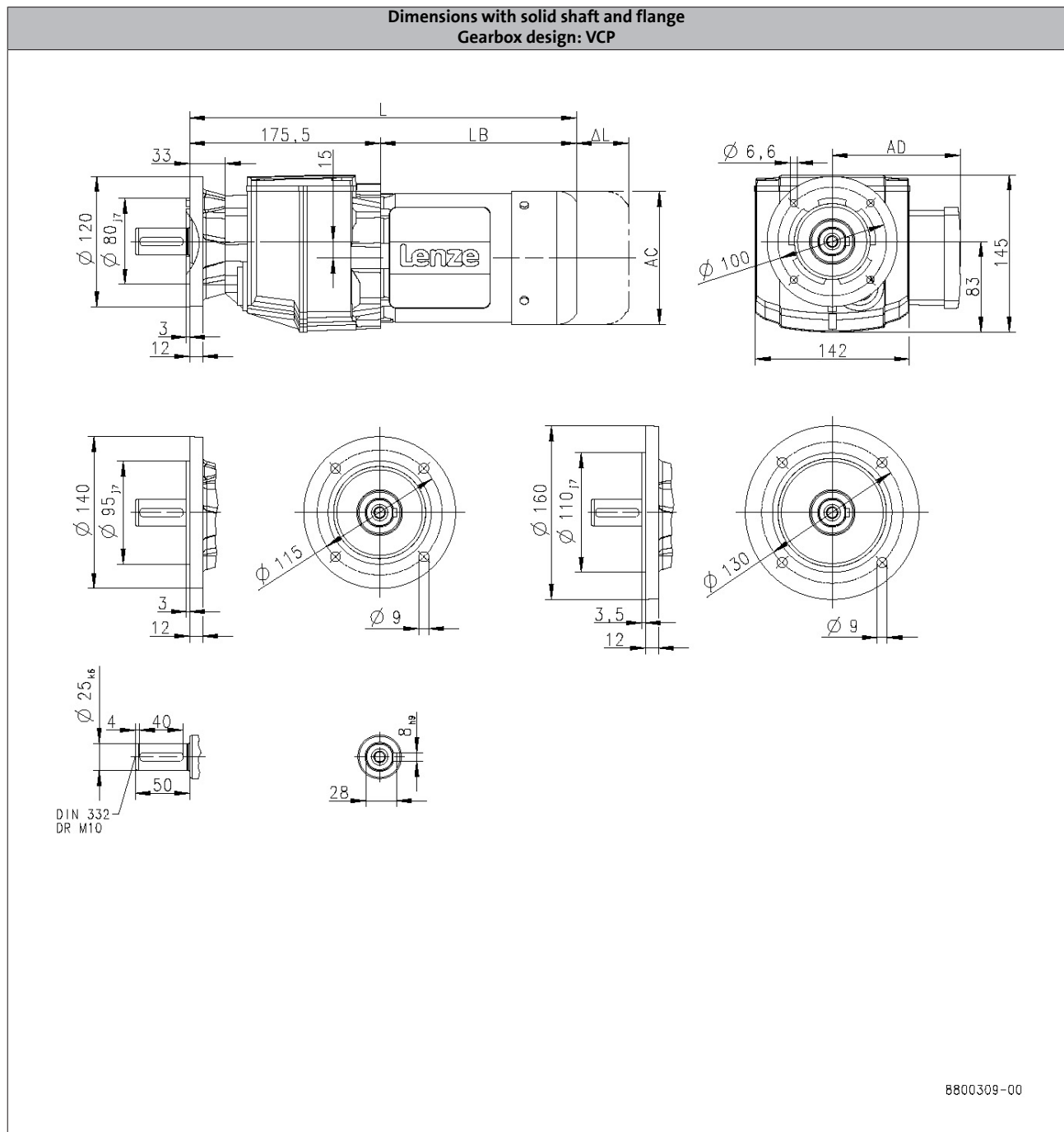
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H140



6.3

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	359		379		402	461	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

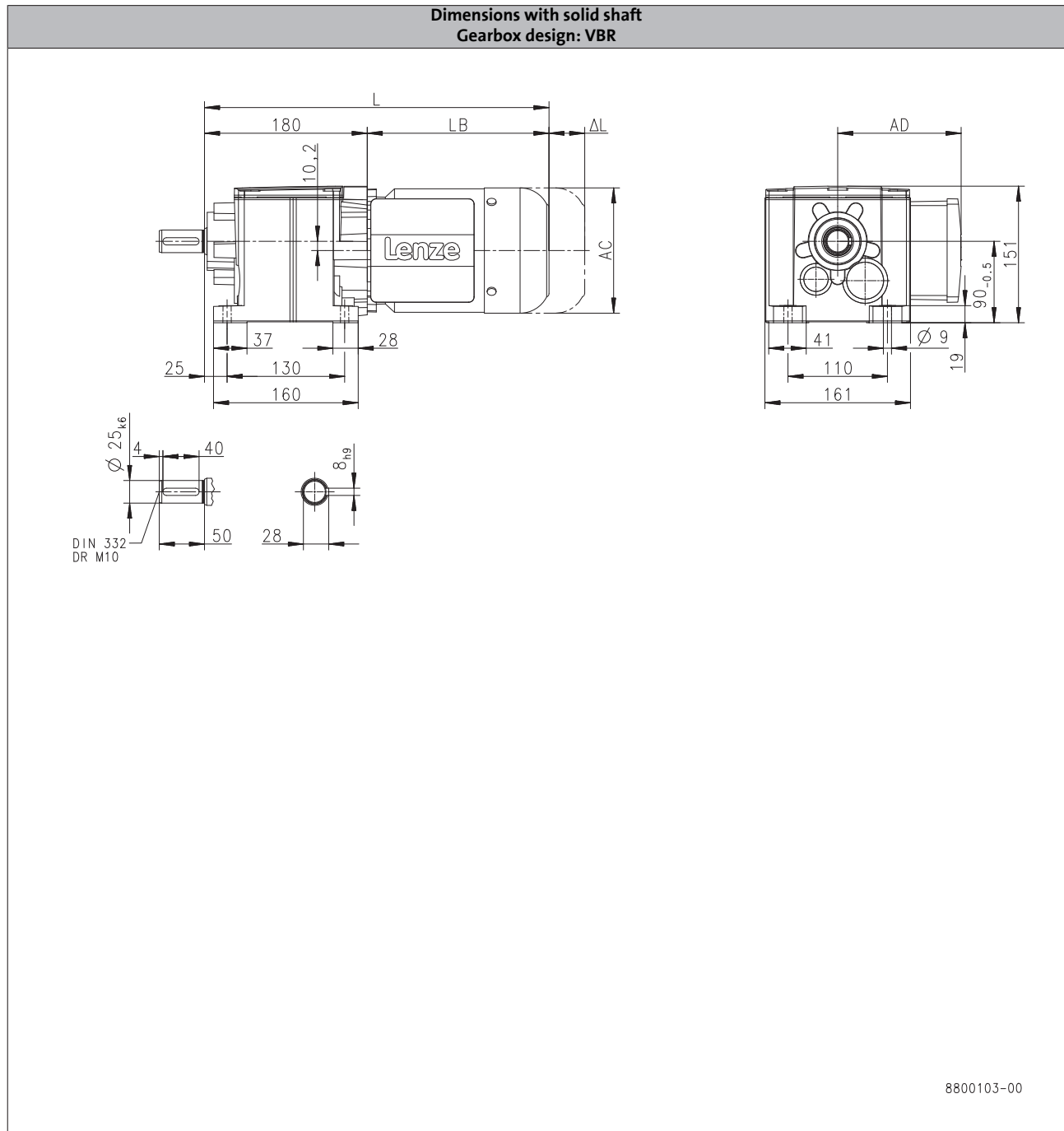
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H210



6.3

Product			MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		363		383	406	465		501	517	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203	226	285		321	337	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165	183	181		170		
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139	156	176		194		
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109	150	152	157	166		

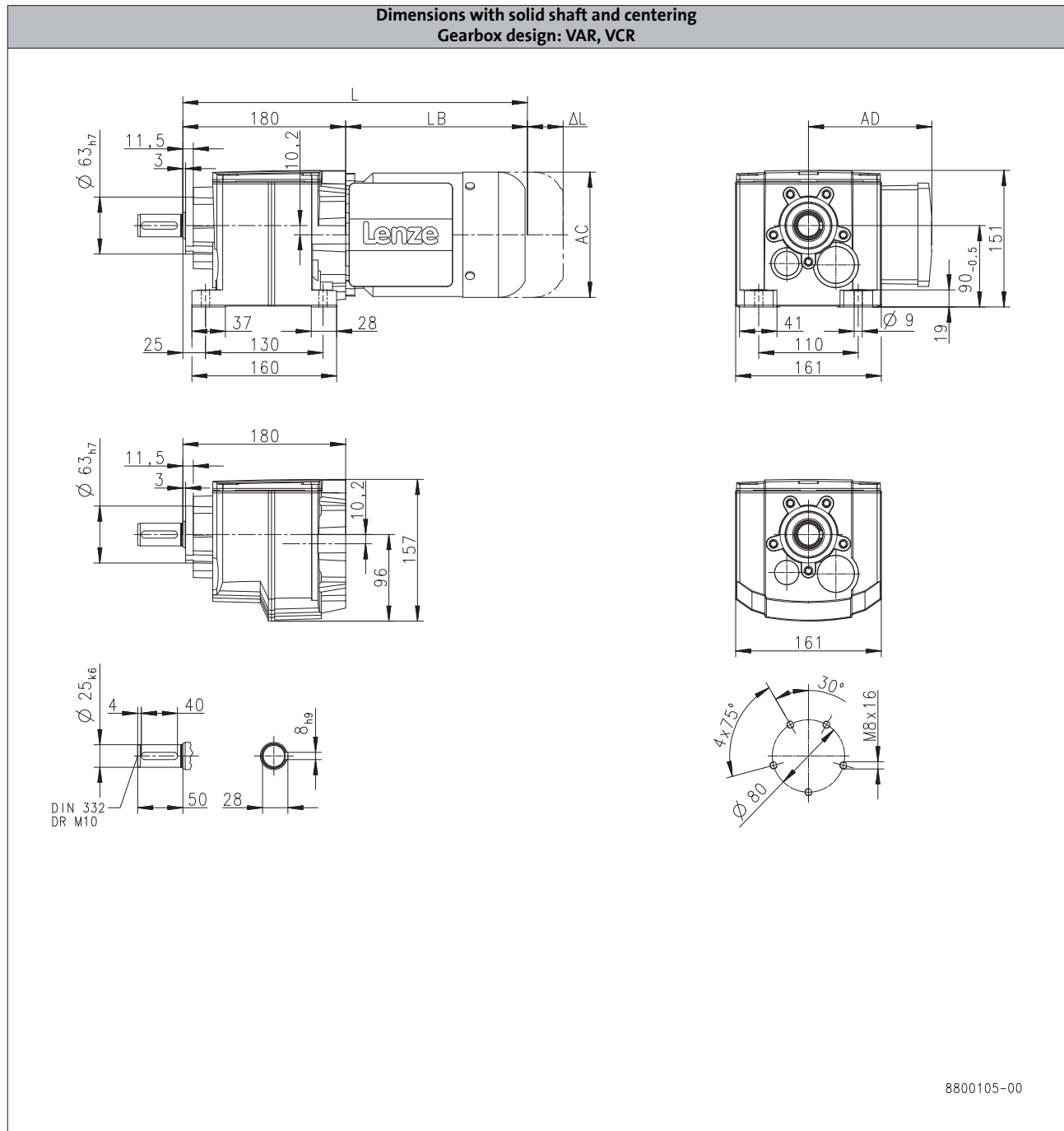
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H210

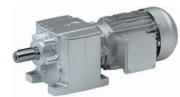


6.3

Product	MD□MA□□					MH□MA□□				
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]	363		383	406	465		501	517
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285		321	337
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181		170	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157		166

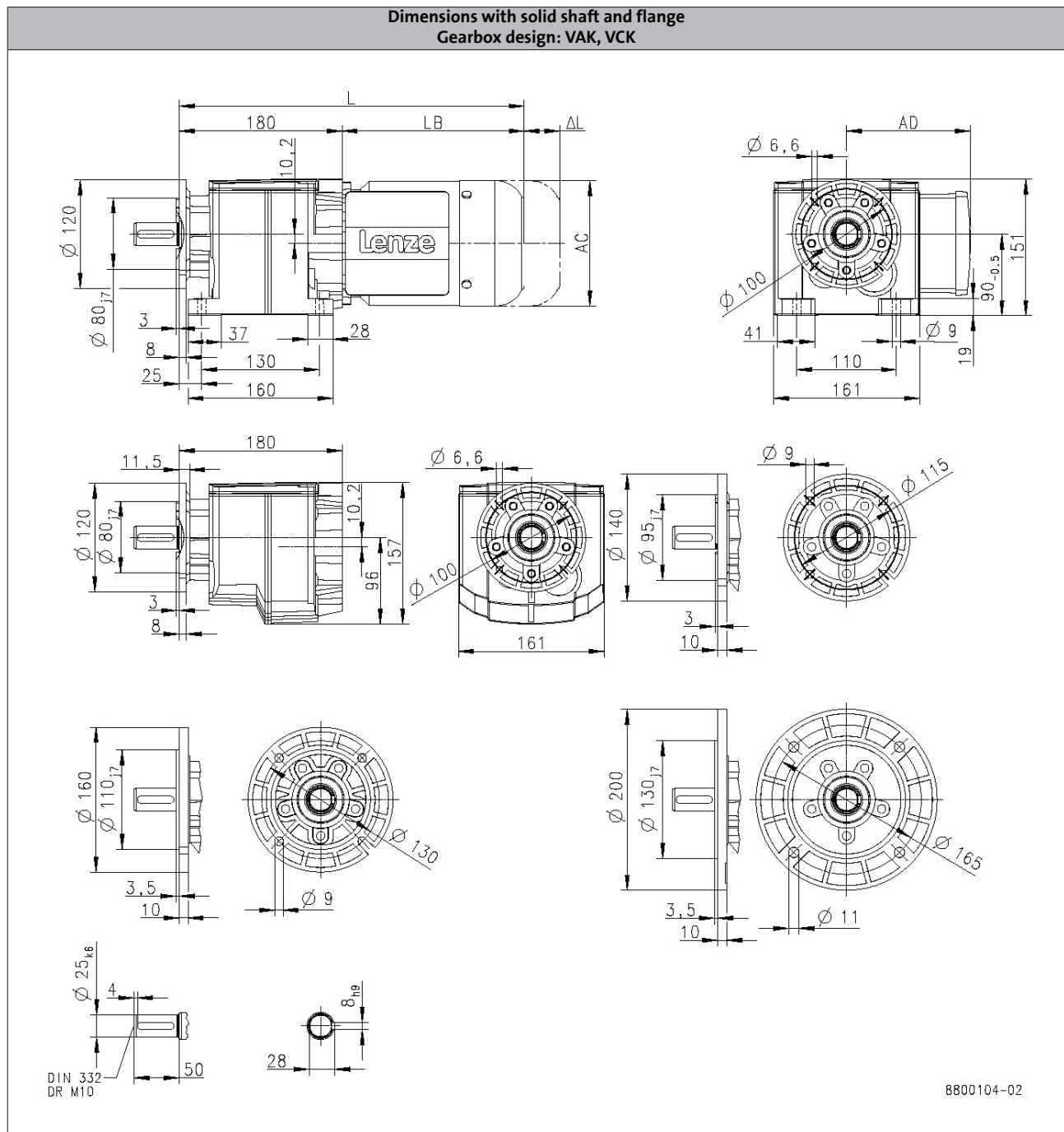
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H210



6.3

Product			MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]		363		383		406	465		501	517
<b>Motor length</b>	<b>LB</b>	[mm]		183		203		226	285		321	337
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170		165		183	181		170	
<b>Motor diameter</b>	<b>AC</b>	[mm]		123		139		156	176		194	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100		109		150	152	157	166	

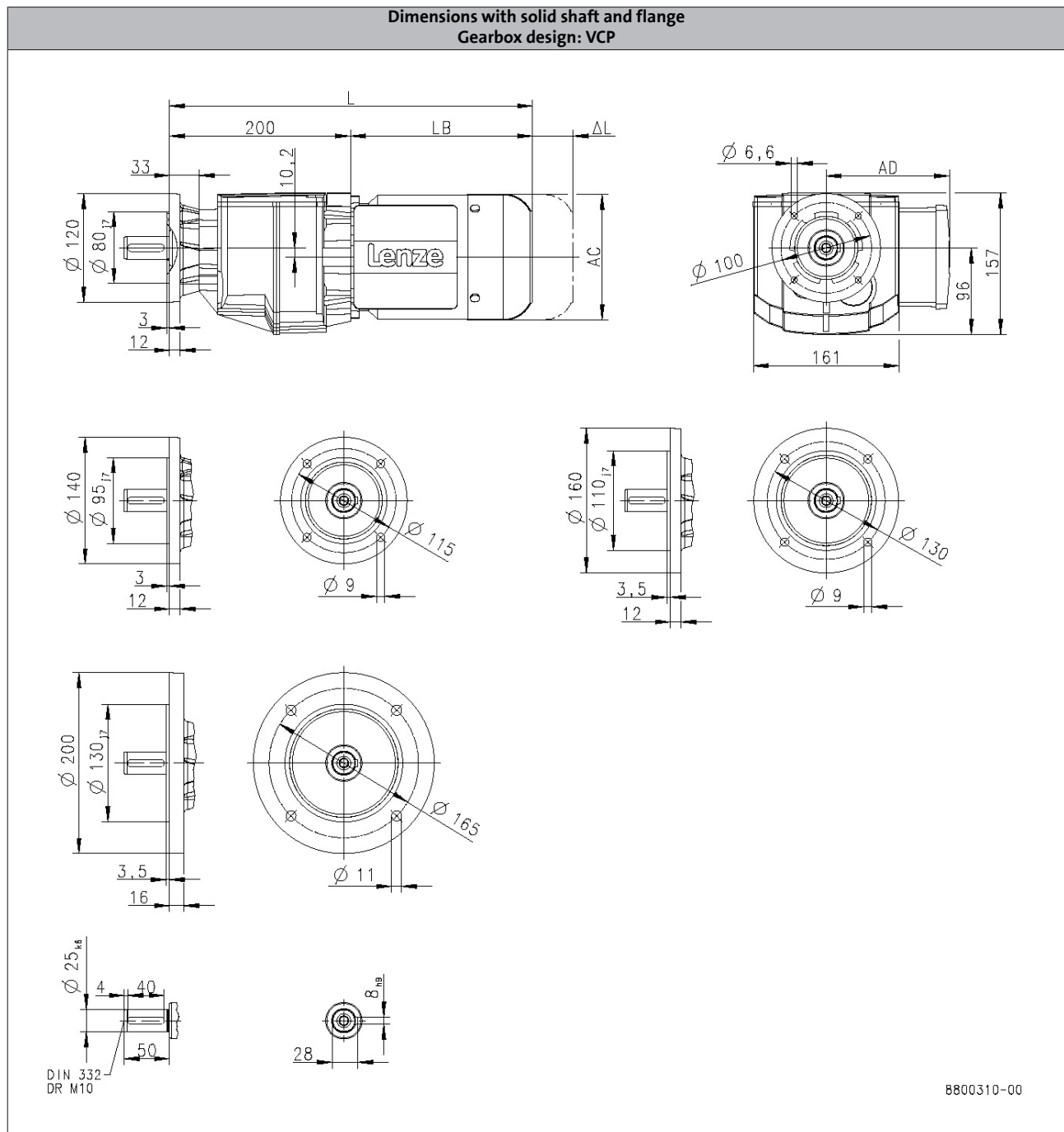
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H210



6.3

Product	MD□MA□□					MH□MA□□					
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>											
<b>Total length</b>	L	[mm]	383		403		426		485	521	537
<b>Motor length</b>	LB	[mm]	183		203		226		285	321	337
<b>Length of motor options</b>	Δ L	[mm]	170		165		183		181		170
<b>Motor diameter</b>	AC	[mm]	123		139		156		176		194
<b>Distance motor/connection</b>	AD	[mm]	100		109		150	152	157		166

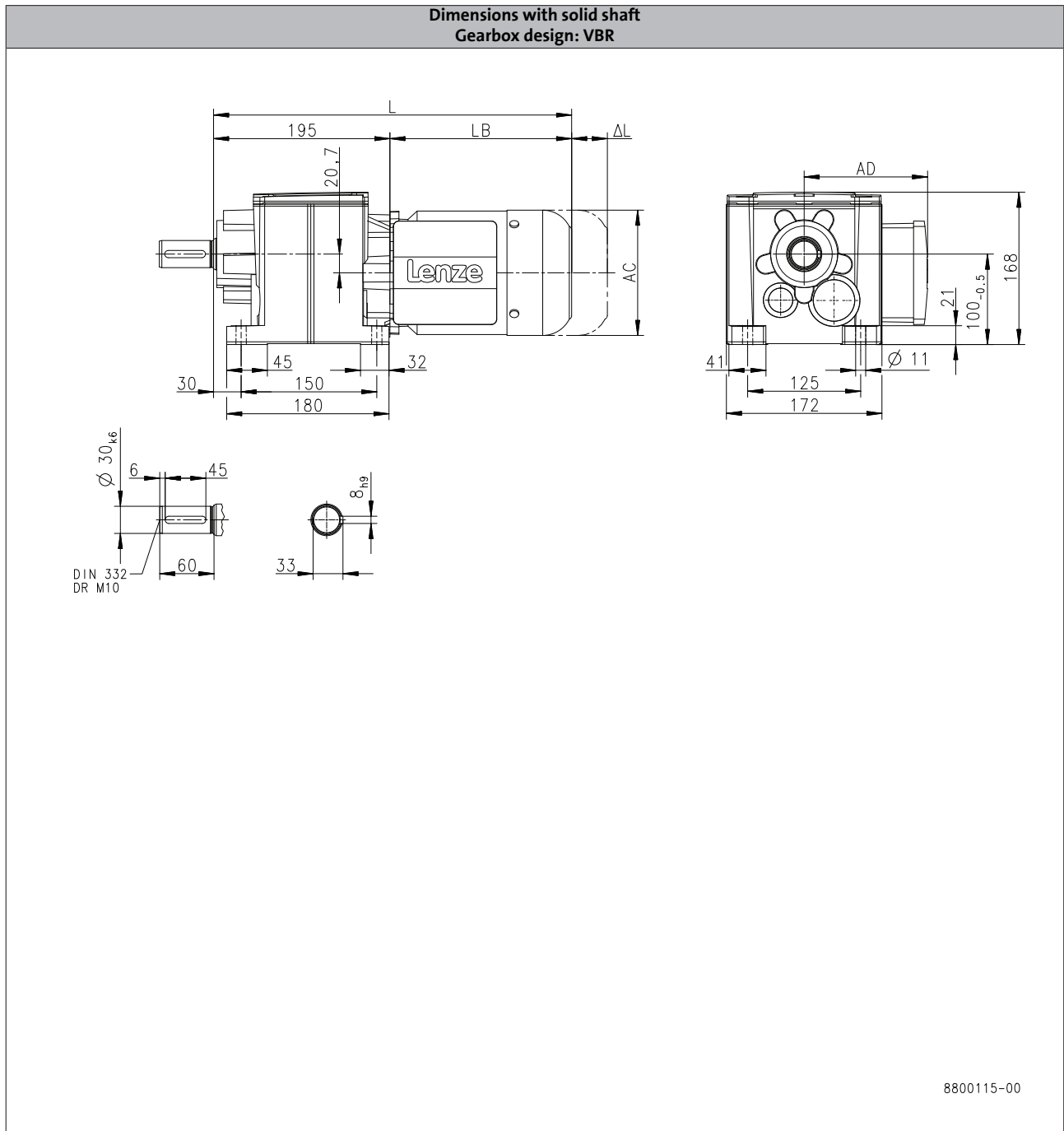
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H320

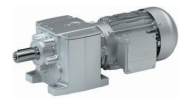


6.3

Product			MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	378		398		421	480	516	532	575	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183		203		226	285	321	337	380	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170		165		183	181	170		183	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123		139		156	176	194		218	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100		109		150	152	157	166		176

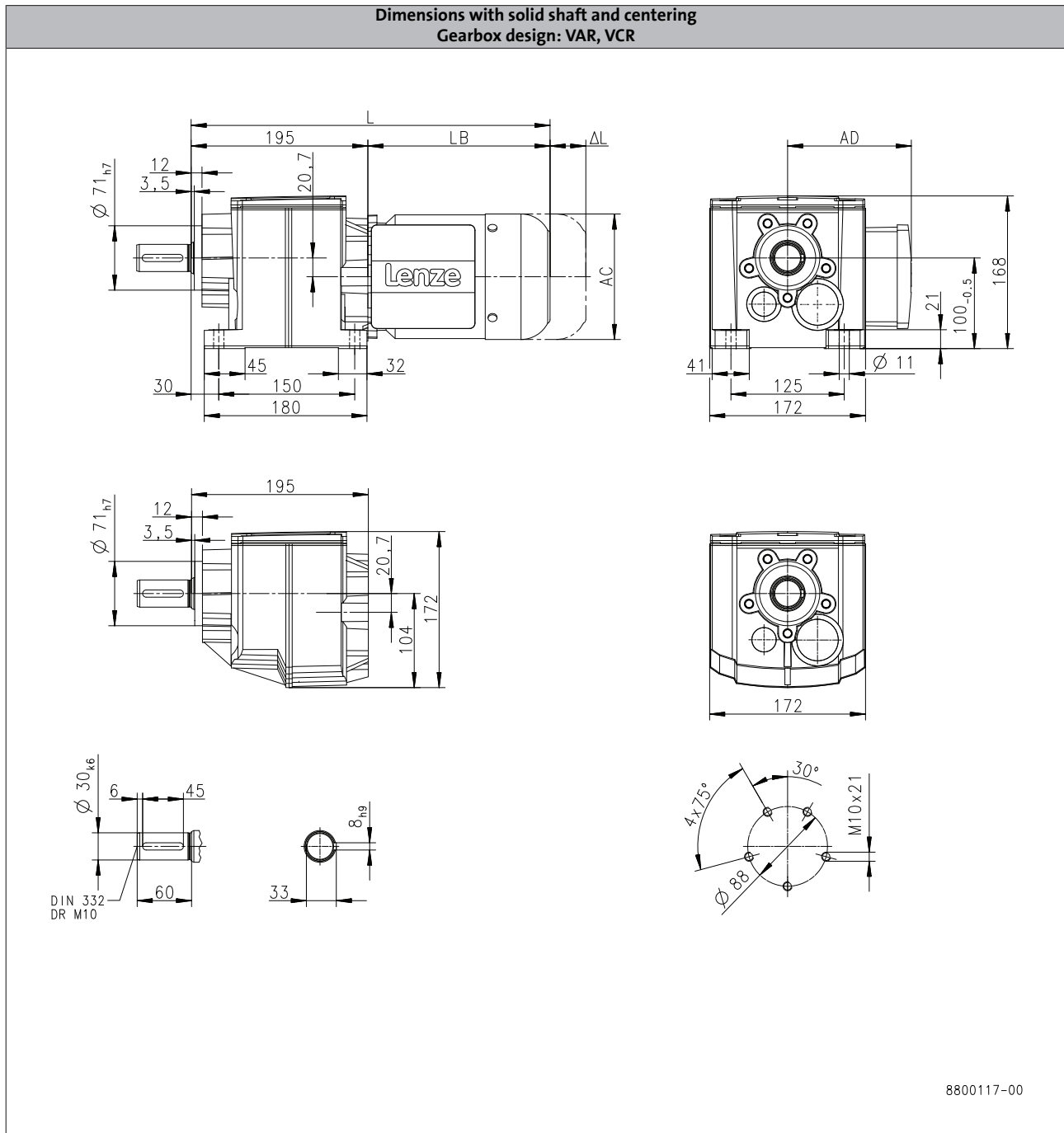
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H320



6.3

Product	MD□MA□□					MH□MA□□					
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	378		398	421	480	516	532	575	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285	321	337	380	
<b>Length of motor options</b>	<b><math>\Delta L</math></b>	[mm]	170		165	183	181		170	183	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	218	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157	166	176	

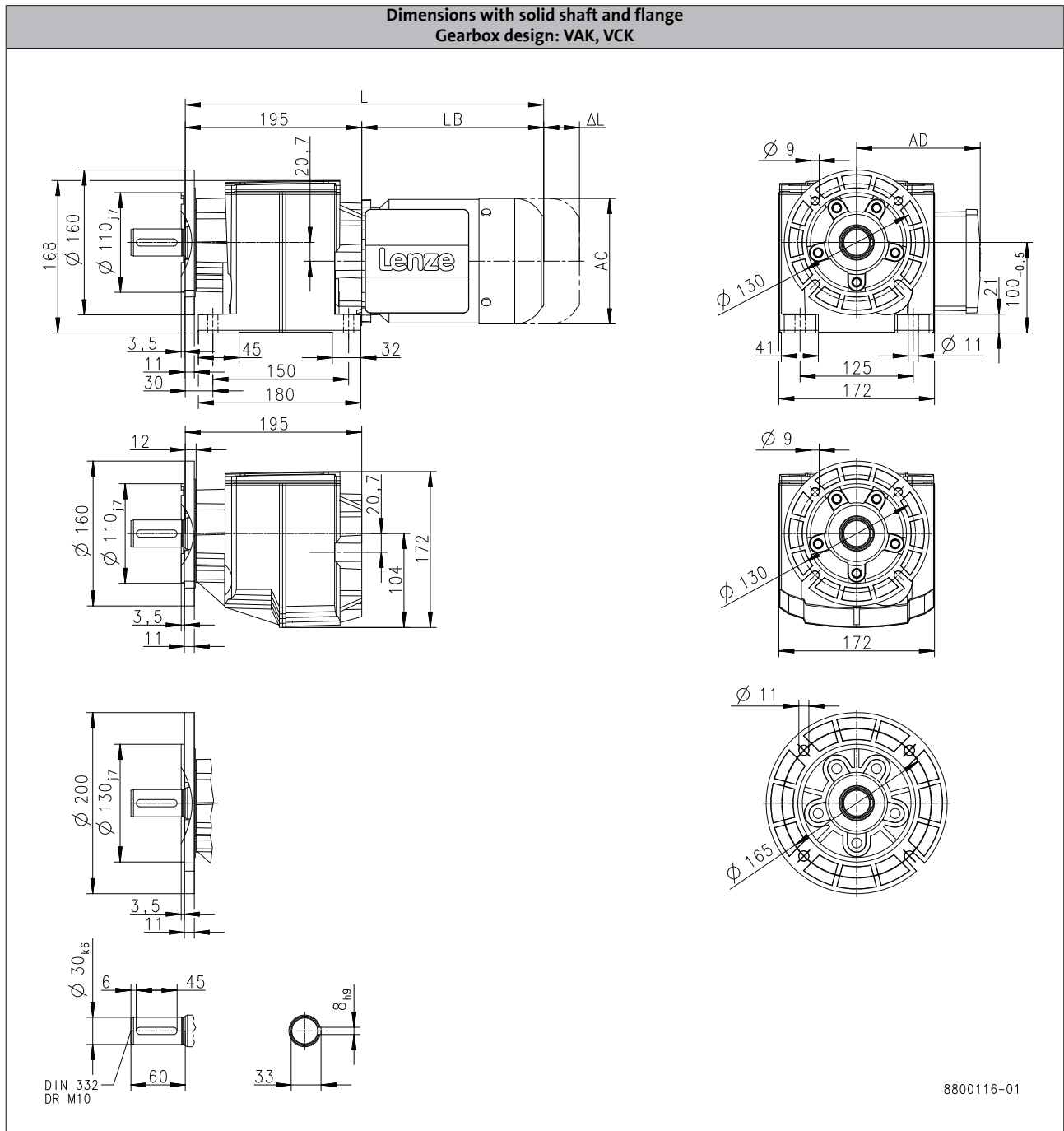
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H320



6.3

Product			MD□MA□□					MH□MA□□						
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	
<b>Dimensions</b>														
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		378		398		421		480		516	532	575
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226		285		321	337	380
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183		181		170		183
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156		176		194		218
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150		152	157	166		176



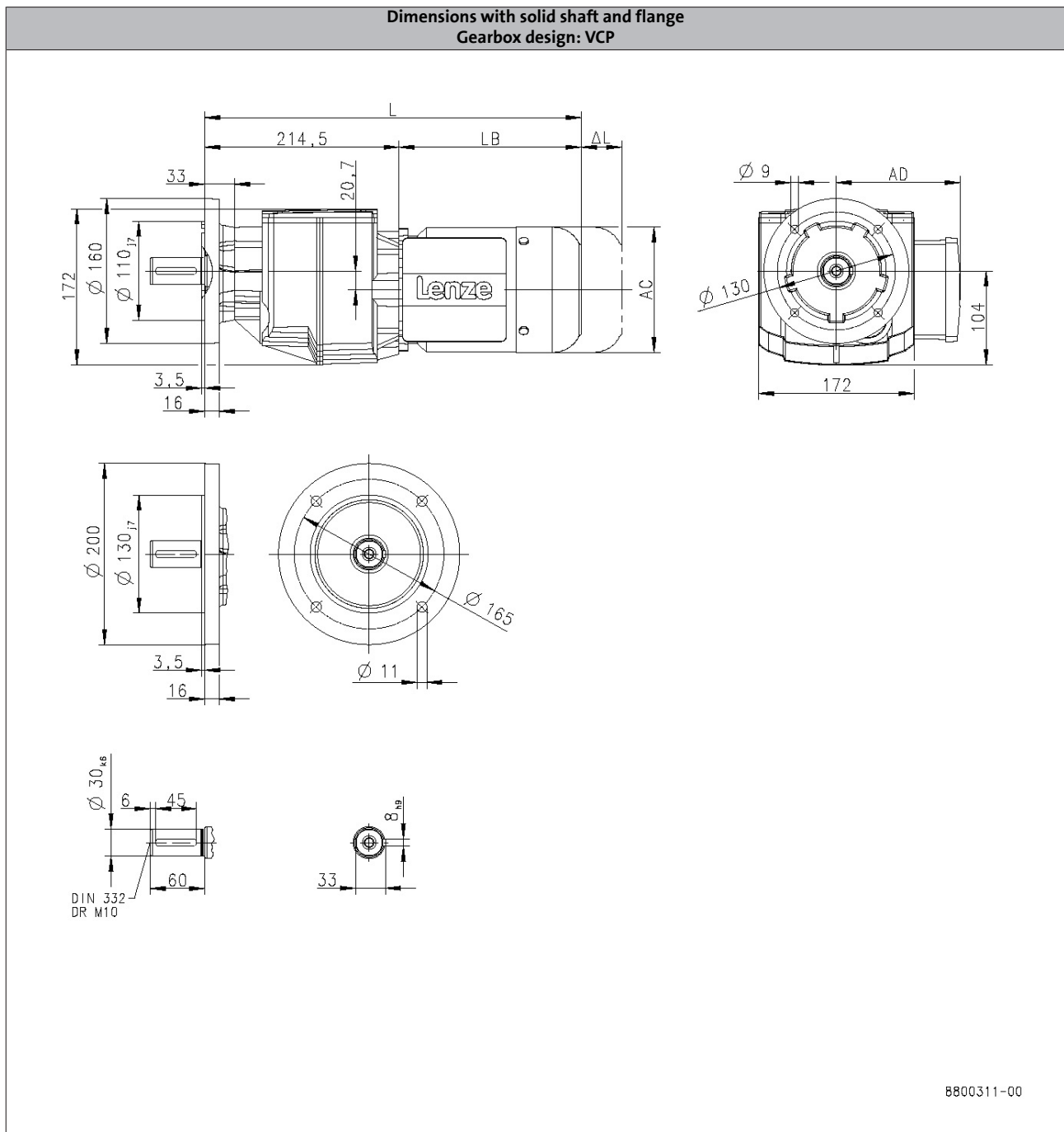
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H320



6.3

Product			MD□MA□□					MH□MA□□					
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22
<b>Dimensions</b>													
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		398		418		441	500	536	552	595	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226	285	321	337	380	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183	181		170	183	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156	176		194	218	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150	152	157	166	176	

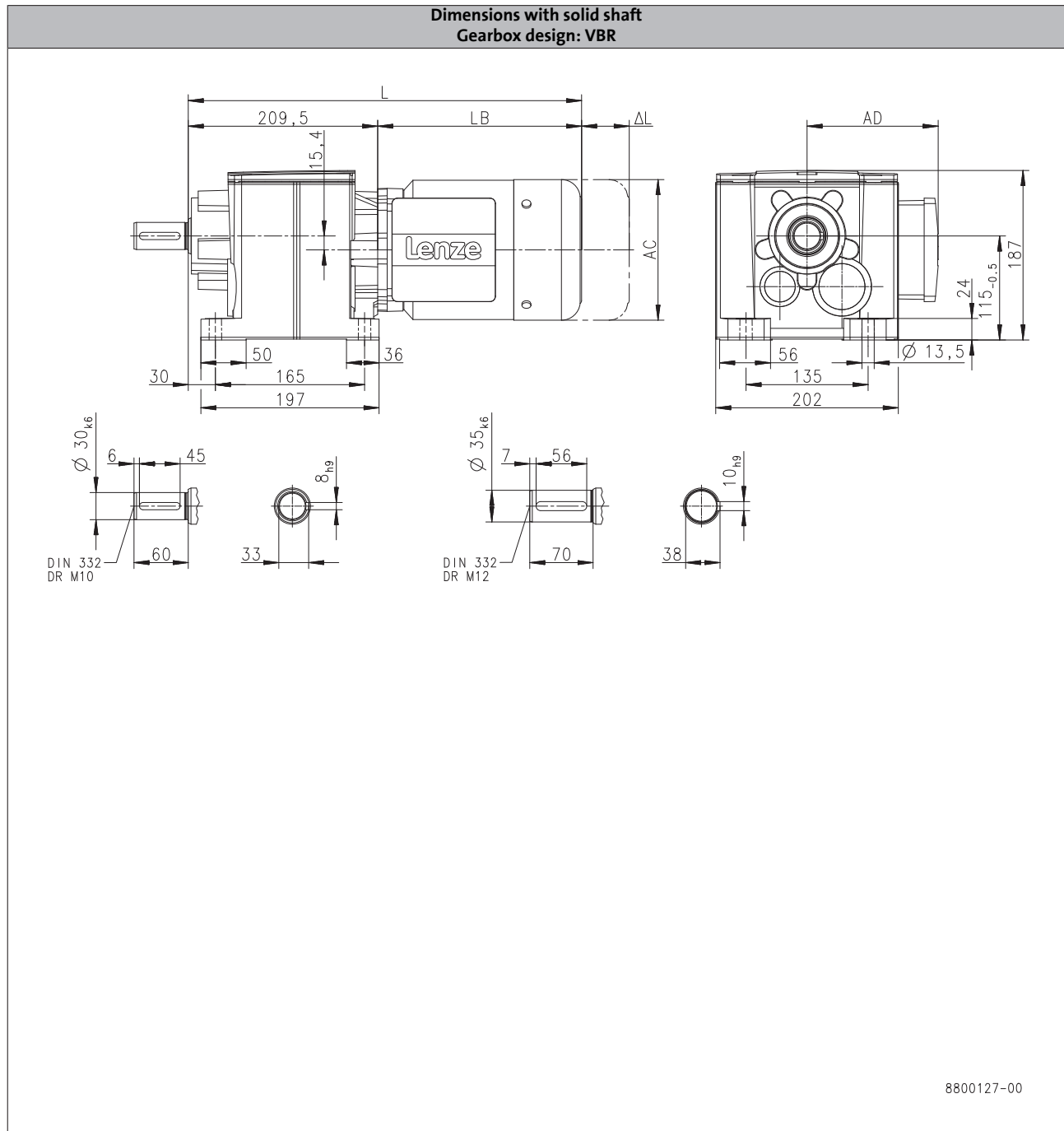
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		393			413	436
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

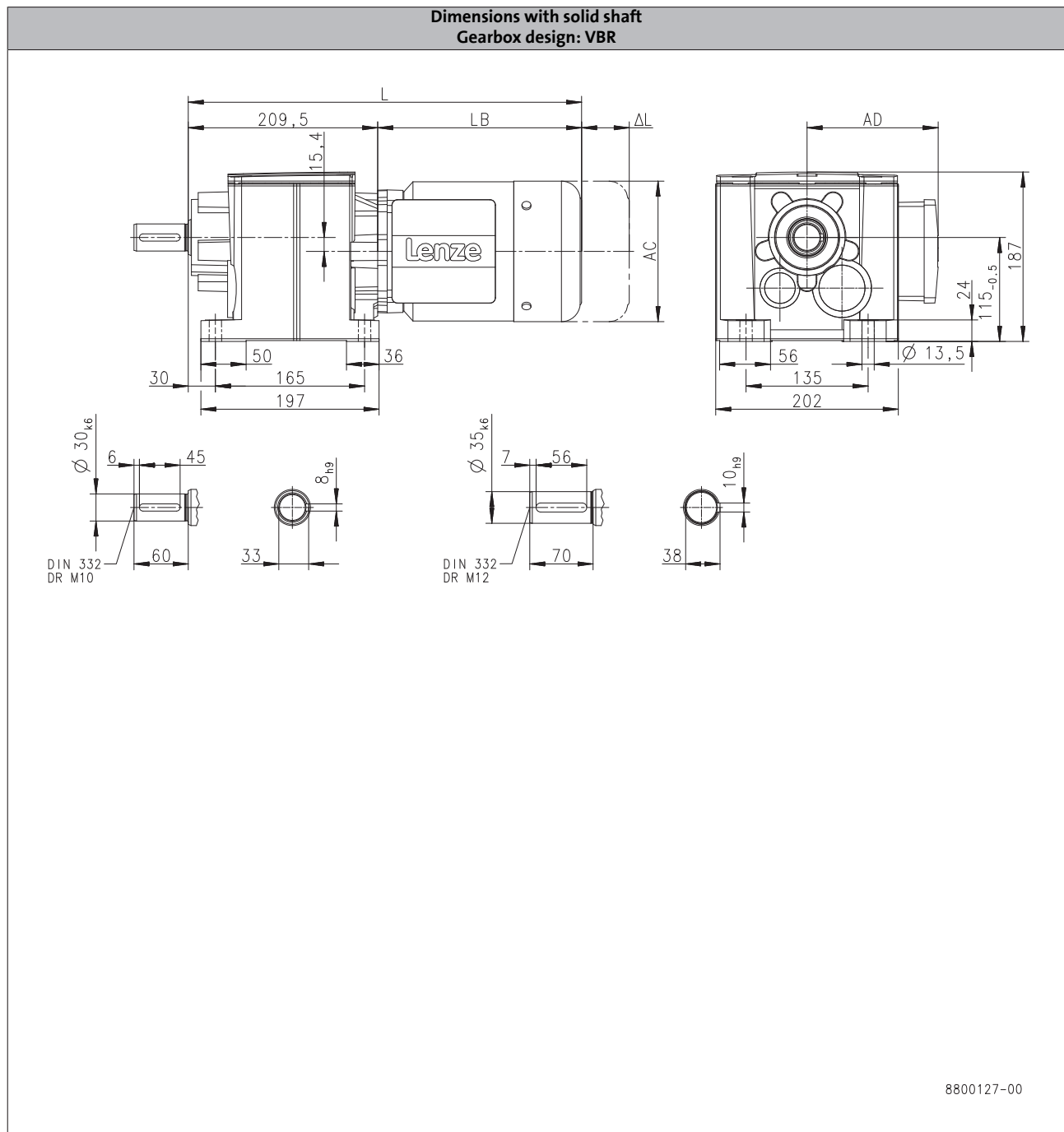
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product	MH□MA□□								
			090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	495		531	547	590		638
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380		428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183		202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194		218		258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166		176		195

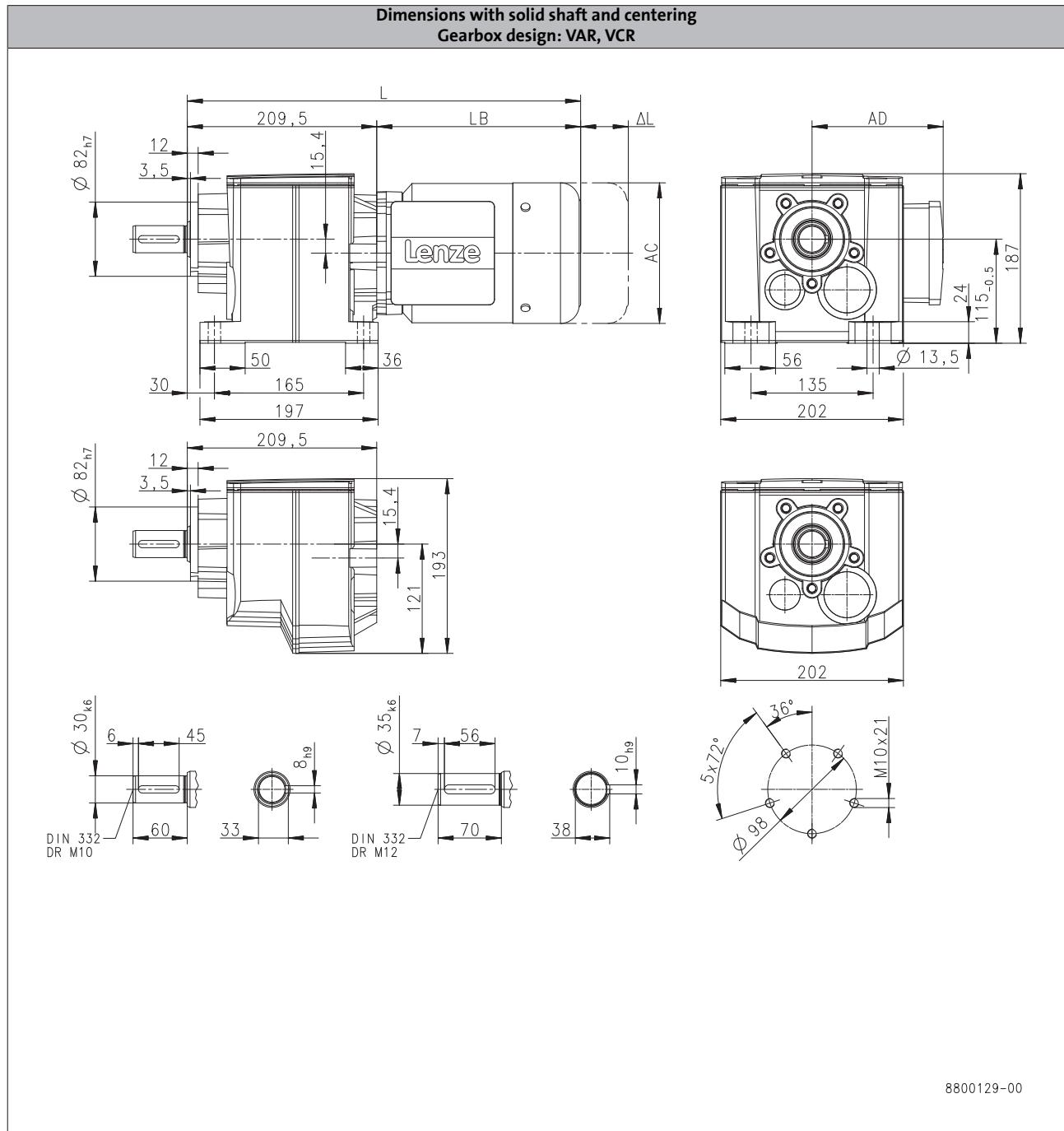
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		393			413	436
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

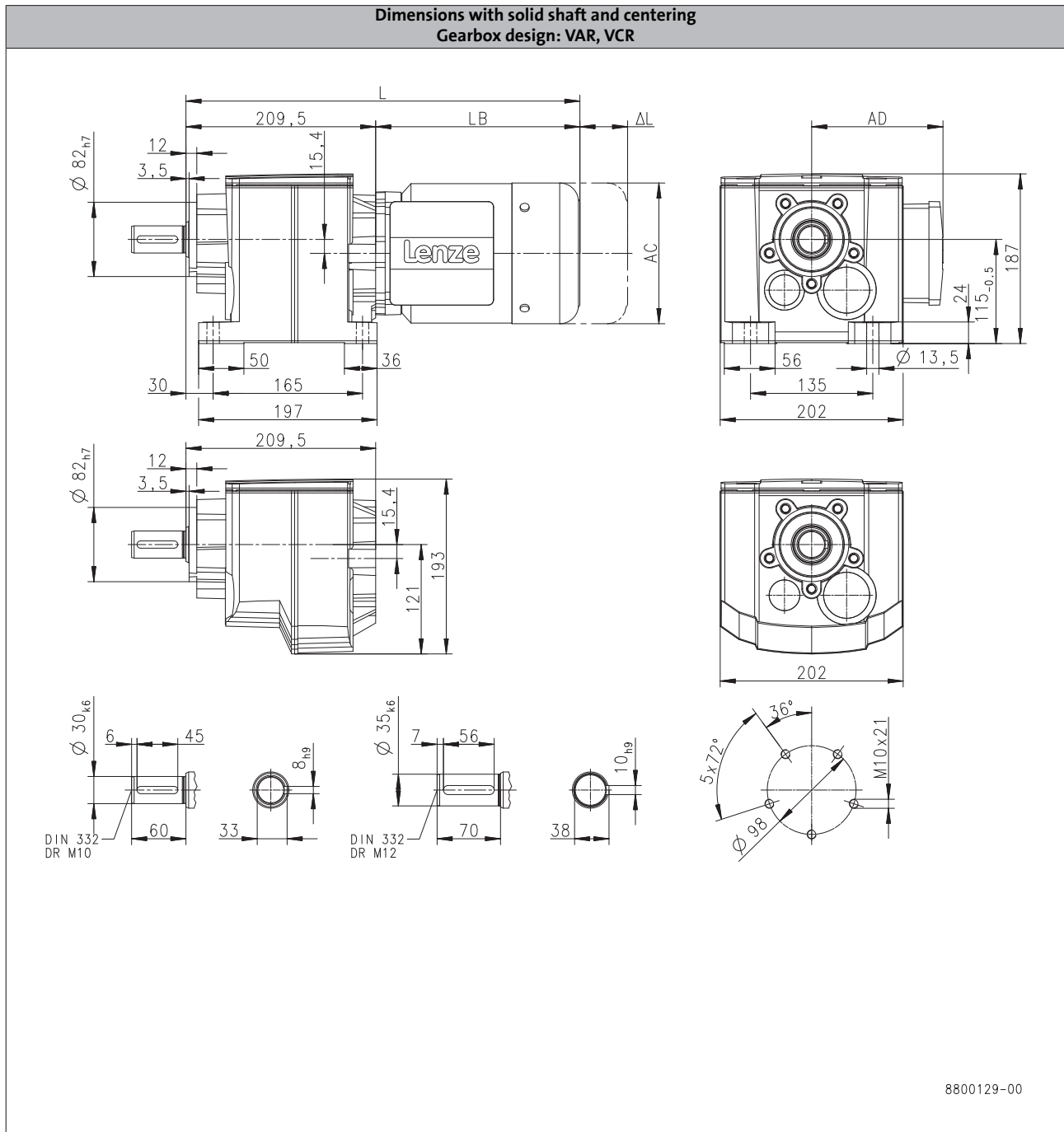
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	495	531	547	590	638	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166	176	195	

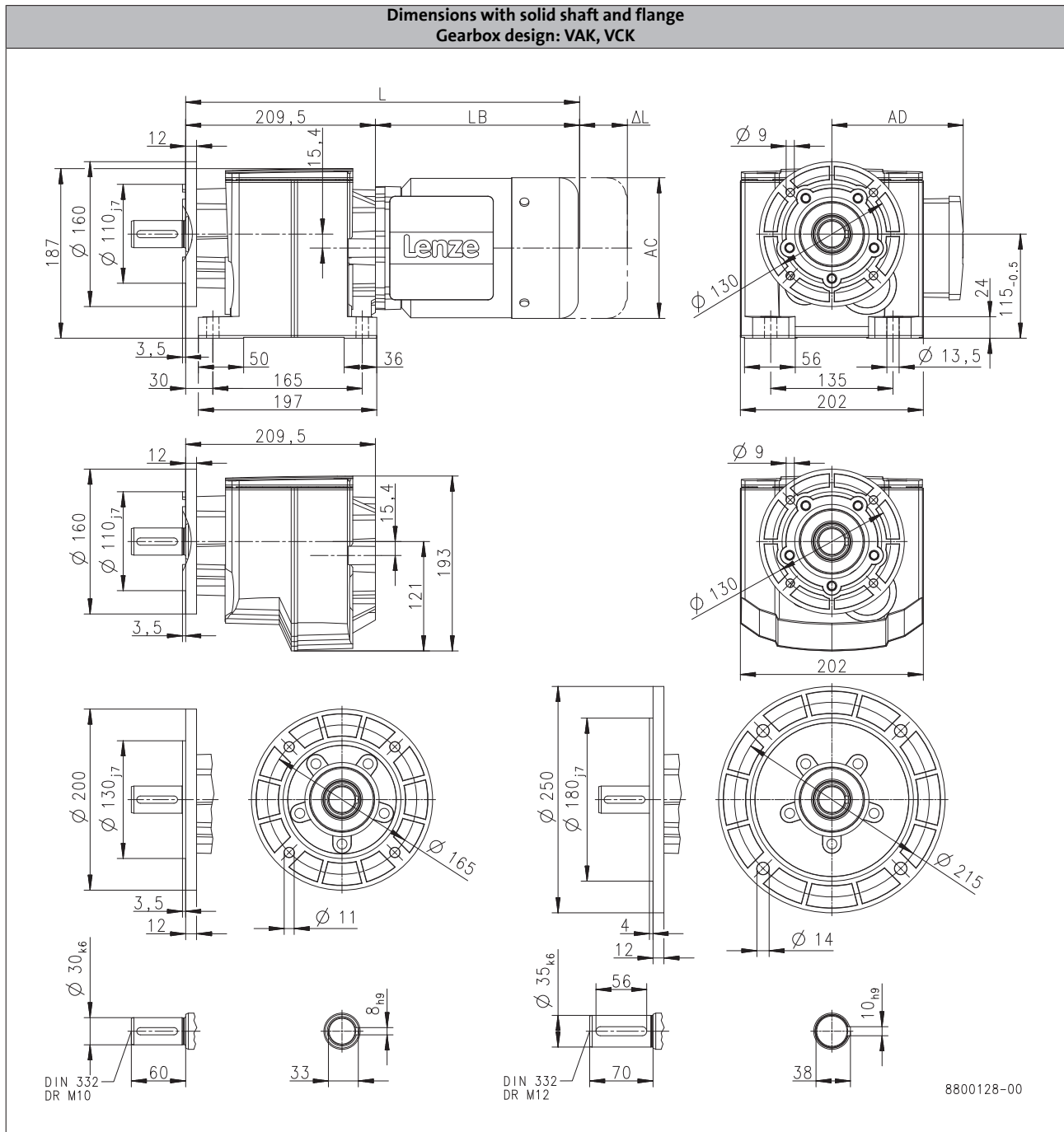
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		393			413	436
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

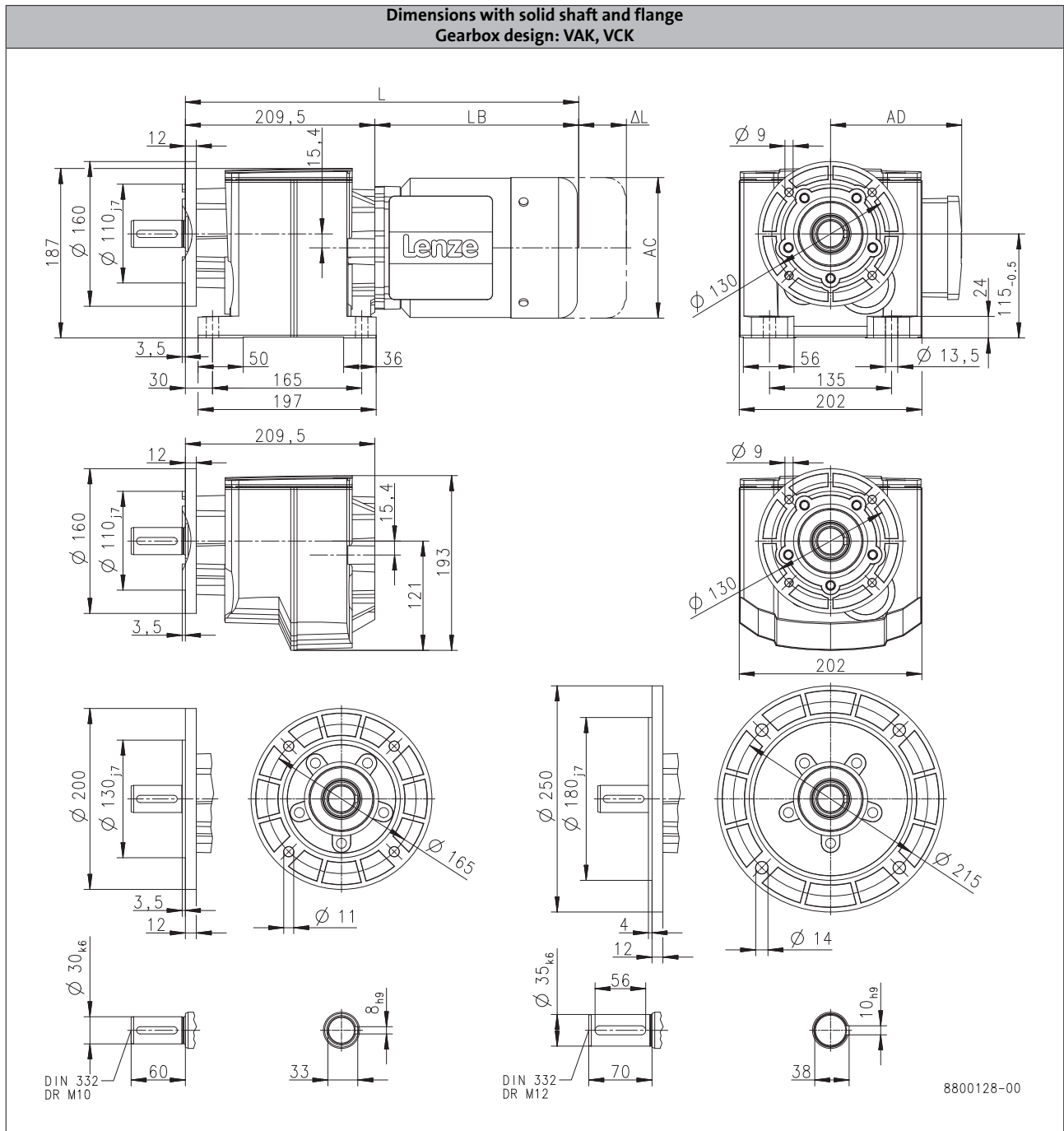
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	495	531	547	590	638	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166	176	195	

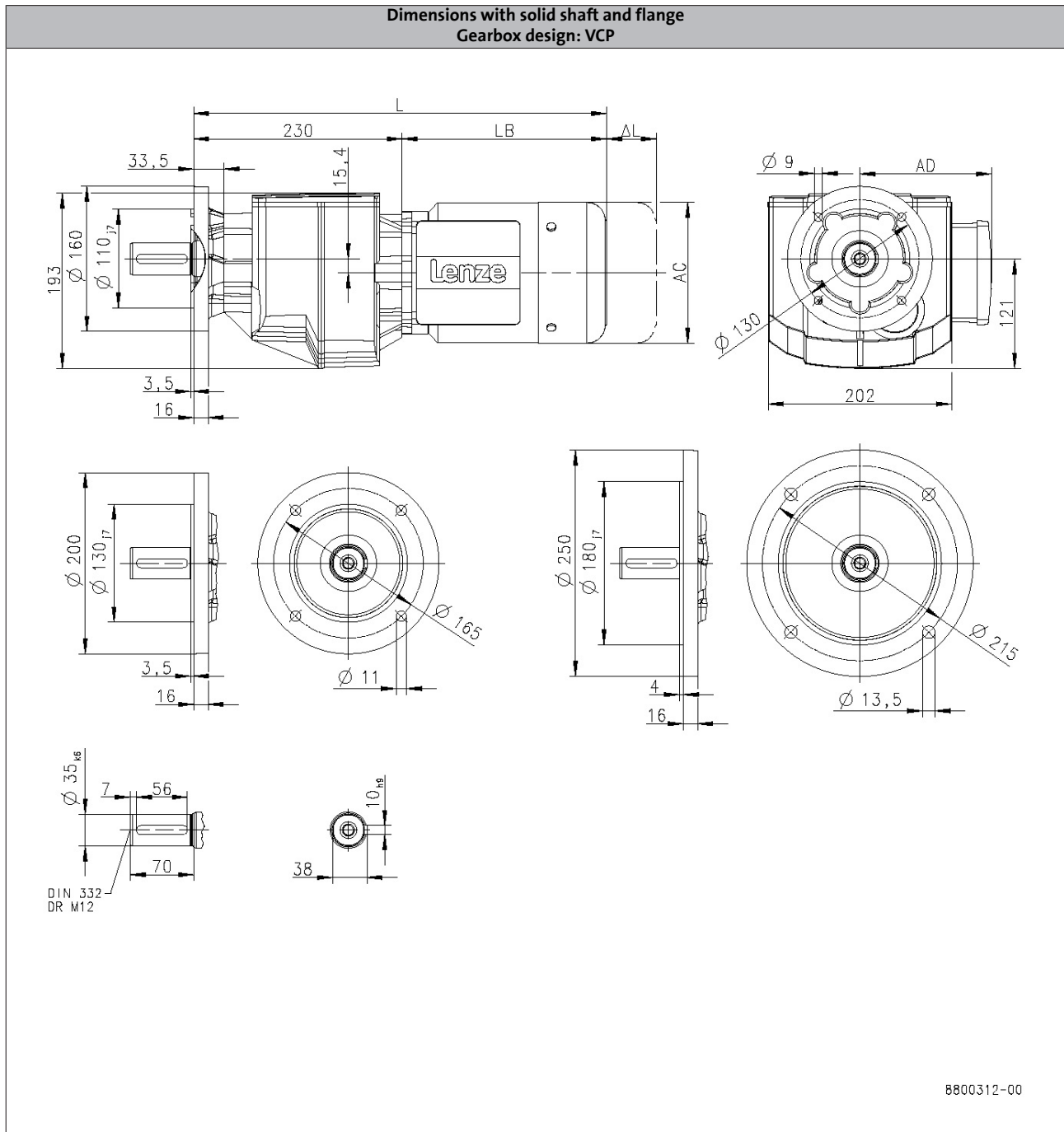
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product			MD□MA□□				MH□MA□□
			063-12	063-32	063-42	071-32	071-42
<b>Dimensions</b>							
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		413		433	456
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203	226
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165	183
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139	156
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109	150



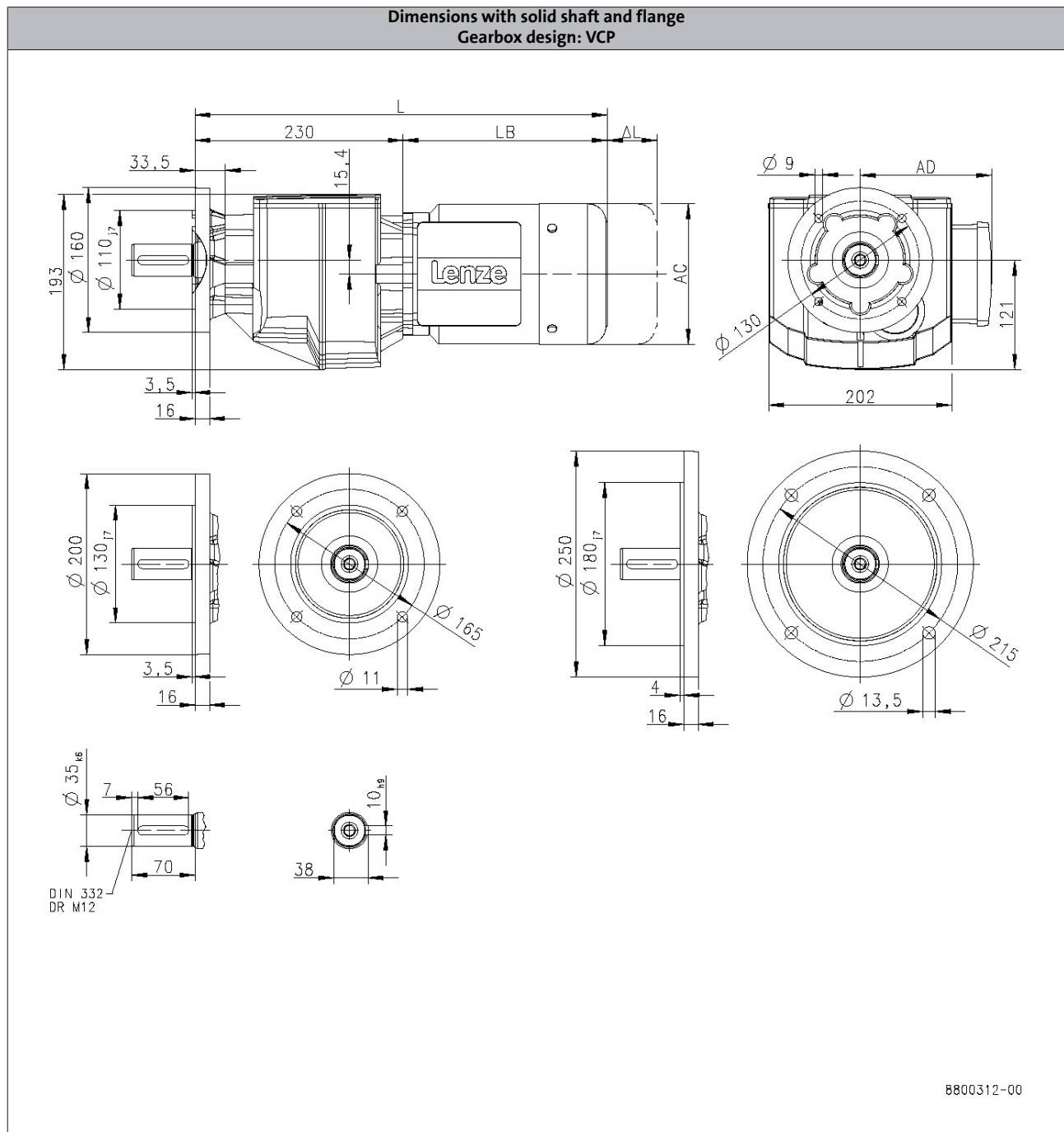
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product	MH□MA□□								
			090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	515		551	567	610		658
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380		428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183		202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		176		194	218		258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157		166	176		195

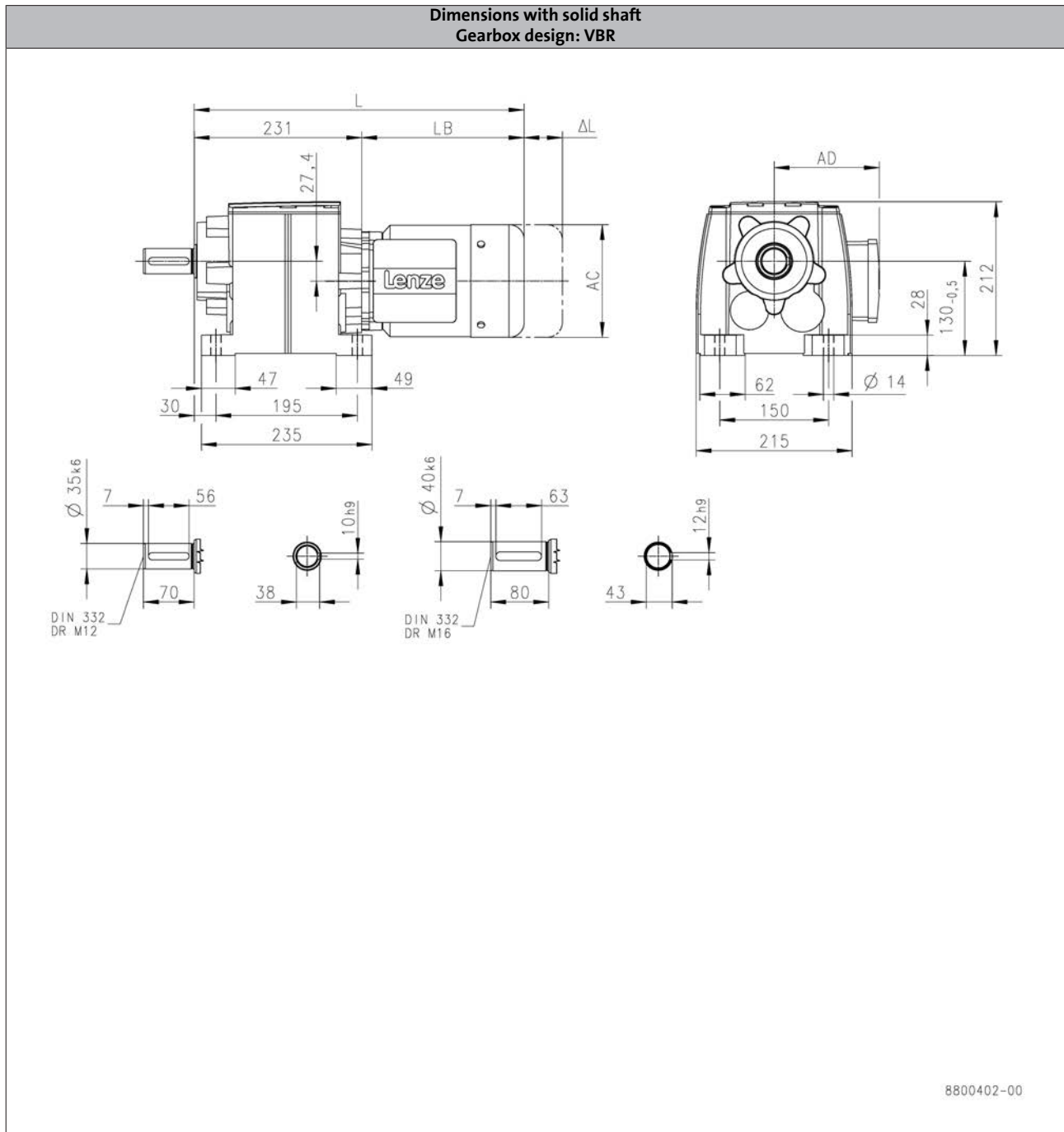
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product			MD□MA□□					MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		414			434	457
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

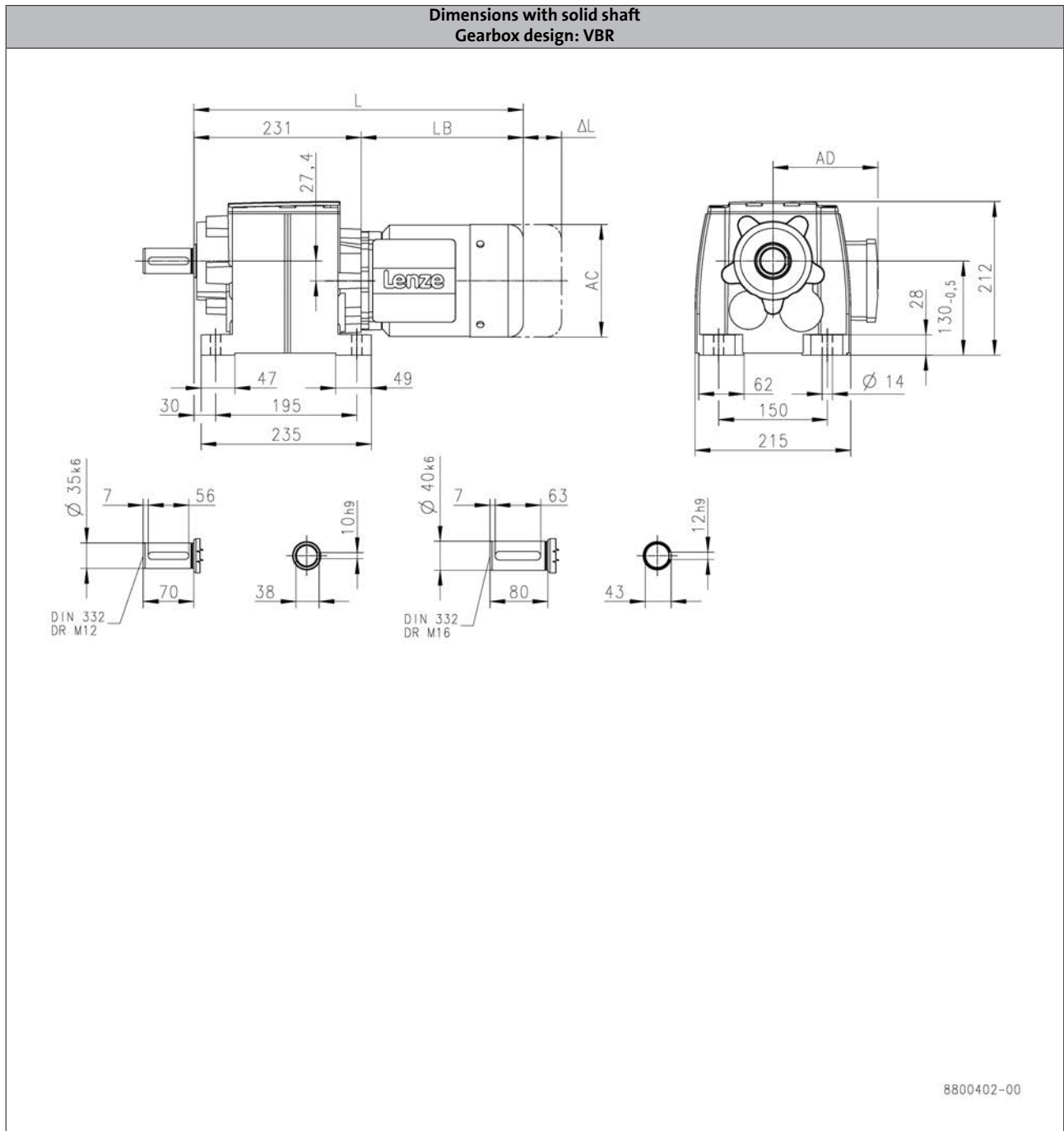
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product	MH□MA□□								
			090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	516		552	568	611		659
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380		428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183		202
<b>Motor diameter</b>	<b>AC</b>	[mm]	176		194		218		258
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166		176		195

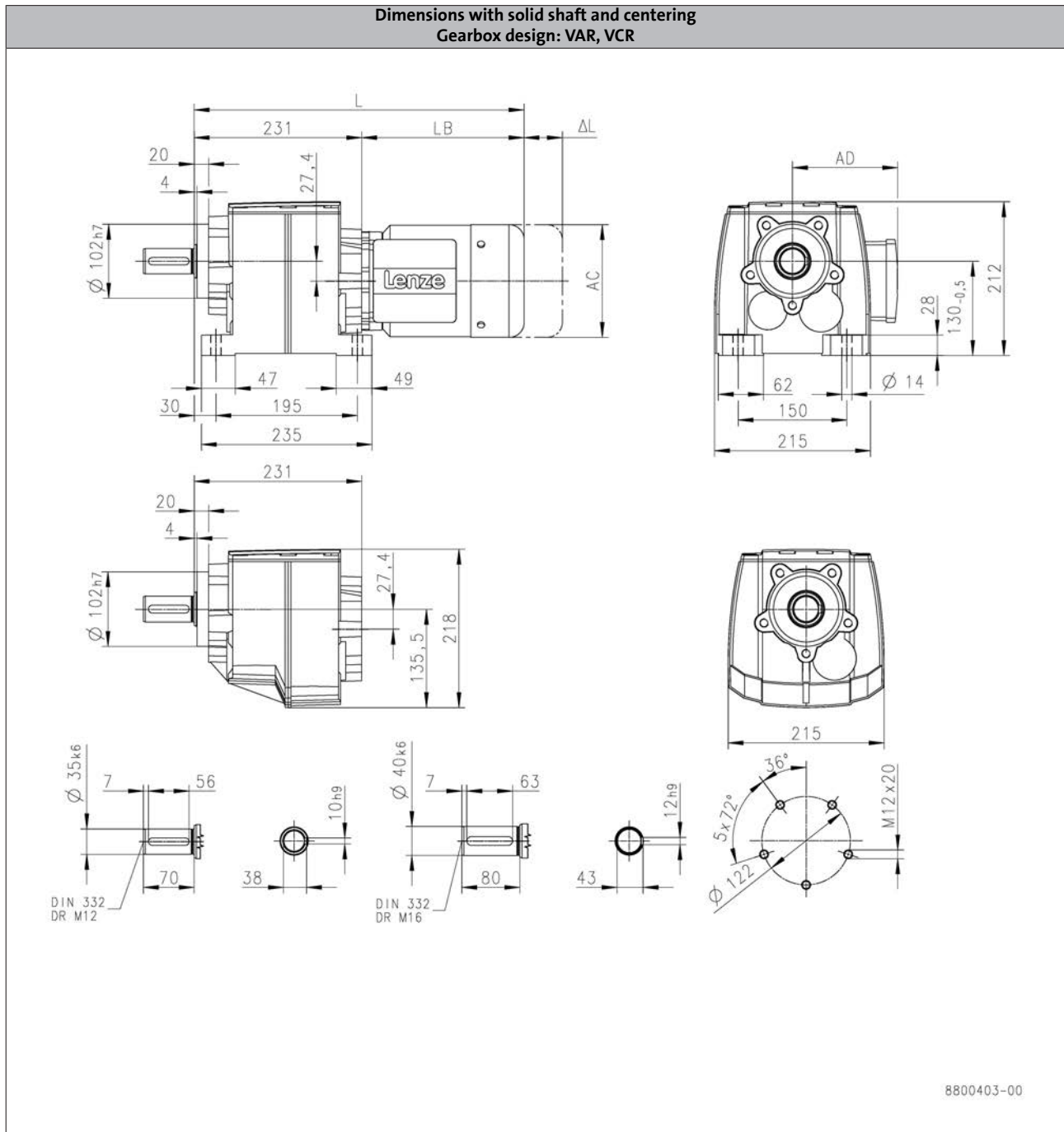
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		414			434	457
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

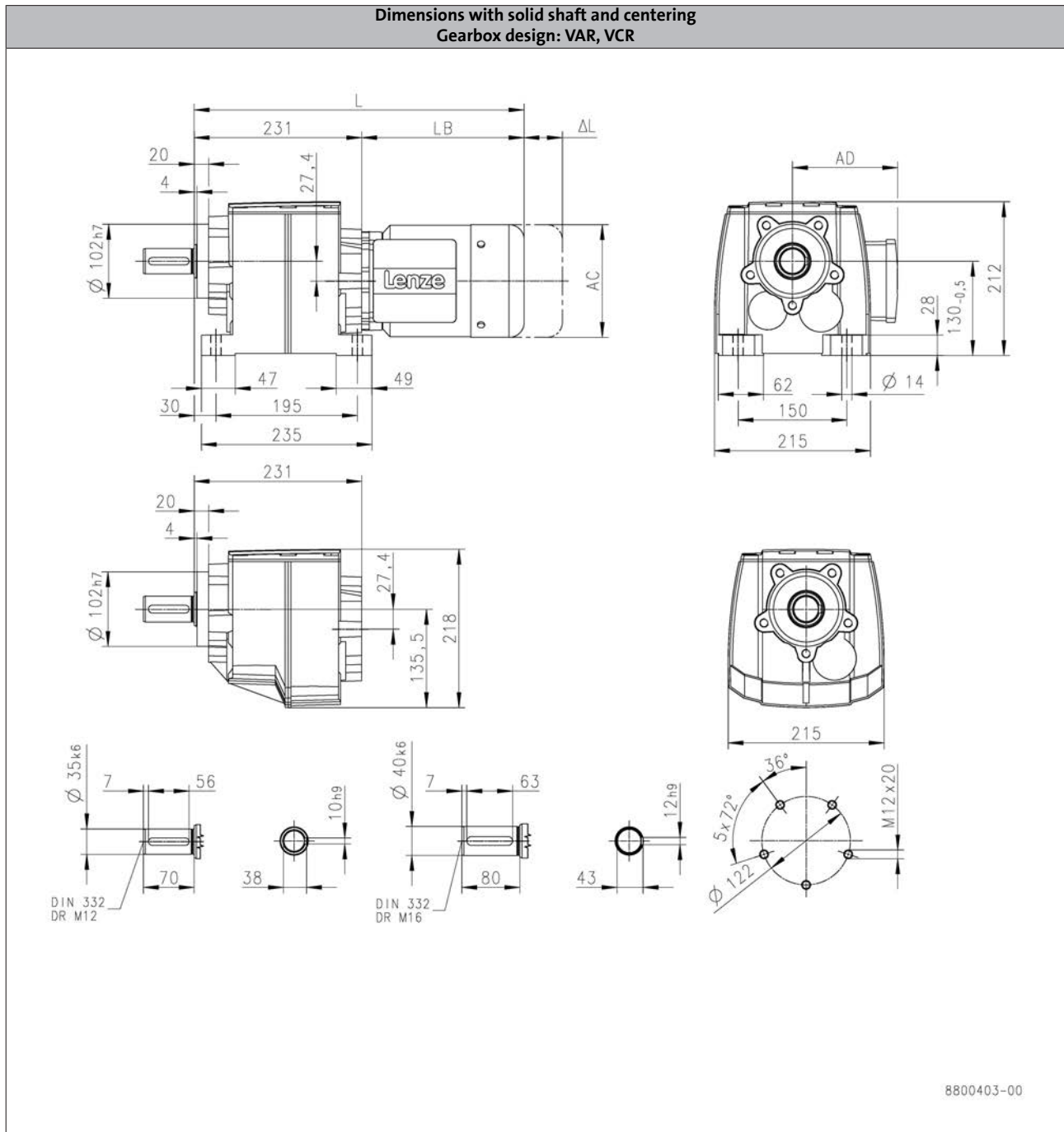
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	516		552	568	611	659
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		176	194		218	258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166		176	195

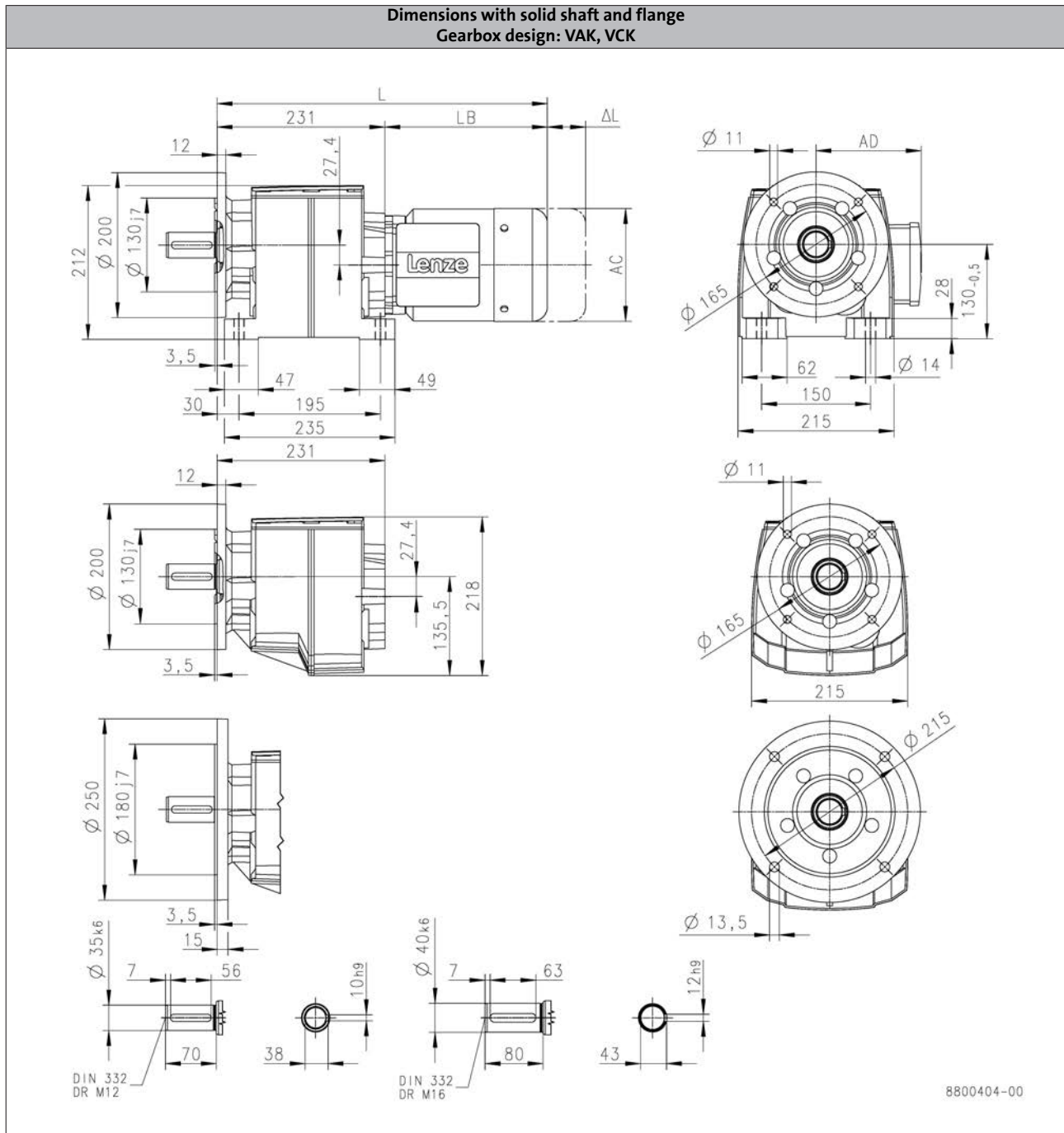
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	L	[mm]		414			434	457
<b>Motor length</b>	LB	[mm]		183			203	226
<b>Length of motor options</b>	Δ L	[mm]		170			165	183
<b>Motor diameter</b>	AC	[mm]		123			139	156
<b>Distance motor/connection</b>	AD	[mm]		100			109	150

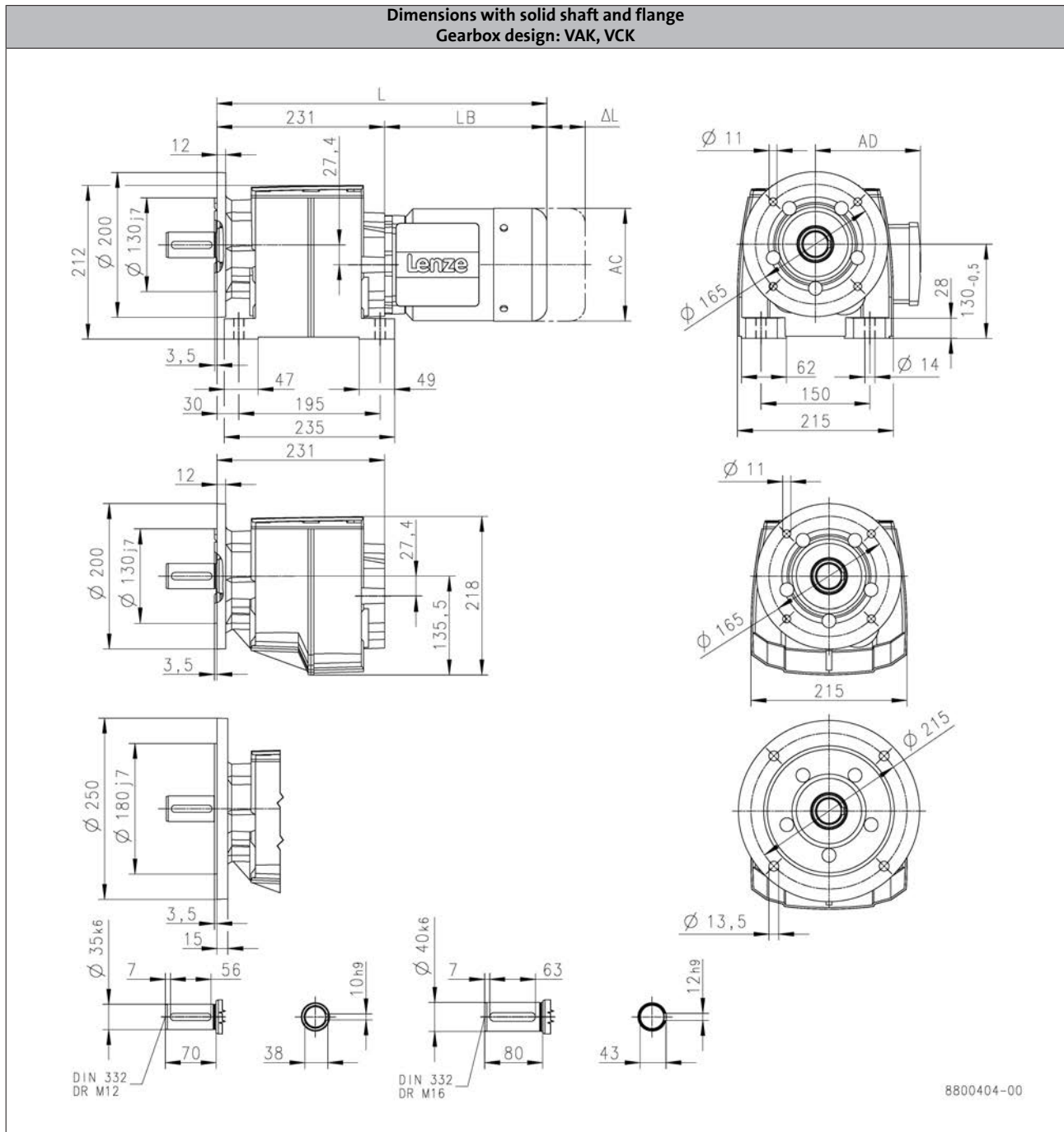
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	516		552	568	611	659
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]			176		218	258
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157		166	176	195

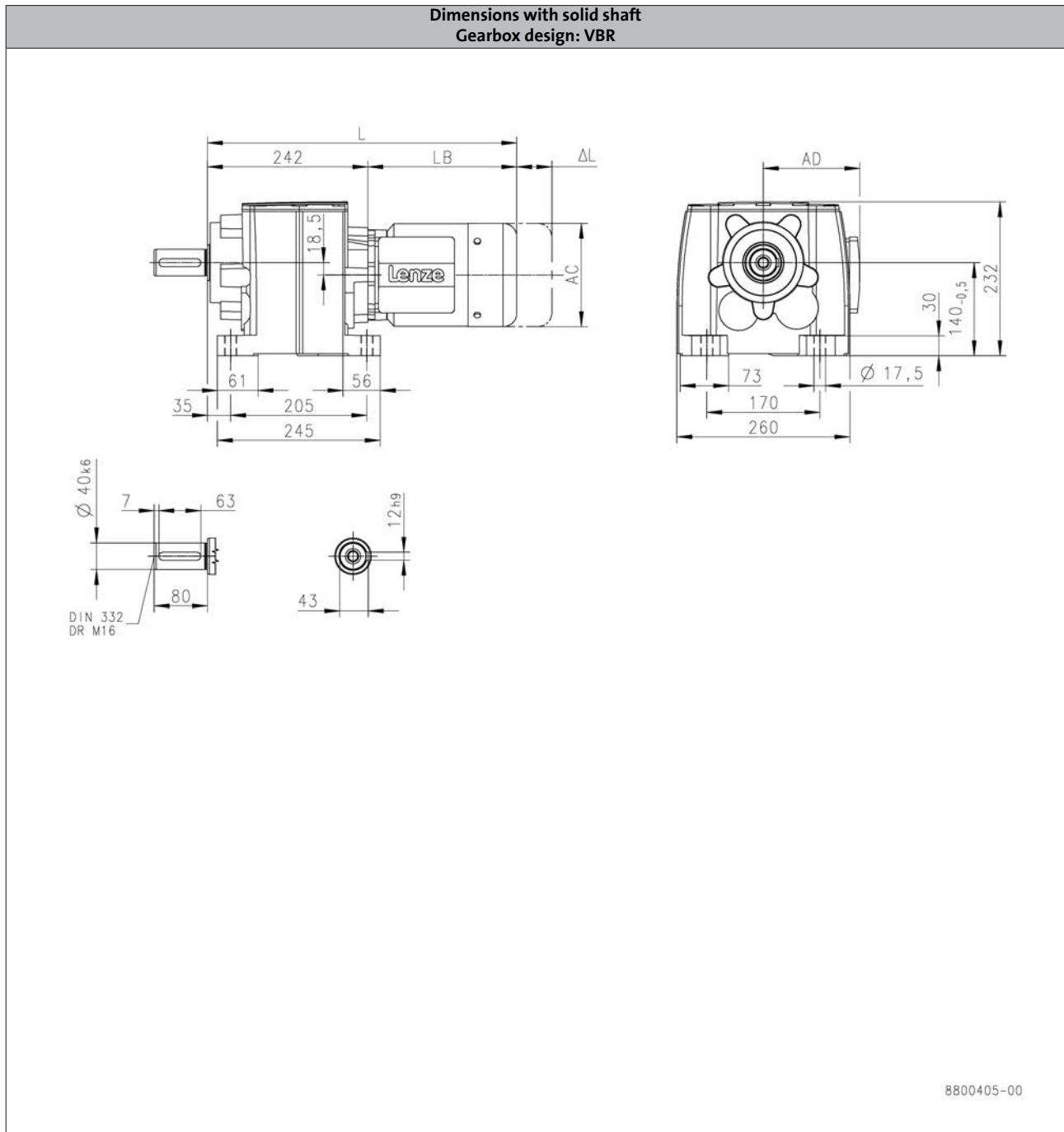
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H850



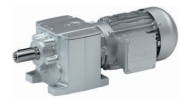
6.3

Product			MD□MA□□					MH□MA□□					
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>													
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	425	445	468	527	563	579	622	670			
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428			
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202				
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258				
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195			



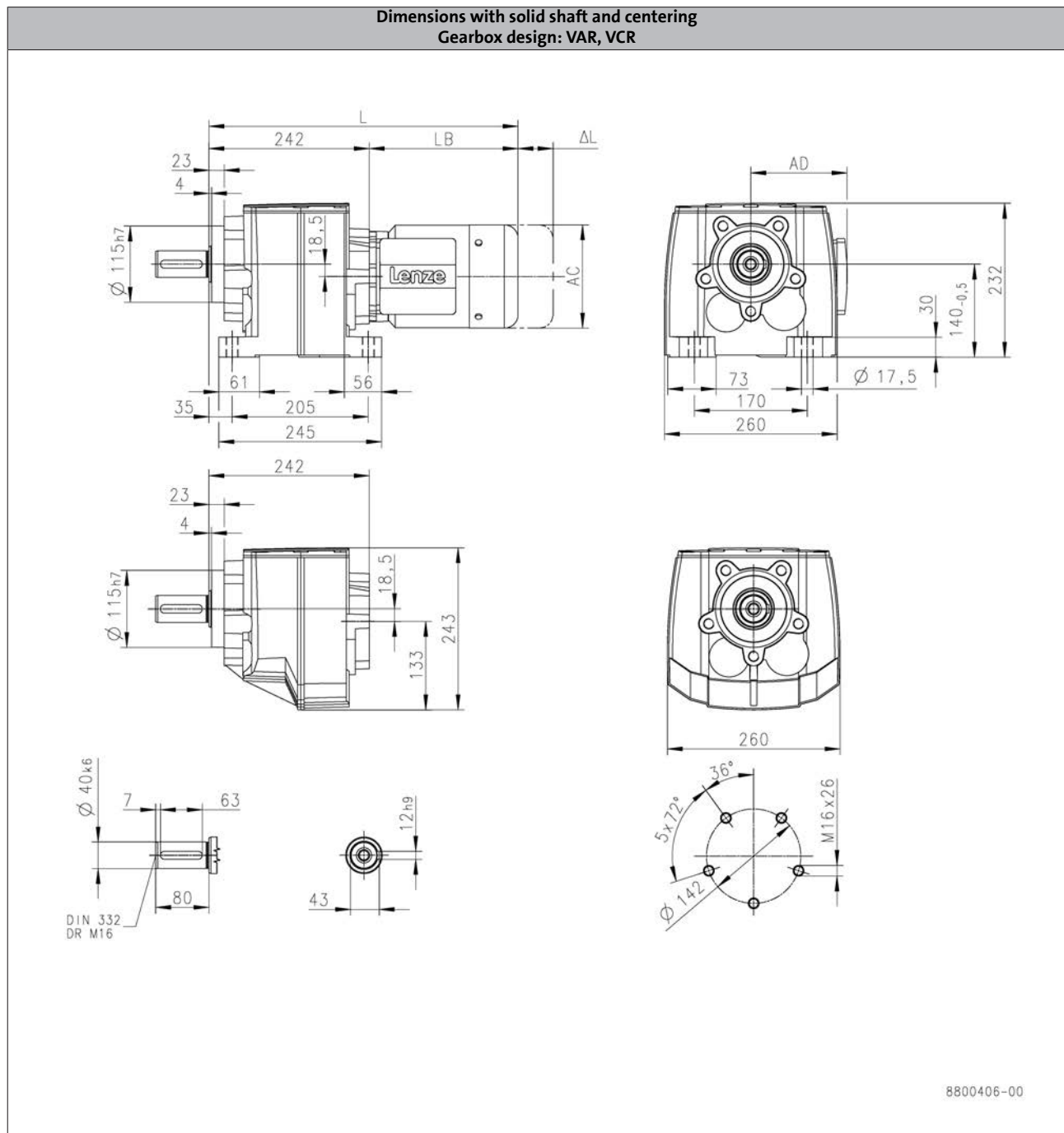
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H850



6.3

Product			MD□MA□□					MH□MA□□					
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>													
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	425	445	468	527	563	579	622	670			
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428			
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202				
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258				
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195			

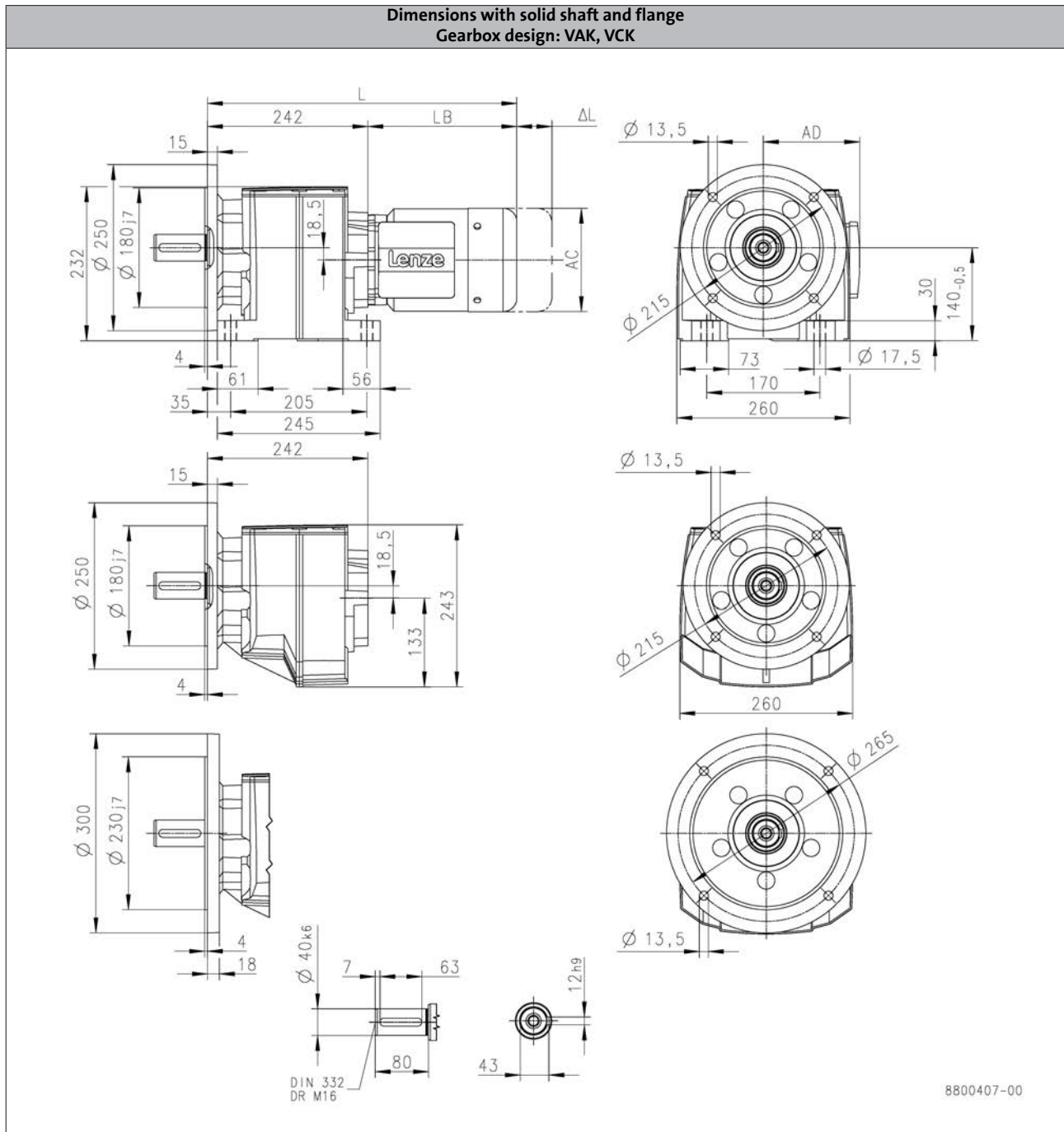
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H850



6.3

Product			MD□MA□□					MH□MA□□					
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>													
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	425	445	468	527	563	579	622	670			
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428			
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202				
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258				
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195			

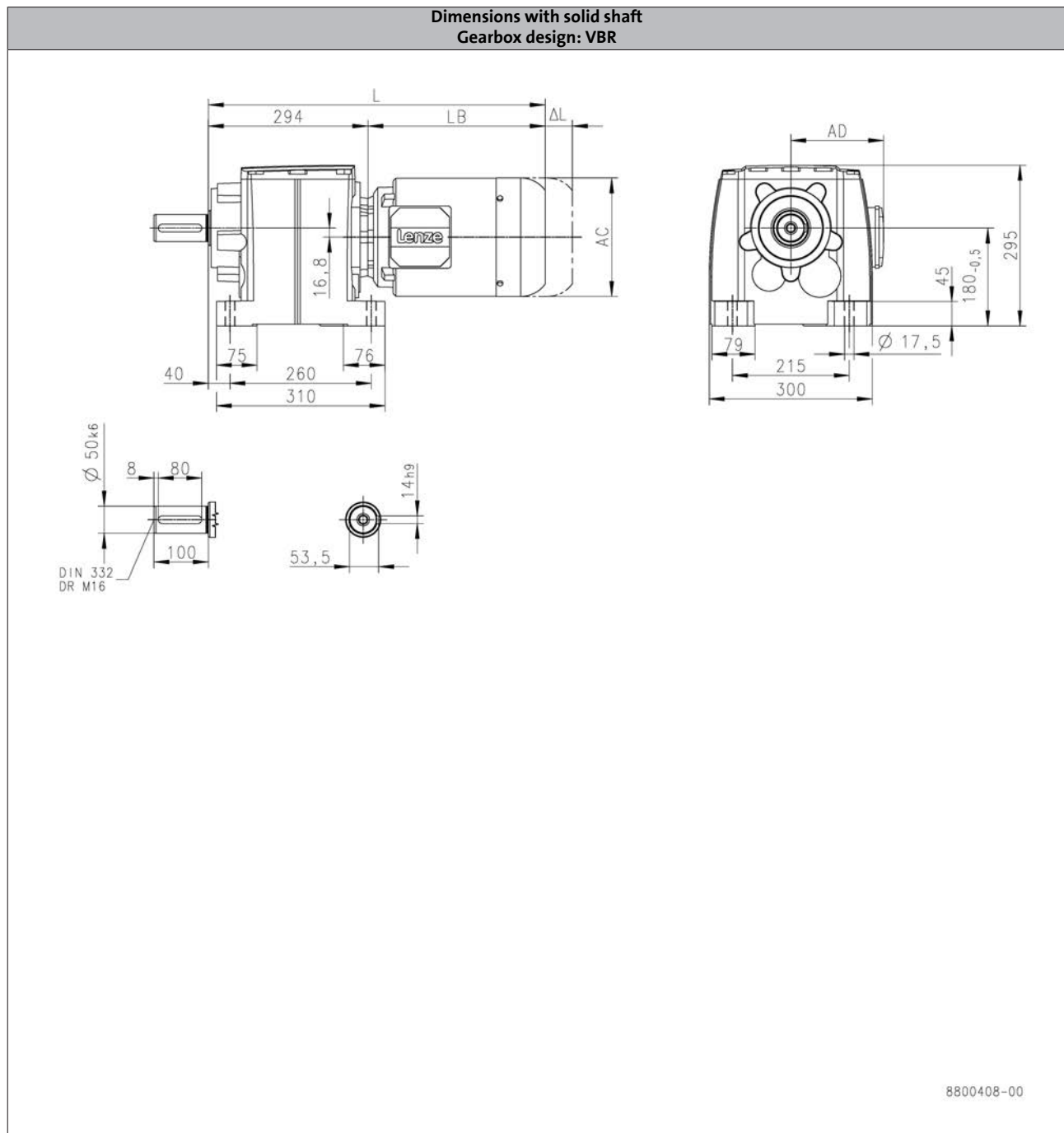
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H1500



6.3

Product			MD□MA□□				MH□MA□□				
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	497	520	579	615	631	674	722		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	165	183	181	170		183	202		
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	139	156	176	194		218	258		
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	109	150	152	157	166	176	195		

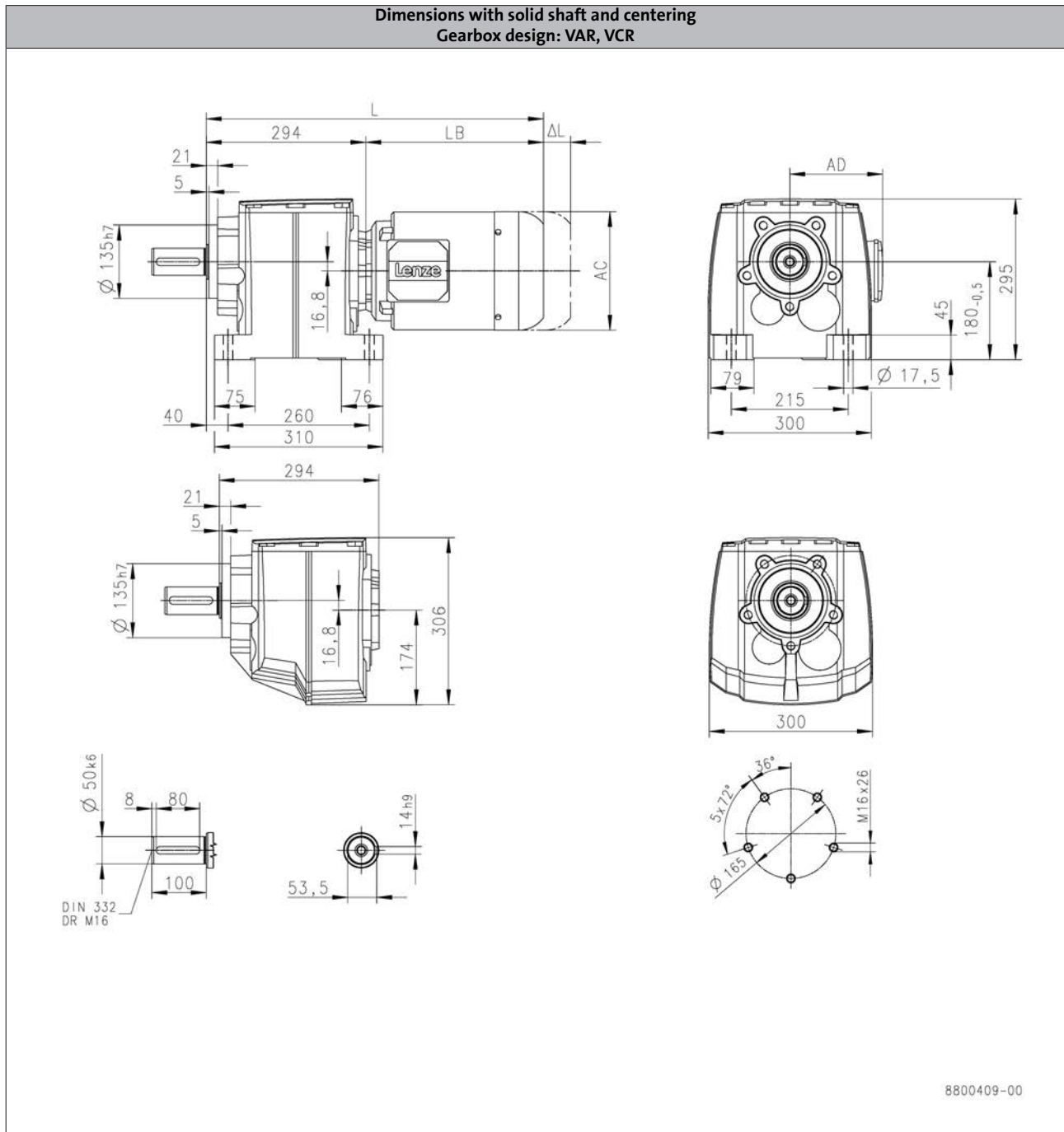
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H1500



6.3

Product			MD□MA□□				MH□MA□□			
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	497	520	579	615	631	674	722	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	203	226	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>			181	170		183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	139	156	176	194		218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	109	150	152	157	166	176	195	

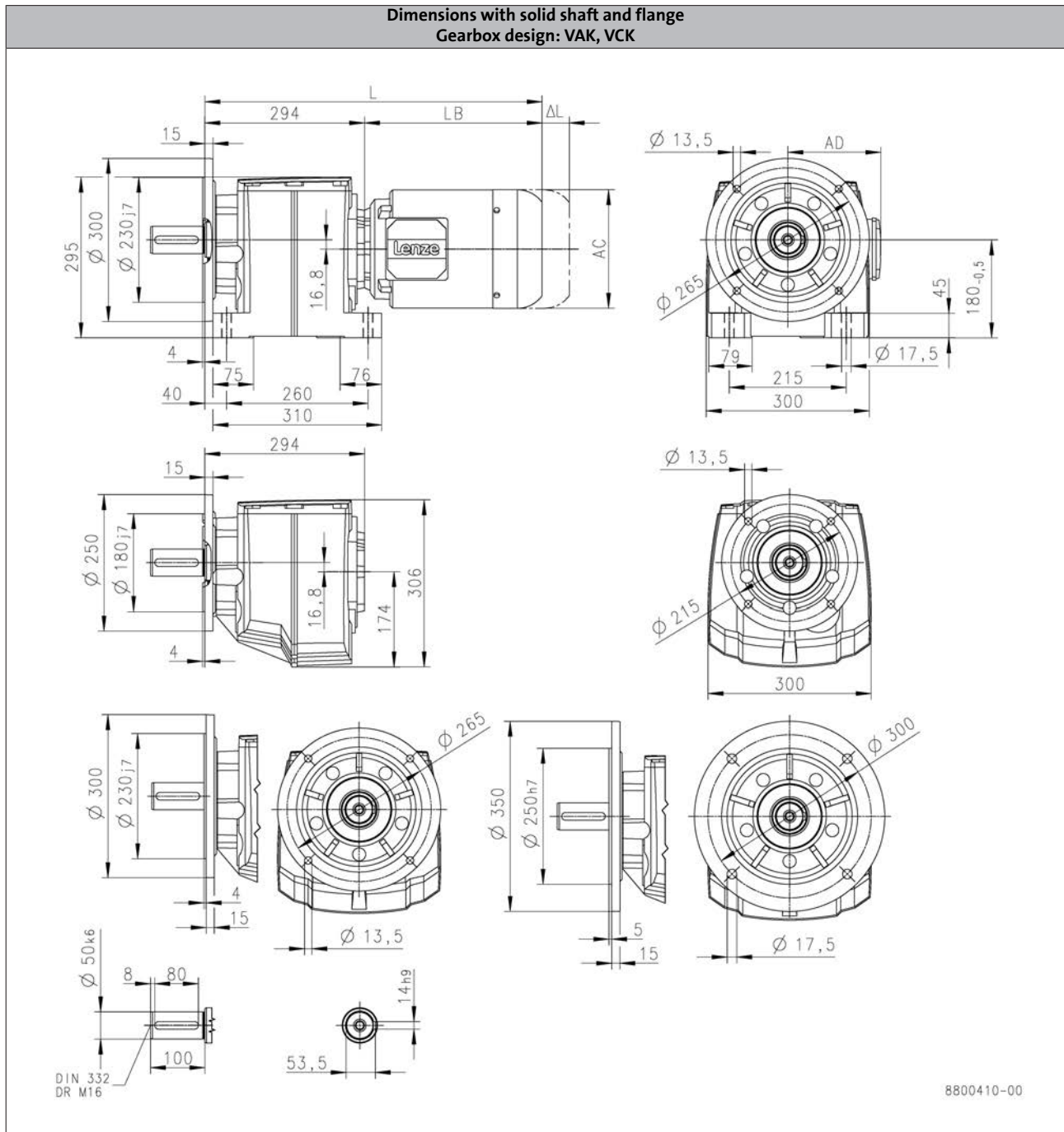
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H1500



6.3

Product			MD□MA□□				MH□MA□□				
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	497	520	579	615	631	674	722		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	165	183	181		170	183	202		
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	139	156	176		194	218	258		
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	109	150	152	157	166	176	195		

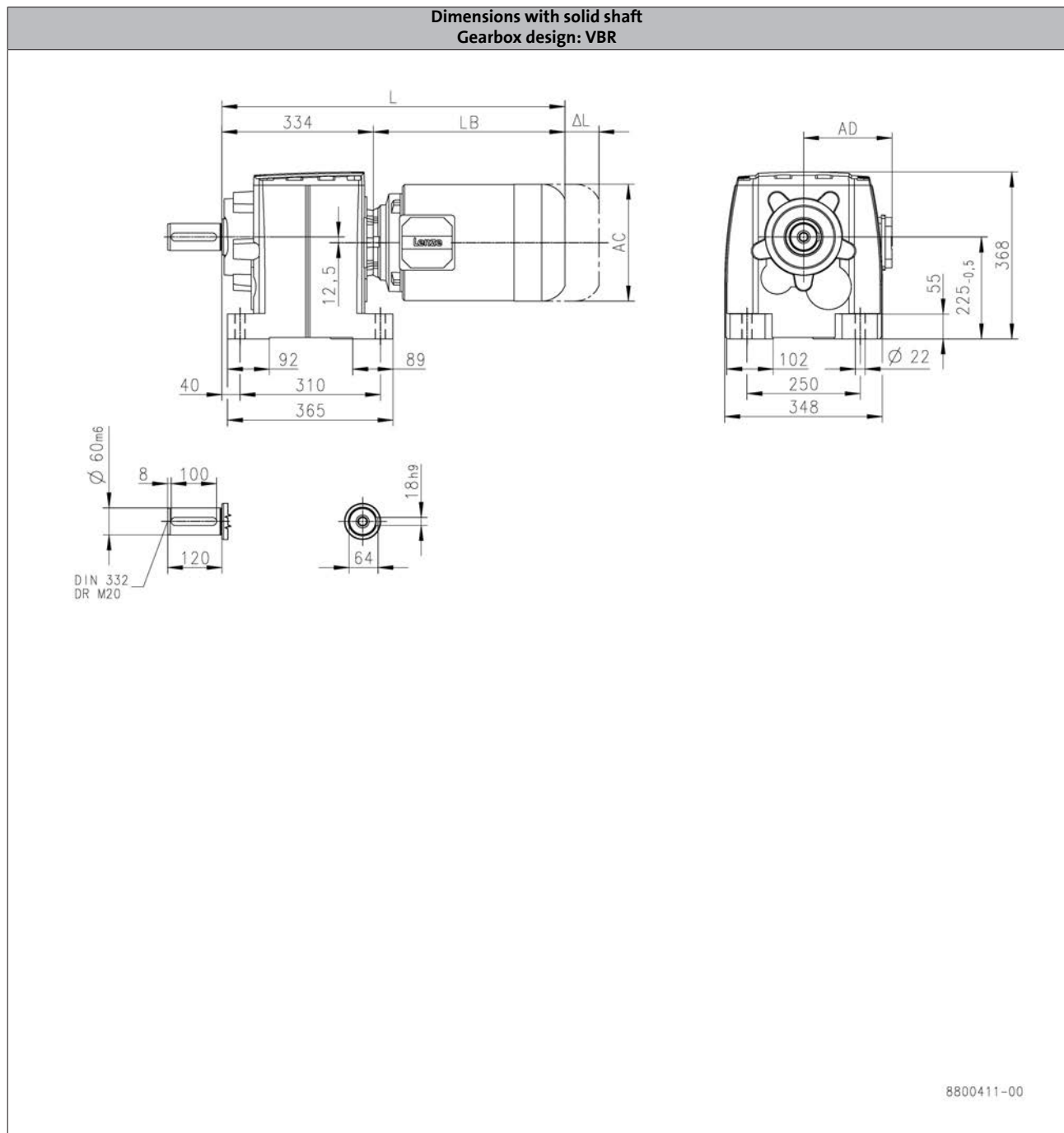
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H3000

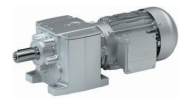


6.3

Product	MH□MA□□								
			090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	619		655	671	714		762
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380		428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183		202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194		218		258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166		176		195

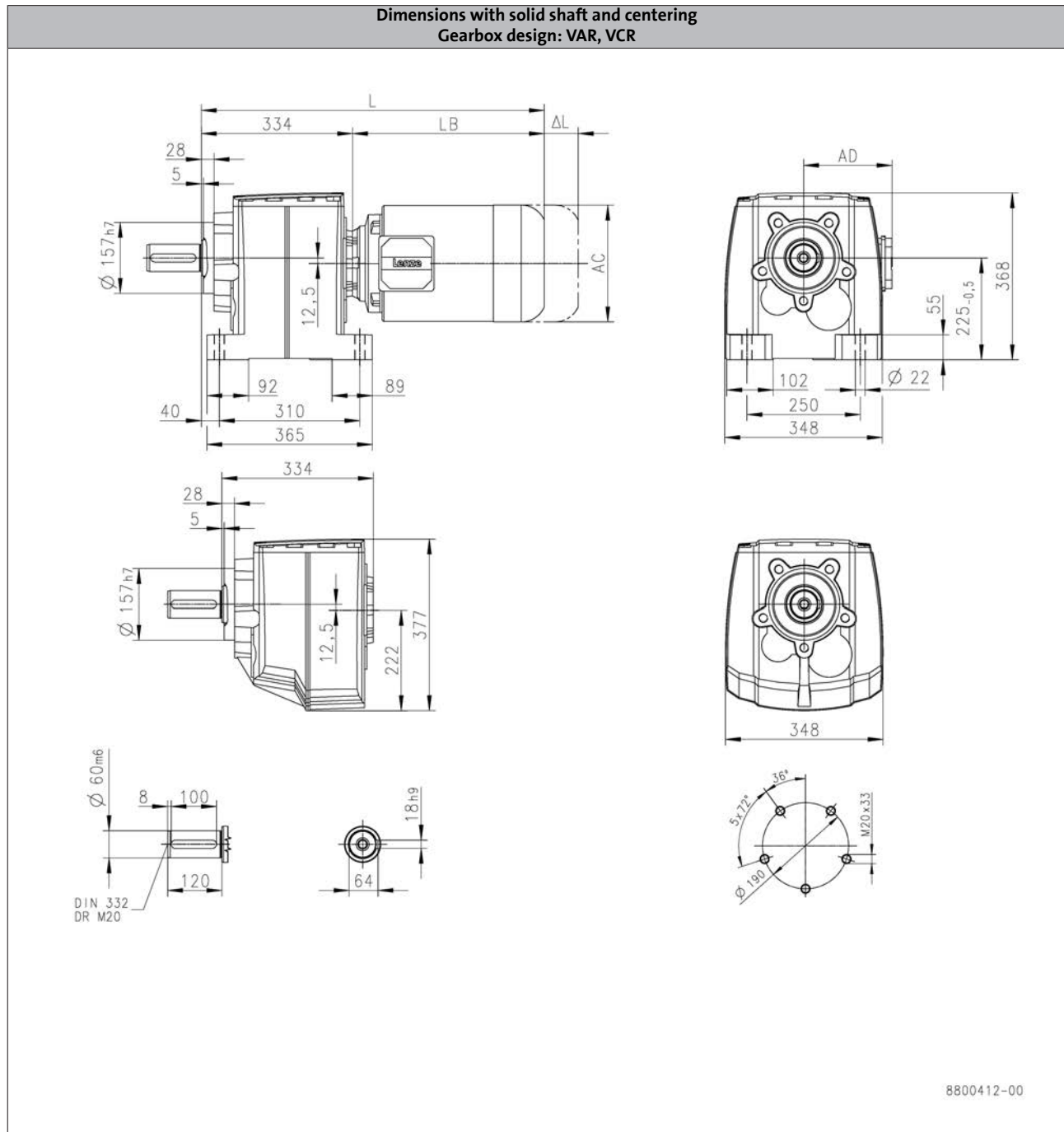
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H3000

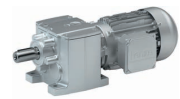


6.3

Product	MH□MA□□								
			090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	619		655	671	714		762
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380		428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183		202
<b>Motor diameter</b>	<b>AC</b>	[mm]		176	194		218		258
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166		176		195

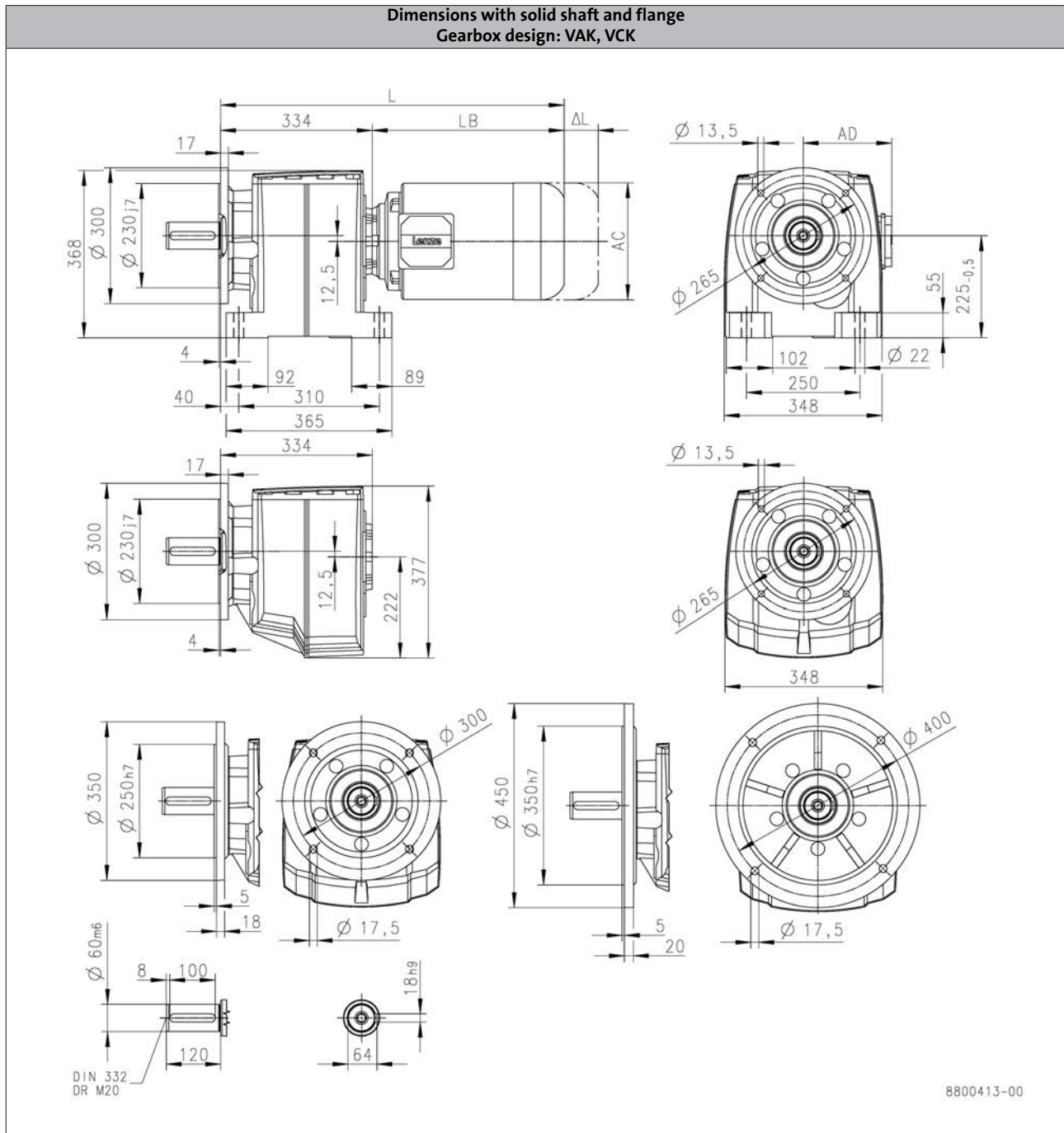
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H3000



6.3

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	619	655	671	714	762	
<b>Motor length</b>	<b>LB</b>	[mm]	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	[mm]		176	194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166	176	195	



# g500-H helical geared motors

Technical data



## Additional length of the built-on accessories

Dimensions, self-ventilated (4-pole)

Product				MD□MA□□			MH□MA□□				
				063-02 063-22	063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake											
	Δ L	[mm]		71.0	40.0	52.0	73.0	68.0	76.0	90.0	110
Feedback											
	Δ L	[mm]		71.0	56.0	52.0	111	87.0	81.0	80.0	103
Brake + Feedback											
	Δ L	[mm]		135	103	96.0	111	105	101	120	125

Dimensions, forced ventilated (4-pole)

Product				MD□MA□□			MH□MA□□				
				063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22	
Brake											
	Δ L	[mm]		170	165	183	181	170	183	202	
Feedback											
	Δ L	[mm]		128				109	183	202	
Brake + Feedback											
	Δ L	[mm]		170	165	183	181	170	183	202	

# g500-H helical geared motors

Technical data



## Weights, 4-pole motors

### 2-stage gearboxes

				MD□MA□□							MH□MA□□	
				063-02	063-12	063-22	063-32	063-42	071-32	071-42	080-32	
g500	-H45	m	[kg]	5.2	5.7	5.2	5.7	6.0	7.4	8.0		
	-H100	m	[kg]		7.7		7.7	8.0	9.4	10	14	
	-H140	m	[kg]		8.8		8.8	9.1	10	11	16	
	-H210	m	[kg]		10		10		12		17	
	-H320	m	[kg]		12		12		14		19	
	-H450	m	[kg]					16	17	18	22	
	-H600	m	[kg]					27	28	29	34	
	-H850	m	[kg]							38	42	

				MH□MA□□						
				090-12	090-32	100-12	100-32	112-22	132-12	132-22
g500	-H100	m	[kg]	19	21					
	-H140	m	[kg]	20	22					
	-H210	m	[kg]	22	24	30	32			
	-H320	m	[kg]	24	26	32	34	46		
	-H450	m	[kg]	27	29	35	38	49	67	74
	-H600	m	[kg]	38	40	46	49	60	78	86
	-H850	m	[kg]	47	49	55	58	69	87	94
	-H1500	m	[kg]	77	79	85	88	99	118	124
	-H3000	m	[kg]			127	130	141	159	166

### 3-stage gearboxes

				MD□MA□□				MH□MA□□							
				063-12 063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
g500	-H210	m	[kg]	10	11	12	13	17							
	-H320	m	[kg]	12	13	14	15	19							
	-H450	m	[kg]	16		18		23	28	30					
	-H600	m	[kg]	28		29	30	34	39	41	47	50			
	-H850	m	[kg]		37	38	39	44	48	50	56	59	70	88	
	-H1500	m	[kg]				70	74	79	81	87	89	101	119	
	-H3000	m	[kg]						124	126	132	134	145	164	171

- Weights with oil capacity for mounting position A, all given as approximate values.  
The weights refer to the basic version, observe additional weights!

# g500-H helical geared motors

Technical data



## Additional weights for gearboxes

Product			g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Foot	m	[kg]	0.1	0.1	0.2	0.1	0.1	0.2
Flange	m	[kg]	0.3	0.4	0.6	0.6	0.8	0.9

Product			g500-H450	g500-H600	g500-H850	g500-H1500	g500-H3000
Foot	m	[kg]	0.2	2.0	2.8	4.3	5.8
Flange	m	[kg]	0.9	4.3	7.6	8.3	20.1

## VCP gearbox version

Product			g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Flange	m	[kg]	2.0	3.9	3.9	4.1	6.1

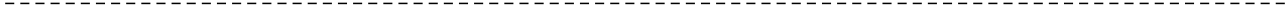
## Additional weights for motors

### 4-pole motors

Product			MD□MA□□			MH□MA□□				
			063-02 063-22	063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake			06	06 08	08	08 10	10 12	12	12	14 16
	m	[kg]	0.9	0.9 1.5	1.5	1.5 2.6	2.6 4.2	4.2	4.2	5.8 8.7
Blower										
	m	[kg]		2.0	2.1	2.3	2.7	3.0	3.1	4.2

# g500-H helical geared motors

Technical data



# g500-H helical geared motors

## Appendix



### Gearbox code

Example		G	50	A	H	045	M	V	B	R	2	C	1A
Meaning	Variant												
Product family		G	50										
Generation				A									
				B									
Gearbox type	Helical gearbox				H								
Output torque	45 Nm					045							
	100 Nm					110							
	140 Nm					114							
	210 Nm					121							
	320 Nm					132							
	450 Nm					145							
	600 Nm					160							
	850 Nm					185							
	1500 Nm					215							
	3000 Nm					230							
	5000 Nm					250							
	8000 Nm					280							
14000 Nm					314								
Type of construction	Geared motor						M						
	Gearboxes						N						
Shaft type	Solid shaft with feather key							V					
	Solid shaft without keyway							G					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	Centering								C				
Flange mounting	Without flange									R			
	Flange with through holes									k			
											P		
Number of stages	2-stage										2		
	3-stage										3		
Motor mounting	Integrated											C	
	IEC motor											N	
	NEMA motor											A	
	Servo motor											S	
Drive size												1A	
												...	
												□H	

# g500-H helical geared motors

## Appendix



### Motor code

Example		M	D	E	MA	XX	063	-	4	2	C1	C
Meaning	Variant	Motor code										
Product family		M										
Efficiency class	IE1		D									
	IE2		H									
Cooling	Natural ventilation			S								
	Integral fan			E								
	Blower			F								
Internal key					MA							
Built-on accessories	Without built-on accessories					XX						
	Brake					BR						
	Brake + resolver					BS						
	Brake + incremental encoder					BI						
	Brake + SinCos absolute value encoder					BA						
	Resolver					RS						
	Incremental encoder					IG						
	SinCos absolute value encoder					AG						
Size							063					
							071					
							080					
							090					
							100					
							112					
							132					
Overall length									0			
									1			
								-	2			
									3			
									4			
Number of pole pairs	4-pole motors									2		
Internal key											C1	
Approval	CE											C
	cURus											U
	CCC											3

# g500-S shaft-mounted helic- al geared motors

**Inverter/mains operation**

**0.12 ... 0.55 kW (efficiency class IE1)**

**0.75 ... 7.5 kW (efficiency class IE2)**







# g500-S shaft-mounted helical geared motors



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# g500-S shaft-mounted helical geared motors

## General information



### List of abbreviations

$\alpha$	[rad/s <sup>2</sup> ]	Max. permissible angular acceleration
$\eta_{50\%}$	[%]	Efficiency
$\eta_{75\%}$	[%]	Efficiency
$\eta_{100\%}$	[%]	Efficiency
$\eta_a$		Efficiency
$\eta_{c=1}$		Efficiency
c		Load capacity
$\cos \phi$		Power factor
du/dt	[kV/ $\mu$ s]	Insulation resistance
$F_{ax,-}$	[N]	Min. axial force
$F_{ax,+}$	[N]	Max. axial force
$F_{ax,max}$	[N]	Max. axial force
$f_{in,max}$	[Hz]	Max. input frequency
$f_{max}$	[kHz]	Limit frequency
$f_{max}$	[kHz]	Max. switching frequency
$f_N$	[Hz]	Rated frequency
$F_{rad,max}$	[N]	Max. radial force
$f_z$		Additional radial force factor
$H_{max}$	[m]	Site altitude
$I_0$	[A]	Standstill current
i		Ratio
$I_{in,max}$	[A]	Max. input current
$I_{max}$	[A]	Max. current consumption
$I_{max}$	[A]	Max. current
$I_{max}$	[A]	Max. current consumption
$I_{max}$	[A]	Max. current
$I_{max}$	[A]	Max. short-time DC-bus current
$I_{max}$	[A]	Max. DC-bus current
$I_N$	[A]	Rated current
$I_{N,\Delta}$	[A]	Rated current
$I_{N,Y}$	[A]	Rated current
J	[kgcm <sup>2</sup> ]	Moment of inertia
$J_{MB}$	[kgcm <sup>2</sup> ]	Moment of inertia
$KE_{LL\ 150^\circ C}$	[V/(1000 r/min)]	Voltage constant
$Kt_{0\ 150^\circ C}$	[Nm/A]	Torque constant
$L_{10}$	[h]	Bearing service life
L	[mH]	Mutual inductance
$L_{1\sigma}$	[mH]	Stator leakage inductance
$L_{2\sigma}$	[mH]	Rotor leakage inductance
$L_N$	[mH]	Rated inductance
m	[kg]	Mass
$M_2$	[Nm]	Output torque
$M_{22}$	[Nm]	Output torque
$M_0$	[Nm]	Stall torque
$M_{0,max}$	[Nm]	Max. standstill torque
$M_{2,GM}$	[Nm]	Output torque
$M_{2,max}$	[Nm]	Max. output torque
$M_{2,not}$	[Nm]	Emergency off-torque

$M_a$	[Nm]	Starting torque
$M_{a,1}$	[Nm]	Starting torque
$M_{a,2}$	[Nm]	Starting torque
$M_{av}$	[Nm]	Average dynamic torque
$M_b$	[Nm]	Stalling torque
$M_B$	[Nm]	Braking torque
$M_k$	[Nm]	Rated torque
$M_{max}$	[Nm]	Max. torque
$M_N$	[Nm]	Rated torque
$n_2$	[r/min]	Output speed
$n_{21}$	[r/min]	Output speed
$n_{22}$	[r/min]	Output speed
$n_{1,max}$	[r/min]	Max. gearbox input speed
$n_{1,max\ 50\%}$	[r/min]	Max. gearbox input speed
$n_{eto}$	[r/min]	Transition speed
$n_k$	[r/min]	Speed
$n_{max}$	[r/min]	Max. speed
$n_N$	[r/min]	Rated speed
$P_{max}$	[kW]	Max. power input
$Q_{BW}$	[MJ]	Friction energy
$Q_E$	[J]	Maximum switching energy
$Q_E$	[kJ]	Maximum switching energy
$R_1$	[ $\Omega$ ]	Stator impedance
$R_2$	[ $\Omega$ ]	Rotor impedance
R	[ $\Omega$ ]	Insulation resistance
R	[ $\Omega$ ]	Min. insulation resistance
$R_{UV\ 150^\circ C}$	[ $\Omega$ ]	Stator impedance
$R_{UV\ 20^\circ C}$	[ $\Omega$ ]	Stator impedance
$S_{h\ddot{u}}$	[1/h]	Transition operating frequency
$t_1$	[ms]	Engagement time
$t_2$	[ms]	Disengagement time
$t_{11}$	[ms]	Delay time
$t_{12}$	[ms]	Rise time
T	[ $^\circ C$ ]	Max. surface temperature
T	[ $^\circ C$ ]	Min. ambient temperature for transport
T	[ $^\circ C$ ]	Max. ambient temperature for transport
T	[ $^\circ C$ ]	Max. ambient temperature of bearing
T	[ $^\circ C$ ]	Min. ambient storage temperature
T	[ $^\circ C$ ]	Ambient temperature
T	[ $^\circ C$ ]	Operating temperature
T	[ $^\circ C$ ]	Rated temperature
t	[h]	Service life
$T_{opr}$		Ambient operating temperature
$T_{opr,max}$	[ $^\circ C$ ]	Max. ambient operating temperature
$T_{opr,min}$	[ $^\circ C$ ]	Min. ambient operating temperature
$t_{re}$	[s]	Recovery time
$t_{\ddot{u}}$	[ms]	Overexcitation time
$U_{\Delta}$	[V]	Voltage range
$U_{AC}$	[V]	Mains voltage range

# g500-S shaft-mounted helical geared motors

## General information



### List of abbreviations

$U_{AC}$	[V]	Mains voltage
$U_{in,max}$	[V]	Max. input voltage
$U_{in,min}$	[V]	Min. input voltage
$U_{max}$	[V]	Max. input voltage
$U_{max}$	[V]	Max. mains voltage
$U_{min}$	[V]	Min. mains voltage
$U_{N,\Delta}$	[V]	Rated voltage
$U_{N,AC}$	[V]	Rated voltage
$U_{N,DC}$	[V]	Rated voltage
$U_{N,Y}$	[V]	Rated voltage
$Z_g$		Number of teeth
$Z_{ro}$	[ $\Omega$ ]	Rotor impedance
$Z_{rs}$	[ $\Omega$ ]	Impedance
$Z_{so}$	[ $\Omega$ ]	Stator impedance
$Z_t$		Number of teeth

CCC	China Compulsory Certificate
CE	Communauté Européenne
CEL	China Energy Label
CSA	Canadian Standards Association
CSAULE	Energy Verified Certificate
cURus	Combined certification marks of UL for the USA and Canada
DIN	Deutsches Institut für Normung e.V.
EAC	Customs union Russia / Belarus / Kazakhstan certificate
EMC	Electromagnetic compatibility
EN	European standard
IM	International Mounting Code
IP	International Protection Code
NEMA	National Electrical Manufacturers Association
UkrSEPRO	Certificate for Ukraine
UL	Underwriters Laboratory Listed Product
UR	Underwriters Laboratory Recognized Product
VDE	Verband deutscher Elektrotechniker (Association of German Electrical Engineers)

# g500-S shaft-mounted helical geared motors



## General information

### Product information

In combination with three-phase AC motors, our shaft-mounted helical gearboxes form a compact and powerful drive unit. Numerous options at the input and output end provide for the drive to be exactly adapted to your application.

The slim shaft-mounted helical gearboxes feature high reliable radial forces, closely stepped gear reductions and a low backlash. They are available in 2-stage and 3-stage design with a torque up to 4500 Nm and a ratio of up to  $i=430$ .

### Versions

- Slimline design saves installation space of the machine
- Solid shaft, hollow shaft and shrink disc for direct integration into the machine
- High accuracy with axial output provide for the highest efficiency

### Three-phase AC motors as a basis for geared motors

In a power range of 0.12 to 7.5 kW, Lenze offers inverter-compatible three-phase AC motors for comprehensive tasks. These drives come in different efficiency classes and can be used for the versions required for the versions required for open-loop or closed-loop controlled inverter operation.

- IE1 motors up to a power of 0.55 kW
- IE2 motors from 0.75 kW to 7.5 kW

### Customer benefit:

- Different efficiency classes for the greatest economic benefit
- Space-saving thanks to compact direct attachment to Lenze gearboxes
- Can be used universally for a wide range of machine tasks due to the market-oriented modular system

### The product name

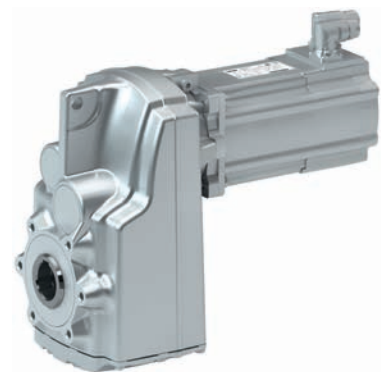
Gearbox type	Product range		Design	Rated torque [Nm]	Product
Shaft-mounted helical gearbox	g500	-	S	130	g500-S130
				220	g500-S220
				400	g500-S400
				660	g500-S660
				950	g500-S950
				2100	g500-S2100
				3100	g500-S3100
				4500	g500-S4500



g500-S shaft-mounted helical gearbox with three-phase AC motor



g500-S shaft-mounted helical gearbox with three-phase AC motor and 8400 motec inverter



g500-S shaft-mounted helical gearbox with servo motor

# g500-S shaft-mounted helical geared motors

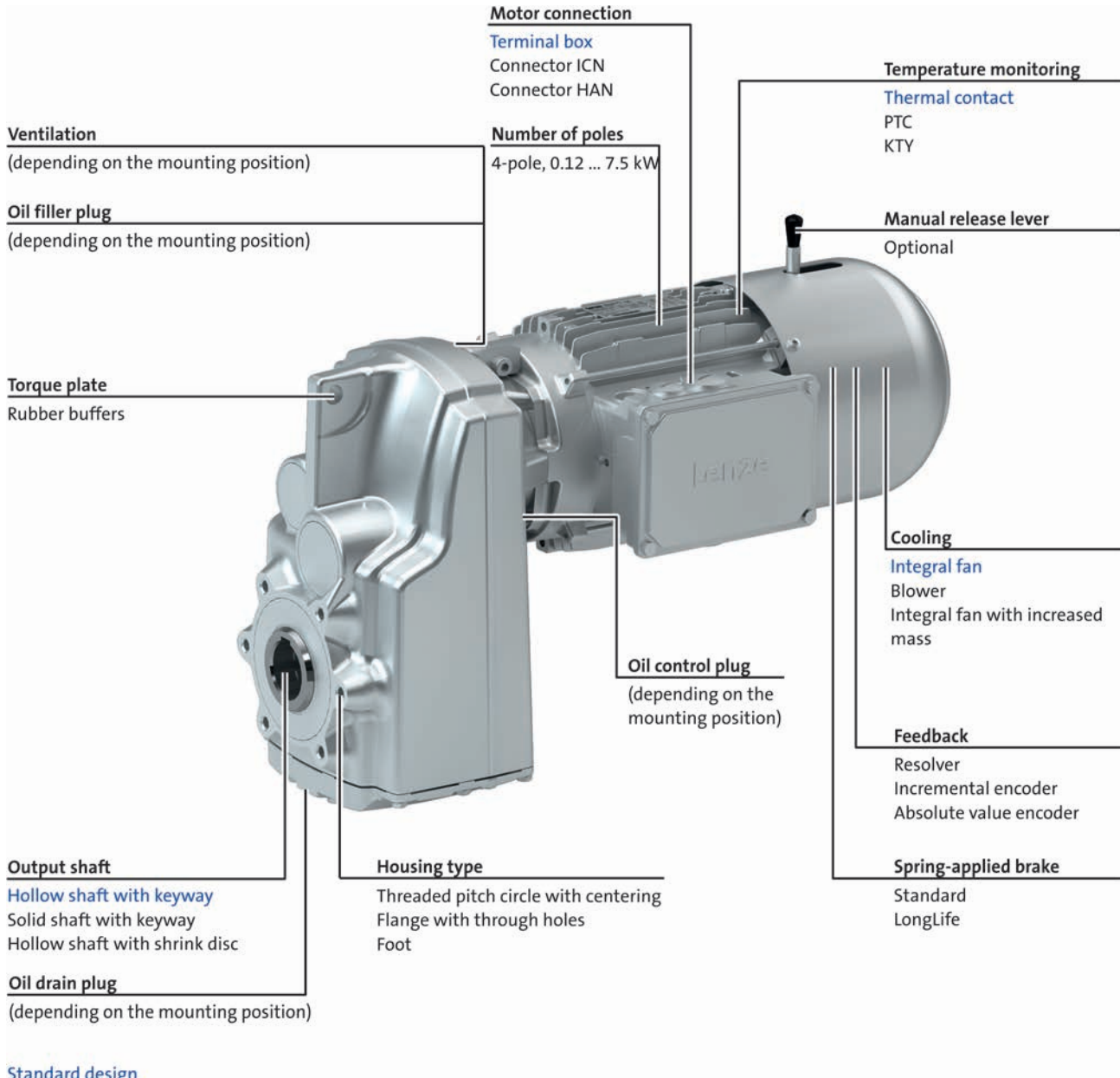


## General information

### Equipment


#### Overview

The equipment includes all the options available as standard and all the built-on accessories of the product.



#### Standard design

- ▶ The gearboxes g500-S950 ... S4500 comes with a housing that is always designed with foot.

 11 - Detailed information on housing type.

# g500-S shaft-mounted helical geared motors

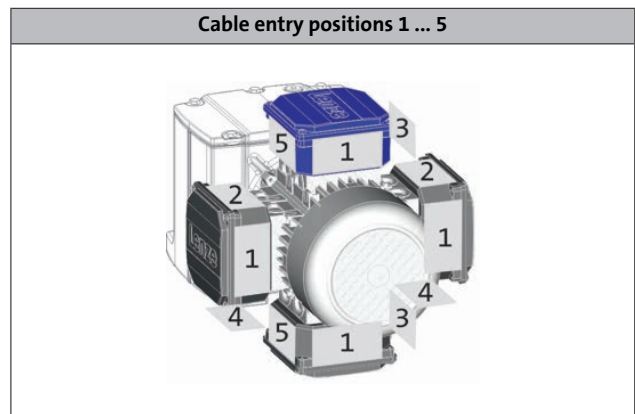
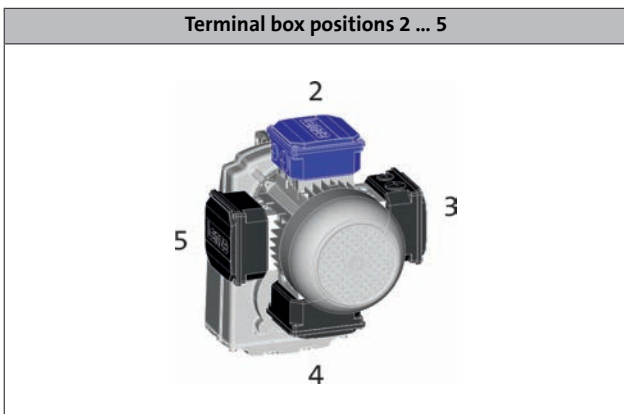
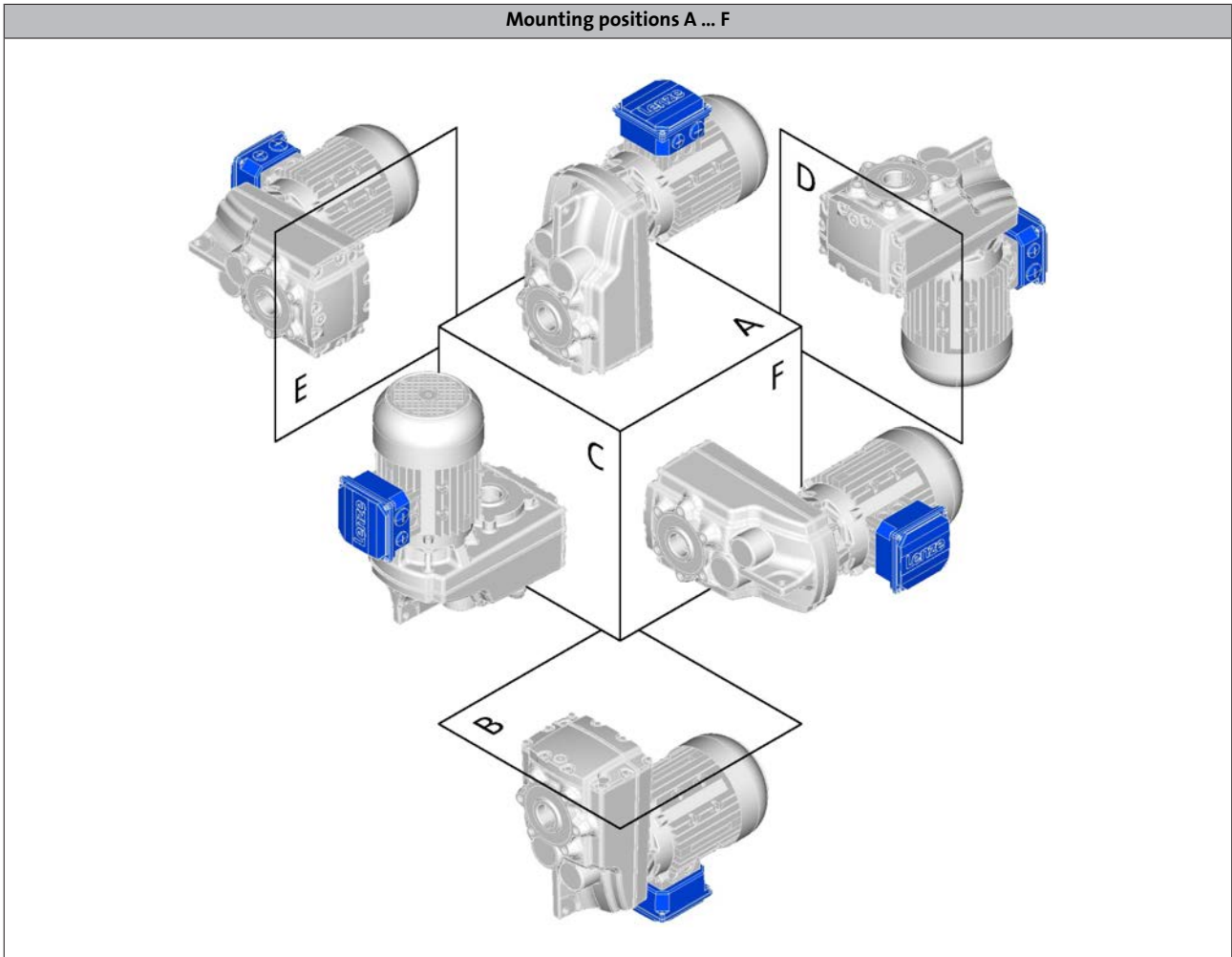
## General information



### Equipment

#### Mounting position, position of system components

- ▶ In the following graphics, the terminal box in position 2 is colour-coded. If the mounting position (A ... F) changes, the terminal box positions 2 ... 5 are rotated accordingly.
- ▶ To reduce the number of different versions, the gearboxes can also be ordered with combined mounting positions:  
- g500-S130 ... S660 in mounting position AEF



- ▶ For details regarding the cable entry see motor chapter/product extensions.

# g500-S shaft-mounted helical geared motors

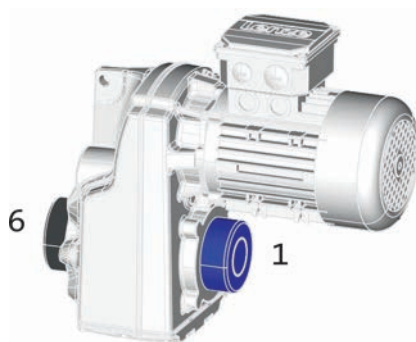
General information



## Equipment

Mounting position, position of system components

Shrink disc position 1 or 6



- ▶ Solid shaft and flange are only possible in position 6.

# g500-S shaft-mounted helical geared motors

## General information



### The geared motor kit

g500-S130 ... S660

Product	g500-S130	g500-S220	g500-S400	g500-S660
Gearbox				
Motor assignment min.	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063
Motor assignment max.	MH□MA□□-090	MH□MA□□-100	MH□MA□□-112	MH□MA□□-132
<b>Technical data</b>				
Output torque max.	130 Nm	220 Nm	400 Nm	660 Nm
Drive power min.	0.12 kW	0.12 kW	0.12 kW	0.12 kW
Drive power max.	1.5 kW	3.0 kW	4.0 kW	7.5 kW
<b>Dimensions [mm]</b>				
Solid shaft with featherkey	25 x 50	25 x 50	30 x 60	35 x 70 40 x 80
Hollow shaft with keyway	25	25/30	30/35	40/45
Hollow shaft with shrink disc	25	25/30	35	40
Output flange	160	160	200	200/250

- ▶ The designs are only available for the gearboxes displayed above in the table.
- ▶ Values printed in bold are standard versions.  
Values not printed in bold are possible extensions, some for an additional charge.

Design	
Conformity	<b>CE</b> EAC
Approval	<b>Without</b> CCC/CSA/cURus
Degree of protection	<b>IP55</b> IP65/IP66
Surface and corrosion protection	<b>Without</b> Different types of OKS
Colour	<b>Not coated</b> Primed/RAL colours
Hollow shaft	<b>With keyway (H□□)</b>
Hollow shaft with shrink disc	Without keyway (S□□)
Solid shaft	With featherkey (V□□)
Shaft material	<b>Steel</b> stainless steel
Shaft sealing ring material	<b>NBR</b> FKM (Viton)
Driven shaft bearing	<b>Normal</b>
Paste for shaft mounting	<b>Without</b> Enclosed
Gearbox type	<b>Without foot and centering (□DR)</b> With centering (□CR) With output flange (□CK) With foot (HBR/VBR)
Lubricant	<b>Mineral oil</b> Synthetic oil Food-compatible oil

Design	
Mounting position	<b>A/B/C/D/E/F</b> Combined
Power connection	<b>Terminal box</b> Plug connectors
Spring-applied brake	<b>Without</b> Brake design: Standard/Longlife Brake version: Standard/Overexcited/Cold Brake
Feedback	<b>Without</b> Resolver Absolute value encoder Incremental encoder
Cooling	<b>Integral fan</b> Blower
Temperature monitoring	<b>TKO thermal contact</b> PTC thermistor KTY thermal detector



# g500-S shaft-mounted helical geared motors

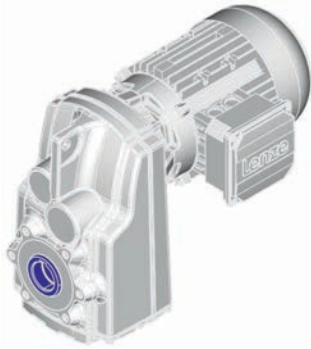
General information



## The geared motor kit

g500-S130 ... S660

### Gearbox design: hollow shaft, without foot



Without centring (HDR)

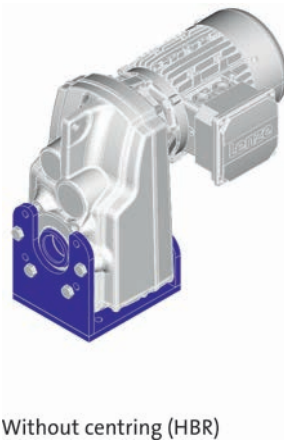


With centering (HCR)



Flange with through holes (HCK)

### Gearbox design: hollow shaft, with foot



Without centring (HBR)

# g500-S shaft-mounted helical geared motors

General information



## The geared motor kit

g500-S130 ... S660

Gearbox design: hollow shaft with shrink disc, without foot



Without centring (SDR)



With centering (SCR)



Flange with through holes (SCK)

# g500-S shaft-mounted helical geared motors

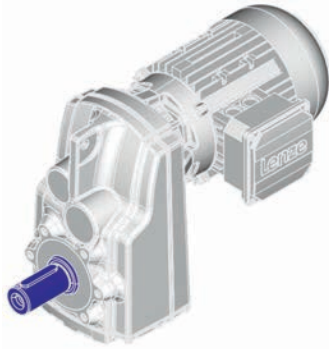
General information



## The geared motor kit

g500-S130 ... S660

### Gearbox design: solid shaft, without foot



Without centring (VDR)

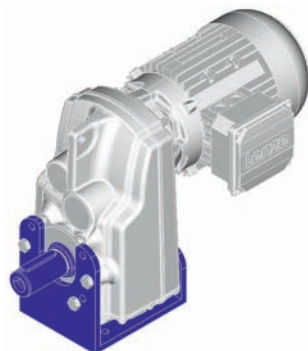


With centring (VCR)



Flange with through holes (VCK)

### Gearbox design: solid shaft, with foot



Without centring (VBR)

# g500-S shaft-mounted helical geared motors

## General information



### The geared motor kit

g500-S950 ... S4500

Product	g500-S950	g500-S2100	g500-S3100	g500-S4500
Gearbox				
Motor assignment min.	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063
Motor assignment max.	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132
<b>Technical data</b>				
Output torque max.	950 Nm	2100 Nm	3100 Nm	4500 Nm
Drive power min.	0.12 kW	0.25 kW	0.25 kW	0.55 kW
Drive power max.	7.5 kW	7.5 kW	7.5 kW	7.5 kW
<b>Dimensions [mm]</b>				
Solid shaft with featherkey	40 x 80	50 x 100	60 x 120	70 x 140 80 x 160 <sup>1)</sup>
Hollow shaft with keyway	40	50/55	60/70	70/80
Hollow shaft with shrink disc	40	50	65	75/80
Output flange	250	250/300	350	400/450

<sup>1)</sup> Only steel shaft material is available.

- The designs are only available for the gearboxes displayed above in the table.
- Values printed in bold are standard versions.  
Values not printed in bold are possible extensions, some for an additional charge.

Design	
Conformity	<b>CE</b> EAC
Approval	<b>Without</b> CCC/CSA/cURus
Degree of protection	<b>IP55</b> IP65/IP66
Surface and corrosion protection	<b>OKS-S</b> Different types of OKS
Colour	<b>Painted in RAL colours</b> Primed
Hollow shaft	<b>With keyway (H□□)</b>
Hollow shaft with shrink disc	Without keyway (S□□)
Solid shaft	With featherkey (V□□)
Shaft material	<b>Steel</b> stainless steel
Shaft sealing ring material	<b>NBR</b> FKM (Viton)
Driven shaft bearing	<b>Normal</b>
Paste for shaft mounting	<b>Without</b> Enclosed
Gearbox type	<b>With foot (□BR)</b> With foot and centering (□AR) With foot and output flange (□AK)
Lubricant	<b>Mineral oil</b> Synthetic oil Food-compatible oil

Design	
Mounting position	<b>A/B/C/D/E/F</b>
Power connection	<b>Terminal box</b> Plug connectors
Spring-applied brake	<b>Without</b> Brake design: Standard/Longlife Brake version: Standard/Overexcited/Cold Brake
Feedback	<b>Without</b> Resolver Absolute value encoder Incremental encoder
Cooling	<b>Integral fan</b> Blower
Temperature monitoring	<b>TKO thermal contact</b> PTC thermistor KTY thermal detector

# g500-S shaft-mounted helical geared motors

General information



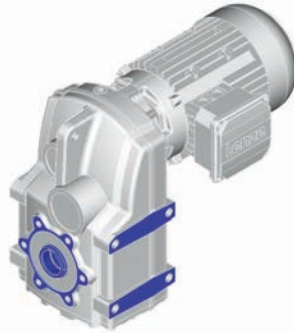
## The geared motor kit

g500-S950 ... S4500

### Gearbox design: hollow shaft, with foot



Without centring (HBR)

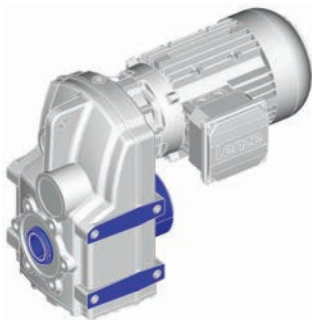


With centring (HAR)

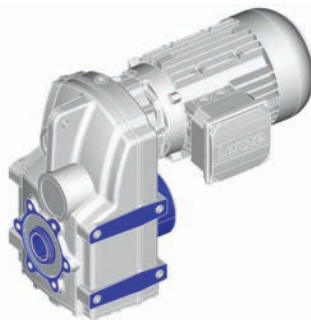


Flange with through holes (HAK)

### Gearbox design: hollow shaft with shrink disc, with foot



Without centring (SBR)



With centring (SAR)



Flange with through holes (SAK)

# g500-S shaft-mounted helical geared motors

General information



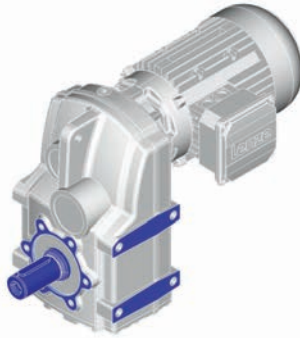
## The geared motor kit

g500-S950 ... S4500

Gearbox design: solid shaft, with foot



Without centring (VBR)



With centering (VAR)



Flange with through holes (VAK)



### General information about the data provided in this catalogue

The powers, torques and speeds specified in this catalogue are rounded values and are valid under the following conditions:

- Operating time/day = 8 h (100% OT)
- Duty class I for up to 10 switching operations/h
- Mounting positions and designs in this catalogue
- Standard lubricant
- $T_{amb} = 20\text{ °C}$  for gearboxes,  
 $T_{amb} = 40\text{ °C}$  for motors (in accordance with EN 60034)
- Site altitude  $\leq 1000\text{ m amsl}$
- The selection tables provide the permissible mechanical powers and torques. For notes on the thermal power limit, see chapter drive dimensioning.
- The rated power specified for motors and geared motors applies to operating mode S1 (in accordance with EN 60034).

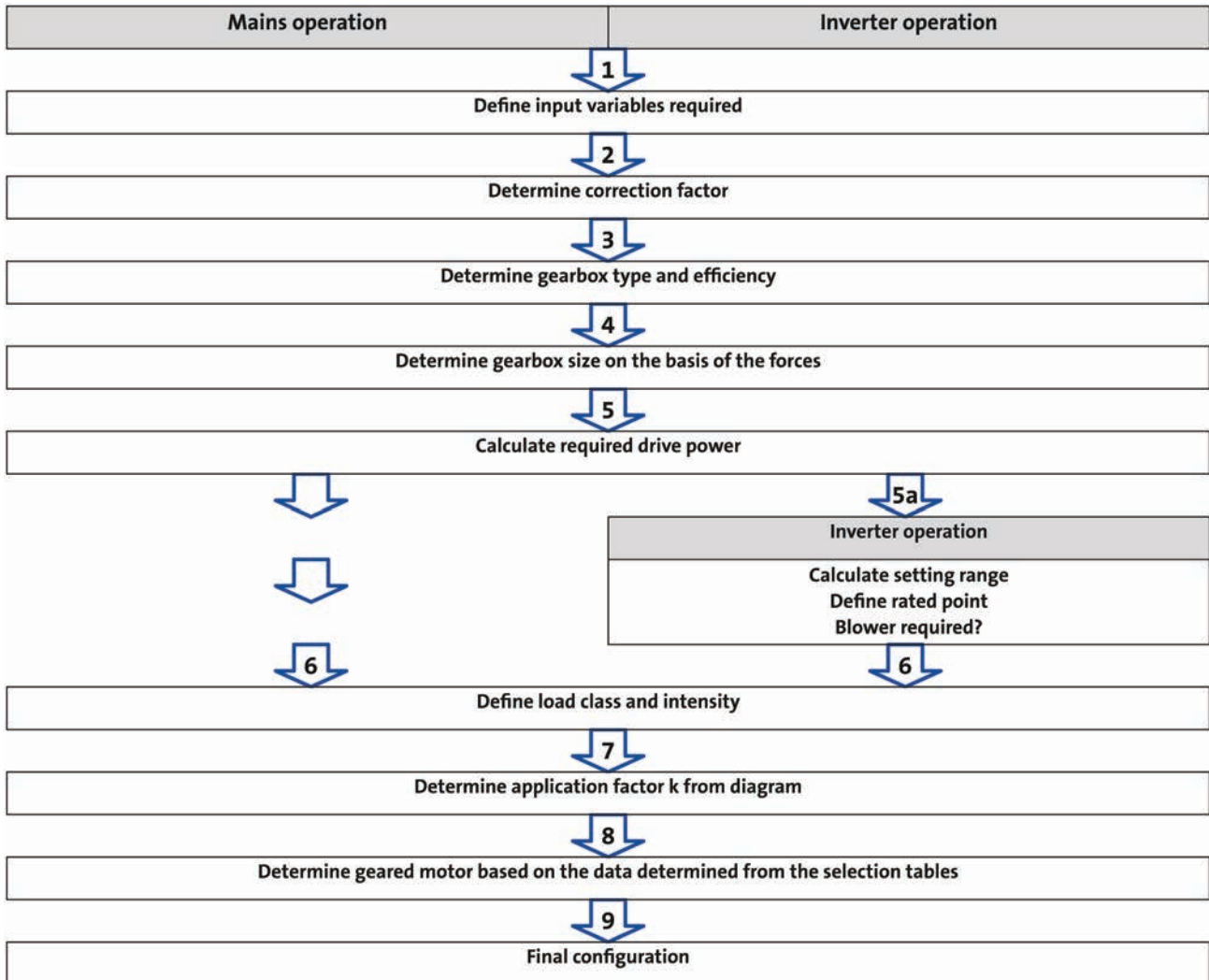
Under different operating conditions, the values obtained may vary from those listed here.

In the case of extreme operating conditions, please consult your Lenze sales office.



### Procedure of a configuration process

#### Workflow



You can use our configuring software Drive Solution Designer for precise drive dimensioning.

The Drive Solution Designer helps you to carry out a fast and high-quality drive dimensioning.

The software includes well-founded and proven knowledge on drive applications and electro-mechanical drive components.

Please contact your Lenze sales office.





### Procedure of a configuration process

#### 1 required input variables

Load torque		$M_{L,max} =$	[Nm]
	In inverter operation	$M_{L,min} =$	[Nm]
Load speed		$n_{L,max} =$	[r/min]
	In inverter operation	$n_{L,min} =$	[r/min]
External moments of inertia		$J_{ext} =$	[kgcm <sup>2</sup> ]
Operating time / day		BD =	[h]
Switching operations per h		$S_h =$	[1/h]
Runtime for $M_{L,max}$	In inverter operation		[%]

#### 2 determine correction factor

Operating modes and operating time						
S1	ED	[%]	100			
	$k_L =$		1.0			
S2	ED	[%]	10	30	60	90
	$k_L =$		1.4 - 1.5	1.15 - 1.2	1.07 - 1.1	1.0 - 1.05
S3	ED	[%]	15	25	40	60
	$k_L =$		1.4 - 1.5	1.3 - 1.4	1.15 - 1.2	1.05 - 1.1
S6	ED	[%]	15	25	40	60
	$k_L =$		1.5 - 1.6	1.4 - 1.5	1.3 - 1.4	1.15 - 1.2
Site altitude						
	H	[m]	≤ 1000	≤ 2000	≤ 3000	≤ 4000
	$k_H =$		1	0.95	0.9	0.85
Ambient temperature						
	$T_U =$	[°C]	≤ 40	≤ 45	≤ 50	≤ 55
	$k_{TU} =$		1	0.95	0.9	0.8

26 - Operating modes

# g500-S shaft-mounted helical geared motors

## Project planning



### Procedure of a configuration process

#### 3 determine gearbox type and efficiency

Gearbox type			Axial gearboxes		Right-angle gearboxes
			Helical gearbox	Shaft-mounted	Bevel gearbox
Product			g500-H	g500-S	g500-B
Gearbox efficiency	2-stage gearboxes	$\eta_G$	0.96	0.96	0.96
	3-stage gearboxes	$\eta_G$	0.95	0.95	0.95

#### 4 determine gearbox size based on the forces on the output

Transmission element		Gear wheels	Sprockets	Toothed belt pulleys (depending on the initial stress)	Narrow V-belt (depending on the initial stress)
Additional radial force factor	$f_z =$	$\geq 17$ teeth = 1.0 $< 17$ teeth = 1.15	$\geq 20$ teeth = 1.0 $< 20$ teeth = 1.25 $< 13$ teeth = 1.4	With belt tightener = 2.0 - 2.5 Without belt tightener = 2.5 - 3.0	1.5 - 2.0
		Calculation		Check	
Radial force	[N]	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{d_w}$		$F_{rad} \leq f_w \times F_{rad,max}$	
Axial force	[N]			$F_{ax} \leq F_{rad,max} \times 0.5$	

$d_w$  = effective diameter [mm] transmission element  
 $f_w$  = additional load factor

- For permissible radial and axial forces and additional load factor see the "Technical data" chapter

#### 5 calculate drive power

		Calculation	
Drive power required	[kW]	$P_1 = \frac{M_{L,max} \times \eta_{L,max}}{9549 \times k_L \times k_H \times k_{Tu} \times \eta_g}$	

$k_L$  = Correction factor - operating mode  
 $k_H$  = correction factor - installation height  
 $k_{Tu}$  = correction factor - ambient temperature



### Procedure of a configuration process - mains operation

#### 6 calculate intensity and determine duty class

Load class	Load type	Intensity
I	Smooth operation, small or light jolts	$F_I \leq 1.25$
II	Uneven operation, average jolts	$1.25 < F_I \leq 4$
III	Uneven operation, severe jolts and/or alternating load	$F_I > 4$

#### 27 - Duty classes

	Calculation	
Intensity	$F_I = \frac{\frac{J_L + J_M + J_B + J_Z}{i^2}}{J_M + J_B + J_Z}$	

$i$  = gearbox ratio

$J_L$  = moment of inertia of the load

$J_M$  = moment of inertia of the motor

$J_B$  = moment of inertia of the brake

$J_Z$  = additional moment of inertia (handwheel, 2nd shaft end ...)

#### 7 determine application factor $k$ from diagram

#### 30 - Load capacity and application factor

# g500-S shaft-mounted helical geared motors

## Project planning



### Procedure of a configuration process - mains operation

8 determine geared motor based on the data determined from the selection tables

Selection table		Check
Drive power $P_N$	[kW]	$P_1 \leq P_N$
Output speed $n_2$	[r/min]	$n_{L,max} \approx n_2$
Output torque $M_2$	[Nm]	$M_{L,max} \leq M_2$
Load factor $c$		$k \leq c$
Order information		Example
Number of stages		2
Ratio $i$		3.267
Product gearbox		g500-H140
Product motor		MHxMAxx090-32

30 - Load capacity and application factor

#### Example: structure of a selection table

50 Hz:  $P_N = 1.5$  kW ← Rated power  $P_N$   
 87 Hz:  $P_N = 2.7$  kW

2-stage gearboxes ← Number of the gear stage

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c			
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79

↑ ↑ ↑  
 Output speed  $n_2$   
 Output torque  $M_2$   
 Load capacity  $c$

↑ ↑ ↑  
 Ratio  $i$   
 Product Gearbox  
 Product Motor



### Procedure of a configuration process - inverter operation

#### 5a calculate range of adjustment and determine rated point

		Calculation	
Setting range		$V = \frac{n_{L,max}}{n_{L,min}}$	
Setting range	Motor with integral fan	$\leq 2.5$ (20 ... 50 Hz)	$\leq 4.35$ (20 ... 87 Hz)
	Motor with blower	$\leq 10$ (5 ... 50 Hz)	$\leq 17.4$ (5 ... 87 Hz)
Rated point at		50 Hz	87 Hz

#### 6 calculate intensity and determine duty class

		Calculation	
Intensity	$M_I = \frac{M_{L,max}}{M_{L,min}}$	For alternating load, select load class III!	
Load class	Load type	Intensity	
I	Smooth operation, small or light jolts	$M_I \leq 1.5$	
II	Uneven operation, average jolts	$1.5 < M_I \leq 2$	
III	Uneven operation, severe jolts and/or alternating load	$2 < M_I \leq 2.5$	

27 - Duty classes

#### 7 determine application factor k from diagram

30 - Load capacity and application factor

# g500-S shaft-mounted helical geared motors

## Project planning



### Procedure of a configuration process - inverter operation

8 determine geared motor based on the data determined from the selection tables

Selection table			Check	
Drive power $P_N$		[kW]	$P_1 \leq P_N$	
Max. output speed $n_2$		[r/min]	$n_{L,max} \approx n_2$	
Min. output speed $n_{21}$	Self-ventilated	[r/min]	$n_{L,min} \approx n_{21}$	Setting range 2.5 (50 Hz) Setting range $\leq 4.35$ (87 Hz)
Min. output speed $n_{22}$	Forced-ventilated	[r/min]	$n_{L,min} \approx n_{22}$	Setting range $\leq 10$ (50 Hz) Setting range $\leq 17.4$ (87 Hz)
	Self-ventilated (Reduced output torque)	[r/min]	$n_{L,min} \approx n_{22}$	
Output torque $M_2$		[Nm]	$M_{L,max} \leq M_2$	
Load factor $c$			$k \leq c$	
Order information			Example	
Number of stages			2	
Ratio $i$			3.267	
Product gearbox			g500-H140	
Product motor			MHxMAxx090-32	

30 - Load capacity and application factor

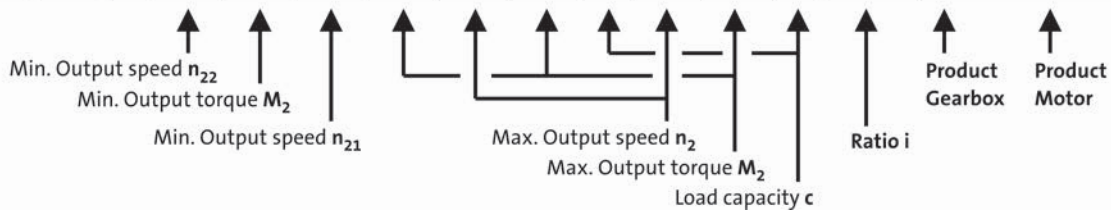
33 - Torque derating at low motor frequencies

### Example: structure of a selection table

50 Hz:  $P_N = 1.5$  kW  
87 Hz:  $P_N = 2.7$  kW ← Rated power  $P_N$

2-stage gearboxes ← Number of the gear stage

Mains operation 400 V, 50 Hz			Inverter operation										$i$	Product		
$n_2$ [r/min]	$M_2$ [Nm]	$c$	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	$c$	$n_2$ [r/min]	$M_2$ [Nm]	$c$				
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79



6.4

# g500-S shaft-mounted helical geared motors

Project planning



## Procedure of a configuration process

### 9 Final configuration

More information regarding the final configuration can be found under:	
- The modular geared motor system - Product extensions for gearboxes, motors	
Check operating conditions	<ul style="list-style-type: none"><li>- Operating temperature (observe lubricant, material of shaft sealing ring)</li><li>- Degree of protection</li><li>- Supply voltage</li><li>- Surface protection required</li><li>- Approvals</li><li>- Conformity</li></ul>
Check and define connection dimensions	<ul style="list-style-type: none"><li>- Driven shaft</li><li>- Foot, output flange, centering with threaded pitch circle</li></ul>
Determine mounting position and position of the system blocks	<ul style="list-style-type: none"><li>- Mounting position A/B/C/D/E/F or combined</li><li>- Terminal box position, shaft position, flange position</li></ul>
Select product extensions at the gearbox (differing depending on the gearbox type)	<ul style="list-style-type: none"><li>- Torque plate at the base, threaded pitch circle, rubber buffer</li><li>- Hollow shaft cover, shrink disc cover</li></ul>
Select product extensions at the motor	<ul style="list-style-type: none"><li>- Connection type (terminal box, connector)</li><li>- Brake</li><li>- Blower (inverter operation)</li><li>- Feedback</li><li>- Temperature monitoring</li></ul>



### Standards

#### Operating modes

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

#### The most important operating modes

Continuous operation S1	Short-time operation S2
<p>Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.</p>	<p>Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.</p>
Intermittent operation S3	Non-intermittent periodic operation S6
<p>Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.</p>	<p>Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.</p>



# g500-S shaft-mounted helical geared motors

## Project planning



### Standards

#### Duty classes

Depending on the load type, the duty classes or impacts are divided as follows:

Duty class	Load type
I	Smooth operation, small or light jolts
II	Uneven operation, average jolts
III	Uneven operation, severe jolts and/or alternating load

In order to support you in classifying your driven machine regarding the right duty class, the following shows sample applications with the corresponding duty class. Depending on, for instance, the operating frequency, driven machines can also have a higher impact. In case of uncertainties, please contact your Lenze sales office.

Drive	Duty class
Construction machines	II
Chemical industry	II
Conveyors	II
Fans	II
Plastics industry	II
Wood working	III
Hoists	III
Metal working	III
Food	II
Paper industry	III
Stones	III
Textile industry	II

# g500-S shaft-mounted helical geared motors



## Project planning

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### Standards

#### Degrees of protection

The degree of protection indicates the suitability of a motor for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The degrees of protection are classified by EN 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust.

The second code number refers to the protection against the ingress of humidity.

Code number	Degree of protection	Code number	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in the case of deliberate access	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or similar	2	Protection against diagonally falling water (dripping water), $15^\circ$ compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires and the like	3	Protection against spraying water, up to $60^\circ$ to the vertical
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wires and the like	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

# g500-S shaft-mounted helical geared motors

## Project planning



### Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible permanent gearbox power.

It is affected by:

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the gears;
- the load and the speed;
- the ambient conditions: temperature, air circulation, input or dissipation of heat via shafts and the foundations.

We ask you to make a thermal check with the Drive Solution Designer (DSD) or contact the Lenze office responsible for you

- if the input speed  $n_1 > 1500$  r/min is exceeded in case of the gearbox ratios given in the following (can be e.g. recognised by the empty cells in the selection tables):

g500 thermal power limit	
Product	Ratio i
g500-H850 ... H3000	≤ 10
g500-S2100 ... S4500	≤ 16
g500-B1500 ... B4300	≤ 25

g500 thermal power limit	
Product	Ratio i
g500-H5000 ... H14000	≤ 25
g500-S8000 ... S19000	≤ 40
g500-B8000 ... B20000	≤ 60

- If the drive speeds mentioned in the following will be exceeded as a function of the mounting position:

g500 thermal power limit			
Product	Mounting position A	Mounting position A, B, E, F	Mounting position C, D
MD□MA□□063 ... 100 MH□MA□□063 ... 100	4000 r/min	3500 rpm	3000 r/min
MD□MA□□112 ... 132 MH□MA□□112 ... 132 m240-P112 ... P132 m550-P112 ... P132	3000 r/min	2600 rpm	1500 r/min
MD□MA□□160 ... 180 MH□MA□□160 ... 180 m240-P160 ... P180 m550-P160 ... P180	2000 r/min	1800 rpm	1500 r/min
m540-P90 ... P250	1500 r/min	1500 r/min	1500 r/min

- ▶ For a short period of time up to 5 min, 30 % higher speeds are permissible

### Possible ways of extending the application area

- Synthetic lubricant (option)
- Shaft sealing rings made from FKM material/Viton (option)
- Reduction in lubricant quantity (after consultation with Lenze)
- Cooling of the geared motor by means of air convection on the machine/system



### Load capacity and application factor

#### Load capacity $c$ of gearboxes

Rated value for the load capacity of Lenze geared motors.

- $c$  is the ratio of the permissible rated torque of the gearbox to the rated torque supplied by the drive component (e.g. the built-in Lenze motor).
- The value of  $c$  must always be greater than the value of the application factor  $k$  calculated for the application.

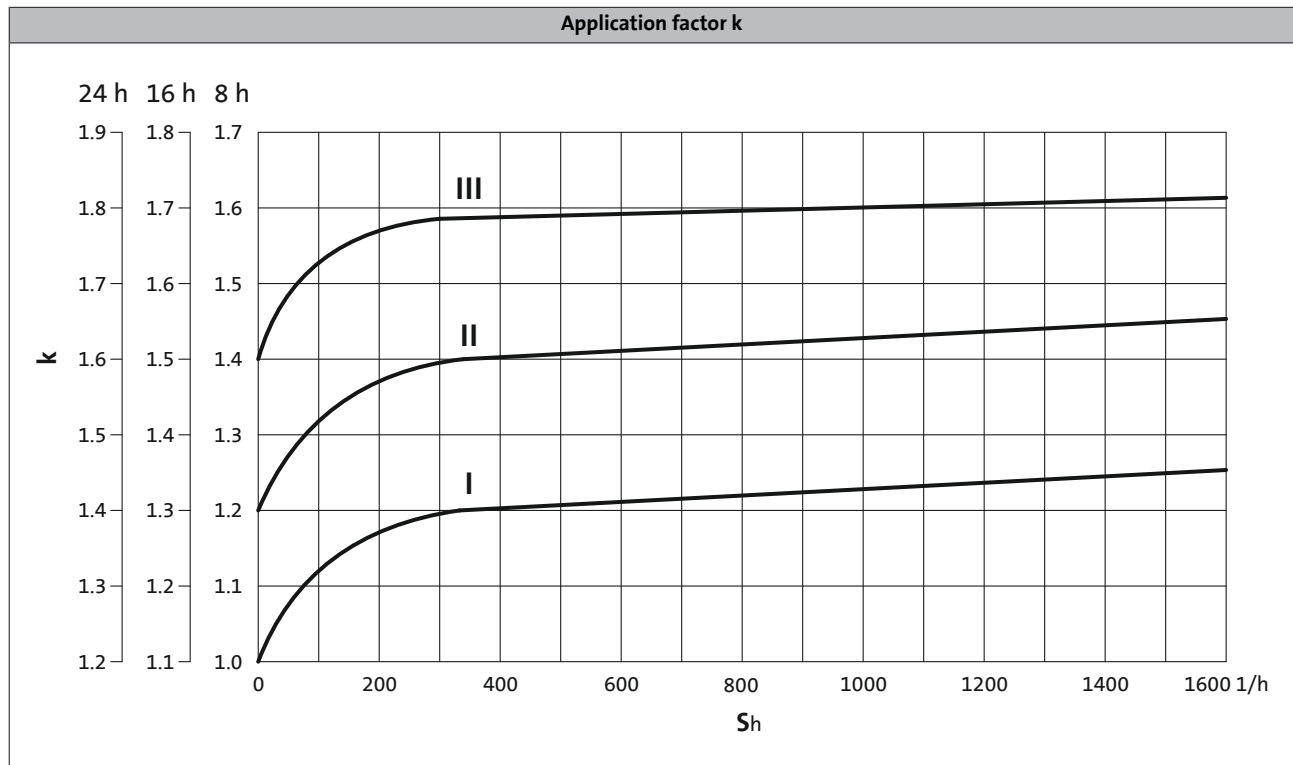
Required:  $c \geq k$

#### Application factor $k$ (according to DIN 3990)

Takes into account the influence of temporally variable loads which are actually present during the anticipated operating time of gearboxes and geared motors.

$k$  is determined by:

- the type of load
- the load intensity
- temporal influences



►  $S_h$  = switchings/h

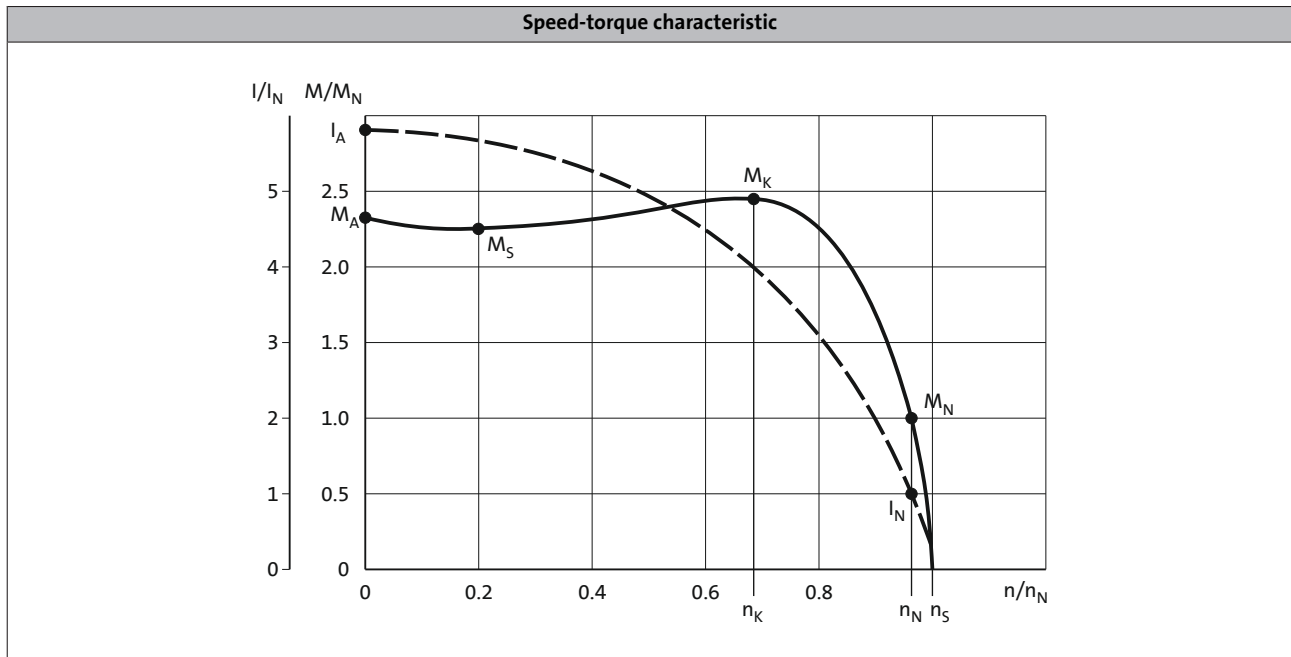


### Operational performance of three-phase AC geared motors

The g500 geared motors can be actuated directly on the mains or via an inverter. When actuated in mains operation, the motor runs at a fixed speed, for inverter operation the speed is variable. Thanks to their high degree of protection, the robust three-phase drives can be basically used in a variety of applications.

#### Mains operation

During mains operation, when switched on, the three-phase AC motor starts up according to the speed-torque characteristic. It passes through this characteristic until it reaches its stable operating point. This operating point has been reached if the load torque or rated torque ( $M_{rated}$ ) is lower than the starting torque ( $M_A$ ) and pull-up torque ( $M_S$ ). The rated speed ( $n_{rated}$ ) of the drive is always lower than the calculated synchronous speed ( $n_S$ ). The difference between rated speed and synchronous speed relating to the synchronous speed is referred to as the "slip".





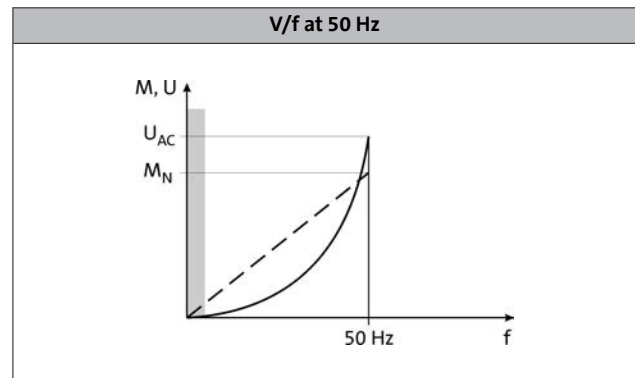
### Operational performance of three-phase AC geared motors

#### Operation on the inverter

An inverter enables energy-efficient operation of a system in virtually all application cases. The various operating modes, which can be created by making just a few simple settings, facilitate this. The following characteristics and corresponding specifications listed on the following pages can be used to calculate the optimum operating mode during the project planning phase.

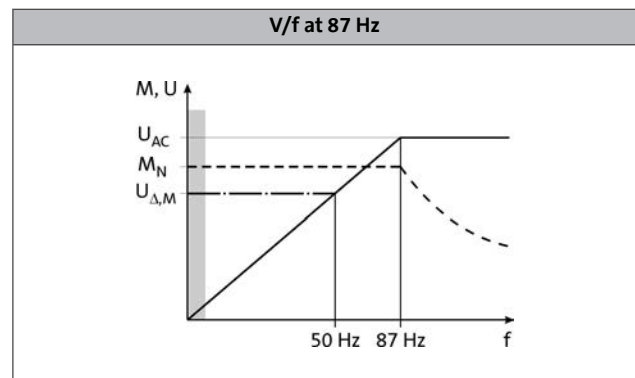
#### Standard setting

In its initial state when delivered, the inverter is set up for basic operation with a three-phase AC motor with vector control. When operated in this mode, the rated torque of the motor is available in a setting range up to 50 Hz.



#### Extended setting range up to 87 Hz

If the V/f reference point on the inverter is set to 87 Hz, the rated torque can be used across an extended setting range. Here, a 230/400V motor is for example used and operated in a delta layout with a 400V inverter. The setting range is then increased by 40 %. The inverter must be dimensioned for a rated motor current of 230 V.

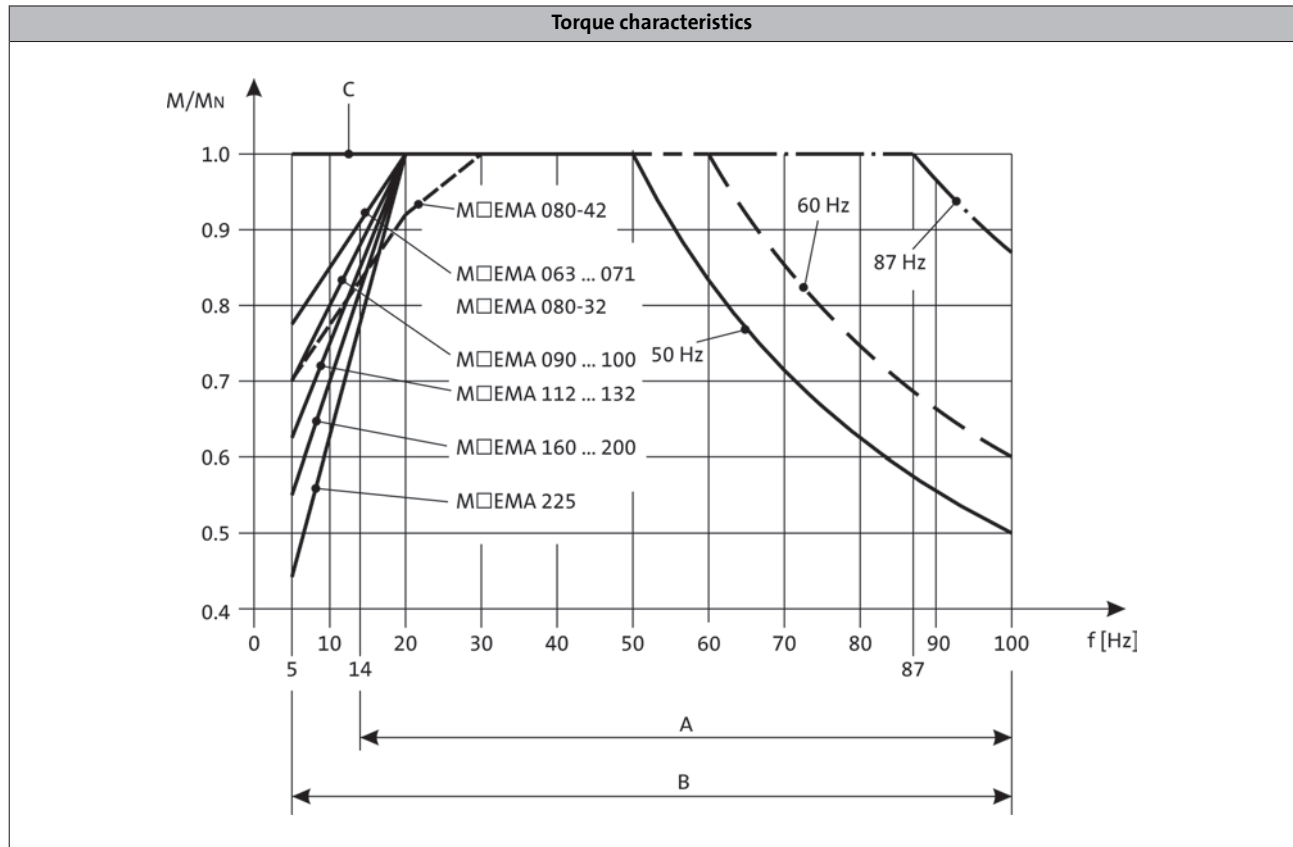




## Operational performance of three-phase AC geared motors

### Torque derating at low motor frequencies

The diagram shows the motor frame size-dependent torque reduction for self-ventilated motors, taking the thermal behaviour during actuation of the inverter into consideration.



A = Operation with integral fan and brake

C = operation with blower

B = Operation with integral fan and brake control "Holding current reduction"

# g500-S shaft-mounted helical geared motors



## Project planning

### Technical data at a glance

The following tables contain the most important data of the gearbox with the motors that can be attached for an approximate dimensioning process of a geared motor. Detailed information can be found in the following chapters.

The data given in the tables apply to

- input speed  $n_1 = 1400$  r/min
- application factor  $c = 1.0$

In order to calculate the exact ratio, the number of teeth  $z_g$  (driven) can be divided by the number of teeth  $z_t$  (driving). These are rounded values.

The data for the max. radial force refer to

- solid shaft without flange
- normal storage
- application factor  $c = 1.3$

For further designs see the "Technical data" chapter.

- The rated torque can be gathered from the last digits of the product name e.g. g500-S130 (130 Nm).

### g500-S130, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad}, \max}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
394	63	2.68	3.661	174	637	1350	20	0.25	1.50
287	76	2.36	5.021	145	728	1420	19	0.25	1.50
205	92	2.04	7.029	725	5096	1530	18	0.18	1.50
173	116	2.17	8.322	90	749	1600	13	0.25	1.50
153	125	2.07	9.411	90	847	1660	13	0.25	1.50
224	87	2.11	6.425	87	559	1500	18	0.25	1.50
126	130	1.77	11.413	75	856	1990	13	0.25	1.50
112	130	1.57	12.907	75	968	2100	12	0.25	1.50
99.0	130	1.38	14.606	315	4601	2220	13	0.25	1.50
90.0	130	1.27	15.979	375	5992	2320	13	0.18	1.50
80.0	130	1.12	18.069	375	6776	2460	12	0.18	1.10
71.0	130	0.99	20.381	21	428	2610	13	0.18	1.10
63.0	130	0.88	23.048	21	484	2780	12	0.18	0.75
58.0	130	0.82	24.967	30	749	2890	13	0.25	0.75
51.0	130	0.72	28.233	30	847	3070	12	0.25	0.75
46.0	130	0.65	31.387	75	2354	3240	13	0.12	0.75
40.0	130	0.56	35.493	75	2662	3440	12	0.12	0.55
35.0	130	0.49	40.422	45	1819	3660	13	0.12	0.55
31.0	130	0.43	45.711	45	2057	3860	12	0.12	0.37
28.0	130	0.39	51.230	165	8453	4040	12	0.12	0.37
24.0	130	0.34	57.933	15	869	4230	12	0.12	0.37
22.0	130	0.31	64.200	5	321	4360	12	0.12	0.37
19.0	130	0.27	72.600	5	363	4500	12	0.12	0.25
16.0	102	0.18	84.581	105	8881	4500	12	0.12	0.18
14.0	115	0.18	95.648	105	10043	4500	12	0.12	0.18



# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

### g500-S220, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
377	178	7.25	3.840	144	553	2360	16	0.55	3.00
275	181	5.37	5.267	15	79	2650	16	1.10	3.00
214	220	5.08	6.767	30	203	2900	13	0.55	3.00
189	217	4.43	7.667	3	23	3050	12	0.55	3.00
156	220	3.71	9.280	25	232	3250	13	1.10	3.00
138	220	3.27	10.514	35	368	3400	12	1.10	3.00
122	220	2.90	11.876	105	1247	3500	13	0.55	3.00
112	220	2.65	12.992	125	1624	3550	13	0.25	3.00
108	220	2.56	13.456	147	1978	3600	12	0.55	3.00
99.0	220	2.34	14.720	25	368	3600	12	0.25	2.20
88.0	220	2.08	16.571	7	116	3600	12	0.25	2.20
77.0	220	1.84	18.776	49	920	3600	12	0.25	2.20
71.0	220	1.69	20.300	10	203	3600	12	0.55	1.50
63.0	220	1.49	23.000	1	23	3600	12	0.55	1.50
55.0	220	1.30	26.422	45	1189	3600	12	0.25	1.50
48.0	220	1.14	29.937	63	1886	3600	12	0.25	1.10
44.0	220	1.04	32.867	15	493	3600	12	0.25	1.10
39.0	220	0.92	37.238	21	782	3600	12	0.25	1.10
34.0	220	0.81	42.533	15	638	3600	12	0.12	0.75
30.0	220	0.71	48.190	21	1012	3600	12	0.12	0.75
27.0	220	0.65	51.620	50	2581	3600	12	0.12	0.55
24.0	220	0.57	58.486	35	2047	3600	11	0.12	0.55
21.0	171	0.39	65.975	40	2639	3600	12	0.12	0.37
19.0	194	0.40	74.750	4	299	3600	11	0.12	0.37

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S220, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
35.0	220	0.85	40.012	345	13804	3600	13	0.18	0.37
31.0	220	0.75	45.333	3	136	3600	12	0.18	0.37
28.0	220	0.67	52.587	75	3944	3600	13	0.12	0.75
24.0	220	0.57	59.581	105	6256	3600	12	0.12	0.55
21.0	220	0.50	67.298	315	21199	3600	13	0.12	0.55
18.0	220	0.44	76.249	441	33626	3600	12	0.12	0.55
16.0	220	0.40	86.079	63	5423	3600	13	0.12	0.37
14.0	220	0.35	97.528	441	43010	3600	12	0.12	0.37
13.0	220	0.30	111.747	75	8381	3600	13	0.12	0.37
11.0	220	0.26	126.610	105	13294	3600	12	0.12	0.25
10.0	220	0.23	143.205	210	30073	3600	13	0.12	0.25
8.00	220	0.20	162.252	147	23851	3600	12	0.12	0.25
6.00	220	0.14	241.022	45	10846	3600	13	0.12	0.12
5.00	220	0.13	273.079	63	17204	3600	12	0.12	0.12
5.00	220	0.11	312.233	30	9367	3600	13	0.12	0.12
4.00	220	0.10	353.762	21	7429	3600	12	0.12	0.12

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

### g500-S400, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
435	203	9.54	3.339	174	581	2360	16	0.55	4.00
317	243	8.33	4.579	145	664	2560	16	1.10	4.00
248	258	6.89	5.860	609	3569	2750	13	0.55	4.00
227	261	6.39	6.411	725	4648	2820	12	0.25	4.00
195	365	7.66	7.467	15	112	2980	13	0.55	4.00
172	380	7.06	8.436	39	329	3150	12	0.55	4.00
142	400	6.13	10.240	25	256	3450	13	1.10	4.00
126	400	5.42	11.569	65	752	3650	13	1.10	4.00
111	400	4.79	13.105	105	1376	3900	12	0.55	4.00
101	400	4.38	14.336	125	1792	4000	12	0.25	4.00
98.0	400	4.24	14.806	273	4042	4100	12	0.55	4.00
90.0	400	3.87	16.197	325	5264	4200	12	0.25	4.00
80.0	400	3.43	18.286	7	128	4400	12	0.25	4.00
70.0	400	3.03	20.659	91	1880	4650	12	0.25	3.00
65.0	400	2.79	22.400	5	112	4800	12	0.55	3.00
57.0	400	2.47	25.308	13	329	5100	12	0.55	3.00
50.0	400	2.14	29.156	45	1312	5500	12	0.25	1.50
44.0	400	1.89	32.940	117	3854	5750	12	0.25	1.50
40.0	400	1.72	36.267	15	544	5850	12	0.25	1.50
35.0	400	1.52	40.974	39	1598	5980	12	0.25	1.50
31.0	314	1.05	46.933	15	704	6100	12	0.12	0.75
27.0	348	1.03	53.026	39	2068	6200	11	0.12	0.75
25.0	268	0.71	56.960	25	1424	6200	12	0.12	0.55
22.0	303	0.71	64.354	65	4183	6200	11	0.12	0.55

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S400, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
25.0	400	1.09	58.027	75	4352	6200	11	0.18	0.75
22.0	400	0.97	65.559	195	12784	6200	11	0.18	0.75
20.0	400	0.85	74.260	315	23392	6200	11	0.18	0.75
17.0	400	0.76	83.900	819	68714	6200	11	0.18	0.75
15.0	400	0.67	94.984	63	5984	6200	11	0.12	0.75
13.0	399	0.57	107.314	819	87890	6200	11	0.12	0.55
11.0	400	0.50	123.307	75	9248	6200	11	0.12	0.55
10.0	399	0.44	139.313	195	27166	6200	11	0.12	0.55
9.00	400	0.39	158.019	105	16592	6200	11	0.12	0.37
8.00	400	0.35	178.531	273	48739	6200	11	0.12	0.37
7.00	400	0.30	204.412	165	33728	6200	11	0.12	0.37
6.00	396	0.26	230.946	429	99076	6200	11	0.12	0.25
5.00	388	0.22	265.956	45	11968	6200	11	0.12	0.25
4.00	400	0.20	300.479	117	35156	6200	11	0.12	0.18
4.00	330	0.15	344.533	15	5168	6200	11	0.12	0.12
4.00	373	0.15	389.256	39	15181	6200	11	0.12	0.12

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

### g500-S660, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
377	419	17.0	3.920	25	98	3320	14	2.20	7.50
275	492	14.6	5.376	125	672	3580	13	2.20	7.50
230	601	14.9	6.417	12	77	3660	11	2.20	7.50
215	496	11.5	6.880	25	172	3690	13	1.10	7.50
202	593	12.9	7.311	45	329	3720	11	2.20	7.50
168	638	11.6	8.800	5	44	3900	11	2.20	7.50
147	625	9.94	10.027	75	752	4200	10	2.20	7.50
131	660	9.35	11.262	42	473	4500	11	1.10	7.50
120	660	8.54	12.320	25	308	4750	10	1.10	7.50
115	660	8.20	12.832	315	4042	4850	10	1.10	7.50
105	660	7.49	14.037	375	5264	5100	10	1.10	7.50
94.0	660	6.70	15.714	7	110	5450	10	0.55	7.50
82.0	660	5.81	17.905	21	376	5800	10	0.55	5.50
76.0	660	5.40	19.250	4	77	6000	10	1.10	5.50
67.0	660	4.74	21.933	15	329	6450	10	1.10	5.50
58.0	578	3.62	25.056	18	451	7050	10	0.55	4.00
51.0	660	3.63	28.548	135	3854	7700	10	0.55	4.00
46.0	660	3.31	31.167	6	187	8100	10	0.55	3.00
41.0	660	2.91	35.511	45	1598	8500	10	0.55	3.00
36.0	545	2.11	40.333	3	121	8750	10	0.25	1.50
31.0	620	2.10	45.956	45	2068	8850	10	0.25	1.50
30.0	446	1.42	48.950	20	979	8900	10	0.25	1.10
26.0	508	1.42	55.773	75	4183	9000	10	0.25	1.10

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S660, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
29.0	625	1.98	49.867	15	748	9000	11	0.25	1.50
25.0	650	1.81	56.818	225	12784	9000	10	0.25	1.50
23.0	660	1.63	63.817	126	8041	9000	11	0.25	1.50
21.0	660	1.50	69.813	75	5236	9000	11	0.18	1.50
20.0	660	1.43	72.713	945	68714	9000	10	0.25	1.50
18.0	660	1.31	79.545	1125	89488	9000	10	0.18	1.50
16.0	660	1.17	89.048	21	1870	9000	11	0.18	1.10
14.0	660	1.03	101.460	63	6392	9000	10	0.18	1.10
13.0	660	0.95	109.083	12	1309	9000	11	0.25	1.10
12.0	660	0.85	124.289	45	5593	9000	10	0.25	0.75
11.0	660	0.77	137.133	15	2057	9000	11	0.12	0.75
9.00	660	0.67	156.249	225	35156	9000	10	0.12	0.75
8.00	660	0.58	176.611	18	3179	9000	11	0.12	0.55
7.00	660	0.51	201.230	135	27166	9000	10	0.12	0.55
6.00	660	0.46	223.833	6	1343	9000	11	0.12	0.37
6.00	660	0.40	255.034	495	126242	9000	10	0.12	0.37
5.00	603	0.33	280.500	2	561	9000	11	0.12	0.37
4.00	660	0.32	319.600	5	1598	9000	10	0.12	0.37
4.00	447	0.18	369.548	42	15521	9000	11	0.12	0.18
3.00	511	0.18	421.060	315	132634	9000	10	0.12	0.18

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

### g500-S950, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
337	621	22.6	4.380	92	403	8430	16	4.00	7.50
274	691	20.4	5.391	23	124	9100	15	2.20	7.50
245	732	19.3	6.038	575	3472	9490	15	2.20	7.50
192	783	16.2	7.702	161	1240	10300	14	1.10	7.50
162	950	16.6	9.100	10	91	10300	10	4.00	7.50
145	950	14.9	10.183	60	611	10300	10	4.00	7.50
132	950	13.5	11.200	5	56	10300	10	2.20	7.50
118	950	12.1	12.544	125	1568	10300	10	2.20	7.50
105	950	10.8	14.037	375	5264	10300	10	2.20	7.50
92.0	950	9.46	16.000	1	16	10300	10	1.10	7.50
82.0	950	8.46	17.905	21	376	10300	10	1.10	7.50
75.0	950	7.73	19.600	5	98	10300	10	2.20	7.50
67.0	950	6.90	21.933	15	329	10300	9	2.20	7.50
57.0	950	5.87	25.511	45	1148	10300	10	1.10	5.50
51.0	950	5.24	28.548	135	3854	10300	9	1.10	5.50
46.0	950	4.77	31.267	15	469	10300	9	1.10	4.00
42.0	950	4.26	34.989	90	3149	10300	9	1.10	4.00
35.0	950	3.62	41.067	15	616	10300	9	0.55	3.00
32.0	950	3.23	45.956	45	2068	10300	9	0.55	3.00
29.0	924	2.90	49.840	25	1246	10300	9	0.55	2.20
26.0	950	2.67	55.773	75	4183	10300	9	0.55	2.20
23.0	668	1.65	63.000	1	63	10300	9	0.55	1.10
20.0	736	1.63	70.500	2	141	10300	9	0.55	1.10

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S950, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
29.0	950	3.02	50.027	75	3752	10300	10	1.10	3.00
26.0	950	2.70	55.982	225	12596	10300	10	1.10	3.00
23.0	950	2.36	64.022	45	2881	10300	10	0.55	2.20
21.0	950	2.15	70.037	375	26264	10300	10	0.25	2.20
20.0	950	2.11	71.644	1890	135407	10300	10	0.55	2.20
18.0	950	1.93	78.375	1125	88172	10300	10	0.25	2.20
16.0	950	1.68	89.333	3	268	10300	10	0.25	1.50
14.0	950	1.50	99.968	63	6298	10300	10	0.25	1.50
13.0	950	1.37	109.433	30	3283	10300	10	0.55	1.50
12.0	950	1.23	122.461	180	22043	10300	10	0.55	1.50
10.0	950	1.05	142.437	135	19229	10300	10	0.25	1.10
9.00	950	0.95	159.394	810	129109	10300	10	0.25	1.10
8.00	950	0.85	177.178	45	7973	10300	10	0.25	0.75
7.00	950	0.76	198.270	270	53533	10300	10	0.25	0.75
6.00	950	0.66	229.289	45	10318	10300	10	0.12	0.75
6.00	950	0.57	256.585	135	34639	10300	10	0.12	0.55
5.00	950	0.52	278.273	150	41741	10300	10	0.12	0.55
4.00	950	0.47	311.401	900	280261	10300	10	0.12	0.55
4.00	950	0.42	355.658	120	42679	10300	10	0.12	0.37
4.00	950	0.36	397.999	720	286559	10300	10	0.12	0.37



# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

### g500-S2100, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
322	1331	46.2	4.593	150	689	10430	12	7.50	30.00
245	1487	39.3	6.029	378	2279	11540	12	4.00	30.00
215	1487	34.5	6.870	54	371	12110	11	4.00	30.00
179	1487	28.7	8.272	378	3127	12980	11	2.20	22.00
156	1866	31.5	9.452	425	4017	13630	8	5.50	30.00
141	1872	28.4	10.504	125	1313	14180	8	5.50	30.00
119	2030	26.1	12.406	357	4429	15080	8	4.00	30.00
107	2047	23.7	13.787	315	4343	15680	8	4.00	22.00
105	2050	23.2	14.137	51	721	15700	8	4.00	22.00
94.0	2050	20.8	15.711	45	707	15700	8	4.00	22.00
87.0	2050	19.2	17.022	357	6077	15700	7	2.20	22.00
78.0	2050	17.4	18.917	315	5959	15700	7	2.20	18.50
71.0	2050	15.7	20.869	153	3193	15700	7	4.00	18.50
63.0	2050	14.0	23.193	135	3131	15700	7	4.00	15.00
52.0	2050	11.6	28.275	51	1442	15700	8	2.20	7.50
47.0	2050	10.4	31.422	45	1414	15700	8	2.20	7.50
43.0	2050	9.51	34.333	3	103	15700	8	2.20	7.50
39.0	2050	8.56	38.156	45	1717	15700	8	2.20	7.50
33.0	1983	7.00	44.431	51	2266	15700	8	1.10	4.00
29.0	2050	6.51	49.378	45	2222	15700	7	1.10	4.00
27.0	1957	5.68	53.924	170	9167	15700	7	1.10	4.00
24.0	2050	5.35	59.927	150	8989	15700	7	1.10	4.00
21.0	1454	3.34	68.162	68	4635	15700	7	1.10	2.20
19.0	1576	3.27	75.750	4	303	15700	7	1.10	2.20

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S2100, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
37.0	1945	7.86	40.056	18	721	15700	8	2.20	7.50
33.0	2050	7.46	44.515	270	12019	15700	8	2.20	7.50
27.0	2050	6.04	54.933	15	824	15700	8	2.20	7.50
24.0	2050	5.37	61.049	225	13736	15700	8	2.20	5.50
21.0	2050	4.67	70.302	63	4429	15700	8	1.10	5.50
19.0	2050	4.25	76.907	75	5768	15700	8	1.10	4.00
19.0	2050	4.18	78.128	945	73831	15700	8	1.10	4.00
17.0	2050	3.82	85.468	1125	96152	15700	8	1.10	4.00
15.0	2050	3.32	98.095	21	2060	15700	8	0.55	4.00
13.0	2050	2.99	109.016	63	6868	15700	8	0.55	3.00
12.0	2050	2.72	120.167	6	721	15700	8	1.10	3.00
11.0	2050	2.45	133.544	90	12019	15700	8	1.10	3.00
9.00	2050	2.09	156.407	27	4223	15700	8	0.55	2.20
8.00	2050	1.89	173.820	405	70397	15700	8	0.55	2.20
7.00	2050	1.66	194.556	9	1751	15700	8	0.55	1.50
7.00	2050	1.51	216.215	135	29189	15700	8	0.55	1.50
6.00	2050	1.28	251.778	9	2266	15700	8	0.25	1.50
5.00	2050	1.17	279.807	135	37774	15700	8	0.25	1.10
5.00	2050	1.06	305.567	30	9167	15700	8	0.25	1.10
4.00	2050	0.97	339.584	450	152813	15700	8	0.25	1.10
4.00	1878	0.74	386.250	4	1545	15700	8	0.25	0.55
3.00	2050	0.74	429.250	4	1717	15700	8	0.25	0.55

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S3100, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
298	1842	59.4	4.951	575	2847	14000	10	7.50	30.00
227	2110	51.8	6.499	483	3139	15000	10	4.00	30.00
200	2235	48.2	7.406	69	511	16000	10	4.00	30.00
166	2264	40.6	8.917	483	4307	16500	10	2.20	22.00
135	2275	33.2	10.932	207	2263	16800	10	4.00	22.00
133	3022	43.3	11.128	125	1391	17000	7	7.50	30.00
118	2965	37.6	12.584	125	1573	17500	7	7.50	30.00
101	3100	33.9	14.606	315	4601	18000	6	4.00	30.00
90.0	3100	29.9	16.517	315	5203	18200	6	4.00	30.00
89.0	3100	29.7	16.644	45	749	18600	6	4.00	30.00
78.0	3100	26.3	18.822	45	847	19000	6	4.00	30.00
74.0	3100	24.7	20.041	315	6313	19400	6	2.20	22.00
65.0	3100	21.9	22.663	315	7139	19800	6	2.20	22.00
60.0	3100	20.1	24.570	135	3317	19800	6	4.00	22.00
53.0	3100	17.8	27.785	135	3751	19800	6	4.00	22.00
44.0	3100	14.9	33.289	45	1498	19800	6	2.20	7.50
39.0	3100	13.1	37.644	45	1694	19800	6	2.20	7.50
36.0	3100	12.2	40.422	45	1819	19800	6	2.20	7.50
32.0	3100	10.8	45.711	45	2057	19800	6	2.20	7.50
28.0	2335	7.01	52.311	45	2354	19800	6	1.10	4.00
25.0	2641	7.01	59.156	45	2662	19800	6	1.10	4.00
23.0	2250	5.56	63.487	150	9523	19800	6	1.10	4.00
20.0	2408	5.25	71.793	150	10769	19800	6	1.10	4.00

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

g500-S3100, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
31.0	2958	10.2	47.159	270	12733	19800	7	2.20	7.50
28.0	3054	9.27	53.330	270	14399	19800	7	2.20	7.50
23.0	3100	7.74	64.676	225	14552	19800	7	2.20	7.50
20.0	3100	6.86	73.138	225	16456	19800	7	2.20	7.50
18.0	3100	6.05	82.769	945	78217	19800	7	1.10	7.50
16.0	3100	5.47	90.546	1125	101864	19800	7	1.10	5.50
16.0	3100	5.30	93.599	945	88451	19800	7	1.10	5.50
14.0	3100	4.86	102.393	1125	115192	19800	6	1.10	5.50
13.0	3100	4.28	115.492	63	7276	19800	7	0.55	4.00
11.0	3100	3.77	130.603	63	8228	19800	6	0.55	4.00
10.0	3100	3.50	141.478	90	12733	19800	6	1.10	4.00
9.00	3100	3.09	159.989	90	14399	19800	6	1.10	3.00
8.00	3100	2.68	184.146	405	74579	19800	6	0.55	3.00
7.00	3100	2.38	208.240	405	84337	19800	6	0.55	2.20
6.00	3100	2.14	229.059	135	30923	19800	6	0.55	2.20
6.00	3100	1.90	259.030	135	34969	19800	6	0.55	2.20
5.00	3100	1.66	296.430	135	40018	19800	6	0.25	1.50
4.00	3100	1.46	335.215	135	45254	19800	6	0.25	1.50
4.00	3100	1.36	359.758	450	161891	19800	6	0.25	1.10
4.00	3100	1.19	406.829	450	183073	19800	6	0.25	1.10

# g500-S shaft-mounted helical geared motors

Project planning



## Technical data at a glance

### g500-S4500, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
301	2113	68.6	4.914	500	2457	16500	9	15.00	30.00
229	2451	60.6	6.450	20	129	18500	9	11.00	30.00
210	2535	57.3	7.056	125	882	19000	9	7.50	30.00
165	3845	68.6	8.944	125	1118	14000	6	15.00	30.00
148	4163	66.5	9.984	125	1248	16000	5	15.00	30.00
126	4451	60.5	11.740	315	3698	17000	6	11.00	30.00
115	4500	55.9	12.843	375	4816	18000	5	7.50	30.00
113	4500	54.8	13.105	105	1376	18500	5	11.00	30.00
103	4500	50.1	14.336	125	1792	19000	5	7.50	30.00
90.0	4500	43.8	16.381	21	344	21000	5	4.00	30.00
81.0	4500	39.2	18.286	7	128	22000	5	4.00	30.00
74.0	4500	35.8	20.067	15	301	23500	5	5.50	22.00
66.0	4500	32.1	22.400	5	112	25000	4	5.50	22.00
56.0	4500	27.2	26.437	135	3569	27000	5	4.00	22.00
50.0	4500	24.4	29.511	45	1328	29000	4	4.00	22.00
46.0	4500	22.1	32.489	45	1462	30000	5	4.00	22.00
41.0	4500	19.8	36.267	15	544	30000	4	4.00	22.00
35.0	4101	15.5	42.044	45	1892	30000	5	2.20	7.50
32.0	4394	14.9	46.933	15	704	30000	4	2.20	7.50
29.0	3653	11.4	51.027	75	3827	30000	5	2.20	7.50
26.0	3946	11.0	56.960	25	1424	30000	4	2.20	7.50
22.0	2414	5.86	64.500	2	129	30000	5	2.20	4.00
20.0	2586	5.64	72.000	1	72	30000	4	2.20	4.00

# g500-S shaft-mounted helical geared motors



Project planning

## Technical data at a glance

g500-S4500, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Standard	Motor
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
39.0	4150	17.7	38.090	1305	49708	30000	6	4.00	22.00
35.0	4291	16.4	42.520	435	18496	30000	5	4.00	18.50
28.0	4500	13.7	52.794	180	9503	30000	5	4.00	15.00
25.0	4500	12.3	58.933	15	884	30000	5	4.00	15.00
23.0	4500	11.2	64.978	45	2924	30000	5	2.20	11.00
20.0	4500	10.1	72.533	15	1088	30000	5	2.20	11.00
20.0	4500	10.0	72.775	1125	81872	30000	5	2.20	11.00
18.0	4500	8.97	81.237	375	30464	30000	5	2.20	11.00
16.0	4500	7.84	92.825	63	5848	30000	5	1.10	7.50
14.0	4500	7.05	103.619	21	2176	30000	5	1.10	7.50
13.0	4500	6.41	113.711	45	5117	30000	5	2.20	7.50
12.0	4500	5.67	126.933	15	1904	30000	5	2.20	5.50
10.0	4500	4.88	148.005	405	59942	30000	5	1.10	5.50
9.00	4500	4.34	165.215	135	22304	30000	5	1.10	4.00
8.00	4500	3.94	181.396	270	48977	30000	5	1.10	4.00
7.00	4500	3.55	202.489	45	9112	30000	5	1.10	4.00
6.00	4500	3.01	238.252	135	32164	30000	5	0.55	3.00
5.00	4500	2.66	265.956	45	11968	30000	5	0.55	3.00
5.00	4500	2.47	289.151	225	65059	30000	5	0.55	2.20
4.00	4500	2.22	322.773	75	24208	30000	5	0.55	2.20
4.00	3962	1.74	365.500	2	731	30000	5	0.55	1.10
4.00	4410	1.69	408.000	1	408	30000	5	0.55	1.10

# g500-S shaft-mounted helical geared motors



## Project planning

### Surface and corrosion protection

For optimum protection of geared motors against ambient conditions, the surface and corrosion protection system (OKS) offers tailor-made solutions.

Various surface coatings combined with other protective measures ensure that the geared motors operate reliably even at high air humidity, in outdoor installations or in the presence of atmospheric impurities. Any colour from the RAL Classic collection can be chosen for the top coat. The geared motors are also available unpainted (no surface and corrosion protection).

Surface and corrosion protection	Applications	Product	
		g500-H45 ... H450 g500-S130 ... S660 g500-B45 ... B450	g500-H600 ... H3000 g500-S950 ... S4500 g500-B600 ... B4300
Without OKS(uncoated) <sup>1)</sup>	<ul style="list-style-type: none"> <li>Interior installation, no special corrosion protection required</li> <li>Paint provided by the customer</li> </ul>	Standard	
OKS-G (primed)	<ul style="list-style-type: none"> <li>Dependent on subsequent top coat applied</li> </ul>	Optional	Optional
OKS-S (small)	<ul style="list-style-type: none"> <li>Standard applications</li> <li>Internal installation in heated buildings</li> <li>Air humidity up to 90%</li> </ul>		Standard
OKS-M (medium)	<ul style="list-style-type: none"> <li>Internal installation in non-heated buildings</li> <li>Covered, protected external installation</li> <li>Air humidity up to 95%</li> </ul>		Optional
OKS-L (large)	<ul style="list-style-type: none"> <li>External installation</li> <li>Air humidity above 95%</li> <li>Chemical industry plants</li> <li>Food industry</li> </ul>		Optional
OKS-XL (extra Large) <sup>2)</sup>	<ul style="list-style-type: none"> <li>External installation</li> <li>Air humidity above 95 %</li> <li>Chemical industry plants</li> <li>Food industry</li> <li>Coastal areas with moderate salinity</li> </ul>		Optional

<sup>1)</sup> Aluminium parts are uncoated, fan covers are zinc-coated or primed in grey, cast iron parts primed in grey.  
Light colour deviations of the components are possible.

<sup>2)</sup> On request



## Surface and corrosion protection

### Structure of surface coating

Surface and corrosion protection	Corrosivity category	Surface coating	Colour	Coating thickness
	DIN EN ISO 12944-2	Structure		
Without OKS(uncoated)		<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> </ul>		30 ... 50 µm
OKS-G (primed)		<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K PUR priming coat</li> </ul>		60 ... 90 µm
OKS-S (small)	Comparable to C1	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K-PUR top coat</li> </ul>	<ul style="list-style-type: none"> <li>Standard: RAL 7012</li> <li>Optional: RAL Classic</li> </ul>	80 ... 120 µm
OKS-M (medium)	Comparable to C2	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> </ul>		110 ... 160 µm
OKS-L (large)	Comparable to C3	<ul style="list-style-type: none"> <li>2K PUR priming coat</li> <li>2K-PUR top coat</li> </ul>		140 ... 200 µm
OKS-XL (extra Large) <sup>1)</sup>	Comparable to C4	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K-EP priming coat (two times)</li> <li>2K-PUR top coat</li> </ul>		160 ... 240 µm

<sup>1)</sup> On request



# g500-S shaft-mounted helical geared motors



## Project planning

### Lubricants

Lenze gearboxes and geared motors are ready for operation on delivery and are filled with lubricants specific to both the drive and the design. The mounting position and design specified in the order are key factors in choosing the volume of lubricant. The amount and type of lubricant contained in the gearbox are given on the nameplate.

The following gearboxes are lubricated for life:

- Helical gearbox g500-H45 ... 140
- Shaft-mounted helical gearbox g500-S130
- Bevel gearbox g500-B45 ... 240

### Lubricant table

The following lubricants are recommended:

Mode	CLP 220	CLP 460	CLP HC 220
Ambient temperature [°C]	0 ... +40		-25 ... +50
Specification	Mineral oil with EP additives		Synthetic oil (polyalphaolefins basis)
Changing interval	16000 operating hours After 3 years at the latest Oil temperature 70 °C		25000 operating hours After 4 years at the latest Oil temperature 70 °C
Fuchs	Renolin CLP 220 CLP Plus 220	Renolin CLP 460 CLP Plus 460	Renolin Unisyn CLP 220 XT220
Klüber	Klüberoil GEM 1-220 N	Klüberoil GEM 1-460 N	Klübersynth GEM 4-220 N
Shell	Shell Omala S2 G 220 S2 GX 220	Shell Omala S2 G 460 S2 GX 460	Shell Omala S4 GX HD 220

Mode	CLP HC 320	CLP HC 220 USDA H1	CLP PG 460 USDA H1
Ambient temperature [°C]	-25 ... +50	-20 ... +40	
Specification	Synthetic oil (polyalphaolefins basis)		Synthetic oil (polyglycol basis)
Changing interval	25000 operating hours After 4 years at the latest Oil temperature 70 °C	16000 operating hours After 3 years at the latest Oil temperature 70 °C	
Fuchs	Renolin Unisyn CLP 320 XT 320	Cassida Fluid GL 220	Cassida Fluid WG 460
Klüber	Klübersynth GEM 4-320 N	Klüberoil 4 UH1-220 N	Klüberoil UH1 6-460
Shell	Shell Omala S4 GX HD 320		

- Please contact your Lenze sales office if you are operating at ambient temperatures in areas up to < -20 °C bzw. > or up to +40°C.

### Shaft sealing rings

By default, the gearboxes come with NBR shaft sealing rings at the output end. At high speed and unfavourable ambient conditions such as high temperature, reduced circulation of air etc., Lenze recommends the use of FKM (Viton) shaft sealing rings.

Please consider this in your order.

# g500-S shaft-mounted helical geared motors

## Project planning

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### Ventilation

#### Non-ventilated gearboxes

No ventilation is required for gearboxes g500-S130 ... S220

#### Ventilated gearboxes

From g500-S400 onwards, the gearboxes are supplied with a breather element as standard.

#### Gearbox in combined mounting position

For reducing the number of versions, the gearboxes can also be ordered in a combined mounting position:

- g500-S130 ... S660 in mounting position AEF

In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. -H45 in mounting position ABCDEfg500-H100 ... H450 in mounting position AEF In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and have to be mounted before commissioning depending on the mounting position.

A gearbox can be used for several mounting positions.

# g500-S shaft-mounted helical geared motors

## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-S130 ... S660

Mounting position A	Mounting position B	Mounting position C	
	Filling		Drain
	Breathing		Control

# g500-S shaft-mounted helical geared motors

## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-S130 ... S660

Mounting position D	Mounting position E	Mounting position F	
	Filling		Drain
	Breathing		Control

# g500-S shaft-mounted helical geared motors

## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-S950 ... S4500

Mounting position A		Mounting position B		Mounting position C	
	Filling		Drain		
	Breathing		Control		

# g500-S shaft-mounted helical geared motors





## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-S950 ... S4500

Mounting position D	Mounting position E	Mounting position F
 Filling	 Drain	 Control
 Breathing		

6.4

# g500-S shaft-mounted helical geared motors

Technical data



## Standards and operating conditions

### Geared motor data

Product			MD□MA□□	MH□MA□□
Motor				
<b>Degree of protection</b>				
EN 60529			IP55 <sup>1)</sup> IP65 <sup>1)</sup> IP66 <sup>1)</sup>	
<b>Energy efficiency class</b>				
IEC 60034-30			IE1	IE2
IEC 60034-2-1			Methodology for measuring efficiency	
10 CFR Part 431 (U.S. Integral hp Rule)				
GB18613-2012 (China Energy Label optional)				
<b>Conformity</b>				
CE			Low-Voltage Directive 2006/95/EC	
EAC			TP TC 004/2011 (TR CU 004/2011)	
<b>Approval</b>				
CCC			GB Standard 12350-2009	
CSA			CSA 22.2 No. 100	CSA 22.2 No. 100 CSA C390-10
cURus <sup>-1)</sup>			UL 1004-1 UL 1004-8 File-No. E210321	
<b>Temperature class</b>				
IEC/EN 60034-1; utilisation			B	
IEC/EN 60034-1; insulation system (enamel-insulated wire)			F	
<b>Min. ambient operating temperature</b>				
	$T_{opr,min}$	[°C]	-20	
<b>Max. ambient temperature for operation</b>				
	$T_{opr,max}$	[°C]	40	
With power reduction	$T_{opr,max}$	[°C]	60 <sup>2)</sup>	
<b>Site altitude</b>				
Current derating at over 1000 m		[%/1000 m]	5.00	
Amsl	$H_{max}$	[m]	4000	

<sup>1)</sup> Designs with different degrees of protection:  
IP55 with brake (IP54 with manual release lever).  
IP54 with resolver RS1.  
IP54 with HTL incremental encoder IG128-24V-H.

<sup>2)</sup> In case of cURus max. 40 °C are permissible.

- In the European Union, the ErP Directive stipulates minimum efficiency levels for three-phase AC motors. Geared three-phase AC motors that do not conform with this Directive do not meet CE requirements and must not be marketed in the European Economic Area. For further information about the ErP Directive, the efficiency regulations in other countries and the Lenze products concerned, please refer to the brochure "International efficiency directives for three-phase AC motors".

# g500-S shaft-mounted helical geared motors

Technical data



## Permissible radial and axial forces at output

### Permissible radial force

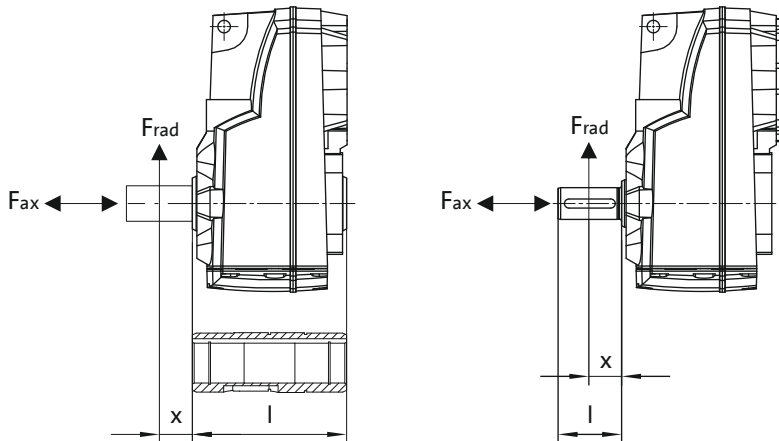
$$F_{rad,perm} = f_w \times F_{rad,max}$$

► If  $F_{rad}$  and  $F_{ax} \neq 0$ , please contact Lenze.

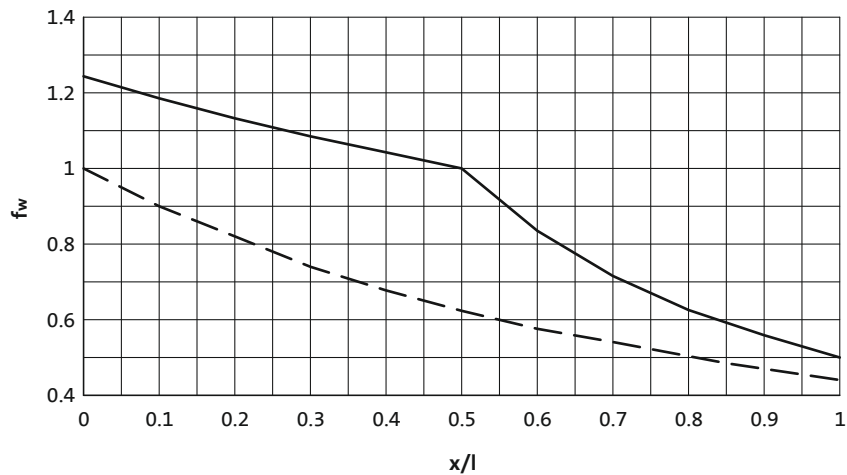
### Permissible axial force

If there is no radial force, the maximum permissible axial force is 50 % of the table value  $F_{rad,max}$

### Application of forces



### Additional load factor $f_w$ at output shaft



— Solid shaft  
 - - - Hollow shaft



# g500-S shaft-mounted helical geared motors



## Technical data

### Permissible radial and axial forces at output

The values given in the table refer to the center shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated for the motor/gear-box combination with a load capacity of  $c= 1.3$  and an input speed of 1400 rpm.

In case of different operating conditions, considerably higher forces can be transmitted. Please contact Lenze.

- A hollow shaft with shrink disc requires a check by Lenze.

Product	$n_2$ [r/min]						
	250	160	100	63	40	25	≤16

Max. radial force, Hollow shaft							
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]
g500-S130	1500	1650	2200	2750	3450	4200	4500
g500-S220	3200	3800	4600	5500	6300	7000	7000
g500-S400	3400	4100	5000	6000	7100	8000	8000
g500-S660	4000	5000	6600	8500	10800	12000	12000
g500-S950	5000	6000	8000	10300	11500	12500	13000
g500-S2100	6500	7500	10000	12000	15700	15700	16000
g500-S3100	8000	9000	12500	15000	17000	19800	19800
g500-S4500	17500	19000	20000	23000	30000	30000	30000

Max. radial force, Solid shaft without flange							
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]
g500-S130	1500	1650	2200	2750	3450	4200	4500
g500-S220	2700	3200	3600	3600	3600	3600	3600
g500-S400	2700	3200	4000	4800	5800	6200	6200
g500-S660	3600	3900	5100	6500	8400	9000	9000
g500-S950	9500	10300	10300	10300	10300	10300	10300
g500-S2100	11500	13600	15700	15700	15700	15700	15700
g500-S3100	14500	16500	18000	19800	19800	19800	19800
g500-S4500	18500	20000	22000	25000	30000	30000	30000

Max. radial force, Solid shaft with flange							
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]
g500-S130	1500	1650	2200	2750	3450	4200	4500
g500-S220	3700	4400	4600	4600	4600	4600	4600
g500-S400	5100	5900	6800	7000	7000	7000	7000
g500-S660	7000	7800	9600	10000	10000	10000	10000
g500-S950	7500	8500	10300	10300	10300	10300	10300
g500-S2100	11500	13600	15700	15700	15700	15700	15700
g500-S3100	19800	19800	19800	19800	19800	19800	19800
g500-S4500	27000	28000	30000	30000	30000	30000	30000

# g500-S shaft-mounted helical geared motors



## Technical data

### Selection tables, notes

#### Notes on the selection tables with 4-pole motors

The selection tables show the available combinations of gearbox type, number of stages, ratio and motor. They are used only to provide basic orientation.

The following legend indicates the structure of the selection tables.

**Rated power  $P_{rated}$  of the drive motor depending on the rated frequency**

50 Hz:  $P_N = 1.1 \text{ kW}$   
87 Hz:  $P_N = 2.0 \text{ kW}$

**2-stufige Getriebe** ← **Number of the gear stage of the gearbox**

**Torque diagram**

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 30 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	Ratio i	Product Gearbox	Product Motor	Page number for dimensions	
38	266	1.5	4.0	154	25	266	38	266	1.5	69	269	1.5	36.267	-S400	090-12	73	
35	296	1.8	3.6	171	22	296	35	296	1.8	62	299	1.8	40.333	-S660	090-12	77	

**Load capacity c of the gearbox**  
c is the ratio between the permissible rated torque of the gearbox and the rated torque of the three-phase AC motor (converted to the driven shaft).  
c must be always higher than the service factor k determined for the application k.

$$c = \frac{M_{2,zul}}{M_{1N} \cdot i \cdot \eta_{Getr}} > k$$

**Mains operation**  
Output speed  $n_2$   
Output torque  $M_2$

**Inverter operation**  
The speed and torque data are valid for self-ventilated and forced ventilated drives. Forced ventilated drives can always output the torque  $M_2$  in the entire setting ranges. In the case of self-ventilated drives, a reduction to  $M_{22}$  is required in the lower speed range.

#### Motor voltages

The power values and torques indicated in the selection tables relate to the following motor voltages:

- 50 Hz :  $\Delta 230 \text{ V} / Y 400 \text{ V}$
- 60 Hz : 230 V or 460 V
- 87 Hz :  $\Delta 400 \text{ V}$

#### Operation at 87 Hz

In 87 Hz operation, the three-phase AC motor (which is designed for a voltage of  $\Delta 230 \text{ V} / Y 400 \text{ V}$  at 50 Hz) is operated on an inverter with 400 V rated voltage in a delta connection. It is important to note here that the inverter must be configured for 87Hz output.

This offers the following advantages over 50 Hz operation:

- the setting range of the motor is increased by a factor of 1.73.
- the motor can then provide around 1.73 times greater output, which in turn allows a smaller and more affordable motor to be selected for the application.
- the efficiency of the motor is also improved.

# g500-S shaft-mounted helical geared motors

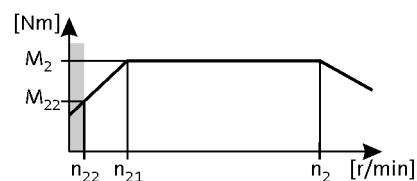


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.12$  kW  
 87 Hz:  $P_N = 0.21$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
45	24	5.3	4.6	19	19	24	45	24	5.3	81	24	5.4	31.387	-S130	063-12	112
40	28	4.7	4.1	21	17	27	40	28	4.7	71	27	4.8	35.493	-S130	063-12	112
35	32	4.1	3.6	24	15	31	35	32	4.1	63	31	4.2	40.422	-S130	063-12	112
34	33	4.6	3.4	26	14	33	34	33	4.6	60	33	4.7	42.533	-S220	063-12	117
31	36	3.7	3.2	28	13	35	31	36	3.7	56	35	3.7	45.711	-S130	063-12	112
30	37	4.6	3.1	28	13	36	30	37	4.6	54	36	4.7	46.933	-S400	063-12	122
30	38	4.6	3.0	29	13	37	30	38	4.6	53	37	4.7	48.190	-S220	063-12	117
28	40	3.3	2.8	31	12	39	28	40	3.3	50	39	3.3	51.230	-S130	063-12	112
28	40	4.0	2.8	31	12	40	28	40	4.0	49	40	4.1	51.620	-S220	063-12	117
27	41	4.6	2.7	32	11	41	27	41	4.6	48	41	4.7	53.026	-S400	063-12	122
25	44	4.0	2.5	34	11	44	25	44	4.0	45	44	4.1	56.960	-S400	063-12	122
25	45	2.9	2.5	35	10	44	25	45	2.9	44	44	2.9	57.933	-S130	063-12	112
24	46	4.0	2.5	35	10	45	24	46	4.0	43	45	4.1	58.486	-S220	063-12	117
22	50	2.6	2.3	39	9.3	49	22	50	2.6	40	49	2.6	64.200	-S130	063-12	112
22	50	4.0	2.3	39	9.3	49	22	50	4.0	39	49	4.1	64.354	-S400	063-12	122
22	51	3.1	2.2	40	9.1	51	22	51	3.1	38	51	3.2	65.975	-S220	063-12	117
20	57	2.3	2.0	44	8.3	56	20	57	2.3	35	56	2.3	72.600	-S130	063-12	112
19	58	3.1	1.9	45	8.0	57	19	58	3.1	34	57	3.2	74.750	-S220	063-12	117
17	66	1.6	1.7	51	7.1	65	17	66	1.6	30	65	1.6	84.581	-S130	063-12	112
15	75	1.5	1.5	58	6.3	73	15	75	1.5	27	73	1.6	95.648	-S130	063-12	112

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
27	40	5.4	2.8	31	11	40	27	40	5.4	48	40	5.3	52.587	-S220	063-12	117
24	46	4.8	2.4	35	10	45	24	46	4.8	43	45	4.7	59.581	-S220	063-12	117
21	52	4.3	2.2	40	8.9	51	21	52	4.3	38	51	4.1	67.298	-S220	063-12	117
19	59	3.8	1.9	45	7.9	58	19	59	3.8	33	58	3.8	76.249	-S220	063-12	117
17	66	3.3	1.7	51	7.0	65	17	66	3.3	29	65	3.4	86.079	-S220	063-12	117
15	73	5.5	1.5	56	6.3	72	15	73	5.5	27	72	5.6	94.984	-S400	063-12	122
15	75	2.9	1.5	58	6.2	74	15	75	2.9	26	74	3.0	97.528	-S220	063-12	117
13	82	4.8	1.4	64	5.6	81	13	82	4.8	24	81	4.9	107.314	-S400	063-12	122
13	86	2.6	1.3	66	5.4	84	13	86	2.6	23	84	2.6	111.747	-S220	063-12	117
12	95	4.2	1.2	73	4.9	93	12	95	4.2	21	93	4.3	123.307	-S400	063-12	122
11	97	2.3	1.1	75	4.7	96	11	97	2.3	20	96	2.3	126.610	-S220	063-12	117
10	105	5.5	1.1	81	4.4	104	10	105	5.5	19	104	5.6	137.133	-S660	063-12	127
10	107	3.7	1.0	82	4.3	105	10	107	3.7	18	105	3.8	139.313	-S400	063-12	122
10	110	2.0	1.0	85	4.2	108	10	110	2.0	18	108	2.0	143.205	-S220	063-12	117
9.1	120	5.5	0.9	93	3.8	118	9.1	120	5.5	16	118	5.6	156.249	-S660	063-12	127

# g500-S shaft-mounted helical geared motors

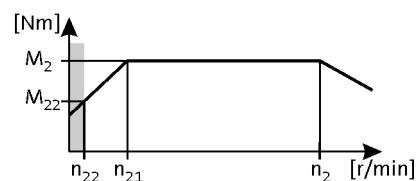


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.12$  kW  
87 Hz:  $P_N = 0.21$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
9.0	121	3.3	0.9	94	3.8	119	9.0	121	3.3	16	119	3.3	158.019	-S400	063-12	122	
8.8	125	1.8	0.9	96	3.7	123	8.8	125	1.8	16	123	1.8	162.252	-S220	063-12	117	
8.1	136	4.6	0.8	105	3.4	134	8.1	136	4.6	14	134	4.7	176.611	-S660	063-12	127	
8.0	137	2.9	0.8	106	3.4	135	8.0	137	2.9	14	135	3.0	178.531	-S400	063-12	122	
7.7	142	1.6	0.8	110	3.2	140	7.7	142	1.6	14	140	1.6	185.248	-S220	063-12	117	
7.1	155	4.3	0.7	119	3.0	152	7.1	155	4.3	13	152	4.3	201.230	-S660	063-12	127	
7.0	157	2.6	0.7	121	2.9	155	7.0	157	2.6	12	155	2.6	204.412	-S400	063-12	122	
6.8	161	1.4	0.7	124	2.9	159	6.8	161	1.4	12	159	1.4	209.887	-S220	063-12	117	
6.4	172	3.8	0.6	133	2.7	169	6.4	172	3.8	11	169	3.9	223.833	-S660	063-12	127	
6.2	176	4.6	0.6	136	2.6	173	6.2	176	4.6	11	173	4.7	229.289	-S950	063-12	137	
6.2	177	2.2	0.6	137	2.6	175	6.2	177	2.2	11	175	2.3	230.946	-S400	063-12	122	
5.9	185	1.2	0.6	143	2.5	182	5.9	185	1.2	11	182	1.2	241.022	-S220	063-12	117	
5.6	196	3.4	0.6	151	2.4	193	5.6	196	3.4	9.9	193	3.4	255.034	-S660	063-12	127	
5.6	197	4.6	0.6	152	2.3	194	5.6	197	4.6	9.9	194	4.7	256.585	-S950	063-12	137	
5.4	204	1.9	0.5	157	2.3	201	5.4	204	1.9	9.5	201	1.9	265.956	-S400	063-12	122	
5.2	210	1.1	0.5	162	2.2	206	5.2	210	1.1	9.3	206	1.1	273.079	-S220	063-12	117	
5.1	214	4.0	0.5	165	2.2	210	5.1	214	4.0	9.1	210	4.1	278.273	-S950	063-12	137	
5.1	216	2.8	0.5	166	2.1	212	5.1	216	2.8	9.0	212	2.8	280.500	-S660	063-12	127	
4.7	231	1.7	0.5	178	2.0	227	4.7	231	1.7	8.4	227	1.8	300.479	-S400	063-12	122	
4.6	239	4.0	0.5	184	1.9	235	4.6	239	4.0	8.1	235	4.0	311.401	-S950	063-12	137	
4.6	240	0.9	0.5	185	1.9	236	4.6	240	0.9	8.1	236	0.9	312.233	-S220	063-12	117	
4.5	246	2.7	0.5	189	1.9	242	4.5	246	2.7	7.9	242	2.7	319.600	-S660	063-12	127	
4.1	265	1.3	0.4	204	1.7	260	4.1	265	1.3	7.4	260	1.3	344.533	-S400	063-12	122	
4.0	272	0.8	0.4	209	1.7	267	4.0	272	0.8	7.2	267	0.8	353.762	-S220	063-12	117	
4.0	273	3.1	0.4	211	1.7	269	4.0	273	3.1	7.1	269	3.2	355.658	-S950	063-12	137	
3.9	284	1.6	0.4	219	1.6	279	3.9	284	1.6	6.9	279	1.6	369.548	-S660	063-12	127	
3.7	299	1.3	0.4	230	1.5	294	3.7	299	1.3	6.5	294	1.3	389.256	-S400	063-12	122	
3.6	306	3.1	0.4	236	1.5	301	3.6	306	3.1	6.4	301	3.2	397.999	-S950	063-12	137	
3.4	324	1.6	0.3	249	1.4	318	3.4	324	1.6	6.0	318	1.6	421.060	-S660	063-12	127	

# g500-S shaft-mounted helical geared motors

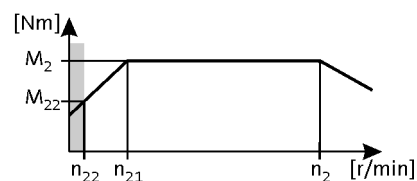


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
194	9.0	4.5	21	6.6	85	9.0	194	9.0	4.5	352	9.0	3.7	7.029	-S130	063-32	112
85	20	4.5	9.1	15	38	20	85	20	4.5	155	20	3.7	15.979	-S130	063-32	112
76	22	4.5	8.0	17	33	22	76	22	4.5	137	22	4.2	18.069	-S130	063-32	112
67	25	4.1	7.1	19	29	25	67	25	4.1	121	25	3.9	20.381	-S130	063-32	112
59	28	4.1	6.3	22	26	28	59	28	4.1	107	28	3.9	23.048	-S130	063-32	112
44	38	3.4	4.6	30	19	38	44	38	3.4	79	39	3.4	31.387	-S130	063-32	112
39	43	3.0	4.1	33	17	43	39	43	3.0	70	44	3.0	35.493	-S130	063-32	112
34	49	2.6	3.6	38	15	49	34	49	2.6	61	50	2.6	40.422	-S130	063-32	112
32	52	2.9	3.4	40	14	52	32	52	2.9	58	53	2.9	42.533	-S220	063-32	117
30	56	2.3	3.2	43	13	56	30	56	2.3	54	56	2.3	45.711	-S130	063-32	112
29	57	2.9	3.1	44	13	57	29	57	2.9	53	58	2.9	46.933	-S400	063-32	122
28	59	2.9	3.0	45	13	59	28	59	2.9	51	60	2.9	48.190	-S220	063-32	117
27	63	2.1	2.8	48	12	63	27	63	2.1	48	63	2.1	51.230	-S130	063-32	112
26	63	2.6	2.8	49	12	63	26	63	2.6	48	64	2.5	51.620	-S220	063-32	117
26	65	2.9	2.7	50	11	65	26	65	2.9	47	66	2.9	53.026	-S400	063-32	122
24	70	2.6	2.5	54	11	70	24	70	2.6	44	70	2.5	56.960	-S400	063-32	122
24	71	1.8	2.5	55	10	71	24	71	1.8	43	72	1.8	57.933	-S130	063-32	112
23	71	2.6	2.5	55	10	71	23	71	2.6	42	72	2.5	58.486	-S220	063-32	117
21	78	1.7	2.3	60	9.3	78	21	78	1.7	39	79	1.6	64.200	-S130	063-32	112
21	79	2.6	2.3	61	9.3	79	21	79	2.6	39	79	2.5	64.354	-S400	063-32	122
21	81	2.0	2.2	62	9.1	81	21	81	2.0	38	82	2.0	65.975	-S220	063-32	117
19	89	1.5	2.0	68	8.3	89	19	89	1.5	34	90	1.5	72.600	-S130	063-32	112
18	91	2.0	1.9	70	8.0	91	18	91	2.0	33	92	2.0	74.750	-S220	063-32	117
16	103	1.0	1.7	80	7.1	103	16	103	1.0	29	104	1.0	84.581	-S130	063-32	112
14	117	1.0	1.5	90	6.3	117	14	117	1.0	26	118	1.0	95.648	-S130	063-32	112

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
34	48	4.6	3.6	37	15	48	34	48	4.6	62	49	3.8	40.012	-S220	063-32	117
30	55	4.0	3.2	42	13	55	30	55	4.0	55	55	3.4	45.333	-S220	063-32	117
26	63	3.5	2.8	49	11	63	26	63	3.5	47	64	3.3	52.587	-S220	063-32	117
24	70	4.5	2.5	54	10	70	24	70	4.5	43	71	4.2	58.027	-S400	063-32	122
23	72	3.1	2.4	55	10	72	23	72	3.1	42	72	2.9	59.581	-S220	063-32	117
21	79	4.5	2.2	61	9.2	79	21	79	4.5	38	80	4.2	65.559	-S400	063-32	122
20	81	2.7	2.2	62	8.9	81	20	81	2.7	37	82	2.6	67.298	-S220	063-32	117
20	84	4.5	2.1	65	8.6	84	20	84	4.5	36	85	4.2	69.813	-S660	063-32	127
18	89	4.1	2.0	69	8.1	89	18	89	4.1	33	90	4.1	74.260	-S400	063-32	122
18	92	2.4	1.9	71	7.9	92	18	92	2.4	33	93	2.4	76.249	-S220	063-32	117

# g500-S shaft-mounted helical geared motors

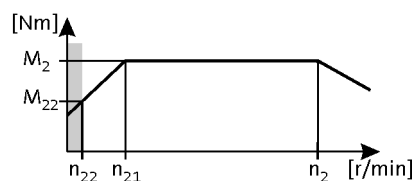


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
17	96	4.5	1.8	74	7.5	96	17	96	4.5	31	97	4.4	79.545	-S660	063-32	127
16	101	4.0	1.7	78	7.2	101	16	101	4.0	30	102	3.9	83.900	-S400	063-32	122
16	104	2.1	1.7	80	7.0	104	16	104	2.1	29	105	2.1	86.079	-S220	063-32	117
15	107	4.1	1.6	83	6.7	107	15	107	4.1	28	108	4.1	89.048	-S660	063-32	127
14	114	3.5	1.5	88	6.3	114	14	114	3.5	26	116	3.5	94.984	-S400	063-32	122
14	117	1.9	1.5	90	6.2	117	14	117	1.9	25	119	1.9	97.528	-S220	063-32	117
14	122	4.1	1.4	94	5.9	122	14	122	4.1	24	123	4.1	101.460	-S660	063-32	127
13	129	3.1	1.4	99	5.6	129	13	129	3.1	23	131	3.1	107.314	-S400	063-32	122
12	134	1.6	1.3	104	5.4	134	12	134	1.6	22	136	1.6	111.747	-S220	063-32	117
11	148	2.7	1.2	114	4.9	148	11	148	2.7	20	150	2.7	123.307	-S400	063-32	122
11	152	1.4	1.1	117	4.7	152	11	152	1.4	20	154	1.4	126.610	-S220	063-32	117
10	165	3.5	1.1	127	4.4	165	10	165	3.5	18	167	3.5	137.133	-S660	063-32	127
9.8	168	2.4	1.0	129	4.3	168	9.8	168	2.4	18	170	2.4	139.313	-S400	063-32	122
9.5	172	1.3	1.0	133	4.2	172	9.5	172	1.3	17	174	1.3	143.205	-S220	063-32	117
8.7	188	3.5	0.9	145	3.8	188	8.7	188	3.5	16	190	3.5	156.249	-S660	063-32	127
8.6	190	2.1	0.9	146	3.8	190	8.6	190	2.1	16	192	2.1	158.019	-S400	063-32	122
8.4	195	1.1	0.9	150	3.7	195	8.4	195	1.1	15	197	1.1	162.252	-S220	063-32	117
7.7	213	2.9	0.8	164	3.4	213	7.7	213	2.9	14	215	2.9	176.611	-S660	063-32	127
7.6	215	1.9	0.8	165	3.4	215	7.6	215	1.9	14	217	1.8	178.531	-S400	063-32	122
7.4	223	1.0	0.8	172	3.2	223	7.4	223	1.0	13	225	1.0	185.248	-S220	063-32	117
6.8	242	2.7	0.7	187	3.0	242	6.8	242	2.7	12	245	2.7	201.230	-S660	063-32	127
6.7	246	1.6	0.7	189	2.9	246	6.7	246	1.6	12	249	1.6	204.412	-S400	063-32	122
6.5	253	0.9	0.7	195	2.9	253	6.5	253	0.9	12	255	0.9	209.887	-S220	063-32	117
6.1	269	2.5	0.6	207	2.7	269	6.1	269	2.5	11	272	2.4	223.833	-S660	063-32	127
6.0	276	2.9	0.6	213	2.6	276	6.0	276	2.9	11	279	2.9	229.289	-S950	063-32	137
5.9	278	1.4	0.6	214	2.6	278	5.9	278	1.4	11	281	1.4	230.946	-S400	063-32	122
5.4	307	2.2	0.6	236	2.4	307	5.4	307	2.2	9.7	310	2.1	255.034	-S660	063-32	127
5.3	309	2.9	0.6	238	2.3	309	5.3	309	2.9	9.6	312	2.9	256.585	-S950	063-32	137
5.1	320	1.2	0.5	246	2.3	320	5.1	320	1.2	9.3	324	1.2	265.956	-S400	063-32	122
4.9	335	2.6	0.5	258	2.2	335	4.9	335	2.6	8.9	339	2.5	278.273	-S950	063-32	137
4.9	338	1.8	0.5	260	2.1	338	4.9	338	1.8	8.8	341	1.8	280.500	-S660	063-32	127
4.5	362	1.1	0.5	278	2.0	362	4.5	362	1.1	8.2	366	1.1	300.479	-S400	063-32	122
4.4	375	2.5	0.5	289	1.9	375	4.4	375	2.5	7.9	379	2.5	311.401	-S950	063-32	137
4.3	385	1.7	0.5	296	1.9	385	4.3	385	1.7	7.7	389	1.7	319.600	-S660	063-32	127
3.8	428	2.0	0.4	330	1.7	428	3.8	428	2.0	7.0	433	2.0	355.658	-S950	063-32	137

# g500-S shaft-mounted helical geared motors

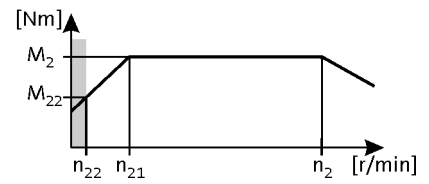
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
3.7	445	1.0	0.4	342	1.6	445	3.7	445	1.0	6.7	450	1.0	369.548	-S660	063-32	127
3.4	479	2.0	0.4	369	1.5	479	3.4	479	2.0	6.2	484	2.0	397.999	-S950	063-32	137
3.2	507	1.0	0.3	390	1.4	507	3.2	507	1.0	5.9	512	1.0	421.060	-S660	063-32	127

# g500-S shaft-mounted helical geared motors

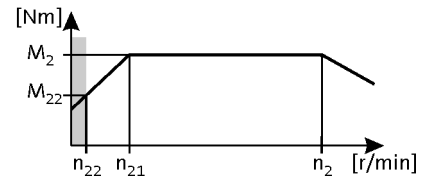
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
87 Hz:  $P_N = 0.45$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
374	6.0	5.6	40	4.8	164	6.0	374	6.0	5.6	677	6.0	4.8	3.661	-S130	063-42	112	
273	8.0	5.6	29	6.5	120	8.0	273	8.0	5.6	494	8.0	4.8	5.021	-S130	063-42	112	
214	11	5.6	23	8.3	94	11	214	11	5.6	387	11	4.8	6.411	-S400	063-42	122	
213	11	5.2	23	8.4	93	11	213	11	5.2	386	11	4.4	6.425	-S130	063-42	112	
195	12	5.2	21	9.2	85	12	195	12	5.2	353	12	4.4	7.029	-S130	063-42	112	
165	14	5.6	17	11	72	14	165	14	5.6	298	14	4.8	8.322	-S130	063-42	112	
146	16	5.6	15	12	64	16	146	16	5.6	264	16	4.8	9.411	-S130	063-42	112	
120	19	5.6	13	15	53	19	120	19	5.6	217	19	4.8	11.413	-S130	063-42	112	
106	22	5.6	11	17	47	22	106	22	5.6	192	22	4.8	12.907	-S130	063-42	112	
105	22	5.6	11	17	46	22	105	22	5.6	191	22	4.8	12.992	-S220	063-42	117	
96	24	5.6	10	19	42	24	96	24	5.6	173	24	4.8	14.336	-S400	063-42	122	
94	25	5.2	9.9	19	41	25	94	25	5.2	170	25	4.4	14.606	-S130	063-42	112	
93	25	5.6	9.9	19	41	25	93	25	5.6	169	25	4.8	14.720	-S220	063-42	117	
86	27	4.8	9.1	21	38	27	86	27	4.8	155	27	4.1	15.979	-S130	063-42	112	
85	27	5.6	9.0	21	37	27	85	27	5.6	153	27	4.8	16.197	-S400	063-42	122	
83	28	5.2	8.8	22	36	28	83	28	5.2	150	28	4.4	16.571	-S220	063-42	117	
76	31	4.3	8.0	24	33	30	76	31	4.3	137	30	4.1	18.069	-S130	063-42	112	
75	31	5.2	7.9	24	33	31	75	31	5.2	136	31	5.1	18.286	-S400	063-42	122	
73	32	5.2	7.7	24	32	32	73	32	5.2	132	32	5.1	18.776	-S220	063-42	117	
67	34	3.8	7.1	27	29	34	67	34	3.8	122	34	3.7	20.381	-S130	063-42	112	
66	35	5.2	7.0	27	29	35	66	35	5.2	120	35	5.1	20.659	-S400	063-42	122	
59	39	3.3	6.3	30	26	39	59	39	3.3	108	39	3.2	23.048	-S130	063-42	112	
55	42	3.1	5.8	33	24	42	55	42	3.1	99	42	3.0	24.967	-S130	063-42	112	
52	45	4.3	5.5	34	23	44	52	45	4.3	94	44	4.2	26.422	-S220	063-42	117	
49	48	2.7	5.1	37	21	47	49	48	2.7	88	47	2.6	28.233	-S130	063-42	112	
47	49	4.3	5.0	38	21	49	47	49	4.3	85	49	4.2	29.156	-S400	063-42	122	
46	51	4.3	4.8	39	20	50	46	51	4.3	83	50	4.2	29.937	-S220	063-42	117	
44	53	2.5	4.6	41	19	53	44	53	2.5	79	53	2.5	31.387	-S130	063-42	112	
42	56	3.7	4.4	43	18	55	42	56	3.7	76	55	3.7	32.867	-S220	063-42	117	
42	56	4.3	4.4	43	18	55	42	56	4.3	75	55	4.3	32.940	-S400	063-42	122	
39	60	2.2	4.1	46	17	60	39	60	2.2	70	60	2.2	35.493	-S130	063-42	112	
38	61	3.7	4.0	47	17	61	38	61	3.7	68	61	3.7	36.267	-S400	063-42	122	
37	63	3.5	3.9	49	16	63	37	63	3.5	67	63	3.5	37.238	-S220	063-42	117	
34	68	3.7	3.6	53	15	68	34	68	3.7	62	68	3.7	40.333	-S660	063-42	127	
34	68	1.9	3.6	53	15	68	34	68	1.9	61	68	1.9	40.422	-S130	063-42	112	



# g500-S shaft-mounted helical geared motors

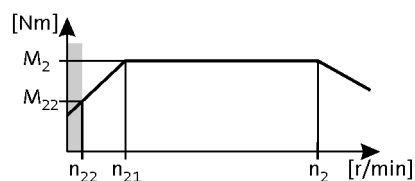


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	g500	MD□MA□□		
33	69	3.7	3.5	53	15	69	33	69	3.7	61	69	3.7	40.974	-S400	063-42	122
32	72	3.1	3.4	55	14	72	32	72	3.1	58	72	3.1	42.533	-S220	063-42	117
30	77	1.7	3.2	60	13	77	30	77	1.7	54	77	1.7	45.711	-S130	063-42	112
30	78	3.7	3.2	60	13	77	30	78	3.7	54	77	3.7	45.956	-S660	063-42	127
29	79	3.3	3.1	61	13	79	29	79	3.3	53	79	3.3	46.933	-S400	063-42	122
28	81	2.7	3.0	63	13	81	28	81	2.7	52	81	2.7	48.190	-S220	063-42	117
28	83	3.2	3.0	64	12	82	28	83	3.2	51	82	3.2	48.950	-S660	063-42	127
27	87	1.5	2.8	67	12	86	27	87	1.5	48	86	1.5	51.230	-S130	063-42	112
27	87	2.5	2.8	67	12	87	27	87	2.5	48	87	2.5	51.620	-S220	063-42	117
26	90	3.3	2.7	69	11	89	26	90	3.3	47	89	3.3	53.026	-S400	063-42	122
25	94	3.2	2.6	73	11	94	25	94	3.2	45	94	3.2	55.773	-S660	063-42	127
24	96	2.8	2.5	74	11	96	24	96	2.8	44	96	2.8	56.960	-S400	063-42	122
24	98	1.3	2.5	75	10	97	24	98	1.3	43	97	1.3	57.933	-S130	063-42	112
23	99	2.2	2.5	76	10	98	23	99	2.2	42	98	2.2	58.486	-S220	063-42	117
21	109	1.2	2.3	84	9.3	108	21	109	1.2	39	108	1.2	64.200	-S130	063-42	112
21	109	2.8	2.3	84	9.3	108	21	109	2.8	39	108	2.8	64.354	-S400	063-42	122
21	112	1.4	2.2	86	9.1	111	21	112	1.4	38	111	1.4	65.975	-S220	063-42	117
19	123	1.1	2.0	95	8.3	122	19	123	1.1	34	122	1.1	72.600	-S130	063-42	112
18	126	1.4	1.9	97	8.0	126	18	126	1.4	33	126	1.4	74.750	-S220	063-42	117

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	g500	MD□MA□□		
34	67	3.3	3.6	51	15	66	34	67	3.3	62	66	2.8	40.012	-S220	063-42	117
30	75	2.9	3.2	58	13	75	30	75	2.9	55	75	2.5	45.333	-S220	063-42	117
28	83	5.6	2.9	64	12	83	28	83	5.6	50	83	5.4	49.867	-S660	063-42	127
26	88	2.5	2.8	67	11	87	26	88	2.5	47	87	2.4	52.587	-S220	063-42	117
24	95	5.6	2.6	73	11	94	24	95	5.6	44	94	5.4	56.818	-S660	063-42	127
24	97	4.1	2.5	74	10	96	24	97	4.1	43	96	4.0	58.027	-S400	063-42	122
23	99	2.2	2.4	76	10	99	23	99	2.2	42	99	2.1	59.581	-S220	063-42	117
22	106	5.2	2.3	82	9.4	106	22	106	5.2	39	106	5.1	63.817	-S660	063-42	127
21	109	3.7	2.2	84	9.2	109	21	109	3.7	38	109	3.5	65.559	-S400	063-42	122
20	112	2.0	2.2	86	8.9	111	20	112	2.0	37	111	1.9	67.298	-S220	063-42	117
20	116	5.2	2.1	90	8.6	116	20	116	5.2	36	116	5.0	69.813	-S660	063-42	127
20	117	5.6	2.1	90	8.6	116	20	117	5.6	35	116	5.6	70.037	-S950	063-42	137
19	121	5.2	2.0	93	8.3	120	19	121	5.2	34	120	5.3	72.713	-S660	063-42	127
18	124	3.2	2.0	95	8.1	123	18	124	3.2	33	123	3.3	74.260	-S400	063-42	122
18	127	1.7	1.9	98	7.9	126	18	127	1.7	33	126	1.7	76.249	-S220	063-42	117
18	131	5.6	1.9	101	7.7	130	18	131	5.6	32	130	5.6	78.375	-S950	063-42	137

# g500-S shaft-mounted helical geared motors

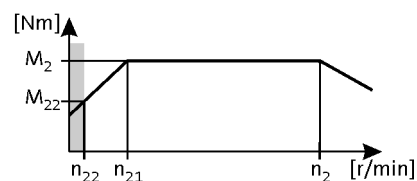


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
17	132	5.0	1.8	102	7.5	132	17	132	5.0	31	132	5.0	79.545	-S660	063-42	127
16	140	2.9	1.7	108	7.2	139	16	140	2.9	30	139	2.9	83.900	-S400	063-42	122
16	143	1.5	1.7	110	7.0	143	16	143	1.5	29	143	1.5	86.079	-S220	063-42	117
15	148	4.5	1.6	114	6.7	147	15	148	4.5	28	147	4.5	89.048	-S660	063-42	127
15	149	5.2	1.6	115	6.7	148	15	149	5.2	28	148	5.3	89.333	-S950	063-42	137
14	158	2.5	1.5	122	6.3	157	14	158	2.5	26	157	2.5	94.984	-S400	063-42	122
14	162	1.4	1.5	125	6.2	161	14	162	1.4	25	161	1.4	97.528	-S220	063-42	117
14	166	5.2	1.5	128	6.0	166	14	166	5.2	25	166	5.3	99.968	-S950	063-42	137
14	169	3.9	1.4	130	5.9	168	14	169	3.9	24	168	3.9	101.460	-S660	063-42	127
13	179	2.2	1.4	138	5.6	178	13	179	2.2	23	178	2.3	107.314	-S400	063-42	122
13	182	3.6	1.3	140	5.5	181	13	182	3.6	23	181	3.7	109.083	-S660	063-42	127
12	186	1.2	1.3	143	5.4	185	12	186	1.2	22	185	1.2	111.747	-S220	063-42	117
11	205	2.0	1.2	158	4.9	204	11	205	2.0	20	204	2.0	123.307	-S400	063-42	122
11	207	3.2	1.2	159	4.8	206	11	207	3.2	20	206	3.2	124.289	-S660	063-42	127
11	211	1.0	1.1	162	4.7	210	11	211	1.0	20	210	1.1	126.610	-S220	063-42	117
10	228	2.9	1.1	176	4.4	227	10	228	2.9	18	227	2.9	137.133	-S660	063-42	127
9.8	232	1.7	1.0	179	4.3	231	9.8	232	1.7	18	231	1.7	139.313	-S400	063-42	122
9.6	237	4.0	1.0	183	4.2	236	9.6	237	4.0	17	236	4.0	142.437	-S950	063-42	137
9.6	238	0.9	1.0	184	4.2	237	9.6	238	0.9	17	237	0.9	143.205	-S220	063-42	117
8.8	260	2.5	0.9	200	3.8	259	8.8	260	2.5	16	259	2.6	156.249	-S660	063-42	127
8.7	263	1.5	0.9	203	3.8	262	8.7	263	1.5	16	262	1.5	158.019	-S400	063-42	122
8.6	265	3.6	0.9	204	3.8	264	8.6	265	3.6	16	264	3.6	159.394	-S950	063-42	137
8.4	270	0.8	0.9	208	3.7	269	8.4	270	0.8	15	269	0.8	162.252	-S220	063-42	117
7.8	294	2.2	0.8	227	3.4	292	7.8	294	2.2	14	292	2.3	176.611	-S660	063-42	127
7.7	295	3.2	0.8	227	3.4	293	7.7	295	3.2	14	293	3.2	177.178	-S950	063-42	137
7.7	297	1.3	0.8	229	3.4	296	7.7	297	1.3	14	296	1.4	178.531	-S400	063-42	122
6.9	330	2.9	0.7	254	3.0	328	6.9	330	2.9	13	328	2.9	198.270	-S950	063-42	137
6.8	335	2.0	0.7	258	3.0	333	6.8	335	2.0	12	333	2.0	201.230	-S660	063-42	127
6.7	340	1.2	0.7	262	2.9	338	6.7	340	1.2	12	338	1.2	204.412	-S400	063-42	122
6.1	373	1.8	0.6	287	2.7	371	6.1	373	1.8	11	371	1.8	223.833	-S660	063-42	127
6.0	382	2.5	0.6	294	2.6	380	6.0	382	2.5	11	380	2.5	229.289	-S950	063-42	137
5.9	385	1.0	0.6	296	2.6	382	5.9	385	1.0	11	382	1.0	230.946	-S400	063-42	122
5.4	419	3.7	0.6	323	2.4	417	5.4	419	3.7	9.8	417	3.7	251.778	-S2100	063-42	143
5.4	425	1.6	0.6	327	2.4	422	5.4	425	1.6	9.7	422	1.6	255.034	-S660	063-42	127
5.3	427	2.2	0.6	329	2.3	425	5.3	427	2.2	9.7	425	2.2	256.585	-S950	063-42	137

# g500-S shaft-mounted helical geared motors

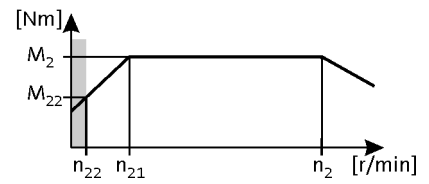
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
87 Hz:  $P_N = 0.45$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
5.2	443	0.9	0.5	341	2.3	440	5.2	443	0.9	9.3	440	0.9	265.956	-S400	063-42	122
4.9	463	2.1	0.5	357	2.2	461	4.9	463	2.1	8.9	461	2.1	278.273	-S950	063-42	137
4.9	466	3.7	0.5	359	2.1	463	4.9	466	3.7	8.9	463	3.7	279.807	-S2100	063-42	143
4.9	467	1.2	0.5	360	2.1	464	4.9	467	1.2	8.8	464	1.2	280.500	-S660	063-42	127
4.6	494	3.7	0.5	380	2.0	491	4.6	494	3.7	8.4	491	3.7	296.430	-S3100	063-42	146
4.5	509	3.2	0.5	392	2.0	506	4.5	509	3.2	8.1	506	3.2	305.567	-S2100	063-42	143
4.4	519	1.8	0.5	399	1.9	516	4.4	519	1.8	8.0	516	1.8	311.401	-S950	063-42	137
4.3	532	1.2	0.5	410	1.9	529	4.3	532	1.2	7.8	529	1.2	319.600	-S660	063-42	127
4.1	558	3.7	0.4	430	1.8	555	4.1	558	3.7	7.4	555	3.7	335.215	-S3100	063-42	146
4.0	566	3.2	0.4	435	1.8	562	4.0	566	3.2	7.3	562	3.2	339.584	-S2100	063-42	143
3.9	592	1.4	0.4	456	1.7	589	3.9	592	1.4	7.0	589	1.4	355.658	-S950	063-42	137
3.8	599	3.2	0.4	461	1.7	596	3.8	599	3.2	6.9	596	3.2	359.758	-S3100	063-42	146
3.5	643	2.6	0.4	495	1.6	640	3.5	643	2.6	6.4	640	2.6	386.250	-S2100	063-42	143
3.4	663	1.4	0.4	510	1.5	659	3.4	663	1.4	6.2	659	1.4	397.999	-S950	063-42	137
3.4	678	3.2	0.4	522	1.5	674	3.4	678	3.2	6.1	674	3.2	406.829	-S3100	063-42	146
3.2	715	2.6	0.3	550	1.4	711	3.2	715	2.6	5.8	711	2.6	429.250	-S2100	063-42	143

# g500-S shaft-mounted helical geared motors

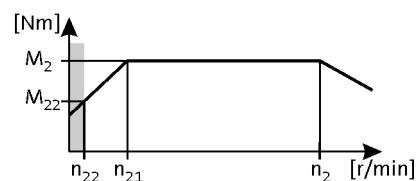


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
385	9.0	4.9	40	6.9	164	9.0	385	9.0	4.9	688	9.0	4.1	3.661	-S130	071-32	112	
281	12	4.9	29	9.4	120	12	281	12	4.9	502	12	4.1	5.021	-S130	071-32	112	
220	16	4.9	23	12	94	16	220	16	4.9	393	16	4.1	6.411	-S400	071-32	122	
219	16	4.5	23	12	93	16	219	16	4.5	392	16	3.8	6.425	-S130	071-32	112	
201	17	4.5	21	13	85	17	201	17	4.5	359	17	3.8	7.029	-S130	071-32	112	
169	20	4.9	17	16	72	20	169	20	4.9	303	20	4.1	8.322	-S130	071-32	112	
150	23	4.9	15	18	64	23	150	23	4.9	268	23	4.1	9.411	-S130	071-32	112	
124	28	4.7	13	21	53	28	124	28	4.7	221	28	4.0	11.413	-S130	071-32	112	
109	31	4.1	11	24	47	31	109	31	4.1	195	31	3.5	12.907	-S130	071-32	112	
109	32	4.9	11	24	46	32	109	32	4.9	194	32	4.1	12.992	-S220	071-32	117	
98	35	4.9	10	27	42	35	98	35	4.9	176	35	4.1	14.336	-S400	071-32	122	
97	36	3.7	9.9	27	41	35	97	36	3.7	173	35	3.1	14.606	-S130	071-32	112	
96	36	4.9	9.9	28	41	36	96	36	4.9	171	36	4.1	14.720	-S220	071-32	117	
88	39	3.4	9.1	30	38	39	88	39	3.4	158	39	2.8	15.979	-S130	071-32	112	
87	39	4.9	9.0	30	37	39	87	39	4.9	156	39	4.1	16.197	-S400	071-32	122	
85	40	4.5	8.8	31	36	40	85	40	4.5	152	40	3.8	16.571	-S220	071-32	117	
78	44	3.0	8.0	34	33	44	78	44	3.0	140	44	2.8	18.069	-S130	071-32	112	
77	44	4.5	7.9	34	33	44	77	44	4.5	138	44	4.4	18.286	-S400	071-32	122	
75	46	4.5	7.7	35	32	46	75	46	4.5	134	46	4.4	18.776	-S220	071-32	117	
69	50	2.6	7.1	38	29	49	69	50	2.6	124	49	2.5	20.381	-S130	071-32	112	
61	56	2.3	6.3	43	26	56	61	56	2.3	109	56	2.2	23.048	-S130	071-32	112	
57	61	2.1	5.8	47	24	61	57	61	2.1	101	61	2.1	24.967	-S130	071-32	112	
53	64	3.4	5.5	50	23	64	53	64	3.4	95	64	3.3	26.422	-S220	071-32	117	
50	69	1.9	5.1	53	21	69	50	69	1.9	89	69	1.8	28.233	-S130	071-32	112	
48	71	3.7	5.0	55	21	71	48	71	3.7	86	71	3.6	29.156	-S400	071-32	122	
47	73	3.0	4.8	56	20	73	47	73	3.0	84	73	2.9	29.937	-S220	071-32	117	
45	76	1.7	4.6	59	19	76	45	76	1.7	80	76	1.7	31.387	-S130	071-32	112	
43	80	2.8	4.4	62	18	80	43	80	2.8	77	80	2.8	32.867	-S220	071-32	117	
43	80	3.7	4.4	62	18	80	43	80	3.7	77	80	3.8	32.940	-S400	071-32	122	
40	86	1.5	4.1	66	17	86	40	86	1.5	71	86	1.5	35.493	-S130	071-32	112	
39	88	3.2	4.0	68	17	88	39	88	3.2	70	88	3.2	36.267	-S400	071-32	122	
38	91	2.4	3.9	70	16	90	38	91	2.4	68	90	2.4	37.238	-S220	071-32	117	
35	98	3.2	3.6	76	15	98	35	98	3.2	63	98	3.2	40.333	-S660	071-32	127	
35	98	1.3	3.6	76	15	98	35	98	1.3	62	98	1.3	40.422	-S130	071-32	112	
34	100	3.2	3.5	77	15	100	34	100	3.2	62	99	3.2	40.974	-S400	071-32	122	

# g500-S shaft-mounted helical geared motors

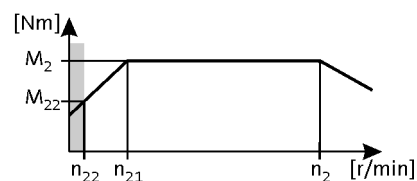


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
33	103	2.1	3.4	80	14	103	33	103	2.1	59	103	2.1	42.533	-S220	071-32	117
31	111	1.2	3.2	86	13	111	31	111	1.2	55	111	1.2	45.711	-S130	071-32	112
31	112	3.2	3.2	86	13	112	31	112	3.2	55	112	3.2	45.956	-S660	071-32	127
30	114	2.8	3.1	88	13	114	30	114	2.8	54	114	2.8	46.933	-S400	071-32	122
29	117	1.9	3.0	90	13	117	29	117	1.9	52	117	1.9	48.190	-S220	071-32	117
29	119	2.8	3.0	92	12	119	29	119	2.8	52	119	2.8	48.950	-S660	071-32	127
28	125	1.0	2.8	96	12	124	28	125	1.0	49	124	1.1	51.230	-S130	071-32	112
27	126	1.8	2.8	97	12	125	27	126	1.8	49	125	1.8	51.620	-S220	071-32	117
27	129	2.7	2.7	99	11	129	27	129	2.7	48	129	2.7	53.026	-S400	071-32	122
25	136	2.8	2.6	104	11	135	25	136	2.8	45	135	2.8	55.773	-S660	071-32	127
25	138	1.9	2.5	107	11	138	25	138	1.9	44	138	1.9	56.960	-S400	071-32	122
24	141	0.9	2.5	109	10	141	24	141	0.9	44	141	0.9	57.933	-S130	071-32	112
24	142	1.6	2.5	110	10	142	24	142	1.6	43	142	1.6	58.486	-S220	071-32	117
22	156	0.8	2.3	120	9.3	156	22	156	0.8	39	156	0.8	64.200	-S130	071-32	112
22	156	1.9	2.3	121	9.3	156	22	156	1.9	39	156	1.9	64.354	-S400	071-32	122
21	160	1.1	2.2	124	9.1	160	21	160	1.1	38	160	1.1	65.975	-S220	071-32	117
19	182	1.1	1.9	140	8.0	181	19	182	1.1	34	181	1.1	74.750	-S220	071-32	117

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
35	96	2.3	3.6	74	15	96	35	96	2.3	63	96	1.9	40.012	-S220	071-32	117
31	109	2.0	3.2	84	13	108	31	109	2.0	56	108	1.7	45.333	-S220	071-32	117
28	119	4.9	2.9	92	12	119	28	119	4.9	51	119	4.7	49.867	-S660	071-32	127
27	126	1.8	2.8	97	11	126	27	126	1.8	48	126	1.7	52.587	-S220	071-32	117
25	136	4.8	2.6	105	11	136	25	136	4.8	44	136	4.6	56.818	-S660	071-32	127
24	139	2.9	2.5	107	10	139	24	139	2.9	43	139	2.8	58.027	-S400	071-32	122
24	143	1.5	2.4	110	10	142	24	143	1.5	42	142	1.5	59.581	-S220	071-32	117
22	153	4.3	2.3	118	9.4	153	22	153	4.3	40	153	4.1	63.817	-S660	071-32	127
22	157	2.6	2.2	121	9.2	157	22	157	2.6	38	157	2.4	65.559	-S400	071-32	122
21	161	1.4	2.2	124	8.9	161	21	161	1.4	37	161	1.3	67.298	-S220	071-32	117
20	167	4.0	2.1	129	8.6	167	20	167	4.0	36	167	3.8	69.813	-S660	071-32	127
20	168	4.9	2.1	129	8.6	167	20	168	4.9	36	167	4.9	70.037	-S950	071-32	137
19	174	3.8	2.0	134	8.3	174	19	174	3.8	35	174	3.8	72.713	-S660	071-32	127
19	178	2.3	2.0	137	8.1	177	19	178	2.3	34	177	2.3	74.260	-S400	071-32	122
19	183	1.2	1.9	141	7.9	182	19	183	1.2	33	182	1.2	76.249	-S220	071-32	117
18	188	4.9	1.9	145	7.7	187	18	188	4.9	32	187	4.9	78.375	-S950	071-32	137
18	190	3.5	1.8	147	7.5	190	18	190	3.5	32	190	3.5	79.545	-S660	071-32	127
17	201	2.0	1.7	155	7.2	201	17	201	2.0	30	201	2.0	83.900	-S400	071-32	122

# g500-S shaft-mounted helical geared motors

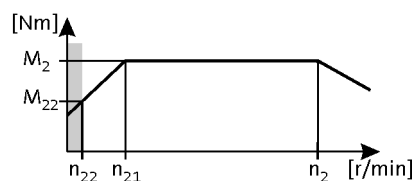


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
16	206	1.1	1.7	159	7.0	206	16	206	1.1	29	206	1.1	86.079	-S220	071-32	117
16	213	3.1	1.6	164	6.7	213	16	213	3.1	28	213	3.1	89.048	-S660	071-32	127
16	214	4.4	1.6	165	6.7	214	16	214	4.4	28	214	4.5	89.333	-S950	071-32	137
15	227	1.8	1.5	175	6.3	227	15	227	1.8	27	227	1.8	94.984	-S400	071-32	122
15	234	0.9	1.5	180	6.2	233	15	234	0.9	26	233	0.9	97.528	-S220	071-32	117
14	239	4.0	1.5	184	6.0	239	14	239	4.0	25	239	4.0	99.968	-S950	071-32	137
14	243	2.7	1.4	187	5.9	243	14	243	2.7	25	243	2.7	101.460	-S660	071-32	127
13	257	1.6	1.4	198	5.6	256	13	257	1.6	24	256	1.6	107.314	-S400	071-32	122
13	261	2.5	1.3	201	5.5	261	13	261	2.5	23	261	2.5	109.083	-S660	071-32	127
13	268	0.8	1.3	206	5.4	267	13	268	0.8	23	267	0.8	111.747	-S220	071-32	117
11	295	1.4	1.2	227	4.9	295	11	295	1.4	20	295	1.4	123.307	-S400	071-32	122
11	298	2.2	1.2	229	4.8	297	11	298	2.2	20	297	2.2	124.289	-S660	071-32	127
10	328	2.0	1.1	253	4.4	328	10	328	2.0	18	328	2.0	137.133	-S660	071-32	127
10	334	1.2	1.0	257	4.3	333	10	334	1.2	18	333	1.2	139.313	-S400	071-32	122
9.9	341	2.8	1.0	263	4.2	340	9.9	341	2.8	18	340	2.8	142.437	-S950	071-32	137
9.0	374	1.8	0.9	288	3.8	373	9.0	374	1.8	16	373	1.8	156.249	-S660	071-32	127
8.9	378	1.1	0.9	291	3.8	378	8.9	378	1.1	16	378	1.1	158.019	-S400	071-32	122
8.8	382	2.5	0.9	294	3.8	381	8.8	382	2.5	16	381	2.5	159.394	-S950	071-32	137
8.0	423	1.6	0.8	326	3.4	422	8.0	423	1.6	14	422	1.6	176.611	-S660	071-32	127
8.0	424	2.2	0.8	327	3.4	423	8.0	424	2.2	14	423	2.2	177.178	-S950	071-32	137
7.9	428	0.9	0.8	329	3.4	427	7.9	428	0.9	14	427	0.9	178.531	-S400	071-32	122
7.1	475	2.0	0.7	366	3.0	474	7.1	475	2.0	13	474	2.0	198.270	-S950	071-32	137
7.0	482	1.4	0.7	371	3.0	481	7.0	482	1.4	13	481	1.4	201.230	-S660	071-32	127
6.9	490	0.8	0.7	377	2.9	489	6.9	490	0.8	12	489	0.8	204.412	-S400	071-32	122
6.3	536	1.2	0.6	413	2.7	535	6.3	536	1.2	11	535	1.2	223.833	-S660	071-32	127
6.1	549	1.7	0.6	423	2.6	548	6.1	549	1.7	11	548	1.7	229.289	-S950	071-32	137
5.6	603	3.2	0.6	464	2.4	602	5.6	603	3.2	10	602	3.2	251.778	-S2100	071-32	143
5.5	611	1.1	0.6	470	2.4	610	5.5	611	1.1	9.9	610	1.1	255.034	-S660	071-32	127
5.5	614	1.6	0.6	473	2.3	613	5.5	614	1.6	9.8	613	1.6	256.585	-S950	071-32	137
5.1	666	1.4	0.5	513	2.2	665	5.1	666	1.4	9.1	665	1.4	278.273	-S950	071-32	137
5.0	670	3.1	0.5	516	2.1	669	5.0	670	3.1	9.0	669	3.1	279.807	-S2100	071-32	143
5.0	672	0.9	0.5	517	2.1	670	5.0	672	0.9	9.0	670	0.9	280.500	-S660	071-32	127
4.8	710	3.2	0.5	547	2.0	709	4.8	710	3.2	8.5	709	3.2	296.430	-S3100	071-32	146
4.6	732	2.8	0.5	564	2.0	730	4.6	732	2.8	8.2	730	2.8	305.567	-S2100	071-32	143
4.5	746	1.3	0.5	574	1.9	744	4.5	746	1.3	8.1	744	1.3	311.401	-S950	071-32	137

# g500-S shaft-mounted helical geared motors

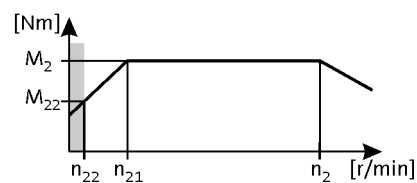
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
87 Hz:  $P_N = 0.66$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
4.4	765	0.9	0.5	589	1.9	764	4.4	765	0.9	7.9	764	0.9	319.600	-S660	071-32	127
4.2	803	3.2	0.4	618	1.8	801	4.2	803	3.2	7.5	801	3.2	335.215	-S3100	071-32	146
4.2	813	2.5	0.4	626	1.8	812	4.2	813	2.5	7.4	812	2.5	339.584	-S2100	071-32	143
4.0	852	1.1	0.4	656	1.7	850	4.0	852	1.1	7.1	850	1.1	355.658	-S950	071-32	137
3.9	862	2.8	0.4	663	1.7	860	3.9	862	2.8	7.0	860	2.8	359.758	-S3100	071-32	146
3.7	925	2.2	0.4	712	1.6	923	3.7	925	2.2	6.5	923	2.2	386.250	-S2100	071-32	143
3.5	953	1.0	0.4	734	1.5	951	3.5	953	1.0	6.3	951	1.0	397.999	-S950	071-32	137
3.5	974	2.8	0.4	750	1.5	972	3.5	974	2.8	6.2	972	2.8	406.829	-S3100	071-32	146
3.3	1028	2.0	0.3	792	1.4	1026	3.3	1028	2.0	5.9	1026	2.0	429.250	-S2100	071-32	143

# g500-S shaft-mounted helical geared motors

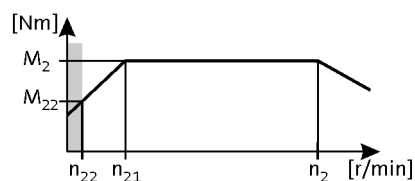


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
421	12	5.1	43	9.3	180	12	421	12	5.1	753	12	4.3	3.339	-S400	071-42	122
384	13	4.5	40	10	164	13	384	13	4.5	687	13	3.8	3.661	-S130	071-42	112
366	14	5.1	38	11	156	14	366	14	5.1	655	14	4.3	3.840	-S220	071-42	117
280	18	4.2	29	14	120	18	280	18	4.2	501	18	3.5	5.021	-S130	071-42	112
240	21	4.5	25	16	102	21	240	21	4.5	429	22	3.7	5.860	-S400	071-42	122
219	23	4.5	23	18	94	23	219	23	4.5	392	24	3.8	6.411	-S400	071-42	122
219	23	3.7	23	18	93	23	219	23	3.7	391	24	3.1	6.425	-S130	071-42	112
208	25	5.1	21	19	89	25	208	25	5.1	372	25	4.3	6.767	-S220	071-42	117
200	25	3.6	21	20	85	25	200	25	3.6	358	26	3.0	7.029	-S130	071-42	112
188	27	5.1	19	21	80	27	188	27	5.1	337	28	4.3	7.467	-S400	071-42	122
183	28	5.1	19	21	78	28	183	28	5.1	328	28	4.3	7.667	-S220	071-42	117
169	30	3.8	17	23	72	30	169	30	3.8	302	31	3.2	8.322	-S130	071-42	112
167	31	5.1	17	24	71	31	167	31	5.1	298	31	4.3	8.436	-S400	071-42	122
149	34	3.7	15	26	64	34	149	34	3.7	267	35	3.0	9.411	-S130	071-42	112
123	41	3.1	13	32	53	41	123	41	3.1	220	42	2.6	11.413	-S130	071-42	112
118	43	4.5	12	33	51	43	118	43	4.5	212	44	3.7	11.876	-S220	071-42	117
109	47	2.8	11	36	47	47	109	47	2.8	195	48	2.3	12.907	-S130	071-42	112
108	47	4.5	11	36	46	47	108	47	4.5	194	48	3.8	12.992	-S220	071-42	117
107	48	4.5	11	37	46	48	107	48	4.5	192	48	3.7	13.105	-S400	071-42	122
104	49	4.5	11	38	45	49	104	49	4.5	187	50	3.7	13.456	-S220	071-42	117
98	52	4.5	10	40	42	52	98	52	4.5	175	53	3.8	14.336	-S400	071-42	122
96	53	2.5	9.9	41	41	53	96	53	2.5	172	54	2.0	14.606	-S130	071-42	112
95	53	4.1	9.9	41	41	53	95	53	4.1	171	54	3.4	14.720	-S220	071-42	117
95	54	4.5	9.8	41	41	54	95	54	4.5	170	55	3.7	14.806	-S400	071-42	122
89	57	4.5	9.2	44	38	57	89	57	4.5	160	58	3.7	15.714	-S660	071-42	127
88	58	2.2	9.1	45	38	58	88	58	2.2	157	59	1.9	15.979	-S130	071-42	112
87	59	4.5	9.0	45	37	59	87	59	4.5	155	60	3.8	16.197	-S400	071-42	122
85	60	3.7	8.8	46	36	60	85	60	3.7	152	61	3.0	16.571	-S220	071-42	117
79	65	4.5	8.1	50	34	65	79	65	4.5	141	66	3.7	17.905	-S660	071-42	127
78	66	2.0	8.0	51	33	66	78	66	2.0	139	67	1.9	18.069	-S130	071-42	112
77	66	4.2	7.9	51	33	66	77	66	4.2	138	67	4.0	18.286	-S400	071-42	122
75	68	3.2	7.7	52	32	68	75	68	3.2	134	69	3.0	18.776	-S220	071-42	117
69	74	3.0	7.1	57	30	74	69	74	3.0	124	75	2.8	20.300	-S220	071-42	117
69	74	1.8	7.1	57	29	74	69	74	1.8	123	75	1.7	20.381	-S130	071-42	112
68	75	4.2	7.0	58	29	75	68	75	4.2	122	76	4.0	20.659	-S400	071-42	122



# g500-S shaft-mounted helical geared motors

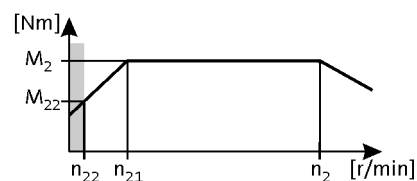


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
63	81	3.7	6.5	63	27	81	63	81	3.7	112	83	3.5	22.400	-S400	071-42	122
61	83	2.6	6.3	64	26	83	61	83	2.6	109	85	2.5	23.000	-S220	071-42	117
61	84	1.6	6.3	64	26	84	61	84	1.6	109	85	1.5	23.048	-S130	071-42	112
56	91	1.4	5.8	70	24	91	56	91	1.4	101	92	1.4	24.967	-S130	071-42	112
56	91	3.7	5.8	70	24	91	56	91	3.7	100	92	3.5	25.056	-S660	071-42	127
56	92	3.7	5.7	71	24	92	56	92	3.7	99	93	3.5	25.308	-S400	071-42	122
53	96	2.3	5.5	74	23	96	53	96	2.3	95	97	2.2	26.422	-S220	071-42	117
50	102	1.3	5.1	79	21	102	50	102	1.3	89	104	1.2	28.233	-S130	071-42	112
49	104	3.7	5.1	80	21	104	49	104	3.7	88	105	3.5	28.548	-S660	071-42	127
48	106	3.4	5.0	81	21	106	48	106	3.4	86	107	3.2	29.156	-S400	071-42	122
47	109	2.0	4.8	84	20	109	47	109	2.0	84	110	1.9	29.937	-S220	071-42	117
45	113	3.2	4.7	87	19	113	45	113	3.2	81	115	3.1	31.167	-S660	071-42	127
45	114	1.1	4.6	88	19	114	45	114	1.1	80	116	1.1	31.387	-S130	071-42	112
43	119	1.9	4.4	92	18	119	43	119	1.9	77	121	1.8	32.867	-S220	071-42	117
43	119	3.4	4.4	92	18	119	43	119	3.4	76	121	3.3	32.940	-S400	071-42	122
40	129	1.0	4.1	99	17	129	40	129	1.0	71	131	1.0	35.493	-S130	071-42	112
40	129	3.2	4.1	99	17	129	40	129	3.2	71	131	3.1	35.511	-S660	071-42	127
39	132	2.9	4.0	101	17	132	39	132	2.9	69	134	2.8	36.267	-S400	071-42	122
38	135	1.6	3.9	104	16	135	38	135	1.6	68	137	1.6	37.238	-S220	071-42	117
35	146	2.9	3.6	113	15	146	35	146	2.9	62	149	2.8	40.333	-S660	071-42	127
35	147	0.9	3.6	113	15	147	35	147	0.9	62	149	0.9	40.422	-S130	071-42	112
34	149	2.7	3.5	114	15	149	34	149	2.7	61	151	2.7	40.974	-S400	071-42	122
34	149	3.2	3.5	115	15	149	34	149	3.2	61	151	3.1	41.067	-S950	071-42	137
33	154	1.4	3.4	119	14	154	33	154	1.4	59	157	1.4	42.533	-S220	071-42	117
31	167	3.2	3.2	128	13	167	31	167	3.2	55	169	3.1	45.956	-S950	071-42	137
31	167	2.9	3.2	128	13	167	31	167	2.9	55	169	2.8	45.956	-S660	071-42	127
30	170	1.9	3.1	131	13	170	30	170	1.9	54	173	1.8	46.933	-S400	071-42	122
29	175	1.3	3.0	135	13	175	29	175	1.3	52	178	1.2	48.190	-S220	071-42	117
29	178	2.4	3.0	137	12	178	29	178	2.4	51	180	2.4	48.950	-S660	071-42	127
28	181	2.8	2.9	139	12	181	28	181	2.8	51	184	2.7	49.840	-S950	071-42	137
27	187	1.2	2.8	144	12	187	27	187	1.2	49	190	1.2	51.620	-S220	071-42	117
27	192	1.8	2.7	148	11	192	27	192	1.8	47	195	1.8	53.026	-S400	071-42	122
25	202	2.8	2.6	156	11	202	25	202	2.8	45	205	2.7	55.773	-S950	071-42	137
25	202	2.4	2.6	156	11	202	25	202	2.4	45	205	2.4	55.773	-S660	071-42	127
25	207	1.3	2.5	159	11	207	25	207	1.3	44	210	1.3	56.960	-S400	071-42	122

# g500-S shaft-mounted helical geared motors

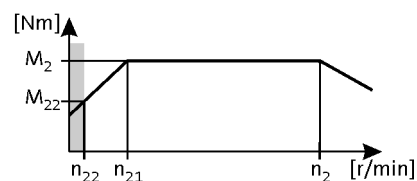


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
24	212	1.0	2.5	163	10	212	24	212	1.0	43	215	1.0	58.486	-S220	071-42	117
22	228	2.2	2.3	176	9.5	228	22	228	2.2	40	232	2.2	63.000	-S950	071-42	137
22	233	1.3	2.3	180	9.3	233	22	233	1.3	39	237	1.3	64.354	-S400	071-42	122
20	256	2.2	2.1	197	8.5	256	20	256	2.2	36	260	2.2	70.500	-S950	071-42	137

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
28	178	3.5	2.9	137	12	178	28	178	3.5	50	181	3.3	49.867	-S660	071-42	127
25	203	3.2	2.6	156	11	203	25	203	3.2	44	206	3.0	56.818	-S660	071-42	127
24	207	1.9	2.5	160	10	207	24	207	1.9	43	211	1.8	58.027	-S400	071-42	122
22	228	2.9	2.3	176	9.4	228	22	228	2.9	39	232	2.7	63.817	-S660	071-42	127
22	229	4.2	2.3	176	9.4	229	22	229	4.2	39	232	3.9	64.022	-S950	071-42	137
21	234	1.7	2.2	180	9.2	234	21	234	1.7	38	238	1.6	65.559	-S400	071-42	122
20	249	2.7	2.1	192	8.6	249	20	249	2.7	36	253	2.5	69.813	-S660	071-42	127
20	250	3.8	2.1	193	8.6	250	20	250	3.8	36	254	3.7	70.037	-S950	071-42	137
20	256	3.7	2.0	197	8.4	256	20	256	3.7	35	260	3.7	71.644	-S950	071-42	137
19	260	2.5	2.0	200	8.3	260	19	260	2.5	35	264	2.5	72.713	-S660	071-42	127
19	265	1.5	2.0	204	8.1	265	19	265	1.5	34	269	1.5	74.260	-S400	071-42	122
18	280	3.4	1.9	216	7.7	280	18	280	3.4	32	284	3.3	78.375	-S950	071-42	137
18	284	2.3	1.8	219	7.5	284	18	284	2.3	32	289	2.3	79.545	-S660	071-42	127
17	300	1.3	1.7	231	7.2	300	17	300	1.3	30	304	1.3	83.900	-S400	071-42	122
16	318	2.1	1.6	245	6.7	318	16	318	2.1	28	323	2.0	89.048	-S660	071-42	127
16	319	3.0	1.6	246	6.7	319	16	319	3.0	28	324	2.9	89.333	-S950	071-42	137
15	339	1.2	1.5	261	6.3	339	15	339	1.2	27	345	1.2	94.984	-S400	071-42	122
14	350	4.5	1.5	270	6.1	350	14	350	4.5	26	356	4.4	98.095	-S2100	071-42	143
14	357	2.7	1.5	275	6.0	357	14	357	2.7	25	363	2.6	99.968	-S950	071-42	137
14	362	1.8	1.4	279	5.9	362	14	362	1.8	25	368	1.8	101.460	-S660	071-42	127
13	383	1.0	1.4	295	5.6	383	13	383	1.0	23	389	1.0	107.314	-S400	071-42	122
13	389	4.5	1.3	300	5.5	389	13	389	4.5	23	396	4.4	109.016	-S2100	071-42	143
13	390	1.7	1.3	300	5.5	390	13	390	1.7	23	396	1.7	109.083	-S660	071-42	127
13	391	2.4	1.3	301	5.5	391	13	391	2.4	23	397	2.4	109.433	-S950	071-42	137
12	413	4.5	1.3	318	5.2	413	12	413	4.5	22	419	4.4	115.492	-S3100	071-42	146
12	437	2.2	1.2	337	4.9	437	12	437	2.2	21	444	2.1	122.461	-S950	071-42	137
11	441	0.9	1.2	339	4.9	441	11	441	0.9	20	447	0.9	123.307	-S400	071-42	122
11	444	1.5	1.2	342	4.8	444	11	444	1.5	20	451	1.5	124.289	-S660	071-42	127
11	467	4.5	1.1	359	4.6	467	11	467	4.5	19	474	4.4	130.603	-S3100	071-42	146
10	490	1.4	1.1	377	4.4	490	10	490	1.4	18	498	1.3	137.133	-S660	071-42	127
9.9	509	1.9	1.0	392	4.2	509	9.9	509	1.9	18	517	1.8	142.437	-S950	071-42	137

# g500-S shaft-mounted helical geared motors

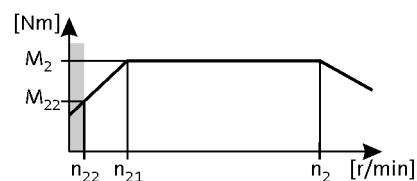


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
9.0	558	1.2	0.9	430	3.8	558	9.0	558	1.2	16	567	1.2	156.249	-S660	071-42	127
9.0	559	3.7	0.9	430	3.8	559	9.0	559	3.7	16	568	3.6	156.407	-S2100	071-42	143
8.8	569	1.7	0.9	439	3.8	569	8.8	569	1.7	16	578	1.6	159.394	-S950	071-42	137
8.1	621	3.3	0.8	478	3.5	621	8.1	621	3.3	15	631	3.3	173.820	-S2100	071-42	143
8.0	631	1.1	0.8	486	3.4	631	8.0	631	1.1	14	641	1.0	176.611	-S660	071-42	127
7.9	633	1.5	0.8	487	3.4	633	7.9	633	1.5	14	643	1.5	177.178	-S950	071-42	137
7.6	658	3.7	0.8	507	3.3	658	7.6	658	3.7	14	668	3.7	184.146	-S3100	071-42	146
7.2	695	3.0	0.7	535	3.1	695	7.2	695	3.0	13	706	2.9	194.556	-S2100	071-42	143
7.1	708	1.3	0.7	545	3.0	708	7.1	708	1.3	13	719	1.3	198.270	-S950	071-42	137
7.0	719	0.9	0.7	554	3.0	719	7.0	719	0.9	13	730	0.9	201.230	-S660	071-42	127
6.7	744	3.7	0.7	573	2.9	744	6.7	744	3.7	12	756	3.7	208.240	-S3100	071-42	146
6.5	772	2.7	0.7	595	2.8	772	6.5	772	2.7	12	785	2.6	216.215	-S2100	071-42	143
6.1	818	3.2	0.6	630	2.6	818	6.1	818	3.2	11	831	3.1	229.059	-S3100	071-42	146
6.1	819	1.2	0.6	631	2.6	819	6.1	819	1.2	11	832	1.1	229.289	-S950	071-42	137
5.9	851	3.2	0.6	655	2.5	851	5.9	851	3.2	11	865	3.1	238.252	-S4500	071-42	149
5.6	899	2.3	0.6	693	2.4	899	5.6	899	2.3	10	914	2.2	251.778	-S2100	071-42	143
5.5	917	1.0	0.6	706	2.3	917	5.5	917	1.0	9.8	931	1.0	256.585	-S950	071-42	137
5.4	925	3.2	0.6	713	2.3	925	5.4	925	3.2	9.7	940	3.1	259.030	-S3100	071-42	146
5.3	950	3.2	0.5	732	2.3	950	5.3	950	3.2	9.5	965	3.1	265.956	-S4500	071-42	149
5.0	994	1.0	0.5	766	2.2	1010	5.0	994	1.0	9.0	1010	0.9	278.273	-S950	071-42	137
5.0	1000	2.1	0.5	770	2.1	1000	5.0	1000	2.1	9.0	1015	2.0	279.807	-S2100	071-42	143
4.9	1033	2.8	0.5	795	2.1	1033	4.9	1033	2.8	8.7	1049	2.7	289.151	-S4500	071-42	149
4.7	1059	2.9	0.5	815	2.0	1059	4.7	1059	2.9	8.5	1076	2.8	296.430	-S3100	071-42	146
4.6	1092	1.9	0.5	841	2.0	1092	4.6	1092	1.9	8.2	1109	1.9	305.567	-S2100	071-42	143
4.5	1112	0.9	0.5	857	1.9	1112	4.5	1112	0.9	8.1	1130	0.8	311.401	-S950	071-42	137
4.4	1153	2.8	0.4	888	1.9	1153	4.4	1153	2.8	7.8	1171	2.7	322.773	-S4500	071-42	149
4.2	1198	2.6	0.4	922	1.8	1198	4.2	1198	2.6	7.5	1216	2.6	335.215	-S3100	071-42	146
4.1	1213	1.7	0.4	934	1.8	1213	4.1	1213	1.7	7.4	1232	1.7	339.584	-S2100	071-42	143
3.9	1285	2.4	0.4	990	1.7	1285	3.9	1285	2.4	7.0	1305	2.4	359.758	-S3100	071-42	146
3.8	1306	2.2	0.4	1005	1.6	1306	3.8	1306	2.2	6.9	1326	2.2	365.500	-S4500	071-42	149
3.6	1380	1.4	0.4	1063	1.6	1380	3.6	1380	1.4	6.5	1402	1.3	386.250	-S2100	071-42	143
3.5	1453	2.1	0.4	1119	1.5	1453	3.5	1453	2.1	6.2	1476	2.1	406.829	-S3100	071-42	146
3.4	1458	2.2	0.4	1122	1.5	1458	3.4	1458	2.2	6.2	1480	2.2	408.000	-S4500	071-42	149
3.3	1533	1.3	0.3	1181	1.4	1533	3.3	1533	1.3	5.9	1558	1.3	429.250	-S2100	071-42	143

# g500-S shaft-mounted helical geared motors

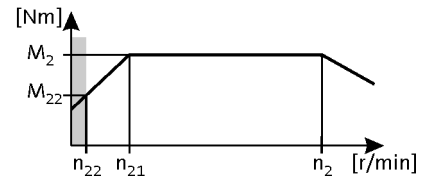


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
422	16	4.7	43	13	180	16	422	16	4.7	755	17	3.9	3.339	-S400	080-32	122
385	18	3.5	40	14	164	18	385	18	3.5	688	18	2.9	3.661	-S130	080-32	112
367	19	4.7	38	15	156	19	367	19	4.7	656	19	3.9	3.840	-S220	080-32	117
281	25	3.1	29	19	120	25	281	25	3.1	502	25	2.6	5.021	-S130	080-32	112
241	29	4.1	25	22	102	29	241	29	4.1	430	29	3.5	5.860	-S400	080-32	122
220	32	4.2	23	24	94	32	220	32	4.2	393	32	3.5	6.411	-S400	080-32	122
219	32	2.8	23	24	93	32	219	32	2.8	392	32	2.3	6.425	-S130	080-32	112
208	33	4.7	21	26	89	33	208	33	4.7	372	34	3.9	6.767	-S220	080-32	117
201	35	2.7	21	27	85	35	201	35	2.7	359	35	2.2	7.029	-S130	080-32	112
189	37	4.7	19	28	80	37	189	37	4.7	338	37	3.9	7.467	-S400	080-32	122
184	38	4.7	19	29	78	38	184	38	4.7	329	38	3.9	7.667	-S220	080-32	117
169	41	2.8	17	32	72	41	169	41	2.8	303	41	2.4	8.322	-S130	080-32	112
167	42	4.7	17	32	71	42	167	42	4.7	299	42	3.9	8.436	-S400	080-32	122
150	46	2.7	15	36	64	46	150	46	2.7	268	47	2.3	9.411	-S130	080-32	112
124	56	2.3	13	43	53	56	124	56	2.3	221	57	1.9	11.413	-S130	080-32	112
119	59	3.8	12	45	51	59	119	59	3.8	212	59	3.1	11.876	-S220	080-32	117
109	64	2.0	11	49	47	64	109	64	2.0	195	64	1.7	12.907	-S130	080-32	112
109	64	3.4	11	49	46	64	109	64	3.4	194	64	2.9	12.992	-S220	080-32	117
108	65	4.1	11	50	46	65	108	65	4.1	192	65	3.5	13.105	-S400	080-32	122
105	66	3.3	11	51	45	66	105	66	3.3	187	67	2.8	13.456	-S220	080-32	117
98	71	4.2	10	54	42	71	98	71	4.2	176	71	3.5	14.336	-S400	080-32	122
97	72	1.8	9.9	55	41	72	97	72	1.8	173	72	1.5	14.606	-S130	080-32	112
96	73	3.0	9.9	56	41	73	96	73	3.0	171	73	2.5	14.720	-S220	080-32	117
95	73	4.1	9.8	56	41	73	95	73	4.1	170	73	3.5	14.806	-S400	080-32	122
90	77	4.1	9.2	60	38	77	90	77	4.1	160	78	3.5	15.714	-S660	080-32	127
88	79	1.7	9.1	61	38	79	88	79	1.7	158	79	1.4	15.979	-S130	080-32	112
87	80	4.2	9.0	61	37	80	87	80	4.2	156	80	3.5	16.197	-S400	080-32	122
85	82	2.7	8.8	63	36	82	85	82	2.7	152	82	2.3	16.571	-S220	080-32	117
78	89	1.5	8.0	69	33	89	78	89	1.5	140	90	1.4	18.069	-S130	080-32	112
77	90	3.9	7.9	69	33	90	77	90	3.9	138	91	3.7	18.286	-S400	080-32	122
75	93	2.4	7.7	71	32	93	75	93	2.4	134	93	2.3	18.776	-S220	080-32	117
70	100	2.2	7.1	77	30	100	70	100	2.2	124	101	2.1	20.300	-S220	080-32	117
69	100	1.3	7.1	77	29	100	69	100	1.3	124	101	1.2	20.381	-S130	080-32	112
63	110	3.4	6.5	85	27	110	63	110	3.4	113	111	3.3	22.400	-S400	080-32	122
61	113	1.9	6.3	87	26	113	61	113	1.9	110	114	1.8	23.000	-S220	080-32	117

# g500-S shaft-mounted helical geared motors

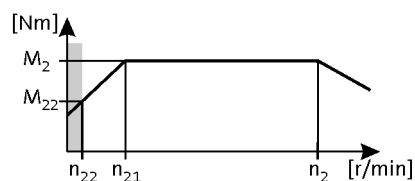


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
61	114	1.1	6.3	87	26	114	61	114	1.1	109	114	1.1	23.048	-S130	080-32	112
57	123	1.1	5.8	95	24	123	57	123	1.1	101	124	1.0	24.967	-S130	080-32	112
56	123	3.4	5.8	95	24	123	56	123	3.4	101	124	3.3	25.056	-S660	080-32	127
56	125	3.2	5.7	96	24	125	56	125	3.2	100	126	3.0	25.308	-S400	080-32	122
53	130	1.7	5.5	100	23	130	53	130	1.7	95	131	1.6	26.422	-S220	080-32	117
50	139	0.9	5.1	107	21	139	50	139	0.9	89	140	0.9	28.233	-S130	080-32	112
49	141	3.4	5.1	108	21	141	49	141	3.4	88	142	3.3	28.548	-S660	080-32	127
48	144	2.8	5.0	111	21	144	48	144	2.8	86	145	2.6	29.156	-S400	080-32	122
47	148	1.5	4.8	114	20	148	47	148	1.5	84	149	1.4	29.937	-S220	080-32	117
45	154	2.9	4.7	118	19	154	45	154	2.9	81	155	2.9	31.167	-S660	080-32	127
45	155	0.8	4.6	119	19	155	45	155	0.8	80	156	0.8	31.387	-S130	080-32	112
43	162	1.4	4.4	125	18	162	43	162	1.4	77	163	1.4	32.867	-S220	080-32	117
43	162	2.5	4.4	125	18	162	43	162	2.5	77	163	2.5	32.940	-S400	080-32	122
40	175	2.9	4.1	135	17	175	40	175	2.9	71	176	2.9	35.511	-S660	080-32	127
39	179	2.2	4.0	138	17	179	39	179	2.2	70	180	2.2	36.267	-S400	080-32	122
38	184	1.2	3.9	141	16	184	38	184	1.2	68	185	1.2	37.238	-S220	080-32	117
35	199	2.6	3.6	153	15	199	35	199	2.6	63	200	2.6	40.333	-S660	080-32	127
34	202	2.0	3.5	155	15	202	34	202	2.0	62	203	2.0	40.974	-S400	080-32	122
34	202	2.9	3.5	156	15	202	34	202	2.9	61	204	2.9	41.067	-S950	080-32	137
33	210	1.1	3.4	161	14	210	33	210	1.1	59	211	1.0	42.533	-S220	080-32	117
31	226	2.6	3.2	174	13	226	31	226	2.6	55	228	2.6	45.956	-S660	080-32	127
31	226	2.9	3.2	174	13	226	31	226	2.9	55	228	2.9	45.956	-S950	080-32	137
30	231	1.4	3.1	178	13	231	30	231	1.4	54	233	1.4	46.933	-S400	080-32	122
29	237	0.9	3.0	183	13	237	29	237	0.9	52	239	0.9	48.190	-S220	080-32	117
29	241	1.9	3.0	186	12	241	29	241	1.9	52	243	1.8	48.950	-S660	080-32	127
28	246	2.6	2.9	189	12	246	28	246	2.6	51	247	2.5	49.840	-S950	080-32	137
27	254	0.9	2.8	196	12	254	27	254	0.9	49	256	0.9	51.620	-S220	080-32	117
27	261	1.3	2.7	201	11	261	27	261	1.3	48	263	1.3	53.026	-S400	080-32	122
25	275	1.9	2.6	212	11	275	25	275	1.9	45	277	1.8	55.773	-S660	080-32	127
25	275	2.6	2.6	212	11	275	25	275	2.6	45	277	2.5	55.773	-S950	080-32	137
25	281	1.0	2.5	216	11	281	25	281	1.0	44	283	1.0	56.960	-S400	080-32	122
22	310	2.0	2.3	239	9.5	310	22	310	2.0	40	313	2.0	63.000	-S950	080-32	137
22	317	1.0	2.3	244	9.3	317	22	317	1.0	39	319	1.0	64.354	-S400	080-32	122
20	347	2.0	2.1	267	8.5	347	20	347	2.0	36	350	2.0	70.500	-S950	080-32	137

# g500-S shaft-mounted helical geared motors

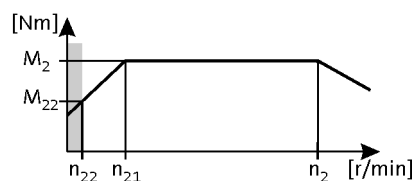


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
28	242	2.6	2.9	186	12	242	28	242	2.6	51	244	2.5	49.867	-S660	080-32	127
27	255	0.9	2.8	197	11	255	27	255	0.9	48	257	0.8	52.587	-S220	080-32	117
25	276	2.4	2.6	212	11	276	25	276	2.4	44	278	2.2	56.818	-S660	080-32	127
24	282	1.4	2.5	217	10	282	24	282	1.4	43	284	1.4	58.027	-S400	080-32	122
22	310	2.1	2.3	239	9.4	310	22	310	2.1	40	312	2.0	63.817	-S660	080-32	127
22	311	3.1	2.3	239	9.4	311	22	311	3.1	39	313	2.9	64.022	-S950	080-32	137
22	318	1.3	2.2	245	9.2	318	22	318	1.3	38	321	1.2	65.559	-S400	080-32	122
20	339	2.0	2.1	261	8.6	339	20	339	2.0	36	341	1.9	69.813	-S660	080-32	127
20	340	2.8	2.1	262	8.6	340	20	340	2.8	36	342	2.8	70.037	-S950	080-32	137
20	348	2.7	2.0	268	8.4	348	20	348	2.7	35	350	2.7	71.644	-S950	080-32	137
19	353	1.9	2.0	272	8.3	353	19	353	1.9	35	355	1.9	72.713	-S660	080-32	127
19	360	1.1	2.0	278	8.1	360	19	360	1.1	34	363	1.1	74.260	-S400	080-32	122
18	380	2.5	1.9	293	7.7	380	18	380	2.5	32	383	2.5	78.375	-S950	080-32	137
18	386	1.7	1.8	297	7.5	386	18	386	1.7	32	389	1.7	79.545	-S660	080-32	127
17	407	1.0	1.7	314	7.2	407	17	407	1.0	30	410	1.0	83.900	-S400	080-32	122
16	432	1.5	1.6	333	6.7	432	16	432	1.5	28	435	1.5	89.048	-S660	080-32	127
16	434	2.2	1.6	334	6.7	434	16	434	2.2	28	437	2.2	89.333	-S950	080-32	137
15	461	0.9	1.5	355	6.3	461	15	461	0.9	27	464	0.9	94.984	-S400	080-32	122
14	476	4.1	1.5	367	6.1	476	14	476	4.1	26	480	4.1	98.095	-S2100	080-32	143
14	485	2.0	1.5	374	6.0	485	14	485	2.0	25	489	1.9	99.968	-S950	080-32	137
14	493	1.3	1.4	379	5.9	493	14	493	1.3	25	496	1.3	101.460	-S660	080-32	127
13	529	3.9	1.3	407	5.5	529	13	529	3.9	23	533	3.9	109.016	-S2100	080-32	143
13	530	1.3	1.3	408	5.5	530	13	530	1.3	23	533	1.2	109.083	-S660	080-32	127
13	531	1.8	1.3	409	5.5	531	13	531	1.8	23	535	1.8	109.433	-S950	080-32	137
12	561	4.1	1.3	432	5.2	561	12	561	4.1	22	565	4.1	115.492	-S3100	080-32	146
12	594	1.6	1.2	458	4.9	594	12	594	1.6	21	599	1.6	122.461	-S950	080-32	137
11	603	1.1	1.2	464	4.8	603	11	603	1.1	20	608	1.1	124.289	-S660	080-32	127
11	634	4.1	1.1	488	4.6	634	11	634	4.1	19	639	4.1	130.603	-S3100	080-32	146
10	666	1.0	1.1	512	4.4	666	10	666	1.0	18	670	1.0	137.133	-S660	080-32	127
9.9	691	1.4	1.0	532	4.2	691	9.9	691	1.4	18	696	1.4	142.437	-S950	080-32	137
9.0	758	0.9	0.9	584	3.8	758	9.0	758	0.9	16	764	0.9	156.249	-S660	080-32	127
9.0	759	2.7	0.9	584	3.8	759	9.0	759	2.7	16	765	2.7	156.407	-S2100	080-32	143
8.8	774	1.2	0.9	596	3.8	774	8.8	774	1.2	16	779	1.2	159.394	-S950	080-32	137
8.1	844	2.4	0.8	650	3.5	844	8.1	844	2.4	15	850	2.4	173.820	-S2100	080-32	143
8.0	860	1.1	0.8	662	3.4	860	8.0	860	1.1	14	866	1.1	177.178	-S950	080-32	137

# g500-S shaft-mounted helical geared motors

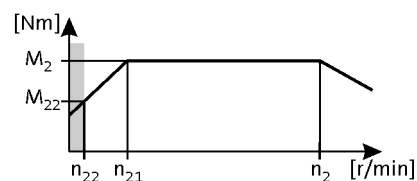


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 0.75$  kW  
87 Hz:  $P_N = 1.35$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
7.7	894	3.4	0.8	688	3.3	894	7.7	894	3.4	14	900	3.4	184.146	-S3100	080-32	146
7.2	944	2.2	0.7	727	3.1	944	7.2	944	2.2	13	951	2.2	194.556	-S2100	080-32	143
7.1	962	1.0	0.7	741	3.0	962	7.1	962	1.0	13	969	1.0	198.270	-S950	080-32	137
6.8	1011	3.1	0.7	778	2.9	1011	6.8	1011	3.1	12	1018	3.0	208.240	-S3100	080-32	146
6.5	1050	2.0	0.7	808	2.8	1050	6.5	1050	2.0	12	1057	1.9	216.215	-S2100	080-32	143
6.2	1112	2.8	0.6	856	2.6	1112	6.2	1112	2.8	11	1120	2.8	229.059	-S3100	080-32	146
6.1	1113	0.9	0.6	857	2.6	1113	6.1	1113	0.9	11	1121	0.9	229.289	-S950	080-32	137
5.9	1157	2.9	0.6	890	2.5	1157	5.9	1157	2.9	11	1165	2.9	238.252	-S4500	080-32	149
5.6	1222	1.7	0.6	941	2.4	1222	5.6	1222	1.7	10	1231	1.7	251.778	-S2100	080-32	143
5.4	1257	2.5	0.6	968	2.3	1257	5.4	1257	2.5	9.7	1266	2.5	259.030	-S3100	080-32	146
5.3	1291	2.9	0.5	994	2.3	1291	5.3	1291	2.9	9.5	1300	2.9	265.956	-S4500	080-32	149
5.0	1358	1.5	0.5	1046	2.1	1358	5.0	1358	1.5	9.0	1368	1.5	279.807	-S2100	080-32	143
4.9	1404	2.6	0.5	1081	2.1	1404	4.9	1404	2.6	8.7	1414	2.5	289.151	-S4500	080-32	149
4.8	1439	2.2	0.5	1108	2.0	1439	4.8	1439	2.2	8.5	1449	2.1	296.430	-S3100	080-32	146
4.6	1483	1.4	0.5	1142	2.0	1483	4.6	1483	1.4	8.2	1494	1.4	305.567	-S2100	080-32	143
4.4	1567	2.6	0.4	1206	1.9	1567	4.4	1567	2.6	7.8	1578	2.5	322.773	-S4500	080-32	149
4.2	1627	1.9	0.4	1253	1.8	1627	4.2	1627	1.9	7.5	1639	1.9	335.215	-S3100	080-32	146
4.2	1648	1.2	0.4	1269	1.8	1648	4.2	1648	1.2	7.4	1660	1.2	339.584	-S2100	080-32	143
3.9	1746	1.8	0.4	1344	1.7	1746	3.9	1746	1.8	7.0	1759	1.8	359.758	-S3100	080-32	146
3.9	1774	2.0	0.4	1366	1.6	1774	3.9	1774	2.0	6.9	1787	2.0	365.500	-S4500	080-32	149
3.7	1875	1.1	0.4	1443	1.6	1875	3.7	1875	1.1	6.5	1888	1.1	386.250	-S2100	080-32	143
3.5	1975	1.6	0.4	1520	1.5	1975	3.5	1975	1.6	6.2	1989	1.6	406.829	-S3100	080-32	146
3.5	1981	2.0	0.4	1525	1.5	1981	3.5	1981	2.0	6.2	1995	2.0	408.000	-S4500	080-32	149
3.3	2084	1.0	0.3	1604	1.4	2084	3.3	2084	1.0	5.9	2099	1.0	429.250	-S2100	080-32	143

# g500-S shaft-mounted helical geared motors

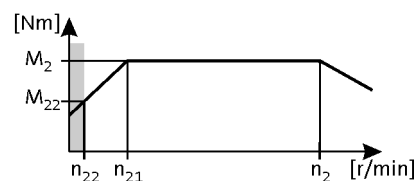


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
428	24	5.8	43	17	180	24	428	24	5.8	761	24	4.8	3.339	-S400	090-12	122
391	26	2.4	40	18	164	26	391	26	2.4	694	27	2.0	3.661	-S130	090-12	112
372	27	5.8	38	19	156	27	372	27	5.8	661	28	4.8	3.840	-S220	090-12	117
312	33	5.8	32	23	131	33	312	33	5.8	555	33	4.8	4.579	-S400	090-12	122
285	36	2.1	29	25	120	36	285	36	2.1	506	37	1.7	5.021	-S130	090-12	112
272	38	4.8	28	26	114	38	272	38	4.8	482	38	4.0	5.267	-S220	090-12	117
244	42	5.4	25	29	102	42	244	42	5.4	433	43	4.4	5.860	-S400	090-12	122
223	46	5.4	23	32	94	46	223	46	5.4	396	47	4.4	6.411	-S400	090-12	122
223	46	1.9	23	32	93	46	223	46	1.9	395	47	1.6	6.425	-S130	090-12	112
211	48	4.6	21	34	89	48	211	48	4.6	375	49	3.7	6.767	-S220	090-12	117
208	49	5.7	21	34	87	49	208	49	5.7	369	50	4.7	6.880	-S660	090-12	127
203	50	1.8	21	35	85	50	203	50	1.8	361	51	1.5	7.029	-S130	090-12	112
192	53	5.8	19	37	80	53	192	53	5.8	340	54	4.8	7.467	-S400	090-12	122
187	55	4.0	19	38	78	55	187	55	4.0	331	56	3.3	7.667	-S220	090-12	117
186	55	5.7	19	38	78	55	186	55	5.7	330	56	4.7	7.702	-S950	090-12	137
172	59	2.0	17	42	72	59	172	59	2.0	305	61	1.6	8.322	-S130	090-12	112
170	60	5.8	17	42	71	60	170	60	5.8	301	62	4.8	8.436	-S400	090-12	122
154	66	3.3	16	46	65	66	154	66	3.3	274	68	2.7	9.280	-S220	090-12	117
152	67	1.9	15	47	64	67	152	67	1.9	270	69	1.5	9.411	-S130	090-12	112
140	73	5.5	14	51	59	73	140	73	5.5	248	75	4.5	10.240	-S400	090-12	122
136	75	2.9	14	53	57	75	136	75	2.9	242	77	2.4	10.514	-S220	090-12	117
127	80	5.7	13	56	53	80	127	80	5.7	226	82	4.7	11.262	-S660	090-12	127
125	81	1.6	13	57	53	81	125	81	1.6	223	83	1.3	11.413	-S130	090-12	112
124	82	4.9	13	58	52	82	124	82	4.9	220	84	4.0	11.569	-S400	090-12	122
120	85	2.6	12	59	51	85	120	85	2.6	214	87	2.1	11.876	-S220	090-12	117
116	88	5.8	12	62	49	88	116	88	5.8	206	90	4.8	12.320	-S660	090-12	127
111	91	5.7	11	64	47	91	111	91	5.7	198	94	4.7	12.832	-S660	090-12	127
111	92	1.4	11	64	47	92	111	92	1.4	197	94	1.2	12.907	-S130	090-12	112
110	93	2.4	11	65	46	93	110	93	2.4	196	95	2.0	12.992	-S220	090-12	117
109	93	4.3	11	65	46	93	109	93	4.3	194	96	3.5	13.105	-S400	090-12	122
106	96	2.3	11	67	45	96	106	96	2.3	189	98	1.9	13.456	-S220	090-12	117
102	100	5.8	10	70	43	100	102	100	5.8	181	102	4.8	14.037	-S660	090-12	127
100	102	3.9	10	72	42	102	100	102	3.9	177	105	3.2	14.336	-S400	090-12	122
98	104	1.3	9.9	73	41	104	98	104	1.3	174	107	1.0	14.606	-S130	090-12	112
97	105	2.1	9.9	73	41	105	97	105	2.1	173	107	1.7	14.720	-S220	090-12	117



# g500-S shaft-mounted helical geared motors

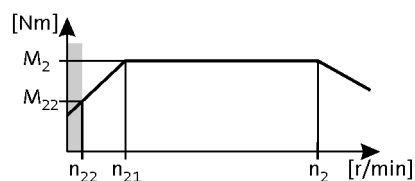


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
97	106	3.8	9.8	74	41	106	97	106	3.8	172	108	3.1	14.806	-S400	090-12	122	
91	112	5.4	9.2	78	38	112	91	112	5.4	162	115	4.4	15.714	-S660	090-12	127	
90	114	1.1	9.1	80	38	114	90	114	1.1	159	117	0.9	15.979	-S130	090-12	112	
89	114	5.7	9.1	80	38	114	89	114	5.7	159	117	4.7	16.000	-S950	090-12	137	
88	115	3.5	9.0	81	37	115	88	115	3.5	157	118	2.8	16.197	-S400	090-12	122	
86	118	1.9	8.8	83	36	118	86	118	1.9	153	121	1.5	16.571	-S220	090-12	117	
80	128	5.2	8.1	89	34	128	80	128	5.2	142	131	4.2	17.905	-S660	090-12	127	
80	128	5.7	8.1	89	34	128	80	128	5.7	142	131	4.7	17.905	-S950	090-12	137	
79	129	1.0	8.0	90	33	129	79	129	1.0	141	132	0.9	18.069	-S130	090-12	112	
78	130	3.1	7.9	91	33	130	78	130	3.1	139	133	2.9	18.286	-S400	090-12	122	
76	134	1.6	7.7	94	32	134	76	134	1.6	135	137	1.5	18.776	-S220	090-12	117	
74	137	4.8	7.5	96	31	137	74	137	4.8	132	140	4.5	19.250	-S660	090-12	127	
70	145	1.5	7.1	101	30	145	70	145	1.5	125	148	1.4	20.300	-S220	090-12	117	
70	145	0.9	7.1	102	29	145	70	145	0.9	125	149	0.8	20.381	-S130	090-12	112	
69	147	2.7	7.0	103	29	147	69	147	2.7	123	151	2.5	20.659	-S400	090-12	122	
65	156	4.2	6.6	109	27	156	65	156	4.2	116	160	3.9	21.933	-S660	090-12	127	
64	160	2.5	6.5	112	27	160	64	160	2.5	113	163	2.3	22.400	-S400	090-12	122	
62	164	1.3	6.3	115	26	164	62	164	1.3	110	168	1.3	23.000	-S220	090-12	117	
57	179	3.2	5.8	125	24	179	57	179	3.2	101	183	3.0	25.056	-S660	090-12	127	
57	180	2.2	5.7	126	24	180	57	180	2.2	100	185	2.1	25.308	-S400	090-12	122	
56	182	4.8	5.7	127	24	182	56	182	4.8	100	186	4.5	25.511	-S950	090-12	137	
54	188	1.2	5.5	132	23	188	54	188	1.2	96	193	1.1	26.422	-S220	090-12	117	
50	203	3.2	5.1	142	21	203	50	203	3.2	89	208	3.0	28.548	-S660	090-12	127	
50	203	4.7	5.1	142	21	203	50	203	4.7	89	208	4.4	28.548	-S950	090-12	137	
49	208	1.9	5.0	146	21	208	49	208	1.9	87	213	1.8	29.156	-S400	090-12	122	
48	213	1.0	4.8	149	20	213	48	213	1.0	85	218	1.0	29.937	-S220	090-12	117	
46	222	3.0	4.7	156	19	222	46	222	3.0	82	227	2.9	31.167	-S660	090-12	127	
46	223	4.0	4.6	156	19	223	46	223	4.0	81	228	3.9	31.267	-S950	090-12	137	
44	234	0.9	4.4	164	18	234	44	234	0.9	77	240	0.9	32.867	-S220	090-12	117	
43	235	1.7	4.4	164	18	235	43	235	1.7	77	240	1.7	32.940	-S400	090-12	122	
41	249	3.8	4.1	175	17	249	41	249	3.8	73	255	3.7	34.989	-S950	090-12	137	
40	253	2.6	4.1	177	17	253	40	253	2.6	72	259	2.6	35.511	-S660	090-12	127	
39	258	1.6	4.0	181	17	258	39	258	1.6	70	265	1.5	36.267	-S400	090-12	122	
38	265	0.8	3.9	186	16	265	38	265	0.8	68	272	0.8	37.238	-S220	090-12	117	
36	287	1.9	3.6	201	15	287	36	287	1.9	63	294	1.9	40.333	-S660	090-12	127	

# g500-S shaft-mounted helical geared motors

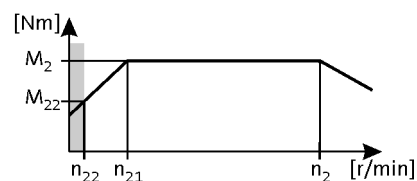


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
35	292	1.4	3.5	204	15	292	35	292	1.4	62	299	1.3	40.974	-S400	090-12	122	
35	293	3.3	3.5	205	15	293	35	293	3.3	62	300	3.2	41.067	-S950	090-12	137	
32	317	4.0	3.3	222	14	317	32	317	4.0	57	324	3.9	44.431	-S2100	090-12	143	
31	328	1.9	3.2	229	13	328	31	328	1.9	55	335	1.9	45.956	-S660	090-12	127	
31	328	2.9	3.2	229	13	328	31	328	2.9	55	335	2.8	45.956	-S950	090-12	137	
29	349	1.3	3.0	244	12	349	29	349	1.3	52	357	1.3	48.950	-S660	090-12	127	
29	352	4.0	2.9	246	12	352	29	352	4.0	51	360	3.9	49.378	-S2100	090-12	143	
29	355	2.6	2.9	249	12	355	29	355	2.6	51	364	2.5	49.840	-S950	090-12	137	
27	373	4.0	2.8	261	12	373	27	373	4.0	49	382	3.9	52.311	-S3100	090-12	146	
27	384	3.5	2.7	269	11	384	27	384	3.5	47	393	3.4	53.924	-S2100	090-12	143	
26	397	1.3	2.6	278	11	397	26	397	1.3	46	407	1.3	55.773	-S660	090-12	127	
26	397	2.4	2.6	278	11	397	26	397	2.4	46	407	2.3	55.773	-S950	090-12	137	
24	422	4.0	2.5	295	10	422	24	422	4.0	43	432	3.9	59.156	-S3100	090-12	146	
24	427	3.5	2.4	299	10	427	24	427	3.5	42	437	3.4	59.927	-S2100	090-12	143	
23	449	1.5	2.3	314	9.5	449	23	449	1.5	40	460	1.5	63.000	-S950	090-12	137	
23	452	3.5	2.3	317	9.5	452	23	452	3.5	40	463	3.4	63.487	-S3100	090-12	146	
21	486	2.7	2.1	340	8.8	486	21	486	2.7	37	497	2.6	68.162	-S2100	090-12	143	
20	502	1.5	2.1	352	8.5	502	20	502	1.5	36	514	1.4	70.500	-S950	090-12	137	
20	512	3.5	2.0	358	8.4	512	20	512	3.5	35	524	3.4	71.793	-S3100	090-12	146	
19	540	2.7	1.9	378	7.9	540	19	540	2.7	34	553	2.6	75.750	-S2100	090-12	143	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
29	350	1.8	2.9	245	12	350	29	350	1.8	51	358	1.7	49.867	-S660	090-12	127	
29	351	2.7	2.9	246	12	351	29	351	2.7	51	359	2.5	50.027	-S950	090-12	137	
26	393	2.4	2.6	275	11	393	26	393	2.4	45	402	2.3	55.982	-S950	090-12	137	
25	399	1.6	2.6	279	11	399	25	399	1.6	45	408	1.5	56.818	-S660	090-12	127	
22	448	1.5	2.3	314	9.4	448	22	448	1.5	40	459	1.4	63.817	-S660	090-12	127	
22	449	2.1	2.3	315	9.4	449	22	449	2.1	40	460	2.0	64.022	-S950	090-12	137	
21	490	1.4	2.1	343	8.6	490	21	490	1.4	36	502	1.3	69.813	-S660	090-12	127	
20	492	1.9	2.1	344	8.6	492	20	492	1.9	36	503	1.9	70.037	-S950	090-12	137	
20	494	4.2	2.1	346	8.5	494	20	494	4.2	36	505	4.1	70.302	-S2100	090-12	143	
20	503	1.9	2.0	352	8.4	503	20	503	1.9	36	515	1.9	71.644	-S950	090-12	137	
20	510	1.3	2.0	357	8.3	510	20	510	1.3	35	523	1.3	72.713	-S660	090-12	127	
19	540	3.8	1.9	378	7.8	540	19	540	3.8	33	553	3.7	76.907	-S2100	090-12	143	
18	548	3.7	1.9	384	7.7	548	18	548	3.7	33	561	3.7	78.128	-S2100	090-12	143	
18	550	1.7	1.9	385	7.7	550	18	550	1.7	32	563	1.7	78.375	-S950	090-12	137	
18	558	1.2	1.8	391	7.5	558	18	558	1.2	32	572	1.2	79.545	-S660	090-12	127	

# g500-S shaft-mounted helical geared motors

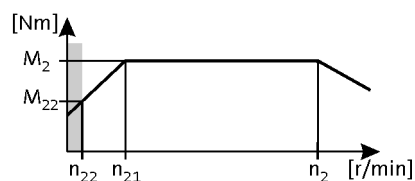


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
17	581	5.3	1.8	407	7.2	581	17	581	5.3	31	595	5.2	82.769	-S3100	090-12	146	
17	600	3.4	1.7	420	7.0	600	17	600	3.4	30	614	3.3	85.468	-S2100	090-12	143	
16	625	1.1	1.6	438	6.7	625	16	625	1.1	29	640	1.0	89.048	-S660	090-12	127	
16	627	1.5	1.6	439	6.7	627	16	627	1.5	28	642	1.5	89.333	-S950	090-12	137	
16	636	4.9	1.6	445	6.6	636	16	636	4.9	28	651	4.8	90.546	-S3100	090-12	146	
15	652	5.7	1.6	456	6.5	652	15	652	5.7	27	667	5.6	92.825	-S4500	090-12	149	
15	657	4.7	1.5	460	6.4	657	15	657	4.7	27	673	4.6	93.599	-S3100	090-12	146	
15	689	3.0	1.5	482	6.1	689	15	689	3.0	26	705	2.9	98.095	-S2100	090-12	143	
14	702	1.4	1.5	491	6.0	702	14	702	1.4	25	718	1.3	99.968	-S950	090-12	137	
14	712	0.9	1.4	499	5.9	712	14	712	0.9	25	729	0.9	101.460	-S660	090-12	127	
14	719	4.3	1.4	503	5.9	719	14	719	4.3	25	736	4.2	102.393	-S3100	090-12	146	
14	727	5.7	1.4	509	5.8	727	14	727	5.7	25	745	5.6	103.619	-S4500	090-12	149	
13	765	2.7	1.3	536	5.5	765	13	765	2.7	23	783	2.6	109.016	-S2100	090-12	143	
13	766	0.9	1.3	536	5.5	766	13	766	0.9	23	784	0.8	109.083	-S660	090-12	127	
13	768	1.2	1.3	538	5.5	768	13	768	1.2	23	786	1.2	109.433	-S950	090-12	137	
12	811	3.8	1.3	568	5.2	811	12	811	3.8	22	830	3.7	115.492	-S3100	090-12	146	
12	844	2.4	1.2	591	5.0	844	12	844	2.4	21	863	2.4	120.167	-S2100	090-12	143	
12	860	1.1	1.2	602	4.9	860	12	860	1.1	21	880	1.1	122.461	-S950	090-12	137	
11	917	3.4	1.1	642	4.6	917	11	917	3.4	19	938	3.3	130.603	-S3100	090-12	146	
11	937	2.2	1.1	656	4.5	937	11	937	2.2	19	960	2.1	133.544	-S2100	090-12	143	
10	993	3.1	1.0	695	4.2	1017	10	993	3.1	18	1017	3.1	141.478	-S3100	090-12	146	
10	1000	1.0	1.0	700	4.2	1000	10	1000	1.0	18	1024	0.9	142.437	-S950	090-12	137	
9.7	1039	4.3	1.0	727	4.1	1039	9.7	1039	4.3	17	1064	4.2	148.005	-S4500	090-12	149	
9.1	1098	1.9	0.9	769	3.8	1098	9.1	1098	1.9	16	1124	1.8	156.407	-S2100	090-12	143	
9.0	1119	0.9	0.9	783	3.8	1119	9.0	1119	0.9	16	1145	0.8	159.394	-S950	090-12	137	
8.9	1123	2.8	0.9	786	3.8	1123	8.9	1123	2.8	16	1150	2.7	159.989	-S3100	090-12	146	
8.7	1160	3.9	0.9	812	3.6	1160	8.7	1160	3.9	15	1187	3.8	165.215	-S4500	090-12	149	
8.2	1220	1.7	0.8	854	3.5	1220	8.2	1220	1.7	15	1249	1.6	173.820	-S2100	090-12	143	
7.9	1273	3.5	0.8	891	3.3	1273	7.9	1273	3.5	14	1303	3.5	181.396	-S4500	090-12	149	
7.8	1293	2.4	0.8	905	3.3	1293	7.8	1293	2.4	14	1323	2.3	184.146	-S3100	090-12	146	
7.4	1366	1.5	0.7	956	3.1	1366	7.4	1366	1.5	13	1398	1.5	194.556	-S2100	090-12	143	
7.1	1421	3.2	0.7	995	3.0	1421	7.1	1421	3.2	13	1455	3.1	202.489	-S4500	090-12	149	
6.9	1462	2.1	0.7	1023	2.9	1462	6.9	1462	2.1	12	1496	2.1	208.240	-S3100	090-12	146	
6.6	1518	1.4	0.7	1063	2.8	1518	6.6	1518	1.4	12	1554	1.3	216.215	-S2100	090-12	143	
6.2	1608	1.9	0.6	1126	2.6	1608	6.2	1608	1.9	11	1646	1.9	229.059	-S3100	090-12	146	

# g500-S shaft-mounted helical geared motors

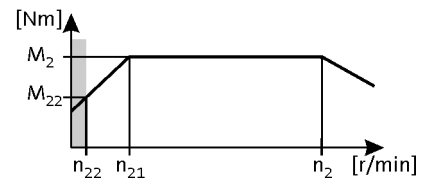
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
87 Hz:  $P_N = 2.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
6.0	1673	2.7	0.6	1171	2.5	1673	6.0	1673	2.7	11	1712	2.6	238.252	-S4500	090-12	149
5.7	1767	1.2	0.6	1237	2.4	1767	5.7	1767	1.2	10	1809	1.1	251.778	-S2100	090-12	143
5.5	1818	1.7	0.6	1273	2.3	1818	5.5	1818	1.7	9.8	1861	1.7	259.030	-S3100	090-12	146
5.4	1867	2.4	0.5	1307	2.3	1867	5.4	1867	2.4	9.6	1911	2.4	265.956	-S4500	090-12	149
5.1	1964	1.0	0.5	1375	2.1	1964	5.1	1964	1.0	9.1	2011	1.0	279.807	-S2100	090-12	143
4.9	2030	2.2	0.5	1421	2.1	2030	4.9	2030	2.2	8.8	2078	2.2	289.151	-S4500	090-12	149
4.8	2081	1.5	0.5	1457	2.0	2081	4.8	2081	1.5	8.6	2130	1.5	296.430	-S3100	090-12	146
4.7	2145	1.0	0.5	1502	2.0	2145	4.7	2145	1.0	8.3	2196	0.9	305.567	-S2100	090-12	143
4.4	2266	2.0	0.4	1586	1.9	2266	4.4	2266	2.0	7.9	2319	1.9	322.773	-S4500	090-12	149
4.3	2353	1.3	0.4	1647	1.8	2353	4.3	2353	1.3	7.6	2409	1.3	335.215	-S3100	090-12	146
4.2	2384	0.9	0.4	1669	1.8	2384	4.2	2384	0.9	7.5	2440	0.8	339.584	-S2100	090-12	143
4.0	2525	1.2	0.4	1768	1.7	2525	4.0	2525	1.2	7.1	2585	1.2	359.758	-S3100	090-12	146
3.9	2566	1.5	0.4	1796	1.6	2566	3.9	2566	1.5	6.9	2626	1.5	365.500	-S4500	090-12	149
3.5	2856	1.1	0.4	1999	1.5	2856	3.5	2856	1.1	6.2	2923	1.1	406.829	-S3100	090-12	146
3.5	2864	1.5	0.4	2005	1.5	2864	3.5	2864	1.5	6.2	2932	1.5	408.000	-S4500	090-12	149

# g500-S shaft-mounted helical geared motors

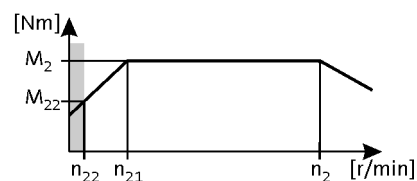


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
430	32	4.3	43	23	180	32	430	32	4.3	762	33	3.5	3.339	-S400	090-32	122
392	35	1.8	40	25	164	35	392	35	1.8	695	36	1.5	3.661	-S130	090-32	112
374	37	4.3	38	26	156	37	374	37	4.3	663	38	3.5	3.840	-S220	090-32	117
313	44	4.3	32	31	131	44	313	44	4.3	556	45	3.5	4.579	-S400	090-32	122
286	49	1.6	29	34	120	49	286	49	1.6	507	49	1.3	5.021	-S130	090-32	112
273	51	3.6	28	36	114	51	273	51	3.6	483	52	2.9	5.267	-S220	090-32	117
245	57	4.0	25	40	102	57	245	57	4.0	434	58	3.3	5.860	-S400	090-32	122
224	62	4.0	23	44	94	62	224	62	4.0	397	63	3.3	6.411	-S400	090-32	122
223	62	1.4	23	44	93	62	223	62	1.4	396	63	1.2	6.425	-S130	090-32	112
212	66	3.4	21	46	89	66	212	66	3.4	376	67	2.8	6.767	-S220	090-32	117
209	67	4.2	21	47	87	67	209	67	4.2	370	68	3.5	6.880	-S660	090-32	127
204	68	1.4	21	48	85	68	204	68	1.4	362	69	1.1	7.029	-S130	090-32	112
192	72	4.3	19	51	80	72	192	72	4.3	341	73	3.5	7.467	-S400	090-32	122
187	74	2.9	19	52	78	74	187	74	2.9	332	75	2.4	7.667	-S220	090-32	117
186	75	4.2	19	52	78	75	186	75	4.2	330	76	3.5	7.702	-S950	090-32	137
172	81	1.4	17	56	72	81	172	81	1.4				8.322	-S130	090-32	112
170	82	4.3	17	57	71	82	170	82	4.3	302	83	3.5	8.436	-S400	090-32	122
155	90	2.5	16	63	65	90	155	90	2.5	274	91	2.0	9.280	-S220	090-32	117
153	91	1.4	15	64	64	91	153	91	1.4				9.411	-S130	090-32	112
140	99	4.0	14	69	59	101	140	99	4.0	249	101	3.3	10.240	-S400	090-32	122
137	102	2.2	14	71	57	102	137	102	2.2	242	103	1.8	10.514	-S220	090-32	117
127	109	4.2	13	76	53	109	127	109	4.2	226	111	3.5	11.262	-S660	090-32	127
126	111	1.2	13	77	53	111	126	111	1.2				11.413	-S130	090-32	112
124	112	3.6	13	78	52	112	124	112	3.6	220	114	3.0	11.569	-S400	090-32	122
121	115	1.9	12	81	51	115	121	115	1.9	214	117	1.6	11.876	-S220	090-32	117
117	119	4.3	12	84	49	119	117	119	4.3	207	121	3.5	12.320	-S660	090-32	127
112	124	4.2	11	87	47	124	112	124	4.2	198	126	3.5	12.832	-S660	090-32	127
111	125	1.0	11	88	47	125	111	125	1.0				12.907	-S130	090-32	112
111	126	1.8	11	88	46	126	111	126	1.8	196	128	1.4	12.992	-S220	090-32	117
110	127	3.2	11	89	46	127	110	127	3.2	194	129	2.6	13.105	-S400	090-32	122
107	130	1.7	11	91	45	130	107	130	1.7	189	132	1.4	13.456	-S220	090-32	117
102	136	4.3	10	95	43	136	102	136	4.3	181	138	3.5	14.037	-S660	090-32	127
100	139	2.9	10	97	42	139	100	139	2.9	178	141	2.4	14.336	-S400	090-32	122
98	141	0.9	9.9	99	41	141	98	141	0.9				14.606	-S130	090-32	112
98	143	1.5	9.9	100	41	143	98	143	1.5	173	145	1.3	14.720	-S220	090-32	117

# g500-S shaft-mounted helical geared motors

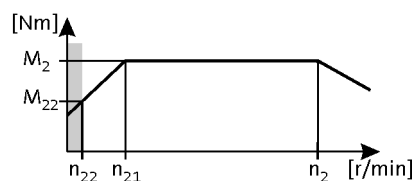


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
97	143	2.8	9.8	100	41	143	97	143	2.8	172	146	2.3	14.806	-S400	090-32	122
91	152	4.0	9.2	107	38	152	91	152	4.0	162	154	3.3	15.714	-S660	090-32	127
90	155	0.8	9.1	108	38	155	90	155	0.8				15.979	-S130	090-32	112
90	155	4.2	9.1	109	38	155	90	155	4.2	159	157	3.5	16.000	-S950	090-32	137
89	157	2.6	9.0	110	37	157	89	157	2.6	157	159	2.1	16.197	-S400	090-32	122
87	160	1.4	8.8	112	36	160	87	160	1.4	154	163	1.1	16.571	-S220	090-32	117
80	173	3.8	8.1	121	34	173	80	173	3.8	142	176	3.1	17.905	-S660	090-32	127
80	173	4.2	8.1	121	34	173	80	173	4.2	142	176	3.5	17.905	-S950	090-32	137
79	177	2.3	7.9	124	33	177	79	177	2.3	139	180	2.1	18.286	-S400	090-32	122
76	182	1.2	7.7	127	32	182	76	182	1.2	136	185	1.1	18.776	-S220	090-32	117
75	186	3.5	7.5	131	31	186	75	186	3.5	132	189	3.3	19.250	-S660	090-32	127
71	197	1.1	7.1	138	30	197	71	197	1.1	125	200	1.1	20.300	-S220	090-32	117
70	200	2.0	7.0	140	29	200	70	200	2.0	123	203	1.9	20.659	-S400	090-32	122
65	212	3.1	6.6	149	27	212	65	212	3.1	116	216	2.9	21.933	-S660	090-32	127
64	217	1.8	6.5	152	27	217	64	217	1.8	114	220	1.7	22.400	-S400	090-32	122
62	223	1.0	6.3	156	26	223	62	223	1.0	111	226	0.9	23.000	-S220	090-32	117
57	243	2.4	5.8	170	24	243	57	243	2.4	102	246	2.2	25.056	-S660	090-32	127
57	245	1.6	5.7	172	24	245	57	245	1.6	101	249	1.5	25.308	-S400	090-32	122
56	247	3.5	5.7	173	24	247	56	247	3.5	100	251	3.3	25.511	-S950	090-32	137
54	256	0.9	5.5	179	23	256	54	256	0.9	96	260	0.8	26.422	-S220	090-32	117
50	276	2.4	5.1	194	21	276	50	276	2.4	89	281	2.2	28.548	-S660	090-32	127
50	276	3.4	5.1	194	21	276	50	276	3.4	89	281	3.2	28.548	-S950	090-32	137
49	282	1.4	5.0	198	21	282	49	282	1.4	87	287	1.3	29.156	-S400	090-32	122
46	302	2.2	4.7	211	19	302	46	302	2.2	82	306	2.2	31.167	-S660	090-32	127
46	303	2.9	4.6	212	19	303	46	303	2.9	81	307	2.9	31.267	-S950	090-32	137
44	319	1.3	4.4	223	18	319	44	319	1.3	77	324	1.2	32.940	-S400	090-32	122
41	339	2.8	4.1	237	17	339	41	339	2.8	73	344	2.8	34.989	-S950	090-32	137
40	344	1.9	4.1	241	17	344	40	344	1.9	72	349	1.9	35.511	-S660	090-32	127
40	351	1.1	4.0	246	17	351	40	351	1.1	70	356	1.1	36.267	-S400	090-32	122
36	391	1.4	3.6	273	15	391	36	391	1.4	63	396	1.4	40.333	-S660	090-32	127
35	397	1.0	3.5	278	15	397	35	397	1.0	62	403	1.0	40.974	-S400	090-32	122
35	398	2.4	3.5	278	15	398	35	398	2.4	62	404	2.4	41.067	-S950	090-32	137
32	430	2.9	3.3	301	14	430	32	430	2.9	57	437	2.9	44.431	-S2100	090-32	143
31	445	1.4	3.2	312	13	445	31	445	1.4	55	452	1.4	45.956	-S660	090-32	127
31	445	2.1	3.2	312	13	445	31	445	2.1	55	452	2.1	45.956	-S950	090-32	137

# g500-S shaft-mounted helical geared motors

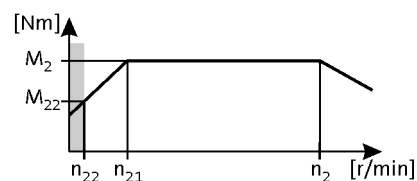


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
29	474	0.9	3.0	332	12	474	29	474	0.9	52	481	0.9	48.950	-S660	090-32	127
29	478	2.9	2.9	335	12	478	29	478	2.9	52	485	2.9	49.378	-S2100	090-32	143
29	483	1.9	2.9	338	12	483	29	483	1.9	51	490	1.9	49.840	-S950	090-32	137
27	507	2.9	2.8	355	12	507	27	507	2.9	49	514	2.9	52.311	-S3100	090-32	146
27	522	2.6	2.7	366	11	522	27	522	2.6	47	530	2.5	53.924	-S2100	090-32	143
26	540	0.9	2.6	378	11	540	26	540	0.9	46	548	0.9	55.773	-S660	090-32	127
26	540	1.8	2.6	378	11	540	26	540	1.8	46	548	1.7	55.773	-S950	090-32	137
24	573	2.9	2.5	401	10	573	24	573	2.9	43	581	2.9	59.156	-S3100	090-32	146
24	580	2.6	2.4	406	10	580	24	580	2.6	43	589	2.5	59.927	-S2100	090-32	143
23	610	1.1	2.3	427	9.5	610	23	610	1.1	40	619	1.1	63.000	-S950	090-32	137
23	615	2.6	2.3	430	9.5	615	23	615	2.6	40	624	2.5	63.487	-S3100	090-32	146
21	660	2.0	2.1	462	8.8	660	21	660	2.0	37	670	1.9	68.162	-S2100	090-32	143
20	683	1.1	2.1	478	8.5	683	20	683	1.1	36	693	1.1	70.500	-S950	090-32	137
20	695	2.6	2.0	487	8.4	695	20	695	2.6	35	706	2.5	71.793	-S3100	090-32	146
19	734	2.0	1.9	514	7.9	734	19	734	2.0	34	745	1.9	75.750	-S2100	090-32	143

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
29	476	1.3	2.9	333	12	476	29	476	1.3	51	483	1.2	49.867	-S660	090-32	127
29	477	2.0	2.9	334	12	477	29	477	2.0	51	484	1.9	50.027	-S950	090-32	137
26	534	1.8	2.6	374	11	534	26	534	1.8	46	542	1.7	55.982	-S950	090-32	137
25	542	1.2	2.6	379	11	542	25	542	1.2	45	550	1.1	56.818	-S660	090-32	127
23	609	1.1	2.3	426	9.4	609	23	609	1.1	40	618	1.0	63.817	-S660	090-32	127
22	611	1.6	2.3	428	9.4	611	22	611	1.6	40	620	1.5	64.022	-S950	090-32	137
21	666	1.0	2.1	466	8.6	666	21	666	1.0	37	676	0.9	69.813	-S660	090-32	127
21	668	1.4	2.1	468	8.6	668	21	668	1.4	36	678	1.4	70.037	-S950	090-32	137
20	671	3.1	2.1	470	8.5	671	20	671	3.1	36	681	3.0	70.302	-S2100	090-32	143
20	683	1.4	2.0	478	8.4	683	20	683	1.4	36	694	1.4	71.644	-S950	090-32	137
20	694	1.0	2.0	486	8.3	694	20	694	1.0	35	704	0.9	72.713	-S660	090-32	127
19	734	2.8	1.9	514	7.8	734	19	734	2.8	33	745	2.8	76.907	-S2100	090-32	143
18	745	2.8	1.9	522	7.7	745	18	745	2.8	33	756	2.7	78.128	-S2100	090-32	143
18	748	1.3	1.9	523	7.7	748	18	748	1.3	33	759	1.3	78.375	-S950	090-32	137
18	759	0.9	1.8	531	7.5	759	18	759	0.9	32	770	0.9	79.545	-S660	090-32	127
17	790	3.9	1.8	553	7.2	790	17	790	3.9	31	801	3.9	82.769	-S3100	090-32	146
17	815	2.5	1.7	571	7.0	815	17	815	2.5	30	827	2.5	85.468	-S2100	090-32	143
16	852	1.1	1.6	597	6.7	852	16	852	1.1	29	865	1.1	89.333	-S950	090-32	137
16	864	3.6	1.6	605	6.6	864	16	864	3.6	28	877	3.5	90.546	-S3100	090-32	146
16	885	4.2	1.6	620	6.5	885	16	885	4.2	27	899	4.2	92.825	-S4500	090-32	149

# g500-S shaft-mounted helical geared motors

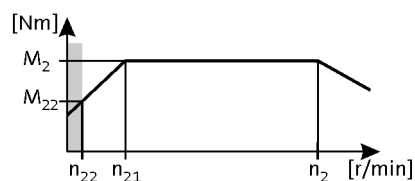


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
15	893	3.5	1.5	625	6.4	893	15	893	3.5	27	906	3.4	93.599	-S3100	090-32	146
15	936	2.2	1.5	655	6.1	936	15	936	2.2	26	950	2.2	98.095	-S2100	090-32	143
14	954	1.0	1.5	668	6.0	954	14	954	1.0	26	968	1.0	99.968	-S950	090-32	137
14	977	3.2	1.4	684	5.9	977	14	977	3.2	25	991	3.1	102.393	-S3100	090-32	146
14	988	4.2	1.4	692	5.8	1003	14	988	4.2	25	1003	4.2	103.619	-S4500	090-32	149
13	1040	2.0	1.3	728	5.5	1040	13	1040	2.0	23	1055	1.9	109.016	-S2100	090-32	143
13	1044	0.9	1.3	731	5.5	1044	13	1044	0.9	23	1060	0.9	109.433	-S950	090-32	137
12	1102	2.8	1.3	771	5.2	1102	12	1102	2.8	22	1118	2.8	115.492	-S3100	090-32	146
12	1146	1.8	1.2	803	5.0	1146	12	1146	1.8	21	1163	1.8	120.167	-S2100	090-32	143
12	1168	0.8	1.2	818	4.9	1168	12	1168	0.8				122.461	-S950	090-32	137
11	1246	2.5	1.1	872	4.6	1246	11	1246	2.5	20	1264	2.5	130.603	-S3100	090-32	146
11	1274	1.6	1.1	892	4.5	1274	11	1274	1.6	19	1293	1.6	133.544	-S2100	090-32	143
10	1350	2.3	1.0	945	4.2	1350	10	1350	2.3	18	1370	2.3	141.478	-S3100	090-32	146
9.7	1412	3.2	1.0	988	4.1	1412	9.7	1412	3.2	17	1433	3.1	148.005	-S4500	090-32	149
9.2	1492	1.4	0.9	1045	3.8	1492	9.2	1492	1.4	16	1514	1.4	156.407	-S2100	090-32	143
9.0	1526	2.0	0.9	1068	3.8	1526	9.0	1526	2.0	16	1549	2.0	159.989	-S3100	090-32	146
8.7	1576	2.9	0.9	1103	3.6	1576	8.7	1576	2.9	15	1600	2.8	165.215	-S4500	090-32	149
8.3	1658	1.2	0.8	1161	3.5	1658	8.3	1658	1.2	15	1683	1.2	173.820	-S2100	090-32	143
7.9	1730	2.6	0.8	1211	3.3	1730	7.9	1730	2.6	14	1756	2.6	181.396	-S4500	090-32	149
7.8	1757	1.8	0.8	1230	3.3	1757	7.8	1757	1.8	14	1783	1.7	184.146	-S3100	090-32	146
7.4	1856	1.1	0.7	1299	3.1	1856	7.4	1856	1.1	13	1884	1.1	194.556	-S2100	090-32	143
7.1	1932	2.3	0.7	1352	3.0	1932	7.1	1932	2.3	13	1960	2.3	202.489	-S4500	090-32	149
6.9	1986	1.6	0.7	1391	2.9	1986	6.9	1986	1.6	12	2016	1.5	208.240	-S3100	090-32	146
6.6	2063	1.0	0.7	1444	2.8	2063	6.6	2063	1.0	12	2093	1.0	216.215	-S2100	090-32	143
6.3	2185	1.4	0.6	1530	2.6	2185	6.3	2185	1.4	11	2218	1.4	229.059	-S3100	090-32	146
6.0	2273	2.0	0.6	1591	2.5	2273	6.0	2273	2.0	11	2307	2.0	238.252	-S4500	090-32	149
5.7	2402	0.9	0.6	1681	2.4	2402	5.7	2402	0.9	10	2438	0.8	251.778	-S2100	090-32	143
5.5	2471	1.3	0.6	1730	2.3	2471	5.5	2471	1.3	9.8	2508	1.2	259.030	-S3100	090-32	146
5.4	2537	1.8	0.5	1776	2.3	2537	5.4	2537	1.8	9.6	2575	1.8	265.956	-S4500	090-32	149
5.0	2758	1.6	0.5	1931	2.1	2758	5.0	2758	1.6	8.8	2800	1.6	289.151	-S4500	090-32	149
4.8	2828	1.1	0.5	1980	2.0	2828	4.8	2828	1.1	8.6	2870	1.1	296.430	-S3100	090-32	146
4.4	3079	1.5	0.4	2156	1.9	3079	4.4	3079	1.5	7.9	3125	1.4	322.773	-S4500	090-32	149
4.3	3198	1.0	0.4	2239	1.8	3198	4.3	3198	1.0	7.6	3245	1.0	335.215	-S3100	090-32	146
4.0	3432	0.9	0.4	2403	1.7	3432	4.0	3432	0.9	7.1	3483	0.9	359.758	-S3100	090-32	146
3.9	3487	1.1	0.4	2441	1.6	3487	3.9	3487	1.1	7.0	3539	1.1	365.500	-S4500	090-32	149



# g500-S shaft-mounted helical geared motors

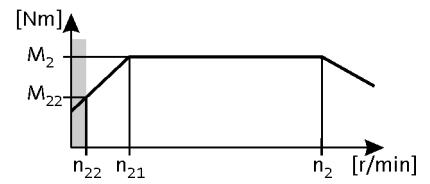
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5$  kW  
 87 Hz:  $P_N = 2.7$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
3.5	3892	1.1	0.4	2725	1.5	3892	3.5	3892	1.1	6.2	3950	1.1	408.000	-S4500	090-32	149

# g500-S shaft-mounted helical geared motors

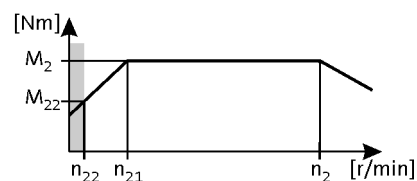


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
433	47	4.3	43	33	180	47	433	47	4.3	765	47	3.6	3.339	-S400	100-12	122
376	54	3.3	38	38	156	54	376	54	3.3	665	54	2.7	3.840	-S220	100-12	117
369	55	5.6	37	39	153	55	369	55	5.6				3.920	-S660	100-12	127
316	65	3.8	32	45	131	65	316	65	3.8	558	65	3.2	4.579	-S400	100-12	122
274	74	2.4	28	52	114	74	274	74	2.4	485	74	2.0	5.267	-S220	100-12	117
269	76	5.6	27	53	112	76	269	76	5.6	475	76	4.7	5.376	-S660	100-12	127
268	76	5.7	27	53	111	76	268	76	5.7	474	76	4.8	5.391	-S950	100-12	137
247	83	3.1	25	58	102	83	247	83	3.1	436	83	2.6	5.860	-S400	100-12	122
239	85	5.6	24	60	99	85	239	85	5.6	423	85	4.7	6.038	-S950	100-12	137
225	90	2.9	23	63	94	90	225	90	2.9	399	91	2.4	6.411	-S400	100-12	122
225	91	5.6	23	63	94	91	225	91	5.6				6.417	-S660	100-12	127
214	95	2.3	21	67	89	95	214	95	2.3				6.767	-S220	100-12	117
210	97	4.7	21	68	87	97	210	97	4.7	371	97	4.0	6.880	-S660	100-12	127
198	103	5.6	20	72	82	103	198	103	5.6				7.311	-S660	100-12	127
194	105	3.5	19	74	80	105	194	105	3.5	342	106	2.9	7.467	-S400	100-12	122
189	108	2.0	19	76	78	108	189	108	2.0				7.667	-S220	100-12	117
188	109	4.7	19	76	78	109	188	109	4.7	332	109	3.9	7.702	-S950	100-12	137
175	117	5.7	18	82	73	117	175	117	5.7	309	117	4.8	8.272	-S2100	100-12	143
171	119	3.2	17	83	71	119	171	119	3.2	303	119	2.7	8.436	-S400	100-12	122
164	124	5.1	17	87	68	124	164	124	5.1	290	124	4.3	8.800	-S660	100-12	127
162	126	5.7	16	88	67	126	162	126	5.7	287	126	4.8	8.917	-S3100	100-12	146
156	131	1.7	16	91	65	131	156	131	1.7				9.280	-S220	100-12	117
144	141	4.4	15	99	60	141	144	141	4.4	255	142	3.7	10.027	-S660	100-12	127
141	144	2.8	14	101	59	144	141	144	2.8	250	145	2.3	10.240	-S400	100-12	122
137	148	1.5	14	104	57	148	137	148	1.5				10.514	-S220	100-12	117
129	158	5.7	13	110	54	158	129	158	5.7	228	158	4.8	11.200	-S950	100-12	137
128	159	4.2	13	111	53	159	128	159	4.2	227	159	3.5	11.262	-S660	100-12	127
125	163	2.5	13	114	52	163	125	163	2.5	221	164	2.1	11.569	-S400	100-12	122
122	168	1.3	12	117	51	168	122	168	1.3				11.876	-S220	100-12	117
117	174	3.8	12	121	49	174	117	174	3.8	207	174	3.2	12.320	-S660	100-12	127
115	177	5.4	12	124	48	177	115	177	5.4	204	177	4.5	12.544	-S950	100-12	137
113	181	3.7	11	126	47	181	113	181	3.7	199	181	3.1	12.832	-S660	100-12	127
111	183	1.2	11	128	46	183	111	183	1.2				12.992	-S220	100-12	117
110	185	2.2	11	129	46	185	110	185	2.2	195	185	1.8	13.105	-S400	100-12	122
107	190	1.2	11	133	45	190	107	190	1.2				13.456	-S220	100-12	117

# g500-S shaft-mounted helical geared motors

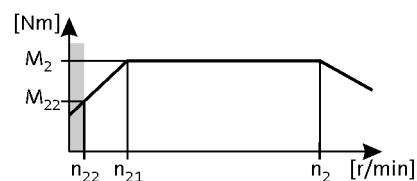


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
103	198	3.3	10	138	43	198	103	198	3.3	182	199	2.8	14.037	-S660	100-12	127
103	198	4.8	10	138	43	198	103	198	4.8	182	199	4.0	14.037	-S950	100-12	137
101	202	2.0	10	141	42	202	101	202	2.0	178	203	1.7	14.336	-S400	100-12	122
98	208	1.1	9.9	145	41	208	98	208	1.1				14.720	-S220	100-12	117
98	209	1.9	9.8	146	41	209	98	209	1.9	173	209	1.6	14.806	-S400	100-12	122
92	222	3.0	9.2	155	38	222	92	222	3.0	163	222	2.5	15.714	-S660	100-12	127
90	226	4.2	9.1	158	38	226	90	226	4.2	160	226	3.5	16.000	-S950	100-12	137
89	228	1.8	9.0	160	37	228	89	228	1.8	158	229	1.5	16.197	-S400	100-12	122
87	234	0.9	8.8	163	36	234	87	234	0.9				16.571	-S220	100-12	117
85	240	5.7	8.5	168	35	240	85	240	5.7	150	241	4.8	17.022	-S2100	100-12	143
81	253	2.6	8.1	176	34	253	81	253	2.6	143	253	2.2	17.905	-S660	100-12	127
81	253	3.8	8.1	176	34	253	81	253	3.8	143	253	3.1	17.905	-S950	100-12	137
79	258	1.6	7.9	180	33	258	79	258	1.6	140	259	1.5	18.286	-S400	100-12	122
77	265	0.8	7.7	185	32	265	77	265	0.8				18.776	-S220	100-12	117
76	267	5.7	7.7	186	32	267	76	267	5.7	135	268	5.4	18.917	-S2100	100-12	143
75	272	2.4	7.5	190	31	272	75	272	2.4	133	272	2.3	19.250	-S660	100-12	127
74	276	3.4	7.4	193	31	276	74	276	3.4	130	277	3.3	19.600	-S950	100-12	137
72	283	5.7	7.2	197	30	283	72	283	5.7	128	283	5.4	20.041	-S3100	100-12	146
70	291	1.4	7.0	203	29	291	70	291	1.4	124	292	1.3	20.659	-S400	100-12	122
66	309	2.1	6.6	216	27	309	66	309	2.1	117	310	2.0	21.933	-S660	100-12	127
66	309	3.1	6.6	216	27	309	66	309	3.1	117	310	2.9	21.933	-S950	100-12	137
65	316	1.3	6.5	221	27	316	65	316	1.3	114	317	1.2	22.400	-S400	100-12	122
64	320	5.7	6.4	223	27	320	64	320	5.7	113	321	5.4	22.663	-S3100	100-12	146
58	353	1.6	5.8	247	24	353	58	353	1.6	102	354	1.6	25.056	-S660	100-12	127
57	357	1.1	5.7	249	24	357	57	357	1.1	101	358	1.1	25.308	-S400	100-12	122
57	360	2.6	5.7	251	24	360	57	360	2.6	100	361	2.5	25.511	-S950	100-12	137
51	399	4.1	5.1	278	21	399	51	399	4.1	90	400	3.9	28.275	-S2100	100-12	143
51	403	1.6	5.1	281	21	403	51	403	1.6	90	404	1.6	28.548	-S660	100-12	127
51	403	2.4	5.1	281	21	403	51	403	2.4	90	404	2.2	28.548	-S950	100-12	137
46	440	1.5	4.7	307	19	440	46	440	1.5	82	441	1.5	31.167	-S660	100-12	127
46	441	2.2	4.6	308	19	441	46	441	2.2	82	442	2.2	31.267	-S950	100-12	137
46	443	4.1	4.6	309	19	443	46	443	4.1	81	444	4.1	31.422	-S2100	100-12	143
43	470	4.1	4.4	328	18	470	43	470	4.1	77	471	4.1	33.289	-S3100	100-12	146
42	484	3.5	4.2	338	18	484	42	484	3.5	74	486	3.5	34.333	-S2100	100-12	143
41	494	1.9	4.1	345	17	494	41	494	1.9	73	495	1.9	34.989	-S950	100-12	137

# g500-S shaft-mounted helical geared motors

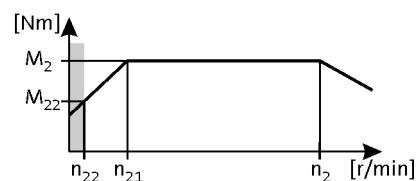


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
41	501	1.3	4.1	350	17	501	41	501	1.3	72	502	1.3	35.511	-S660	100-12	127
38	531	4.1	3.9	371	16	531	38	531	4.1	68	532	4.1	37.644	-S3100	100-12	146
38	538	3.5	3.8	376	16	538	38	538	3.5	67	540	3.5	38.156	-S2100	100-12	143
36	570	3.5	3.6	398	15	570	36	570	3.5	63	572	3.5	40.422	-S3100	100-12	146
35	579	1.6	3.5	404	15	579	35	579	1.6	62	581	1.6	41.067	-S950	100-12	137
34	593	3.5	3.4	414	14	593	34	593	3.5	61	595	3.5	42.044	-S4500	100-12	149
33	627	2.8	3.3	438	14	627	33	627	2.8	58	628	2.8	44.431	-S2100	100-12	143
32	645	3.5	3.2	450	13	645	32	645	3.5	56	646	3.5	45.711	-S3100	100-12	146
31	648	1.5	3.2	453	13	648	31	648	1.5	56	650	1.5	45.956	-S950	100-12	137
31	662	3.5	3.1	462	13	662	31	662	3.5	54	664	3.5	46.933	-S4500	100-12	149
29	697	2.8	2.9	486	12	697	29	697	2.8	52	698	2.8	49.378	-S2100	100-12	143
29	703	1.3	2.9	491	12	703	29	703	1.3	51	705	1.3	49.840	-S950	100-12	137
28	720	2.9	2.8	503	12	720	28	720	2.9	50	722	2.9	51.027	-S4500	100-12	149
28	738	2.8	2.8	515	12	738	28	738	2.8	49	740	2.8	52.311	-S3100	100-12	146
27	761	2.3	2.7	531	11	761	27	761	2.3	47	763	2.3	53.924	-S2100	100-12	143
26	787	1.2	2.6	549	11	787	26	787	1.2	46	789	1.2	55.773	-S950	100-12	137
25	803	2.9	2.5	561	11	803	25	803	2.9	45	806	2.9	56.960	-S4500	100-12	149
24	834	2.8	2.5	583	10	834	24	834	2.8	43	837	2.8	59.156	-S3100	100-12	146
24	845	2.3	2.4	590	10	845	24	845	2.3	43	847	2.3	59.927	-S2100	100-12	143
23	896	2.3	2.3	625	9.5	896	23	896	2.3	40	898	2.3	63.487	-S3100	100-12	146
22	910	2.3	2.2	635	9.3	910	22	910	2.3	40	912	2.3	64.500	-S4500	100-12	149
21	961	1.5	2.1	671	8.8	961	21	961	1.5	38	964	1.5	68.162	-S2100	100-12	143
20	1013	2.3	2.0	707	8.4	1013	20	1013	2.3	36	1015	2.3	71.793	-S3100	100-12	146
20	1016	2.3	2.0	709	8.3	1016	20	1016	2.3	36	1018	2.3	72.000	-S4500	100-12	149
19	1069	1.5	1.9	746	7.9	1069	19	1069	1.5	34	1071	1.5	75.750	-S2100	100-12	143

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
36	557	3.5	3.6	389	15	557	36	557	3.5	64	558	2.9	40.056	-S2100	100-12	143
33	618	3.3	3.3	432	14	618	33	618	3.3	57	620	2.8	44.515	-S2100	100-12	143
31	655	4.5	3.1	457	13	655	31	655	4.5	54	657	3.8	47.159	-S3100	100-12	146
29	695	1.4	2.9	485	12	695	29	695	1.4	51	697	1.3	50.027	-S950	100-12	137
27	741	4.1	2.7	517	11	741	27	741	4.1	48	743	3.9	53.330	-S3100	100-12	146
26	763	2.7	2.6	533	11	763	26	763	2.7	47	765	2.6	54.933	-S2100	100-12	143
26	778	1.2	2.6	543	11	778	26	778	1.2	46	780	1.2	55.982	-S950	100-12	137
24	848	2.4	2.4	592	9.8	848	24	848	2.4	42	850	2.3	61.049	-S2100	100-12	143
23	890	1.1	2.3	621	9.4	890	23	890	1.1	40	892	1.0	64.022	-S950	100-12	137
22	899	3.5	2.2	627	9.3	899	22	899	3.5	40	901	3.3	64.676	-S3100	100-12	146

# g500-S shaft-mounted helical geared motors

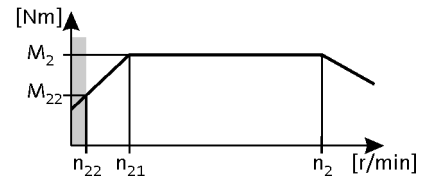


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
22	903	5.0	2.2	630	9.2	903	22	903	5.0	39	905	4.7	64.978	-S4500	100-12	149
21	973	1.0	2.1	679	8.6	973	21	973	1.0	37	976	1.0	70.037	-S950	100-12	137
21	977	2.1	2.1	682	8.5	977	21	977	2.1	36	979	2.1	70.302	-S2100	100-12	143
20	995	1.0	2.0	695	8.4	995	20	995	1.0	36	998	1.0	71.644	-S950	100-12	137
20	1008	4.5	2.0	704	8.3	1008	20	1008	4.5	35	1010	4.5	72.533	-S4500	100-12	149
20	1011	4.5	2.0	706	8.2	1011	20	1011	4.5	35	1014	4.4	72.775	-S4500	100-12	149
20	1016	3.1	2.0	709	8.2	1016	20	1016	3.1	35	1019	3.0	73.138	-S3100	100-12	146
19	1069	1.9	1.9	746	7.8	1069	19	1069	1.9	33	1071	1.9	76.907	-S2100	100-12	143
19	1086	1.9	1.9	758	7.7	1086	19	1086	1.9	33	1088	1.9	78.128	-S2100	100-12	143
18	1089	0.9	1.9	760	7.7	1089	18	1089	0.9	33	1092	0.9	78.375	-S950	100-12	137
18	1129	4.0	1.8	788	7.4	1129	18	1129	4.0	32	1132	4.0	81.237	-S4500	100-12	149
18	1150	2.7	1.8	803	7.2	1150	18	1150	2.7	31	1153	2.7	82.769	-S3100	100-12	146
17	1188	1.7	1.7	829	7.0	1188	17	1188	1.7	30	1191	1.7	85.468	-S2100	100-12	143
16	1258	2.5	1.6	878	6.6	1258	16	1258	2.5	28	1261	2.5	90.546	-S3100	100-12	146
16	1290	3.5	1.6	900	6.5	1290	16	1290	3.5	28	1293	3.5	92.825	-S4500	100-12	149
15	1300	2.4	1.5	908	6.4	1300	15	1300	2.4	27	1304	2.4	93.599	-S3100	100-12	146
15	1363	1.5	1.5	952	6.1	1363	15	1363	1.5	26	1366	1.5	98.095	-S2100	100-12	143
14	1423	2.2	1.4	993	5.9	1423	14	1423	2.2	25	1426	2.2	102.393	-S3100	100-12	146
14	1440	3.1	1.4	1005	5.8	1440	14	1440	3.1	25	1443	3.1	103.619	-S4500	100-12	149
13	1515	1.4	1.3	1058	5.5	1515	13	1515	1.4	23	1519	1.4	109.016	-S2100	100-12	143
13	1580	2.9	1.3	1103	5.3	1580	13	1580	2.9	23	1584	2.8	113.711	-S4500	100-12	149
13	1605	1.9	1.3	1120	5.2	1605	13	1605	1.9	22	1609	1.9	115.492	-S3100	100-12	146
12	1670	1.2	1.2	1166	5.0	1670	12	1670	1.2	21	1674	1.2	120.167	-S2100	100-12	143
11	1764	2.6	1.1	1231	4.7	1764	11	1764	2.6	20	1768	2.5	126.933	-S4500	100-12	149
11	1815	1.7	1.1	1267	4.6	1815	11	1815	1.7	20	1819	1.7	130.603	-S3100	100-12	146
11	1855	1.1	1.1	1295	4.5	1855	11	1855	1.1	19	1860	1.1	133.544	-S2100	100-12	143
10	1966	1.6	1.0	1372	4.2	1966	10	1966	1.6	18	1971	1.6	141.478	-S3100	100-12	146
9.8	2056	2.2	1.0	1436	4.1	2056	9.8	2056	2.2	17	2062	2.2	148.005	-S4500	100-12	149
9.2	2173	0.9	0.9	1517	3.8	2173	9.2	2173	0.9	16	2179	0.9	156.407	-S2100	100-12	143
9.0	2223	1.4	0.9	1552	3.8	2223	9.0	2223	1.4	16	2229	1.4	159.989	-S3100	100-12	146
8.7	2296	2.0	0.9	1603	3.6	2296	8.7	2296	2.0	16	2301	2.0	165.215	-S4500	100-12	149
8.3	2415	0.9	0.8	1686	3.5	2415	8.3	2415	0.9	15	2421	0.9	173.820	-S2100	100-12	143
8.0	2520	1.8	0.8	1760	3.3	2520	8.0	2520	1.8	14	2527	1.8	181.396	-S4500	100-12	149
7.8	2559	1.2	0.8	1786	3.3	2559	7.8	2559	1.2	14	2565	1.2	184.146	-S3100	100-12	146
7.1	2813	1.6	0.7	1964	3.0	2813	7.1	2813	1.6	13	2821	1.6	202.489	-S4500	100-12	149

# g500-S shaft-mounted helical geared motors

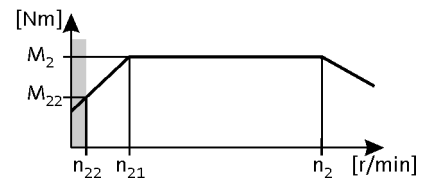
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
6.9	2893	1.1	0.7	2020	2.9	2893	6.9	2893	1.1	12	2901	1.1	208.240	-S3100	100-12	146
6.3	3183	1.0	0.6	2222	2.6	3183	6.3	3183	1.0	11	3191	1.0	229.059	-S3100	100-12	146
6.1	3310	1.4	0.6	2311	2.5	3310	6.1	3310	1.4	11	3319	1.4	238.252	-S4500	100-12	149
5.6	3599	0.9	0.6	2513	2.3	3599	5.6	3599	0.9	9.9	3608	0.9	259.030	-S3100	100-12	146
5.4	3695	1.2	0.5	2580	2.3	3695	5.4	3695	1.2	9.6	3705	1.2	265.956	-S4500	100-12	149
5.0	4018	1.1	0.5	2805	2.1	4018	5.0	4018	1.1	8.8	4028	1.1	289.151	-S4500	100-12	149
4.5	4485	1.0	0.4	3131	1.9	4485	4.5	4485	1.0	7.9	4496	1.0	322.773	-S4500	100-12	149

# g500-S shaft-mounted helical geared motors

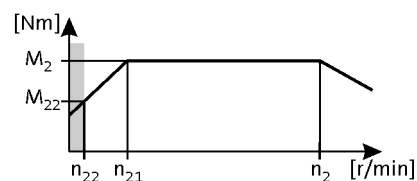


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
433	64	3.2	43	45	180	64	433	64	3.2	765	65	2.6	3.339	-S400	100-32	122
376	74	2.4	38	52	156	74	376	74	2.4				3.840	-S220	100-32	117
369	75	4.1	37	53	153	75	369	75	4.1				3.920	-S660	100-32	127
316	88	2.8	32	62	131	88	316	88	2.8	558	90	2.3	4.579	-S400	100-32	122
274	101	1.8	28	71	114	101	274	101	1.8				5.267	-S220	100-32	117
269	103	4.1	27	72	112	103	269	103	4.1	475	105	3.4	5.376	-S660	100-32	127
268	104	4.2	27	73	111	104	268	104	4.2	474	106	3.4	5.391	-S950	100-32	137
247	113	2.3	25	79	102	113	247	113	2.3	436	115	1.9	5.860	-S400	100-32	122
239	116	4.1	24	81	99	116	239	116	4.1	423	118	3.4	6.038	-S950	100-32	137
225	123	2.1	23	86	94	123	225	123	2.1	399	126	1.7	6.411	-S400	100-32	122
225	123	4.1	23	86	94	123	225	123	4.1				6.417	-S660	100-32	127
214	130	1.7	21	91	89	130	214	130	1.7				6.767	-S220	100-32	117
210	132	3.5	21	93	87	132	210	132	3.5	371	135	2.9	6.880	-S660	100-32	127
198	141	4.1	20	98	82	141	198	141	4.1				7.311	-S660	100-32	127
194	144	2.5	19	100	80	144	194	144	2.5				7.467	-S400	100-32	122
189	147	1.5	19	103	78	147	189	147	1.5				7.667	-S220	100-32	117
188	148	3.5	19	104	78	148	188	148	3.5	332	151	2.8	7.702	-S950	100-32	137
175	159	4.2	18	111	73	159	175	159	4.2	309	162	3.4	8.272	-S2100	100-32	143
171	162	2.3	17	113	71	162	171	162	2.3				8.436	-S400	100-32	122
164	169	3.8	17	118	68	169	164	169	3.8	290	172	3.1	8.800	-S660	100-32	127
162	172	4.2	16	120	67	172	162	172	4.2	287	175	3.4	8.917	-S3100	100-32	146
156	179	1.2	16	125	65	179	156	179	1.2				9.280	-S220	100-32	117
144	193	3.2	15	135	60	193	144	193	3.2	255	196	2.7	10.027	-S660	100-32	127
141	197	2.0	14	138	59	197	141	197	2.0	250	201	1.7	10.240	-S400	100-32	122
137	202	1.1	14	141	57	202	137	202	1.1				10.514	-S220	100-32	117
129	215	4.2	13	151	54	215	129	215	4.2	228	219	3.4	11.200	-S950	100-32	137
128	217	3.1	13	151	53	217	128	217	3.1	227	221	2.5	11.262	-S660	100-32	127
125	223	1.8	13	156	52	223	125	223	1.8				11.569	-S400	100-32	122
122	228	1.0	12	160	51	228	122	228	1.0				11.876	-S220	100-32	117
117	237	2.8	12	166	49	237	117	237	2.8	207	241	2.3	12.320	-S660	100-32	127
115	241	3.9	12	169	48	241	115	241	3.9	204	246	3.2	12.544	-S950	100-32	137
113	247	2.7	11	173	47	247	113	247	2.7	199	251	2.2	12.832	-S660	100-32	127
111	250	0.9	11	175	46	250	111	250	0.9				12.992	-S220	100-32	117
110	252	1.6	11	176	46	252	110	252	1.6	195	257	1.3	13.105	-S400	100-32	122
107	259	0.9	11	181	45	259	107	259	0.9				13.456	-S220	100-32	117

# g500-S shaft-mounted helical geared motors

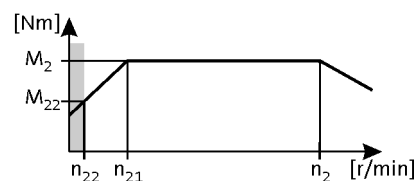


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
103	270	2.4	10	189	43	270	103	270	2.4	182	275	2.0	14.037	-S660	100-32	127
103	270	3.5	10	189	43	270	103	270	3.5	182	275	2.9	14.037	-S950	100-32	137
101	276	1.5	10	193	42	276	101	276	1.5	178	281	1.2	14.336	-S400	100-32	122
98	285	1.4	9.8	199	41	285	98	285	1.4				14.806	-S400	100-32	122
92	302	2.2	9.2	211	38	302	92	302	2.2	163	308	1.8	15.714	-S660	100-32	127
90	308	3.1	9.1	215	38	308	90	308	3.1	160	313	2.5	16.000	-S950	100-32	137
89	312	1.3	9.0	218	37	312	89	312	1.3	158	317	1.1	16.197	-S400	100-32	122
85	327	4.2	8.5	229	35	327	85	327	4.2	150	333	3.4	17.022	-S2100	100-32	143
81	344	1.9	8.1	241	34	344	81	344	1.9	143	351	1.6	17.905	-S660	100-32	127
81	344	2.8	8.1	241	34	344	81	344	2.8	143	351	2.3	17.905	-S950	100-32	137
79	352	1.1	7.9	246	33	352	79	352	1.1	140	358	1.1	18.286	-S400	100-32	122
76	364	4.2	7.7	254	32	364	76	364	4.2	135	370	3.9	18.917	-S2100	100-32	143
75	370	1.8	7.5	259	31	370	75	370	1.8	133	377	1.7	19.250	-S660	100-32	127
74	377	2.5	7.4	264	31	377	74	377	2.5	130	384	2.4	19.600	-S950	100-32	137
72	385	4.2	7.2	270	30	385	72	385	4.2	128	392	3.9	20.041	-S3100	100-32	146
70	397	1.0	7.0	278	29	397	70	397	1.0	124	405	0.9	20.659	-S400	100-32	122
66	422	1.6	6.6	295	27	422	66	422	1.6	117	429	1.5	21.933	-S660	100-32	127
66	422	2.3	6.6	295	27	422	66	422	2.3	117	429	2.1	21.933	-S950	100-32	137
65	431	0.9	6.5	301	27	431	65	431	0.9	114	439	0.9	22.400	-S400	100-32	122
64	436	4.2	6.4	305	27	436	64	436	4.2	113	444	3.9	22.663	-S3100	100-32	146
58	482	1.2	5.8	337	24	482	58	482	1.2	102	491	1.1	25.056	-S660	100-32	127
57	487	0.8	5.7	340	24	487	57	487	0.8				25.308	-S400	100-32	122
57	491	1.9	5.7	343	24	491	57	491	1.9	100	500	1.8	25.511	-S950	100-32	137
51	544	3.0	5.1	380	21	544	51	544	3.0	90	554	2.8	28.275	-S2100	100-32	143
51	549	1.2	5.1	384	21	549	51	549	1.2	90	559	1.1	28.548	-S660	100-32	127
51	549	1.7	5.1	384	21	549	51	549	1.7	90	559	1.6	28.548	-S950	100-32	137
46	599	1.1	4.7	419	19	599	46	599	1.1	82	610	1.1	31.167	-S660	100-32	127
46	601	1.6	4.6	421	19	601	46	601	1.6	82	612	1.6	31.267	-S950	100-32	137
46	604	3.0	4.6	423	19	604	46	604	3.0	81	615	2.9	31.422	-S2100	100-32	143
43	640	3.0	4.4	448	18	640	43	640	3.0	77	652	2.9	33.289	-S3100	100-32	146
42	660	2.5	4.2	462	18	660	42	660	2.5	74	672	2.5	34.333	-S2100	100-32	143
41	673	1.4	4.1	471	17	673	41	673	1.4	73	685	1.4	34.989	-S950	100-32	137
41	683	1.0	4.1	478	17	683	41	683	1.0	72	695	1.0	35.511	-S660	100-32	127
38	724	3.0	3.9	506	16	724	38	724	3.0	68	737	2.9	37.644	-S3100	100-32	146
38	734	2.5	3.8	513	16	734	38	734	2.5	67	747	2.5	38.156	-S2100	100-32	143



# g500-S shaft-mounted helical geared motors

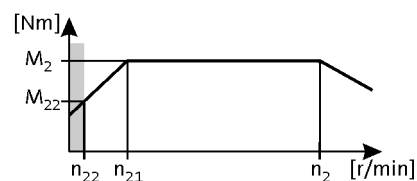


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
36	778	2.5	3.6	544	15	778	36	778	2.5	63	792	2.5	40.422	-S3100	100-32	146
35	790	1.2	3.5	552	15	790	35	790	1.2	62	804	1.2	41.067	-S950	100-32	137
34	809	2.5	3.4	565	14	809	34	809	2.5	61	823	2.5	42.044	-S4500	100-32	149
33	855	2.0	3.3	598	14	855	33	855	2.0	58	870	2.0	44.431	-S2100	100-32	143
32	879	2.5	3.2	615	13	879	32	879	2.5	56	895	2.5	45.711	-S3100	100-32	146
31	884	1.1	3.2	618	13	884	31	884	1.1	56	900	1.1	45.956	-S950	100-32	137
31	903	2.5	3.1	631	13	903	31	903	2.5	54	919	2.5	46.933	-S4500	100-32	149
29	950	2.0	2.9	664	12	950	29	950	2.0	52	967	2.0	49.378	-S2100	100-32	143
29	959	1.0	2.9	670	12	959	29	959	1.0	51	976	1.0	49.840	-S950	100-32	137
28	982	2.1	2.8	686	12	982	28	982	2.1	50	999	2.1	51.027	-S4500	100-32	149
28	1006	2.0	2.8	703	12	1006	28	1006	2.0	49	1024	2.0	52.311	-S3100	100-32	146
27	1037	1.7	2.7	725	11	1037	27	1037	1.7	47	1056	1.7	53.924	-S2100	100-32	143
26	1073	0.9	2.6	750	11	1073	26	1073	0.9	46	1092	0.9	55.773	-S950	100-32	137
25	1096	2.1	2.5	766	11	1096	25	1096	2.1	45	1115	2.1	56.960	-S4500	100-32	149
24	1138	2.0	2.5	796	10	1138	24	1138	2.0	43	1158	2.0	59.156	-S3100	100-32	146
24	1153	1.7	2.4	806	10	1153	24	1153	1.7	43	1173	1.7	59.927	-S2100	100-32	143
23	1221	1.7	2.3	854	9.5	1221	23	1221	1.7	40	1243	1.7	63.487	-S3100	100-32	146
22	1241	1.7	2.2	867	9.3	1241	22	1241	1.7	40	1263	1.7	64.500	-S4500	100-32	149
21	1311	1.1	2.1	917	8.8	1311	21	1311	1.1	38	1335	1.1	68.162	-S2100	100-32	143
20	1381	1.7	2.0	965	8.4	1381	20	1381	1.7	36	1406	1.7	71.793	-S3100	100-32	146
20	1385	1.7	2.0	968	8.3	1385	20	1385	1.7	36	1410	1.7	72.000	-S4500	100-32	149
19	1457	1.1	1.9	1019	7.9	1457	19	1457	1.1	34	1483	1.1	75.750	-S2100	100-32	143

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
36	759	2.6	3.6	531	15	759	36	759	2.6	64	773	2.1	40.056	-S2100	100-32	143
33	843	2.4	3.3	590	14	843	33	843	2.4	57	859	2.0	44.515	-S2100	100-32	143
31	894	3.3	3.1	625	13	894	31	894	3.3	54	910	2.7	47.159	-S3100	100-32	146
29	948	1.0	2.9	663	12	948	29	948	1.0				50.027	-S950	100-32	137
27	1010	3.0	2.7	706	11	1010	27	1010	3.0	48	1029	2.8	53.330	-S3100	100-32	146
26	1041	2.0	2.6	728	11	1041	26	1041	2.0	47	1060	1.8	54.933	-S2100	100-32	143
26	1061	0.9	2.6	742	11	1061	26	1061	0.9				55.982	-S950	100-32	137
24	1157	1.8	2.4	809	9.8	1157	24	1157	1.8	42	1177	1.7	61.049	-S2100	100-32	143
22	1225	2.5	2.2	857	9.3	1225	22	1225	2.5	40	1247	2.4	64.676	-S3100	100-32	146
22	1231	3.7	2.2	861	9.2	1231	22	1231	3.7	39	1253	3.4	64.978	-S4500	100-32	149
21	1332	1.5	2.1	931	8.5	1332	21	1332	1.5	36	1356	1.5	70.302	-S2100	100-32	143
20	1374	3.3	2.0	961	8.3	1374	20	1374	3.3	35	1399	3.2	72.533	-S4500	100-32	149
20	1379	3.3	2.0	964	8.2	1379	20	1379	3.3	35	1404	3.2	72.775	-S4500	100-32	149

# g500-S shaft-mounted helical geared motors

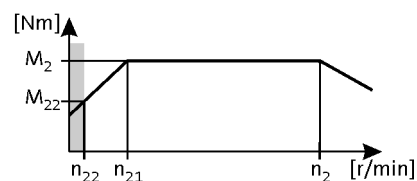


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
87 Hz:  $P_N = 5.4 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
20	1386	2.2	2.0	969	8.2	1386	20	1386	2.2	35	1411	2.2	73.138	-S3100	100-32	146
19	1457	1.4	1.9	1019	7.8	1457	19	1457	1.4	33	1483	1.4	76.907	-S2100	100-32	143
19	1480	1.4	1.9	1035	7.7	1480	19	1480	1.4	33	1507	1.4	78.128	-S2100	100-32	143
18	1539	2.9	1.8	1076	7.4	1539	18	1539	2.9	32	1567	2.9	81.237	-S4500	100-32	149
18	1568	2.0	1.8	1096	7.2	1568	18	1568	2.0	31	1596	1.9	82.769	-S3100	100-32	146
17	1619	1.3	1.7	1132	7.0	1619	17	1619	1.3	30	1648	1.2	85.468	-S2100	100-32	143
16	1716	1.8	1.6	1199	6.6	1716	16	1716	1.8	28	1746	1.8	90.546	-S3100	100-32	146
16	1759	2.6	1.6	1230	6.5	1759	16	1759	2.6	28	1790	2.5	92.825	-S4500	100-32	149
15	1773	1.8	1.5	1240	6.4	1773	15	1773	1.8	27	1805	1.7	93.599	-S3100	100-32	146
15	1859	1.1	1.5	1299	6.1	1859	15	1859	1.1	26	1892	1.1	98.095	-S2100	100-32	143
14	1940	1.6	1.4	1356	5.9	1940	14	1940	1.6	25	1975	1.6	102.393	-S3100	100-32	146
14	1963	2.3	1.4	1373	5.8	1963	14	1963	2.3	25	1999	2.3	103.619	-S4500	100-32	149
13	2065	1.0	1.3	1444	5.5	2065	13	2065	1.0	23	2103	1.0	109.016	-S2100	100-32	143
13	2154	2.1	1.3	1506	5.3	2154	13	2154	2.1	23	2193	2.1	113.711	-S4500	100-32	149
13	2188	1.4	1.3	1530	5.2	2188	13	2188	1.4	22	2228	1.4	115.492	-S3100	100-32	146
12	2277	0.9	1.2	1592	5.0	2277	12	2277	0.9	21	2318	0.9	120.167	-S2100	100-32	143
11	2405	1.9	1.1	1681	4.7	2405	11	2405	1.9	20	2448	1.8	126.933	-S4500	100-32	149
11	2474	1.3	1.1	1730	4.6	2474	11	2474	1.3	20	2519	1.2	130.603	-S3100	100-32	146
11	2530	0.8	1.1	1769	4.5	2530	11	2530	0.8				133.544	-S2100	100-32	143
10	2681	1.2	1.0	1874	4.2	2681	10	2681	1.2	18	2729	1.1	141.478	-S3100	100-32	146
9.8	2804	1.6	1.0	1960	4.1	2804	9.8	2804	1.6	17	2855	1.6	148.005	-S4500	100-32	149
9.0	3031	1.0	0.9	2119	3.8	3031	9.0	3031	1.0	16	3086	1.0	159.989	-S3100	100-32	146
8.7	3130	1.4	0.9	2188	3.6	3130	8.7	3130	1.4	16	3187	1.4	165.215	-S4500	100-32	149
8.0	3437	1.3	0.8	2403	3.3	3437	8.0	3437	1.3	14	3499	1.3	181.396	-S4500	100-32	149
7.8	3489	0.9	0.8	2439	3.3	3489	7.8	3489	0.9	14	3552	0.9	184.146	-S3100	100-32	146
7.1	3836	1.2	0.7	2682	3.0	3836	7.1	3836	1.2	13	3906	1.2	202.489	-S4500	100-32	149
6.1	4514	1.0	0.6	3156	2.5	4514	6.1	4514	1.0	11	4595	1.0	238.252	-S4500	100-32	149
5.4	5039	0.9	0.5	3523	2.3	5039	5.4	5039	0.9	9.6	5130	0.9	265.956	-S4500	100-32	149
5.0	5478	0.8	0.5	3830	2.1	5478	5.0	5478	0.8	8.8	5577	0.8	289.151	-S4500	100-32	149

# g500-S shaft-mounted helical geared motors

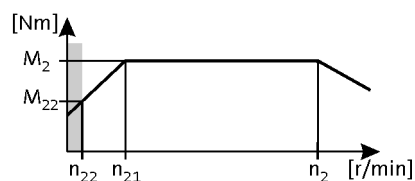


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
436	85	2.4	43	53	180	85	436	85	2.4				3.339	-S400	112-22	122	
371	100	3.4	37	63	153	100	371	100	3.4				3.920	-S660	112-22	127	
332	112	4.2	33	70	137	112	332	112	4.2				4.380	-S950	112-22	137	
318	117	2.1	32	73	131	117	318	117	2.1	560	117	1.7	4.579	-S400	112-22	122	
271	137	3.4	27	86	112	137	271	137	3.4	477	138	2.8	5.376	-S660	112-22	127	
270	137	3.7	27	86	111	137	270	137	3.7				5.391	-S950	112-22	137	
248	149	1.7	25	94	102	149	248	149	1.7	438	150	1.4	5.860	-S400	112-22	122	
241	154	4.8	24	96	100	154	241	154	4.8				6.029	-S2100	112-22	143	
241	154	3.4	24	96	99	154	241	154	3.4	425	155	2.8	6.038	-S950	112-22	137	
227	163	1.6	23	102	94	163	227	163	1.6	400	164	1.3	6.411	-S400	112-22	122	
227	163	3.4	23	102	94	163	227	163	3.4				6.417	-S660	112-22	127	
224	166	4.8	22	104	92	166	224	166	4.8				6.499	-S3100	112-22	146	
212	175	4.4	21	110	87	175	212	175	4.4				6.870	-S2100	112-22	143	
212	175	2.8	21	110	87	175	212	175	2.8	373	176	2.4	6.880	-S660	112-22	127	
199	186	3.2	20	117	82	186	199	186	3.2				7.311	-S660	112-22	127	
197	189	4.4	20	118	81	189	197	189	4.4				7.406	-S3100	112-22	146	
195	190	1.9	19	119	80	190	195	190	1.9				7.467	-S400	112-22	122	
189	196	2.6	19	123	78	196	189	196	2.6	333	198	2.1	7.702	-S950	112-22	137	
176	211	3.8	18	132	73	211	176	211	3.8	310	212	3.2	8.272	-S2100	112-22	143	
173	215	1.8	17	135	71	215	173	215	1.8				8.436	-S400	112-22	122	
165	224	2.9	17	140	68	224	165	224	2.9				8.800	-S660	112-22	127	
163	227	3.8	16	142	67	227	163	227	3.8	288	229	3.2	8.917	-S3100	112-22	146	
160	232	4.1	16	145	66	232	160	232	4.1				9.100	-S950	112-22	137	
145	255	2.5	15	160	60	255	145	255	2.5				10.027	-S660	112-22	127	
143	259	3.7	14	162	59	259	143	259	3.7				10.183	-S950	112-22	137	
142	261	1.5	14	163	59	261	142	261	1.5				10.240	-S400	112-22	122	
133	278	3.3	13	174	55	278	133	278	3.3	235	280	2.7	10.932	-S3100	112-22	146	
130	285	3.3	13	179	54	285	130	285	3.3				11.200	-S950	112-22	137	
129	287	2.3	13	180	53	287	129	287	2.3	228	289	1.9	11.262	-S660	112-22	127	
126	295	1.4	13	185	52	295	126	295	1.4				11.569	-S400	112-22	122	
118	314	2.1	12	197	49	314	118	314	2.1	208	316	1.8	12.320	-S660	112-22	127	
117	316	4.8	12	198	48	316	117	316	4.8				12.406	-S2100	112-22	143	
116	320	3.0	12	200	48	320	116	320	3.0				12.544	-S950	112-22	137	
113	327	2.0	11	205	47	327	113	327	2.0	200	329	1.7	12.832	-S660	112-22	127	
111	334	1.2	11	209	46	334	111	334	1.2				13.105	-S400	112-22	122	

# g500-S shaft-mounted helical geared motors

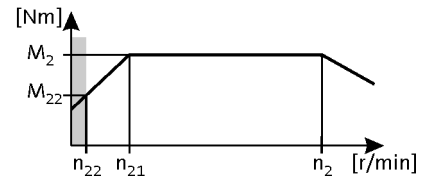
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0 \text{ kW}$   
87 Hz:  $P_N = 7.1 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
106	351	4.8	11	220	44	351	106	351	4.8				13.787	-S2100	112-22	143
104	358	1.9	10	224	43	358	104	358	1.9				14.037	-S660	112-22	127
104	358	2.7	10	224	43	358	104	358	2.7				14.037	-S950	112-22	137
103	360	4.4	10	226	42	360	103	360	4.4				14.137	-S2100	112-22	143
102	365	1.1	10	229	42	365	102	365	1.1				14.336	-S400	112-22	122
100	372	4.8	9.9	233	41	372	100	372	4.8				14.606	-S3100	112-22	146
98	377	1.1	9.8	236	41	377	98	377	1.1				14.806	-S400	112-22	122
93	400	4.4	9.2	251	38	400	93	400	4.4				15.711	-S2100	112-22	143
93	400	1.7	9.2	251	38	400	93	400	1.7	163	403	1.4	15.714	-S660	112-22	127
91	408	2.3	9.1	255	38	408	91	408	2.3	160	410	1.9	16.000	-S950	112-22	137
90	413	1.0	9.0	258	37	413	90	413	1.0				16.197	-S400	112-22	122
89	417	4.7	8.9	261	37	417	89	417	4.7				16.381	-S4500	112-22	149
88	421	4.8	8.8	263	36	421	88	421	4.8				16.517	-S3100	112-22	146
87	424	4.4	8.7	265	36	424	87	424	4.4				16.644	-S3100	112-22	146
86	434	3.8	8.5	272	35	434	86	434	3.8	151	437	3.2	17.022	-S2100	112-22	143
81	456	1.5	8.1	286	34	456	81	456	1.5	143	459	1.2	17.905	-S660	112-22	127
81	456	2.1	8.1	286	34	456	81	456	2.1	143	459	1.7	17.905	-S950	112-22	137
80	466	0.9	7.9	292	33	466	80	466	0.9				18.286	-S400	112-22	122
80	466	4.7	7.9	292	33	466	80	466	4.7				18.286	-S4500	112-22	149
77	479	4.4	7.7	300	32	479	77	479	4.4				18.822	-S3100	112-22	146
77	482	3.8	7.7	302	32	482	77	482	3.8	136	485	3.6	18.917	-S2100	112-22	143
76	490	1.4	7.5	307	31	490	76	490	1.4	133	494	1.3	19.250	-S660	112-22	127
74	499	1.9	7.4	313	31	499	74	499	1.9	131	503	1.8	19.600	-S950	112-22	137
73	510	3.8	7.2	320	30	510	73	510	3.8	128	514	3.6	20.041	-S3100	112-22	146
70	532	3.3	6.9	333	29	532	70	532	3.3	123	535	3.1	20.869	-S2100	112-22	143
66	559	1.2	6.6	350	27	559	66	559	1.2	117	562	1.1	21.933	-S660	112-22	127
66	559	1.7	6.6	350	27	559	66	559	1.7	117	562	1.6	21.933	-S950	112-22	137
64	577	3.8	6.4	361	27	577	64	577	3.8	113	581	3.6	22.663	-S3100	112-22	146
63	591	3.3	6.3	370	26	591	63	591	3.3	111	595	3.1	23.193	-S2100	112-22	143
59	626	3.3	5.9	392	24	626	59	626	3.3	104	630	3.1	24.570	-S3100	112-22	146
58	638	0.9	5.8	400	24	638	58	638	0.9	102	643	0.9	25.056	-S660	112-22	127
57	650	1.5	5.7	407	24	650	57	650	1.5	101	654	1.4	25.511	-S950	112-22	137
55	673	3.3	5.5	422	23	673	55	673	3.3	97	678	3.1	26.437	-S4500	112-22	149
52	708	3.3	5.2	443	22	708	52	708	3.3	92	713	3.1	27.785	-S3100	112-22	146
52	720	2.6	5.1	451	21	720	52	720	2.6	91	725	2.4	28.275	-S2100	112-22	143

# g500-S shaft-mounted helical geared motors

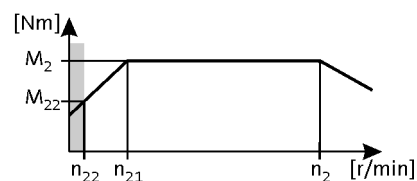


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
51	727	0.9	5.1	455	21	727	51	727	0.9	90	732	0.9	28.548	-S660	112-22	127	
51	727	1.3	5.1	455	21	727	51	727	1.3	90	732	1.2	28.548	-S950	112-22	137	
49	752	3.3	4.9	471	20	752	49	752	3.3	87	757	3.1	29.511	-S4500	112-22	149	
47	796	1.2	4.6	499	19	796	47	796	1.2	82	802	1.2	31.267	-S950	112-22	137	
46	800	2.6	4.6	501	19	800	46	800	2.6	82	806	2.5	31.422	-S2100	112-22	143	
45	828	2.7	4.5	518	19	828	45	828	2.7	79	833	2.7	32.489	-S4500	112-22	149	
44	848	2.6	4.4	531	18	848	44	848	2.6	77	854	2.6	33.289	-S3100	112-22	146	
42	874	2.2	4.2	548	18	874	42	874	2.2	75	881	2.2	34.333	-S2100	112-22	143	
42	891	1.1	4.1	558	17	891	42	891	1.1	73	897	1.1	34.989	-S950	112-22	137	
40	924	2.7	4.0	578	17	924	40	924	2.7	71	930	2.7	36.267	-S4500	112-22	149	
39	959	2.6	3.9	600	16	959	39	959	2.6	68	965	2.6	37.644	-S3100	112-22	146	
38	972	2.1	3.8	609	16	972	38	972	2.1	67	979	2.1	38.156	-S2100	112-22	143	
36	1030	2.2	3.6	645	15	1030	36	1030	2.2	64	1037	2.2	40.422	-S3100	112-22	146	
35	1071	2.2	3.4	671	14	1071	35	1071	2.2	61	1078	2.2	42.044	-S4500	112-22	149	
33	1132	1.8	3.3	709	14	1132	33	1132	1.8	58	1139	1.7	44.431	-S2100	112-22	143	
32	1164	2.2	3.2	729	13	1164	32	1164	2.2	56	1172	2.2	45.711	-S3100	112-22	146	
31	1195	2.2	3.1	749	13	1195	31	1195	2.2	55	1204	2.2	46.933	-S4500	112-22	149	
30	1258	1.6	2.9	788	12	1258	30	1258	1.6	52	1266	1.6	49.378	-S2100	112-22	143	
29	1300	1.8	2.8	814	12	1300	29	1300	1.8	50	1309	1.8	51.027	-S4500	112-22	149	
28	1332	1.8	2.8	834	12	1332	28	1332	1.8	49	1342	1.7	52.311	-S3100	112-22	146	
27	1373	1.4	2.7	860	11	1373	27	1373	1.4	48	1383	1.4	53.924	-S2100	112-22	143	
26	1451	1.8	2.5	908	11	1451	26	1451	1.8	45	1461	1.8	56.960	-S4500	112-22	149	
25	1507	1.8	2.5	943	10	1507	25	1507	1.8	43	1517	1.7	59.156	-S3100	112-22	146	
24	1526	1.3	2.4	956	10	1526	24	1526	1.3	43	1537	1.3	59.927	-S2100	112-22	143	
23	1617	1.4	2.3	1013	9.5	1617	23	1617	1.4	40	1628	1.4	63.487	-S3100	112-22	146	
23	1643	1.5	2.2	1029	9.3	1643	23	1643	1.5	40	1654	1.5	64.500	-S4500	112-22	149	
20	1829	1.3	2.0	1145	8.4	1829	20	1829	1.3	36	1841	1.3	71.793	-S3100	112-22	146	
20	1834	1.4	2.0	1148	8.3	1834	20	1834	1.4	36	1846	1.4	72.000	-S4500	112-22	149	

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
38	956	4.2	3.8	598	16	956	38	956	4.2	67	962	3.5	38.090	-S4500	112-22	149	
36	1005	1.9	3.6	629	15	1005	36	1005	1.9				40.056	-S2100	112-22	143	
34	1067	4.0	3.4	668	14	1067	34	1067	4.0	60	1074	3.3	42.520	-S4500	112-22	149	
33	1117	1.8	3.3	699	14	1117	33	1117	1.8				44.515	-S2100	112-22	143	
31	1183	2.5	3.1	741	13	1183	31	1183	2.5	54	1191	2.1	47.159	-S3100	112-22	146	
28	1325	3.4	2.7	829	11	1325	28	1325	3.4	49	1334	3.2	52.794	-S4500	112-22	149	
27	1338	2.3	2.7	838	11	1338	27	1338	2.3	48	1347	2.2	53.330	-S3100	112-22	146	

# g500-S shaft-mounted helical geared motors

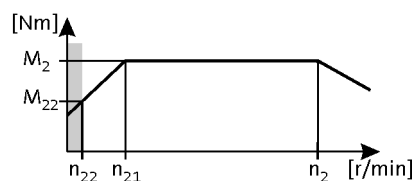


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
27	1378	1.5	2.6	863	11	1378	27	1378	1.5	47	1388	1.4	54.933	-S2100	112-22	143
25	1479	3.0	2.5	926	10	1479	25	1479	3.0	44	1489	2.9	58.933	-S4500	112-22	149
24	1532	1.3	2.4	959	9.8	1532	24	1532	1.3				61.049	-S2100	112-22	143
23	1623	1.9	2.2	1016	9.3	1623	23	1623	1.9	40	1634	1.8	64.676	-S3100	112-22	146
22	1630	2.8	2.2	1021	9.2	1630	22	1630	2.8	40	1641	2.6	64.978	-S4500	112-22	149
21	1764	1.2	2.1	1104	8.5	1764	21	1764	1.2	37	1776	1.2	70.302	-S2100	112-22	143
20	1820	2.5	2.0	1139	8.3	1820	20	1820	2.5	35	1832	2.5	72.533	-S4500	112-22	149
20	1826	2.5	2.0	1143	8.2	1826	20	1826	2.5	35	1838	2.5	72.775	-S4500	112-22	149
20	1835	1.7	2.0	1149	8.2	1835	20	1835	1.7	35	1848	1.7	73.138	-S3100	112-22	146
19	1929	1.1	1.9	1208	7.8	1929	19	1929	1.1	33	1943	1.1	76.907	-S2100	112-22	143
19	1960	1.1	1.9	1227	7.7	1960	19	1960	1.1	33	1974	1.0	78.128	-S2100	112-22	143
18	2038	2.2	1.8	1276	7.4	2038	18	2038	2.2	32	2052	2.2	81.237	-S4500	112-22	149
18	2077	1.5	1.8	1300	7.2	2077	18	2077	1.5	31	2091	1.5	82.769	-S3100	112-22	146
17	2144	1.0	1.7	1343	7.0	2144	17	2144	1.0	30	2159	1.0	85.468	-S2100	112-22	143
16	2272	1.4	1.6	1422	6.6	2272	16	2272	1.4	28	2287	1.4	90.546	-S3100	112-22	146
16	2329	1.9	1.6	1458	6.5	2329	16	2329	1.9	28	2345	1.9	92.825	-S4500	112-22	149
16	2348	1.3	1.5	1470	6.4	2348	16	2348	1.3	27	2364	1.3	93.599	-S3100	112-22	146
15	2461	0.8	1.5	1541	6.1	2461	15	2461	0.8	26	2478	0.8	98.095	-S2100	112-22	143
14	2569	1.2	1.4	1609	5.9	2569	14	2569	1.2	25	2587	1.2	102.393	-S3100	112-22	146
14	2600	1.7	1.4	1628	5.8	2600	14	2600	1.7	25	2618	1.7	103.619	-S4500	112-22	149
13	2853	1.6	1.3	1786	5.3	2853	13	2853	1.6	23	2872	1.6	113.711	-S4500	112-22	149
13	2898	1.1	1.3	1814	5.2	2898	13	2898	1.1	22	2917	1.1	115.492	-S3100	112-22	146
12	3185	1.4	1.1	1994	4.7	3185	12	3185	1.4	20	3206	1.4	126.933	-S4500	112-22	149
11	3277	1.0	1.1	2052	4.6	3277	11	3277	1.0	20	3299	0.9	130.603	-S3100	112-22	146
10	3549	0.9	1.0	2223	4.2	3549	10	3549	0.9	18	3574	0.9	141.478	-S3100	112-22	146
9.8	3713	1.2	1.0	2325	4.1	3713	9.8	3713	1.2	17	3739	1.2	148.005	-S4500	112-22	149
8.8	4145	1.1	0.9	2595	3.6	4145	8.8	4145	1.1	16	4173	1.1	165.215	-S4500	112-22	149
8.0	4551	1.0	0.8	2850	3.3	4551	8.0	4551	1.0	14	4582	1.0	181.396	-S4500	112-22	149
7.2	5080	0.9	0.7	3181	3.0	5080	7.2	5080	0.9	13	5115	0.9	202.489	-S4500	112-22	149

# g500-S shaft-mounted helical geared motors

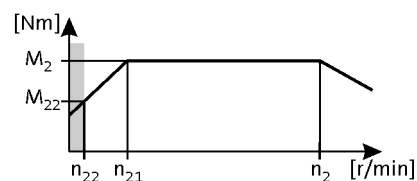


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5 \text{ kW}$   
 87 Hz:  $P_N = 9.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
375	136	3.1	37	85	153	136	375	136	3.1				3.920	-S660	132-12	127	
336	152	4.1	33	95	137	152	336	152	4.1				4.380	-S950	132-12	137	
273	186	2.6	27	116	112	186	273	186	2.6				5.376	-S660	132-12	127	
273	187	3.7	27	117	111	187	273	187	3.7				5.391	-S950	132-12	137	
243	209	3.5	24	131	99	209	243	209	3.5				6.038	-S950	132-12	137	
229	222	2.7	23	139	94	222	229	222	2.7				6.417	-S660	132-12	127	
214	238	2.1	21	149	87	238	214	238	2.1				6.880	-S660	132-12	127	
201	253	2.3	20	158	82	253	201	253	2.3				7.311	-S660	132-12	127	
191	267	2.9	19	167	78	267	191	267	2.9				7.702	-S950	132-12	137	
178	287	5.2	18	179	73	287	178	287	5.2				8.272	-S2100	132-12	143	
167	305	2.1	17	191	68	305	167	305	2.1				8.800	-S660	132-12	127	
165	309	6.0	16	193	67	309	165	309	6.0				8.917	-S3100	132-12	146	
162	315	3.0	16	197	66	315	162	315	3.0				9.100	-S950	132-12	137	
156	328	5.7	15	205	64	328	156	328	5.7				9.452	-S2100	132-12	143	
147	348	1.8	15	217	60	348	147	348	1.8				10.027	-S660	132-12	127	
144	353	2.7	14	221	59	353	144	353	2.7				10.183	-S950	132-12	137	
140	364	5.1	14	227	57	364	140	364	5.1				10.504	-S2100	132-12	143	
135	379	5.1	13	237	55	379	135	379	5.1				10.932	-S3100	132-12	146	
131	388	2.5	13	243	54	388	131	388	2.5				11.200	-S950	132-12	137	
131	390	1.7	13	244	53	390	131	390	1.7				11.262	-S660	132-12	127	
119	427	1.6	12	267	49	427	119	427	1.6				12.320	-S660	132-12	127	
119	430	4.7	12	269	48	430	119	430	4.7				12.406	-S2100	132-12	143	
117	435	2.2	12	272	48	435	117	435	2.2				12.544	-S950	132-12	137	
115	445	1.5	11	278	47	445	115	445	1.5				12.832	-S660	132-12	127	
107	478	4.3	11	299	44	478	107	478	4.3				13.787	-S2100	132-12	143	
105	487	1.4	10	304	43	487	105	487	1.4				14.037	-S660	132-12	127	
105	487	2.0	10	304	43	487	105	487	2.0				14.037	-S950	132-12	137	
104	490	4.2	10	306	42	490	104	490	4.2				14.137	-S2100	132-12	143	
94	545	3.8	9.2	340	38	545	94	545	3.8				15.711	-S2100	132-12	143	
94	545	1.2	9.2	340	38	545	94	545	1.2				15.714	-S660	132-12	127	
92	555	1.7	9.1	346	38	555	92	555	1.7				16.000	-S950	132-12	137	
89	573	5.4	8.8	358	36	573	89	573	5.4				16.517	-S3100	132-12	146	
88	577	5.4	8.7	360	36	577	88	577	5.4				16.644	-S3100	132-12	146	
86	590	3.5	8.5	369	35	590	86	590	3.5				17.022	-S2100	132-12	143	
82	621	1.1	8.1	388	34	621	82	621	1.1				17.905	-S660	132-12	127	

# g500-S shaft-mounted helical geared motors

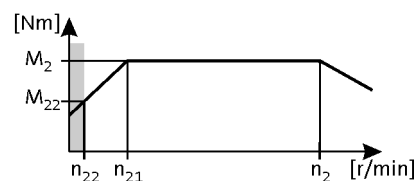


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5 \text{ kW}$   
 87 Hz:  $P_N = 9.7 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
82	621	1.5	8.1	388	34	621	82	621	1.5				17.905	-S950	132-12	137	
78	652	4.8	7.7	408	32	652	78	652	4.8				18.822	-S3100	132-12	146	
78	656	3.1	7.7	410	32	656	78	656	3.1				18.917	-S2100	132-12	143	
76	667	1.0	7.5	417	31	667	76	667	1.0				19.250	-S660	132-12	127	
75	679	1.4	7.4	424	31	679	75	679	1.4				19.600	-S950	132-12	137	
73	695	4.5	7.2	434	30	695	73	695	4.5				20.041	-S3100	132-12	146	
73	696	5.7	7.2	434	30	696	73	696	5.7				20.067	-S4500	132-12	149	
70	723	2.8	6.9	452	29	723	70	723	2.8				20.869	-S2100	132-12	143	
67	760	0.9	6.6	475	27	760	67	760	0.9				21.933	-S660	132-12	127	
67	760	1.3	6.6	475	27	760	67	760	1.3				21.933	-S950	132-12	137	
66	776	5.7	6.5	485	27	776	66	776	5.7				22.400	-S4500	132-12	149	
65	786	4.0	6.4	491	27	786	65	786	4.0				22.663	-S3100	132-12	146	
63	804	2.6	6.3	502	26	804	63	804	2.6				23.193	-S2100	132-12	143	
60	852	3.6	5.9	532	24	852	60	852	3.6				24.570	-S3100	132-12	146	
58	884	1.1	5.7	552	24	884	58	884	1.1				25.511	-S950	132-12	137	
56	916	4.9	5.5	572	23	916	56	916	4.9				26.437	-S4500	132-12	149	
53	963	3.2	5.2	602	22	963	53	963	3.2				27.785	-S3100	132-12	146	
52	980	2.1	5.1	612	21	980	52	980	2.1				28.275	-S2100	132-12	143	
52	990	1.0	5.1	618	21	990	52	990	1.0				28.548	-S950	132-12	137	
50	1023	4.4	4.9	639	20	1023	50	1023	4.4				29.511	-S4500	132-12	149	
47	1089	1.9	4.6	680	19	1089	47	1089	1.9				31.422	-S2100	132-12	143	
45	1126	4.0	4.5	703	19	1126	45	1126	4.0				32.489	-S4500	132-12	149	
44	1154	2.7	4.4	721	18	1154	44	1154	2.7				33.289	-S3100	132-12	146	
43	1190	1.7	4.2	743	18	1190	43	1190	1.7				34.333	-S2100	132-12	143	
41	1257	3.6	4.0	785	17	1257	41	1257	3.6				36.267	-S4500	132-12	149	
39	1305	2.4	3.9	815	16	1305	39	1305	2.4				37.644	-S3100	132-12	146	
39	1323	1.6	3.8	826	16	1323	39	1323	1.6				38.156	-S2100	132-12	143	
36	1401	2.2	3.6	875	15	1401	36	1401	2.2				40.422	-S3100	132-12	146	
35	1457	2.8	3.4	910	14	1457	35	1457	2.8				42.044	-S4500	132-12	149	
32	1585	2.0	3.2	990	13	1585	32	1585	2.0				45.711	-S3100	132-12	146	
31	1627	2.7	3.1	1016	13	1627	31	1627	2.7				46.933	-S4500	132-12	149	
29	1769	2.1	2.8	1105	12	1769	29	1769	2.1				51.027	-S4500	132-12	149	
26	1975	2.0	2.5	1233	11	1975	26	1975	2.0				56.960	-S4500	132-12	149	



# g500-S shaft-mounted helical geared motors

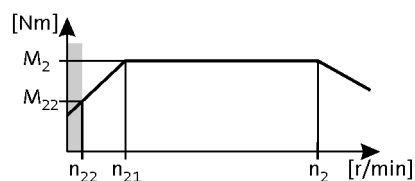


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5 \text{ kW}$   
87 Hz:  $P_N = 9.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
39	1301	3.2	3.8	812	16	1301	39	1301	3.2				38.090	-S4500	132-12	149	
37	1368	1.4	3.6	854	15	1368	37	1368	1.4				40.056	-S2100	132-12	143	
35	1452	3.0	3.4	907	14	1452	35	1452	3.0				42.520	-S4500	132-12	149	
33	1520	1.4	3.3	949	14	1520	33	1520	1.4				44.515	-S2100	132-12	143	
31	1610	1.8	3.1	1006	13	1610	31	1610	1.8				47.159	-S3100	132-12	146	
28	1803	2.5	2.7	1126	11	1803	28	1803	2.5				52.794	-S4500	132-12	149	
28	1821	1.7	2.7	1137	11	1821	28	1821	1.7				53.330	-S3100	132-12	146	
27	1876	1.1	2.6	1171	11	1876	27	1876	1.1				54.933	-S2100	132-12	143	
25	2012	2.2	2.5	1257	10	2012	25	2012	2.2				58.933	-S4500	132-12	149	
24	2085	1.0	2.4	1302	9.8	2085	24	2085	1.0				61.049	-S2100	132-12	143	
23	2208	1.4	2.2	1379	9.3	2208	23	2208	1.4				64.676	-S3100	132-12	146	
23	2219	2.0	2.2	1386	9.2	2219	23	2219	2.0				64.978	-S4500	132-12	149	
21	2400	0.9	2.1	1499	8.5	2400	21	2400	0.9				70.302	-S2100	132-12	143	
20	2477	1.8	2.0	1547	8.3	2477	20	2477	1.8				72.533	-S4500	132-12	149	
20	2485	1.8	2.0	1552	8.2	2485	20	2485	1.8				72.775	-S4500	132-12	149	
20	2497	1.2	2.0	1560	8.2	2497	20	2497	1.2				73.138	-S3100	132-12	146	
18	2774	1.6	1.8	1732	7.4	2774	18	2774	1.6				81.237	-S4500	132-12	149	
18	2826	1.1	1.8	1765	7.2	2826	18	2826	1.1				82.769	-S3100	132-12	146	
16	3092	1.0	1.6	1931	6.6	3092	16	3092	1.0				90.546	-S3100	132-12	146	
16	3170	1.4	1.6	1979	6.5	3170	16	3170	1.4				92.825	-S4500	132-12	149	
16	3196	1.0	1.5	1996	6.4	3196	16	3196	1.0				93.599	-S3100	132-12	146	
14	3496	0.9	1.4	2183	5.9	3496	14	3496	0.9				102.393	-S3100	132-12	146	
14	3538	1.3	1.4	2210	5.8	3538	14	3538	1.3				103.619	-S4500	132-12	149	
13	3883	1.2	1.3	2425	5.3	3883	13	3883	1.2				113.711	-S4500	132-12	149	
12	4334	1.0	1.1	2707	4.7	4334	12	4334	1.0				126.933	-S4500	132-12	149	
9.9	5054	0.9	1.0	3156	4.1	5054	9.9	5054	0.9				148.005	-S4500	132-12	149	

# g500-S shaft-mounted helical geared motors

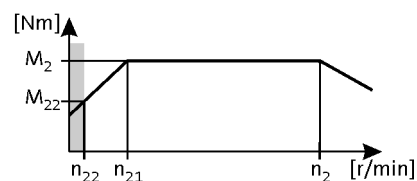


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5 \text{ kW}$   
 87 Hz:  $P_N = 13.2 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
372	187	2.3	37	117	153	187	372	187	2.3				3.920	-S660	132-22	127	
333	208	3.0	33	130	137	208	333	208	3.0				4.380	-S950	132-22	137	
318	219	5.1	32	137	131	219	318	219	5.1				4.593	-S2100	132-22	143	
295	236	5.1	29	147	121	236	295	236	5.1				4.951	-S3100	132-22	146	
272	256	1.9	27	160	112	256	272	256	1.9				5.376	-S660	132-22	127	
271	257	2.7	27	161	111	257	271	257	2.7				5.391	-S950	132-22	137	
242	287	4.8	24	180	100	287	242	287	4.8				6.029	-S2100	132-22	143	
242	287	2.6	24	180	99	287	242	287	2.6				6.038	-S950	132-22	137	
228	305	2.0	23	191	94	305	228	305	2.0				6.417	-S660	132-22	127	
225	309	4.8	22	194	92	309	225	309	4.8				6.499	-S3100	132-22	146	
213	327	4.6	21	205	87	327	213	327	4.6				6.870	-S2100	132-22	143	
212	327	1.5	21	205	87	327	212	327	1.5				6.880	-S660	132-22	127	
207	336	5.1	21	210	85	336	207	336	5.1				7.056	-S4500	132-22	149	
200	348	1.7	20	218	82	348	200	348	1.7				7.311	-S660	132-22	127	
197	352	4.8	20	221	81	352	197	352	4.8				7.406	-S3100	132-22	146	
190	367	2.1	19	229	78	367	190	367	2.1				7.702	-S950	132-22	137	
177	394	3.8	18	246	73	394	177	394	3.8				8.272	-S2100	132-22	143	
166	419	1.5	17	262	68	419	166	419	1.5				8.800	-S660	132-22	127	
164	424	4.3	16	266	67	424	164	424	4.3				8.917	-S3100	132-22	146	
160	433	2.2	16	271	66	433	160	433	2.2				9.100	-S950	132-22	137	
155	450	4.2	15	281	64	450	155	450	4.2				9.452	-S2100	132-22	143	
146	477	1.3	15	299	60	477	146	477	1.3				10.027	-S660	132-22	127	
143	485	2.0	14	303	59	485	143	485	2.0				10.183	-S950	132-22	137	
139	500	3.7	14	313	57	500	139	500	3.7				10.504	-S2100	132-22	143	
134	520	3.7	13	326	55	520	134	520	3.7				10.932	-S3100	132-22	146	
131	530	5.1	13	331	54	530	131	530	5.1				11.128	-S3100	132-22	146	
130	533	1.8	13	334	54	533	130	533	1.8				11.200	-S950	132-22	137	
130	536	1.2	13	335	53	536	130	536	1.2				11.262	-S660	132-22	127	
119	586	1.1	12	367	49	586	119	586	1.1				12.320	-S660	132-22	127	
118	590	3.4	12	369	48	590	118	590	3.4				12.406	-S2100	132-22	143	
116	597	1.6	12	374	48	597	116	597	1.6				12.544	-S950	132-22	137	
116	599	5.0	12	375	48	599	116	599	5.0				12.584	-S3100	132-22	146	
114	611	1.1	11	382	47	611	114	611	1.1				12.832	-S660	132-22	127	
114	611	5.1	11	382	47	611	114	611	5.1				12.843	-S4500	132-22	149	
106	656	3.1	11	411	44	656	106	656	3.1				13.787	-S2100	132-22	143	

# g500-S shaft-mounted helical geared motors

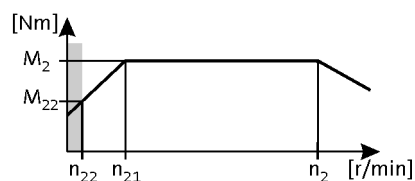


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5 \text{ kW}$   
 87 Hz:  $P_N = 13.2 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
104	668	1.0	10	418	43	668	104	668	1.0				14.037	-S660	132-22	127	
104	668	1.4	10	418	43	668	104	668	1.4				14.037	-S950	132-22	137	
103	673	3.1	10	421	42	673	103	673	3.1				14.137	-S2100	132-22	143	
102	682	5.1	10	427	42	682	102	682	5.1				14.336	-S4500	132-22	149	
100	695	4.5	9.9	435	41	695	100	695	4.5				14.606	-S3100	132-22	146	
93	748	2.7	9.2	468	38	748	93	748	2.7				15.711	-S2100	132-22	143	
93	748	0.9	9.2	468	38	748	93	748	0.9				15.714	-S660	132-22	127	
91	762	1.3	9.1	476	38	762	91	762	1.3				16.000	-S950	132-22	137	
89	780	4.8	8.9	488	37	780	89	780	4.8				16.381	-S4500	132-22	149	
88	786	3.9	8.8	492	36	786	88	786	3.9				16.517	-S3100	132-22	146	
88	792	3.9	8.7	496	36	792	88	792	3.9				16.644	-S3100	132-22	146	
86	810	2.5	8.5	507	35	810	86	810	2.5				17.022	-S2100	132-22	143	
82	852	1.1	8.1	533	34	852	82	852	1.1				17.905	-S950	132-22	137	
80	870	4.8	7.9	544	33	870	80	870	4.8				18.286	-S4500	132-22	149	
78	896	3.5	7.7	560	32	896	78	896	3.5				18.822	-S3100	132-22	146	
77	900	2.3	7.7	563	32	900	77	900	2.3				18.917	-S2100	132-22	143	
75	933	1.0	7.4	584	31	933	75	933	1.0				19.600	-S950	132-22	137	
73	954	3.3	7.2	597	30	954	73	954	3.3				20.041	-S3100	132-22	146	
73	955	4.2	7.2	598	30	955	73	955	4.2				20.067	-S4500	132-22	149	
70	993	2.1	6.9	621	29	993	70	993	2.1				20.869	-S2100	132-22	143	
67	1044	0.9	6.6	653	27	1044	67	1044	0.9				21.933	-S950	132-22	137	
65	1066	4.2	6.5	667	27	1066	65	1066	4.2				22.400	-S4500	132-22	149	
64	1079	2.9	6.4	675	27	1079	64	1079	2.9				22.663	-S3100	132-22	146	
63	1104	1.9	6.3	691	26	1104	63	1104	1.9				23.193	-S2100	132-22	143	
59	1169	2.7	5.9	732	24	1169	59	1169	2.7				24.570	-S3100	132-22	146	
55	1258	3.6	5.5	787	23	1258	55	1258	3.6				26.437	-S4500	132-22	149	
53	1322	2.3	5.2	827	22	1322	53	1322	2.3				27.785	-S3100	132-22	146	
52	1346	1.5	5.1	842	21	1346	52	1346	1.5				28.275	-S2100	132-22	143	
50	1405	3.2	4.9	879	20	1405	50	1405	3.2				29.511	-S4500	132-22	149	
47	1496	1.4	4.6	936	19	1496	47	1496	1.4				31.422	-S2100	132-22	143	
45	1546	2.9	4.5	967	19	1546	45	1546	2.9				32.489	-S4500	132-22	149	
44	1584	2.0	4.4	991	18	1584	44	1584	2.0				33.289	-S3100	132-22	146	
43	1634	1.3	4.2	1022	18	1634	43	1634	1.3				34.333	-S2100	132-22	143	
40	1726	2.6	4.0	1080	17	1726	40	1726	2.6				36.267	-S4500	132-22	149	
39	1792	1.7	3.9	1121	16	1792	39	1792	1.7				37.644	-S3100	132-22	146	

# g500-S shaft-mounted helical geared motors

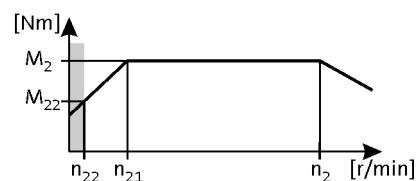
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5 \text{ kW}$   
87 Hz:  $P_N = 13.2 \text{ kW}$

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
38	1816	1.1	3.8	1136	16	1816	38	1816	1.1				38.156	-S2100	132-22	143	
36	1924	1.6	3.6	1204	15	1924	36	1924	1.6				40.422	-S3100	132-22	146	
35	2001	2.1	3.4	1252	14	2001	35	2001	2.1				42.044	-S4500	132-22	149	
32	2176	1.4	3.2	1361	13	2176	32	2176	1.4				45.711	-S3100	132-22	146	
31	2234	2.0	3.1	1397	13	2234	31	2234	2.0				46.933	-S4500	132-22	149	
29	2429	1.5	2.8	1519	12	2429	29	2429	1.5				51.027	-S4500	132-22	149	
26	2711	1.5	2.5	1696	11	2711	26	2711	1.5				56.960	-S4500	132-22	149	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
38	1786	2.3	3.8	1117	16	1786	38	1786	2.3				38.090	-S4500	132-22	149	
36	1878	1.0	3.6	1175	15	1878	36	1878	1.0				40.056	-S2100	132-22	143	
34	1993	2.2	3.4	1247	14	1993	34	1993	2.2				42.520	-S4500	132-22	149	
33	2087	1.0	3.3	1306	14	2087	33	2087	1.0				44.515	-S2100	132-22	143	
31	2211	1.3	3.1	1383	13	2211	31	2211	1.3				47.159	-S3100	132-22	146	
28	2475	1.8	2.7	1548	11	2475	28	2475	1.8				52.794	-S4500	132-22	149	
27	2500	1.2	2.7	1564	11	2500	27	2500	1.2				53.330	-S3100	132-22	146	
25	2763	1.6	2.5	1728	10	2763	25	2763	1.6				58.933	-S4500	132-22	149	
23	3032	1.0	2.2	1897	9.3	3032	23	3032	1.0				64.676	-S3100	132-22	146	
23	3046	1.5	2.2	1906	9.2	3046	23	3046	1.5				64.978	-S4500	132-22	149	
20	3400	1.3	2.0	2127	8.3	3400	20	3400	1.3				72.533	-S4500	132-22	149	
20	3412	1.3	2.0	2134	8.2	3412	20	3412	1.3				72.775	-S4500	132-22	149	
20	3429	0.9	2.0	2145	8.2	3429	20	3429	0.9				73.138	-S3100	132-22	146	
18	3808	1.2	1.8	2383	7.4	3808	18	3808	1.2				81.237	-S4500	132-22	149	
16	4352	1.0	1.6	2722	6.5	4352	16	4352	1.0				92.825	-S4500	132-22	149	
14	4858	0.9	1.4	3039	5.8	4858	14	4858	0.9				103.619	-S4500	132-22	149	
13	5331	0.8	1.3	3335	5.3	5331	13	5331	0.8				113.711	-S4500	132-22	149	

# g500-S shaft-mounted helical geared motors

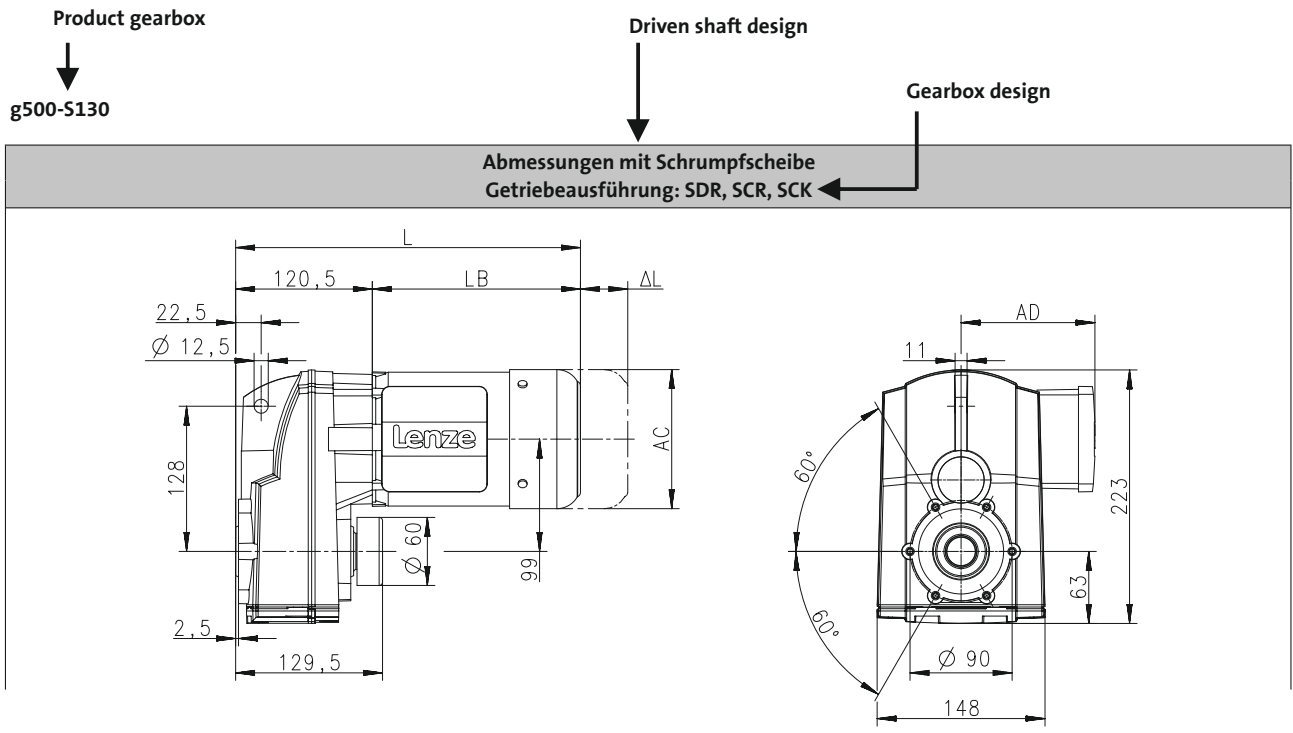
Technical data



## Dimensions, notes

### Notes on the dimensions

The following legend shows the layout of the dimension sheets.



Produkt			MD□MA□□							
			063-12	063-32	063-42	071-32	071-42	080-32	080-42	090-32
<b>Abmessungen</b>										
Gesamtlänge	L	[mm]		304		324		347		380
Länge Motor	LB	[mm]		183		203		226		259
Länge Motoranbauten	Δ L	[mm]		170		165		183		181
Motordurchmesser	AC	[mm]		123		139		156		176
Abstand Motor/Anschluss	AD	[mm]		100		109		150		157

Distance of motor centre to the end of terminal box

Motor diameter

Motor length without built-on accessories

Additional length of the built-on accessories (longest version)

Total length of the drive without built-on accessories

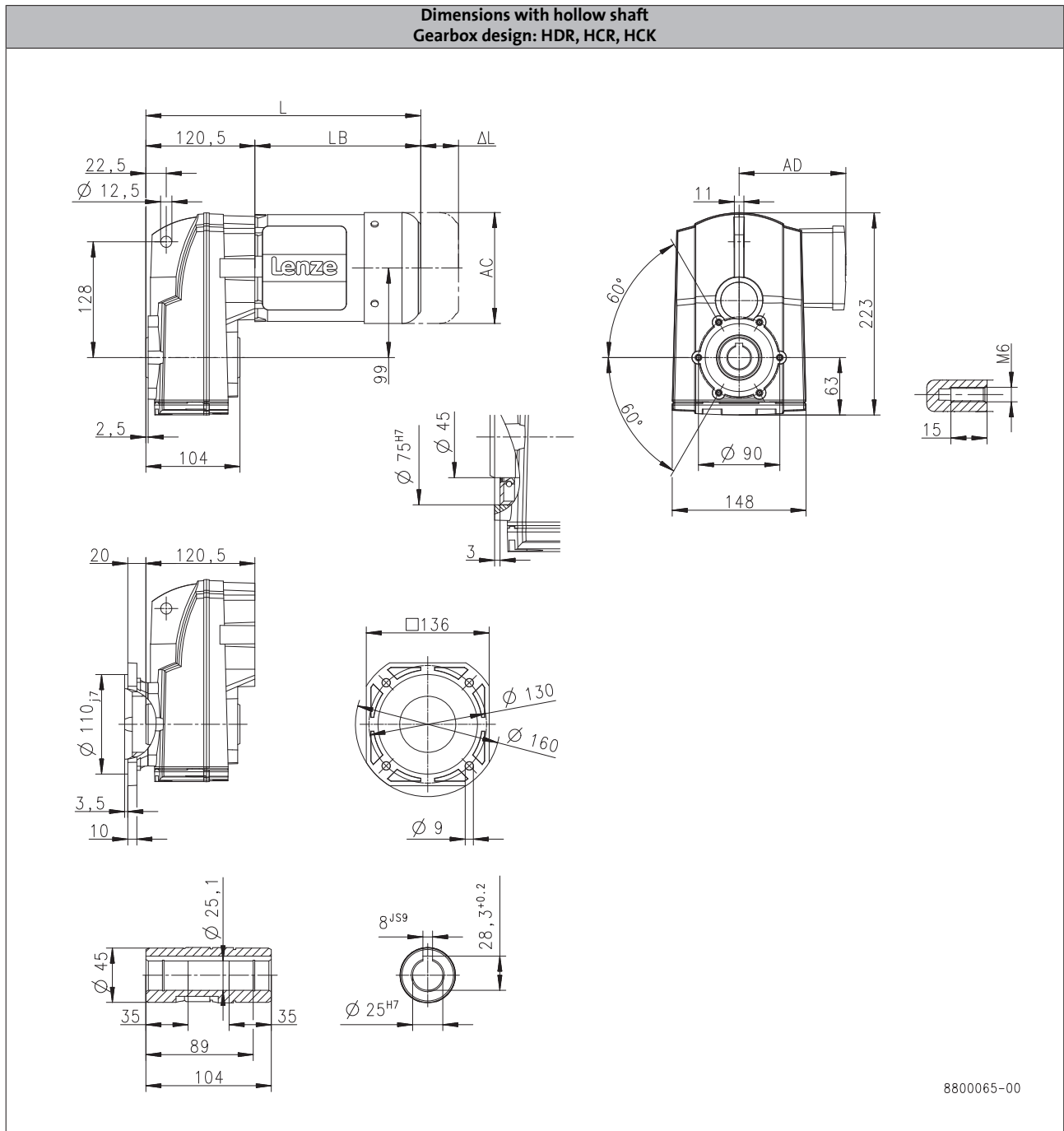
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S130



6.4

Product			MD□MA□□					MH□MA□□		
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]		304		324		347		406
<b>Motor length</b>	<b>LB</b>	[mm]		183		203		226		285
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170		165		183		181
<b>Motor diameter</b>	<b>AC</b>	[mm]		123		139		156		176
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100		109		150	152	157

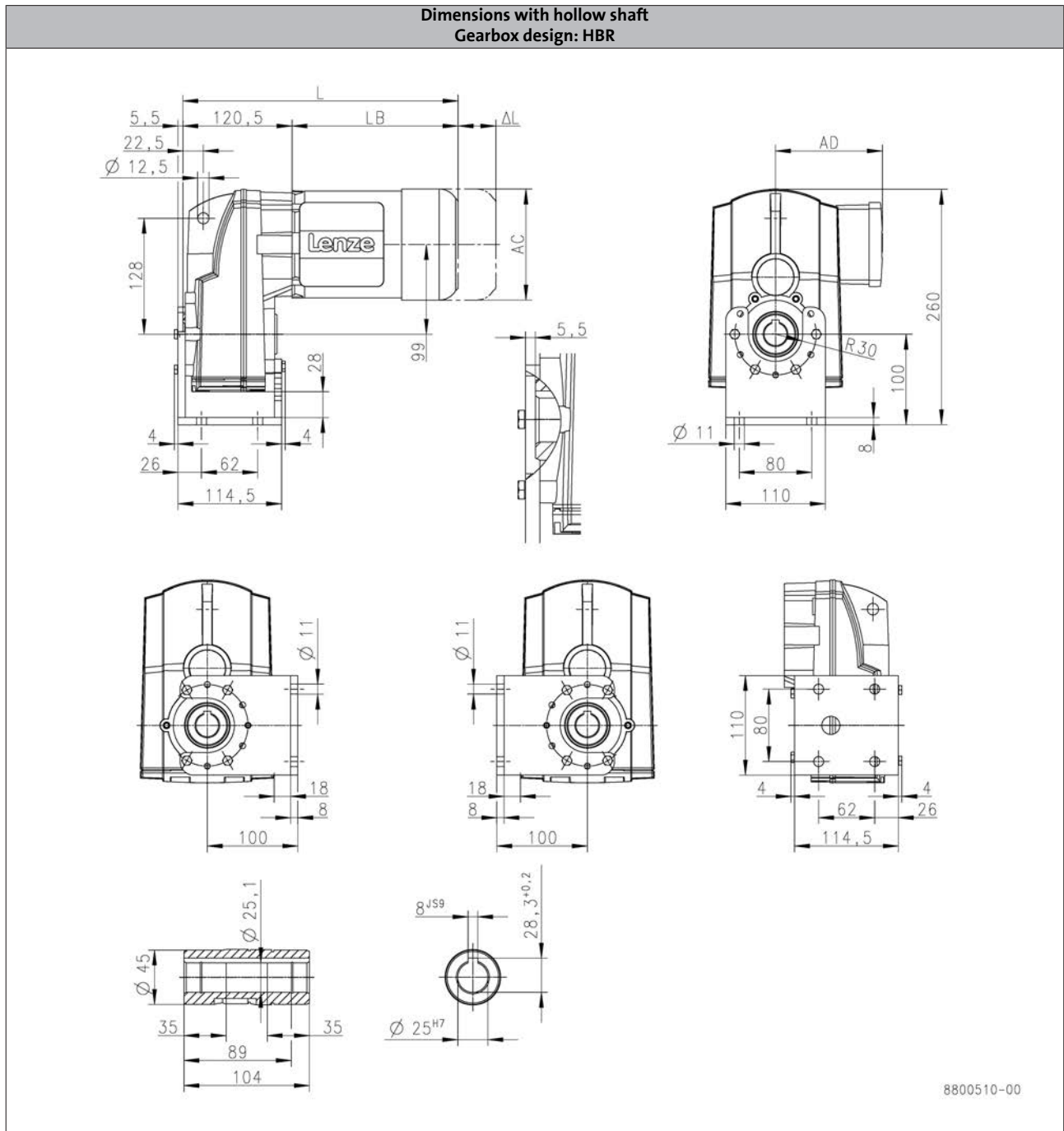
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S130



6.4

Product	MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]		304		324		347	406	
<b>Motor length</b>	<b>LB</b>	[mm]		183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]		123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100		109		150	152	157

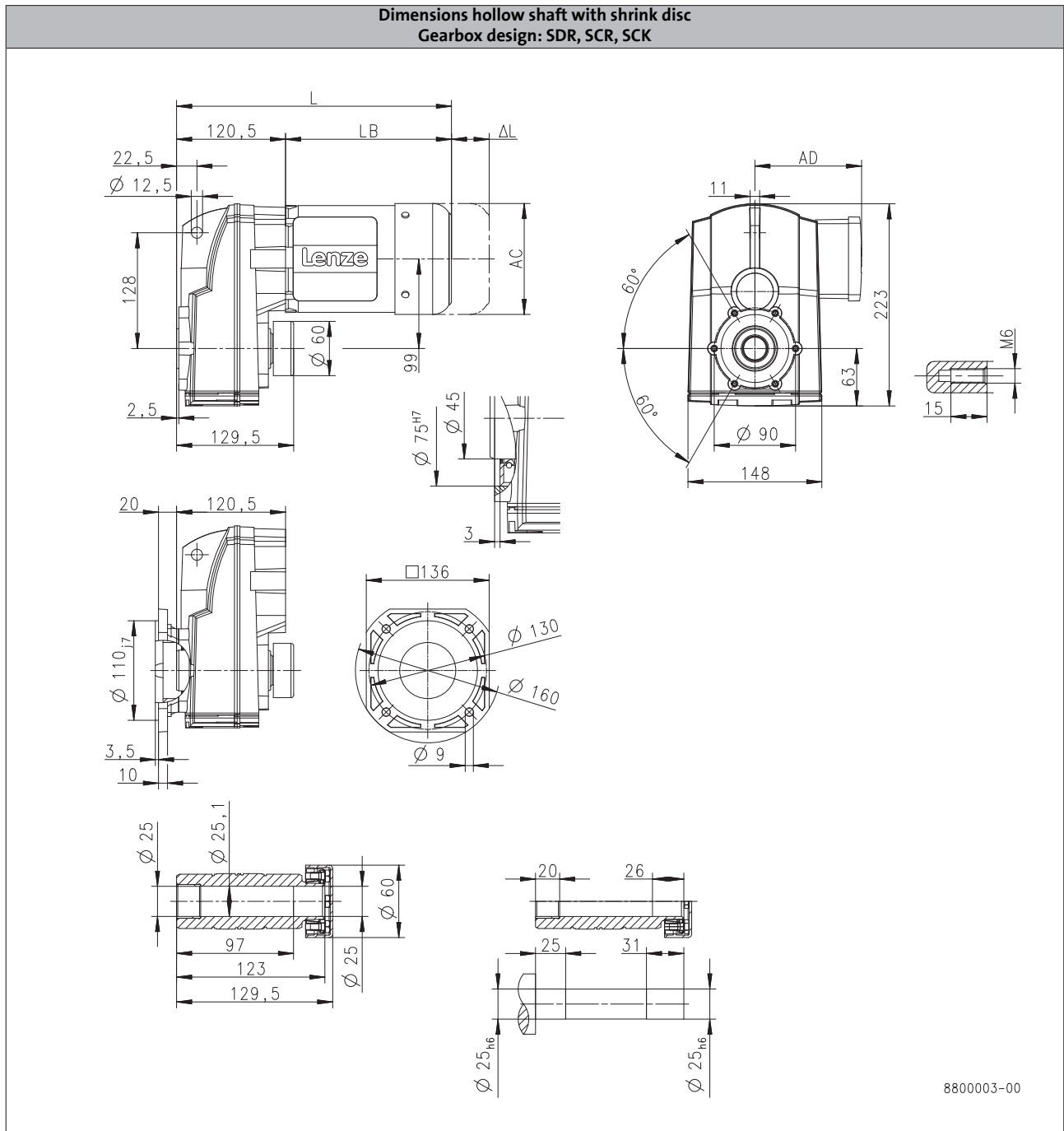
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S130



6.4

Product	MD□MA□□					MH□MA□□		
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	304		324	347	406	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157



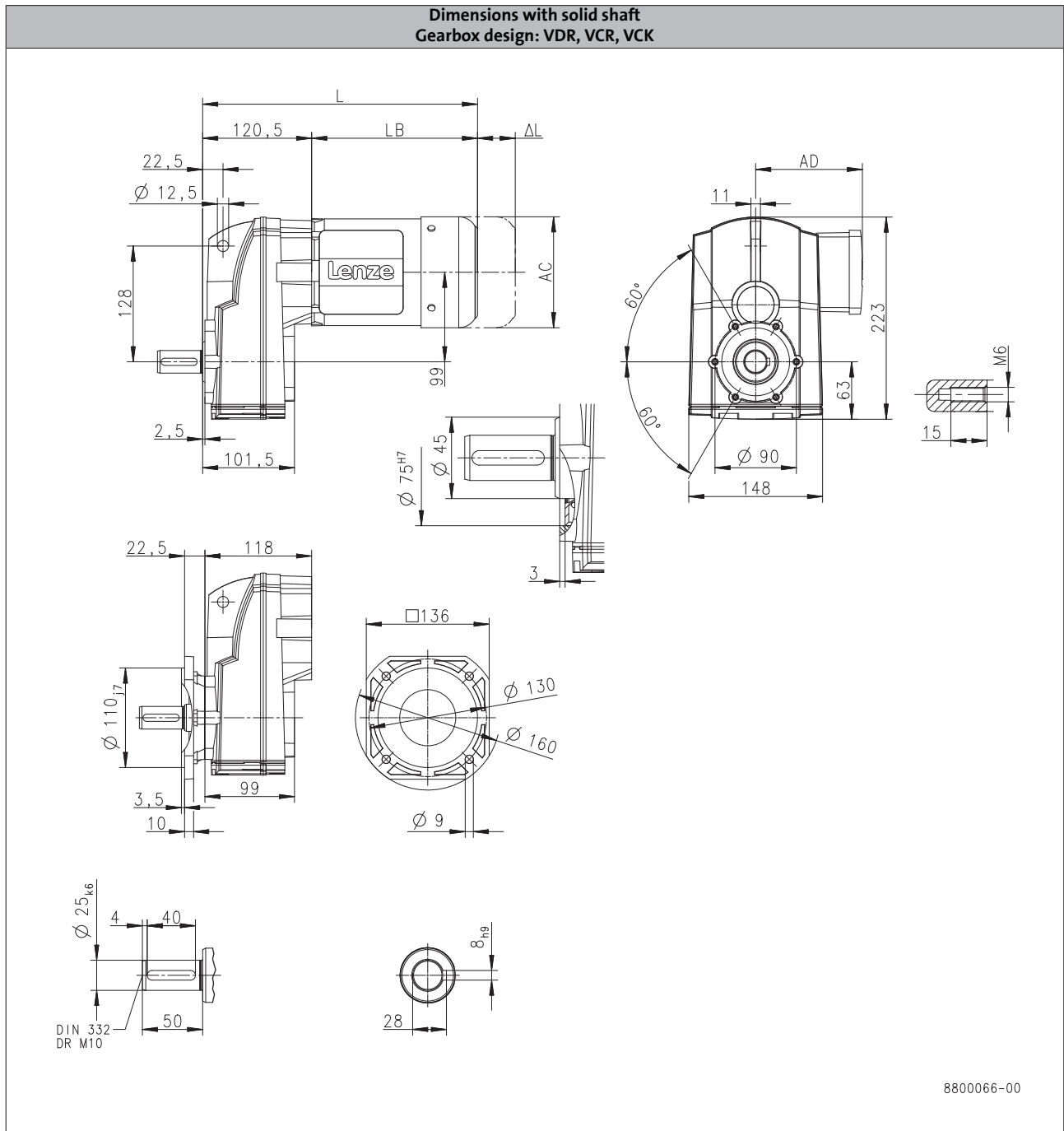
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S130



6.4

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	304		324		347	406	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

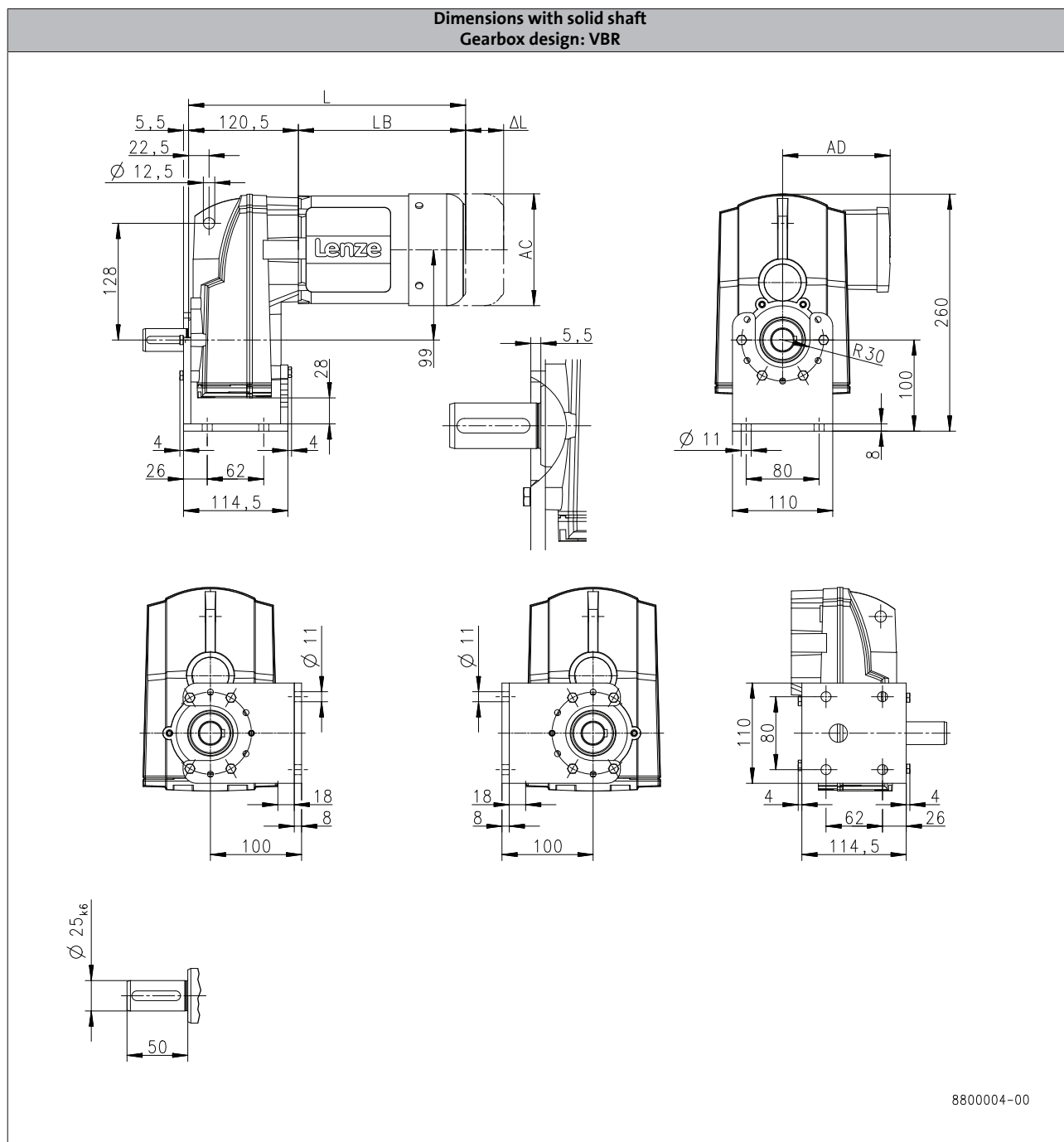
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S130



6.4

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	304		324		347	406	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

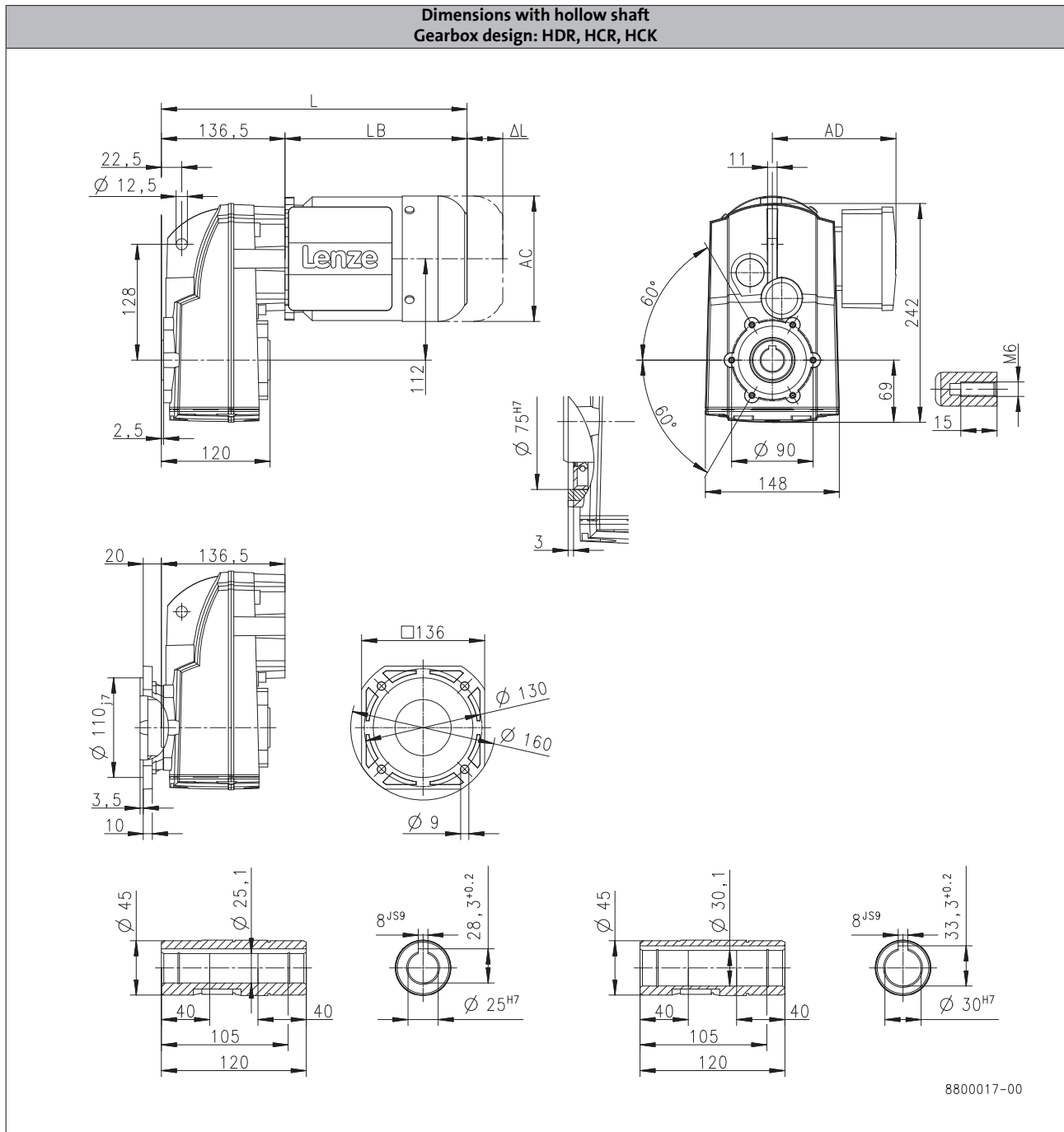
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S220



6.4

Product	MD□MA□□					MH□MA□□				
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]	320	340	363	422	458	474		
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337		
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170			
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194			
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166		

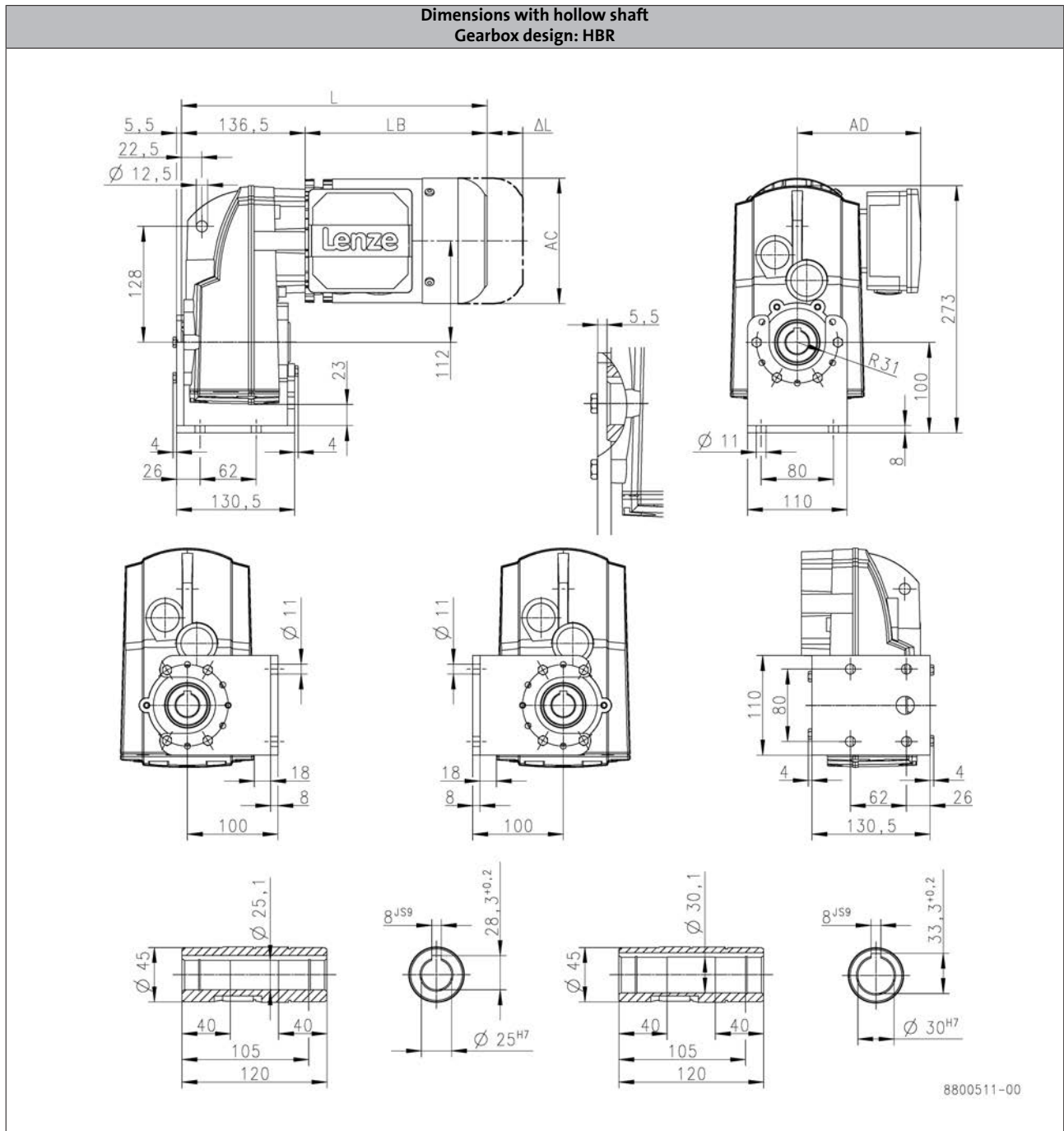
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S220



6.4

Product			MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]		320		340		363	422	458	474	
<b>Motor length</b>	<b>LB</b>	[mm]		183		203		226	285	321	337	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170		165		183	181		170	
<b>Motor diameter</b>	<b>AC</b>	[mm]		123		139		156	176		194	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100		109		150	152	157	166	

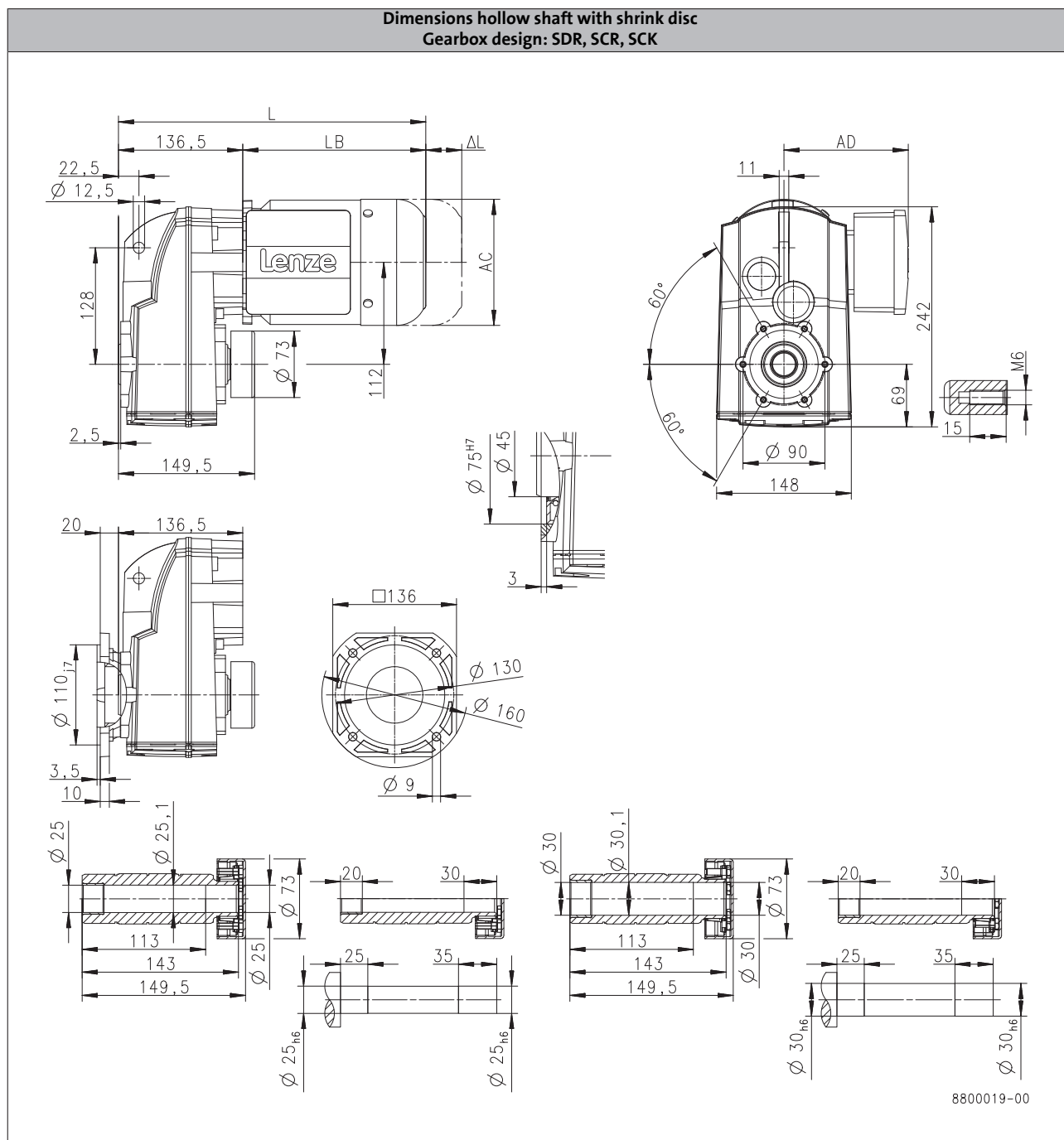
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S220



6.4

Product	MD□MA□□					MH□MA□□				
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]	320		340	363	422		458	474
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285		321	337
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181		170	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157		166

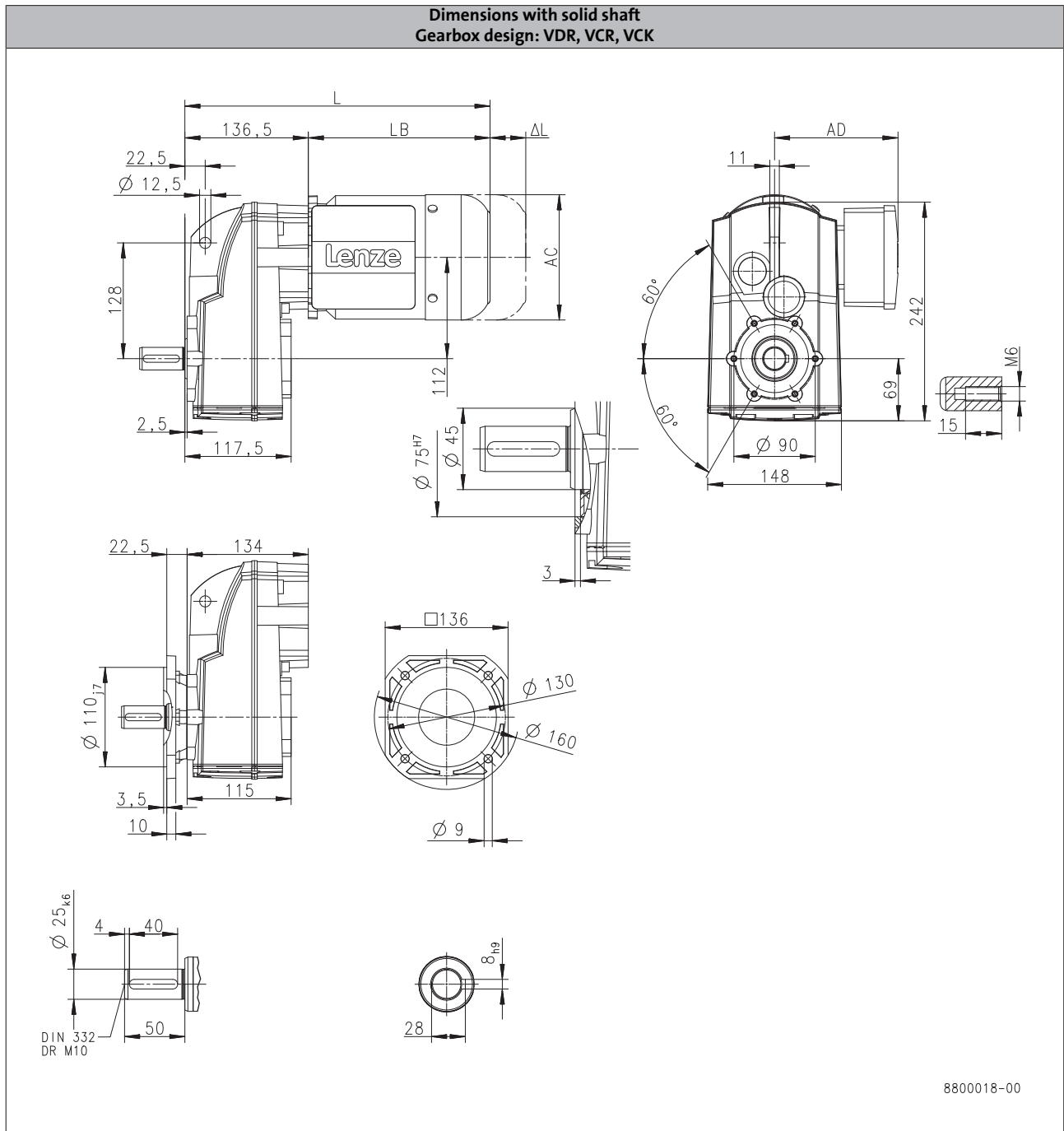
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S220



6.4

Product	MD□MA□□					MH□MA□□					
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	320		340		363		422	458	474
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226		285	321	337
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183		181		170
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156		176		194
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157		166

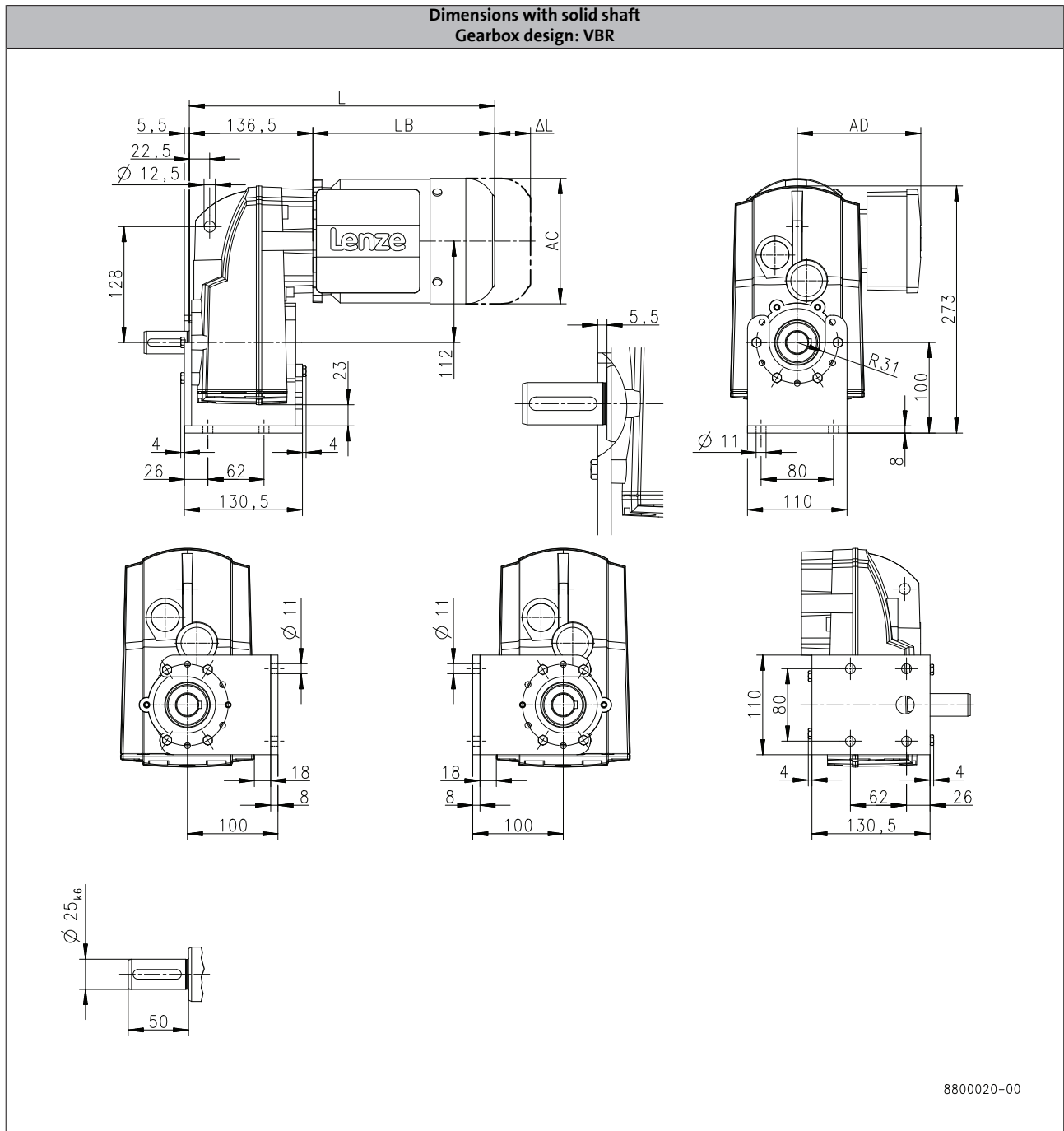
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S220



6.4

Product	MD□MA□□					MH□MA□□				
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]	320		340	363	422	458	474	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285	321	337	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181		170	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157		166

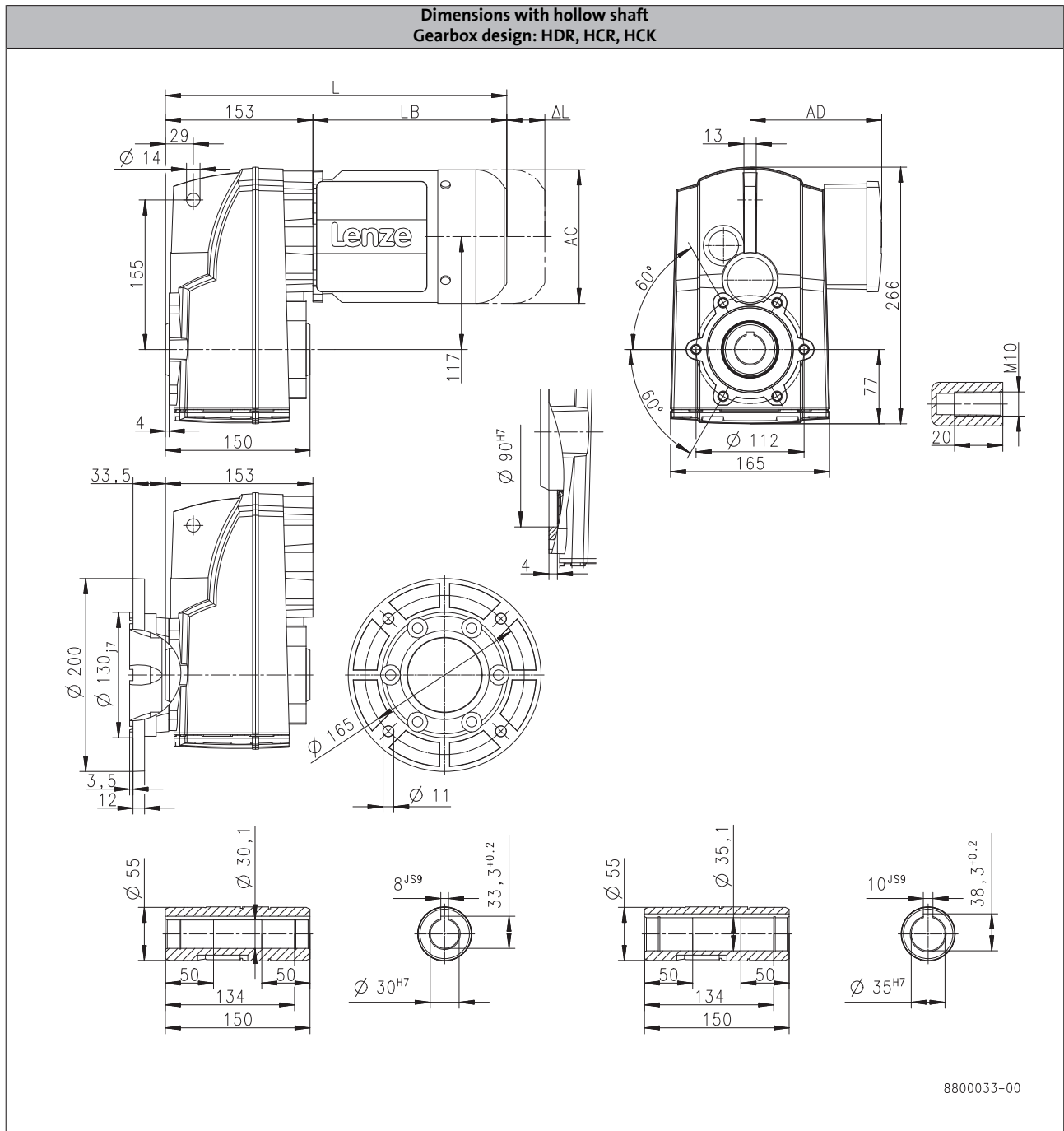
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S400



6.4

Product	MD□MA□□					MH□MA□□					
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	336		356	379	438	474	490	533	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285	321	337	380	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181		170	183	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	218	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157	166	176	



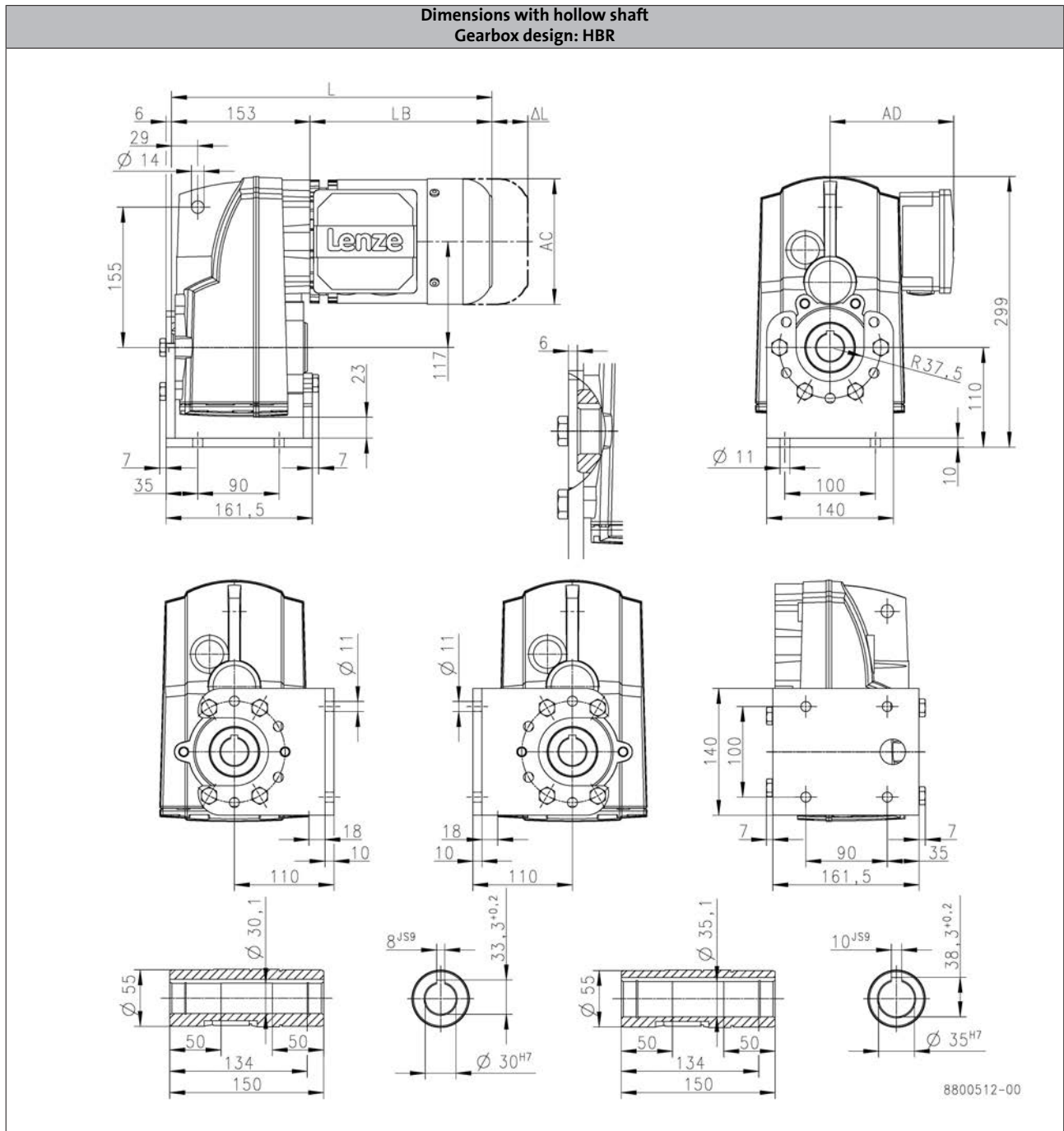
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S400



Product	MD□MA□□					MH□MA□□					
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	336		356		379		438		533
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226		285		380
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183		181		183
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156		176		218
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150		152		176

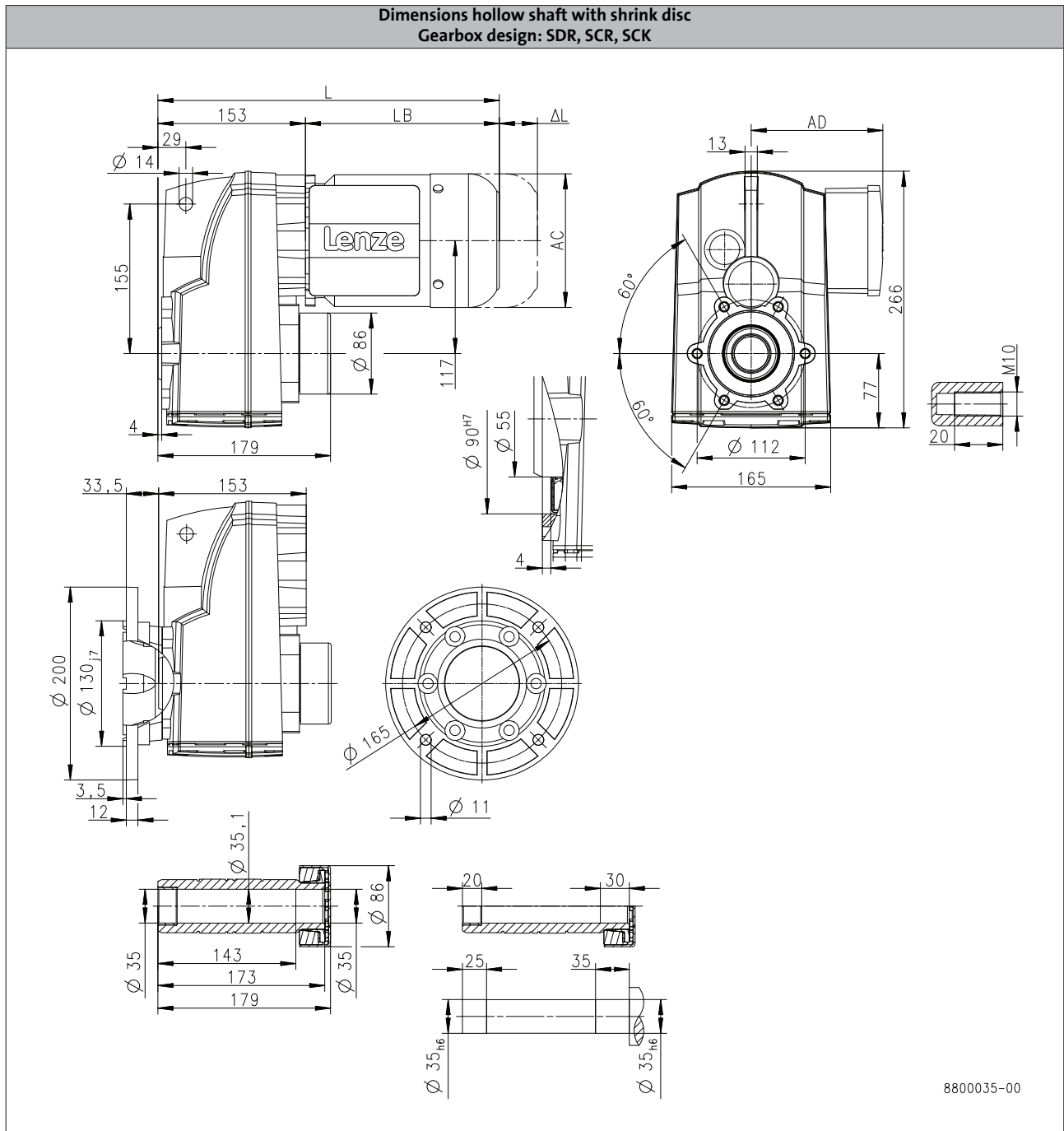
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S400



6.4

Product	MD□MA□□					MH□MA□□					
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	336		356	379	438	474	490	533	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285	321	337	380	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181		170	183	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	218	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157	166	176	

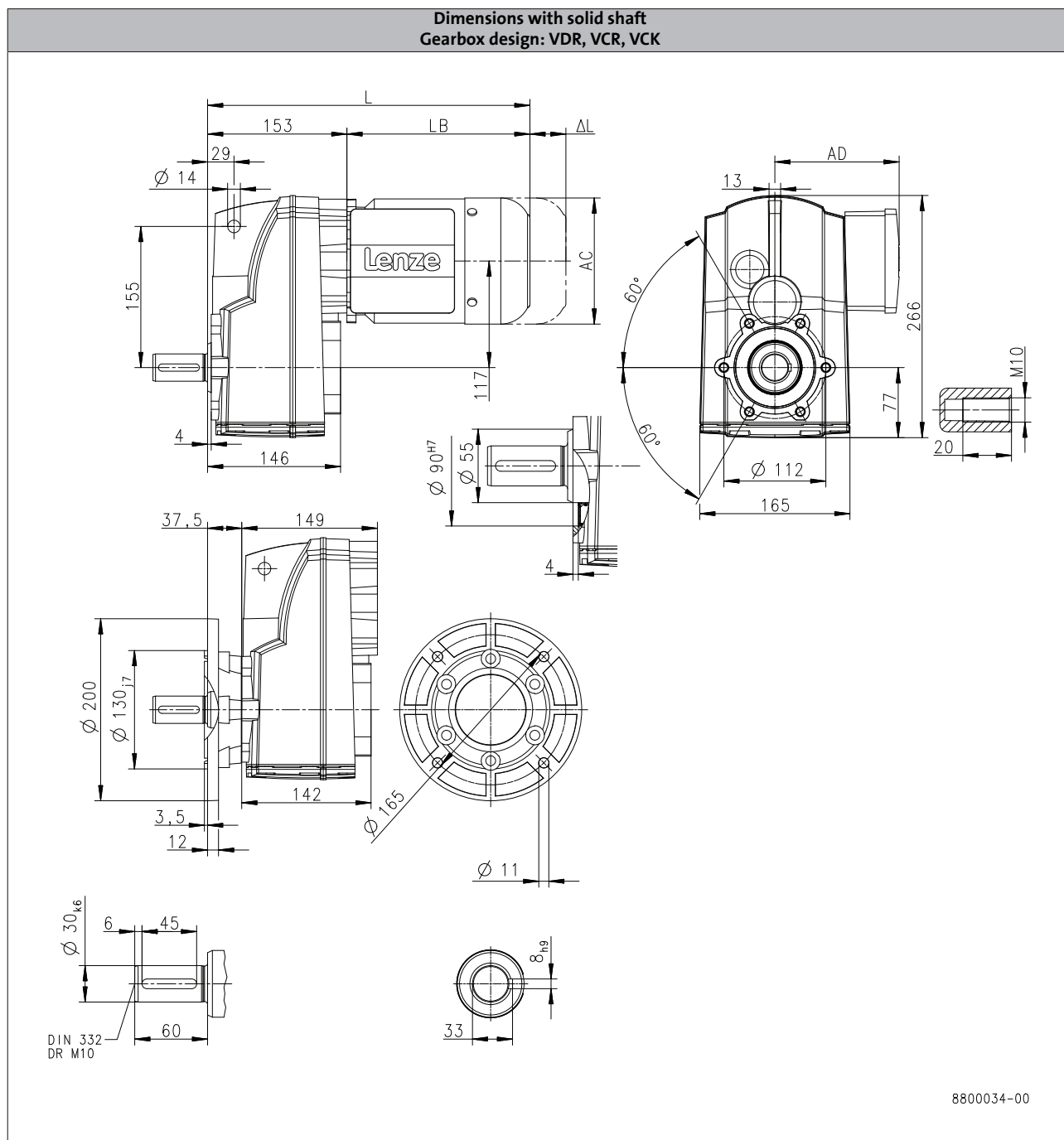
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S400



6.4

Product	MD□MA□□					MH□MA□□					
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	336		356	379	438	474	490	533	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	285	321	337	380	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	181		170	183	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	176		194	218	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	152	157	166	176	

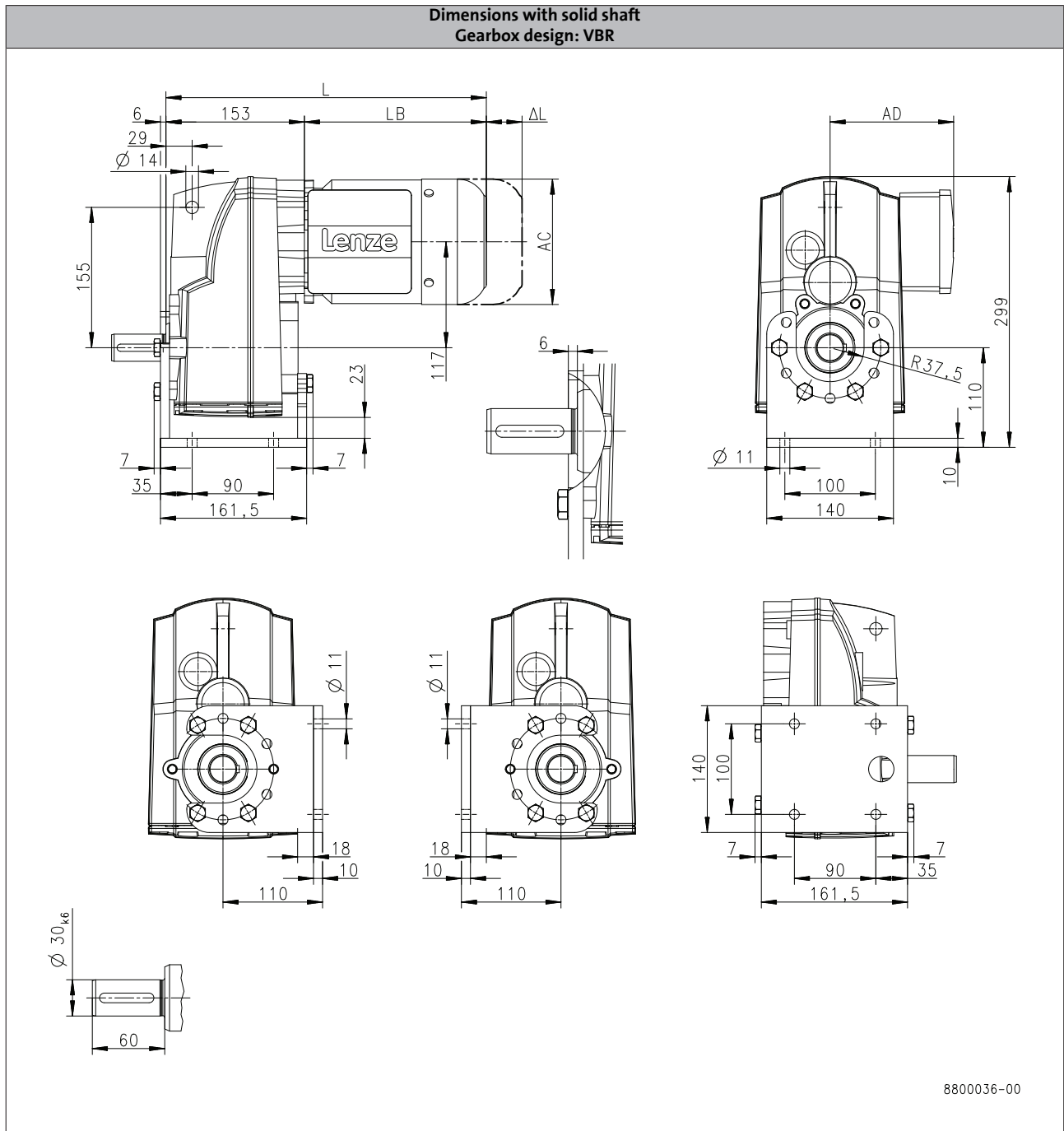
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S400



6.4

Product			MD□MA□□					MH□MA□□						
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	
<b>Dimensions</b>														
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		336		356		379		438		474	490	533
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226		285		321	337	380
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183		181		170		183
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156		176		194		218
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150		152	157		166	176

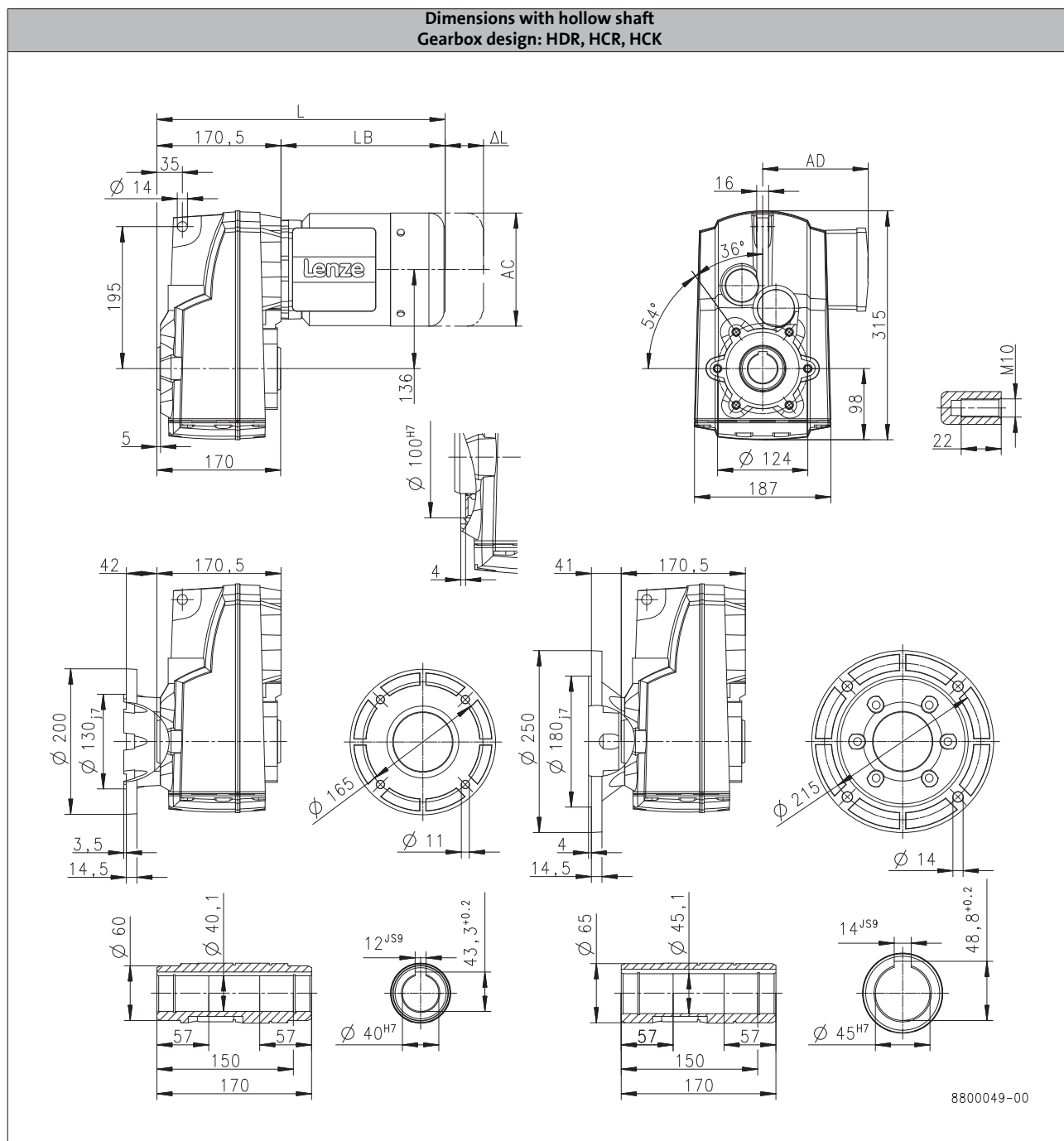
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product	MD□MA□□					MH□MA□□	
		063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>							
<b>Total length</b>	<b>L</b>	[mm]	354		374		397
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150

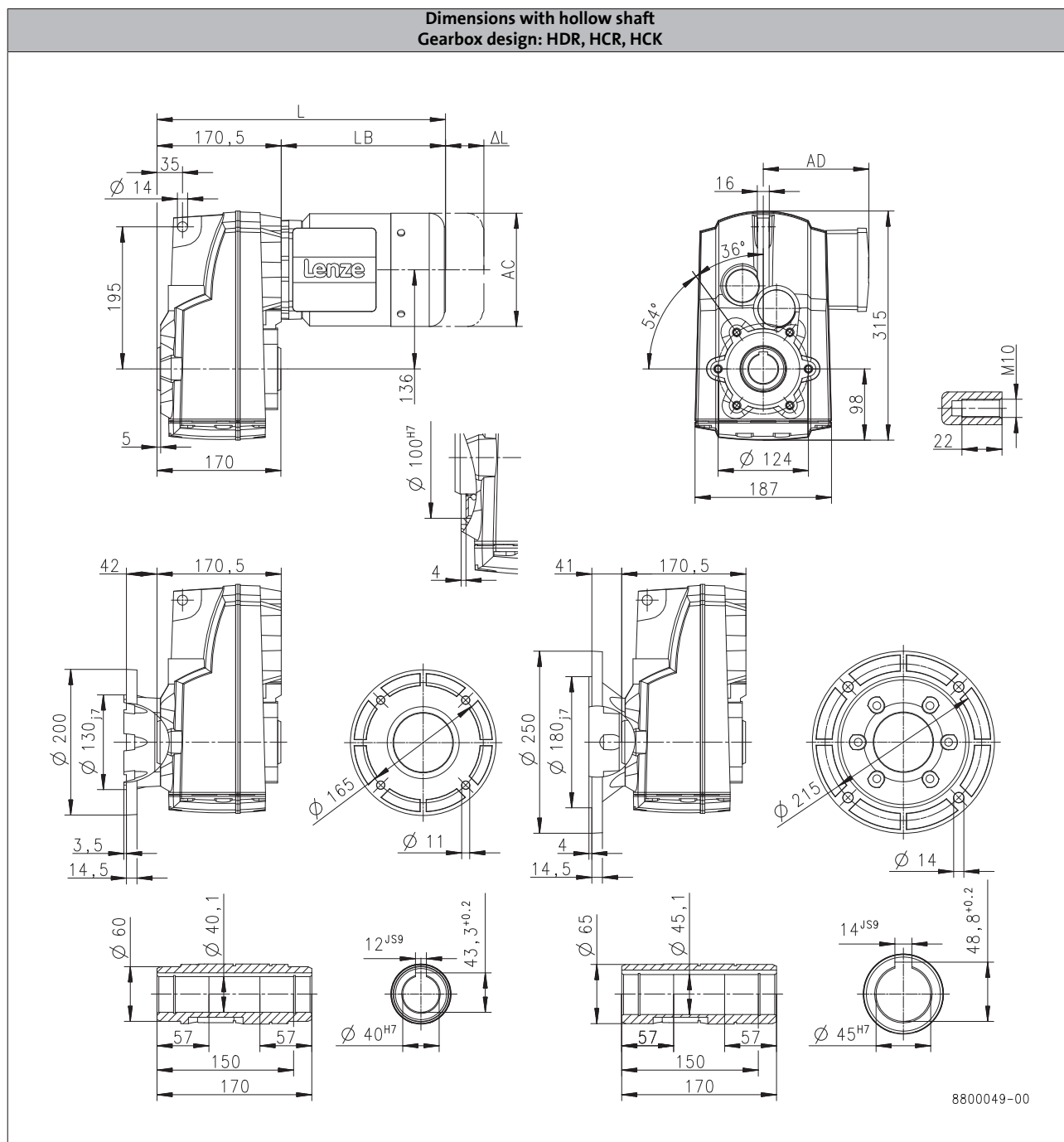
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	456		492	508	551	599
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]			176		194	218
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166		176	195

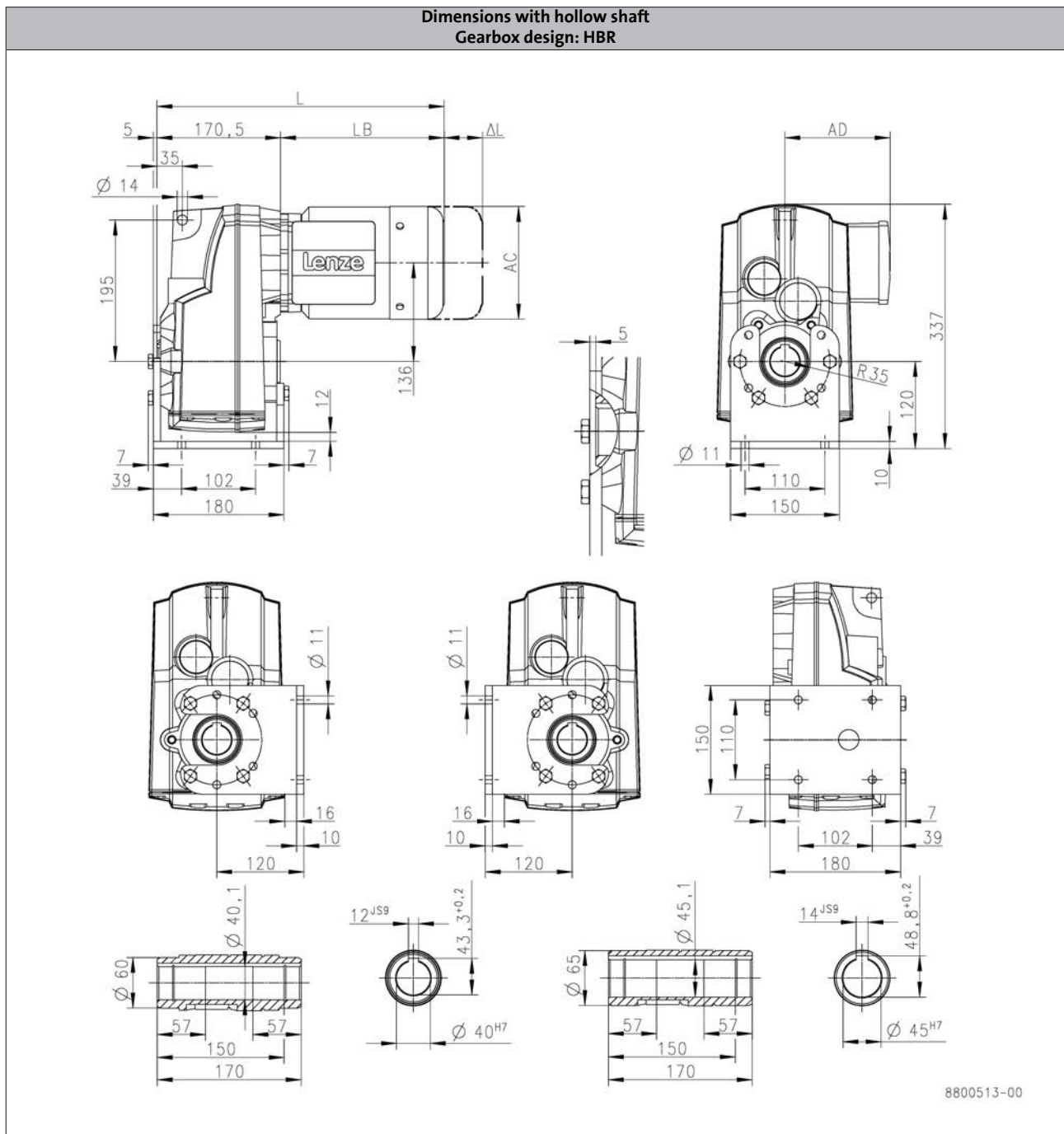
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product	MD□MA□□					MH□MA□□
	063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>						
<b>Total length</b>	<b>L</b>	[mm]	354		374	397
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150

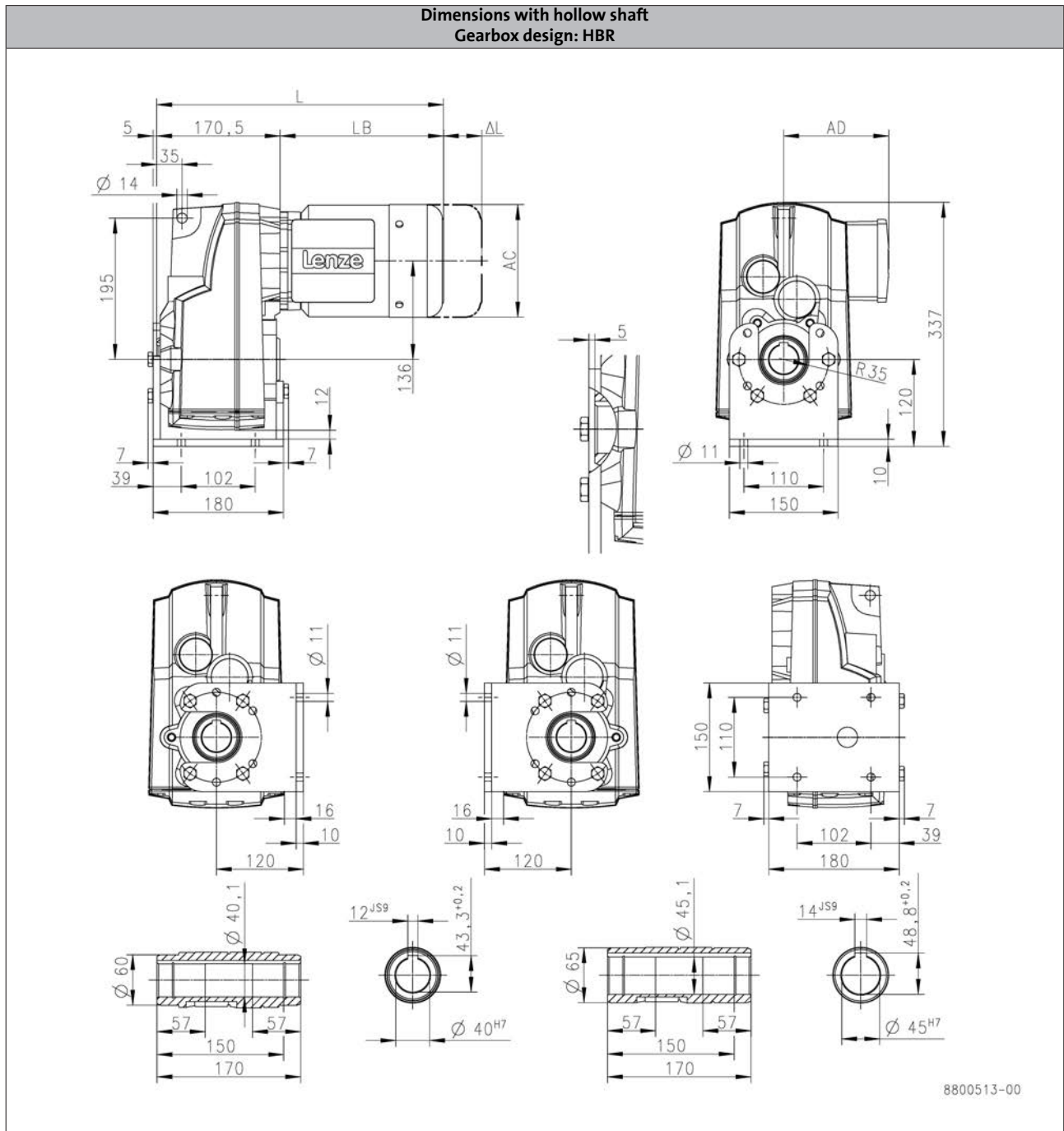
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	456		492	508	551	599
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>			176		194	218
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157		166	176	195



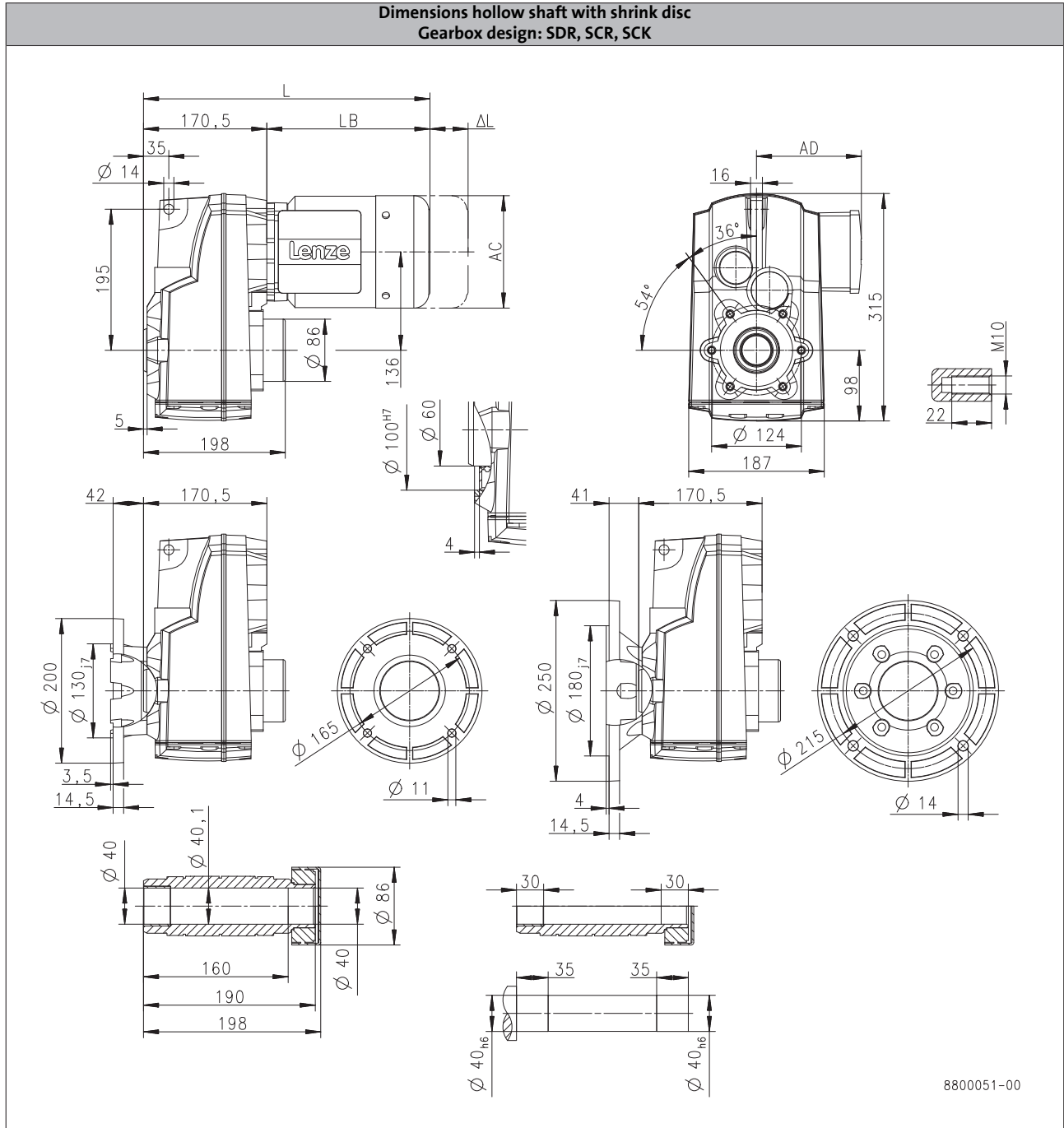
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		354			374	397
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

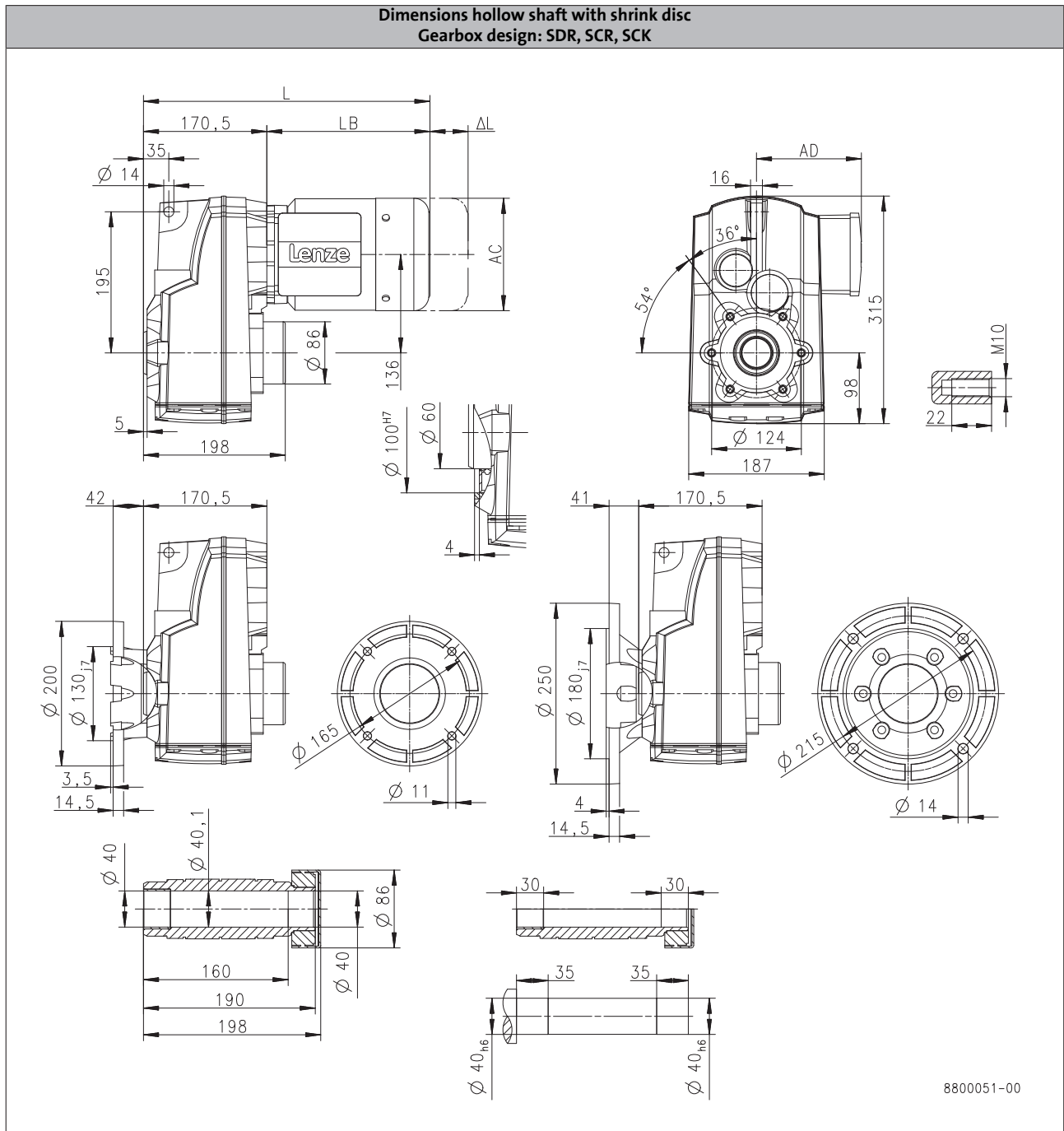
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	456		492	508	551	599
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194		218	258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166		176	195

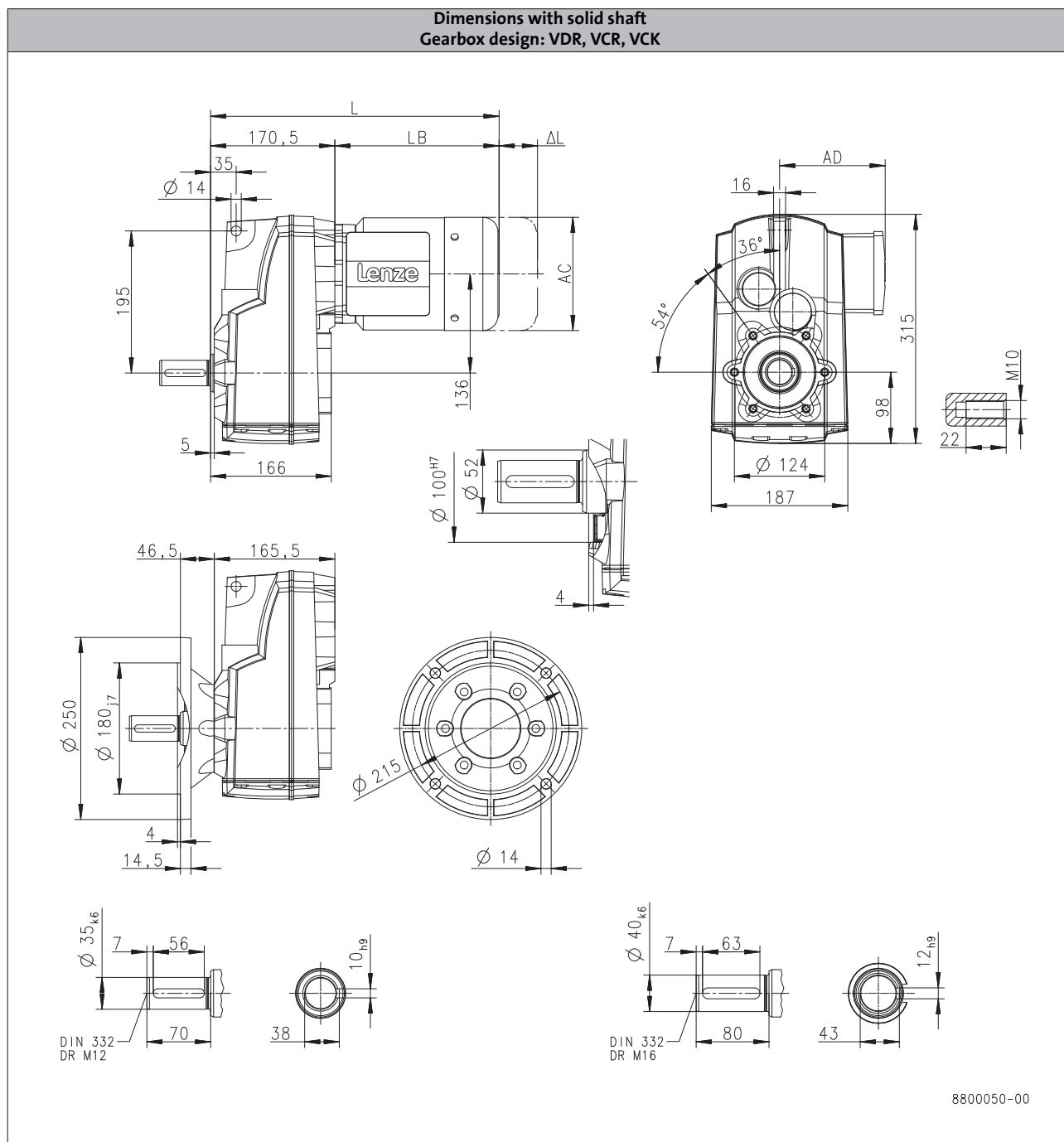
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		354			374	397
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

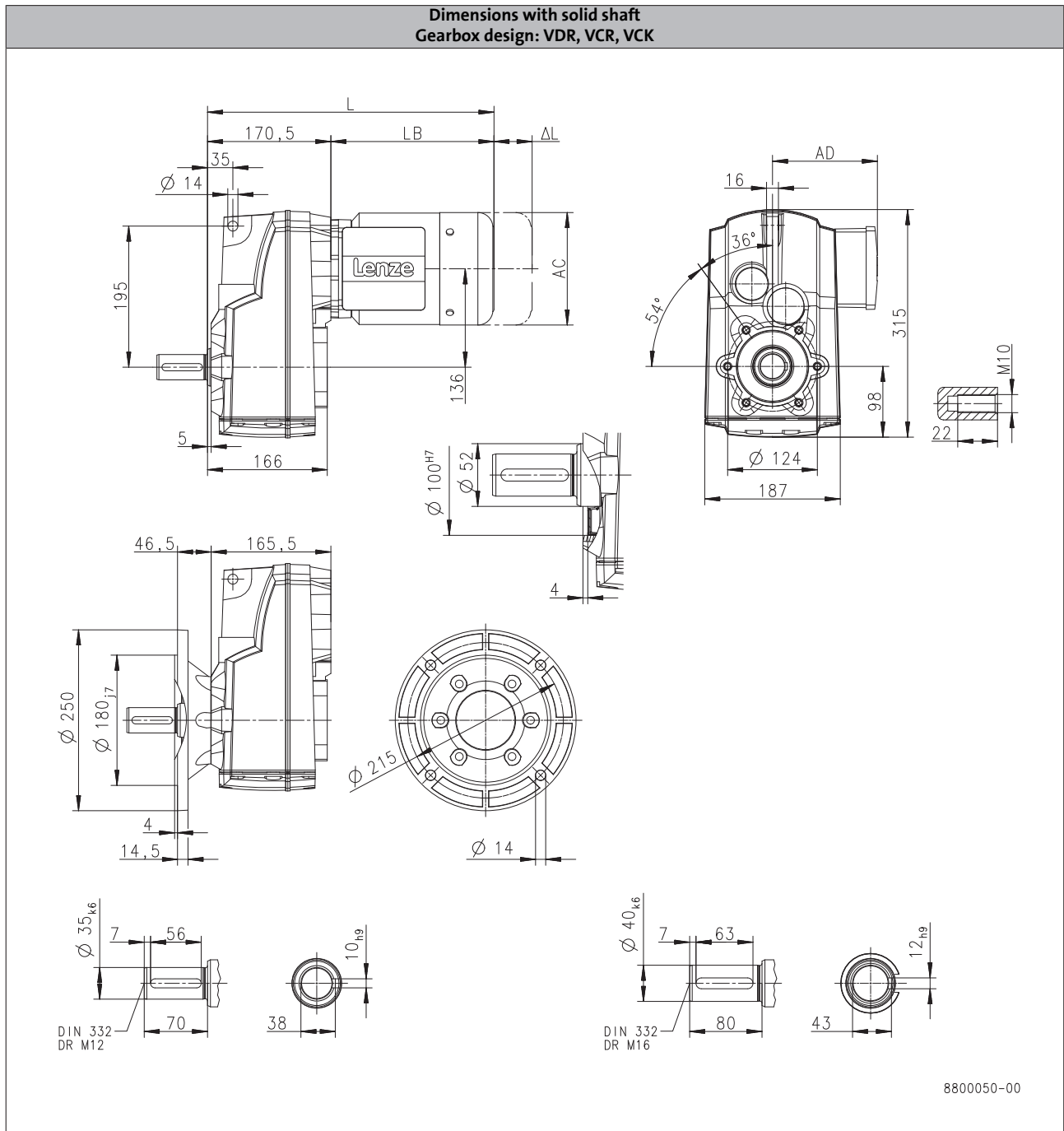
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	456		492	508	551	599
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194		218	258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166		176	195

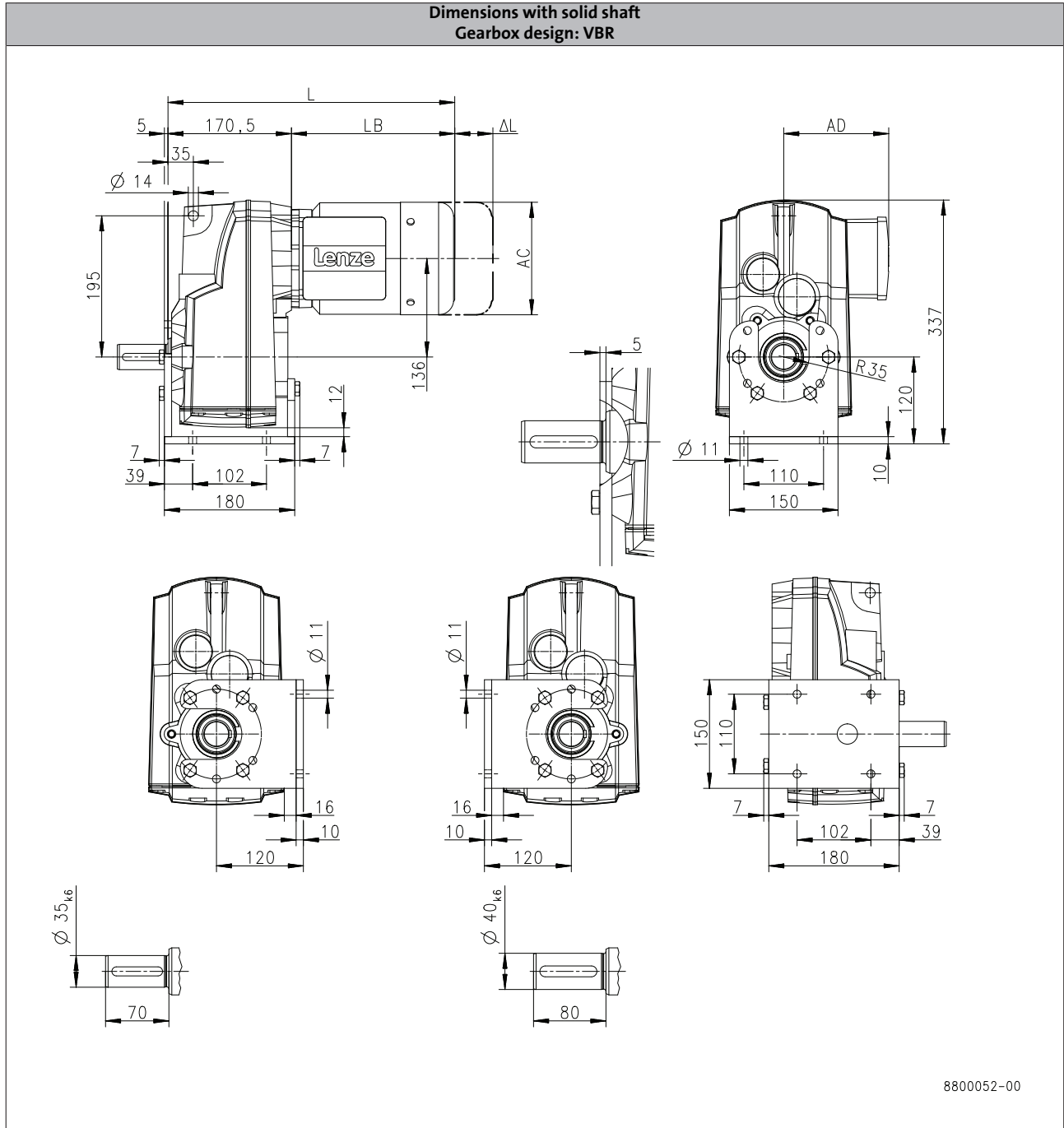
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		354			374	397
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

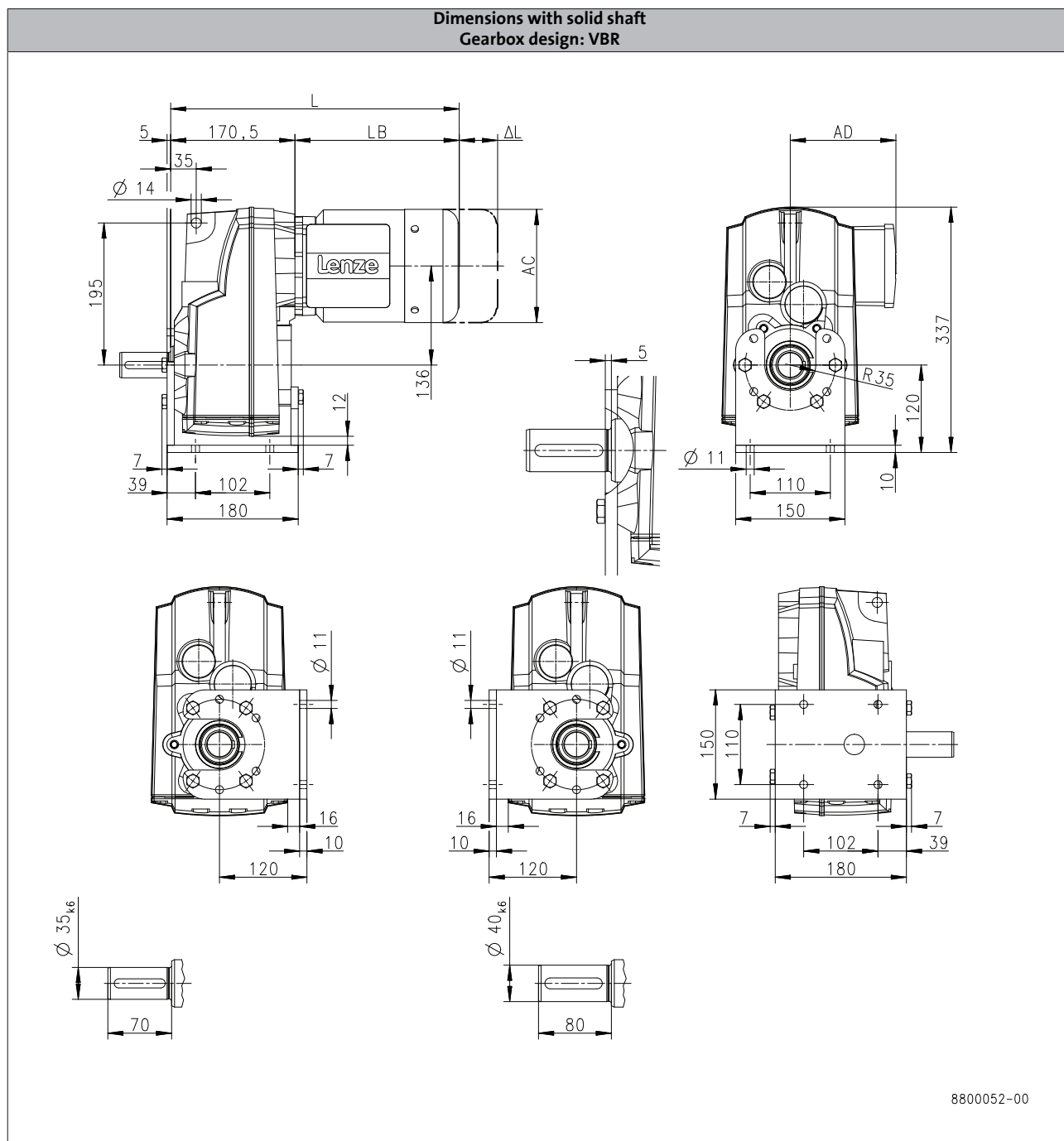
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S660



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	456	492	508	551	599	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166	176	195	

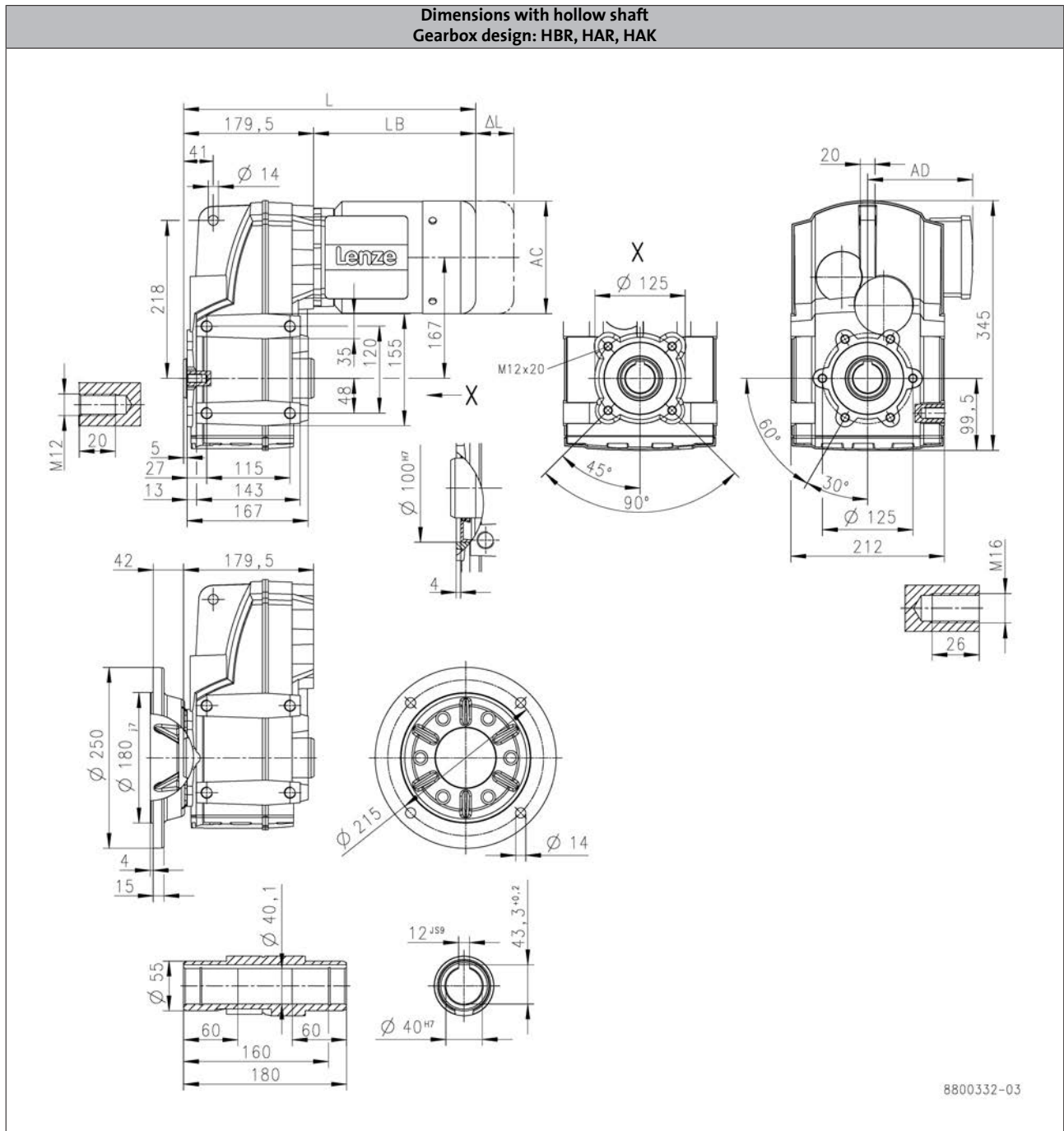
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S950



6.4

Product	MD□MA□□					MH□MA□□	
	063-12	063-32	063-42	071-32	071-42	080-32	
<b>Dimensions</b>							
<b>Total length</b>	<b>L</b>	[mm]	363		383	406	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150	

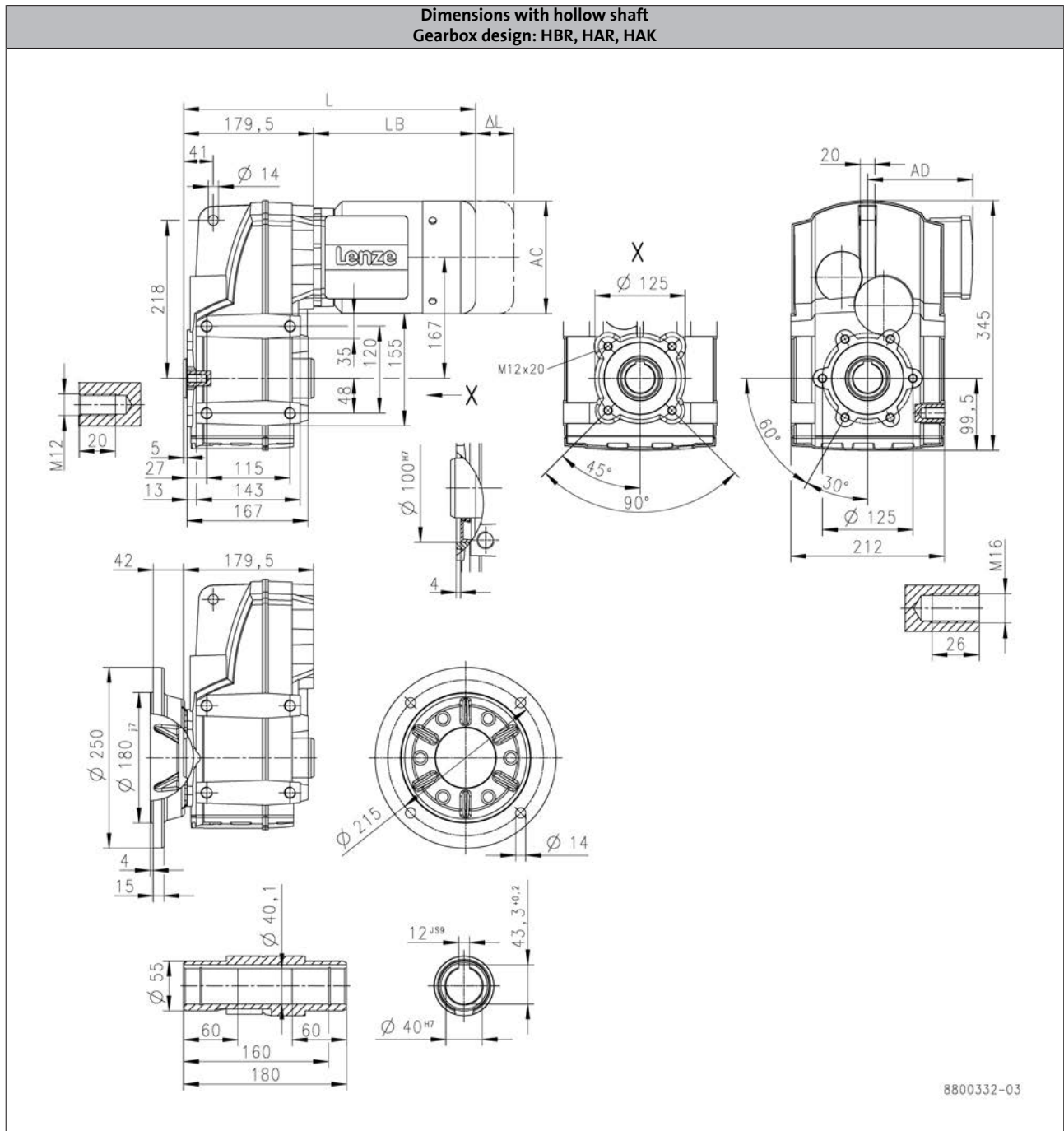
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S950



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	465		501	517	560	608
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]			176		194	218
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157		166	176	195



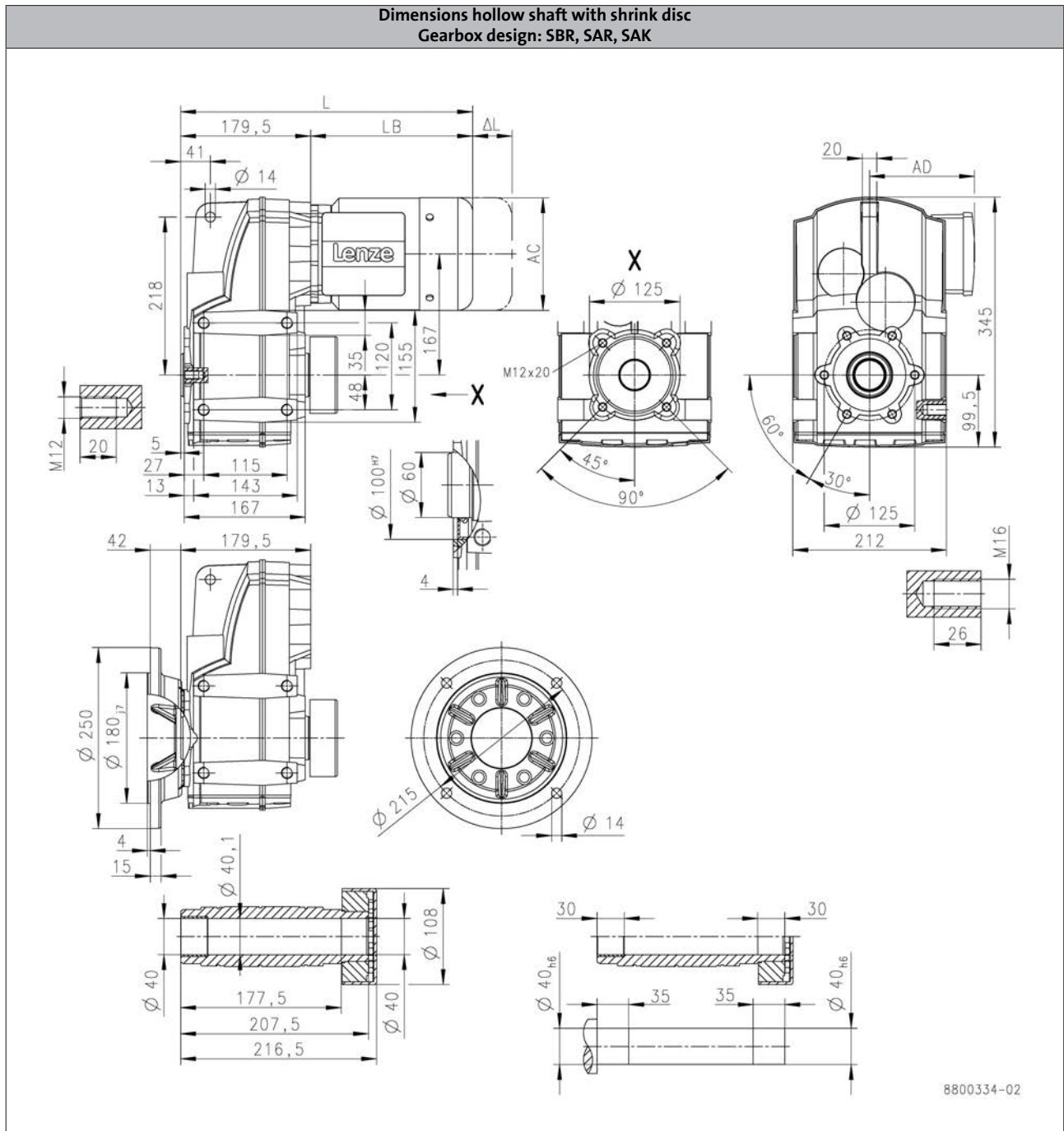
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S950



6.4

Product	MD□MA□□					MH□MA□□	
	063-12	063-32	063-42	071-32	071-42	080-32	
<b>Dimensions</b>							
<b>Total length</b>	<b>L</b>	[mm]	363		383		406
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150

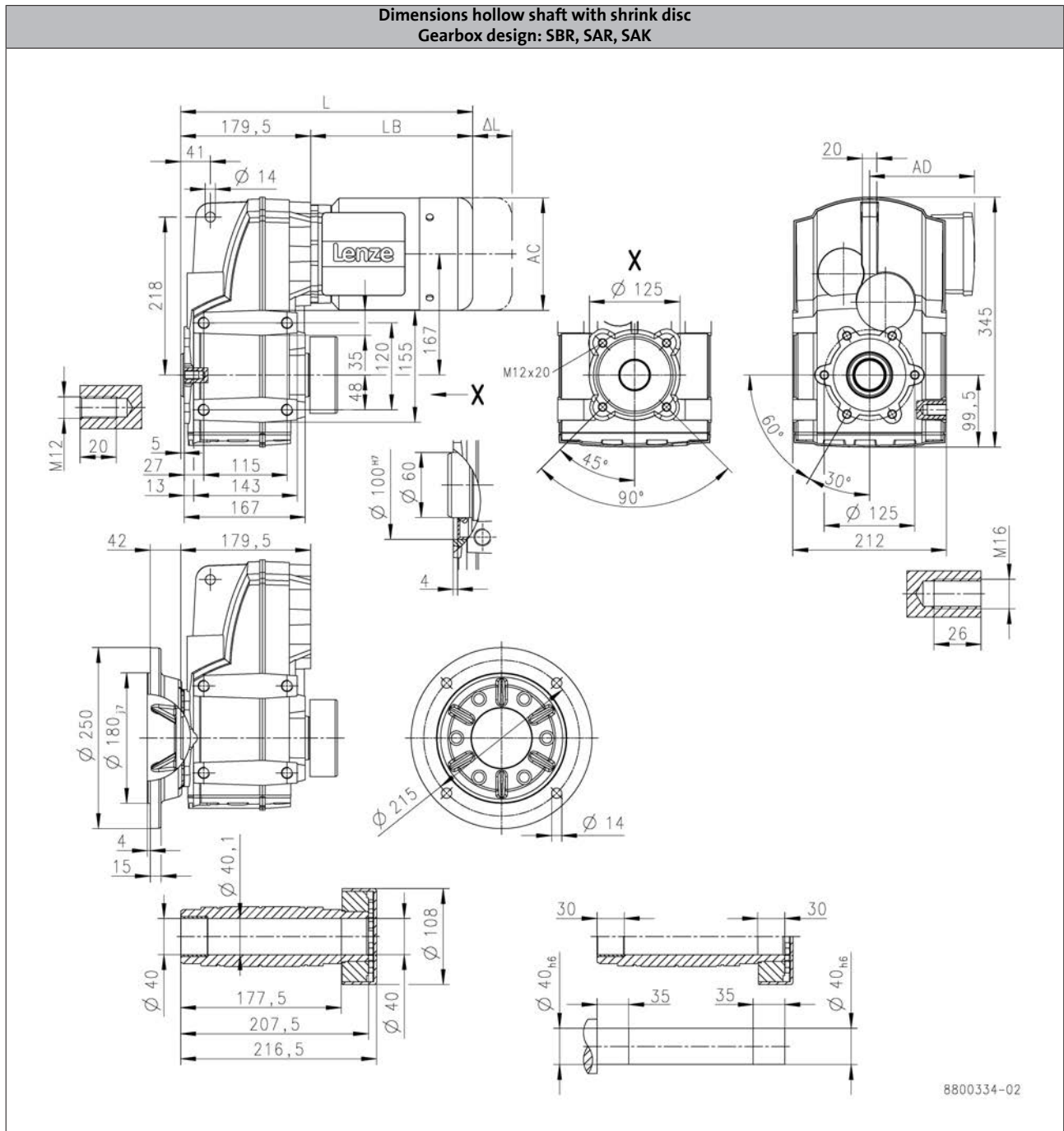
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S950



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
Total length	L	[mm]	465		501	517	560	608
Motor length	LB	[mm]	285		321	337	380	428
Length of motor options	Δ L	[mm]	181		170		183	202
Motor diameter	AC	[mm]		176	194		218	258
Distance motor/connection	AD	[mm]	152	157	166		176	195

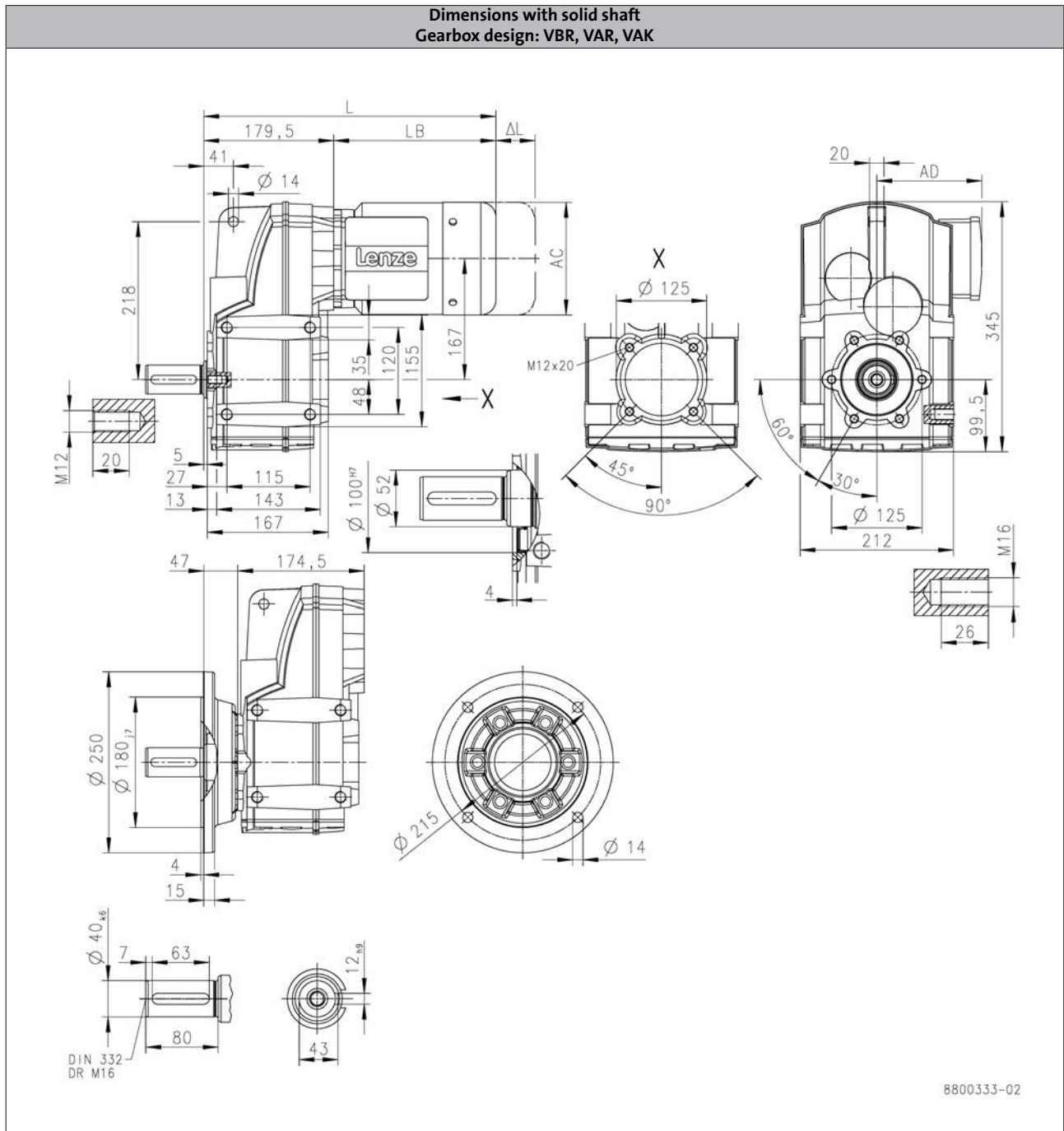
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S950



6.4

Product	MD□MA□□							MH□MA□□
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]		363			383	406
<b>Motor length</b>	<b>LB</b>	[mm]		183			203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170			165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]		123			139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100			109	150

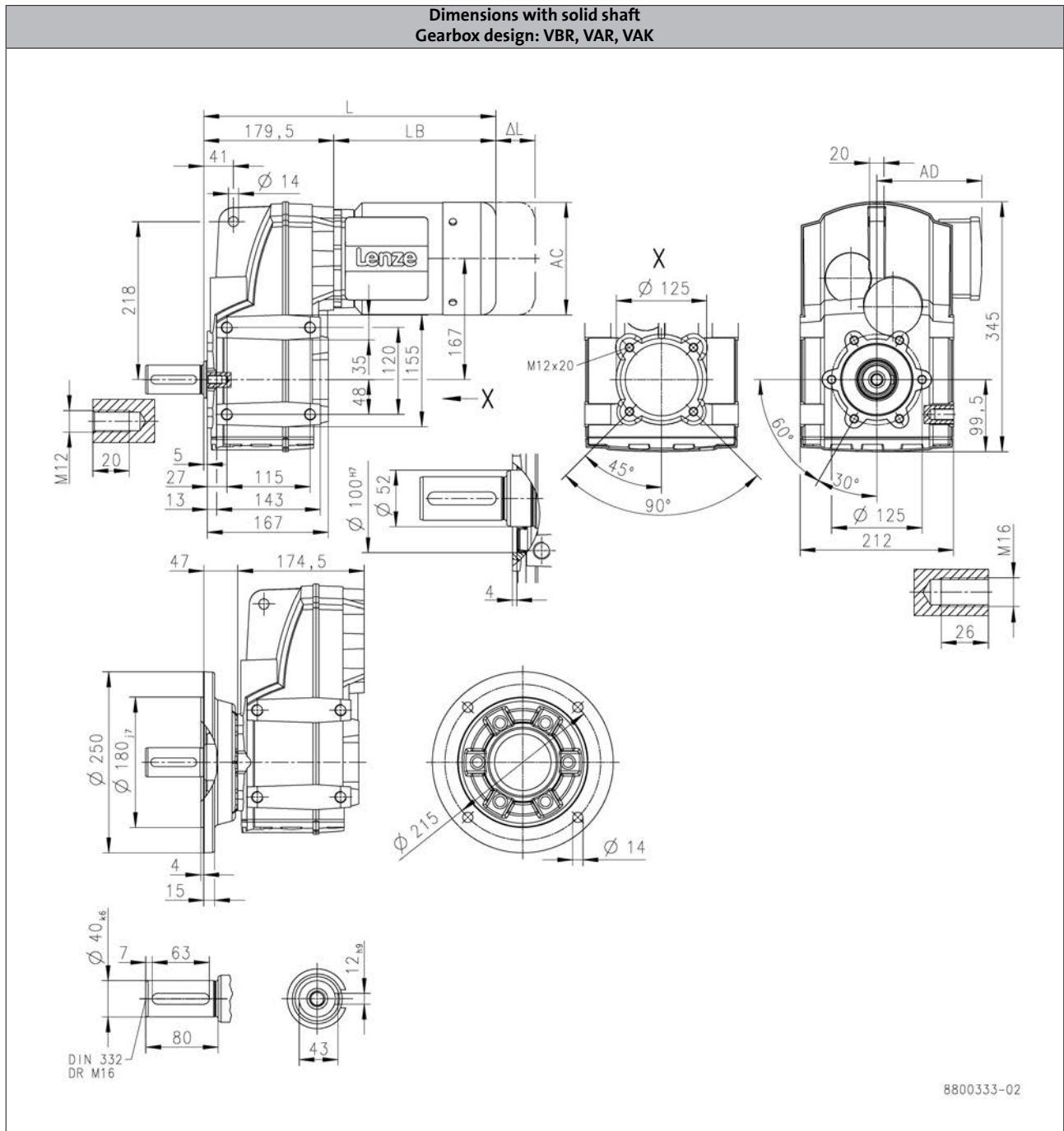
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S950



6.4

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	465		501	517	560	608
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]		176	194		218	258
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166		176	195

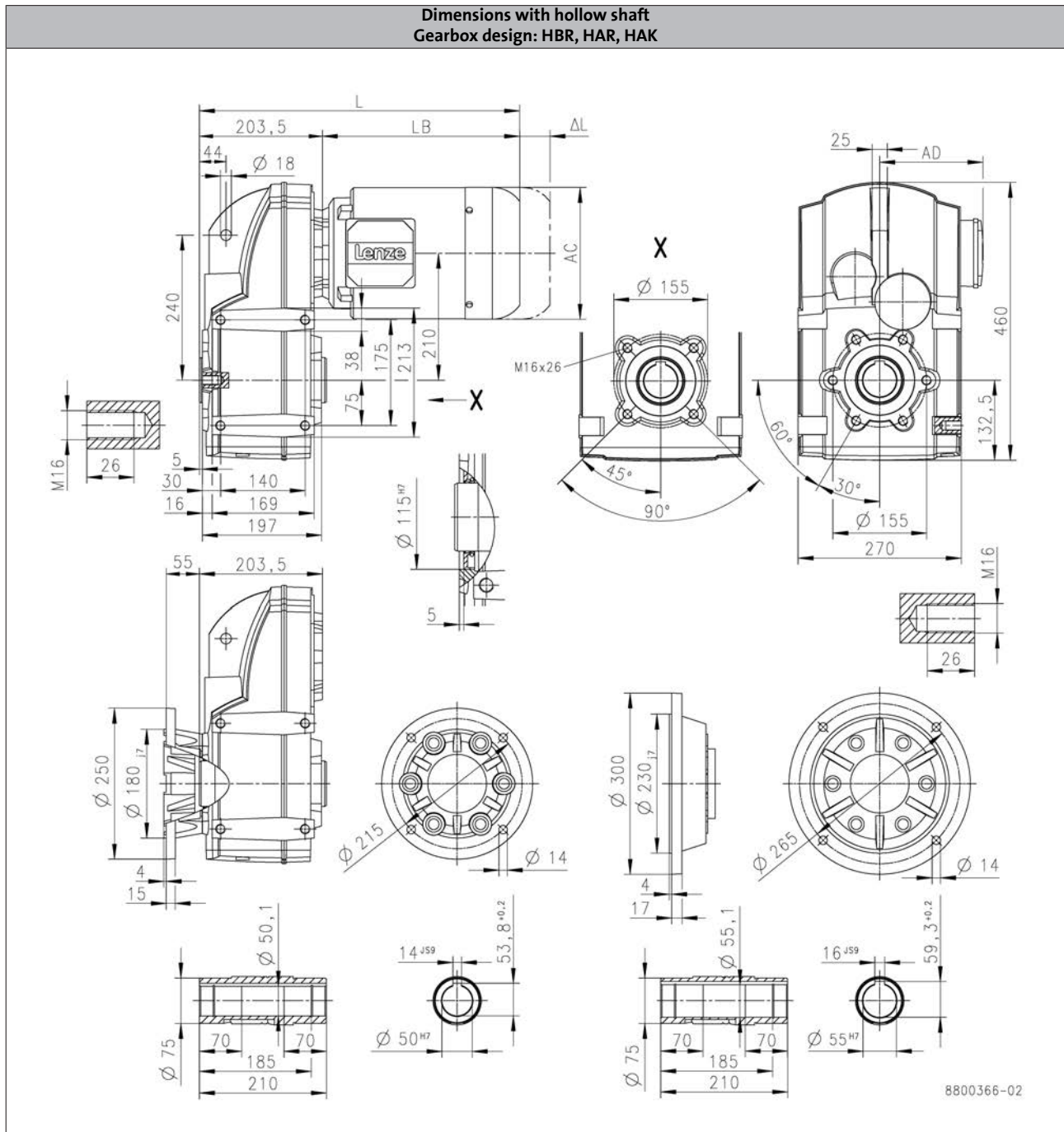
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S2100



6.4

Product	MD□MA□□					MH□MA□□					
	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	387	407	430	489	525	541	584	632	
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	183	202		
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	218	258		
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195	

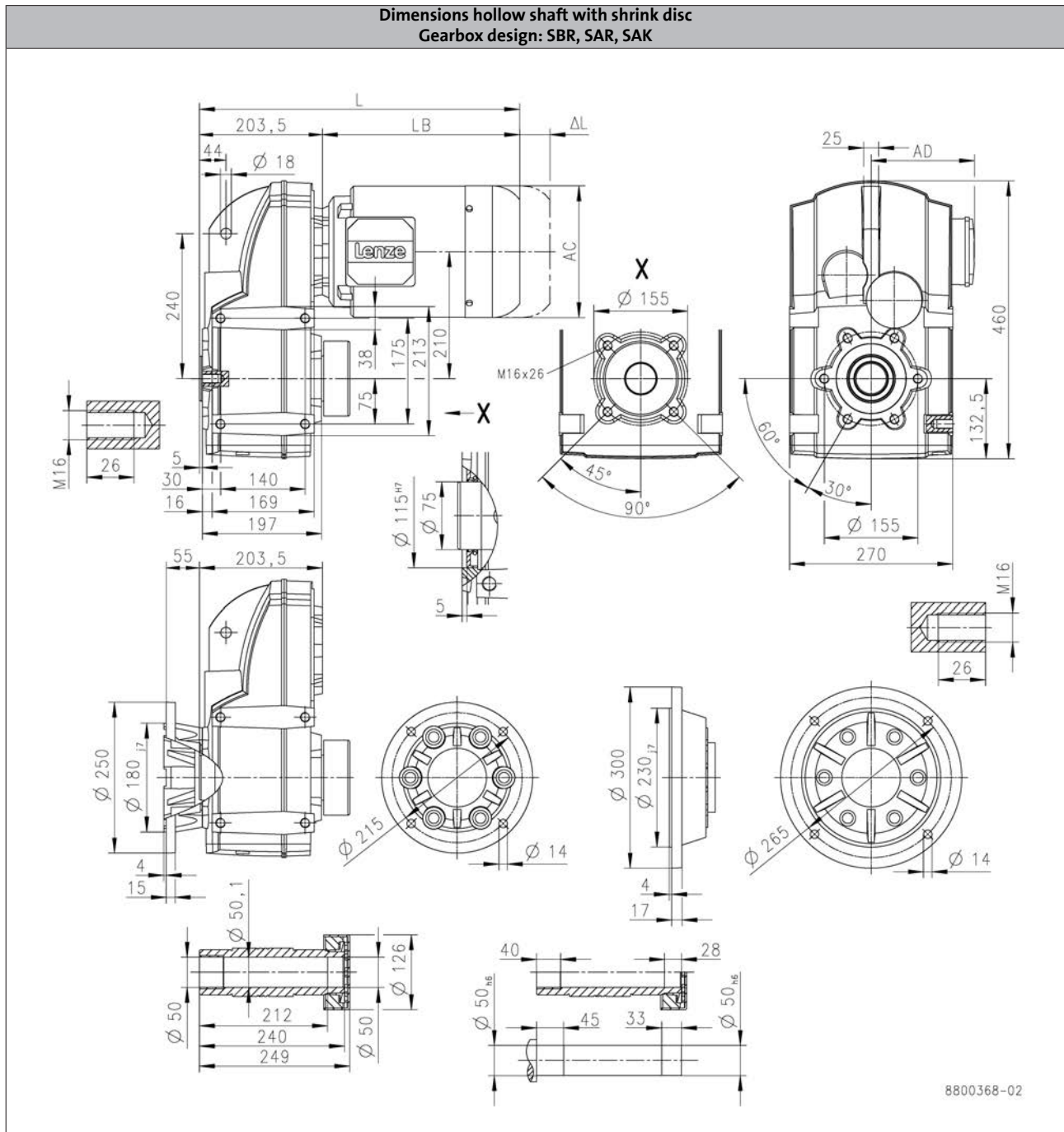
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S2100



6.4

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]	387	407	430	489	525	541	584	632		
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195		

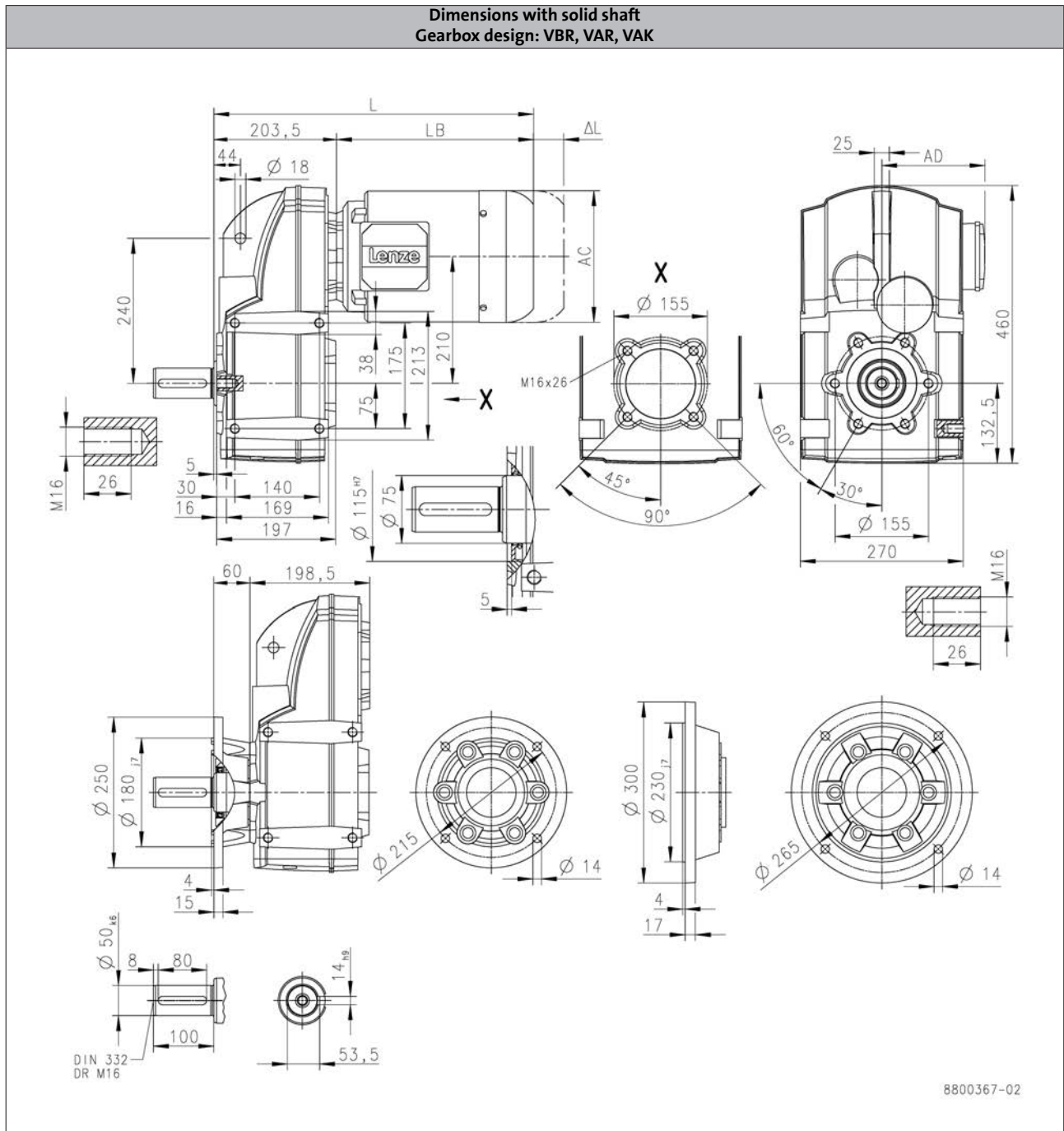
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S2100



6.4

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]	387	407	430	489	525	541	584	632		
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195		

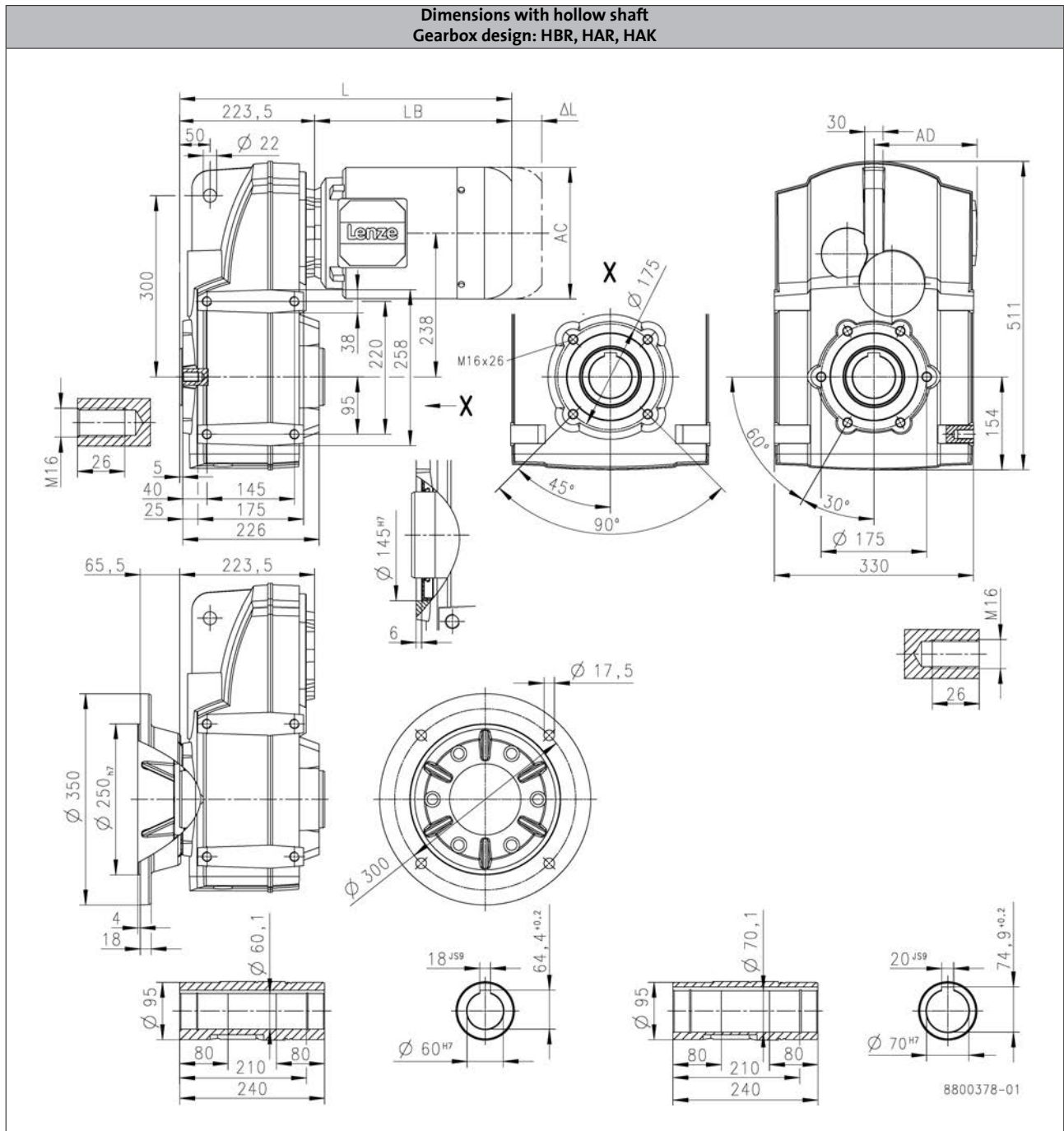
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S3100



Product	MD□MA□□					MH□MA□□					
	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	407	427	450	509	545	561	604	652	
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	170	183	202	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195	



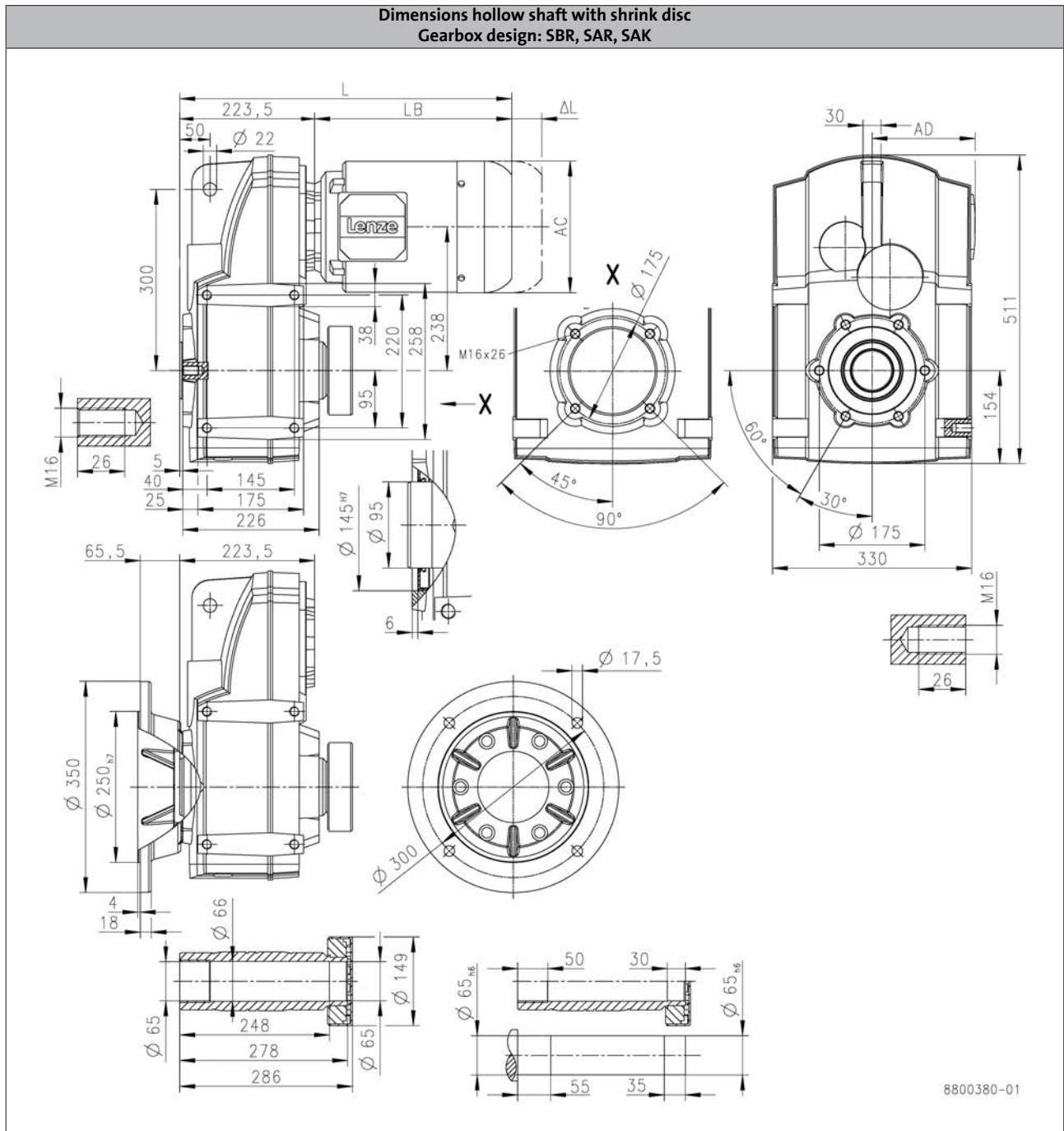
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S3100



6.4

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]	407	427	450	509	545	561	604	652		
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195		

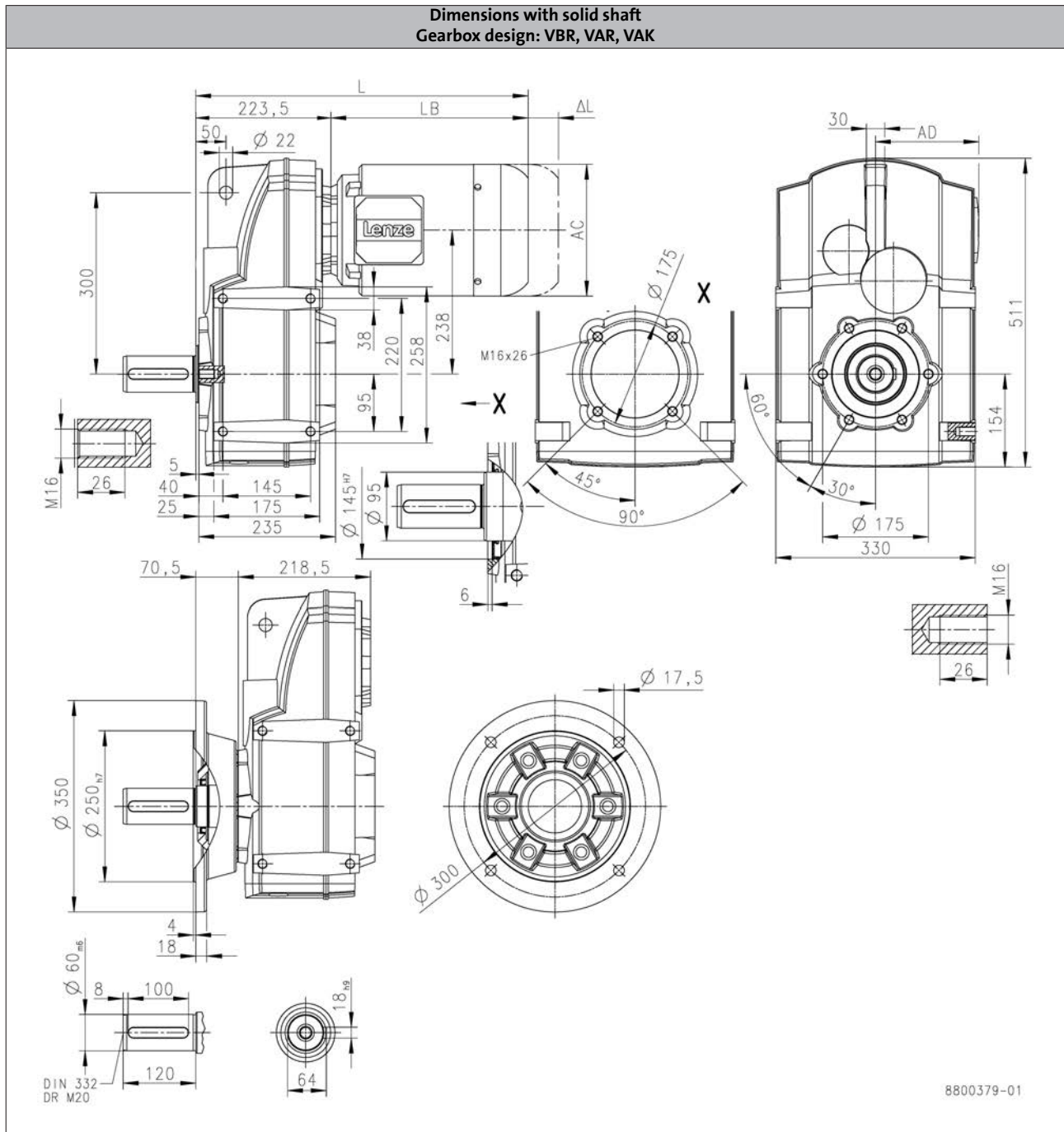
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S3100



6.4

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]	407	427	450	509	545	561	604	652		
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195		



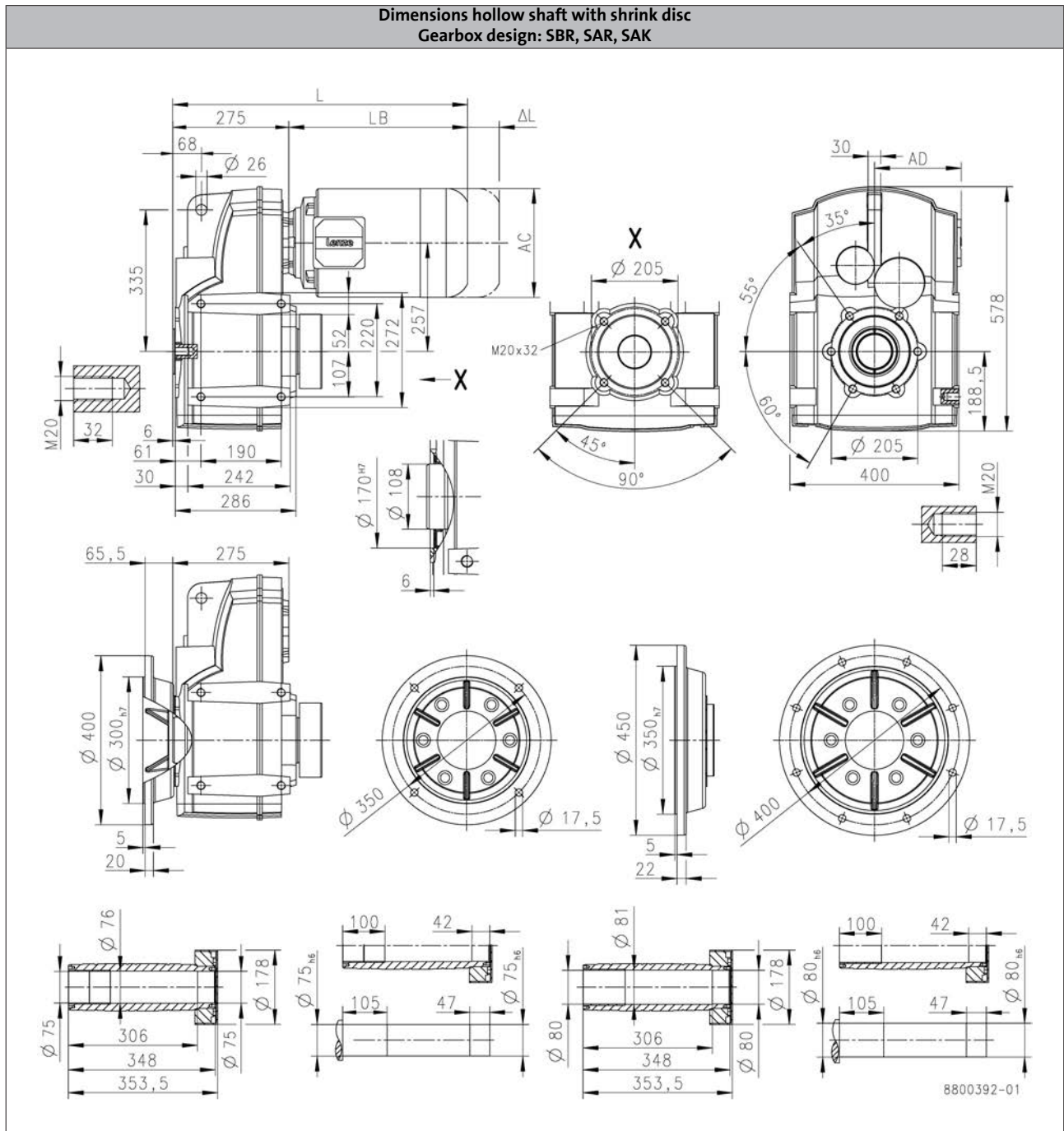
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S4500



6.4

Product	MD□MA□□			MH□MA□□								
				071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]		478	501	560	596	612	655		703	
<b>Motor length</b>	<b>LB</b>	[mm]		203	226	285	321	337	380		428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		165	183	181		170	183		202	
<b>Motor diameter</b>	<b>AC</b>	[mm]		139	156	176		194	218		258	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		109	150	152	157	166	176		195	

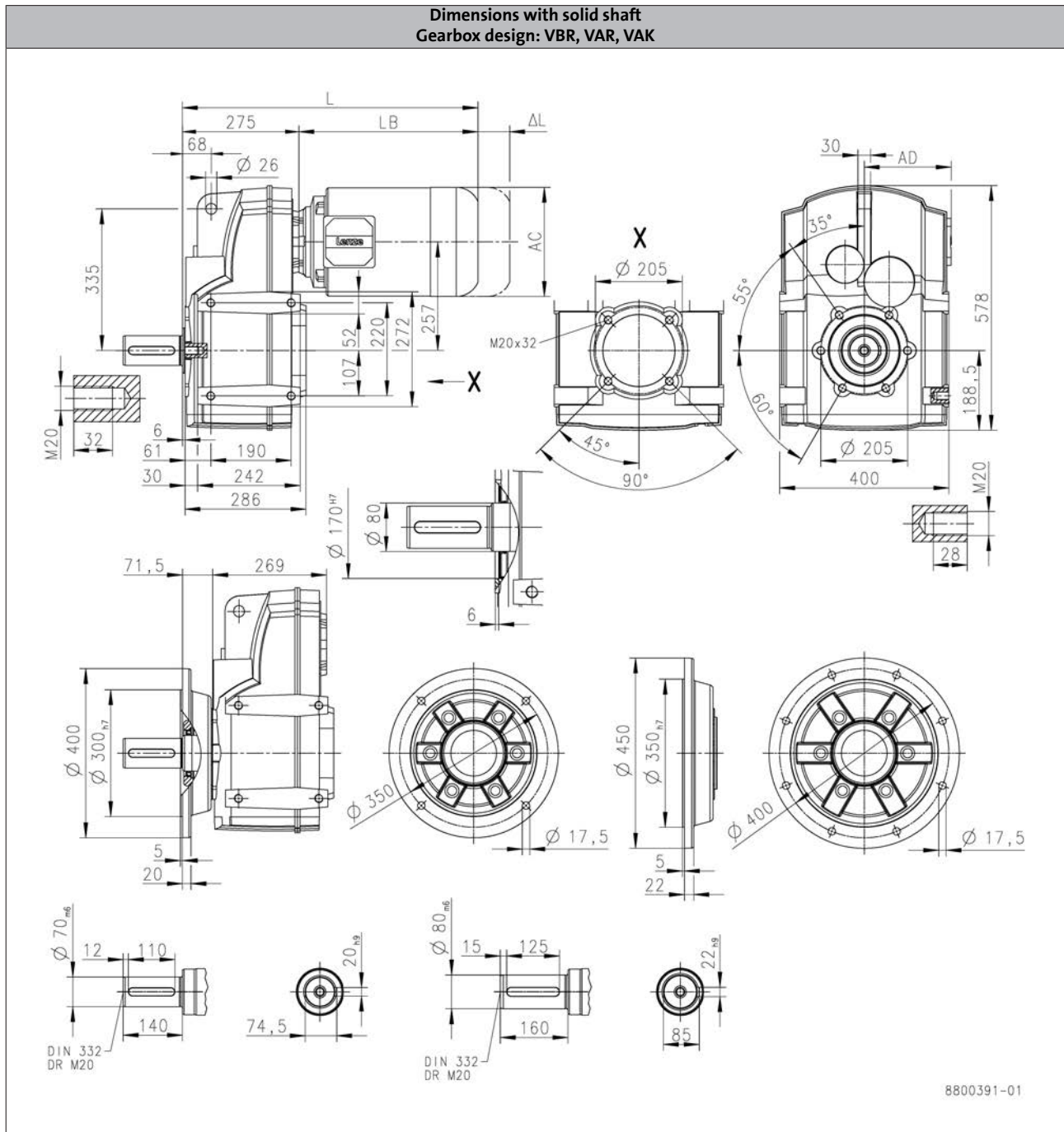
# g500-S shaft-mounted helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-S4500



6.4

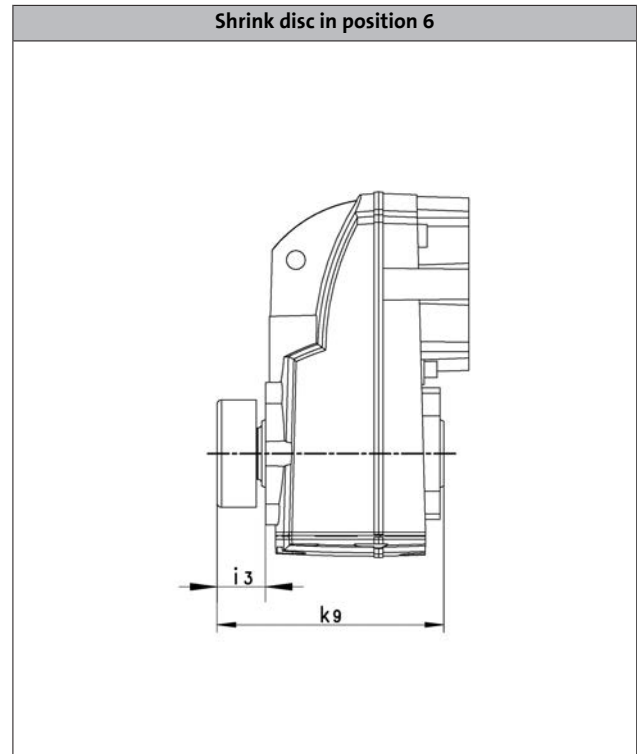
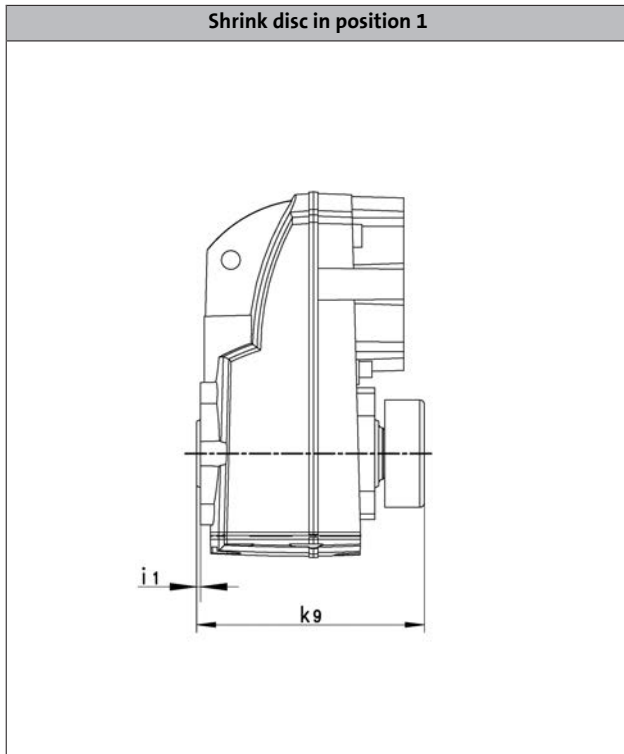
Product	MD□MA□□				MH□MA□□						
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	478	501	560	596	612	655		703	
<b>Motor length</b>	<b>LB</b>	[mm]	203	226	285	321	337	380		428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	165	183	181		170	183		202	
<b>Motor diameter</b>	<b>AC</b>	[mm]	139	156	176		194	218		258	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	109	150	152	157	166	176		195	

# g500-S shaft-mounted helical geared motors

Technical data



## Shrink disc dimensions



Product	Dimensions		
	$i_1$ [mm]	$i_3$ [mm]	$k_9$ [mm]
g500-S130	2.50	28.0	130
g500-S220	2.50	32.0	150
g500-S400	4.00	33.0	179
g500-S660	5.00	33.0	198
g500-S950	5.00	41.5	217
g500-S2100	5.00	44.0	249
g500-S3100	5.00	48.0	286
g500-S4500	6.00	57.5	354

# g500-S shaft-mounted helical geared motors

Technical data



## Additional length of the built-on accessories

### Dimensions, self-ventilated (4-pole)

Product			MD□MA□□			MH□MA□□				
			063-02 063-22	063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake										
	Δ L	[mm]	71.0	40.0	52.0	73.0	68.0	76.0	90.0	110
Feedback										
	Δ L	[mm]	71.0	56.0	52.0	111	87.0	81.0	80.0	103
Brake + Feedback										
	Δ L	[mm]	135	103	96.0	111	105	101	120	125

### Dimensions, forced ventilated (4-pole)

Product			MD□MA□□		MH□MA□□				
			063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake									
	Δ L	[mm]	170	165	183	181	170	183	202
Feedback									
	Δ L	[mm]	128				109	183	202
Brake + Feedback									
	Δ L	[mm]	170	165	183	181	170	183	202

# g500-S shaft-mounted helical geared motors

Technical data



## Weights, 4-pole motors

### 2-stage gearboxes

				MD□MA□□				MH□MA□□							
				063-12 063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
g500	-S130	m	[kg]	9.7	10	11	12	16	21	23					
	-S220	m	[kg]	12		13	14	18	23	25	31	34			
	-S400	m	[kg]	15		17		22	27	29	35	37	48		
	-S660	m	[kg]	20		22		27	32	34	40	42	54	72	79
	-S950	m	[kg]			42		47	52	54	60	62	73	92	99
	-S2100	m	[kg]						84	86	92	94	106	124	131
	-S3100	m	[kg]						123	125	131	134	145	163	170
	-S4500	m	[kg]								204	207	218	236	243

### 3-stage gearboxes

				MD□MA□□				MH□MA□□							
				063-12 063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
g500	-S220	m	[kg]	12		13		18							
	-S400	m	[kg]	15	16	17	18	22							
	-S660	m	[kg]	21		22	23	27	32	34					
	-S950	m	[kg]	40	41	42	43	47	52	54	60	63			
	-S2100	m	[kg]	73		74	75	79	84	86	92	95	106	124	131
	-S3100	m	[kg]	112		114		119	124	126	132	134	145	164	171
	-S4500	m	[kg]			190		194	199	201	207	210	221	239	246

- Weights with oil capacity for mounting position A, all given as approximate values.  
The weights refer to the basic version, observe additional weights!



# g500-S shaft-mounted helical geared motors

Technical data



## Additional weights for gearboxes

Product			g500-S130	g500-S220	g500-S400	g500-S660
<b>Mass</b>						
Solid shaft	m	[kg]	0.5	0.5	1.7	2.5
Shrink disc	m	[kg]	0.2	0.4	0.6	0.6
Foot	m	[kg]	1.7	1.8	3.3	4.3
Flange	m	[kg]	0.4	0.4	0.9	1.7

Product			g500-S950	g500-S2100	g500-S3100	g500-S4500
<b>Mass</b>						
Solid shaft	m	[kg]	3.0	5.5	8.4	19.0
Shrink disc	m	[kg]	1.2	1.7	2.3	4.3
Foot	m	[kg]				
Flange	m	[kg]	6.0	11.5	15.0	29.0

## Additional weights for motors

### 4-pole motors

Product			MD□MA□□			MH□MA□□				
			063-02 063-22	063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake			06	06	08	08	10	10	12	14
	m	[kg]	0.9	0.9	1.5	1.5	2.6	2.6	4.2	5.8
Blower										
	m	[kg]	0.9	2.0	2.1	2.3	2.7	3.0	3.1	4.2

# g500-S shaft-mounted helical geared motors

Technical data

---



# g500-S shaft-mounted helical geared motors

Product extensions



## Overview

### Torque plate

The torque is usually supported via the foot or the flange. Another simple option is the integrated torque plate at the housing. Here, the torque is supported only via one point and is, among other things, suitable for shaft-mounted gearboxes. Moreover, the suitable rubber buffers provide for a low-tension installation and absorb slight shocks.

The rubber buffers can be ordered optionally.

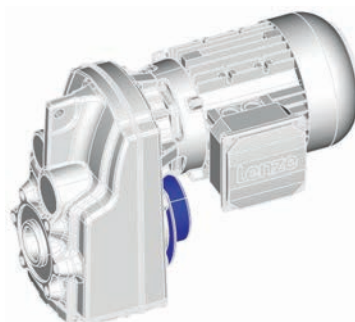
#### Rubber buffer for torque plate



### Shaft cover

The optional shrink disc cover is provided for the shrink disc to be protected from contact.

#### Shrink disc cover



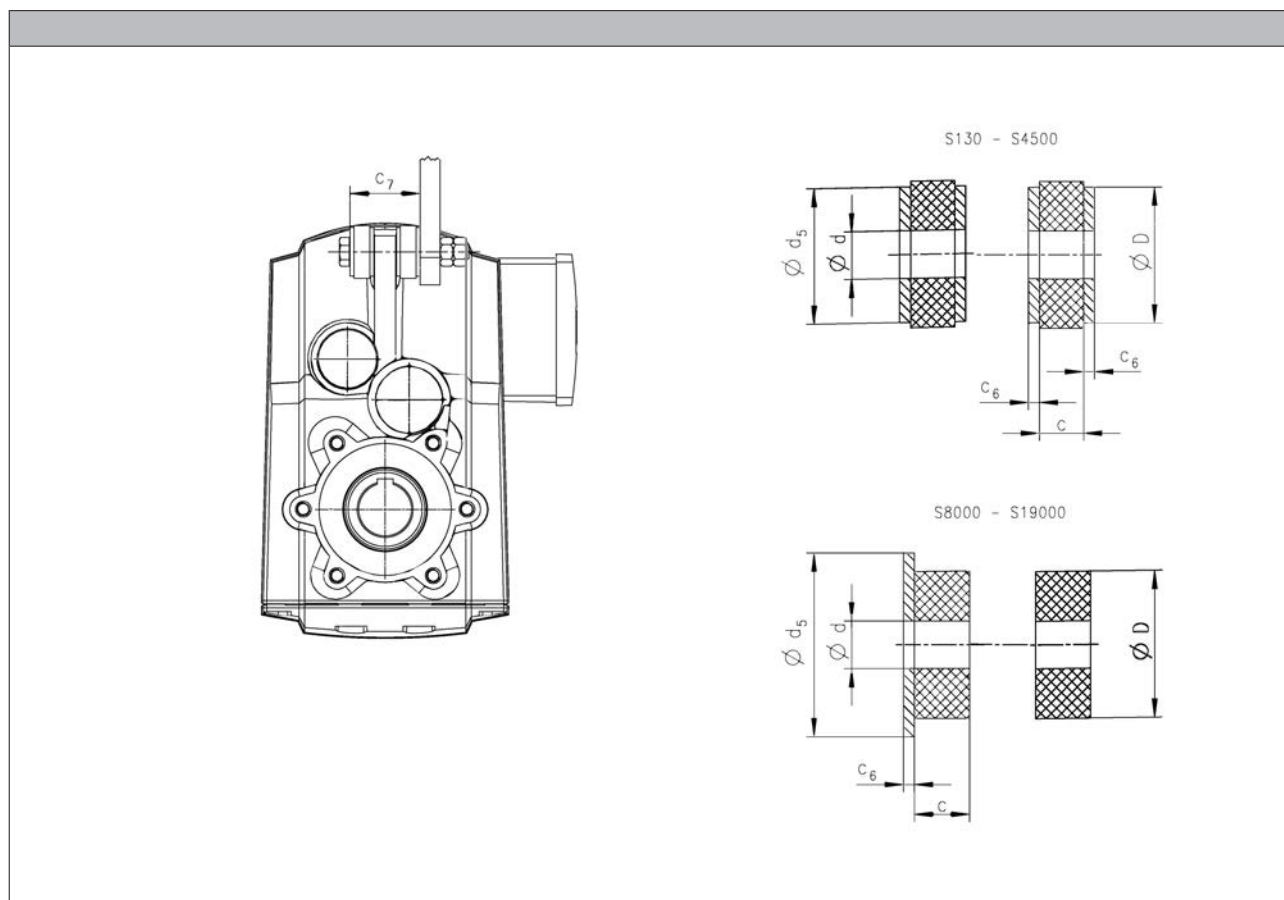
# g500-S shaft-mounted helical geared motors

Product extensions



## Torque plate

Rubber buffer for torque plate



Product	Dimensions						Mass m [kg]
	d [mm]	D [mm]	d <sub>5</sub> [mm]	c [mm]	c <sub>6</sub> [mm]	c <sub>7</sub> [mm]	
g500-S130	11.0	30.0	30	12.0	2.50	45.0	0.1
g500-S220	11.0	30.0	30	12.0	2.50	45.0	0.1
g500-S400	13.0	40.0	37	12.0	3.00	49.0	0.1
g500-S660	13.0	40.0	37	12.0	3.00	52.0	0.1
g500-S950	13.0	40.0	37	12.0	3.00	56.0	0.1
g500-S2100	17.0	50.0	50	24.0	3.00	85.0	0.5
g500-S3100	21.0	60.0	60	24.0	4.00	94.0	0.5
g500-S4500	26.0	72.0	72	24.0	5.00	98.0	0.5
g500-S8000	25.0	80.0	100	40.0	10.0	128	1.0
g500-S14000	31.0	120	140	50.0	12.0	152	1.0
g500-S19000	31.0	120	140	50.0	12.0	156	1.0

6.4

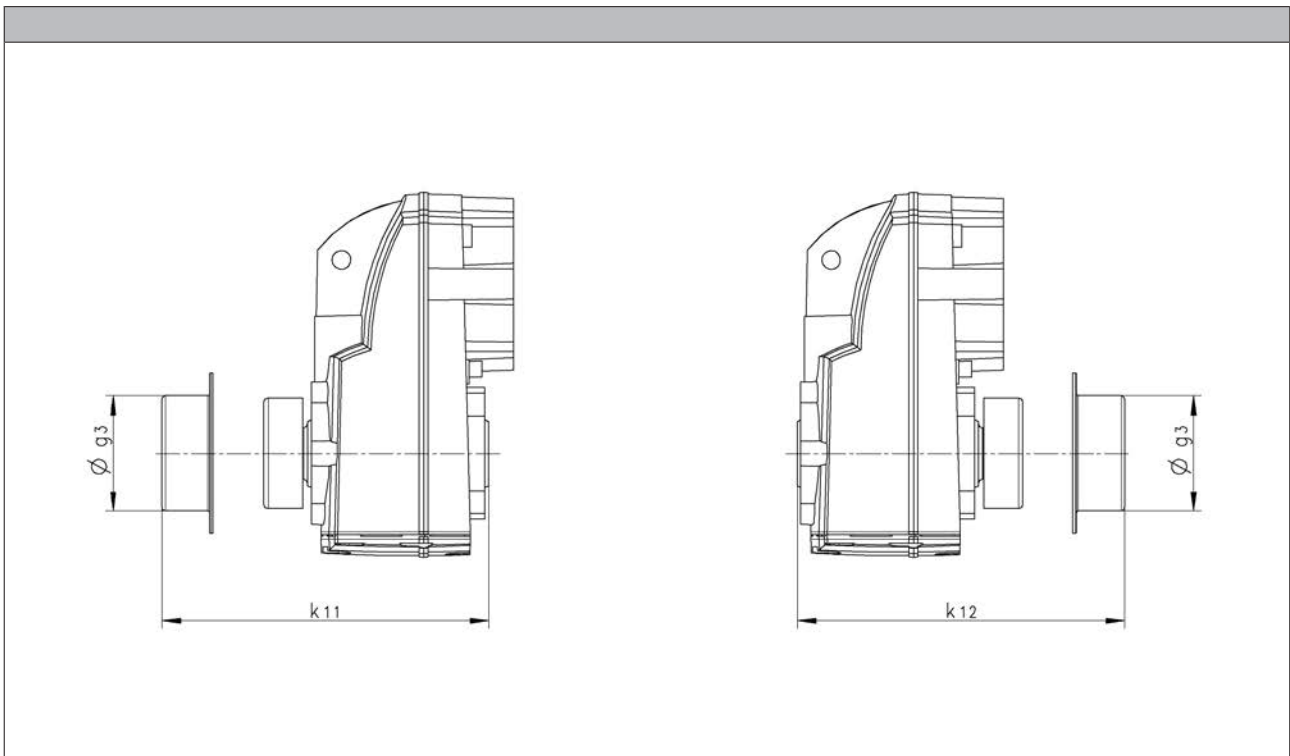
# g500-S shaft-mounted helical geared motors

Product extensions



## Shaft cover

Shrink disc cover



Product	Dimensions			Mass
	$g_3$ [mm]	$k_{11}$ [mm]	$k_{12}$ [mm]	m [kg]
g500-S130	63.0	132	132	0.1
g500-S220	76.0	152	152	0.1
g500-S400	90.0	182	182	0.1
g500-S660	90.0	200	202	0.1
g500-S950	110	219	219	0.1
g500-S2100	127	252	252	0.2
g500-S3100	155	290	290	0.3
g500-S4500	188	355	357	0.4
g500-S8000 <sup>1)</sup>	218		425	0.5
g500-S14000 <sup>1)</sup>	258		520	0.6
g500-S19000 <sup>1)</sup>	310		622	0.9

<sup>1)</sup> Shrink disc only available in position 1 (on the motor end).

# g500-S shaft-mounted helical geared motors

Product extensions



# g500-S shaft-mounted helical geared motors

## Appendix



### Gearbox code

Example		G	50	B	S	113	M	H	D	R	2	C	1B
Meaning	Variant												
Product family		G	50										
Generation				B									
Gearbox type	Shaft-mounted helical gearbox				S								
Output torque	130 Nm					113							
	220 Nm					122							
	400 Nm					140							
	660 Nm					166							
	950 Nm					195							
	2100 Nm					221							
	3100 Nm					231							
	4500 Nm					245							
	8000 Nm					280							
	14000 Nm					314							
	19000 Nm					319							
Type of construction	Geared motor						M						
	Gearboxes						N						
Shaft type	Solid shaft with feather key							V					
	Hollow shaft with keyway							H					
	Hollow shaft with shrink disc							S					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	Centering								C				
	Threaded pitch circle								D				
Flange mounting	Without flange									R			
	Flange with through holes									k			
Number of stages	2-stage										2		
	3-stage										3		
Motor mounting	Integrated											C	
	IEC motor											N	
	NEMA motor											A	
	Servo motor											S	
Drive size												1A ... □H	

# g500-S shaft-mounted helical geared motors

## Appendix



### Motor code

Example	M	D	E	MA	XX	063	-	4	2	C1	C
Meaning	Variant	Motor code									
Product family		M									
Efficiency class	IE1		D								
	IE2		H								
Cooling	Natural ventilation			S							
	Integral fan			E							
	Blower			F							
Internal key					MA						
Built-on accessories	Without built-on accessories					XX					
	Brake					BR					
	Brake + resolver					BS					
	Brake + incremental encoder					BI					
	Brake + SinCos absolute value encoder					BA					
	Resolver					RS					
	Incremental encoder					IG					
	SinCos absolute value encoder					AG					
Size							063				
							071				
							080				
							090				
							100				
							112				
							132				
Overall length									0		
									1		
								-	2		
									3		
								4			
Number of pole pairs	4-pole motors								2		
Internal key										C1	
Approval	CE										C
	cURus										U
	CCC										3



# g500-S shaft-mounted helical geared motors

Appendix



# g500-S shaft-mounted helical geared motors

Appendix



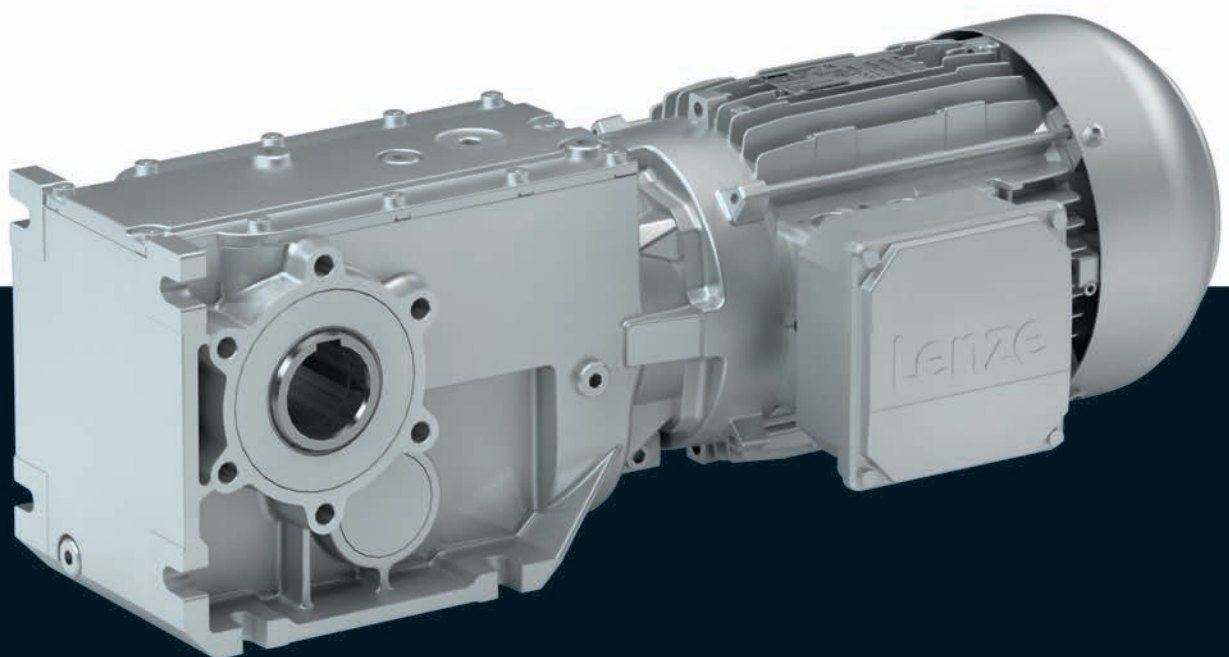
Gearboxes

# g500-B bevel geared motors

**Inverter/mains operation**

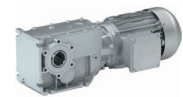
**0.06 ... 0.55 kW (efficiency class IE1)**

**0.75 ... 7.5 kW (efficiency class IE2)**





# g500-B bevel geared motors

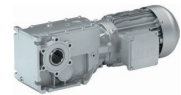


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# g500-B bevel geared motors

## General information



### List of abbreviations

$\alpha$	[rad/s <sup>2</sup> ]	Max. permissible angular acceleration
$\eta_{50\%}$	[%]	Efficiency
$\eta_{75\%}$	[%]	Efficiency
$\eta_{100\%}$	[%]	Efficiency
$\eta_a$		Efficiency
$\eta_{c=1}$		Efficiency
c		Load capacity
$\cos \phi$		Power factor
du/dt	[kV/ $\mu$ s]	Insulation resistance
$F_{ax,-}$	[N]	Min. axial force
$F_{ax,+}$	[N]	Max. axial force
$F_{ax,max}$	[N]	Max. axial force
$f_{in,max}$	[Hz]	Max. input frequency
$f_{max}$	[kHz]	Limit frequency
$f_{max}$	[kHz]	Max. switching frequency
$f_N$	[Hz]	Rated frequency
$F_{rad,max}$	[N]	Max. radial force
$f_z$		Additional radial force factor
$H_{max}$	[m]	Site altitude
$I_0$	[A]	Standstill current
i		Ratio
$I_{in,max}$	[A]	Max. input current
$I_{max}$	[A]	Max. current consumption
$I_{max}$	[A]	Max. current
$I_{max}$	[A]	Max. current consumption
$I_{max}$	[A]	Max. current
$I_{max}$	[A]	Max. short-time DC-bus current
$I_{max}$	[A]	Max. DC-bus current
$I_N$	[A]	Rated current
$I_{N,\Delta}$	[A]	Rated current
$I_{N,Y}$	[A]	Rated current
J	[kgcm <sup>2</sup> ]	Moment of inertia
$J_{MB}$	[kgcm <sup>2</sup> ]	Moment of inertia
$KE_{LL\ 150^\circ C}$	[V/(1000 r/min)]	Voltage constant
$Kt_{0\ 150^\circ C}$	[Nm/A]	Torque constant
$L_{10}$	[h]	Bearing service life
L	[mH]	Mutual inductance
$L_{1\sigma}$	[mH]	Stator leakage inductance
$L_{2\sigma}$	[mH]	Rotor leakage inductance
$L_N$	[mH]	Rated inductance
m	[kg]	Mass
$M_2$	[Nm]	Output torque
$M_{22}$	[Nm]	Output torque
$M_0$	[Nm]	Stall torque
$M_{0,max}$	[Nm]	Max. standstill torque
$M_{2,GM}$	[Nm]	Output torque
$M_{2,max}$	[Nm]	Max. output torque
$M_{2,not}$	[Nm]	Emergency off-torque

$M_a$	[Nm]	Starting torque
$M_{a,1}$	[Nm]	Starting torque
$M_{a,2}$	[Nm]	Starting torque
$M_{av}$	[Nm]	Average dynamic torque
$M_b$	[Nm]	Stalling torque
$M_B$	[Nm]	Braking torque
$M_k$	[Nm]	Rated torque
$M_{max}$	[Nm]	Max. torque
$M_N$	[Nm]	Rated torque
$n_2$	[r/min]	Output speed
$n_{21}$	[r/min]	Output speed
$n_{22}$	[r/min]	Output speed
$n_{1,max}$	[r/min]	Max. gearbox input speed
$n_{1,max\ 50\%}$	[r/min]	Max. gearbox input speed
$n_{eto}$	[r/min]	Transition speed
$n_k$	[r/min]	Speed
$n_{max}$	[r/min]	Max. speed
$n_N$	[r/min]	Rated speed
$P_{max}$	[kW]	Max. power input
$Q_{BW}$	[MJ]	Friction energy
$Q_E$	[J]	Maximum switching energy
$Q_E$	[kJ]	Maximum switching energy
$R_1$	[ $\Omega$ ]	Stator impedance
$R_2$	[ $\Omega$ ]	Rotor impedance
R	[ $\Omega$ ]	Insulation resistance
R	[ $\Omega$ ]	Min. insulation resistance
$R_{UV\ 150^\circ C}$	[ $\Omega$ ]	Stator impedance
$R_{UV\ 20^\circ C}$	[ $\Omega$ ]	Stator impedance
$S_{h\ddot{u}}$	[1/h]	Transition operating frequency
$t_1$	[ms]	Engagement time
$t_2$	[ms]	Disengagement time
$t_{11}$	[ms]	Delay time
$t_{12}$	[ms]	Rise time
T	[ $^\circ C$ ]	Max. surface temperature
T	[ $^\circ C$ ]	Min. ambient temperature for transport
T	[ $^\circ C$ ]	Max. ambient temperature for transport
T	[ $^\circ C$ ]	Max. ambient temperature of bearing
T	[ $^\circ C$ ]	Min. ambient storage temperature
T	[ $^\circ C$ ]	Ambient temperature
T	[ $^\circ C$ ]	Operating temperature
T	[ $^\circ C$ ]	Rated temperature
t	[h]	Service life
$T_{opr}$		Ambient operating temperature
$T_{opr,max}$	[ $^\circ C$ ]	Max. ambient operating temperature
$T_{opr,min}$	[ $^\circ C$ ]	Min. ambient operating temperature
$t_{re}$	[s]	Recovery time
$t_{\ddot{u}}$	[ms]	Overexcitation time
$U_{\Delta}$	[V]	Voltage range
$U_{AC}$	[V]	Mains voltage range

# g500-B bevel geared motors

## General information

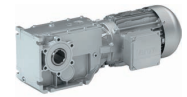


### List of abbreviations

$U_{AC}$	[V]	Mains voltage
$U_{in,max}$	[V]	Max. input voltage
$U_{in,min}$	[V]	Min. input voltage
$U_{max}$	[V]	Max. input voltage
$U_{max}$	[V]	Max. mains voltage
$U_{min}$	[V]	Min. mains voltage
$U_{N,\Delta}$	[V]	Rated voltage
$U_{N,AC}$	[V]	Rated voltage
$U_{N,DC}$	[V]	Rated voltage
$U_{N,Y}$	[V]	Rated voltage
$Z_g$		Number of teeth
$Z_{ro}$	[ $\Omega$ ]	Rotor impedance
$Z_{rs}$	[ $\Omega$ ]	Impedance
$Z_{so}$	[ $\Omega$ ]	Stator impedance
$Z_t$		Number of teeth

CCC	China Compulsory Certificate
CE	Communauté Européenne
CEL	China Energy Label
CSA	Canadian Standards Association
CSAULE	Energy Verified Certificate
cURus	Combined certification marks of UL for the USA and Canada
DIN	Deutsches Institut für Normung e.V.
EAC	Customs union Russia / Belarus / Kazakhstan certificate
EMC	Electromagnetic compatibility
EN	European standard
IM	International Mounting Code
IP	International Protection Code
NEMA	National Electrical Manufacturers Association
UkrSEPRO	Certificate for Ukraine
UL	Underwriters Laboratory Listed Product
UR	Underwriters Laboratory Recognized Product
VDE	Verband deutscher Elektrotechniker (Association of German Electrical Engineers)

# g500-B bevel geared motors



## General information

### Product information

In combination with three-phase AC motors, our bevel gearboxes form a compact and powerful drive unit. Numerous options at the input and output end provide for the drive to be exactly adapted to your application.

The efficient bevel gearboxes feature high reliable radial forces, closely stepped gear reductions and a low backlash. They are available in 2-stage and 3-stage design with a torque up to 4300 Nm and a ratio of up to  $i=360$ .

#### Three-phase AC motors as a basis for geared motors

In a power range of 0.06 to 7.5 kW, Lenze offers inverter-compatible three-phase AC motors for comprehensive tasks. These drives come in different efficiency classes and can be used for the versions required for open-loop or closed-loop controlled inverter operation.

- IE1 motors up to a power of 0.55 kW
- IE2 motors from 0.75 kW to 7.5 kW

#### Versions

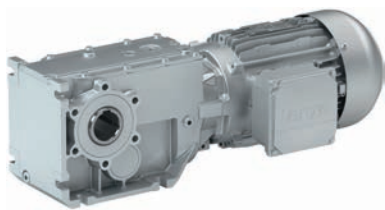
- High-efficient right-angle gearbox in a compact design for space-saving installation
- Standardised shaft and flange dimensions for an easy machine integration
- Low backlash and high torsional stiffness provide for exact results in positioning applications

#### Customer benefit:

- Different efficiency classes for the greatest economic benefit
- Space-saving thanks to compact direct attachment to Lenze gearboxes
- Can be used universally for a wide range of machine tasks due to the market-oriented modular system

### The product name

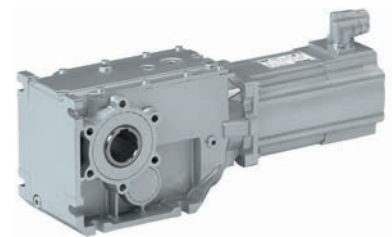
Gearbox type	Product range	Design	Rated torque [Nm]	Product	
Bevel gearbox	g500	-	B	45	g500-B45
				110	g500-B110
				240	g500-B240
				450	g500-B450
				600	g500-B600
				820	g500-B820
				1500	g500-B1500
				2700	g500-B2700
				4300	g500-B4300



g500-B bevel gearbox with three-phase AC motor



g500-B bevel gearbox with three-phase AC motor and 8400 motec inverter



g500-B bevel gearbox with servo motor



# g500-B bevel geared motors

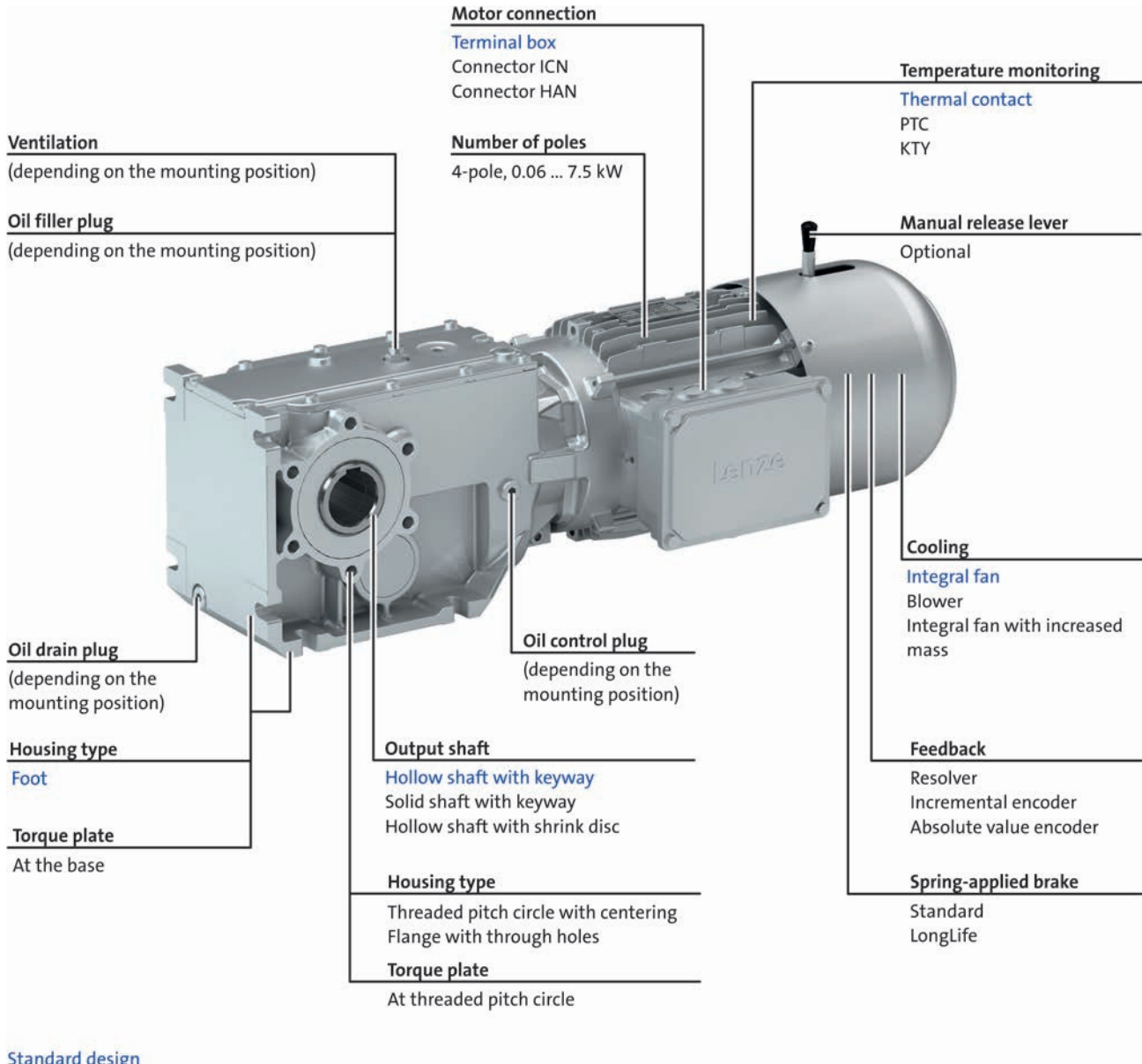
## General information



## Equipment

### Overview

The equipment includes all the options available as standard and all the built-on accessories of the product.



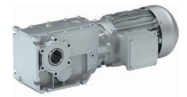
### Standard design



11 - Detailed information on housing type.

# g500-B bevel geared motors

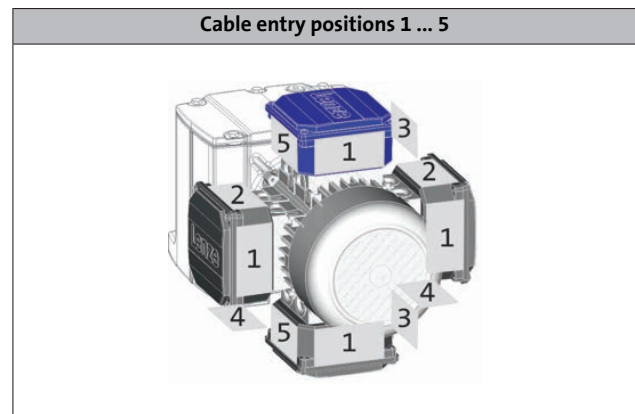
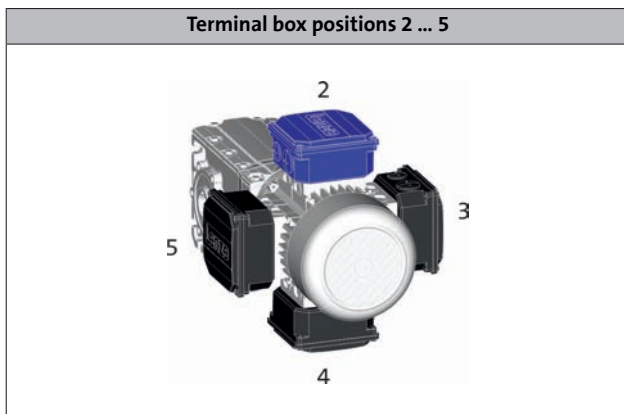
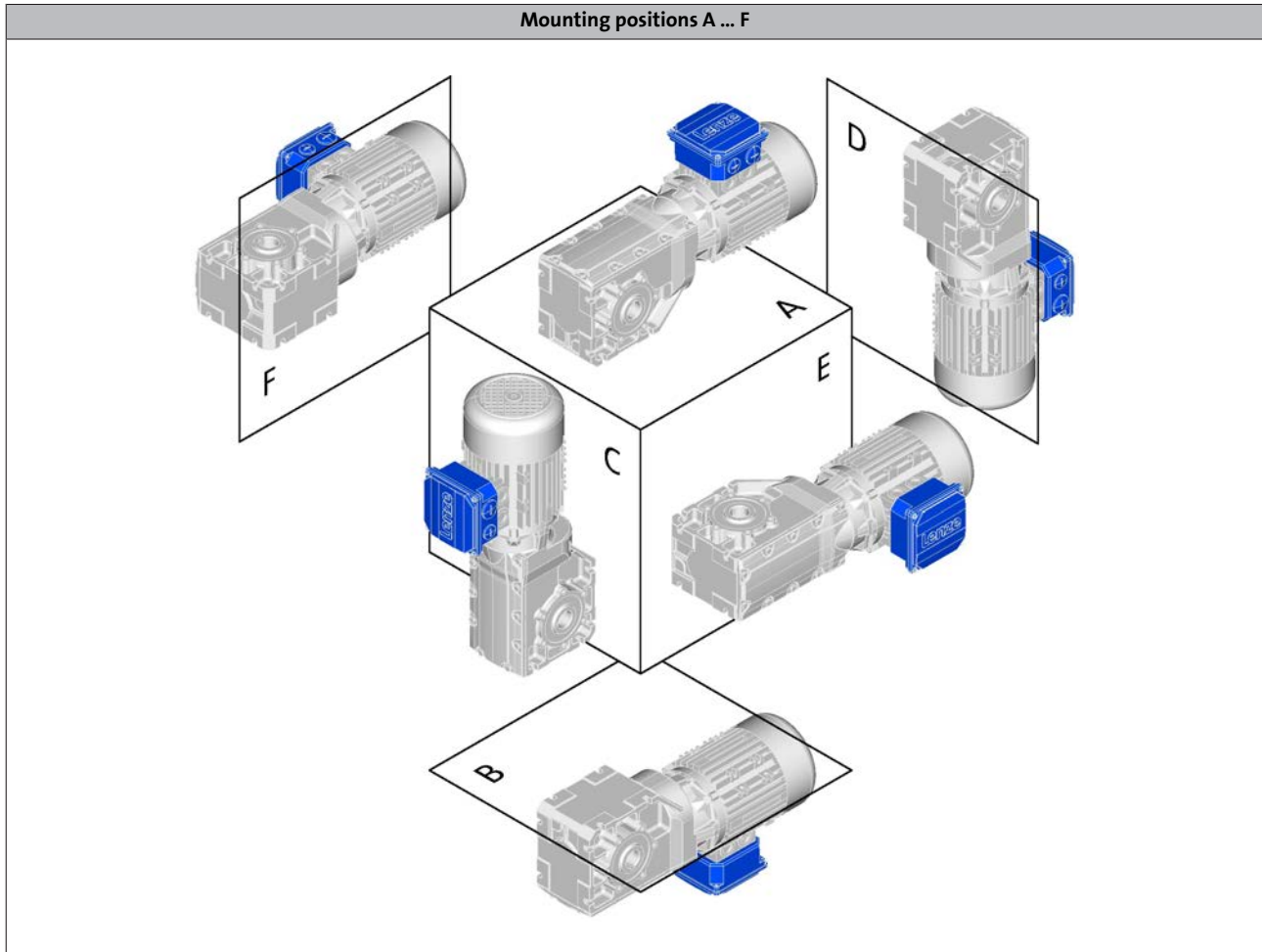
## General information



### Equipment

#### Mounting position, position of system components

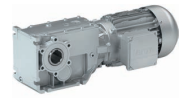
- ▶ In the following graphics, the terminal box in position 2 is colour-coded. If the mounting position (A ... F) changes, the terminal box positions 2 ... 5 are rotated accordingly.
- ▶ To reduce the number of different versions, the gearboxes can also be ordered with combined mounting positions:
  - g500-B45 in mounting position ABCDEF
  - g500-B110 ... B450 in mounting position AEF



- ▶ For details regarding the cable entry see motor chapter/product extensions.

# g500-B bevel geared motors

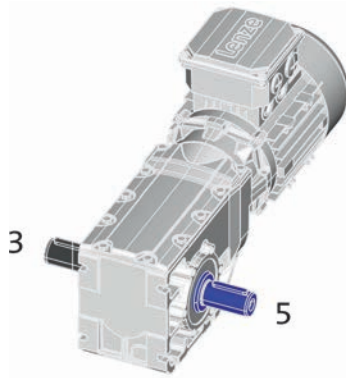
General information



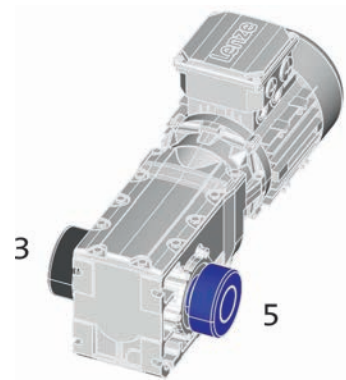
## Equipment

Mounting position, position of system components

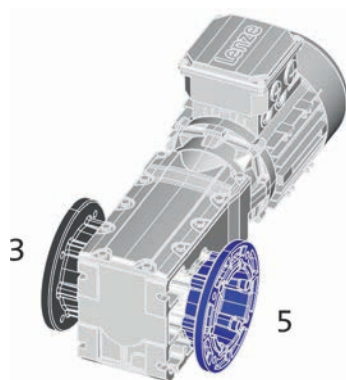
Solid shaft position 3 or 5



Shrink disc position 3 or 5



Flange position 3 or 5



# g500-B bevel geared motors

## General information



### The geared motor kit

Product	g500-B45	g500-B110	g500-B240	g500-B450
Gearbox	g500-B45	g500-B110	g500-B240	g500-B450
Motor assignment min.	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063	MD□MA□□-063
Motor assignment max.	MD□MA□□-071	MH□MA□□-090	MH□MA□□-100	MH□MA□□-132
Technical data				
Output torque max.	45 Nm	110 Nm	240 Nm	450 Nm
Drive power min.	0.06 kW	0.12 kW	0.12 kW	0.12 kW
Drive power max.	0.55 kW	1.5 kW	3.0 kW	7.5 kW
Dimensions [mm]				
Solid shaft with featherkey	20 x 40	20 x 40	30 x 60	30 x 60
Hollow shaft with keyway	18/20	20/25	30/35	35/40
Hollow shaft with shrink disc	20	20	30/35	35
Output flange	110/120	120/160	160/200	200

- ▶ The designs are only available for the gearboxes displayed above in the table.
- ▶ Values printed in bold are standard versions.  
Values not printed in bold are possible extensions, some for an additional charge.

Design	
Conformity	<b>CE</b> EAC
Approval	<b>Without</b> CCC/CSA/cURus
Degree of protection	<b>IP55</b> IP65/IP66
Surface and corrosion protection	<b>Without</b> Different types of OKS
Colour	<b>Not coated</b> Primed/RAL colours
Hollow shaft	<b>With keyway (H□□)</b>
Hollow shaft with shrink disc	Without keyway (S□□)
Solid shaft	With featherkey (V□□)
Shaft material	<b>Steel</b> stainless steel
Shaft sealing ring material	<b>NBR</b> FKM (Viton)
Driven shaft bearing	<b>Normal</b>
Paste for shaft mounting	<b>Without</b> Enclosed
Gearbox type	<b>With foot (□BR)</b> With foot and centering (□AR) With foot and output flange (□AK)
Lubricant	<b>Mineral oil</b> Synthetic oil Food-compatible oil

Design	
Mounting position	<b>A/B/C/D/E/F</b> Combined
Power connection	<b>Terminal box</b> Plug connectors
Spring-applied brake	<b>Without</b> Brake design: Standard/Longlife Brake version: Standard/Overexcited/Cold Brake
Feedback	<b>Without</b> Resolver Absolute value encoder Incremental encoder
Cooling	<b>Integral fan</b> Blower
Temperature monitoring	<b>TKO thermal contact</b> PTC thermistor KTY thermal detector

# g500-B bevel geared motors

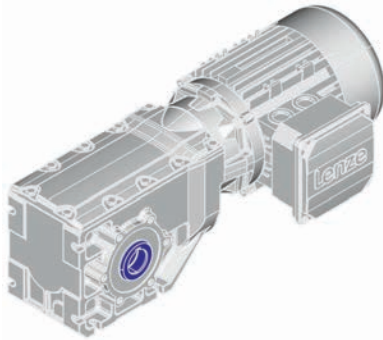
General information



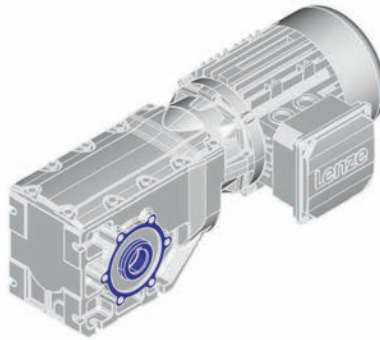
## The geared motor kit

g500-B45 ... B450

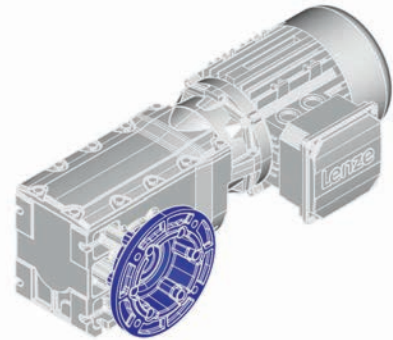
### Gearbox design: hollow shaft, with foot



Without centring (HBR)

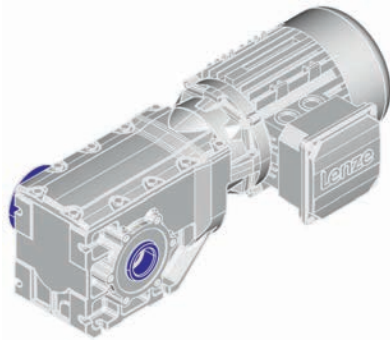


With centring (HAR)

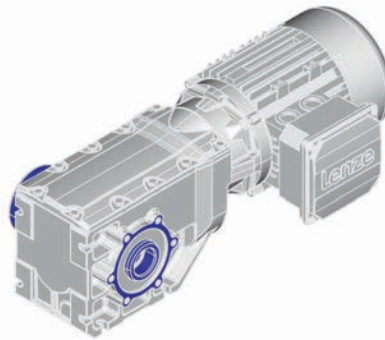


Flange with through holes (HAK)

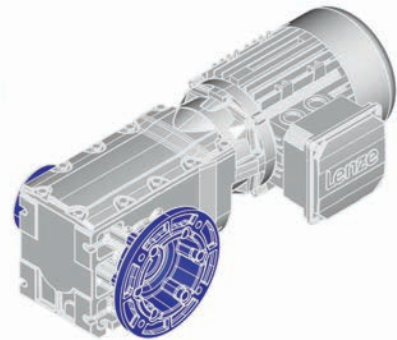
### Gearbox design: hollow shaft with shrink disc, with foot



Without centring (SBR)

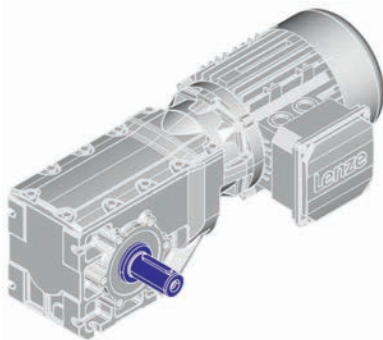


With centring (SAR)

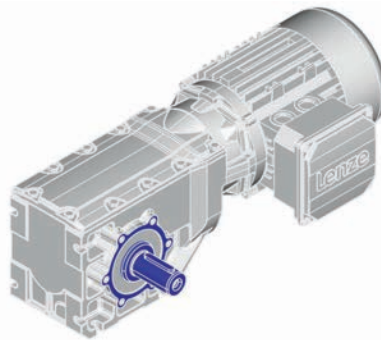


Flange with through holes (SAK)

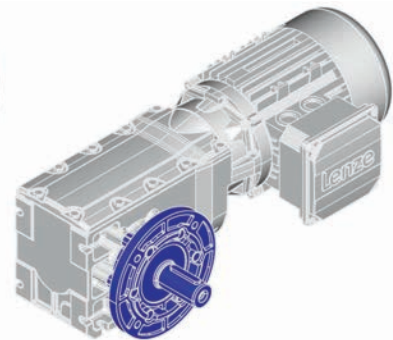
### Gearbox design: solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

# g500-B bevel geared motors

## General information



### The geared motor kit

#### g500-B600 ... B4300

Product	g500-B600	g500-B820	g500-B1500	g500-B2700	g500-B4300
Gearbox					
Motor assignment min.	MD□MA□□-063	MD□MA□□-063	MD□MA□□-071	MH□MA□□-090	MH□MA□□-090
Motor assignment max.	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132	MH□MA□□-132
<b>Technical data</b>					
Output torque max.	600 Nm	820 Nm	1500 Nm	2700 Nm	4300 Nm
Drive power min.	0.25 kW	0.25 kW	0.55 kW	1.1 kW	1.1 kW
Drive power max.	7.5 kW	7.5 kW	7.5 kW	7.5 kW	7.5 kW
<b>Dimensions [mm]</b>					
Solid shaft with featherkey	40 x 80	40 x 80	50 x 100	60 x 120	70 x 140
Hollow shaft with keyway	40/45	40/45	50/55	60/70	70/80
Hollow shaft with shrink disc	40	40	50	65	75/80
Output flange	200/250	200/250	250/300	350	400/450

- The designs are only available for the gearboxes displayed above in the table.
- Values printed in bold are standard versions.  
Values not printed in bold are possible extensions, some for an additional charge.

Design	
Conformity	<b>CE</b> EAC
Approval	<b>Without</b> CCC/CSA/cURus
Degree of protection	<b>IP55</b> IP65/IP66
Surface and corrosion protection	<b>OKS-S</b> Different types of OKS
Colour	<b>Painted in RAL colours</b> Primed
Hollow shaft	<b>With keyway (H□□)</b>
Hollow shaft with shrink disc	Without keyway (S□□)
Solid shaft	With featherkey (V□□)
Shaft material	<b>Steel</b> stainless steel
Shaft sealing ring material	<b>NBR</b> FKM (Viton)
Driven shaft bearing	<b>Normal</b>
Paste for shaft mounting	<b>Without</b> Enclosed
Gearbox type	<b>With foot (□BR)</b> With foot and centering (□AR) With foot and output flange (□AK)
Lubricant	<b>Mineral oil</b> Synthetic oil Food-compatible oil

Design	
Mounting position	<b>A/B/C/D/E/F</b>
Power connection	<b>Terminal box</b> Plug connectors
Spring-applied brake	<b>Without</b> Brake design: Standard/Longlife Brake version: Standard/Overexcited/Cold Brake
Feedback	<b>Without</b> Resolver Absolute value encoder Incremental encoder
Cooling	<b>Integral fan</b> Blower
Temperature monitoring	<b>TKO thermal contact</b> PTC thermistor KTY thermal detector

# g500-B bevel geared motors

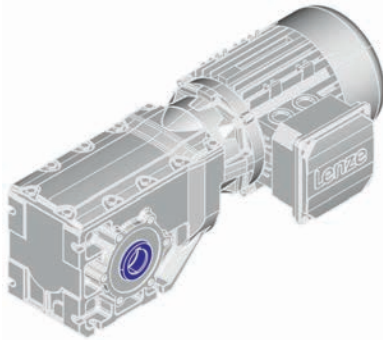
General information



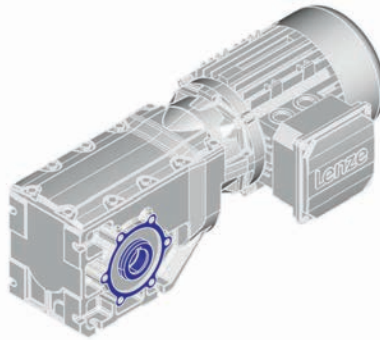
## The geared motor kit

g500-B600 ... B4300

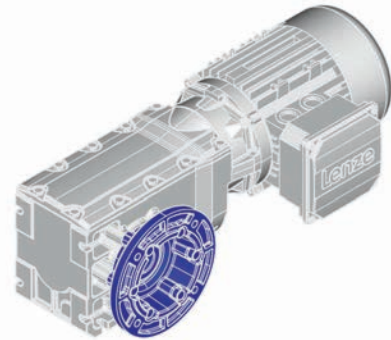
### Gearbox design: hollow shaft, with foot



Without centring (HBR)

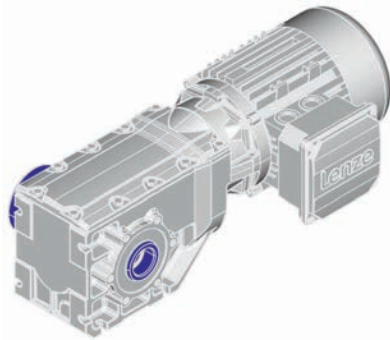


With centring (HAR)

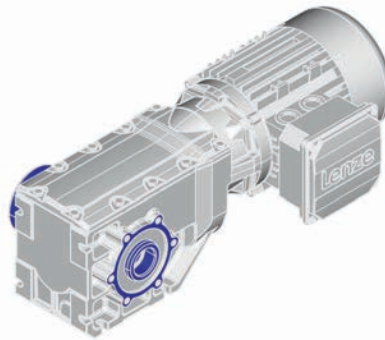


Flange with through holes (HAK)

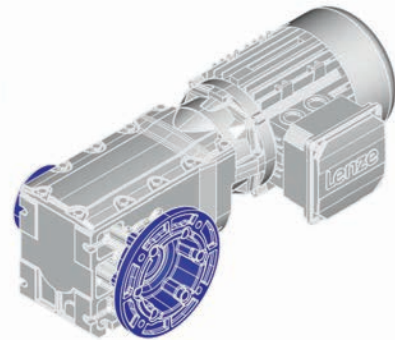
### Gearbox design: hollow shaft with shrink disc, with foot



Without centring (SBR)

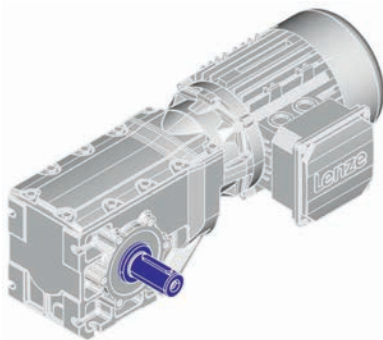


With centring (SAR)

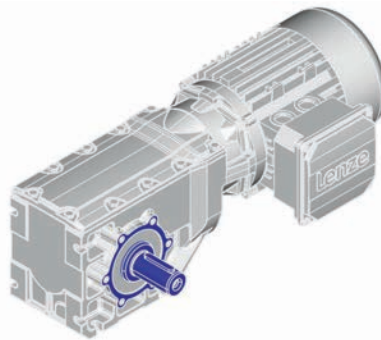


Flange with through holes (SAK)

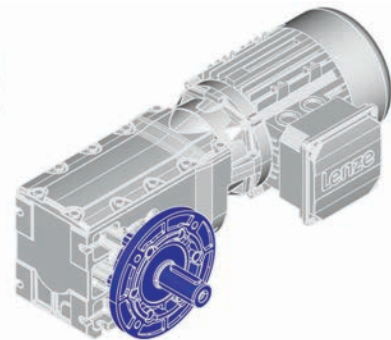
### Gearbox design: solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

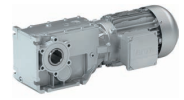
# g500-B bevel geared motors

General information

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### General information about the data provided in this catalogue

The powers, torques and speeds specified in this catalogue are rounded values and are valid under the following conditions:

- Operating time/day = 8 h (100% OT)
- Duty class I for up to 10 switching operations/h
- Mounting positions and designs in this catalogue
- Standard lubricant
- $T_{amb} = 20\text{ °C}$  for gearboxes,  
 $T_{amb} = 40\text{ °C}$  for motors (in accordance with EN 60034)
- Site altitude  $\leq 1000\text{ m amsl}$
- The selection tables provide the permissible mechanical powers and torques. For notes on the thermal power limit, see chapter drive dimensioning.
- The rated power specified for motors and geared motors applies to operating mode S1 (in accordance with EN 60034).

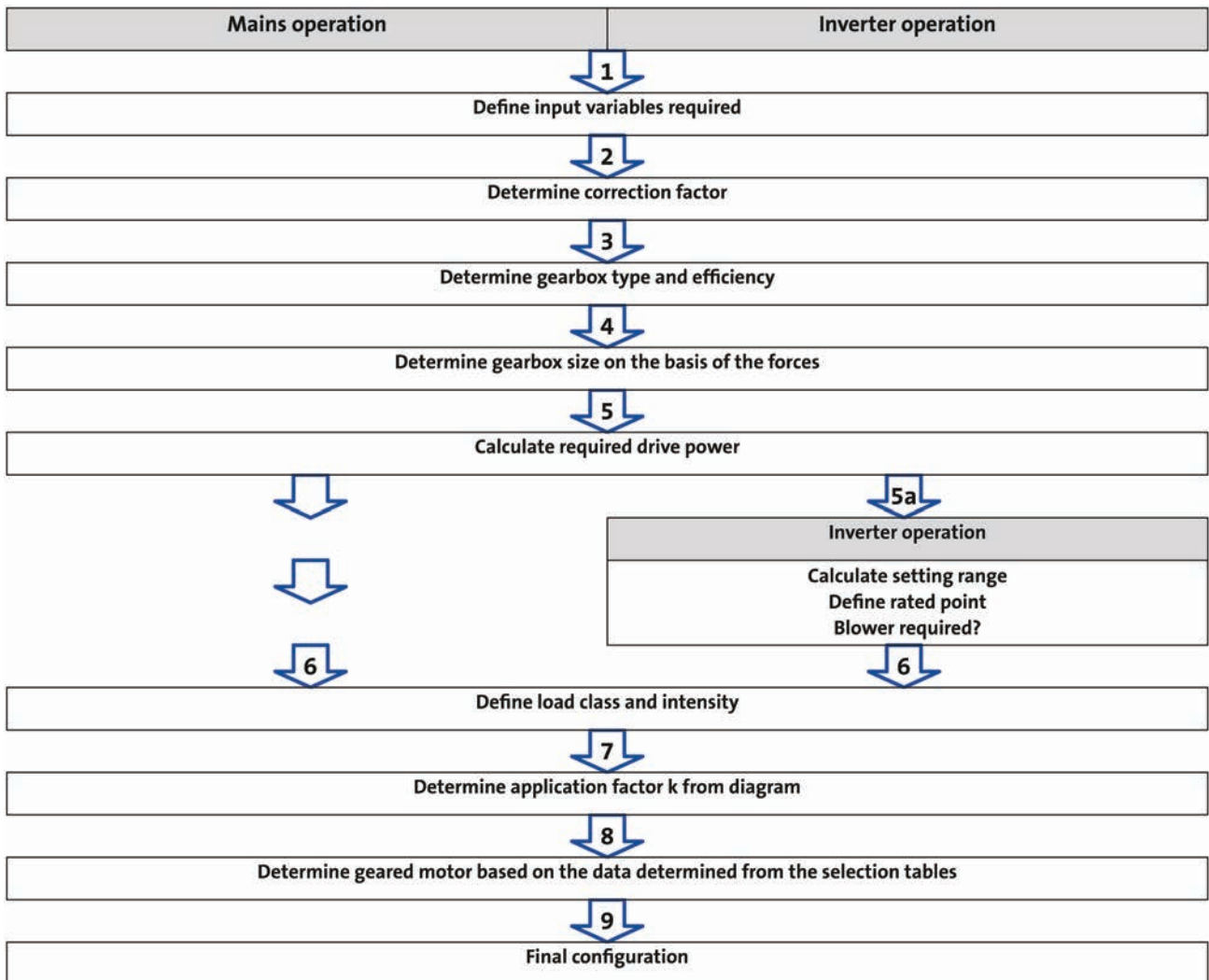
Under different operating conditions, the values obtained may vary from those listed here.

In the case of extreme operating conditions, please consult your Lenze sales office.



## Procedure of a configuration process

### Workflow



You can use our configuring software Drive Solution Designer for precise drive dimensioning.

The Drive Solution Designer helps you to carry out a fast and high-quality drive dimensioning.

The software includes well-founded and proven knowledge on drive applications and electro-mechanical drive components.

Please contact your Lenze sales office.



### Procedure of a configuration process

#### 1 required input variables

Load torque		$M_{L,max} =$	[Nm]
	In inverter operation	$M_{L,min} =$	[Nm]
Load speed		$n_{L,max} =$	[r/min]
	In inverter operation	$n_{L,min} =$	[r/min]
External moments of inertia		$J_{ext} =$	[kgcm <sup>2</sup> ]
Operating time / day		BD =	[h]
Switching operations per h		$S_h =$	[1/h]
Runtime for $M_{L,max}$	In inverter operation		[%]

#### 2 determine correction factor

Operating modes and operating time						
S1	ED	[%]	100			
	$k_L =$		1.0			
S2	ED	[%]	10	30	60	90
	$k_L =$		1.4 - 1.5	1.15 - 1.2	1.07 - 1.1	1.0 - 1.05
S3	ED	[%]	15	25	40	60
	$k_L =$		1.4 - 1.5	1.3 - 1.4	1.15 - 1.2	1.05 - 1.1
S6	ED	[%]	15	25	40	60
	$k_L =$		1.5 - 1.6	1.4 - 1.5	1.3 - 1.4	1.15 - 1.2
Site altitude						
	H	[m]	≤ 1000	≤ 2000	≤ 3000	≤ 4000
	$k_H =$		1	0.95	0.9	0.85
Ambient temperature						
	$T_U =$	[°C]	≤ 40	≤ 45	≤ 50	≤ 55
	$k_{TU} =$		1	0.95	0.9	0.8

24 - Operating modes



### Procedure of a configuration process

#### 3 determine gearbox type and efficiency

Gearbox type			Axial gearboxes		Right-angle gearboxes
			Helical gearbox	Shaft-mounted	Bevel gearbox
Product			g500-H	g500-S	g500-B
Gearbox efficiency	2-stage gearboxes	$\eta_G$	0.96	0.96	0.96
	3-stage gearboxes	$\eta_G$	0.95	0.95	0.95

#### 4 determine gearbox size based on the forces on the output

Transmission element		Gear wheels	Sprockets	Toothed belt pulleys (depending on the initial stress)	Narrow V-belt (depending on the initial stress)
Additional radial force factor	$f_z =$	$\geq 17$ teeth = 1.0 $< 17$ teeth = 1.15	$\geq 20$ teeth = 1.0 $< 20$ teeth = 1.25 $< 13$ teeth = 1.4	With belt tightener = 2.0 - 2.5 Without belt tightener = 2.5 - 3.0	1.5 - 2.0
		Calculation		Check	
Radial force	[N]	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{d_w}$		$F_{rad} \leq f_w \times F_{rad,max}$	
Axial force	[N]			$F_{ax} \leq F_{rad,max} \times 0.5$	

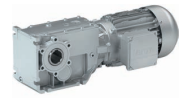
$d_w$  = effective diameter [mm] transmission element  
 $f_w$  = additional load factor

- For permissible radial and axial forces and additional load factor see the "Technical data" chapter

#### 5 calculate drive power

		Calculation	
Drive power required	[kW]	$P_1 = \frac{M_{L,max} \times \eta_{L,max}}{9549 \times k_L \times k_H \times k_{Tu} \times \eta_g}$	

$k_L$  = Correction factor - operating mode  
 $k_H$  = correction factor - installation height  
 $k_{Tu}$  = correction factor - ambient temperature



### Procedure of a configuration process - mains operation

#### 6 calculate intensity and determine duty class

Load class	Load type	Intensity
I	Smooth operation, small or light jolts	$F_I \leq 1.25$
II	Uneven operation, average jolts	$1.25 < F_I \leq 4$
III	Uneven operation, severe jolts and/or alternating load	$F_I > 4$

#### 25 - Duty classes

	Calculation	
Intensity	$F_I = \frac{\frac{J_L + J_M + J_B + J_Z}{i^2}}{J_M + J_B + J_Z}$	

$i$  = gearbox ratio

$J_L$  = moment of inertia of the load

$J_M$  = moment of inertia of the motor

$J_B$  = moment of inertia of the brake

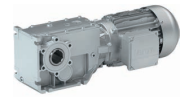
$J_Z$  = additional moment of inertia (handwheel, 2nd shaft end ...)

#### 7 determine application factor $k$ from diagram

#### 28 - Load capacity and application factor

# g500-B bevel geared motors

## Project planning



### Procedure of a configuration process - mains operation

8 determine geared motor based on the data determined from the selection tables

Selection table		Check
Drive power $P_N$	[kW]	$P_1 \leq P_N$
Output speed $n_2$	[r/min]	$n_{L,max} \approx n_2$
Output torque $M_2$	[Nm]	$M_{L,max} \leq M_2$
Load factor $c$		$k \leq c$
Order information		Example
Number of stages		2
Ratio $i$		3.267
Product gearbox		g500-H140
Product motor		MHxMAxx090-32

28 - Load capacity and application factor

#### Example: structure of a selection table

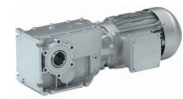
50 Hz:  $P_N = 1.5$  kW ← Rated power  $P_N$   
 87 Hz:  $P_N = 2.7$  kW

2-stage gearboxes ← Number of the gear stage

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79

↑ ↑ ↑  
 Output speed  $n_2$   
 Output torque  $M_2$   
 Load capacity  $c$

↑ ↑ ↑  
 Ratio  $i$   
 Product Gearbox  
 Product Motor



### Procedure of a configuration process - inverter operation

#### 5a calculate range of adjustment and determine rated point

		Calculation	
Setting range		$V = \frac{n_{L,max}}{n_{L,min}}$	
Setting range	Motor with integral fan	≤ 2.5 (20 ... 50 Hz)	≤ 4.35 (20 ... 87 Hz)
	Motor with blower	≤ 10 (5 ... 50 Hz)	≤ 17.4 (5 ... 87 Hz)
Rated point at		50 Hz	87 Hz

#### 6 calculate intensity and determine duty class

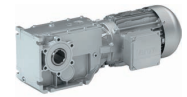
		Calculation	
Intensity	$M_I = \frac{M_{L,max}}{M_{L,min}}$	For alternating load, select load class III!	
Load class	Load type	Intensity	
I	Smooth operation, small or light jolts	$M_I \leq 1.5$	
II	Uneven operation, average jolts	$1.5 < M_I \leq 2$	
III	Uneven operation, severe jolts and/or alternating load	$2 < M_I \leq 2.5$	

25 - Duty classes

#### 7 determine application factor k from diagram

28 - Load capacity and application factor

# g500-B bevel geared motors



## Project planning

### Procedure of a configuration process - inverter operation

8 determine geared motor based on the data determined from the selection tables

Selection table			Check	
Drive power $P_N$		[kW]	$P_1 \leq P_N$	
Max. output speed $n_2$		[r/min]	$n_{L,max} \approx n_2$	
Min. output speed $n_{21}$	Self-ventilated	[r/min]	$n_{L,min} \approx n_{21}$	Setting range 2.5 (50 Hz) Setting range $\leq 4.35$ (87 Hz)
Min. output speed $n_{22}$	Forced-ventilated	[r/min]	$n_{L,min} \approx n_{22}$	Setting range $\leq 10$ (50 Hz) Setting range $\leq 17.4$ (87 Hz)
	Self-ventilated (Reduced output torque)	[r/min]	$n_{L,min} \approx n_{22}$	
Output torque $M_2$		[Nm]	$M_{L,max} \leq M_2$	
Load factor $c$			$k \leq c$	
Order information			Example	
Number of stages			2	
Ratio $i$			3.267	
Product gearbox			g500-H140	
Product motor			MHxMAxx090-32	

28 - Load capacity and application factor

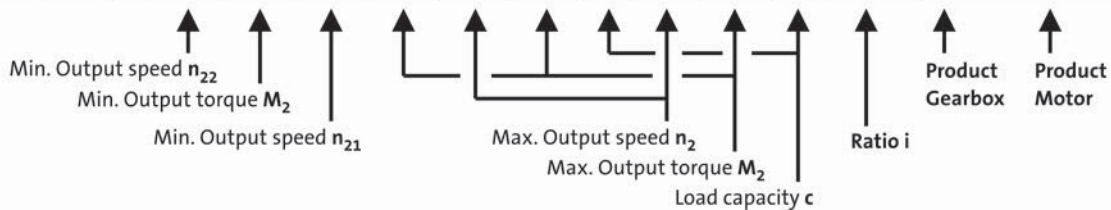
31 - Torque derating at low motor frequencies

### Example: structure of a selection table

50 Hz:  $P_N = 1.5$  kW  
87 Hz:  $P_N = 2.7$  kW ← Rated power  $P_N$

2-stage gearboxes ← Number of the gear stage

Mains operation 400 V, 50 Hz			Inverter operation										$i$	Product		
$n_2$ [r/min]	$M_2$ [Nm]	$c$	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	$c$	$n_2$ [r/min]	$M_2$ [Nm]	$c$	$n_2$ [r/min]	$M_2$ [Nm]	$c$			
432	32	2.6	44	23	184	32	432	32	2.6	771	32	2.1	3.267	-H140	090-32	82
420	33	1.9	43	24	179	33	420	33	1.9	751	33	1.6	3.354	-H100	090-32	79



6.5

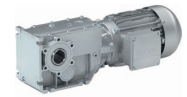




### Procedure of a configuration process

#### 9 Final configuration

More information regarding the final configuration can be found under:	
<ul style="list-style-type: none"> <li>- The modular geared motor system</li> <li>- Product extensions for gearboxes, motors</li> </ul>	
Check operating conditions	<ul style="list-style-type: none"> <li>- Operating temperature (observe lubricant, material of shaft sealing ring)</li> <li>- Degree of protection</li> <li>- Supply voltage</li> <li>- Surface protection required</li> <li>- Approvals</li> <li>- Conformity</li> </ul>
Check and define connection dimensions	<ul style="list-style-type: none"> <li>- Driven shaft</li> <li>- Foot, output flange, centering with threaded pitch circle</li> </ul>
Determine mounting position and position of the system blocks	<ul style="list-style-type: none"> <li>- Mounting position A/B/C/D/E/F or combined</li> <li>- Terminal box position, shaft position, flange position</li> </ul>
Select product extensions at the gearbox (differing depending on the gearbox type)	<ul style="list-style-type: none"> <li>- Torque plate at the base, threaded pitch circle, rubber buffer</li> <li>- Hollow shaft cover, shrink disc cover</li> </ul>
Select product extensions at the motor	<ul style="list-style-type: none"> <li>- Connection type (terminal box, connector)</li> <li>- Brake</li> <li>- Blower (inverter operation)</li> <li>- Feedback</li> <li>- Temperature monitoring</li> </ul>



### Standards

#### Operating modes

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

#### The most important operating modes

Continuous operation S1	Short-time operation S2
<p>Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.</p>	<p>Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.</p>
Intermittent operation S3	Non-intermittent periodic operation S6
<p>Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.</p>	<p>Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.</p>

# g500-B bevel geared motors

## Project planning



### Standards

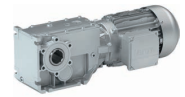
#### Duty classes

Depending on the load type, the duty classes or impacts are divided as follows:

Duty class	Load type
I	Smooth operation, small or light jolts
II	Uneven operation, average jolts
III	Uneven operation, severe jolts and/or alternating load

In order to support you in classifying your driven machine regarding the right duty class, the following shows sample applications with the corresponding duty class. Depending on, for instance, the operating frequency, driven machines can also have a higher impact. In case of uncertainties, please contact your Lenze sales office.

Drive	Duty class
Construction machines	II
Chemical industry	II
Conveyors	II
Fans	II
Plastics industry	II
Wood working	III
Hoists	III
Metal working	III
Food	II
Paper industry	III
Stones	III
Textile industry	II



### Standards

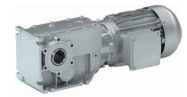
#### Degrees of protection

The degree of protection indicates the suitability of a motor for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The degrees of protection are classified by EN 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust.  
The second code number refers to the protection against the ingress of humidity.

Code number	Degree of protection	Code number	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in the case of deliberate access	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or similar	2	Protection against diagonally falling water (dripping water), $15^\circ$ compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires and the like	3	Protection against spraying water, up to $60^\circ$ to the vertical
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wires and the like	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

# g500-B bevel geared motors



## Project planning

### Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible permanent gearbox power.

It is affected by:

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the gears;
- the load and the speed;
- the ambient conditions: temperature, air circulation, input or dissipation of heat via shafts and the foundations.

We ask you to make a thermal check with the Drive Solution Designer (DSD) or contact the Lenze office responsible for you

- if the input speed  $n_1 > 1500$  r/min is exceeded in case of the gearbox ratios given in the following (can be e.g. recognised by the empty cells in the selection tables):

g500 thermal power limit	
Product	Ratio i
g500-H850 ... H3000	≤ 10
g500-S2100 ... S4500	≤ 16
g500-B1500 ... B4300	≤ 25

g500 thermal power limit	
Product	Ratio i
g500-H5000 ... H14000	≤ 25
g500-S8000 ... S19000	≤ 40
g500-B8000 ... B20000	≤ 60

- If the drive speeds mentioned in the following will be exceeded as a function of the mounting position:

g500 thermal power limit			
Product	Mounting position A	Mounting position A, B, E, F	Mounting position C, D
MD□MA□□063 ... 100 MH□MA□□063 ... 100	4000 r/min	3500 rpm	3000 r/min
MD□MA□□112 ... 132 MH□MA□□112 ... 132 m240-P112 ... P132 m550-P112 ... P132	3000 r/min	2600 rpm	1500 r/min
MD□MA□□160 ... 180 MH□MA□□160 ... 180 m240-P160 ... P180 m550-P160 ... P180	2000 r/min	1800 rpm	1500 r/min
m540-P90 ... P250	1500 r/min	1500 r/min	1500 r/min

- ▶ For a short period of time up to 5 min, 30 % higher speeds are permissible

### Possible ways of extending the application area

- Synthetic lubricant (option)
- Shaft sealing rings made from FKM material/Viton (option)
- Reduction in lubricant quantity (after consultation with Lenze)
- Cooling of the geared motor by means of air convection on the machine/system



### Load capacity and application factor

#### Load capacity $c$ of gearboxes

Rated value for the load capacity of Lenze geared motors.

- $c$  is the ratio of the permissible rated torque of the gearbox to the rated torque supplied by the drive component (e.g. the built-in Lenze motor).
- The value of  $c$  must always be greater than the value of the application factor  $k$  calculated for the application.

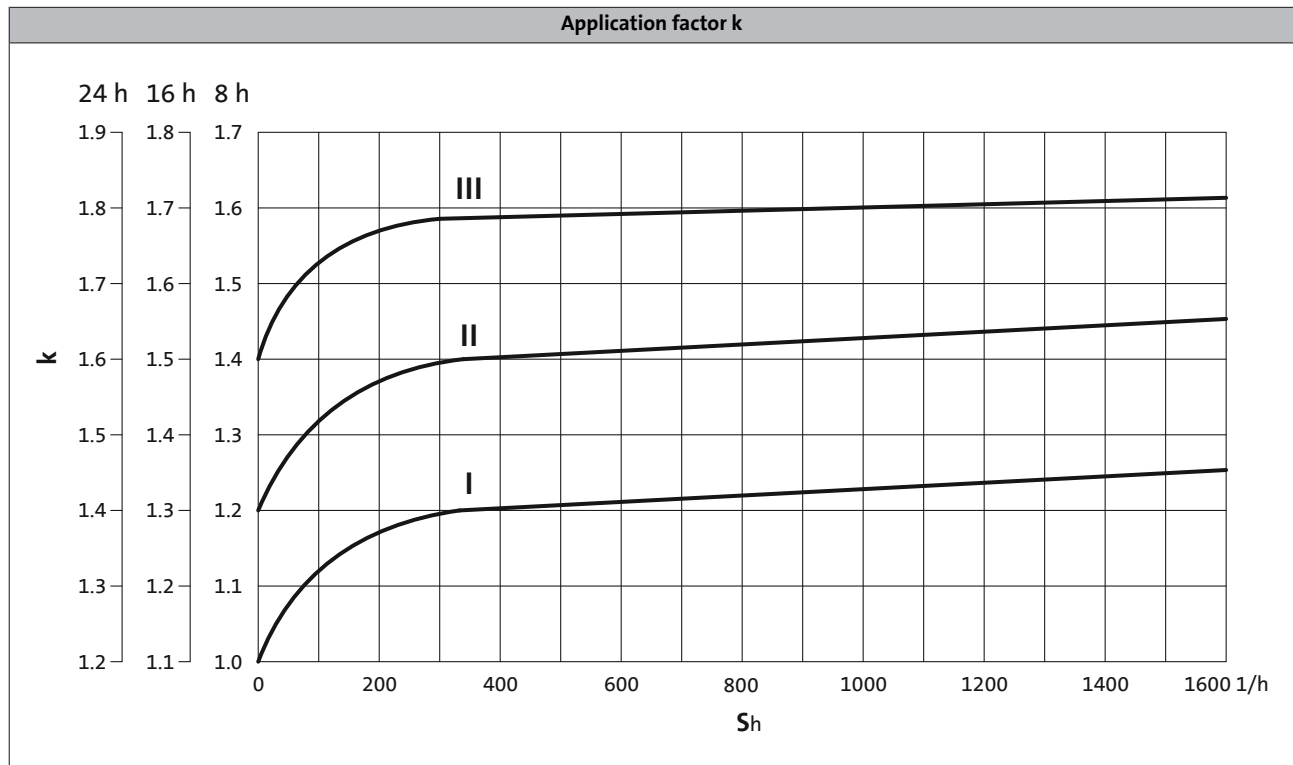
Required:  $c \geq k$

#### Application factor $k$ (according to DIN 3990)

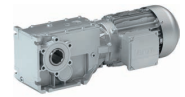
Takes into account the influence of temporally variable loads which are actually present during the anticipated operating time of gearboxes and geared motors.

$k$  is determined by:

- the type of load
- the load intensity
- temporal influences



►  $S_h$  = switchings/h

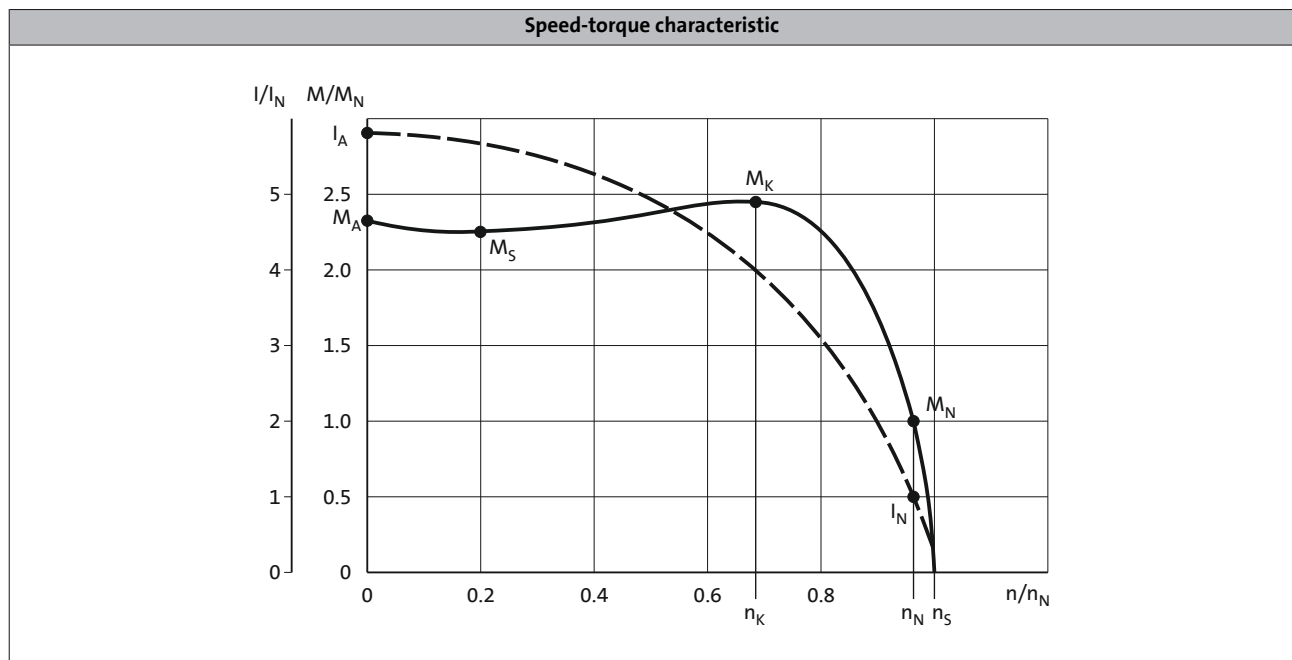


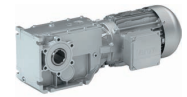
### Operational performance of three-phase AC geared motors

The g500 geared motors can be actuated directly on the mains or via an inverter. When actuated in mains operation, the motor runs at a fixed speed, for inverter operation the speed is variable. Thanks to their high degree of protection, the robust three-phase drives can be basically used in a variety of applications.

#### Mains operation

During mains operation, when switched on, the three-phase AC motor starts up according to the speed-torque characteristic. It passes through this characteristic until it reaches its stable operating point. This operating point has been reached if the load torque or rated torque ( $M_{rated}$ ) is lower than the starting torque ( $M_A$ ) and pull-up torque ( $M_S$ ). The rated speed ( $n_{rated}$ ) of the drive is always lower than the calculated synchronous speed ( $n_S$ ). The difference between rated speed and synchronous speed relating to the synchronous speed is referred to as the "slip".





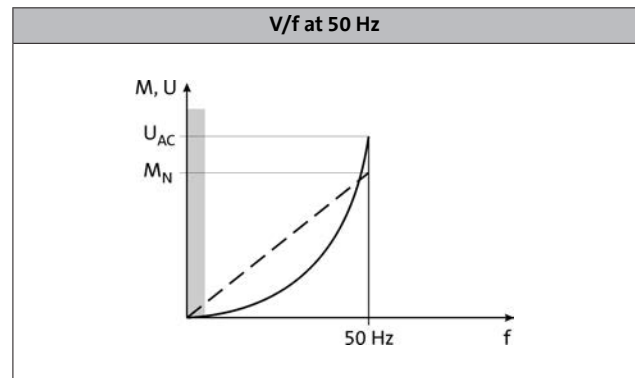
### Operational performance of three-phase AC geared motors

#### Operation on the inverter

An inverter enables energy-efficient operation of a system in virtually all application cases. The various operating modes, which can be created by making just a few simple settings, facilitate this. The following characteristics and corresponding specifications listed on the following pages can be used to calculate the optimum operating mode during the project planning phase.

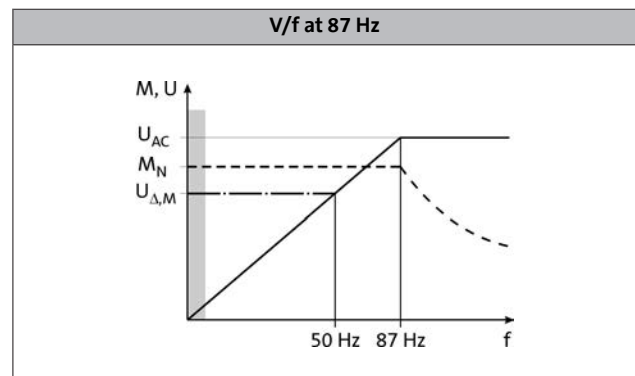
#### Standard setting

In its initial state when delivered, the inverter is set up for basic operation with a three-phase AC motor with vector control. When operated in this mode, the rated torque of the motor is available in a setting range up to 50 Hz.



#### Extended setting range up to 87 Hz

If the V/f reference point on the inverter is set to 87 Hz, the rated torque can be used across an extended setting range. Here, a 230/400V motor is for example used and operated in a delta layout with a 400V inverter. The setting range is then increased by 40 %. The inverter must be dimensioned for a rated motor current of 230 V.



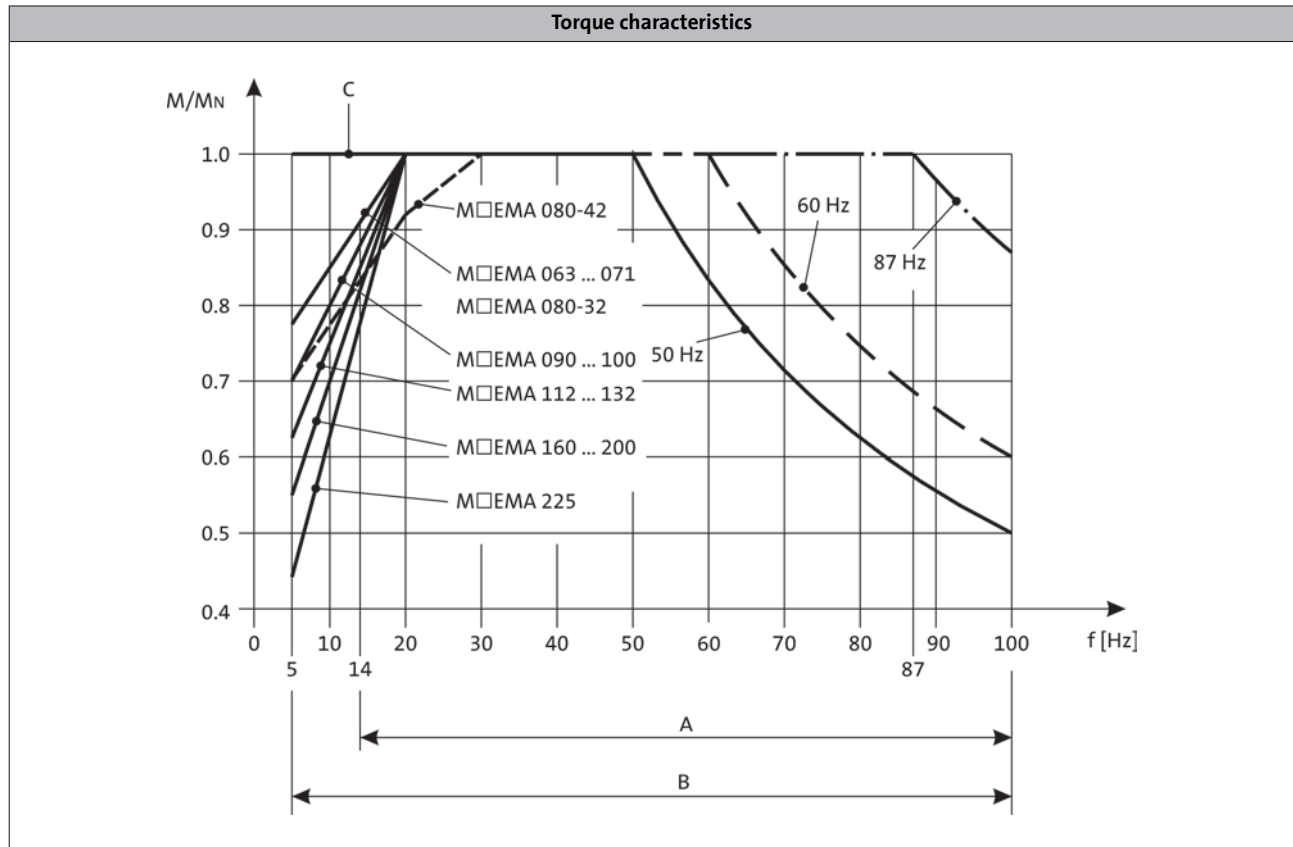




## Operational performance of three-phase AC geared motors

### Torque derating at low motor frequencies

The diagram shows the motor frame size-dependent torque reduction for self-ventilated motors, taking the thermal behaviour during actuation of the inverter into consideration.

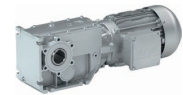


A = Operation with integral fan and brake

C = operation with blower

B = Operation with integral fan and brake control "Holding current reduction"

# g500-B bevel geared motors



## Project planning

### Technical data at a glance

The following tables contain the most important data of the gearbox with the motors that can be attached for an approximate dimensioning process of a geared motor. Detailed information can be found in the following chapters.

The data given in the tables apply to

- input speed  $n_1 = 1400$  r/min
- application factor  $c = 1.0$

In order to calculate the exact ratio, the number of teeth  $z_g$  (driven) can be divided by the number of teeth  $z_t$  (driving). These are rounded values.

The data for the max. radial force refer to

- solid shaft without flange
- normal storage
- application factor  $c = 1.3$

For further designs see the "Technical data" chapter.

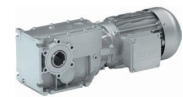
- The rated torque can be gathered from the last digits of the product name e.g. g500-B45 (45 Nm).

### g500-B45, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad}, \max}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
260	39	1.12	5.411	207	1120	2080	27	0.18	0.55
226	41	1.01	6.222	9	56	2180	26	0.18	0.55
198	43	0.94	7.111	9	64	2280	26	0.18	0.55
172	44	0.83	8.178	45	368	2360	25	0.18	0.55
154	45	0.77	9.101	189	1720	2440	25	0.18	0.55
134	45	0.67	10.466	189	1978	2580	24	0.12	0.55
121	45	0.60	11.640	189	2200	2660	24	0.12	0.55
105	45	0.52	13.386	189	2530	2770	23	0.09	0.55
93.0	45	0.46	15.111	9	136	2840	24	0.09	0.55
81.0	45	0.40	17.378	45	782	2900	23	0.09	0.37
73.0	45	0.36	19.365	63	1220	2950	24	0.09	0.37
63.0	45	0.31	22.270	63	1403	3000	23	0.06	0.37
55.0	45	0.27	25.051	99	2480	3000	23	0.06	0.25
48.0	45	0.24	28.808	99	2852	3000	22	0.06	0.25
42.0	45	0.21	32.593	27	880	3000	23	0.06	0.25
36.0	45	0.18	37.481	27	1012	3000	23	0.06	0.18
32.0	45	0.16	42.222	9	380	3000	23	0.06	0.18
29.0	45	0.15	48.556	9	437	3000	22	0.06	0.12
26.0	45	0.13	53.889	9	485	3000	23	0.06	0.12
23.0	45	0.11	61.972	36	2231	3000	22	0.06	0.12

# g500-B bevel geared motors

Project planning



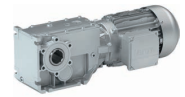
## Technical data at a glance

### g500-B110, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
278	69	2.12	5.185	27	140	2450	21	0.25	1.50
242	72	1.92	5.963	27	161	2530	21	0.25	1.50
203	77	1.72	7.111	9	64	2620	20	0.25	1.50
176	81	1.57	8.178	45	368	2670	20	0.25	1.50
158	84	1.47	9.101	189	1720	2730	20	0.25	1.50
138	89	1.35	10.466	189	1978	2830	20	0.25	1.50
126	90	1.25	11.449	225	2576	2890	20	0.18	1.50
114	90	1.13	12.698	63	800	2950	20	0.18	1.10
99.0	90	0.98	14.603	63	920	3000	20	0.18	1.10
93.0	92	0.94	15.556	9	140	3000	20	0.25	1.10
81.0	96	0.86	17.889	9	161	3000	20	0.25	0.75
74.0	100	0.82	19.556	9	176	3000	20	0.12	0.75
64.0	104	0.74	22.489	45	1012	3000	19	0.12	0.75
58.0	108	0.69	25.185	27	680	3000	20	0.12	0.75
50.0	110	0.61	28.963	27	782	3000	19	0.12	0.75
44.0	108	0.53	31.919	99	3160	3000	19	0.12	0.37
38.0	110	0.47	36.707	99	3634	3000	19	0.12	0.37
38.0	106	0.44	37.400	5	187	3000	19	0.12	0.37
35.0	100	0.39	40.000	1	40	3000	19	0.12	0.37
31.0	110	0.37	46.000	1	46	3000	19	0.12	0.37
29.0	110	0.36	48.167	6	289	3000	18	0.12	0.37
26.0	69	0.20	52.698	63	3320	3000	19	0.12	0.18
22.0	79	0.20	60.603	63	3818	3000	18	0.12	0.18
22.0	110	0.27	61.045	22	1343	3000	18	0.12	0.25
18.0	110	0.22	76.500	2	153	3000	18	0.12	0.25
14.0	110	0.16	100.786	14	1411	3000	18	0.12	0.18

# g500-B bevel geared motors

Project planning



## Technical data at a glance

### g500-B240, 2-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad}, \max}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
406	138	6.18	3.565	108	385	3030	17	0.55	3.00
296	147	4.80	4.889	9	44	3450	17	1.10	3.00
232	156	3.98	6.257	378	2365	3860	17	0.55	3.00
210	179	4.15	6.883	60	413	4070	13	0.55	3.00
185	187	3.82	7.817	60	469	4300	13	0.55	3.00
154	191	3.23	9.440	25	236	4600	13	1.10	3.00
135	204	3.04	10.720	25	268	4740	13	1.10	3.00
120	208	2.75	12.081	210	2537	4860	13	0.55	3.00
106	217	2.53	13.719	210	2881	4980	13	0.55	3.00
97.0	223	2.38	15.008	125	1876	5180	13	0.25	2.20
86.0	240	2.28	16.857	7	118	5440	13	0.25	2.20
76.0	240	2.01	19.143	7	134	5710	12	0.25	2.20
70.0	240	1.86	20.650	20	413	5860	13	0.55	2.20
62.0	240	1.63	23.450	20	469	6070	12	0.55	1.50
54.0	240	1.42	26.878	90	2419	6230	13	0.25	1.50
47.0	240	1.25	30.522	90	2747	6370	12	0.25	1.50
43.0	240	1.14	33.433	30	1003	6500	13	0.25	1.10
38.0	240	1.01	37.967	30	1139	6500	12	0.25	1.10
34.0	240	0.89	43.267	15	649	6500	12	0.12	0.75
30.0	240	0.78	49.133	15	737	6500	12	0.12	0.75
27.0	233	0.69	52.510	100	5251	6500	12	0.12	0.55
24.0	240	0.62	59.630	100	5963	6500	12	0.12	0.55
21.0	178	0.41	67.113	80	5369	6500	12	0.12	0.37
18.0	202	0.41	76.213	80	6097	6500	12	0.12	0.37

# g500-B bevel geared motors

Project planning



## Technical data at a glance

### g500-B240, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$			Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	Standard	$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
20.0	240	0.56	68.459	630	43129	6500	13	0.12	0.55
18.0	240	0.49	77.741	630	48977	6500	13	0.12	0.55
16.0	240	0.44	87.563	126	11033	6500	13	0.12	0.37
14.0	240	0.39	99.437	126	12529	6500	13	0.12	0.37
12.0	240	0.34	113.673	150	17051	6500	13	0.12	0.37
11.0	240	0.30	129.087	150	19363	6500	13	0.12	0.37
9.00	240	0.26	145.674	420	61183	6500	13	0.12	0.25
8.00	240	0.23	165.426	420	69479	6500	13	0.12	0.25
7.00	240	0.20	188.442	165	31093	6500	13	0.12	0.18
6.00	240	0.17	213.994	165	35309	6500	13	0.12	0.18
6.00	240	0.15	245.178	45	11033	6500	13	0.12	0.18
5.00	240	0.14	278.422	45	12529	6500	13	0.12	0.12
4.00	240	0.12	317.617	60	19057	6500	13	0.12	0.12
4.00	240	0.11	360.683	60	21641	6500	13	0.12	0.12

# g500-B bevel geared motors

Project planning



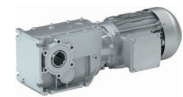
## Technical data at a glance

### g500-B450, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
295	280	9.12	5.002	480	2401	3760	21	0.55	7.50
215	308	7.31	6.860	50	343	4030	21	1.10	7.50
159	368	6.43	9.315	384	3577	4370	15	0.55	7.50
143	384	6.05	10.328	204	2107	4500	14	0.55	7.50
114	404	5.09	12.775	40	511	4830	15	1.10	5.50
103	422	4.80	14.165	85	1204	5010	14	1.10	5.50
89.0	434	4.25	16.349	192	3139	5280	15	0.55	4.00
81.0	446	3.99	17.885	200	3577	5470	15	0.25	4.00
73.0	450	3.64	19.831	425	8428	5710	14	0.25	4.00
64.0	450	3.15	22.813	16	365	6060	15	0.25	3.00
57.0	450	2.84	25.294	17	430	6340	14	0.25	3.00
52.0	450	2.57	27.945	128	3577	6640	15	0.55	3.00
47.0	450	2.33	30.985	68	2107	6960	14	0.55	2.20
40.0	450	1.96	36.373	576	20951	7520	14	0.25	1.50
36.0	450	1.78	40.330	306	12341	7800	14	0.25	1.50
32.0	450	1.58	45.245	192	8687	7800	14	0.25	1.50
29.0	450	1.42	50.167	6	301	7800	14	0.25	1.50
26.0	450	1.28	56.154	13	730	7800	13	0.25	1.50
23.0	450	1.15	62.262	221	13760	7800	12	0.25	1.10
21.0	450	1.04	68.788	52	3577	7800	13	0.55	1.10
19.0	450	0.94	76.271	221	16856	7800	12	0.55	1.10
16.0	450	0.80	89.534	234	20951	7800	13	0.25	0.75
15.0	450	0.72	99.274	1989	197456	7800	12	0.25	0.75
13.0	450	0.64	111.372	78	8687	7800	13	0.25	0.75
11.0	450	0.57	123.487	39	4816	7800	12	0.25	0.55
10.0	450	0.48	144.128	39	5621	7800	13	0.12	0.55
9.00	450	0.44	159.807	663	105952	7800	12	0.12	0.37
8.00	450	0.40	174.919	260	45479	7800	13	0.12	0.37
7.00	450	0.36	193.948	1105	214312	7800	12	0.12	0.37
6.00	450	0.31	223.563	16	3577	7800	13	0.12	0.37
6.00	450	0.27	247.882	17	4214	7800	12	0.12	0.25

# g500-B bevel geared motors

Project planning



## Technical data at a glance

### g500-B600, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
292	376	12.1	5.067	1242	6293	4600	21	2.20	7.50
213	398	9.33	6.949	1035	7192	5000	19	2.20	7.50
194	462	9.88	7.617	2052	15631	5100	17	2.20	7.50
138	542	8.21	10.741	27	290	5600	15	2.20	7.50
110	553	6.73	13.369	1026	13717	6500	17	1.10	7.50
100	600	6.63	14.730	63	928	6900	14	2.20	7.50
77.0	600	5.12	18.851	1323	24940	7500	14	1.10	5.50
71.0	600	4.68	20.622	45	928	7800	14	1.10	5.50
64.0	600	4.21	22.852	684	15631	8100	16	1.10	4.00
57.0	600	3.79	25.347	95	2408	8300	14	2.20	4.00
56.0	600	3.69	26.061	33	860	8400	13	2.20	4.00
49.0	600	3.23	29.744	3078	91553	8700	16	0.55	4.00
45.0	600	2.96	32.439	57	1849	8900	14	1.10	3.00
40.0	600	2.68	35.740	77	2752	9000	13	2.20	3.00
39.0	600	2.59	36.999	1026	37961	9000	16	0.55	3.00
35.0	600	2.29	41.940	567	23780	9000	14	0.55	2.20
32.0	600	2.10	45.739	1617	73960	9000	13	1.10	2.20
29.0	600	1.92	50.036	55	2752	9000	13	1.10	2.20
26.0	600	1.72	55.447	38	2107	9000	14	1.10	1.50
23.0	600	1.49	63.822	539	34400	9000	13	0.55	1.50
21.0	600	1.42	67.513	189	12760	9000	14	0.25	1.50
20.0	600	1.32	72.170	171	12341	9000	14	0.55	1.50
18.0	600	1.22	78.182	11	860	9000	13	1.10	1.50
18.0	600	1.16	81.937	63	5162	9000	14	0.25	1.10
16.0	600	1.06	89.772	57	5117	9000	14	0.55	1.10
14.0	600	0.94	101.760	693	70520	9000	13	0.55	1.10
12.0	600	0.83	116.175	57	6622	9000	14	0.25	0.75
12.0	600	0.76	126.580	231	29240	9000	12	0.55	0.75
10.0	600	0.68	140.995	190	26789	9000	14	0.25	0.75
9.00	600	0.57	163.810	21	3440	9000	12	0.25	0.55
8.00	600	0.52	178.224	76	13545	9000	14	0.25	0.55
7.00	600	0.47	198.805	77	15308	9000	12	0.25	0.55
6.00	600	0.37	251.299	77	19350	9000	12	0.25	0.37

# g500-B bevel geared motors

Project planning



## Technical data at a glance

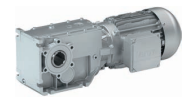
### g500-B820, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
298	312	10.2	4.958	24	119	9800	21	2.20	7.50
217	391	9.37	6.800	5	34	10200	20	2.20	7.50
194	424	9.07	7.618	34	259	10700	17	2.20	7.50
173	459	8.78	8.517	60	511	11000	16	2.20	7.50
155	496	8.48	9.520	25	238	11000	20	1.10	7.50
141	528	8.24	10.447	85	888	11000	16	2.20	7.50
126	569	7.93	11.680	25	292	11000	15	2.20	7.50
122	544	7.30	12.143	7	85	11000	19	0.55	7.50
110	619	7.54	13.370	119	1591	11000	16	1.10	7.50
101	653	7.27	14.626	425	6216	11000	16	1.10	7.50
90.0	708	7.05	16.352	125	2044	11000	16	1.10	7.50
79.0	747	6.52	18.655	119	2220	11000	16	0.55	7.50
71.0	820	6.40	20.857	7	146	11000	16	0.55	7.50
64.0	820	5.78	22.853	34	777	11000	15	1.10	5.50
57.0	820	5.16	25.550	20	511	11000	15	1.10	5.50
56.0	820	5.02	26.324	330	8687	11000	12	2.20	5.50
49.0	820	4.41	29.745	51	1517	11000	15	0.55	4.00
45.0	820	4.07	32.291	55	1776	11000	13	2.20	4.00
40.0	820	3.63	36.102	275	9928	11000	14	2.20	4.00
39.0	820	3.54	37.000	1	37	11000	12	0.55	3.00
35.0	820	3.17	41.325	77	3182	11000	13	1.10	3.00
32.0	820	2.90	45.207	275	12432	11000	13	1.10	3.00
29.0	820	2.59	50.543	1375	69496	11000	12	1.10	3.00
25.0	820	2.28	57.662	77	4440	11000	13	0.55	2.20
22.0	820	2.03	64.468	77	4964	11000	12	0.55	2.20
21.0	820	1.86	70.636	11	777	11000	13	1.10	2.20
18.0	820	1.65	78.973	110	8687	11000	12	1.10	1.50
16.0	820	1.42	91.939	33	3034	11000	13	0.55	1.50
14.0	820	1.27	102.790	495	50881	11000	12	0.55	1.50
13.0	820	1.14	114.364	11	1258	11000	13	0.55	1.10
11.0	820	1.02	127.861	165	21097	11000	12	0.55	1.10
10.0	820	0.89	148.000	1	148	11000	13	0.25	1.10
9.00	820	0.80	165.467	15	2482	11000	12	0.25	0.75
8.00	820	0.73	179.618	55	9879	11000	13	0.25	0.75
7.00	820	0.65	200.816	550	110449	11000	12	0.25	0.75
6.00	820	0.56	227.045	22	4995	11000	12	0.25	0.55
6.00	820	0.50	253.841	44	11169	11000	12	0.25	0.55



# g500-B bevel geared motors

Project planning



## Technical data at a glance

### g500-B1500, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
216	837	19.9	6.866	261	1792	12000	16	4.00	22.00
156	1006	17.3	9.516	153	1456	13000	15	4.00	18.50
136	1330	19.9	10.902	3393	36992	14000	12	4.00	22.00
124	1461	19.9	11.985	261	3128	15000	12	4.00	22.00
112	1118	13.8	13.118	3825	50176	15500	15	2.20	15.00
98.0	1500	16.2	15.111	9	136	16000	12	4.00	18.50
88.0	1500	14.6	16.611	18	299	16000	11	4.00	15.00
79.0	1500	13.1	18.598	117	2176	16000	12	2.20	15.00
72.0	1500	12.0	20.444	9	184	16000	11	2.20	11.00
64.0	1500	10.7	22.898	225	5152	16000	11	2.20	11.00
62.0	1500	10.2	23.973	4147	99416	16000	11	4.00	11.00
56.0	1500	9.28	26.353	638	16813	16000	10	4.00	11.00
51.0	1500	8.37	29.206	63	1840	16000	11	1.10	7.50
45.0	1500	7.51	32.547	117	3808	16000	11	2.20	7.50
41.0	1500	6.83	35.778	9	322	16000	11	2.20	7.50
40.0	1500	6.68	36.526	352	12857	16000	10	4.00	7.50
36.0	1500	5.90	40.895	143	5848	16000	11	2.20	5.50
32.0	1500	5.37	44.955	22	989	16000	10	2.20	5.50
31.0	1500	5.19	46.568	81	3772	16000	11	1.10	5.50
28.0	1500	4.63	51.920	351	18224	16000	11	1.10	4.00
26.0	1500	4.22	57.074	27	1541	16000	11	1.10	4.00
25.0	1500	4.12	58.422	1001	58480	16000	10	1.10	4.00
23.0	1500	3.74	64.221	77	4945	16000	10	1.10	4.00
20.0	1500	3.36	71.566	143	10234	16000	10	2.20	4.00
19.0	1500	3.19	74.963	27	2024	16000	11	0.55	3.00
18.0	1500	2.89	82.762	585	48416	16000	11	0.55	2.20
16.0	1500	2.65	90.978	45	4094	16000	11	0.55	2.20
16.0	1500	2.58	93.150	1287	119884	16000	10	1.10	3.00
14.0	1500	2.35	102.396	396	40549	16000	10	1.10	2.20
13.0	1500	2.10	114.166	429	48977	16000	10	1.10	2.20
12.0	1500	1.92	125.498	528	66263	16000	10	1.10	2.20
10.0	1500	1.59	149.949	39	5848	16000	10	0.55	1.50
9.00	1500	1.44	164.833	6	989	16000	10	0.55	1.50
8.00	1500	1.31	181.983	715	130118	16000	10	0.55	1.50
7.00	1500	1.19	200.048	440	88021	16000	10	0.55	1.10
6.00	1500	1.04	230.035	143	32895	16000	10	0.55	1.10
6.00	1500	0.94	252.869	176	44505	16000	10	0.55	1.10

# g500-B bevel geared motors

Project planning



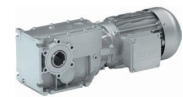
## Technical data at a glance

### g500-B2700, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
214	1446	34.0	6.918	4180	28917	13000	15	7.50	30.00
168	1528	28.3	8.793	4750	41769	14000	14	5.50	30.00
126	2212	30.8	11.713	209	2448	16000	10	5.50	30.00
115	2262	28.6	12.863	1463	18819	16500	10	5.50	30.00
99.0	2380	26.1	14.888	475	7072	17000	10	5.50	30.00
90.0	2429	24.2	16.351	3325	54366	18000	9	5.50	30.00
76.0	2579	21.5	19.542	1197	23392	19000	10	4.00	22.00
66.0	2684	19.7	22.269	171	3808	20100	10	4.00	22.00
60.0	2700	18.0	24.456	57	1394	20500	9	4.00	22.00
55.0	2700	16.5	26.814	1197	32096	21000	10	2.20	18.50
50.0	2700	15.0	29.447	2793	82246	21500	9	2.20	18.50
45.0	2700	13.3	32.873	513	16864	22000	10	4.00	15.00
41.0	2700	12.1	36.102	1197	43214	22700	9	4.00	15.00
35.0	2700	10.3	42.772	189	8084	23000	9	4.00	11.00
32.0	2700	9.38	46.973	1764	82861	24000	8	4.00	11.00
30.0	2700	8.99	48.912	57	2788	25000	9	2.20	7.50
27.0	2700	8.13	54.082	171	9248	26000	10	2.20	7.50
25.0	2700	7.41	59.393	399	23698	27500	9	2.20	7.50
23.0	2700	6.82	64.452	1764	113693	27500	8	2.20	7.50
20.0	2700	6.10	71.951	81	5828	27500	9	4.00	7.50
19.0	2700	5.63	76.862	399	30668	27500	9	1.10	4.00
17.0	2700	5.09	84.940	285	24208	27500	10	1.10	4.00
16.0	2700	4.64	93.283	665	62033	27500	9	1.10	4.00
15.0	2700	4.47	97.481	27	2632	27500	9	2.20	5.50
14.0	2700	4.05	107.056	18	1927	27500	8	2.20	4.00
12.0	2700	3.66	118.370	27	3196	27500	9	2.20	4.00
11.0	2700	3.33	129.996	252	32759	27500	8	2.20	4.00
10.0	2700	2.83	153.185	27	4136	27500	9	1.10	3.00
9.00	2700	2.56	168.230	126	21197	27500	8	1.10	3.00
8.00	2700	2.32	185.911	45	8366	27500	9	1.10	2.20
7.00	2700	2.11	204.170	840	171503	27500	8	1.10	2.20
6.00	2700	1.85	235.000	1	235	27500	9	1.10	2.20
6.00	2700	1.67	258.080	112	28905	27500	8	1.10	1.50

# g500-B bevel geared motors

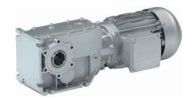
Project planning



## Technical data at a glance

### g500-B4300, 3-stage gearboxes

Output speed	Max. output torque	Max. drive power	Ratio	Number of teeth		Max. radial force	Backlash	Rated power	
				$z_g$	$z_t$		Standard	Motor	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
269	2160	64.1	5.488	209	1147	13200	14	7.50	30.00
212	2400	56.1	6.976	4275	29822	14000	14	7.50	30.00
161	2700	48.0	9.156	10773	98642	15100	14	4.00	30.00
146	3950	63.5	10.137	6688	67797	15500	9	7.50	30.00
133	4250	62.5	11.080	2090	23157	16000	9	7.50	30.00
115	4300	54.4	12.885	7600	97929	16800	9	7.50	30.00
105	4300	49.7	14.084	2375	33449	17300	9	7.50	30.00
87.0	4300	41.4	16.913	2128	35991	18600	9	4.00	30.00
80.0	4300	37.9	18.486	5985	110639	19300	9	4.00	30.00
70.0	4300	33.3	21.065	855	18011	20400	9	4.00	30.00
64.0	4300	30.3	23.206	2128	49383	21200	9	2.20	22.00
58.0	4300	27.6	25.365	5985	151807	22100	9	2.20	22.00
53.0	4300	25.0	28.013	80	2241	23100	8	5.50	30.00
48.0	4300	22.6	31.097	2565	79763	24300	9	4.00	22.00
42.0	4300	19.7	35.607	1000	35607	25900	8	5.50	22.00
38.0	4300	18.2	38.546	152	5859	26900	9	2.20	7.50
35.0	4300	16.4	42.760	896	38313	28300	8	4.00	18.50
32.0	4300	15.0	46.737	840	39259	29500	8	4.00	18.50
28.0	4300	13.1	53.258	120	6391	31500	8	4.00	15.00
25.0	4300	11.9	58.671	896	52569	33000	8	2.20	11.00
23.0	4300	10.9	64.127	840	53867	34400	8	2.20	11.00
20.0	4300	9.72	71.930	128	9207	36400	8	4.00	11.00
19.0	4300	8.91	78.619	360	28303	37900	8	4.00	11.00
15.0	4300	7.21	97.453	64	6237	40000	8	2.20	7.50
14.0	4300	6.59	106.517	60	6391	40000	8	2.20	7.50
12.0	4300	5.83	118.336	128	15147	40000	8	2.20	5.50
11.0	4300	5.36	129.342	120	15521	40000	8	2.20	5.50
10.0	4300	4.50	153.141	64	9801	40000	8	1.10	4.00
9.00	4300	4.12	167.383	60	10043	40000	8	1.10	4.00
8.00	4300	3.70	185.857	1280	237897	40000	8	1.10	4.00
7.00	4300	3.41	203.143	400	81257	40000	8	1.10	4.00
6.00	4300	2.94	234.932	512	120285	40000	8	1.10	2.20
6.00	4300	2.70	256.781	32	8217	40000	8	1.10	2.20



### Surface and corrosion protection

For optimum protection of geared motors against ambient conditions, the surface and corrosion protection system (OKS) offers tailor-made solutions.

Various surface coatings combined with other protective measures ensure that the geared motors operate reliably even at high air humidity, in outdoor installations or in the presence of atmospheric impurities. Any colour from the RAL Classic collection can be chosen for the top coat. The geared motors are also available unpainted (no surface and corrosion protection).

Surface and corrosion protection	Applications	Product	
		g500-H45 ... H450 g500-S130 ... S660 g500-B45 ... B450	g500-H600 ... H3000 g500-S950 ... S4500 g500-B600 ... B4300
Without OKS(uncoated) <sup>1)</sup>	<ul style="list-style-type: none"> <li>Interior installation, no special corrosion protection required</li> <li>Paint provided by the customer</li> </ul>	Standard	
OKS-G (primed)	<ul style="list-style-type: none"> <li>Dependent on subsequent top coat applied</li> </ul>	Optional	Optional
OKS-S (small)	<ul style="list-style-type: none"> <li>Standard applications</li> <li>Internal installation in heated buildings</li> <li>Air humidity up to 90%</li> </ul>		Standard
OKS-M (medium)	<ul style="list-style-type: none"> <li>Internal installation in non-heated buildings</li> <li>Covered, protected external installation</li> <li>Air humidity up to 95%</li> </ul>		Optional
OKS-L (large)	<ul style="list-style-type: none"> <li>External installation</li> <li>Air humidity above 95%</li> <li>Chemical industry plants</li> <li>Food industry</li> </ul>		Optional
OKS-XL (extra Large) <sup>2)</sup>	<ul style="list-style-type: none"> <li>External installation</li> <li>Air humidity above 95 %</li> <li>Chemical industry plants</li> <li>Food industry</li> <li>Coastal areas with moderate salinity</li> </ul>		Optional

<sup>1)</sup> Aluminium parts are uncoated, fan covers are zinc-coated or primed in grey, cast iron parts primed in grey.  
Light colour deviations of the components are possible.

<sup>2)</sup> On request



### Surface and corrosion protection

#### Structure of surface coating

Surface and corrosion protection	Corrosivity category	Surface coating	Colour	Coating thickness
	DIN EN ISO 12944-2	Structure		
Without OKS(uncoated)		<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> </ul>		30 ... 50 µm
OKS-G (primed)		<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K PUR priming coat</li> </ul>		60 ... 90 µm
OKS-S (small)	Comparable to C1	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K-PUR top coat</li> </ul>	<ul style="list-style-type: none"> <li>Standard: RAL 7012</li> <li>Optional: RAL Classic</li> </ul>	80 ... 120 µm
OKS-M (medium)	Comparable to C2	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> </ul>		110 ... 160 µm
OKS-L (large)	Comparable to C3	<ul style="list-style-type: none"> <li>2K PUR priming coat</li> <li>2K-PUR top coat</li> </ul>		140 ... 200 µm
OKS-XL (extra Large) <sup>1)</sup>	Comparable to C4	<ul style="list-style-type: none"> <li>Dipping primer of the grey iron parts</li> <li>2K-EP priming coat (two times)</li> <li>2K-PUR top coat</li> </ul>		160 ... 240 µm

<sup>1)</sup> On request

# g500-B bevel geared motors

## Project planning



### Lubricants

Lenze gearboxes and geared motors are ready for operation on delivery and are filled with lubricants specific to both the drive and the design. The mounting position and design specified in the order are key factors in choosing the volume of lubricant.

The amount and type of lubricant contained in the gearbox are given on the nameplate.

The following gearboxes are lubricated for life:

- Helical gearbox g500-H45 ... 140
- Shaft-mounted helical gearbox g500-S130
- Bevel gearbox g500-B45 ... 240

### Lubricant table

The following lubricants are recommended:

Mode	CLP 220	CLP 460	CLP HC 220
Ambient temperature [°C]	0 ... +40		-25 ... +50
Specification	Mineral oil with EP additives		Synthetic oil (polyalphaolefins basis)
Changing interval	16000 operating hours After 3 years at the latest Oil temperature 70 °C		25000 operating hours After 4 years at the latest Oil temperature 70 °C
Fuchs	Renolin CLP 220 CLP Plus 220	Renolin CLP 460 CLP Plus 460	Renolin Unisyn CLP 220 XT220
Klüber	Klüberoil GEM 1-220 N	Klüberoil GEM 1-460 N	Klübersynth GEM 4-220 N
Shell	Shell Omala S2 G 220 S2 GX 220	Shell Omala S2 G 460 S2 GX 460	Shell Omala S4 GX HD 220

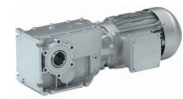
Mode	CLP HC 320	CLP HC 220 USDA H1	CLP PG 460 USDA H1
Ambient temperature [°C]	-25 ... +50	-20 ... +40	
Specification	Synthetic oil (polyalphaolefins basis)		Synthetic oil (polyglycol basis)
Changing interval	25000 operating hours After 4 years at the latest Oil temperature 70 °C	16000 operating hours After 3 years at the latest Oil temperature 70 °C	
Fuchs	Renolin Unisyn CLP 320 XT 320	Cassida Fluid GL 220	Cassida Fluid WG 460
Klüber	Klübersynth GEM 4-320 N	Klüberoil 4 UH1-220 N	Klüberoil UH1 6-460
Shell	Shell Omala S4 GX HD 320		

- Please contact your Lenze sales office if you are operating at ambient temperatures in areas up to < -20 °C bzw. > or up to +40°C.

### Shaft sealing rings

By default, the gearboxes come with NBR shaft sealing rings at the output end. At high speed and unfavourable ambient conditions such as high temperature, reduced circulation of air etc., Lenze recommends the use of FKM (Viton) shaft sealing rings.

Please consider this in your order.



### Ventilation

#### Non-ventilated gearboxes

No ventilation is required for the gearboxes g500-B45 ... B240.

#### Ventilated gearboxes

The gearbox g500-B240 can be optionally ordered with breather elements.

From g500-B450 onwards, the gearboxes are supplied with a breather element as standard.

#### Gearbox in combined mounting position

For reducing the number of versions, the gearboxes can also be ordered in a combined mounting position:

- g500-B45 in mounting position ABCDEF
- g500-B110 ... B450 in mounting position AEF

In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and have to be mounted before commissioning depending on the mounting position.

A gearbox can be used for several mounting positions.

# g500-B bevel geared motors

## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-B240

Mounting position A	Mounting position B	Mounting position C



# g500-B bevel geared motors





Project planning



## Ventilation

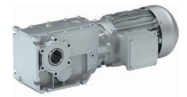
Position of ventilation, sealing elements and oil level check

g500-B240

Mounting position D	Mounting position E	Mounting position F
 Filling	 Drain	 Breathing
	 Control	

# g500-B bevel geared motors

## Project planning



### Ventilation

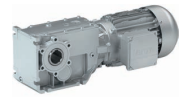
Position of ventilation, sealing elements and oil level check

g500-B450

Mounting position A	Mounting position B	Mounting position C	
	<p>Filling</p>		<p>Drain</p>
	<p>Breathing</p>		<p>Control</p>

# g500-B bevel geared motors

## Project planning



### Ventilation

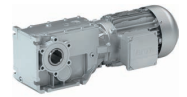
Position of ventilation, sealing elements and oil level check

g500-B450

Mounting position D	Mounting position E	Mounting position F
	<p>Filling</p>	
	<p>Drain</p>	
	<p>Breathing</p>	
	<p>Control</p>	

# g500-B bevel geared motors

## Project planning



### Ventilation

Position of ventilation, sealing elements and oil level check

g500-B600 ... B4300

Mounting position A		Mounting position B		Mounting position C	
	Filling		Drain		
	Breathing		Control		

# g500-B bevel geared motors

## Project planning



### Ventilation

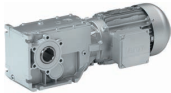
#### Position of ventilation, sealing elements and oil level check

g500-B600 ... B4300

Mounting position D	Mounting position E	Mounting position F	
	<p>G50BB215</p>	<p>G50BB227 G50BB243</p> <p>G50BB160 G50BB185 G50BB215</p>	
	<p>G50BB215</p>		
<p>G50BB160 G50BB182</p> <p>G50BB227 G50BB243</p> <p>G50BB215</p>			
	<p>Filling</p>		<p>Drain</p>
	<p>Breathing</p>		<p>Control</p>

# g500-B bevel geared motors

Project planning



# g500-B bevel geared motors

Technical data



## Standards and operating conditions

### Geared motor data

Product			MD□MA□□	MH□MA□□
Motor				
<b>Degree of protection</b>				
EN 60529			IP55 <sup>1)</sup> IP65 <sup>1)</sup> IP66 <sup>1)</sup>	
<b>Energy efficiency class</b>				
IEC 60034-30			IE1	IE2
IEC 60034-2-1			Methodology for measuring efficiency	
10 CFR Part 431 (U.S. Integral hp Rule)				
GB18613-2012 (China Energy Label optional)				
<b>Conformity</b>				
CE			Low-Voltage Directive 2006/95/EC	
EAC			TP TC 004/2011 (TR CU 004/2011)	
<b>Approval</b>				
CCC			GB Standard 12350-2009	
CSA			CSA 22.2 No. 100	CSA 22.2 No. 100 CSA C390-10
cURus <sup>-1)</sup>			UL 1004-1 UL 1004-8 File-No. E210321	
<b>Temperature class</b>				
IEC/EN 60034-1; utilisation			B	
IEC/EN 60034-1; insulation system (enamel-insulated wire)			F	
<b>Min. ambient operating temperature</b>				
	$T_{opr,min}$	[°C]	-20	
<b>Max. ambient temperature for operation</b>				
	$T_{opr,max}$	[°C]	40	
With power reduction	$T_{opr,max}$	[°C]	60 <sup>2)</sup>	
<b>Site altitude</b>				
Current derating at over 1000 m		[%/1000 m]	5.00	
Amsl	$H_{max}$	[m]	4000	

<sup>1)</sup> Designs with different degrees of protection:  
IP55 with brake (IP54 with manual release lever).  
IP54 with resolver RS1.  
IP54 with HTL incremental encoder IG128-24V-H.

<sup>2)</sup> In case of cURus max. 40 °C are permissible.

- In the European Union, the ErP Directive stipulates minimum efficiency levels for three-phase AC motors. Geared three-phase AC motors that do not conform with this Directive do not meet CE requirements and must not be marketed in the European Economic Area. For further information about the ErP Directive, the efficiency regulations in other countries and the Lenze products concerned, please refer to the brochure "International efficiency directives for three-phase AC motors".



### Permissible radial and axial forces at output

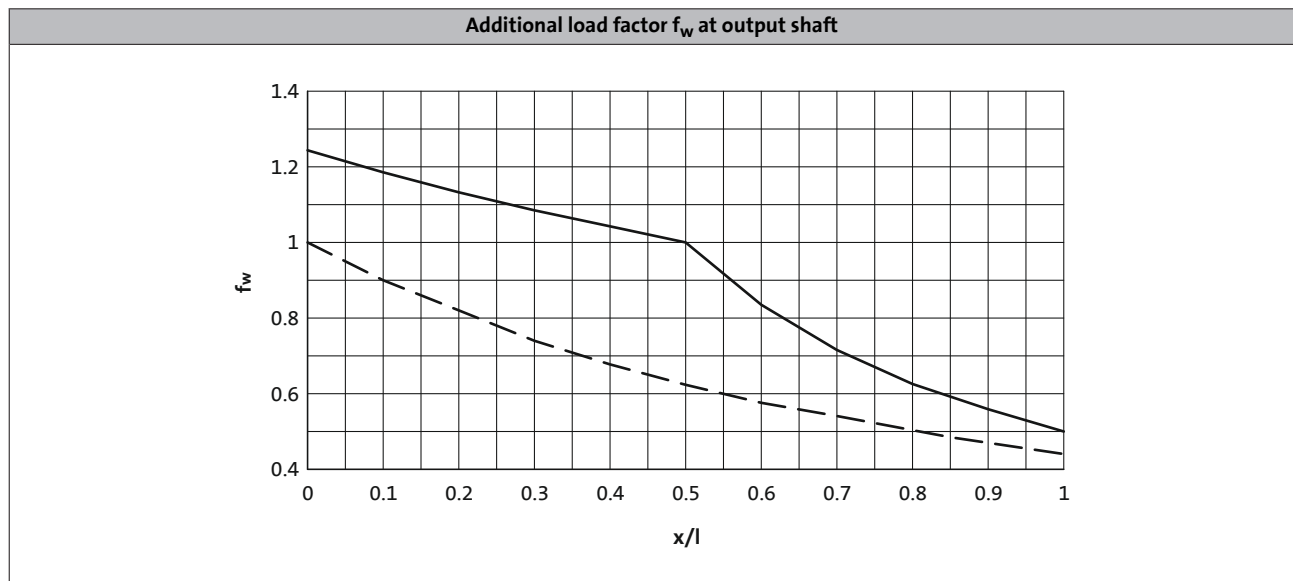
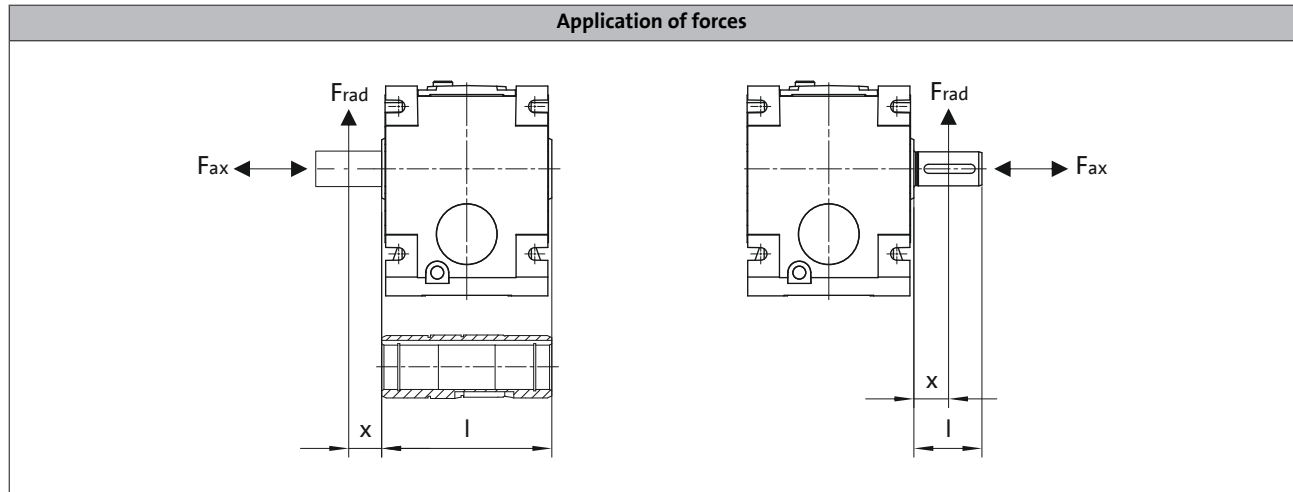
#### Permissible radial force

$$F_{rad,perm} = f_w \times F_{rad,max}$$

► If  $F_{rad}$  and  $F_{ax} \neq 0$ , please contact Lenze.

#### Permissible axial force

If there is no radial force, the maximum permissible axial force is 50 % of the table value  $F_{rad,max}$



— Solid shaft  
 - - - Hollow shaft



# g500-B bevel geared motors



## Technical data

### Permissible radial and axial forces at output

The values given in the table refer to the center shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated for the motor/gear-box combination with a load capacity of  $c= 1.3$  and an input speed of 1400 rpm.

In case of different operating conditions, considerably higher forces can be transmitted. Please contact Lenze.

- A hollow shaft with shrink disc requires a check by Lenze.

Product	$n_2$ [r/min]						
	250	160	100	63	40	25	≤16

	Max. radial force, Hollow shaft						
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]
g500-B45	2500	2800	3000	3000	3000	3000	3000
g500-B110	3000	3300	3600	3600	3600	3600	3600
g500-B240	4500	5100	6200	7400	7800	7800	7800
g500-B450	5200	5200	5500	7000	9000	9000	9000
g500-B600	5400	5600	6000	8000	9400	9500	9500
g500-B820	5800	6000	7000	9000	9800	10200	10200
g500-B1500	7000	8000	9000	10500	13000	16000	16000
g500-B2700	8200	9400	10600	12200	15000	18000	21900
g500-B4300	9000	10500	12000	15500	21000	27900	35100

	Max. radial force, Solid shaft without flange						
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]
g500-B45	2100	2400	2800	3000	3000	3000	3000
g500-B110	2500	2700	3000	3000	3000	3000	3000
g500-B240	3600	4500	5000	6000	6500	6500	6500
g500-B450	3900	4300	5000	6000	7600	7800	7800
g500-B600	4700	5400	6700	8300	9000	9000	9000
g500-B820	9800	11000	11000	11000	11000	11000	11000
g500-B1500	11500	13000	16000	16000	16000	16000	16000
g500-B2700	12000	14000	16500	20100	22700	25500	27500
g500-B4300	13300	14900	17300	20800	25700	32200	40000

# g500-B bevel geared motors

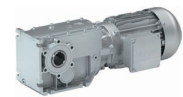
Technical data



## Permissible radial and axial forces at output

Product	$n_2$ [r/min]						
	250	160	100	63	40	25	≤16
<b>Max. radial force, Solid shaft with flange</b>							
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]
g500-B45	2100	2400	2800	3000	3000	3000	3000
g500-B110	2500	2700	3000	3000	3000	3000	3000
g500-B240	6000	6500	6500	6500	6500	6500	6500
g500-B450	5100	5600	6400	7700	7800	7800	7800
g500-B600	5300	6000	7300	9000	9000	9000	9000
g500-B820	10200	11000	11000	11000	11000	11000	11000
g500-B1500	12000	13000	15000	16000	16000	16000	16000
g500-B2700	14400	15800	17700	20100	22700	25500	27500
g500-B4300	15800	17800	20800	24800	29500	35100	40000

# g500-B bevel geared motors



## Technical data

### Selection tables, notes

#### Notes on the selection tables with 4-pole motors

The selection tables show the available combinations of gearbox type, number of stages, ratio and motor. They are used only to provide basic orientation.

The following legend indicates the structure of the selection tables.

**Rated power  $P_{rated}$  of the drive motor depending on the rated frequency**

50 Hz:  $P_N = 0.75$  kW  
87 Hz:  $P_N = 1.35$  kW

**2-stufige Getriebe** ← **Number of the gear stage of the gearbox**

**Torque diagram**

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	Ratio i	Product Gearbox	Product Motor	Page number for dimensions	
396	17	4.7	41	13	168	17	396	17	4.7	707	17	3.9	3.565	-B240	080-32	66	
272	25	2.8	28	19	116	25	272	25	2.8	486	25	2.3	5.185	-B110	080-32	63	

**Load capacity c of the gearbox**  
c is the ratio between the permissible rated torque of the gearbox and the rated torque of the three-phase AC motor (converted to the driven shaft).  
c must be always higher than the service factor k determined for the application k.

$$c = \frac{M_{2,zul}}{M_{1N} \cdot i \cdot \eta_{Getr}} > k$$

**Mains operation**  
Output speed  $n_2$   
Output torque  $M_2$

**Inverter operation**  
The speed and torque data are valid for self-ventilated and forced ventilated drives. Forced ventilated drives can always output the torque  $M_2$  in the entire setting ranges. In the case of self-ventilated drives, a reduction to  $M_{22}$  is required in the lower speed range.

#### Motor voltages

The power values and torques indicated in the selection tables relate to the following motor voltages:

- 50 Hz :  $\Delta$  230 V / Y 400 V
- 60 Hz : 230 V or 460 V
- 87 Hz :  $\Delta$  400 V

#### Operation at 87 Hz

In 87 Hz operation, the three-phase AC motor (which is designed for a voltage of  $\Delta$  230 V / Y 400 V at 50 Hz) is operated on an inverter with 400 V rated voltage in a delta connection. It is important to note here that the inverter must be configured for 87Hz output.

This offers the following advantages over 50 Hz operation:

- the setting range of the motor is increased by a factor of 1.73.
- the motor can then provide around 1.73 times greater output, which in turn allows a smaller and more affordable motor to be selected for the application.
- the efficiency of the motor is also improved.

# g500-B bevel geared motors

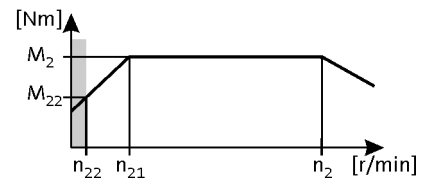
Technical data



## Selection tables, 4-pole motors

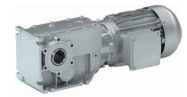
50 Hz:  $P_N = 0.06$  kW  
87 Hz:  $P_N = 0.11$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
64	9.0	5.3	6.5	8.5	27	9.0	64	9.0	5.3	114	9.0	4.3	22.270	-B45	063-02	104
57	10	4.7	5.8	9.6	24	10	57	10	4.7	101	10	4.4	25.051	-B45	063-02	104
50	11	4.1	5.0	11	21	11	50	11	4.1	88	11	3.8	28.808	-B45	063-02	104
44	12	3.6	4.4	12	18	12	44	12	3.6	78	13	3.4	32.593	-B45	063-02	104
38	14	3.1	3.9	14	16	14	38	14	3.1	68	15	2.9	37.481	-B45	063-02	104
34	16	2.8	3.4	16	14	16	34	16	2.8	60	17	2.7	42.222	-B45	063-02	104
29	19	2.4	3.0	19	12	19	29	19	2.4	52	19	2.4	48.556	-B45	063-02	104
26	21	2.2	2.7	21	11	21	26	21	2.2	47	21	2.1	53.889	-B45	063-02	104
23	24	1.9	2.3	24	9.7	24	23	24	1.9	41	24	1.8	61.972	-B45	063-02	104

# g500-B bevel geared motors

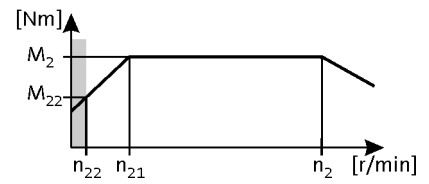


## Technical data

### Selection tables, 4-pole motors

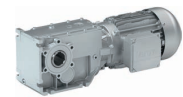
50 Hz:  $P_N = 0.09$  kW  
 87 Hz:  $P_N = 0.16$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
103	8.0	5.7	11	7.8	45	8.0	103	8.0	5.7	186	8.0	4.9	13.386	-B45	063-22	104
91	9.0	5.0	9.6	8.8	40	9.0	91	9.0	5.0	164	9.0	4.3	15.111	-B45	063-22	104
79	10	4.4	8.3	10	35	10	79	10	4.4	143	10	3.8	17.378	-B45	063-22	104
71	11	3.9	7.5	11	31	11	71	11	3.9	128	11	3.4	19.365	-B45	063-22	104
62	13	3.4	6.5	13	27	13	62	13	3.4	112	13	2.9	22.270	-B45	063-22	104
55	15	3.0	5.8	15	24	15	55	15	3.0	99	15	3.0	25.051	-B45	063-22	104
48	17	2.6	5.0	17	21	17	48	17	2.6	86	17	2.6	28.808	-B45	063-22	104
42	19	2.3	4.4	19	18	19	42	19	2.3	76	19	2.3	32.593	-B45	063-22	104
37	22	2.0	3.9	22	16	22	37	22	2.0	66	22	2.0	37.481	-B45	063-22	104
33	25	1.8	3.4	25	14	25	33	25	1.8	59	25	1.8	42.222	-B45	063-22	104
28	29	1.6	3.0	28	12	28	28	29	1.6	51	28	1.6	48.556	-B45	063-22	104
26	32	1.4	2.7	32	11	31	26	32	1.4	46	31	1.4	53.889	-B45	063-22	104
22	37	1.2	2.3	36	9.7	36	22	37	1.2	40	36	1.2	61.972	-B45	063-22	104

# g500-B bevel geared motors

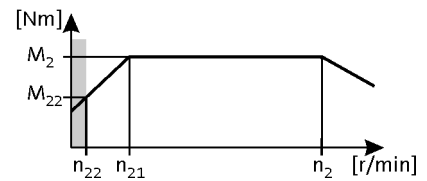


## Technical data

### Selection tables, 4-pole motors

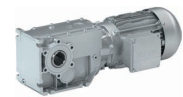
50 Hz:  $P_N = 0.12$  kW  
 87 Hz:  $P_N = 0.21$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
136	8.0	5.6	14	6.2	57	8.0	136	8.0	5.6	242	8.0	4.8	10.466	-B45	063-12	104
122	9.0	5.1	13	6.8	52	9.0	122	9.0	5.1	218	9.0	4.3	11.640	-B45	063-12	104
107	10	4.4	11	7.9	45	10	107	10	4.4	189	10	3.8	13.386	-B45	063-12	104
94	12	3.9	9.6	8.9	40	11	94	12	3.9	168	11	3.3	15.111	-B45	063-12	104
82	13	3.4	8.3	10	35	13	82	13	3.4	146	13	2.9	17.378	-B45	063-12	104
74	15	3.0	7.5	11	31	15	74	15	3.0	131	15	2.6	19.365	-B45	063-12	104
73	15	5.5	7.4	12	31	15	73	15	5.5	130	15	4.7	19.556	-B110	063-12	107
64	17	2.6	6.5	13	27	17	64	17	2.6	114	17	2.3	22.270	-B45	063-12	104
63	17	5.5	6.4	13	27	17	63	17	5.5	113	17	4.7	22.489	-B110	063-12	107
57	19	2.4	5.8	15	24	19	57	19	2.4	101	19	2.3	25.051	-B45	063-12	104
57	19	4.6	5.8	15	24	19	57	19	4.6	101	19	3.9	25.185	-B110	063-12	107
50	22	2.0	5.0	17	21	22	50	22	2.0	88	22	2.0	28.808	-B45	063-12	104
49	22	4.6	5.0	17	21	22	49	22	4.6	88	22	3.9	28.963	-B110	063-12	107
45	24	4.0	4.5	19	19	24	45	24	4.0	79	24	3.4	31.919	-B110	063-12	107
44	25	1.8	4.4	19	18	24	44	25	1.8	78	24	1.8	32.593	-B45	063-12	104
39	28	3.9	4.0	22	16	28	39	28	3.9	69	28	3.4	36.707	-B110	063-12	107
38	29	3.7	3.9	22	16	28	38	29	3.7	68	28	3.2	37.400	-B110	063-12	107
38	29	1.6	3.9	22	16	28	38	29	1.6	68	28	1.5	37.481	-B45	063-12	104
36	31	3.3	3.6	24	15	30	36	31	3.3	63	30	3.2	40.000	-B110	063-12	107
34	32	1.4	3.4	25	14	32	34	32	1.4	60	32	1.4	42.222	-B45	063-12	104
33	33	4.6	3.4	26	14	33	33	33	4.6	59	33	4.5	43.267	-B240	063-12	110
31	35	3.1	3.2	27	13	35	31	35	3.1	55	35	3.0	46.000	-B110	063-12	107
30	37	3.0	3.0	28	13	36	30	37	3.0	53	36	2.9	48.167	-B110	063-12	107
29	37	1.2	3.0	29	12	36	29	37	1.2	52	36	1.2	48.556	-B45	063-12	104
29	38	4.6	3.0	29	12	37	29	38	4.6	52	37	4.5	49.133	-B240	063-12	110
27	40	4.0	2.8	31	11	39	27	40	4.0	48	39	3.9	52.510	-B240	063-12	110
27	40	1.7	2.8	31	11	40	27	40	1.7	48	40	1.7	52.698	-B110	063-12	107
26	41	1.1	2.7	32	11	40	26	41	1.1	47	40	1.1	53.889	-B45	063-12	104
24	46	4.0	2.4	35	10	45	24	46	4.0	43	45	3.9	59.630	-B240	063-12	110
24	46	1.7	2.4	36	9.9	46	24	46	1.7	42	46	1.7	60.603	-B110	063-12	107
23	47	2.4	2.4	36	9.8	46	23	47	2.4	42	46	2.4	61.045	-B110	063-12	107
23	47	1.0	2.3	37	9.7	47	23	47	1.0	41	47	1.0	61.972	-B45	063-12	104
21	51	3.1	2.2	40	8.9	50	21	51	3.1	38	50	3.2	67.113	-B240	063-12	110
19	58	3.1	1.9	45	7.9	57	19	58	3.1	33	57	3.2	76.213	-B240	063-12	110
19	58	1.9	1.9	45	7.8	57	19	58	1.9	33	57	1.9	76.500	-B110	063-12	107

# g500-B bevel geared motors

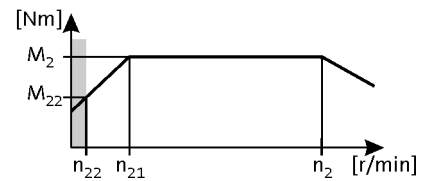


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.12$  kW  
 87 Hz:  $P_N = 0.21$  kW

2-stage gearboxes

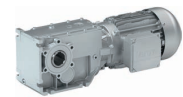


Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
14	77	1.4	1.4	59	6.0	76	14	77	1.4	25	76	1.5	100.786	-B110	063-12	107	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
21	51	4.7	2.1	39	8.8	50	21	51	4.7	37	50	4.6	68.459	-B240	063-12	110	
18	58	4.2	1.9	45	7.7	57	18	58	4.2	33	57	4.0	77.741	-B240	063-12	110	
16	65	3.7	1.7	50	6.9	64	16	65	3.7	29	64	3.6	87.563	-B240	063-12	110	
14	74	3.2	1.5	57	6.0	73	14	74	3.2	26	73	3.1	99.437	-B240	063-12	110	
13	85	2.8	1.3	65	5.3	83	13	85	2.8	22	83	2.9	113.673	-B240	063-12	110	
11	96	2.5	1.1	74	4.6	95	11	96	2.5	20	95	2.5	129.087	-B240	063-12	110	
9.9	110	4.1	1.0	85	4.2	108	9.9	110	4.1	18	108	4.2	144.128	-B450	063-12	113	
9.8	108	2.2	1.0	84	4.1	107	9.8	108	2.2	17	107	2.3	145.674	-B240	063-12	110	
8.9	122	3.7	0.9	94	3.8	120	8.9	122	3.7	16	120	3.8	159.807	-B450	063-12	113	
8.6	123	2.0	0.9	95	3.6	121	8.6	123	2.0	15	121	2.0	165.426	-B240	063-12	110	
8.1	134	3.4	0.8	103	3.4	131	8.1	134	3.4	15	131	3.4	174.919	-B450	063-12	113	
7.6	140	1.7	0.8	108	3.2	138	7.6	140	1.7	14	138	1.7	188.442	-B240	063-12	110	
7.3	148	3.0	0.7	114	3.1	146	7.3	148	3.0	13	146	3.1	193.948	-B450	063-12	113	
6.7	159	1.5	0.7	123	2.8	157	6.7	159	1.5	12	157	1.5	213.994	-B240	063-12	110	
6.4	171	2.6	0.6	132	2.7	168	6.4	171	2.6	11	168	2.7	223.563	-B450	063-12	113	
5.8	183	1.3	0.6	141	2.4	180	5.8	183	1.3	10	180	1.3	245.178	-B240	063-12	110	
5.7	189	2.4	0.6	146	2.4	186	5.7	189	2.4	10	186	2.4	247.882	-B450	063-12	113	
5.1	207	1.2	0.5	160	2.2	204	5.1	207	1.2	9.1	204	1.2	278.422	-B240	063-12	110	
4.5	237	1.0	0.5	182	1.9	233	4.5	237	1.0	8.0	233	1.0	317.617	-B240	063-12	110	
4.0	269	0.9	0.4	207	1.7	264	4.0	269	0.9	7.0	264	0.9	360.683	-B240	063-12	110	

# g500-B bevel geared motors

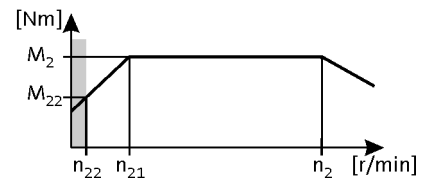


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

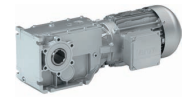
2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c		
252	6.0	4.7	27	5.0	111	6.0	252	6.0	4.7	457	7.0	3.9	5.411	-B45	063-32	104	
219	7.0	4.7	23	5.7	96	7.0	219	7.0	4.7	398	8.0	3.9	6.222	-B45	063-32	104	
192	9.0	4.5	20	6.6	84	9.0	192	9.0	4.5	348	9.0	3.7	7.111	-B45	063-32	104	
167	10	4.5	18	7.5	73	10	167	10	4.5	303	10	3.7	8.178	-B45	063-32	104	
150	11	4.1	16	8.4	66	11	150	11	4.1	272	11	3.5	9.101	-B45	063-32	104	
130	13	3.6	14	9.6	57	13	130	13	3.6	237	13	3.0	10.466	-B45	063-32	104	
119	14	4.5	13	11	52	14	119	14	4.5	216	14	3.7	11.449	-B110	063-32	107	
117	14	3.2	13	11	52	14	117	14	3.2	213	14	2.7	11.640	-B45	063-32	104	
108	15	4.1	11	12	47	15	108	15	4.1	195	15	3.5	12.698	-B110	063-32	107	
102	16	2.8	11	12	45	16	102	16	2.8	185	16	2.4	13.386	-B45	063-32	104	
94	17	4.1	9.9	14	41	17	94	17	4.1	170	18	3.5	14.603	-B110	063-32	107	
90	18	2.5	9.6	14	40	18	90	18	2.5	164	18	2.1	15.111	-B45	063-32	104	
79	21	2.2	8.3	16	35	21	79	21	2.2	142	21	1.8	17.378	-B45	063-32	104	
71	23	1.9	7.5	18	31	23	71	23	1.9	128	23	1.6	19.365	-B45	063-32	104	
70	23	3.5	7.4	18	31	23	70	23	3.5	127	24	2.9	19.556	-B110	063-32	107	
61	27	1.7	6.5	21	27	27	61	27	1.7	111	27	1.4	22.270	-B45	063-32	104	
61	27	3.5	6.4	21	27	27	61	27	3.5	110	27	2.9	22.489	-B110	063-32	107	
55	30	1.5	5.8	23	24	30	55	30	1.5	99	30	1.4	25.051	-B45	063-32	104	
54	30	2.9	5.8	23	24	30	54	30	2.9	98	30	2.5	25.185	-B110	063-32	107	
47	34	1.3	5.0	27	21	34	47	34	1.3	86	35	1.2	28.808	-B45	063-32	104	
47	35	2.9	5.0	27	21	35	47	35	2.9	86	35	2.5	28.963	-B110	063-32	107	
43	38	2.6	4.5	29	19	38	43	38	2.6	78	39	2.2	31.919	-B110	063-32	107	
42	39	1.2	4.4	30	18	39	42	39	1.2	76	39	1.1	32.593	-B45	063-32	104	
37	44	2.5	4.0	34	16	44	37	44	2.5	67	44	2.1	36.707	-B110	063-32	107	
37	45	2.4	3.9	35	16	45	37	45	2.4	66	45	2.0	37.400	-B110	063-32	107	
36	45	1.0	3.9	35	16	45	36	45	1.0	66	45	1.0	37.481	-B45	063-32	104	
34	48	2.1	3.6	37	15	48	34	48	2.1	62	48	2.0	40.000	-B110	063-32	107	
32	51	0.9	3.4	39	14	51	32	51	0.9	59	51	0.9	42.222	-B45	063-32	104	
32	52	2.9	3.4	40	14	52	32	52	2.9	57	52	2.8	43.267	-B240	063-32	110	
30	55	2.0	3.2	42	13	55	30	55	2.0	54	56	1.9	46.000	-B110	063-32	107	
28	58	1.9	3.0	44	13	58	28	58	1.9	51	58	1.8	48.167	-B110	063-32	107	
28	59	2.9	3.0	45	12	59	28	59	2.9	50	59	2.8	49.133	-B240	063-32	110	
26	63	2.6	2.8	48	11	63	26	63	2.6	47	64	2.4	52.510	-B240	063-32	110	
26	63	1.1	2.8	49	11	63	26	63	1.1	47	64	1.0	52.698	-B110	063-32	107	
23	71	2.6	2.4	55	10	71	23	71	2.6	42	72	2.4	59.630	-B240	063-32	110	



# g500-B bevel geared motors

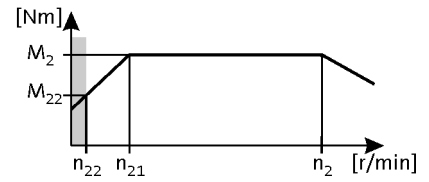


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.18$  kW  
 87 Hz:  $P_N = 0.33$  kW

2-stage gearboxes

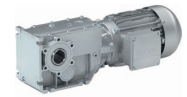


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
23	73	1.1	2.4	56	9.9	73	23	73	1.1	41	73	1.1	60.603	-B110	063-32	107
22	73	1.5	2.4	56	9.8	73	22	73	1.5	41	74	1.5	61.045	-B110	063-32	107
20	80	2.0	2.2	62	8.9	80	20	80	2.0	37	81	2.0	67.113	-B240	063-32	110
18	91	2.0	1.9	70	7.9	91	18	91	2.0	33	92	2.0	76.213	-B240	063-32	110
18	92	1.2	1.9	71	7.8	92	18	92	1.2	32	93	1.2	76.500	-B110	063-32	107
14	121	0.9	1.4	93	6.0	121	14	121	0.9	25	122	0.9	100.786	-B110	063-32	107

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
20	80	3.0	2.1	62	8.8	80	20	80	3.0	36	81	2.9	68.459	-B240	063-32	110
18	91	2.7	1.9	70	7.7	91	18	91	2.7	32	92	2.5	77.741	-B240	063-32	110
16	102	2.4	1.7	79	6.9	102	16	102	2.4	28	103	2.2	87.563	-B240	063-32	110
14	116	2.1	1.5	89	6.0	116	14	116	2.1	25	117	2.0	99.437	-B240	063-32	110
12	133	1.8	1.3	102	5.3	133	12	133	1.8	22	134	1.8	113.673	-B240	063-32	110
11	151	1.6	1.1	116	4.6	151	11	151	1.6	19	152	1.6	129.087	-B240	063-32	110
9.5	172	2.6	1.0	133	4.2	172	9.5	172	2.6	17	174	2.6	144.128	-B450	063-32	113
9.4	170	1.4	1.0	131	4.1	170	9.4	170	1.4	17	172	1.4	145.674	-B240	063-32	110
8.5	191	2.4	0.9	147	3.8	191	8.5	191	2.4	16	193	2.3	159.807	-B450	063-32	113
8.3	193	1.2	0.9	149	3.6	193	8.3	193	1.2	15	195	1.2	165.426	-B240	063-32	110
7.8	209	2.2	0.8	161	3.4	209	7.8	209	2.2	14	212	2.1	174.919	-B450	063-32	113
7.2	220	1.1	0.8	169	3.2	220	7.2	220	1.1	13	222	1.1	188.442	-B240	063-32	110
7.0	232	1.9	0.7	179	3.1	232	7.0	232	1.9	13	235	1.9	193.948	-B450	063-32	113
6.4	250	1.0	0.7	192	2.8	250	6.4	250	1.0	12	252	1.0	213.994	-B240	063-32	110
6.1	267	1.7	0.6	206	2.7	267	6.1	267	1.7	11	270	1.7	223.563	-B450	063-32	113
5.6	286	0.8	0.6	220	2.4	286	5.6	286	0.8	10	289	0.8	245.178	-B240	063-32	110
5.5	296	1.5	0.6	228	2.4	296	5.5	296	1.5	10	300	1.5	247.882	-B450	063-32	113

# g500-B bevel geared motors

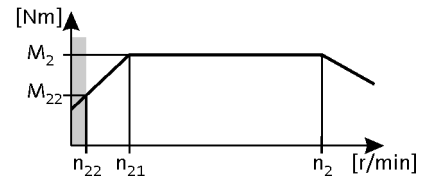


## Technical data

### Selection tables, 4-pole motors

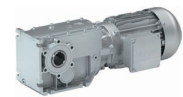
50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MD□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
264	9.0	5.6	28	6.6	116	9.0	264	9.0	5.6	478	9.0	4.8	5.185	-B110	063-42	107	
253	9.0	4.4	27	6.9	111	9.0	253	9.0	4.4	458	9.0	3.7	5.411	-B45	063-42	104	
230	10	5.6	24	7.6	101	10	230	10	5.6	416	10	4.8	5.963	-B110	063-42	107	
220	10	3.9	23	7.9	96	10	220	10	3.9	399	10	3.3	6.222	-B45	063-42	104	
193	12	3.7	20	9.1	84	12	193	12	3.7	349	12	3.1	7.111	-B45	063-42	104	
193	12	5.6	20	9.1	84	12	193	12	5.6	349	12	4.8	7.111	-B110	063-42	107	
168	14	3.3	18	10	73	13	168	14	3.3	303	13	2.8	8.178	-B45	063-42	104	
168	14	5.6	18	10	73	13	168	14	5.6	303	13	4.8	8.178	-B110	063-42	107	
151	15	3.0	16	12	66	15	151	15	3.0	273	15	2.5	9.101	-B45	063-42	104	
151	15	5.2	16	12	66	15	151	15	5.2	273	15	4.4	9.101	-B110	063-42	107	
131	17	2.6	14	13	57	17	131	17	2.6	237	17	2.2	10.466	-B45	063-42	104	
131	17	5.1	14	13	57	17	131	17	5.1	237	17	4.4	10.466	-B110	063-42	107	
120	19	4.8	13	15	52	19	120	19	4.8	217	19	4.0	11.449	-B110	063-42	107	
118	19	2.3	13	15	52	19	118	19	2.3	213	19	2.0	11.640	-B45	063-42	104	
108	21	4.3	11	16	47	21	108	21	4.3	195	21	3.6	12.698	-B110	063-42	107	
102	22	2.0	11	17	45	22	102	22	2.0	185	22	1.7	13.386	-B45	063-42	104	
94	24	3.7	9.9	19	41	24	94	24	3.7	170	24	3.2	14.603	-B110	063-42	107	
91	25	5.6	9.7	19	40	25	91	25	5.6	165	25	4.8	15.008	-B240	063-42	110	
91	25	1.8	9.6	19	40	25	91	25	1.8	164	25	1.5	15.111	-B45	063-42	104	
88	26	3.6	9.3	20	39	26	88	26	3.6	159	26	3.0	15.556	-B110	063-42	107	
81	28	5.2	8.6	22	36	28	81	28	5.2	147	28	4.4	16.857	-B240	063-42	110	
79	29	1.6	8.3	22	35	29	79	29	1.6	143	29	1.3	17.378	-B45	063-42	104	
77	30	3.2	8.1	23	34	29	77	30	3.2	139	29	2.8	17.889	-B110	063-42	107	
72	32	5.2	7.6	24	31	32	72	32	5.2	130	32	4.4	19.143	-B240	063-42	110	
71	32	1.4	7.5	25	31	32	71	32	1.4	128	32	1.2	19.365	-B45	063-42	104	
70	32	3.1	7.4	25	31	32	70	32	3.1	127	32	2.6	19.556	-B110	063-42	107	
62	37	1.2	6.5	28	27	37	62	37	1.2	111	37	1.0	22.270	-B45	063-42	104	
61	37	2.8	6.4	29	27	37	61	37	2.8	110	37	2.4	22.489	-B110	063-42	107	
55	41	1.1	5.8	32	24	41	55	41	1.1	99	41	1.1	25.051	-B45	063-42	104	
54	42	2.6	5.8	32	24	41	54	42	2.6	99	41	2.2	25.185	-B110	063-42	107	
51	44	4.3	5.4	34	22	44	51	44	4.3	92	44	3.7	26.878	-B240	063-42	110	
48	48	0.9	5.0	37	21	47	48	48	0.9	86	47	0.9	28.808	-B45	063-42	104	
47	48	2.3	5.0	37	21	48	47	48	2.3	86	48	2.0	28.963	-B110	063-42	107	
45	51	4.3	4.8	39	20	50	45	51	4.3	81	50	3.7	30.522	-B240	063-42	110	
43	53	2.0	4.5	41	19	53	43	53	2.0	78	53	1.7	31.919	-B110	063-42	107	

# g500-B bevel geared motors

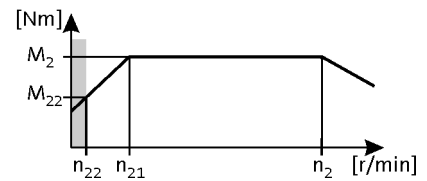


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

2-stage gearboxes

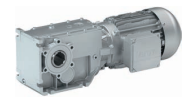


Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
42	54	0.8	4.4	42	18	54	42	54	0.8	76	54	0.8	32.593	-B45	063-42	104	
41	55	3.7	4.3	43	18	55	41	55	3.7	74	55	3.1	33.433	-B240	063-42	110	
37	61	1.8	4.0	47	16	60	37	61	1.8	68	60	1.5	36.707	-B110	063-42	107	
37	62	1.7	3.9	48	16	62	37	62	1.7	66	62	1.5	37.400	-B110	063-42	107	
36	63	3.7	3.8	48	16	62	36	63	3.7	65	62	3.1	37.967	-B240	063-42	110	
34	66	1.2	3.6	51	15	66	34	66	1.2	62	66	1.2	40.000	-B110	063-42	107	
32	72	3.3	3.4	55	14	71	32	72	3.3	57	71	3.2	43.267	-B240	063-42	110	
30	76	1.2	3.2	59	13	76	30	76	1.2	54	76	1.2	46.000	-B110	063-42	107	
28	80	1.4	3.0	61	13	79	28	80	1.4	52	79	1.3	48.167	-B110	063-42	107	
28	81	3.0	3.0	63	12	81	28	81	3.0	51	81	2.9	49.133	-B240	063-42	110	
26	87	2.7	2.8	67	11	86	26	87	2.7	47	86	2.6	52.510	-B240	063-42	110	
23	99	2.4	2.4	76	10	98	23	99	2.4	42	98	2.4	59.630	-B240	063-42	110	
22	101	1.1	2.4	78	9.8	100	22	101	1.1	41	100	1.1	61.045	-B110	063-42	107	
20	111	1.4	2.2	86	8.9	110	20	111	1.4	37	110	1.4	67.113	-B240	063-42	110	
18	126	1.4	1.9	97	7.9	125	18	126	1.4	33	125	1.4	76.213	-B240	063-42	110	
18	127	0.9	1.9	98	7.8	126	18	127	0.9	32	126	0.9	76.500	-B110	063-42	107	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
77	30	5.6	8.1	23	34	29	77	30	5.6	139	29	4.8	17.885	-B450	063-42	113	
69	33	5.6	7.3	25	30	33	69	33	5.6	125	33	4.8	19.831	-B450	063-42	113	
60	38	5.2	6.4	29	26	38	60	38	5.2	109	38	4.4	22.813	-B450	063-42	113	
54	42	5.2	5.7	32	24	42	54	42	5.2	98	42	4.4	25.294	-B450	063-42	113	
38	60	4.3	4.0	46	17	60	38	60	4.3	68	60	3.7	36.373	-B450	063-42	113	
34	67	4.3	3.6	51	15	66	34	67	4.3	62	66	4.2	40.330	-B450	063-42	113	
30	75	3.7	3.2	58	13	74	30	75	3.7	55	74	3.5	45.245	-B450	063-42	113	
27	83	3.7	2.9	64	12	83	27	83	3.7	49	83	3.5	50.167	-B450	063-42	113	
24	93	4.8	2.6	72	11	92	24	93	4.8	44	92	4.7	56.154	-B450	063-42	113	
22	103	4.4	2.3	79	9.6	102	22	103	4.4	40	102	4.2	62.262	-B450	063-42	113	
20	112	3.7	2.1	86	8.9	111	20	112	3.7	37	111	3.5	67.513	-B600	063-42	119	
20	110	2.2	2.1	85	8.8	110	20	110	2.2	36	110	2.1	68.459	-B240	063-42	110	
18	125	1.9	1.9	97	7.7	125	18	125	1.9	32	125	1.9	77.741	-B240	063-42	110	
17	136	3.2	1.8	104	7.3	135	17	136	3.2	30	135	3.1	81.937	-B600	063-42	119	
16	141	1.7	1.7	109	6.9	140	16	141	1.7	28	140	1.6	87.563	-B240	063-42	110	
15	148	3.0	1.6	114	6.7	147	15	148	3.0	28	147	2.9	89.534	-B450	063-42	113	
14	164	2.7	1.5	127	6.0	163	14	164	2.7	25	163	2.7	99.274	-B450	063-42	113	
14	160	1.5	1.5	124	6.0	160	14	160	1.5	25	160	1.5	99.437	-B240	063-42	110	
12	184	2.4	1.3	142	5.4	183	12	184	2.4	22	183	2.5	111.372	-B450	063-42	113	

# g500-B bevel geared motors

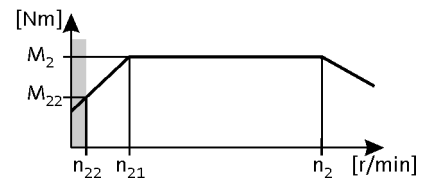


Technical data

## Selection tables, 4-pole motors

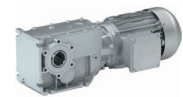
50 Hz:  $P_N = 0.25$  kW  
 87 Hz:  $P_N = 0.45$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
12	183	1.3	1.3	141	5.3	182	12	183	1.3	22	182	1.3	113.673	-B240	063-42	110
12	192	3.1	1.2	148	5.2	191	12	192	3.1	21	191	3.1	116.175	-B600	063-42	119
11	204	2.2	1.2	157	4.9	203	11	204	2.2	20	203	2.2	123.487	-B450	063-42	113
11	208	1.2	1.1	160	4.6	207	11	208	1.2	19	207	1.2	129.087	-B240	063-42	110
9.7	233	2.6	1.0	180	4.3	232	9.7	233	2.6	18	232	2.6	140.995	-B600	063-42	119
9.5	239	1.9	1.0	184	4.2	237	9.5	239	1.9	17	237	1.9	144.128	-B450	063-42	113
9.4	235	1.0	1.0	181	4.1	234	9.4	235	1.0	17	234	1.0	145.674	-B240	063-42	110
9.3	245	3.4	1.0	189	4.1	244	9.3	245	3.4	17	244	3.4	148.000	-B820	063-42	122
8.6	265	1.7	0.9	204	3.8	263	8.6	265	1.7	16	263	1.7	159.807	-B450	063-42	113
8.4	271	2.2	0.9	209	3.7	270	8.4	271	2.2	15	270	2.2	163.810	-B600	063-42	119
8.3	267	0.9	0.9	206	3.6	265	8.3	267	0.9	15	265	0.9	165.426	-B240	063-42	110
8.3	274	3.0	0.9	211	3.6	272	8.3	274	3.0	15	272	3.0	165.467	-B820	063-42	122
7.8	290	1.6	0.8	223	3.4	288	7.8	290	1.6	14	288	1.6	174.919	-B450	063-42	113
7.7	295	2.0	0.8	227	3.4	293	7.7	295	2.0	14	293	2.1	178.224	-B600	063-42	119
7.6	297	2.8	0.8	229	3.3	296	7.6	297	2.8	14	296	2.8	179.618	-B820	063-42	122
7.1	321	1.4	0.7	247	3.1	319	7.1	321	1.4	13	319	1.4	193.948	-B450	063-42	113
6.9	329	1.8	0.7	253	3.0	327	6.9	329	1.8	13	327	1.8	198.805	-B600	063-42	119
6.8	332	2.5	0.7	256	3.0	331	6.8	332	2.5	12	331	2.5	200.816	-B820	063-42	122
6.1	370	1.2	0.6	285	2.7	368	6.1	370	1.2	11	368	1.2	223.563	-B450	063-42	113
6.0	376	2.2	0.6	289	2.6	374	6.0	376	2.2	11	374	2.2	227.045	-B820	063-42	122
5.5	410	1.1	0.6	316	2.4	408	5.5	410	1.1	10	408	1.1	247.882	-B450	063-42	113
5.5	416	1.4	0.6	320	2.4	414	5.5	416	1.4	9.9	414	1.5	251.299	-B600	063-42	119
5.4	420	2.0	0.6	324	2.4	418	5.4	420	2.0	9.8	418	2.0	253.841	-B820	063-42	122

# g500-B bevel geared motors

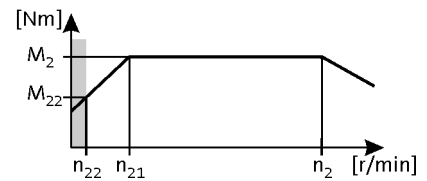


## Technical data

### Selection tables, 4-pole motors

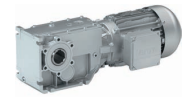
50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
272	12	4.9	28	9.5	116	12	272	12	4.9	486	12	4.1	5.185	-B110	071-32	107
261	13	3.0	27	9.9	111	13	261	13	3.0	466	13	2.6	5.411	-B45	071-32	104
237	14	4.9	24	11	101	14	237	14	4.9	423	14	4.1	5.963	-B110	071-32	107
227	15	2.7	23	11	96	15	227	15	2.7	405	15	2.3	6.222	-B45	071-32	104
198	17	2.5	20	13	84	17	198	17	2.5	354	17	2.1	7.111	-B45	071-32	104
198	17	4.6	20	13	84	17	198	17	4.6	354	17	3.8	7.111	-B110	071-32	107
172	19	2.3	18	15	73	19	172	19	2.3	308	19	1.9	8.178	-B45	071-32	104
172	19	4.2	18	15	73	19	172	19	4.2	308	19	3.5	8.178	-B110	071-32	107
155	22	2.1	16	17	66	22	155	22	2.1	277	22	1.8	9.101	-B45	071-32	104
155	22	3.9	16	17	66	22	155	22	3.9	277	22	3.3	9.101	-B110	071-32	107
135	25	1.8	14	19	57	25	135	25	1.8	241	25	1.5	10.466	-B45	071-32	104
135	25	3.6	14	19	57	25	135	25	3.6	241	25	3.0	10.466	-B110	071-32	107
123	27	3.3	13	21	52	27	123	27	3.3	220	27	2.8	11.449	-B110	071-32	107
121	28	1.6	13	21	52	28	121	28	1.6	217	28	1.4	11.640	-B45	071-32	104
111	30	3.0	11	23	47	30	111	30	3.0	198	30	2.5	12.698	-B110	071-32	107
105	32	1.4	11	25	45	32	105	32	1.4	188	32	1.2	13.386	-B45	071-32	104
97	35	2.6	9.9	27	41	35	97	35	2.6	173	35	2.2	14.603	-B110	071-32	107
94	36	4.9	9.7	28	40	36	94	36	4.9	168	36	4.1	15.008	-B240	071-32	110
93	36	1.3	9.6	28	40	36	93	36	1.3	167	36	1.1	15.111	-B45	071-32	104
91	37	2.5	9.3	29	39	37	91	37	2.5	162	37	2.1	15.556	-B110	071-32	107
84	40	4.5	8.6	31	36	40	84	40	4.5	150	40	3.8	16.857	-B240	071-32	110
81	41	1.1	8.3	32	35	41	81	41	1.1	145	41	0.9	17.378	-B45	071-32	104
79	43	2.3	8.1	33	34	43	79	43	2.3	141	43	1.9	17.889	-B110	071-32	107
74	46	4.5	7.6	35	31	45	74	46	4.5	132	45	3.8	19.143	-B240	071-32	110
73	46	1.0	7.5	36	31	46	73	46	1.0	130	46	0.8	19.365	-B45	071-32	104
72	47	2.2	7.4	36	31	46	72	47	2.2	129	46	1.8	19.556	-B110	071-32	107
63	53	0.9	6.5	41	27	53	63	53	0.9				22.270	-B45	071-32	104
63	54	1.9	6.4	41	27	53	63	54	1.9	112	53	1.6	22.489	-B110	071-32	107
56	60	1.8	5.8	46	24	60	56	60	1.8	100	60	1.5	25.185	-B110	071-32	107
53	64	3.7	5.4	49	22	64	53	64	3.7	94	64	3.2	26.878	-B240	071-32	110
49	69	1.6	5.0	53	21	69	49	69	1.6	87	69	1.3	28.963	-B110	071-32	107
46	73	3.3	4.8	56	20	73	46	73	3.3	83	73	2.8	30.522	-B240	071-32	110
44	76	1.4	4.5	59	19	76	44	76	1.4	79	76	1.2	31.919	-B110	071-32	107
42	80	3.0	4.3	61	18	79	42	80	3.0	75	79	2.5	33.433	-B240	071-32	110
38	87	1.3	4.0	67	16	87	38	87	1.3	69	87	1.1	36.707	-B110	071-32	107

# g500-B bevel geared motors

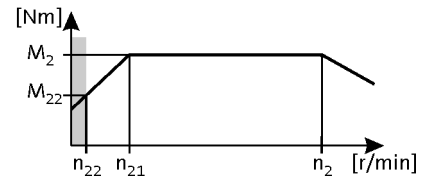


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

2-stage gearboxes

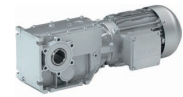


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
38	89	1.2	3.9	69	16	89	38	89	1.2	67	89	1.0	37.400	-B110	071-32	107
37	90	2.7	3.8	70	16	90	37	90	2.7	66	90	2.2	37.967	-B240	071-32	110
35	95	1.1	3.6	73	15	95	35	95	1.1	63	95	1.0	40.000	-B110	071-32	107
33	103	2.3	3.4	79	14	103	33	103	2.3	58	103	2.2	43.267	-B240	071-32	110
31	110	1.0	3.2	84	13	109	31	110	1.0	55	109	1.0	46.000	-B110	071-32	107
29	115	1.0	3.0	88	13	114	29	115	1.0	52	114	0.9	48.167	-B110	071-32	107
29	117	2.1	3.0	90	12	117	29	117	2.1	51	117	2.0	49.133	-B240	071-32	110
27	125	1.9	2.8	96	11	125	27	125	1.9	48	125	1.8	52.510	-B240	071-32	110
24	142	1.7	2.4	109	10	142	24	142	1.7	42	142	1.6	59.630	-B240	071-32	110
21	160	1.1	2.2	123	8.9	159	21	160	1.1	38	159	1.1	67.113	-B240	071-32	110
19	181	1.1	1.9	140	7.9	181	19	181	1.1	33	181	1.1	76.213	-B240	071-32	110

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
79	43	4.9	8.1	33	34	42	79	43	4.9	141	42	4.1	17.885	-B450	071-32	113
71	47	4.9	7.3	36	30	47	71	47	4.9	127	47	4.1	19.831	-B450	071-32	113
62	54	4.5	6.4	42	26	54	62	54	4.5	111	54	3.8	22.813	-B450	071-32	113
56	60	4.5	5.7	46	24	60	56	60	4.5	100	60	3.8	25.294	-B450	071-32	113
39	87	3.7	4.0	67	17	86	39	87	3.7	69	86	3.2	36.373	-B450	071-32	113
35	96	3.7	3.6	74	15	96	35	96	3.7	63	96	3.6	40.330	-B450	071-32	113
31	108	3.2	3.2	83	13	107	31	108	3.2	56	107	3.0	45.245	-B450	071-32	113
28	119	3.2	2.9	92	12	119	28	119	3.2	50	119	3.0	50.167	-B450	071-32	113
25	134	3.4	2.6	103	11	133	25	134	3.4	45	133	3.2	56.154	-B450	071-32	113
23	148	3.0	2.3	114	9.6	148	23	148	3.0	41	148	2.9	62.262	-B450	071-32	113
21	161	3.2	2.1	124	8.9	160	21	161	3.2	37	160	3.0	67.513	-B600	071-32	119
21	159	1.5	2.1	122	8.8	159	21	159	1.5	37	159	1.5	68.459	-B240	071-32	110
18	180	1.3	1.9	139	7.7	180	18	180	1.3	32	180	1.3	77.741	-B240	071-32	110
17	195	2.8	1.8	150	7.3	195	17	195	2.8	31	195	2.7	81.937	-B600	071-32	119
16	203	1.2	1.7	157	6.9	203	16	203	1.2	29	203	1.1	87.563	-B240	071-32	110
16	213	2.1	1.6	164	6.7	213	16	213	2.1	28	213	2.0	89.534	-B450	071-32	113
14	236	1.9	1.5	182	6.0	236	14	236	1.9	25	236	1.8	99.274	-B450	071-32	113
14	231	1.0	1.5	178	6.0	230	14	231	1.0	25	230	1.0	99.437	-B240	071-32	110
13	265	1.7	1.3	204	5.4	265	13	265	1.7	23	265	1.7	111.372	-B450	071-32	113
12	264	0.9	1.3	203	5.3	263	12	264	0.9	22	263	0.9	113.673	-B240	071-32	110
12	277	2.2	1.2	213	5.2	276	12	277	2.2	22	276	2.2	116.175	-B600	071-32	119
11	294	1.5	1.2	226	4.9	293	11	294	1.5	20	293	1.5	123.487	-B450	071-32	113
10	336	1.8	1.0	258	4.3	335	10	336	1.8	18	335	1.8	140.995	-B600	071-32	119
9.8	343	1.3	1.0	264	4.2	342	9.8	343	1.3	18	342	1.3	144.128	-B450	071-32	113

# g500-B bevel geared motors

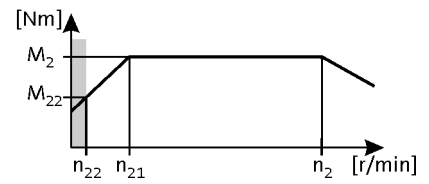


Technical data

## Selection tables, 4-pole motors

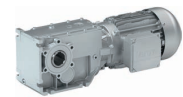
50 Hz:  $P_N = 0.37$  kW  
 87 Hz:  $P_N = 0.66$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
9.5	352	2.3	1.0	271	4.1	352	9.5	352	2.3	17	352	2.3	148.000	-B820	071-32	122
8.8	380	1.2	0.9	293	3.8	380	8.8	380	1.2	16	380	1.2	159.807	-B450	071-32	113
8.6	390	1.5	0.9	300	3.7	389	8.6	390	1.5	15	389	1.5	163.810	-B600	071-32	119
8.5	394	2.1	0.9	303	3.6	393	8.5	394	2.1	15	393	2.1	165.467	-B820	071-32	122
8.1	416	1.1	0.8	321	3.4	416	8.1	416	1.1	14	416	1.1	174.919	-B450	071-32	113
7.9	424	1.4	0.8	327	3.4	423	7.9	424	1.4	14	423	1.4	178.224	-B600	071-32	119
7.8	428	1.9	0.8	329	3.3	427	7.8	428	1.9	14	427	1.9	179.618	-B820	071-32	122
7.3	462	1.0	0.7	356	3.1	461	7.3	462	1.0	13	461	1.0	193.948	-B450	071-32	113
7.1	473	1.3	0.7	364	3.0	472	7.1	473	1.3	13	472	1.3	198.805	-B600	071-32	119
7.0	478	1.7	0.7	368	3.0	477	7.0	478	1.7	13	477	1.7	200.816	-B820	071-32	122
6.3	532	0.9	0.6	410	2.7	531	6.3	532	0.9	11	531	0.9	223.563	-B450	071-32	113
6.2	540	1.5	0.6	416	2.6	539	6.2	540	1.5	11	539	1.5	227.045	-B820	071-32	122
5.6	598	1.0	0.6	461	2.4	597	5.6	598	1.0	10	597	1.0	251.299	-B600	071-32	119
5.6	604	1.4	0.6	465	2.4	603	5.6	604	1.4	9.9	603	1.4	253.841	-B820	071-32	122

# g500-B bevel geared motors

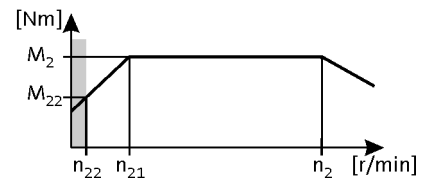


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

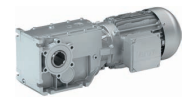
2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
394	13	5.1	41	9.7	168	13	394	13	5.1	706	13	4.3	3.565	-B240	071-42	110
271	18	3.8	28	14	116	18	271	18	3.8	485	19	3.1	5.185	-B110	071-42	107
260	19	2.0	27	15	111	19	260	19	2.0	465	20	1.7	5.411	-B45	071-42	104
236	21	3.4	24	16	101	21	236	21	3.4	422	22	2.8	5.963	-B110	071-42	107
226	22	1.8	23	17	96	22	226	22	1.8	404	22	1.5	6.222	-B45	071-42	104
225	22	4.5	23	17	96	22	225	22	4.5	402	23	3.7	6.257	-B240	071-42	110
204	24	5.1	21	19	87	24	204	24	5.1	365	25	4.3	6.883	-B240	071-42	110
198	25	1.7	20	19	84	25	198	25	1.7	354	26	1.4	7.111	-B45	071-42	104
198	25	3.1	20	19	84	25	198	25	3.1	354	26	2.5	7.111	-B110	071-42	107
180	28	5.1	19	21	77	28	180	28	5.1	322	28	4.3	7.817	-B240	071-42	110
172	29	1.5	18	22	73	29	172	29	1.5	308	29	1.3	8.178	-B45	071-42	104
172	29	2.8	18	22	73	29	172	29	2.8	308	29	2.3	8.178	-B110	071-42	107
154	32	1.4	16	25	66	32	154	32	1.4	276	33	1.2	9.101	-B45	071-42	104
154	32	2.6	16	25	66	32	154	32	2.6	276	33	2.2	9.101	-B110	071-42	107
134	37	1.2	14	29	57	37	134	37	1.2	240	38	1.0	10.466	-B45	071-42	104
134	37	2.4	14	29	57	37	134	37	2.4	240	38	2.0	10.466	-B110	071-42	107
123	41	2.2	13	31	52	41	123	41	2.2	220	41	1.8	11.449	-B110	071-42	107
121	41	1.1	13	32	52	41	121	41	1.1	216	42	0.9	11.640	-B45	071-42	104
116	43	4.5	12	33	50	43	116	43	4.5	208	44	3.7	12.081	-B240	071-42	110
111	45	2.0	11	35	47	45	111	45	2.0	198	46	1.7	12.698	-B110	071-42	107
105	48	1.0	11	37	45	48	105	48	1.0				13.386	-B45	071-42	104
102	49	4.5	11	38	44	49	102	49	4.5	183	49	3.7	13.719	-B240	071-42	110
96	52	1.7	9.9	40	41	52	96	52	1.7	172	53	1.4	14.603	-B110	071-42	107
94	53	4.2	9.7	41	40	53	94	53	4.2	168	54	3.5	15.008	-B240	071-42	110
93	54	0.8	9.6	41	40	54	93	54	0.8				15.111	-B45	071-42	104
90	55	1.7	9.3	43	39	55	90	55	1.7	162	56	1.4	15.556	-B110	071-42	107
83	60	4.0	8.6	46	36	60	83	60	4.0	149	61	3.3	16.857	-B240	071-42	110
79	64	1.5	8.1	49	34	64	79	64	1.5	141	65	1.3	17.889	-B110	071-42	107
73	68	3.5	7.6	52	31	68	73	68	3.5	131	69	2.9	19.143	-B240	071-42	110
72	69	1.4	7.4	54	31	69	72	69	1.4	129	71	1.2	19.556	-B110	071-42	107
68	73	3.3	7.0	57	29	73	68	73	3.3	122	74	2.7	20.650	-B240	071-42	110
63	80	1.3	6.4	62	27	80	63	80	1.3	112	81	1.1	22.489	-B110	071-42	107
60	83	2.9	6.2	64	26	83	60	83	2.9	107	85	2.4	23.450	-B240	071-42	110
56	89	1.2	5.8	69	24	89	56	89	1.2	100	91	1.0	25.185	-B110	071-42	107
52	95	2.5	5.4	74	22	95	52	95	2.5	94	97	2.1	26.878	-B240	071-42	110



# g500-B bevel geared motors

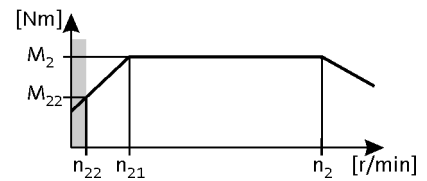


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

2-stage gearboxes

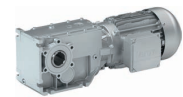


Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
49	103	1.1	5.0	79	21	103	49	103	1.1	87	104	0.9	28.963	-B110	071-42	107	
46	108	2.2	4.8	84	20	108	46	108	2.2	82	110	1.8	30.522	-B240	071-42	110	
42	119	2.0	4.3	91	18	119	42	119	2.0	75	121	1.7	33.433	-B240	071-42	110	
37	135	1.8	3.8	104	16	135	37	135	1.8	66	137	1.5	37.967	-B240	071-42	110	
33	154	1.6	3.4	118	14	154	33	154	1.6	58	156	1.5	43.267	-B240	071-42	110	
29	174	1.4	3.0	134	12	174	29	174	1.4	51	177	1.3	49.133	-B240	071-42	110	
27	186	1.3	2.8	144	11	186	27	186	1.3	48	189	1.2	52.510	-B240	071-42	110	
24	212	1.1	2.4	163	10	212	24	212	1.1	42	215	1.1	59.630	-B240	071-42	110	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c		
281	18	5.1	29	14	120	18	281	18	5.1	503	18	4.3	5.002	-B450	071-42	113	
151	33	5.1	16	26	64	33	151	33	5.1	270	34	4.3	9.315	-B450	071-42	113	
136	37	5.1	14	28	58	37	136	37	5.1	244	37	4.3	10.328	-B450	071-42	113	
116	43	4.5	12	33	49	43	116	43	4.5	207	44	3.7	12.143	-B820	071-42	122	
86	58	4.5	8.9	45	37	58	86	58	4.5	154	59	3.7	16.349	-B450	071-42	113	
79	64	4.5	8.1	49	34	64	79	64	4.5	141	65	3.8	17.885	-B450	071-42	113	
75	66	4.5	7.8	51	32	66	75	66	4.5	135	67	3.7	18.655	-B820	071-42	122	
71	70	4.5	7.3	54	30	70	71	70	4.5	127	72	3.8	19.831	-B450	071-42	113	
67	74	4.5	7.0	57	29	74	67	74	4.5	121	75	3.7	20.857	-B820	071-42	122	
62	81	4.2	6.4	62	26	81	62	81	4.2	110	82	3.5	22.813	-B450	071-42	113	
56	90	4.2	5.7	69	24	90	56	90	4.2	99	91	3.5	25.294	-B450	071-42	113	
50	99	3.7	5.2	76	22	101	50	99	3.7	90	101	3.1	27.945	-B450	071-42	113	
47	106	3.7	4.9	81	20	106	47	106	3.7	85	107	3.1	29.744	-B600	071-42	119	
47	106	3.7	4.9	81	20	106	47	106	3.7	85	107	3.1	29.745	-B820	071-42	122	
45	110	3.7	4.7	85	19	110	45	110	3.7	81	112	3.1	30.985	-B450	071-42	113	
39	129	3.4	4.0	99	17	129	39	129	3.4	69	131	2.8	36.373	-B450	071-42	113	
38	131	3.2	3.9	101	16	131	38	131	3.2	68	133	2.6	36.999	-B600	071-42	119	
38	131	3.2	3.9	101	16	131	38	131	3.2	68	133	2.6	37.000	-B820	071-42	122	
35	143	3.1	3.6	110	15	143	35	143	3.1	62	145	3.0	40.330	-B450	071-42	113	
34	149	3.7	3.5	115	14	149	34	149	3.7	60	151	3.5	41.940	-B600	071-42	119	
31	161	2.8	3.2	124	13	161	31	161	2.8	56	163	2.6	45.245	-B450	071-42	113	
28	178	2.5	2.9	137	12	178	28	178	2.5	50	181	2.4	50.167	-B450	071-42	113	
25	199	2.3	2.6	154	11	199	25	199	2.3	45	203	2.1	56.154	-B450	071-42	113	
24	205	4.0	2.5	158	10	205	24	205	4.0	44	208	3.8	57.662	-B820	071-42	122	
23	221	2.0	2.3	170	9.6	221	23	221	2.0	40	225	1.9	62.262	-B450	071-42	113	
22	227	2.7	2.3	175	9.4	227	22	227	2.7	39	230	2.5	63.822	-B600	071-42	119	
22	229	3.6	2.2	176	9.3	229	22	229	3.6	39	233	3.4	64.468	-B820	071-42	122	

# g500-B bevel geared motors

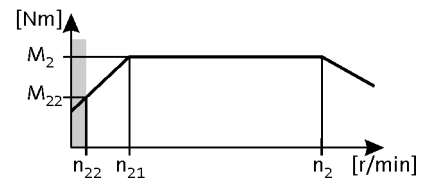


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
21	240	2.5	2.1	185	8.9	240	21	240	2.5	37	243	2.4	67.513	-B600	071-42	119
21	237	1.0	2.1	183	8.8	237	21	237	1.0	37	241	1.0	68.459	-B240	071-42	110
20	244	1.8	2.1	188	8.7	244	20	244	1.8	37	248	1.7	68.788	-B450	071-42	113
20	256	2.3	2.0	197	8.3	256	20	256	2.3	35	260	2.2	72.170	-B600	071-42	119
19	266	3.2	1.9	205	8.0	266	19	266	3.2	34	270	3.0	74.963	-B1500	071-42	125
18	271	1.7	1.9	209	7.9	271	18	271	1.7	33	275	1.6	76.271	-B450	071-42	113
18	269	0.9	1.9	207	7.7	269	18	269	0.9	32	273	0.8	77.741	-B240	071-42	110
17	291	2.1	1.8	224	7.3	291	17	291	2.1	31	296	1.9	81.937	-B600	071-42	119
17	294	2.8	1.8	226	7.2	294	17	294	2.8	30	298	2.6	82.762	-B1500	071-42	125
16	318	1.4	1.6	245	6.7	318	16	318	1.4	28	323	1.3	89.534	-B450	071-42	113
16	319	1.9	1.6	245	6.7	319	16	319	1.9	28	324	1.8	89.772	-B600	071-42	119
15	323	2.8	1.6	249	6.6	323	15	323	2.8	28	328	2.6	90.978	-B1500	071-42	125
15	326	2.5	1.6	251	6.5	326	15	326	2.5	27	332	2.4	91.939	-B820	071-42	122
14	352	1.3	1.5	271	6.0	352	14	352	1.3	25	358	1.2	99.274	-B450	071-42	113
14	361	1.7	1.4	278	5.9	361	14	361	1.7	25	367	1.6	101.760	-B600	071-42	119
14	365	2.3	1.4	281	5.8	365	14	365	2.3	25	371	2.1	102.790	-B820	071-42	122
13	395	1.1	1.3	305	5.4	395	13	395	1.1	23	402	1.1	111.372	-B450	071-42	113
12	406	2.0	1.3	313	5.2	406	12	406	2.0	22	412	2.0	114.364	-B820	071-42	122
12	413	1.5	1.2	318	5.2	413	12	413	1.5	22	419	1.4	116.175	-B600	071-42	119
11	438	1.0	1.2	338	4.9	438	11	438	1.0	20	445	1.0	123.487	-B450	071-42	113
11	449	1.3	1.1	346	4.7	449	11	449	1.3	20	457	1.3	126.580	-B600	071-42	119
11	454	1.8	1.1	350	4.7	454	11	454	1.8	20	461	1.8	127.861	-B820	071-42	122
10	501	1.2	1.0	386	4.3	501	10	501	1.2	18	509	1.2	140.995	-B600	071-42	119
9.7	512	0.9	1.0	394	4.2	512	9.7	512	0.9	17	520	0.9	144.128	-B450	071-42	113
9.5	526	1.6	1.0	405	4.1	526	9.5	526	1.6	17	534	1.5	148.000	-B820	071-42	122
9.4	532	2.8	1.0	410	4.0	532	9.4	532	2.8	17	541	2.8	149.949	-B1500	071-42	125
8.6	582	1.0	0.9	448	3.7	582	8.6	582	1.0	15	591	1.0	163.810	-B600	071-42	119
8.5	585	2.6	0.9	451	3.6	585	8.5	585	2.6	15	594	2.5	164.833	-B1500	071-42	125
8.5	588	1.4	0.9	452	3.6	588	8.5	588	1.4	15	597	1.4	165.467	-B820	071-42	122
7.9	633	1.0	0.8	487	3.4	633	7.9	633	1.0	14	643	0.9	178.224	-B600	071-42	119
7.8	638	1.3	0.8	491	3.3	638	7.8	638	1.3	14	648	1.3	179.618	-B820	071-42	122
7.7	646	2.3	0.8	498	3.3	646	7.7	646	2.3	14	656	2.3	181.983	-B1500	071-42	125
7.1	706	0.9	0.7	544	3.0	706	7.1	706	0.9	13	717	0.8	198.805	-B600	071-42	119
7.0	710	2.1	0.7	547	3.0	710	7.0	710	2.1	13	721	2.1	200.048	-B1500	071-42	125
7.0	713	1.2	0.7	549	3.0	713	7.0	713	1.2	13	724	1.1	200.816	-B820	071-42	122

# g500-B bevel geared motors

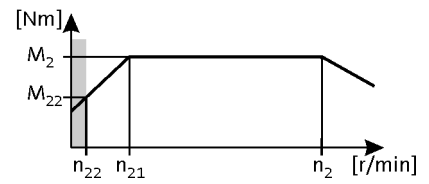
Technical data



## Selection tables, 4-pole motors

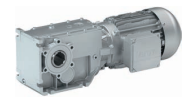
50 Hz:  $P_N = 0.55 \text{ kW}$   
 87 Hz:  $P_N = 1.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MD□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
6.2	806	1.0	0.6	621	2.6	806	6.2	806	1.0	11	819	1.0	227.045	-B820	071-42	122
6.1	817	1.8	0.6	629	2.6	817	6.1	817	1.8	11	830	1.8	230.035	-B1500	071-42	125
5.6	898	1.7	0.6	691	2.4	898	5.6	898	1.7	9.9	912	1.6	252.869	-B1500	071-42	125
5.5	901	0.9	0.6	694	2.4	901	5.5	901	0.9	9.9	915	0.9	253.841	-B820	071-42	122

# g500-B bevel geared motors

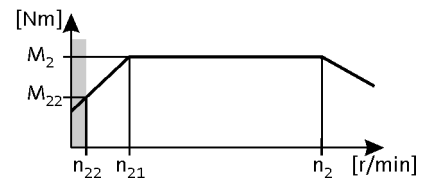


## Technical data

### Selection tables, 4-pole motors

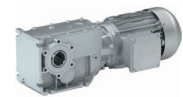
50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

2-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product			
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c		
396	17	4.7	41	13	168	17	396	17	4.7	707	17	3.9	3.565	-B240	080-32	110	
272	25	2.8	28	19	116	25	272	25	2.8	486	25	2.3	5.185	-B110	080-32	107	
237	29	2.5	24	22	101	29	237	29	2.5	423	29	2.1	5.963	-B110	080-32	107	
225	30	4.1	23	23	96	30	225	30	4.1	403	30	3.5	6.257	-B240	080-32	110	
205	33	4.7	21	26	87	33	205	33	4.7	366	33	3.9	6.883	-B240	080-32	110	
198	34	2.2	20	26	84	34	198	34	2.2	354	35	1.9	7.111	-B110	080-32	107	
180	38	4.7	19	29	77	38	180	38	4.7	322	38	3.9	7.817	-B240	080-32	110	
172	39	2.1	18	30	73	39	172	39	2.1	308	40	1.7	8.178	-B110	080-32	107	
155	44	1.9	16	34	66	44	155	44	1.9	277	44	1.6	9.101	-B110	080-32	107	
135	51	1.8	14	39	57	51	135	51	1.8	241	51	1.5	10.466	-B110	080-32	107	
123	55	1.6	13	43	52	55	123	55	1.6	220	56	1.4	11.449	-B110	080-32	107	
117	58	3.6	12	45	50	58	117	58	3.6	209	59	3.0	12.081	-B240	080-32	110	
111	61	1.5	11	47	47	61	111	61	1.5	198	62	1.2	12.698	-B110	080-32	107	
103	66	3.3	11	51	44	66	103	66	3.3	184	67	2.7	13.719	-B240	080-32	110	
97	70	1.3	9.9	54	41	70	97	70	1.3	173	71	1.1	14.603	-B110	080-32	107	
94	72	3.1	9.7	56	40	72	94	72	3.1	168	73	2.6	15.008	-B240	080-32	110	
91	75	1.2	9.3	58	39	75	91	75	1.2	162	76	1.0	15.556	-B110	080-32	107	
84	81	3.0	8.6	63	36	81	84	81	3.0	150	82	2.5	16.857	-B240	080-32	110	
79	86	1.1	8.1	67	34	86	79	86	1.1	141	87	0.9	17.889	-B110	080-32	107	
74	92	2.6	7.6	71	31	92	74	92	2.6	132	93	2.2	19.143	-B240	080-32	110	
72	94	1.1	7.4	73	31	94	72	94	1.1	129	95	0.9	19.556	-B110	080-32	107	
68	100	2.4	7.0	77	29	100	68	100	2.4	122	100	2.0	20.650	-B240	080-32	110	
63	109	1.0	6.4	84	27	109	63	109	1.0				22.489	-B110	080-32	107	
60	113	2.1	6.2	87	26	113	60	113	2.1	108	114	1.8	23.450	-B240	080-32	110	
56	122	0.9	5.8	94	24	122	56	122	0.9				25.185	-B110	080-32	107	
53	130	1.9	5.4	100	22	130	53	130	1.9	94	131	1.6	26.878	-B240	080-32	110	
46	147	1.6	4.8	113	20	147	46	147	1.6	83	148	1.4	30.522	-B240	080-32	110	
42	161	1.5	4.3	124	18	161	42	161	1.5	75	162	1.2	33.433	-B240	080-32	110	
37	183	1.3	3.8	141	16	183	37	183	1.3	66	185	1.1	37.967	-B240	080-32	110	
33	209	1.2	3.4	161	14	209	33	209	1.2	58	210	1.1	43.267	-B240	080-32	110	
29	237	1.0	3.0	183	12	237	29	237	1.0	51	239	1.0	49.133	-B240	080-32	110	
27	253	0.9	2.8	195	11	253	27	253	0.9	48	255	0.9	52.510	-B240	080-32	110	
24	288	0.8	2.4	222	10	288	24	288	0.8				59.630	-B240	080-32	110	

# g500-B bevel geared motors

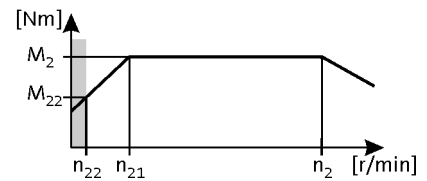


## Technical data

### Selection tables, 4-pole motors

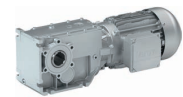
50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
282	24	4.7	29	19	120	24	282	24	4.7	504	24	3.9	5.002	-B450	080-32	113
151	45	4.7	16	35	64	45	151	45	4.7	271	45	3.9	9.315	-B450	080-32	113
137	50	4.7	14	38	58	50	137	50	4.7	244	50	3.9	10.328	-B450	080-32	113
116	59	4.1	12	45	49	59	116	59	4.1	208	59	3.5	12.143	-B820	080-32	122
86	79	4.1	8.9	61	37	79	86	79	4.1	154	79	3.5	16.349	-B450	080-32	113
79	86	4.2	8.1	66	34	86	79	86	4.2	141	87	3.5	17.885	-B450	080-32	113
76	90	4.1	7.8	69	32	90	76	90	4.1	135	91	3.5	18.655	-B820	080-32	122
71	96	4.2	7.3	74	30	96	71	96	4.2	127	96	3.5	19.831	-B450	080-32	113
68	101	4.1	7.0	78	29	101	68	101	4.1	121	101	3.5	20.857	-B820	080-32	122
62	110	3.9	6.4	85	26	110	62	110	3.9	111	111	3.2	22.813	-B450	080-32	113
56	122	3.7	5.7	94	24	122	56	122	3.7	100	123	3.1	25.294	-B450	080-32	113
51	135	3.3	5.2	104	22	135	51	135	3.3	90	136	2.8	27.945	-B450	080-32	113
47	144	3.4	4.9	111	20	144	47	144	3.4	85	145	2.9	29.744	-B600	080-32	119
47	144	3.4	4.9	111	20	144	47	144	3.4	85	145	2.9	29.745	-B820	080-32	122
46	149	3.0	4.7	115	19	149	46	149	3.0	81	151	2.5	30.985	-B450	080-32	113
39	175	2.6	4.0	135	17	175	39	175	2.6	69	177	2.1	36.373	-B450	080-32	113
38	179	2.9	3.9	137	16	179	38	179	2.9	68	180	2.4	36.999	-B600	080-32	119
38	179	2.9	3.9	137	16	179	38	179	2.9	68	180	2.4	37.000	-B820	080-32	122
35	195	2.3	3.6	150	15	195	35	195	2.3	63	196	2.2	40.330	-B450	080-32	113
34	202	3.0	3.5	156	14	202	34	202	3.0	60	204	2.8	41.940	-B600	080-32	119
31	218	2.1	3.2	168	13	218	31	218	2.1	56	220	2.0	45.245	-B450	080-32	113
28	242	1.9	2.9	186	12	242	28	242	1.9	50	244	1.8	50.167	-B450	080-32	113
25	271	1.7	2.6	209	11	271	25	271	1.7	45	273	1.6	56.154	-B450	080-32	113
25	278	3.0	2.5	214	10	278	25	278	3.0	44	280	2.8	57.662	-B820	080-32	122
23	300	1.5	2.3	231	9.6	300	23	300	1.5	41	303	1.4	62.262	-B450	080-32	113
22	308	2.0	2.3	237	9.4	308	22	308	2.0	40	310	1.9	63.822	-B600	080-32	119
22	311	2.6	2.2	239	9.3	311	22	311	2.6	39	313	2.5	64.468	-B820	080-32	122
21	326	1.8	2.1	251	8.9	326	21	326	1.8	37	328	1.8	67.513	-B600	080-32	119
21	332	1.4	2.1	256	8.7	332	21	332	1.4	37	334	1.3	68.788	-B450	080-32	113
20	348	1.7	2.0	268	8.3	348	20	348	1.7	35	351	1.6	72.170	-B600	080-32	119
19	362	2.9	1.9	278	8.0	362	19	362	2.9	34	364	2.8	74.963	-B1500	080-32	125
19	368	1.2	1.9	283	7.9	368	19	368	1.2	33	371	1.2	76.271	-B450	080-32	113
17	395	1.5	1.8	304	7.3	395	17	395	1.5	31	398	1.4	81.937	-B600	080-32	119
17	399	2.6	1.8	307	7.2	399	17	399	2.6	30	402	2.4	82.762	-B1500	080-32	125
16	432	1.0	1.6	333	6.7	432	16	432	1.0	28	435	1.0	89.534	-B450	080-32	113

# g500-B bevel geared motors

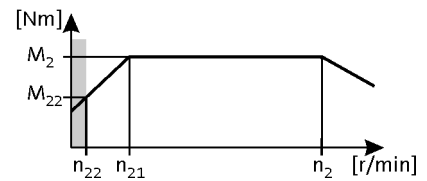


Technical data

## Selection tables, 4-pole motors

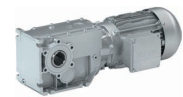
50 Hz:  $P_N = 0.75$  kW  
 87 Hz:  $P_N = 1.35$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
16	433	1.4	1.6	333	6.7	433	16	433	1.4	28	436	1.3	89.772	-B600	080-32	119
16	439	2.6	1.6	338	6.6	439	16	439	2.6	28	442	2.4	90.978	-B1500	080-32	125
15	444	1.9	1.6	342	6.5	444	15	444	1.9	27	447	1.8	91.939	-B820	080-32	122
14	479	0.9	1.5	369	6.0	479	14	479	0.9	25	482	0.9	99.274	-B450	080-32	113
14	491	1.2	1.4	378	5.9	491	14	491	1.2	25	494	1.2	101.760	-B600	080-32	119
14	496	1.7	1.4	382	5.8	496	14	496	1.7	25	499	1.6	102.790	-B820	080-32	122
13	537	0.8	1.3	414	5.4	537	13	537	0.8	23	541	0.8	111.372	-B450	080-32	113
12	552	1.5	1.3	425	5.2	552	12	552	1.5	22	556	1.5	114.364	-B820	080-32	122
12	561	1.1	1.2	432	5.2	561	12	561	1.1	22	565	1.1	116.175	-B600	080-32	119
11	611	1.0	1.1	470	4.7	611	11	611	1.0	20	615	1.0	126.580	-B600	080-32	119
11	617	1.3	1.1	475	4.7	617	11	617	1.3	20	621	1.3	127.861	-B820	080-32	122
10	680	0.9	1.0	524	4.3	680	10	680	0.9	18	685	0.9	140.995	-B600	080-32	119
9.5	714	1.2	1.0	550	4.1	714	9.5	714	1.2	17	719	1.1	148.000	-B820	080-32	122
9.4	723	2.1	1.0	557	4.0	723	9.4	723	2.1	17	729	2.1	149.949	-B1500	080-32	125
8.6	795	1.9	0.9	612	3.6	795	8.6	795	1.9	15	801	1.9	164.833	-B1500	080-32	125
8.5	798	1.0	0.9	615	3.6	798	8.5	798	1.0	15	804	1.0	165.467	-B820	080-32	122
7.8	867	1.0	0.8	667	3.3	867	7.8	867	1.0	14	873	0.9	179.618	-B820	080-32	122
7.7	878	1.7	0.8	676	3.3	878	7.7	878	1.7	14	884	1.7	181.983	-B1500	080-32	125
7.0	965	1.6	0.7	743	3.0	965	7.0	965	1.6	13	972	1.5	200.048	-B1500	080-32	125
7.0	969	0.9	0.7	746	3.0	969	7.0	969	0.9	13	976	0.8	200.816	-B820	080-32	122
6.1	1110	1.4	0.6	854	2.6	1110	6.1	1110	1.4	11	1118	1.3	230.035	-B1500	080-32	125
5.6	1220	1.2	0.6	939	2.4	1220	5.6	1220	1.2	10	1229	1.2	252.869	-B1500	080-32	125

# g500-B bevel geared motors

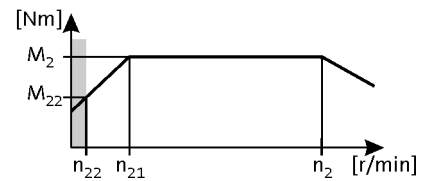


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

2-stage gearboxes

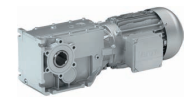


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
401	25	5.6	41	17	168	25	401	25	5.6	713	25	4.6	3.565	-B240	090-12	110
293	34	4.3	30	24	123	34	293	34	4.3	520	35	3.5	4.889	-B240	090-12	110
276	36	1.9	28	25	116	36	276	36	1.9	490	37	1.6	5.185	-B110	090-12	107
240	42	1.7	24	29	101	42	240	42	1.7				5.963	-B110	090-12	107
229	44	3.6	23	31	96	44	229	44	3.6	406	45	2.9	6.257	-B240	090-12	110
208	48	3.7	21	34	87	48	208	48	3.7	369	49	3.1	6.883	-B240	090-12	110
201	50	1.6	20	35	84	50	201	50	1.6	357	51	1.3	7.111	-B110	090-12	107
183	55	3.4	19	38	77	55	183	55	3.4	325	56	2.8	7.817	-B240	090-12	110
175	57	1.4	18	40	73	57	175	57	1.4	311	58	1.2	8.178	-B110	090-12	107
157	64	1.3	16	45	66	64	157	64	1.3	279	65	1.1	9.101	-B110	090-12	107
152	66	2.9	15	46	64	66	152	66	2.9	269	67	2.4	9.440	-B240	090-12	110
137	73	1.2	14	51	57	73	137	73	1.2	243	75	1.0	10.466	-B110	090-12	107
133	75	2.7	14	52	56	75	133	75	2.7	237	77	2.2	10.720	-B240	090-12	110
125	80	1.1	13	56	52	80	125	80	1.1	222	82	0.9	11.449	-B110	090-12	107
118	84	2.5	12	59	50	84	118	84	2.5	210	86	2.0	12.081	-B240	090-12	110
113	89	1.0	11	62	47	89	113	89	1.0	200	91	0.8	12.698	-B110	090-12	107
104	96	2.3	11	67	44	96	104	96	2.3	185	98	1.9	13.719	-B240	090-12	110
98	102	0.9	9.9	71	41	102	98	102	0.9				14.603	-B110	090-12	107
95	105	2.1	9.7	73	40	105	95	105	2.1	169	107	1.8	15.008	-B240	090-12	110
92	109	0.9	9.3	76	39	109	92	109	0.9				15.556	-B110	090-12	107
85	118	2.0	8.6	82	36	118	85	118	2.0	151	120	1.7	16.857	-B240	090-12	110
75	134	1.8	7.6	94	31	134	75	134	1.8	133	137	1.5	19.143	-B240	090-12	110
69	144	1.7	7.0	101	29	144	69	144	1.7	123	148	1.4	20.650	-B240	090-12	110
61	164	1.5	6.2	115	26	164	61	164	1.5	108	168	1.2	23.450	-B240	090-12	110
53	188	1.3	5.4	131	22	188	53	188	1.3	95	192	1.1	26.878	-B240	090-12	110
47	213	1.1	4.8	149	20	213	47	213	1.1	83	218	0.9	30.522	-B240	090-12	110
43	233	1.0	4.3	163	18	233	43	233	1.0	76	239	0.8	33.433	-B240	090-12	110
38	265	0.9	3.8	186	16	265	38	265	0.9				37.967	-B240	090-12	110

### 3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
286	35	5.8	29	24	120	35	286	35	5.8	508	36	4.8	5.002	-B450	090-12	113
209	48	5.8	21	34	88	48	209	48	5.8	370	49	4.8	6.860	-B450	090-12	113
154	65	5.7	16	46	64	65	154	65	5.7	273	67	4.6	9.315	-B450	090-12	113
150	66	5.8	15	47	63	66	150	66	5.8	267	68	4.8	9.520	-B820	090-12	122
139	72	5.3	14	50	58	72	139	72	5.3	246	74	4.4	10.328	-B450	090-12	113
118	85	5.4	12	59	49	85	118	85	5.4	209	87	4.4	12.143	-B820	090-12	122
112	89	4.5	11	62	47	89	112	89	4.5	199	91	3.7	12.775	-B450	090-12	113

# g500-B bevel geared motors

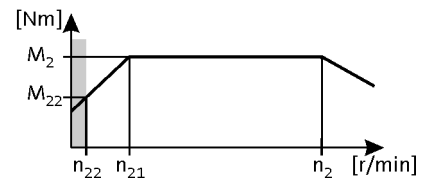


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

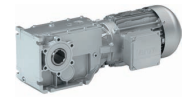
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
107	93	5.7	11	65	45	93	107	93	5.7	190	95	4.7	13.369	-B600	090-12	119
107	93	5.7	11	65	45	93	107	93	5.7	190	95	4.7	13.370	-B820	090-12	122
101	99	4.3	10	69	42	101	101	99	4.3	179	101	3.5	14.165	-B450	090-12	113
98	102	5.8	9.9	71	41	102	98	102	5.8	174	104	4.8	14.626	-B820	090-12	122
88	114	3.8	8.9	80	37	114	88	114	3.8	155	117	3.1	16.349	-B450	090-12	113
88	114	5.8	8.9	80	37	114	88	114	5.8	155	117	4.8	16.352	-B820	090-12	122
80	125	3.6	8.1	87	34	125	80	125	3.6	142	128	2.9	17.885	-B450	090-12	113
77	130	5.4	7.8	91	32	130	77	130	5.4	136	133	4.4	18.655	-B820	090-12	122
76	132	4.6	7.7	92	32	132	76	132	4.6	135	135	3.7	18.851	-B600	090-12	119
72	138	3.3	7.3	97	30	138	72	138	3.3	128	142	2.7	19.831	-B450	090-12	113
69	144	4.2	7.0	101	29	144	69	144	4.2	123	147	3.4	20.622	-B600	090-12	119
69	146	5.4	7.0	102	29	146	69	146	5.4	122	149	4.4	20.857	-B820	090-12	122
63	159	2.8	6.4	111	26	159	63	159	2.8	111	163	2.3	22.813	-B450	090-12	113
63	159	3.8	6.3	112	26	159	63	159	3.8	111	163	3.1	22.852	-B600	090-12	119
63	159	4.8	6.3	112	26	159	63	159	4.8	111	163	3.9	22.853	-B820	090-12	122
57	176	2.6	5.7	124	24	176	57	176	2.6	100	181	2.1	25.294	-B450	090-12	113
56	178	4.6	5.7	125	24	178	56	178	4.6	99	182	3.8	25.550	-B820	090-12	122
51	195	2.3	5.2	137	22	195	51	195	2.3	91	200	1.9	27.945	-B450	090-12	113
49	204	5.7	5.0	143	21	204	49	204	5.7	87	209	4.7	29.206	-B1500	090-12	125
48	208	2.9	4.9	145	20	208	48	208	2.9	85	212	2.4	29.744	-B600	090-12	119
48	208	4.0	4.9	145	20	208	48	208	4.0	85	212	3.2	29.745	-B820	090-12	122
46	216	2.1	4.7	151	19	216	46	216	2.1	82	221	1.7	30.985	-B450	090-12	113
44	226	2.7	4.5	158	19	226	44	226	2.7	78	232	2.2	32.439	-B600	090-12	119
39	254	1.8	4.0	178	17	254	39	254	1.8	70	260	1.5	36.373	-B450	090-12	113
39	258	2.3	3.9	181	16	258	39	258	2.3	69	264	1.9	36.999	-B600	090-12	119
39	258	3.2	3.9	181	16	258	39	258	3.2	69	264	2.6	37.000	-B820	090-12	122
36	281	1.6	3.6	197	15	281	36	281	1.6	63	288	1.5	40.330	-B450	090-12	113
35	288	2.8	3.5	202	15	288	35	288	2.8	62	295	2.7	41.325	-B820	090-12	122
34	293	2.1	3.5	205	14	293	34	293	2.1	61	300	1.9	41.940	-B600	090-12	119
32	315	2.6	3.2	221	13	315	32	315	2.6	56	323	2.4	45.207	-B820	090-12	122
32	316	1.4	3.2	221	13	316	32	316	1.4	56	323	1.3	45.245	-B450	090-12	113
31	319	1.9	3.2	223	13	319	31	319	1.9	56	327	1.8	45.739	-B600	090-12	119
31	325	4.6	3.1	228	13	325	31	325	4.6	55	333	4.3	46.568	-B1500	090-12	125
29	349	1.7	2.9	244	12	349	29	349	1.7	51	357	1.6	50.036	-B600	090-12	119
29	350	1.3	2.9	245	12	350	29	350	1.3	51	358	1.2	50.167	-B450	090-12	113



# g500-B bevel geared motors

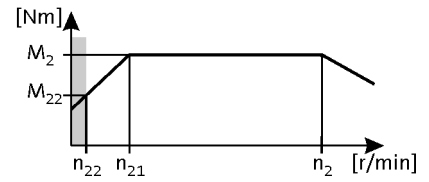


## Technical data

### Selection tables, 4-pole motors

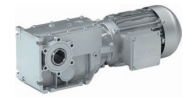
50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
28	353	2.3	2.9	247	12	353	28	353	2.3	50	361	2.2	50.543	-B820	090-12	122
28	362	4.0	2.8	254	12	362	28	362	4.0	49	371	3.7	51.920	-B1500	090-12	125
26	387	1.6	2.6	271	11	387	26	387	1.6	46	396	1.4	55.447	-B600	090-12	119
26	392	1.2	2.6	274	11	392	26	392	1.2	45	401	1.1	56.154	-B450	090-12	113
25	398	3.8	2.5	279	11	398	25	398	3.8	45	408	3.5	57.074	-B1500	090-12	125
25	402	2.0	2.5	282	10	402	25	402	2.0	44	412	1.9	57.662	-B820	090-12	122
25	408	3.7	2.5	285	10	408	25	408	3.7	44	417	3.4	58.422	-B1500	090-12	125
23	434	1.0	2.3	304	9.6	434	23	434	1.0	41	445	1.0	62.262	-B450	090-12	113
22	445	1.4	2.3	312	9.4	445	22	445	1.4	40	456	1.3	63.822	-B600	090-12	119
22	448	3.4	2.3	314	9.3	448	22	448	3.4	40	459	3.1	64.221	-B1500	090-12	125
22	450	1.8	2.2	315	9.3	450	22	450	1.8	39	460	1.7	64.468	-B820	090-12	122
21	471	1.3	2.1	330	8.9	471	21	471	1.3	38	482	1.2	67.513	-B600	090-12	119
21	480	0.9	2.1	336	8.7	480	21	480	0.9	37	491	0.9	68.788	-B450	090-12	113
20	493	1.7	2.1	345	8.5	493	20	493	1.7	36	504	1.6	70.636	-B820	090-12	122
20	504	1.2	2.0	353	8.3	504	20	504	1.2	35	515	1.1	72.170	-B600	090-12	119
19	523	2.9	1.9	366	8.0	523	19	523	2.9	34	535	2.7	74.963	-B1500	090-12	125
19	532	0.9	1.9	373	7.9	532	19	532	0.9				76.271	-B450	090-12	113
19	536	4.0	1.9	375	7.8	536	19	536	4.0	33	549	3.7	76.862	-B2700	090-12	128
18	545	1.1	1.9	382	7.7	545	18	545	1.1	33	558	1.0	78.182	-B600	090-12	119
18	551	1.5	1.8	386	7.6	551	18	551	1.5	32	564	1.4	78.973	-B820	090-12	122
18	572	1.1	1.8	400	7.3	572	18	572	1.1	31	585	1.0	81.937	-B600	090-12	119
17	577	2.6	1.8	404	7.2	577	17	577	2.6	31	591	2.4	82.762	-B1500	090-12	125
17	593	3.5	1.7	415	7.1	593	17	593	3.5	30	607	3.2	84.940	-B2700	090-12	128
16	626	1.0	1.6	439	6.7	626	16	626	1.0	28	641	0.9	89.772	-B600	090-12	119
16	635	2.4	1.6	444	6.6	635	16	635	2.4	28	650	2.2	90.978	-B1500	090-12	125
16	641	1.3	1.6	449	6.5	641	16	641	1.3	28	657	1.2	91.939	-B820	090-12	122
15	650	2.3	1.6	455	6.4	650	15	650	2.3	27	665	2.2	93.150	-B1500	090-12	125
15	651	3.5	1.6	456	6.4	651	15	651	3.5	27	666	3.2	93.283	-B2700	090-12	128
14	710	0.9	1.4	497	5.9	710	14	710	0.9				101.760	-B600	090-12	119
14	714	2.1	1.4	500	5.9	714	14	714	2.1	25	731	2.0	102.396	-B1500	090-12	125
14	717	1.1	1.4	502	5.8	717	14	717	1.1	25	734	1.1	102.790	-B820	090-12	122
13	797	1.9	1.3	558	5.3	797	13	797	1.9	22	815	1.8	114.166	-B1500	090-12	125
13	798	1.0	1.3	559	5.2	798	13	798	1.0	22	817	1.0	114.364	-B820	090-12	122
11	876	1.7	1.2	613	4.8	876	11	876	1.7	20	896	1.7	125.498	-B1500	090-12	125
11	892	0.9	1.1	625	4.7	892	11	892	0.9	20	913	0.9	127.861	-B820	090-12	122

# g500-B bevel geared motors

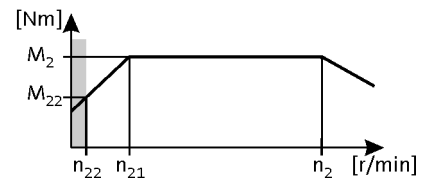


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1 \text{ kW}$   
 87 Hz:  $P_N = 2.0 \text{ kW}$

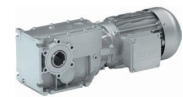
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
9.5	1046	1.4	1.0	732	4.0	1046	9.5	1046	1.4	17	1071	1.4	149.949	-B1500	090-12	125
9.3	1069	4.0	0.9	748	3.9	1069	9.3	1069	4.0	17	1094	3.9	153.141	-B4300	090-12	131
9.3	1069	2.5	0.9	748	3.9	1069	9.3	1069	2.5	17	1094	2.5	153.185	-B2700	090-12	128
8.7	1150	1.3	0.9	805	3.6	1150	8.7	1150	1.3	15	1177	1.3	164.833	-B1500	090-12	125
8.5	1168	3.7	0.9	818	3.6	1168	8.5	1168	3.7	15	1195	3.6	167.383	-B4300	090-12	131
8.5	1174	2.3	0.9	822	3.6	1174	8.5	1174	2.3	15	1202	2.3	168.230	-B2700	090-12	128
7.9	1270	1.2	0.8	889	3.3	1270	7.9	1270	1.2	14	1300	1.2	181.983	-B1500	090-12	125
7.7	1297	3.3	0.8	908	3.2	1297	7.7	1297	3.3	14	1327	3.2	185.857	-B4300	090-12	131
7.7	1297	2.1	0.8	908	3.2	1297	7.7	1297	2.1	14	1328	2.0	185.911	-B2700	090-12	128
7.1	1396	1.1	0.7	977	3.0	1396	7.1	1396	1.1	13	1429	1.1	200.048	-B1500	090-12	125
7.0	1417	3.0	0.7	992	3.0	1417	7.0	1417	3.0	13	1451	3.0	203.143	-B4300	090-12	131
7.0	1425	1.9	0.7	997	2.9	1425	7.0	1425	1.9	12	1458	1.9	204.170	-B2700	090-12	128
6.2	1605	0.9	0.6	1124	2.6	1605	6.2	1605	0.9	11	1643	0.9	230.035	-B1500	090-12	125
6.1	1639	2.6	0.6	1148	2.6	1639	6.1	1639	2.6	11	1678	2.6	234.932	-B4300	090-12	131
6.1	1640	1.7	0.6	1148	2.6	1640	6.1	1640	1.7	11	1678	1.6	235.000	-B2700	090-12	128
5.7	1764	0.9	0.6	1235	2.4	1764	5.7	1764	0.9	10	1806	0.8	252.869	-B1500	090-12	125
5.6	1792	2.4	0.6	1254	2.3	1792	5.6	1792	2.4	9.9	1834	2.3	256.781	-B4300	090-12	131
5.5	1801	1.5	0.6	1261	2.3	1801	5.5	1801	1.5	9.8	1843	1.5	258.080	-B2700	090-12	128

# g500-B bevel geared motors

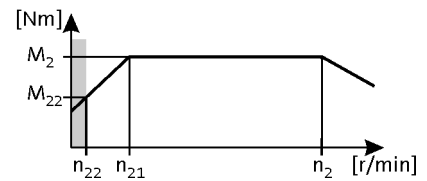
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
87 Hz:  $P_N = 2.7 \text{ kW}$

2-stage gearboxes

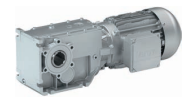


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
403	34	4.1	41	24	168	34	403	34	4.1	714	34	3.4	3.565	-B240	090-32	110
294	46	3.2	30	33	123	46	294	46	3.2	521	47	2.6	4.889	-B240	090-32	110
277	49	1.4	28	34	116	49	277	49	1.4				5.185	-B110	090-32	107
241	57	1.3	24	40	101	57	241	57	1.3				5.963	-B110	090-32	107
229	59	2.6	23	42	96	59	229	59	2.6	407	60	2.2	6.257	-B240	090-32	110
209	65	2.7	21	46	87	65	209	65	2.7	370	66	2.3	6.883	-B240	090-32	110
202	67	1.1	20	47	84	67	202	67	1.1				7.111	-B110	090-32	107
184	74	2.5	19	52	77	74	184	74	2.5				7.817	-B240	090-32	110
176	78	1.0	18	54	73	78	176	78	1.0				8.178	-B110	090-32	107
158	86	1.0	16	60	66	86	158	86	1.0				9.101	-B110	090-32	107
152	90	2.1	15	63	64	90	152	90	2.1	270	91	1.8	9.440	-B240	090-32	110
137	99	0.9	14	70	57	99	137	99	0.9				10.466	-B110	090-32	107
134	102	2.0	14	71	56	102	134	102	2.0	237	103	1.7	10.720	-B240	090-32	110
125	109	0.8	13	76	52	109	125	109	0.8				11.449	-B110	090-32	107
119	115	1.8	12	80	50	115	119	115	1.8	211	116	1.5	12.081	-B240	090-32	110
105	130	1.7	11	91	44	130	105	130	1.7	186	132	1.4	13.719	-B240	090-32	110
96	142	1.6	9.7	100	40	142	96	142	1.6	170	144	1.3	15.008	-B240	090-32	110
85	160	1.5	8.6	112	36	160	85	160	1.5	151	162	1.2	16.857	-B240	090-32	110
75	182	1.3	7.6	127	31	182	75	182	1.3	133	184	1.1	19.143	-B240	090-32	110
70	196	1.2	7.0	137	29	196	70	196	1.2	123	199	1.0	20.650	-B240	090-32	110
61	222	1.1	6.2	156	26	222	61	222	1.1	109	226	0.9	23.450	-B240	090-32	110
53	255	0.9	5.4	178	22	255	53	255	0.9				26.878	-B240	090-32	110
47	289	0.8	4.8	203	20	289	47	289	0.8				30.522	-B240	090-32	110

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]			M <sub>2</sub> [Nm]
287	47	4.3	29	33	120	47	287	47	4.3	509	48	3.5	5.002	-B450	090-32	113
209	65	4.3	21	46	88	65	209	65	4.3	371	66	3.5	6.860	-B450	090-32	113
154	88	4.2	16	62	64	88	154	88	4.2	273	90	3.4	9.315	-B450	090-32	113
151	90	4.3	15	63	63	90	151	90	4.3	267	92	3.5	9.520	-B820	090-32	122
139	98	3.9	14	69	58	98	139	98	3.9	246	99	3.2	10.328	-B450	090-32	113
118	115	4.0	12	81	49	115	118	115	4.0	210	117	3.3	12.143	-B820	090-32	122
112	121	3.3	11	85	47	121	112	121	3.3	199	123	2.8	12.775	-B450	090-32	113
107	127	4.2	11	89	45	127	107	127	4.2	190	129	3.5	13.369	-B600	090-32	119
107	127	4.2	11	89	45	127	107	127	4.2	190	129	3.5	13.370	-B820	090-32	122
101	134	3.1	10	94	42	134	101	134	3.1	180	136	2.6	14.165	-B450	090-32	113
98	139	4.3	9.9	97	41	139	98	139	4.3	174	141	3.5	14.626	-B820	090-32	122
88	155	2.8	8.9	109	37	155	88	155	2.8	156	157	2.3	16.349	-B450	090-32	113

# g500-B bevel geared motors

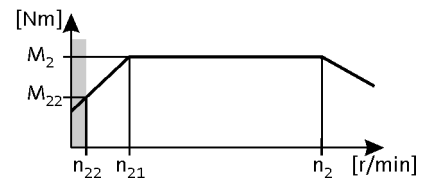


## Technical data

### Selection tables, 4-pole motors

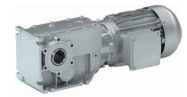
50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
88	155	4.3	8.9	109	37	155	88	155	4.3	156	157	3.5	16.352	-B820	090-32	122
80	170	2.6	8.1	119	34	170	80	170	2.6	142	172	2.2	17.885	-B450	090-32	113
77	177	4.0	7.8	124	32	177	77	177	4.0	136	180	3.3	18.655	-B820	090-32	122
76	179	3.4	7.7	125	32	179	76	179	3.4	135	181	2.8	18.851	-B600	090-32	119
72	188	2.4	7.3	132	30	188	72	188	2.4	128	191	2.0	19.831	-B450	090-32	113
70	196	3.1	7.0	137	29	196	70	196	3.1	123	198	2.5	20.622	-B600	090-32	119
69	198	4.0	7.0	138	29	198	69	198	4.0	122	201	3.3	20.857	-B820	090-32	122
63	216	2.1	6.4	151	26	216	63	216	2.1	112	220	1.7	22.813	-B450	090-32	113
63	217	2.8	6.3	152	26	217	63	217	2.8	111	220	2.3	22.852	-B600	090-32	119
63	217	3.5	6.3	152	26	217	63	217	3.5	111	220	2.9	22.853	-B820	090-32	122
57	240	1.9	5.7	168	24	240	57	240	1.9	101	243	1.6	25.294	-B450	090-32	113
56	242	3.4	5.7	170	24	242	56	242	3.4	100	246	2.8	25.550	-B820	090-32	122
51	265	1.7	5.2	186	22	265	51	265	1.7	91	269	1.4	27.945	-B450	090-32	113
49	277	4.2	5.0	194	21	277	49	277	4.2	87	281	3.5	29.206	-B1500	090-32	125
48	282	2.1	4.9	197	20	282	48	282	2.1	86	286	1.8	29.744	-B600	090-32	119
48	282	2.9	4.9	197	20	282	48	282	2.9	86	286	2.4	29.745	-B820	090-32	122
46	294	1.5	4.7	206	19	294	46	294	1.5	82	298	1.3	30.985	-B450	090-32	113
44	308	2.0	4.5	215	19	308	44	308	2.0				32.439	-B600	090-32	119
40	345	1.3	4.0	241	17	345	40	345	1.3	70	350	1.1	36.373	-B450	090-32	113
39	351	1.7	3.9	246	16	351	39	351	1.7	69	356	1.4	36.999	-B600	090-32	119
39	351	2.3	3.9	246	16	351	39	351	2.3	69	356	1.9	37.000	-B820	090-32	122
36	382	1.2	3.6	268	15	382	36	382	1.2	63	388	1.1	40.330	-B450	090-32	113
35	392	2.1	3.5	274	15	392	35	392	2.1	62	398	2.0	41.325	-B820	090-32	122
34	398	1.5	3.5	278	14	398	34	398	1.5	61	404	1.4	41.940	-B600	090-32	119
32	429	1.9	3.2	300	13	429	32	429	1.9	56	435	1.8	45.207	-B820	090-32	122
32	429	1.1	3.2	300	13	429	32	429	1.1	56	435	1.0	45.245	-B450	090-32	113
31	434	1.4	3.2	304	13	434	31	434	1.4				45.739	-B600	090-32	119
31	442	3.4	3.1	309	13	442	31	442	3.4	55	448	3.2	46.568	-B1500	090-32	125
29	474	1.3	2.9	332	12	474	29	474	1.3				50.036	-B600	090-32	119
29	476	1.0	2.9	333	12	476	29	476	1.0	51	483	0.9	50.167	-B450	090-32	113
28	479	1.7	2.9	336	12	479	28	479	1.7	50	486	1.6	50.543	-B820	090-32	122
28	492	2.9	2.8	345	12	492	28	492	2.9	49	500	2.7	51.920	-B1500	090-32	125
26	526	1.1	2.6	368	11	526	26	526	1.1	46	534	1.1	55.447	-B600	090-32	119
26	532	0.9	2.6	373	11	532	26	532	0.9				56.154	-B450	090-32	113
25	541	2.8	2.5	379	11	541	25	541	2.8	45	549	2.6	57.074	-B1500	090-32	125

# g500-B bevel geared motors

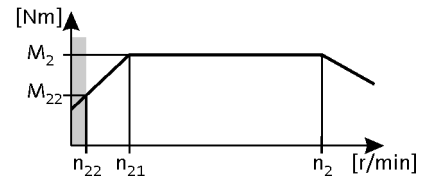


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 1.5 \text{ kW}$   
 87 Hz:  $P_N = 2.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
25	547	1.5	2.5	383	10	547	25	547	1.5	44	555	1.4	57.662	-B820	090-32	122
25	554	2.7	2.5	388	10	554	25	554	2.7	44	562	2.5	58.422	-B1500	090-32	125
23	605	1.0	2.3	424	9.4	605	23	605	1.0				63.822	-B600	090-32	119
22	609	2.5	2.3	426	9.3	609	22	609	2.5	40	618	2.3	64.221	-B1500	090-32	125
22	611	1.3	2.2	428	9.3	611	22	611	1.3	40	620	1.3	64.468	-B820	090-32	122
21	640	0.9	2.1	448	8.9	640	21	640	0.9	38	650	0.9	67.513	-B600	090-32	119
20	670	1.2	2.1	469	8.5	670	20	670	1.2	36	680	1.2	70.636	-B820	090-32	122
20	684	0.9	2.0	479	8.3	684	20	684	0.9	35	694	0.8	72.170	-B600	090-32	119
19	711	2.1	1.9	498	8.0	711	19	711	2.1	34	721	2.0	74.963	-B1500	090-32	125
19	729	2.9	1.9	510	7.8	729	19	729	2.9	33	740	2.7	76.862	-B2700	090-32	128
18	741	0.8	1.9	519	7.7	741	18	741	0.8				78.182	-B600	090-32	119
18	749	1.1	1.8	524	7.6	749	18	749	1.1	32	760	1.0	78.973	-B820	090-32	122
17	785	1.9	1.8	549	7.2	785	17	785	1.9	31	796	1.8	82.762	-B1500	090-32	125
17	805	2.6	1.7	564	7.1	805	17	805	2.6	30	817	2.4	84.940	-B2700	090-32	128
16	863	1.7	1.6	604	6.6	863	16	863	1.7	28	875	1.6	90.978	-B1500	090-32	125
16	872	0.9	1.6	610	6.5	872	16	872	0.9	28	885	0.9	91.939	-B820	090-32	122
15	883	1.7	1.6	618	6.4	883	15	883	1.7	27	896	1.6	93.150	-B1500	090-32	125
15	884	2.6	1.6	619	6.4	884	15	884	2.6	27	898	2.4	93.283	-B2700	090-32	128
14	971	1.6	1.4	680	5.9	971	14	971	1.6	25	985	1.5	102.396	-B1500	090-32	125
14	975	0.8	1.4	682	5.8	975	14	975	0.8				102.790	-B820	090-32	122
13	1082	1.4	1.3	758	5.3	1082	13	1082	1.4	22	1099	1.4	114.166	-B1500	090-32	125
11	1190	1.3	1.2	833	4.8	1190	11	1190	1.3	20	1208	1.2	125.498	-B1500	090-32	125
9.6	1422	1.1	1.0	995	4.0	1422	9.6	1422	1.1	17	1443	1.0	149.949	-B1500	090-32	125
9.4	1452	2.9	0.9	1017	3.9	1452	9.4	1452	2.9	17	1474	2.9	153.141	-B4300	090-32	131
9.4	1452	1.9	0.9	1017	3.9	1452	9.4	1452	1.9	17	1474	1.8	153.185	-B2700	090-32	128
8.7	1563	1.0	0.9	1094	3.6	1563	8.7	1563	1.0	15	1586	1.0	164.833	-B1500	090-32	125
8.6	1587	2.7	0.9	1111	3.6	1587	8.6	1587	2.7	15	1611	2.7	167.383	-B4300	090-32	131
8.5	1595	1.7	0.9	1117	3.6	1595	8.5	1595	1.7	15	1619	1.7	168.230	-B2700	090-32	128
7.9	1725	0.9	0.8	1208	3.3	1725	7.9	1725	0.9	14	1751	0.9	181.983	-B1500	090-32	125
7.7	1762	2.4	0.8	1234	3.2	1762	7.7	1762	2.4	14	1788	2.4	185.857	-B4300	090-32	131
7.7	1763	1.5	0.8	1234	3.2	1763	7.7	1763	1.5	14	1789	1.5	185.911	-B2700	090-32	128
7.1	1926	2.2	0.7	1348	3.0	1926	7.1	1926	2.2	13	1955	2.2	203.143	-B4300	090-32	131
7.0	1936	1.4	0.7	1355	2.9	1936	7.0	1936	1.4	13	1965	1.4	204.170	-B2700	090-32	128
6.1	2227	1.9	0.6	1559	2.6	2227	6.1	2227	1.9	11	2261	1.9	234.932	-B4300	090-32	131
6.1	2228	1.2	0.6	1560	2.6	2228	6.1	2228	1.2	11	2261	1.2	235.000	-B2700	090-32	128

# g500-B bevel geared motors

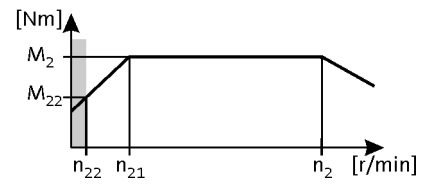
Technical data



## Selection tables, 4-pole motors

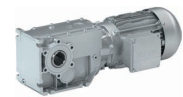
50 Hz:  $P_N = 1.5$  kW  
 87 Hz:  $P_N = 2.7$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
5.6	2435	1.8	0.6	1704	2.3	2435	5.6	2435	1.8	9.9	2471	1.7	256.781	-B4300	090-32	131
5.6	2447	1.1	0.6	1713	2.3	2447	5.6	2447	1.1	9.9	2483	1.1	258.080	-B2700	090-32	128

# g500-B bevel geared motors

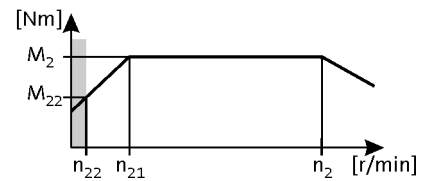


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

2-stage gearboxes

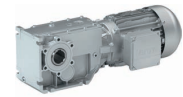


Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
405	49	2.8	41	34	168	49	405	49	2.8	717	49	2.3	3.565	-B240	100-12	110
296	68	2.2	30	47	123	68	296	68	2.2	523	68	1.8	4.889	-B240	100-12	110
231	86	1.8	23	60	96	86	231	86	1.8	408	87	1.5	6.257	-B240	100-12	110
210	95	1.9	21	66	87	95	210	95	1.9				6.883	-B240	100-12	110
185	108	1.7	19	75	77	108	185	108	1.7				7.817	-B240	100-12	110
153	130	1.5	15	91	64	130	153	130	1.5				9.440	-B240	100-12	110
135	148	1.4	14	103	56	148	135	148	1.4				10.720	-B240	100-12	110
120	167	1.3	12	117	50	167	120	167	1.3				12.081	-B240	100-12	110
105	189	1.2	11	132	44	189	105	189	1.2				13.719	-B240	100-12	110
96	207	1.1	9.7	145	40	207	96	207	1.1				15.008	-B240	100-12	110
86	233	1.0	8.6	163	36	233	86	233	1.0				16.857	-B240	100-12	110
76	264	0.9	7.6	185	31	264	76	264	0.9				19.143	-B240	100-12	110
70	285	0.8	7.0	199	29	285	70	285	0.8				20.650	-B240	100-12	110

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c				
291	68	4.6	29	48	121	68	291	68	4.6				4.958	-B820	100-12	122
289	69	4.1	29	48	120	69	289	69	4.1	511	69	3.4	5.002	-B450	100-12	113
285	70	5.4	29	49	118	70	285	70	5.4				5.067	-B600	100-12	119
213	94	4.2	21	66	88	94	213	94	4.2	376	94	3.5	6.800	-B820	100-12	122
211	95	3.3	21	66	88	95	211	95	3.3	372	95	2.7	6.860	-B450	100-12	113
208	96	4.2	21	67	86	96	208	96	4.2	368	96	3.5	6.949	-B600	100-12	119
190	105	4.4	19	73	79	105	190	105	4.4				7.617	-B600	100-12	119
190	105	4.0	19	73	79	105	190	105	4.0				7.618	-B820	100-12	122
170	118	3.9	17	82	71	118	170	118	3.9				8.517	-B820	100-12	122
155	129	2.9	16	90	64	129	155	129	2.9	274	129	2.4	9.315	-B450	100-12	113
152	131	3.8	15	92	63	131	152	131	3.8	268	132	3.2	9.520	-B820	100-12	122
140	143	2.7	14	100	58	143	140	143	2.7	247	143	2.3	10.328	-B450	100-12	113
138	144	3.7	14	101	57	144	138	144	3.7	245	145	3.1	10.447	-B820	100-12	122
135	148	3.7	14	104	56	148	135	148	3.7				10.741	-B600	100-12	119
124	161	3.5	12	113	51	161	124	161	3.5	219	162	3.0	11.680	-B820	100-12	122
119	168	3.3	12	117	49	168	119	168	3.3	210	168	2.7	12.143	-B820	100-12	122
113	176	2.3	11	123	47	176	113	176	2.3	200	177	1.9	12.775	-B450	100-12	113
110	181	5.6	11	127	46	181	110	181	5.6	195	182	4.7	13.118	-B1500	100-12	125
108	185	3.0	11	129	45	185	108	185	3.0	191	185	2.5	13.369	-B600	100-12	119
108	185	3.4	11	129	45	185	108	185	3.4	191	185	2.8	13.370	-B820	100-12	122
102	196	2.2	10	137	42	196	102	196	2.2	180	196	1.8	14.165	-B450	100-12	113
99	202	3.2	9.9	141	41	202	99	202	3.2	175	203	2.7	14.626	-B820	100-12	122

# g500-B bevel geared motors

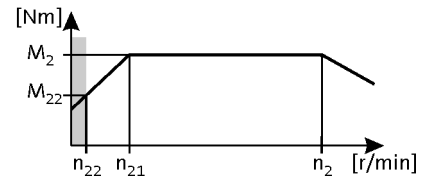


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

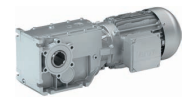
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
98	203	3.0	9.8	142	41	203	98	203	3.0	174	204	2.5	14.730	-B600	100-12	119
88	226	1.9	8.9	158	37	226	88	226	1.9	156	226	1.6	16.349	-B450	100-12	113
88	226	3.1	8.9	158	37	226	88	226	3.1	156	226	2.6	16.352	-B820	100-12	122
81	247	1.8	8.1	172	34	247	81	247	1.8	143	248	1.5	17.885	-B450	100-12	113
78	257	5.7	7.8	179	32	257	78	257	5.7	137	258	4.8	18.598	-B1500	100-12	125
78	258	2.9	7.8	180	32	258	78	258	2.9	137	258	2.4	18.655	-B820	100-12	122
77	260	2.3	7.7	182	32	260	77	260	2.3	136	261	1.9	18.851	-B600	100-12	119
73	274	1.6	7.3	191	30	274	73	274	1.6	129	275	1.4	19.831	-B450	100-12	113
71	282	5.3	7.1	197	29	282	71	282	5.3	125	283	4.4	20.444	-B1500	100-12	125
70	285	2.1	7.0	199	29	285	70	285	2.1	124	286	1.8	20.622	-B600	100-12	119
69	288	2.9	7.0	201	29	288	69	288	2.9	123	289	2.4	20.857	-B820	100-12	122
63	315	1.4	6.4	220	26	315	63	315	1.4	112	316	1.2	22.813	-B450	100-12	113
63	316	1.9	6.3	220	26	316	63	316	1.9	112	316	1.6	22.852	-B600	100-12	119
63	316	2.6	6.3	220	26	316	63	316	2.6	112	316	2.2	22.853	-B820	100-12	122
63	316	4.7	6.3	221	26	316	63	316	4.7	112	317	4.0	22.898	-B1500	100-12	125
62	320	5.7	6.2	224	26	320	62	320	5.7	110	321	4.8	23.206	-B4300	100-12	131
57	349	1.3	5.7	244	24	349	57	349	1.3	101	350	1.1	25.294	-B450	100-12	113
57	350	1.7	5.7	244	24	350	57	350	1.7				25.347	-B600	100-12	119
57	350	5.7	5.7	245	24	350	57	350	5.7	101	351	4.8	25.365	-B4300	100-12	131
57	353	2.3	5.7	246	24	353	57	353	2.3	100	354	1.9	25.550	-B820	100-12	122
55	360	1.7	5.6	251	23	360	55	360	1.7				26.061	-B600	100-12	119
55	364	2.3	5.5	254	23	364	55	364	2.3				26.324	-B820	100-12	122
54	370	5.7	5.4	259	22	370	54	370	5.7	95	371	4.8	26.814	-B2700	100-12	128
52	386	1.2	5.2	269	22	386	52	386	1.2	91	387	1.0	27.945	-B450	100-12	113
50	403	3.7	5.0	282	21	403	50	403	3.7	88	404	3.1	29.206	-B1500	100-12	125
49	407	5.7	4.9	284	20	407	49	407	5.7	87	408	4.8	29.447	-B2700	100-12	128
49	411	1.5	4.9	287	20	411	49	411	1.5	86	412	1.2	29.744	-B600	100-12	119
49	411	2.0	4.9	287	20	411	49	411	2.0	86	412	1.7	29.745	-B820	100-12	122
47	428	1.1	4.7	299	19	428	47	428	1.1	83	429	0.9	30.985	-B450	100-12	113
45	446	1.8	4.5	311	19	446	45	446	1.8				32.291	-B820	100-12	122
45	448	1.3	4.5	313	19	448	45	448	1.3				32.439	-B600	100-12	119
44	449	3.3	4.5	314	18	449	44	449	3.3	79	451	2.8	32.547	-B1500	100-12	125
40	494	1.2	4.1	345	17	494	40	494	1.2				35.740	-B600	100-12	119
40	494	3.0	4.1	345	17	494	40	494	3.0	71	495	2.5	35.778	-B1500	100-12	125
40	499	1.6	4.0	348	17	499	40	499	1.6				36.102	-B820	100-12	122



# g500-B bevel geared motors

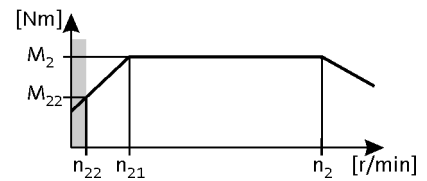


## Technical data

### Selection tables, 4-pole motors

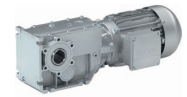
50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
39	511	1.2	3.9	357	16	511	39	511	1.2	69	512	1.0	36.999	-B600	100-12	119
39	511	1.6	3.9	357	16	511	39	511	1.6	69	512	1.3	37.000	-B820	100-12	122
38	532	4.1	3.8	372	16	532	38	532	4.1	66	534	3.4	38.546	-B4300	100-12	131
35	565	2.7	3.5	394	15	565	35	565	2.7				40.895	-B1500	100-12	125
35	571	1.4	3.5	398	15	571	35	571	1.4				41.325	-B820	100-12	122
35	579	1.0	3.5	404	14	579	35	579	1.0	61	581	1.0	41.940	-B600	100-12	119
32	621	2.4	3.2	433	13	621	32	621	2.4				44.955	-B1500	100-12	125
32	624	1.3	3.2	436	13	624	32	624	1.3				45.207	-B820	100-12	122
32	632	1.0	3.2	441	13	632	32	632	1.0				45.739	-B600	100-12	119
31	643	2.3	3.1	449	13	643	31	643	2.3	55	645	2.2	46.568	-B1500	100-12	125
30	675	4.0	3.0	472	12	675	30	675	4.0	52	677	3.8	48.912	-B2700	100-12	128
29	691	0.9	2.9	482	12	691	29	691	0.9				50.036	-B600	100-12	119
29	698	1.2	2.9	487	12	698	29	698	1.2				50.543	-B820	100-12	122
28	717	2.1	2.8	501	12	717	28	717	2.1	49	719	2.0	51.920	-B1500	100-12	125
27	747	3.5	2.7	521	11	747	27	747	3.5	47	749	3.3	54.082	-B2700	100-12	128
25	788	1.9	2.5	550	11	788	25	788	1.9	45	790	1.8	57.074	-B1500	100-12	125
25	796	1.0	2.5	556	10	796	25	796	1.0				57.662	-B820	100-12	122
25	807	1.9	2.5	563	10	807	25	807	1.9	44	809	1.8	58.422	-B1500	100-12	125
25	810	5.3	2.5	566	10	810	25	810	5.3	44	812	5.0	58.671	-B4300	100-12	131
24	820	3.3	2.4	573	10	820	24	820	3.3	43	822	3.1	59.393	-B2700	100-12	128
23	886	4.9	2.3	618	9.4	886	23	886	4.9	40	888	4.6	64.127	-B4300	100-12	131
23	887	1.7	2.3	619	9.3	887	23	887	1.7				64.221	-B1500	100-12	125
22	890	3.0	2.2	621	9.3	890	22	890	3.0				64.452	-B2700	100-12	128
22	890	0.9	2.2	622	9.3	890	22	890	0.9				64.468	-B820	100-12	122
21	975	0.8	2.1	681	8.5	975	21	975	0.8				70.636	-B820	100-12	122
20	988	1.5	2.0	690	8.4	988	20	988	1.5	36	991	1.4	71.566	-B1500	100-12	125
19	1035	1.5	1.9	723	8.0	1035	19	1035	1.5	34	1038	1.4	74.963	-B1500	100-12	125
19	1061	2.5	1.9	741	7.8	1061	19	1061	2.5	33	1064	2.4	76.862	-B2700	100-12	128
18	1143	1.3	1.8	798	7.2	1143	18	1143	1.3	31	1146	1.3	82.762	-B1500	100-12	125
17	1173	2.3	1.7	819	7.1	1173	17	1173	2.3	30	1176	2.2	84.940	-B2700	100-12	128
16	1256	1.2	1.6	877	6.6	1256	16	1256	1.2	28	1260	1.1	90.978	-B1500	100-12	125
16	1286	1.2	1.6	898	6.4	1286	16	1286	1.2	27	1290	1.1	93.150	-B1500	100-12	125
16	1288	2.1	1.6	899	6.4	1288	16	1288	2.1	27	1292	2.0	93.283	-B2700	100-12	128
15	1346	3.2	1.5	940	6.2	1346	15	1346	3.2	26	1349	3.0	97.453	-B4300	100-12	131
15	1346	2.0	1.5	940	6.2	1346	15	1346	2.0	26	1350	1.9	97.481	-B2700	100-12	128

# g500-B bevel geared motors

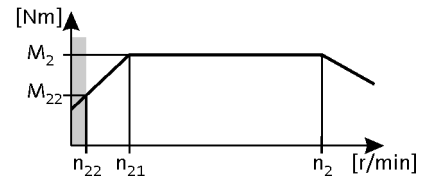


## Technical data

### Selection tables, 4-pole motors

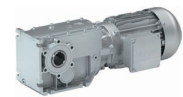
50 Hz:  $P_N = 2.2 \text{ kW}$   
 87 Hz:  $P_N = 3.9 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
14	1414	1.1	1.4	987	5.9	1414	14	1414	1.1	25	1418	1.0	102.396	-B1500	100-12	125
14	1471	2.9	1.4	1027	5.6	1471	14	1471	2.9	24	1475	2.8	106.517	-B4300	100-12	131
14	1478	1.8	1.4	1032	5.6	1478	14	1478	1.8	24	1482	1.7	107.056	-B2700	100-12	128
13	1577	1.0	1.3	1101	5.3	1577	13	1577	1.0	22	1581	1.0	114.166	-B1500	100-12	125
12	1634	2.6	1.2	1141	5.1	1634	12	1634	2.6	22	1638	2.6	118.336	-B4300	100-12	131
12	1635	1.7	1.2	1141	5.1	1635	12	1635	1.7	22	1639	1.7	118.370	-B2700	100-12	128
12	1733	0.9	1.2	1210	4.8	1733	12	1733	0.9	20	1738	0.9	125.498	-B1500	100-12	125
11	1786	2.4	1.1	1247	4.6	1786	11	1786	2.4	20	1791	2.4	129.342	-B4300	100-12	131
11	1795	1.5	1.1	1253	4.6	1795	11	1795	1.5	20	1800	1.5	129.996	-B2700	100-12	128
9.4	2115	2.0	0.9	1476	3.9	2115	9.4	2115	2.0	17	2120	2.0	153.141	-B4300	100-12	131
9.4	2115	1.3	0.9	1477	3.9	2115	9.4	2115	1.3	17	2121	1.3	153.185	-B2700	100-12	128
8.6	2312	1.9	0.9	1614	3.6	2312	8.6	2312	1.9	15	2317	1.9	167.383	-B4300	100-12	131
8.6	2323	1.2	0.9	1622	3.6	2323	8.6	2323	1.2	15	2329	1.2	168.230	-B2700	100-12	128
7.8	2567	1.7	0.8	1792	3.2	2567	7.8	2567	1.7	14	2573	1.7	185.857	-B4300	100-12	131
7.8	2567	1.1	0.8	1792	3.2	2567	7.8	2567	1.1	14	2574	1.1	185.911	-B2700	100-12	128
7.1	2805	1.5	0.7	1959	3.0	2805	7.1	2805	1.5	13	2813	1.5	203.143	-B4300	100-12	131
7.1	2820	1.0	0.7	1968	2.9	2820	7.1	2820	1.0	13	2827	1.0	204.170	-B2700	100-12	128
6.2	3244	1.3	0.6	2265	2.6	3244	6.2	3244	1.3	11	3253	1.3	234.932	-B4300	100-12	131
6.1	3245	0.8	0.6	2266	2.6	3245	6.1	3245	0.8	11	3254	0.8	235.000	-B2700	100-12	128
5.6	3546	1.2	0.6	2476	2.3	3546	5.6	3546	1.2	10	3555	1.2	256.781	-B4300	100-12	131

# g500-B bevel geared motors

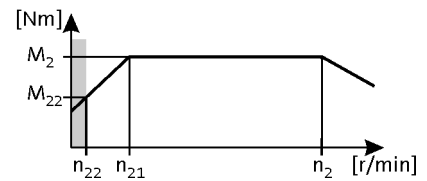


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

2-stage gearboxes

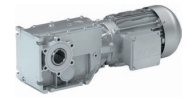


Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
405	67	2.1	41	47	168	67	405	67	2.1				3.565	-B240	100-32	110	
296	92	1.6	30	64	123	92	296	92	1.6				4.889	-B240	100-32	110	
231	118	1.3	23	82	96	118	231	118	1.3				6.257	-B240	100-32	110	
210	130	1.4	21	91	87	130	210	130	1.4				6.883	-B240	100-32	110	
185	147	1.3	19	103	77	147	185	147	1.3				7.817	-B240	100-32	110	
153	178	1.1	15	124	64	178	153	178	1.1				9.440	-B240	100-32	110	
135	202	1.0	14	141	56	202	135	202	1.0				10.720	-B240	100-32	110	
120	228	0.9	12	159	50	228	120	228	0.9				12.081	-B240	100-32	110	
105	258	0.8	11	181	44	258	105	258	0.8				13.719	-B240	100-32	110	

3-stage gearboxes

Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
291	93	3.3	29	65	121	93	291	93	3.3				4.958	-B820	100-32	122	
289	94	3.0	29	66	120	94	289	94	3.0	511	96	2.4	5.002	-B450	100-32	113	
285	95	3.9	29	67	118	95	285	95	3.9				5.067	-B600	100-32	119	
213	128	3.1	21	90	88	128	213	128	3.1	376	130	2.5	6.800	-B820	100-32	122	
211	129	2.4	21	90	88	129	211	129	2.4	372	132	2.0	6.860	-B450	100-32	113	
208	131	3.0	21	92	86	131	208	131	3.0	368	133	2.5	6.949	-B600	100-32	119	
190	143	3.2	19	100	79	143	190	143	3.2				7.617	-B600	100-32	119	
190	143	3.0	19	100	79	143	190	143	3.0				7.618	-B820	100-32	122	
170	160	2.9	17	112	71	160	170	160	2.9				8.517	-B820	100-32	122	
155	175	2.1	16	123	64	175	155	175	2.1				9.315	-B450	100-32	113	
152	179	2.8	15	125	63	179	152	179	2.8	268	183	2.3	9.520	-B820	100-32	122	
140	195	2.0	14	136	58	195	140	195	2.0				10.328	-B450	100-32	113	
138	197	2.7	14	138	57	197	138	197	2.7				10.447	-B820	100-32	122	
135	202	2.7	14	141	56	202	135	202	2.7				10.741	-B600	100-32	119	
124	220	2.6	12	154	51	220	124	220	2.6				11.680	-B820	100-32	122	
119	229	2.4	12	160	49	229	119	229	2.4	210	233	2.0	12.143	-B820	100-32	122	
113	241	1.7	11	168	47	241	113	241	1.7				12.775	-B450	100-32	113	
110	247	4.1	11	173	46	247	110	247	4.1	195	251	3.4	13.118	-B1500	100-32	125	
108	252	2.2	11	176	45	252	108	252	2.2	191	256	1.8	13.369	-B600	100-32	119	
108	252	2.5	11	176	45	252	108	252	2.5	191	256	2.0	13.370	-B820	100-32	122	
102	267	1.6	10	187	42	267	102	267	1.6				14.165	-B450	100-32	113	
99	275	2.4	9.9	193	41	275	99	275	2.4	175	280	2.0	14.626	-B820	100-32	122	
98	277	2.2	9.8	194	41	277	98	277	2.2				14.730	-B600	100-32	119	
88	308	1.4	8.9	215	37	308	88	308	1.4				16.349	-B450	100-32	113	
88	308	2.3	8.9	215	37	308	88	308	2.3	156	313	1.9	16.352	-B820	100-32	122	
81	337	1.3	8.1	236	34	337	81	337	1.3	143	343	1.1	17.885	-B450	100-32	113	

# g500-B bevel geared motors

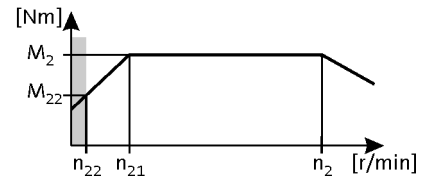


## Technical data

### Selection tables, 4-pole motors

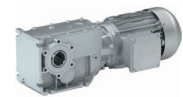
50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
78	350	4.2	7.8	245	32	350	78	350	4.2	137	357	3.4	18.598	-B1500	100-32	125
78	351	2.1	7.8	246	32	351	78	351	2.1	137	358	1.8	18.655	-B820	100-32	122
77	355	1.7	7.7	248	32	355	77	355	1.7				18.851	-B600	100-32	119
73	373	1.2	7.3	261	30	373	73	373	1.2				19.831	-B450	100-32	113
71	385	3.9	7.1	269	29	385	71	385	3.9	125	392	3.2	20.444	-B1500	100-32	125
70	388	1.6	7.0	272	29	388	70	388	1.6				20.622	-B600	100-32	119
69	393	2.1	7.0	275	29	393	69	393	2.1	123	400	1.7	20.857	-B820	100-32	122
63	430	1.1	6.4	300	26	430	63	430	1.1				22.813	-B450	100-32	113
63	430	1.4	6.3	301	26	430	63	430	1.4	112	438	1.2	22.852	-B600	100-32	119
63	430	1.9	6.3	301	26	430	63	430	1.9	112	438	1.6	22.853	-B820	100-32	122
63	431	3.5	6.3	302	26	431	63	431	3.5	112	439	2.9	22.898	-B1500	100-32	125
62	437	4.2	6.2	306	26	437	62	437	4.2	110	445	3.4	23.206	-B4300	100-32	131
57	476	0.9	5.7	333	24	476	57	476	0.9				25.294	-B450	100-32	113
57	477	1.3	5.7	334	24	477	57	477	1.3				25.347	-B600	100-32	119
57	478	4.2	5.7	334	24	478	57	478	4.2	101	486	3.4	25.365	-B4300	100-32	131
57	481	1.7	5.7	336	24	481	57	481	1.7	100	490	1.4	25.550	-B820	100-32	122
55	491	1.2	5.6	343	23	491	55	491	1.2				26.061	-B600	100-32	119
55	496	1.7	5.5	347	23	496	55	496	1.7				26.324	-B820	100-32	122
54	505	4.2	5.4	353	22	505	54	505	4.2	95	514	3.4	26.814	-B2700	100-32	128
52	526	0.9	5.2	368	22	526	52	526	0.9				27.945	-B450	100-32	113
50	550	2.7	5.0	385	21	550	50	550	2.7	88	560	2.2	29.206	-B1500	100-32	125
49	555	4.2	4.9	388	20	555	49	555	4.2	87	565	3.4	29.447	-B2700	100-32	128
49	560	1.1	4.9	392	20	560	49	560	1.1	86	570	0.9	29.744	-B600	100-32	119
49	560	1.5	4.9	392	20	560	49	560	1.5	86	570	1.2	29.745	-B820	100-32	122
45	608	1.4	4.5	425	19	608	45	608	1.4				32.291	-B820	100-32	122
45	611	1.0	4.5	427	19	611	45	611	1.0				32.439	-B600	100-32	119
44	613	2.5	4.5	429	18	613	44	613	2.5	79	624	2.0	32.547	-B1500	100-32	125
40	673	0.9	4.1	471	17	673	40	673	0.9				35.740	-B600	100-32	119
40	674	2.2	4.1	471	17	674	40	674	2.2	71	686	1.8	35.778	-B1500	100-32	125
40	680	1.2	4.0	475	17	680	40	680	1.2				36.102	-B820	100-32	122
39	697	0.9	3.9	487	16	697	39	697	0.9				36.999	-B600	100-32	119
39	697	1.2	3.9	487	16	697	39	697	1.2	69	709	1.0	37.000	-B820	100-32	122
38	726	3.0	3.8	508	16	726	38	726	3.0	66	739	2.5	38.546	-B4300	100-32	131
35	770	2.0	3.5	538	15	770	35	770	2.0				40.895	-B1500	100-32	125
35	778	1.1	3.5	544	15	778	35	778	1.1				41.325	-B820	100-32	122

# g500-B bevel geared motors

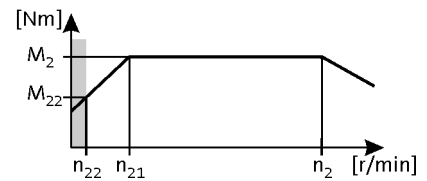


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 87 Hz:  $P_N = 5.4 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
32	847	1.8	3.2	592	13	847	32	847	1.8				44.955	-B1500	100-32	125
32	851	1.0	3.2	595	13	851	32	851	1.0				45.207	-B820	100-32	122
31	877	1.7	3.1	613	13	877	31	877	1.7	55	893	1.6	46.568	-B1500	100-32	125
30	921	2.9	3.0	644	12	921	30	921	2.9	52	938	2.7	48.912	-B2700	100-32	128
29	952	0.9	2.9	665	12	952	29	952	0.9				50.543	-B820	100-32	122
28	978	1.5	2.8	684	12	978	28	978	1.5	49	995	1.4	51.920	-B1500	100-32	125
27	1018	2.5	2.7	712	11	1018	27	1018	2.5	47	1037	2.4	54.082	-B2700	100-32	128
25	1075	1.4	2.5	751	11	1075	25	1075	1.4	45	1094	1.3	57.074	-B1500	100-32	125
25	1100	1.4	2.5	769	10	1100	25	1100	1.4				58.422	-B1500	100-32	125
25	1105	3.9	2.5	772	10	1105	25	1105	3.9	44	1125	3.6	58.671	-B4300	100-32	131
24	1118	2.4	2.4	782	10	1118	24	1118	2.4	43	1139	2.3	59.393	-B2700	100-32	128
23	1208	3.6	2.3	844	9.4	1208	23	1208	3.6	40	1229	3.3	64.127	-B4300	100-32	131
23	1209	1.2	2.3	846	9.3	1209	23	1209	1.2				64.221	-B1500	100-32	125
22	1214	2.2	2.2	849	9.3	1214	22	1214	2.2				64.452	-B2700	100-32	128
20	1348	1.1	2.0	942	8.4	1348	20	1348	1.1				71.566	-B1500	100-32	125
19	1412	1.1	1.9	987	8.0	1412	19	1412	1.1	34	1437	1.0	74.963	-B1500	100-32	125
19	1447	1.9	1.9	1012	7.8	1447	19	1447	1.9	33	1473	1.7	76.862	-B2700	100-32	128
18	1559	1.0	1.8	1090	7.2	1559	18	1559	1.0	31	1587	0.9	82.762	-B1500	100-32	125
17	1600	1.7	1.7	1118	7.1	1600	17	1600	1.7	30	1628	1.6	84.940	-B2700	100-32	128
16	1713	0.9	1.6	1198	6.6	1713	16	1713	0.9	28	1744	0.8	90.978	-B1500	100-32	125
16	1754	0.9	1.6	1226	6.4	1754	16	1754	0.9				93.150	-B1500	100-32	125
16	1757	1.5	1.6	1228	6.4	1757	16	1757	1.5	27	1788	1.4	93.283	-B2700	100-32	128
15	1835	2.3	1.5	1283	6.2	1835	15	1835	2.3	26	1868	2.2	97.453	-B4300	100-32	131
15	1836	1.5	1.5	1283	6.2	1836	15	1836	1.5	26	1869	1.4	97.481	-B2700	100-32	128
14	2006	2.1	1.4	1402	5.6	2006	14	2006	2.1	24	2042	2.0	106.517	-B4300	100-32	131
14	2016	1.3	1.4	1409	5.6	2016	14	2016	1.3				107.056	-B2700	100-32	128
12	2228	1.9	1.2	1558	5.1	2228	12	2228	1.9	22	2269	1.9	118.336	-B4300	100-32	131
12	2229	1.2	1.2	1558	5.1	2229	12	2229	1.2	22	2269	1.2	118.370	-B2700	100-32	128
11	2436	1.8	1.1	1703	4.6	2436	11	2436	1.8	20	2480	1.7	129.342	-B4300	100-32	131
11	2448	1.1	1.1	1711	4.6	2448	11	2448	1.1	20	2492	1.1	129.996	-B2700	100-32	128
9.4	2884	1.5	0.9	2016	3.9	2884	9.4	2884	1.5	17	2936	1.5	153.141	-B4300	100-32	131
9.4	2885	0.9	0.9	2017	3.9	2885	9.4	2885	0.9	17	2937	0.9	153.185	-B2700	100-32	128
8.6	3152	1.4	0.9	2204	3.6	3152	8.6	3152	1.4	15	3209	1.3	167.383	-B4300	100-32	131
8.6	3168	0.9	0.9	2215	3.6	3168	8.6	3168	0.9	15	3225	0.8	168.230	-B2700	100-32	128
7.8	3500	1.2	0.8	2447	3.2	3500	7.8	3500	1.2	14	3563	1.2	185.857	-B4300	100-32	131

# g500-B bevel geared motors

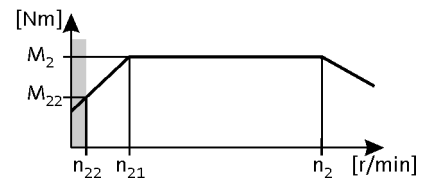
Technical data



## Selection tables, 4-pole motors

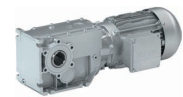
50 Hz:  $P_N = 3.0$  kW  
 87 Hz:  $P_N = 5.4$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
7.1	3825	1.1	0.7	2674	3.0	3825	7.1	3825	1.1	13	3894	1.1	203.143	-B4300	100-32	131
6.2	4424	1.0	0.6	3093	2.6	4424	6.2	4424	1.0	11	4504	1.0	234.932	-B4300	100-32	131
5.6	4836	0.9	0.6	3381	2.3	4836	5.6	4836	0.9	10	4923	0.9	256.781	-B4300	100-32	131

# g500-B bevel geared motors

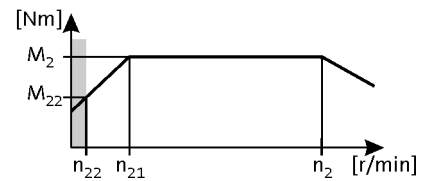


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

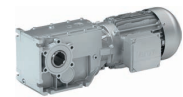
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
293	124	2.5	29	77	121	124	293	124	2.5				4.958	-B820	112-22	122	
291	125	2.2	29	78	120	125	291	125	2.2				5.002	-B450	112-22	113	
287	126	3.0	29	79	118	126	287	126	3.0				5.067	-B600	112-22	119	
214	170	2.3	21	106	88	170	214	170	2.3				6.800	-B820	112-22	122	
212	171	1.8	21	107	88	171	212	171	1.8				6.860	-B450	112-22	113	
212	171	4.2	21	107	87	171	212	171	4.2				6.866	-B1500	112-22	125	
209	173	2.3	21	109	86	173	209	173	2.3				6.949	-B600	112-22	119	
191	190	2.4	19	119	79	190	191	190	2.4				7.617	-B600	112-22	119	
191	190	2.2	19	119	79	190	191	190	2.2				7.618	-B820	112-22	122	
171	212	2.2	17	133	71	212	171	212	2.2				8.517	-B820	112-22	122	
159	228	4.8	16	143	66	228	159	228	4.8				9.156	-B4300	112-22	131	
156	232	1.6	16	145	64	232	156	232	1.6				9.315	-B450	112-22	113	
153	237	4.2	15	149	63	237	153	237	4.2				9.516	-B1500	112-22	125	
153	237	2.1	15	149	63	237	153	237	2.1	269	239	1.7	9.520	-B820	112-22	122	
141	258	1.5	14	161	58	258	141	258	1.5				10.328	-B450	112-22	113	
139	261	2.0	14	163	57	261	139	261	2.0				10.447	-B820	112-22	122	
136	268	2.0	14	168	56	268	136	268	2.0				10.741	-B600	112-22	119	
134	272	4.2	13	170	55	272	134	272	4.2				10.902	-B1500	112-22	125	
125	291	2.0	12	182	51	291	125	291	2.0				11.680	-B820	112-22	122	
121	299	4.2	12	187	50	299	121	299	4.2				11.985	-B1500	112-22	125	
120	303	1.8	12	190	49	303	120	303	1.8	211	305	1.5	12.143	-B820	112-22	122	
114	319	1.3	11	200	47	319	114	319	1.3				12.775	-B450	112-22	113	
111	327	3.4	11	205	46	327	111	327	3.4	196	329	2.8	13.118	-B1500	112-22	125	
109	333	1.7	11	209	45	333	109	333	1.7				13.369	-B600	112-22	119	
109	333	1.9	11	209	45	333	109	333	1.9				13.370	-B820	112-22	122	
103	353	1.2	10	221	42	353	103	353	1.2				14.165	-B450	112-22	113	
100	365	1.8	9.9	228	41	365	100	365	1.8				14.626	-B820	112-22	122	
99	367	1.6	9.8	230	41	367	99	367	1.6				14.730	-B600	112-22	119	
96	377	4.0	9.6	236	40	377	96	377	4.0				15.111	-B1500	112-22	125	
89	408	1.1	8.9	255	37	408	89	408	1.1				16.349	-B450	112-22	113	
89	408	1.7	8.9	255	37	408	89	408	1.7				16.352	-B820	112-22	122	
88	414	3.6	8.7	259	36	414	88	414	3.6				16.611	-B1500	112-22	125	
86	422	4.8	8.6	264	36	422	86	422	4.8				16.913	-B4300	112-22	131	
81	446	1.0	8.1	279	34	446	81	446	1.0				17.885	-B450	112-22	113	
79	461	4.8	7.8	289	33	461	79	461	4.8				18.486	-B4300	112-22	131	

# g500-B bevel geared motors

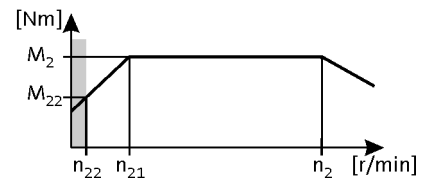
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
87 Hz:  $P_N = 7.1$  kW

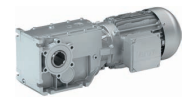
3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
78	464	3.2	7.8	290	32	464	78	464	3.2				18.598	-B1500	112-22	125
78	465	1.6	7.8	291	32	465	78	465	1.6	138	468	1.3	18.655	-B820	112-22	122
77	470	1.3	7.7	294	32	470	77	470	1.3				18.851	-B600	112-22	119
75	487	4.8	7.4	305	31	487	75	487	4.8				19.542	-B2700	112-22	128
73	494	0.9	7.3	310	30	494	73	494	0.9				19.831	-B450	112-22	113
71	510	2.9	7.1	319	29	510	71	510	2.9				20.444	-B1500	112-22	125
71	514	1.2	7.0	322	29	514	71	514	1.2				20.622	-B600	112-22	119
70	520	1.6	7.0	326	29	520	70	520	1.6	123	524	1.3	20.857	-B820	112-22	122
69	525	4.4	6.9	329	29	525	69	525	4.4				21.065	-B4300	112-22	131
65	555	4.4	6.5	348	27	555	65	555	4.4				22.269	-B2700	112-22	128
64	570	1.1	6.3	357	26	570	64	570	1.1				22.852	-B600	112-22	119
64	570	1.4	6.3	357	26	570	64	570	1.4	112	574	1.2	22.853	-B820	112-22	122
64	571	2.6	6.3	358	26	571	64	571	2.6				22.898	-B1500	112-22	125
63	579	3.8	6.2	362	26	579	63	579	3.8	111	583	3.2	23.206	-B4300	112-22	131
61	598	2.5	6.0	374	25	598	61	598	2.5				23.973	-B1500	112-22	125
60	610	4.4	5.9	382	25	610	60	610	4.4				24.456	-B2700	112-22	128
57	632	1.0	5.7	396	24	632	57	632	1.0				25.347	-B600	112-22	119
57	632	3.8	5.7	396	24	632	57	632	3.8	101	637	3.2	25.365	-B4300	112-22	131
57	637	1.3	5.7	399	24	637	57	637	1.3	100	641	1.1	25.550	-B820	112-22	122
55	656	1.3	5.5	411	23	656	55	656	1.3				26.324	-B820	112-22	122
55	657	2.3	5.5	412	23	657	55	657	2.3				26.353	-B1500	112-22	125
54	669	3.8	5.4	419	22	669	54	669	3.8	96	673	3.2	26.814	-B2700	112-22	128
50	728	2.1	5.0	456	21	728	50	728	2.1	88	733	1.7	29.206	-B1500	112-22	125
49	734	3.7	4.9	460	20	734	49	734	3.7				29.447	-B2700	112-22	128
49	742	0.8	4.9	464	20	742	49	742	0.8				29.744	-B600	112-22	119
49	742	1.1	4.9	464	20	742	49	742	1.1	86	747	0.9	29.745	-B820	112-22	122
47	775	3.3	4.7	486	19	775	47	775	3.3	83	781	2.7	31.097	-B4300	112-22	131
45	805	1.0	4.5	504	19	805	45	805	1.0				32.291	-B820	112-22	122
45	812	1.9	4.5	508	18	812	45	812	1.9	79	817	1.5	32.547	-B1500	112-22	125
44	820	3.3	4.4	513	18	820	44	820	3.3	78	825	2.7	32.873	-B2700	112-22	128
41	892	1.7	4.1	559	17	892	41	892	1.7	72	898	1.4	35.778	-B1500	112-22	125
40	900	3.0	4.0	564	17	900	40	900	3.0	71	906	2.5	36.102	-B2700	112-22	128
40	900	0.9	4.0	564	17	900	40	900	0.9				36.102	-B820	112-22	122
40	911	1.7	4.0	570	16	911	40	911	1.7				36.526	-B1500	112-22	125
38	961	2.6	3.8	602	16	961	38	961	2.6	67	968	2.1	38.546	-B4300	112-22	131



# g500-B bevel geared motors

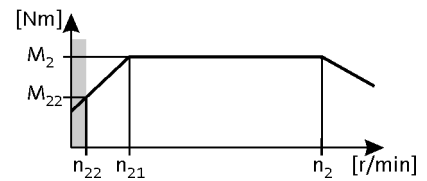


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
36	1020	1.5	3.5	639	15	1020	36	1020	1.5				40.895	-B1500	112-22	125
34	1066	4.0	3.4	668	14	1066	34	1066	4.0				42.760	-B4300	112-22	131
34	1067	2.5	3.4	668	14	1067	34	1067	2.5				42.772	-B2700	112-22	128
32	1121	1.3	3.2	702	13	1121	32	1121	1.3				44.955	-B1500	112-22	125
31	1161	1.3	3.1	727	13	1161	31	1161	1.3	55	1169	1.2	46.568	-B1500	112-22	125
31	1165	3.7	3.1	730	13	1165	31	1165	3.7				46.737	-B4300	112-22	131
31	1171	2.3	3.1	733	13	1171	31	1171	2.3				46.973	-B2700	112-22	128
30	1220	2.2	3.0	764	12	1220	30	1220	2.2	52	1228	2.1	48.912	-B2700	112-22	128
28	1295	1.2	2.8	811	12	1295	28	1295	1.2	49	1304	1.1	51.920	-B1500	112-22	125
27	1328	3.2	2.7	832	11	1328	27	1328	3.2				53.258	-B4300	112-22	131
27	1349	2.0	2.7	844	11	1349	27	1349	2.0	47	1358	1.9	54.082	-B2700	112-22	128
26	1423	1.1	2.5	891	11	1423	26	1423	1.1	45	1433	1.0	57.074	-B1500	112-22	125
25	1457	1.0	2.5	912	10	1457	25	1457	1.0				58.422	-B1500	112-22	125
25	1463	2.9	2.5	916	10	1463	25	1463	2.9				58.671	-B4300	112-22	131
25	1481	1.8	2.4	927	10	1481	25	1481	1.8	43	1491	1.7	59.393	-B2700	112-22	128
23	1599	2.7	2.3	1001	9.4	1599	23	1599	2.7				64.127	-B4300	112-22	131
23	1601	0.9	2.3	1003	9.3	1601	23	1601	0.9				64.221	-B1500	112-22	125
23	1607	1.7	2.2	1006	9.3	1607	23	1607	1.7				64.452	-B2700	112-22	128
20	1785	0.8	2.0	1117	8.4	1785	20	1785	0.8				71.566	-B1500	112-22	125
20	1794	2.4	2.0	1123	8.3	1794	20	1794	2.4	36	1806	2.3	71.930	-B4300	112-22	131
20	1794	1.5	2.0	1123	8.3	1794	20	1794	1.5				71.951	-B2700	112-22	128
19	1917	1.4	1.9	1200	7.8	1917	19	1917	1.4	33	1930	1.3	76.862	-B2700	112-22	128
19	1960	2.2	1.8	1228	7.6	1960	19	1960	2.2	33	1974	2.1	78.619	-B4300	112-22	131
17	2118	1.3	1.7	1326	7.1	2118	17	2118	1.3	30	2133	1.2	84.940	-B2700	112-22	128
16	2326	1.2	1.6	1457	6.4	2326	16	2326	1.2	28	2342	1.1	93.283	-B2700	112-22	128
15	2430	1.8	1.5	1522	6.2	2430	15	2430	1.8	26	2447	1.7	97.453	-B4300	112-22	131
15	2431	1.1	1.5	1522	6.2	2431	15	2431	1.1				97.481	-B2700	112-22	128
14	2656	1.6	1.4	1663	5.6	2656	14	2656	1.6	24	2674	1.5	106.517	-B4300	112-22	131
14	2670	1.0	1.4	1672	5.6	2670	14	2670	1.0				107.056	-B2700	112-22	128
12	2951	1.5	1.2	1848	5.1	2951	12	2951	1.5	22	2971	1.5	118.336	-B4300	112-22	131
12	2952	0.9	1.2	1848	5.1	2952	12	2952	0.9				118.370	-B2700	112-22	128
11	3225	1.3	1.1	2020	4.6	3225	11	3225	1.3	20	3247	1.3	129.342	-B4300	112-22	131
11	3242	0.8	1.1	2030	4.6	3242	11	3242	0.8				129.996	-B2700	112-22	128
9.5	3819	1.1	0.9	2391	3.9	3819	9.5	3819	1.1	17	3845	1.1	153.141	-B4300	112-22	131
8.7	4174	1.0	0.9	2613	3.6	4174	8.7	4174	1.0	15	4203	1.0	167.383	-B4300	112-22	131

# g500-B bevel geared motors

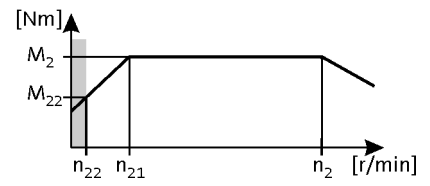
Technical data



## Selection tables, 4-pole motors

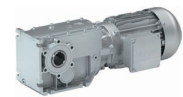
50 Hz:  $P_N = 4.0$  kW  
 87 Hz:  $P_N = 7.1$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz	- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
7.8	4635	0.9	0.8	2902	3.2	4635	7.8	4635	0.9	14	4666	0.9	185.857	-B4300	112-22	131
7.2	5066	0.9	0.7	3172	3.0	5066	7.2	5066	0.9	13	5100	0.8	203.143	-B4300	112-22	131

# g500-B bevel geared motors

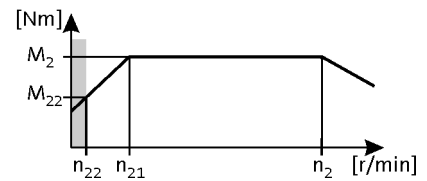


## Technical data

### Selection tables, 4-pole motors

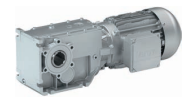
50 Hz:  $P_N = 5.5 \text{ kW}$   
 87 Hz:  $P_N = 9.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
297	168	1.9	29	105	121	168	297	168	1.9				4.958	-B820	132-12	122	
294	170	1.7	29	106	120	170	294	170	1.7				5.002	-B450	132-12	113	
290	172	2.2	29	107	118	172	290	172	2.2				5.067	-B600	132-12	119	
216	231	1.7	21	144	88	231	216	231	1.7				6.800	-B820	132-12	122	
214	233	1.3	21	145	88	233	214	233	1.3				6.860	-B450	132-12	113	
214	233	3.6	21	146	87	233	214	233	3.6				6.866	-B1500	132-12	125	
212	236	1.7	21	147	86	236	212	236	1.7				6.949	-B600	132-12	119	
193	259	1.8	19	161	79	259	193	259	1.8				7.617	-B600	132-12	119	
193	259	1.6	19	161	79	259	193	259	1.6				7.618	-B820	132-12	122	
173	289	1.6	17	181	71	289	173	289	1.6				8.517	-B820	132-12	122	
167	298	5.1	17	186	68	298	167	298	5.1				8.793	-B2700	132-12	128	
158	316	1.2	16	197	64	316	158	316	1.2				9.315	-B450	132-12	113	
155	323	3.1	15	202	63	323	155	323	3.1				9.516	-B1500	132-12	125	
154	323	1.5	15	202	63	323	154	323	1.5				9.520	-B820	132-12	122	
142	351	1.1	14	219	58	351	142	351	1.1				10.328	-B450	132-12	113	
141	355	1.5	14	221	57	355	141	355	1.5				10.447	-B820	132-12	122	
137	365	1.5	14	228	56	365	137	365	1.5				10.741	-B600	132-12	119	
135	370	3.6	13	231	55	370	135	370	3.6				10.902	-B1500	132-12	125	
126	396	1.4	12	248	51	396	126	396	1.4				11.680	-B820	132-12	122	
126	398	5.6	12	248	51	398	126	398	5.6				11.713	-B2700	132-12	128	
123	407	3.6	12	254	50	407	123	407	3.6				11.985	-B1500	132-12	125	
121	412	1.3	12	257	49	412	121	412	1.3				12.143	-B820	132-12	122	
115	434	0.9	11	271	47	434	115	434	0.9				12.775	-B450	132-12	113	
114	437	5.2	11	273	47	437	114	437	5.2				12.863	-B2700	132-12	128	
112	445	2.5	11	278	46	445	112	445	2.5				13.118	-B1500	132-12	125	
110	454	1.2	11	283	45	454	110	454	1.2				13.369	-B600	132-12	119	
110	454	1.4	11	283	45	454	110	454	1.4				13.370	-B820	132-12	122	
104	481	0.9	10	300	42	481	104	481	0.9				14.165	-B450	132-12	113	
101	496	1.3	9.9	310	41	496	101	496	1.3				14.626	-B820	132-12	122	
100	500	1.2	9.8	312	41	500	100	500	1.2				14.730	-B600	132-12	119	
99	505	4.7	9.7	316	40	505	99	505	4.7				14.888	-B2700	132-12	128	
97	513	2.9	9.6	320	40	513	97	513	2.9				15.111	-B1500	132-12	125	
90	555	4.4	8.9	347	37	555	90	555	4.4				16.351	-B2700	132-12	128	
90	555	1.3	8.9	347	37	555	90	555	1.3				16.352	-B820	132-12	122	
89	564	2.7	8.7	352	36	564	89	564	2.7				16.611	-B1500	132-12	125	

# g500-B bevel geared motors

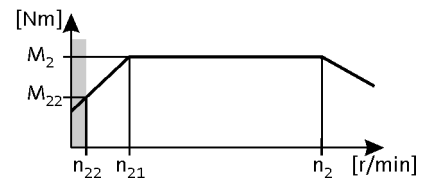


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5 \text{ kW}$   
 87 Hz:  $P_N = 9.7 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
79	631	2.4	7.8	394	32	631	79	631	2.4				18.598	-B1500	132-12	125	
79	633	1.2	7.8	395	32	633	79	633	1.2				18.655	-B820	132-12	122	
78	640	0.9	7.7	400	32	640	78	640	0.9				18.851	-B600	132-12	119	
75	663	3.9	7.4	414	31	663	75	663	3.9				19.542	-B2700	132-12	128	
72	694	2.2	7.1	433	29	694	72	694	2.2				20.444	-B1500	132-12	125	
71	700	0.9	7.0	437	29	700	71	700	0.9				20.622	-B600	132-12	119	
71	708	1.2	7.0	442	29	708	71	708	1.2				20.857	-B820	132-12	122	
66	756	3.6	6.5	472	27	756	66	756	3.6				22.269	-B2700	132-12	128	
64	776	1.1	6.3	484	26	776	64	776	1.1				22.853	-B820	132-12	122	
64	777	1.9	6.3	485	26	777	64	777	1.9				22.898	-B1500	132-12	125	
63	788	5.5	6.2	492	26	788	63	788	5.5				23.206	-B4300	132-12	131	
61	814	1.8	6.0	508	25	814	61	814	1.8				23.973	-B1500	132-12	125	
60	830	3.3	5.9	518	25	830	60	830	3.3				24.456	-B2700	132-12	128	
58	861	5.0	5.7	538	24	861	58	861	5.0				25.365	-B4300	132-12	131	
58	867	1.0	5.7	542	24	867	58	867	1.0				25.550	-B820	132-12	122	
56	894	1.7	5.5	559	23	894	56	894	1.7				26.353	-B1500	132-12	125	
55	910	3.0	5.4	568	22	910	55	910	3.0				26.814	-B2700	132-12	128	
53	951	4.5	5.2	594	21	951	53	951	4.5				28.013	-B4300	132-12	131	
50	991	1.5	5.0	619	21	991	50	991	1.5				29.206	-B1500	132-12	125	
50	999	2.7	4.9	624	20	999	50	999	2.7				29.447	-B2700	132-12	128	
47	1055	4.1	4.7	659	19	1055	47	1055	4.1				31.097	-B4300	132-12	131	
45	1105	1.4	4.5	690	18	1105	45	1105	1.4				32.547	-B1500	132-12	125	
45	1116	2.4	4.4	697	18	1116	45	1116	2.4				32.873	-B2700	132-12	128	
41	1208	3.6	4.1	755	17	1208	41	1208	3.6				35.607	-B4300	132-12	131	
41	1214	1.2	4.1	758	17	1214	41	1214	1.2				35.778	-B1500	132-12	125	
41	1225	2.2	4.0	765	17	1225	41	1225	2.2				36.102	-B2700	132-12	128	
40	1240	1.2	4.0	774	16	1240	40	1240	1.2				36.526	-B1500	132-12	125	
38	1308	3.3	3.8	817	16	1308	38	1308	3.3				38.546	-B4300	132-12	131	
36	1388	1.1	3.5	867	15	1388	36	1388	1.1				40.895	-B1500	132-12	125	
34	1451	3.0	3.4	906	14	1451	34	1451	3.0				42.760	-B4300	132-12	131	
34	1452	1.9	3.4	907	14	1452	34	1452	1.9				42.772	-B2700	132-12	128	
33	1526	1.0	3.2	953	13	1526	33	1526	1.0				44.955	-B1500	132-12	125	
32	1580	1.0	3.1	987	13	1580	32	1580	1.0				46.568	-B1500	132-12	125	
32	1586	2.7	3.1	991	13	1586	32	1586	2.7				46.737	-B4300	132-12	131	
31	1594	1.7	3.1	996	13	1594	31	1594	1.7				46.973	-B2700	132-12	128	

# g500-B bevel geared motors

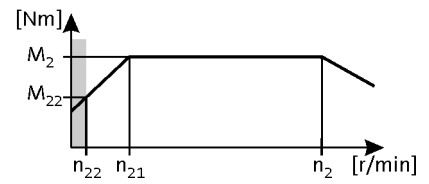
Technical data



## Selection tables, 4-pole motors

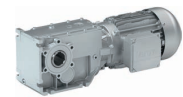
50 Hz:  $P_N = 5.5$  kW  
87 Hz:  $P_N = 9.7$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
			n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
30	1660	1.6	3.0	1037	12	1660	30	1660	1.6				48.912	-B2700	132-12	128	
28	1807	2.4	2.7	1129	11	1807	28	1807	2.4				53.258	-B4300	132-12	131	
27	1835	1.5	2.7	1146	11	1835	27	1835	1.5				54.082	-B2700	132-12	128	
25	1991	2.2	2.5	1244	10	1991	25	1991	2.2				58.671	-B4300	132-12	131	
25	2016	1.3	2.4	1259	10	2016	25	2016	1.3				59.393	-B2700	132-12	128	
23	2176	2.0	2.3	1359	9.4	2176	23	2176	2.0				64.127	-B4300	132-12	131	
23	2187	1.2	2.2	1366	9.3	2187	23	2187	1.2				64.452	-B2700	132-12	128	
20	2441	1.8	2.0	1525	8.3	2441	20	2441	1.8				71.930	-B4300	132-12	131	
20	2442	1.1	2.0	1525	8.3	2442	20	2442	1.1				71.951	-B2700	132-12	128	
19	2668	1.6	1.8	1666	7.6	2668	19	2668	1.6				78.619	-B4300	132-12	131	
15	3307	1.3	1.5	2065	6.2	3307	15	3307	1.3				97.453	-B4300	132-12	131	
15	3308	0.8	1.5	2066	6.2	3308	15	3308	0.8				97.481	-B2700	132-12	128	
14	3615	1.2	1.4	2258	5.6	3615	14	3615	1.2				106.517	-B4300	132-12	131	
12	4016	1.1	1.2	2508	5.1	4016	12	4016	1.1				118.336	-B4300	132-12	131	
11	4390	1.0	1.1	2741	4.6	4390	11	4390	1.0				129.342	-B4300	132-12	131	

# g500-B bevel geared motors

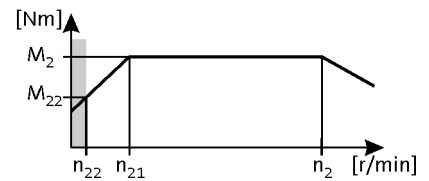


## Technical data

### Selection tables, 4-pole motors

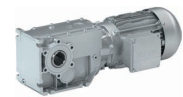
50 Hz:  $P_N = 7.5 \text{ kW}$   
 87 Hz:  $P_N = 13.2 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
$n_{22}$ [r/min]	$M_{22}$ [Nm]		$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c					
295	231	1.4	29	145	121	231	295	231	1.4				4.958	-B820	132-22	122	
292	233	1.2	29	146	120	233	292	233	1.2				5.002	-B450	132-22	113	
288	236	1.6	29	148	118	236	288	236	1.6				5.067	-B600	132-22	119	
266	256	5.5	26	160	109	256	266	256	5.5				5.488	-B4300	132-22	131	
215	317	1.2	21	198	88	317	215	317	1.2				6.800	-B820	132-22	122	
213	320	1.0	21	200	88	320	213	320	1.0				6.860	-B450	132-22	113	
213	320	2.6	21	200	87	320	213	320	2.6				6.866	-B1500	132-22	125	
211	322	4.5	21	202	87	322	211	322	4.5				6.918	-B2700	132-22	128	
210	324	1.2	21	203	86	324	210	324	1.2				6.949	-B600	132-22	119	
209	325	5.1	21	203	86	325	209	325	5.1				6.976	-B4300	132-22	131	
192	355	1.3	19	222	79	355	192	355	1.3				7.617	-B600	132-22	119	
192	355	1.2	19	222	79	355	192	355	1.2				7.618	-B820	132-22	122	
171	397	1.2	17	248	71	397	171	397	1.2				8.517	-B820	132-22	122	
166	410	3.7	17	256	68	410	166	410	3.7				8.793	-B2700	132-22	128	
160	427	4.8	16	267	66	427	160	427	4.8				9.156	-B4300	132-22	131	
157	434	0.9	16	272	64	434	157	434	0.9				9.315	-B450	132-22	113	
153	443	2.3	15	277	63	443	153	443	2.3				9.516	-B1500	132-22	125	
153	444	1.1	15	278	63	444	153	444	1.1				9.520	-B820	132-22	122	
144	472	5.5	14	296	59	472	144	472	5.5				10.137	-B4300	132-22	131	
140	487	1.1	14	305	57	487	140	487	1.1				10.447	-B820	132-22	122	
136	500	1.1	14	313	56	500	136	500	1.1				10.741	-B600	132-22	119	
134	508	2.6	13	318	55	508	134	508	2.6				10.902	-B1500	132-22	125	
132	516	5.5	13	323	54	516	132	516	5.5				11.080	-B4300	132-22	131	
125	544	1.1	12	341	51	544	125	544	1.1				11.680	-B820	132-22	122	
125	546	4.1	12	341	51	546	125	546	4.1				11.713	-B2700	132-22	128	
122	558	2.6	12	349	50	558	122	558	2.6				11.985	-B1500	132-22	125	
120	566	1.0	12	354	49	566	120	566	1.0				12.143	-B820	132-22	122	
114	599	3.8	11	375	47	599	114	599	3.8				12.863	-B2700	132-22	128	
113	600	5.1	11	376	47	600	113	600	5.1				12.885	-B4300	132-22	131	
111	611	1.8	11	382	46	611	111	611	1.8				13.118	-B1500	132-22	125	
109	623	0.9	11	390	45	623	109	623	0.9				13.369	-B600	132-22	119	
109	623	1.0	11	390	45	623	109	623	1.0				13.370	-B820	132-22	122	
104	656	5.1	10	411	43	656	104	656	5.1				14.084	-B4300	132-22	131	
100	681	1.0	9.9	426	41	681	100	681	1.0				14.626	-B820	132-22	122	
99	686	0.9	9.8	429	41	686	99	686	0.9				14.730	-B600	132-22	119	

# g500-B bevel geared motors

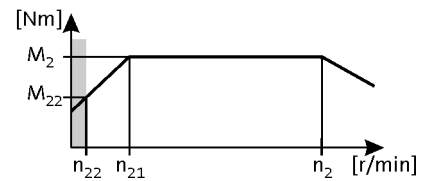


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5 \text{ kW}$   
 87 Hz:  $P_N = 13.2 \text{ kW}$

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation											i	Product		
n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)			g500		MH□MA□□		
n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]		n <sub>22</sub> [r/min]	M <sub>22</sub> [Nm]	n <sub>21</sub> [r/min]	M <sub>2</sub> [Nm]	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c	n <sub>2</sub> [r/min]	M <sub>2</sub> [Nm]	c					
98	694	3.4	9.7	434	40	694	98	694	3.4				14.888	-B2700	132-22	128	
97	704	2.1	9.6	441	40	704	97	704	2.1				15.111	-B1500	132-22	125	
89	762	3.2	8.9	477	37	762	89	762	3.2				16.351	-B2700	132-22	128	
89	762	0.9	8.9	477	37	762	89	762	0.9				16.352	-B820	132-22	122	
88	774	1.9	8.7	484	36	774	88	774	1.9				16.611	-B1500	132-22	125	
86	788	4.8	8.6	493	36	788	86	788	4.8				16.913	-B4300	132-22	131	
79	861	4.8	7.8	539	33	861	79	861	4.8				18.486	-B4300	132-22	131	
79	867	1.7	7.8	542	32	867	79	867	1.7				18.598	-B1500	132-22	125	
78	869	0.9	7.8	544	32	869	78	869	0.9				18.655	-B820	132-22	122	
75	911	2.8	7.4	570	31	911	75	911	2.8				19.542	-B2700	132-22	128	
71	953	1.6	7.1	596	29	953	71	953	1.6				20.444	-B1500	132-22	125	
70	972	0.8	7.0	608	29	972	70	972	0.8				20.857	-B820	132-22	122	
69	982	4.4	6.9	614	29	982	69	982	4.4				21.065	-B4300	132-22	131	
66	1038	2.6	6.5	649	27	1038	66	1038	2.6				22.269	-B2700	132-22	128	
64	1067	1.4	6.3	667	26	1067	64	1067	1.4				22.898	-B1500	132-22	125	
63	1081	4.0	6.2	676	26	1081	63	1081	4.0				23.206	-B4300	132-22	131	
60	1140	2.4	5.9	713	25	1140	60	1140	2.4				24.456	-B2700	132-22	128	
58	1182	3.6	5.7	739	24	1182	58	1182	3.6				25.365	-B4300	132-22	131	
54	1249	2.2	5.4	782	22	1249	54	1249	2.2				26.814	-B2700	132-22	128	
52	1305	3.3	5.2	817	21	1305	52	1305	3.3				28.013	-B4300	132-22	131	
50	1361	1.1	5.0	851	21	1361	50	1361	1.1				29.206	-B1500	132-22	125	
50	1372	2.0	4.9	858	20	1372	50	1372	2.0				29.447	-B2700	132-22	128	
47	1449	3.0	4.7	906	19	1449	47	1449	3.0				31.097	-B4300	132-22	131	
45	1517	1.0	4.5	949	18	1517	45	1517	1.0				32.547	-B1500	132-22	125	
44	1532	1.8	4.4	958	18	1532	44	1532	1.8				32.873	-B2700	132-22	128	
41	1659	2.6	4.1	1038	17	1659	41	1659	2.6				35.607	-B4300	132-22	131	
41	1667	0.9	4.1	1043	17	1667	41	1667	0.9				35.778	-B1500	132-22	125	
40	1682	1.6	4.0	1052	17	1682	40	1682	1.6				36.102	-B2700	132-22	128	
38	1796	2.4	3.8	1124	16	1796	38	1796	2.4				38.546	-B4300	132-22	131	
34	1992	2.2	3.4	1246	14	1992	34	1992	2.2				42.760	-B4300	132-22	131	
34	1993	1.4	3.4	1247	14	1993	34	1993	1.4				42.772	-B2700	132-22	128	
31	2178	2.0	3.1	1362	13	2178	31	2178	2.0				46.737	-B4300	132-22	131	
30	2279	1.2	3.0	1426	12	2279	30	2279	1.2				48.912	-B2700	132-22	128	
27	2482	1.7	2.7	1552	11	2482	27	2482	1.7				53.258	-B4300	132-22	131	
27	2520	1.1	2.7	1576	11	2520	27	2520	1.1				54.082	-B2700	132-22	128	

# g500-B bevel geared motors

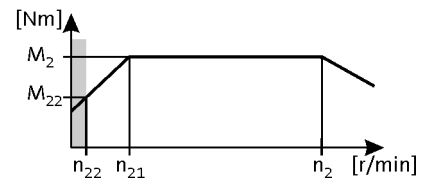
Technical data



## Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5$  kW  
87 Hz:  $P_N = 13.2$  kW

3-stage gearboxes



Mains operation 400 V, 50 Hz			Inverter operation										i	Product		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_2$ [r/min]	$M_2$ [Nm]	c				
25	2734	1.6	2.5	1710	10	2734	25	2734	1.6				58.671	-B4300	132-22	131
25	2767	1.0	2.4	1731	10	2767	25	2767	1.0				59.393	-B2700	132-22	128
23	2988	1.4	2.3	1869	9.4	2988	23	2988	1.4				64.127	-B4300	132-22	131
20	3352	1.3	2.0	2097	8.3	3352	20	3352	1.3				71.930	-B4300	132-22	131
20	3353	0.8	2.0	2097	8.3	3353	20	3353	0.8				71.951	-B2700	132-22	128
19	3663	1.2	1.8	2292	7.6	3663	19	3663	1.2				78.619	-B4300	132-22	131
15	4541	1.0	1.5	2841	6.2	4541	15	4541	1.0				97.453	-B4300	132-22	131
14	4963	0.9	1.4	3105	5.6	4963	14	4963	0.9				106.517	-B4300	132-22	131



# g500-B bevel geared motors

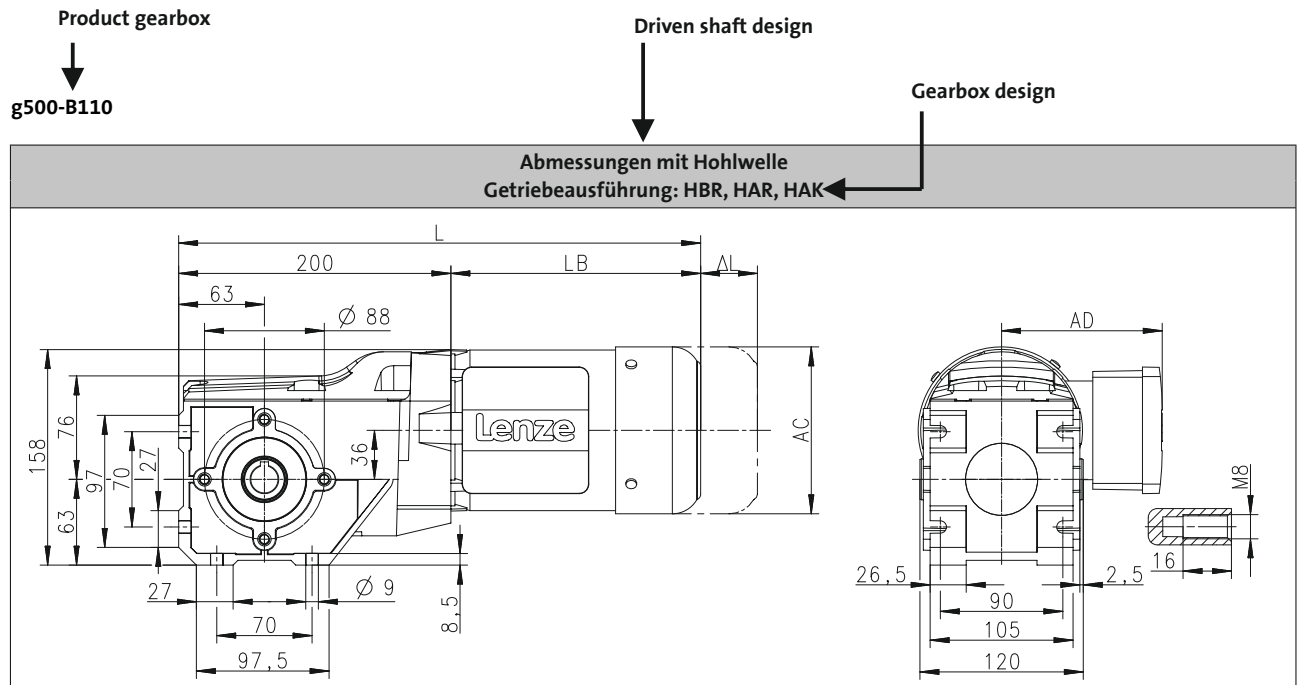
Technical data



## Dimensions, notes

### Notes on the dimensions

The following legend shows the layout of the dimension sheets.



**Product Motor**

Produkt			MD□MA□□						
			063-12	063-32	063-42	071-32	071-42	080-32	080-42
<b>Abmessungen</b>									
Gesamtlänge	L	[mm]	358	378	395	419			
Länge Motor	LB	[mm]	187	207	224.5	248			
Länge Motoranbauten	Δ L	[mm]	170	165	183	181			
Motordurchmesser	AC	[mm]	123	139	156	176			
Abstand Motor/Anschluss	AD	[mm]	100	109	150	157			

Distance of motor centre to the end of terminal box

Motor diameter

Motor length without built-on accessories

Additional length of the built-on accessories (longest version)

Total length of the drive without built-on accessories



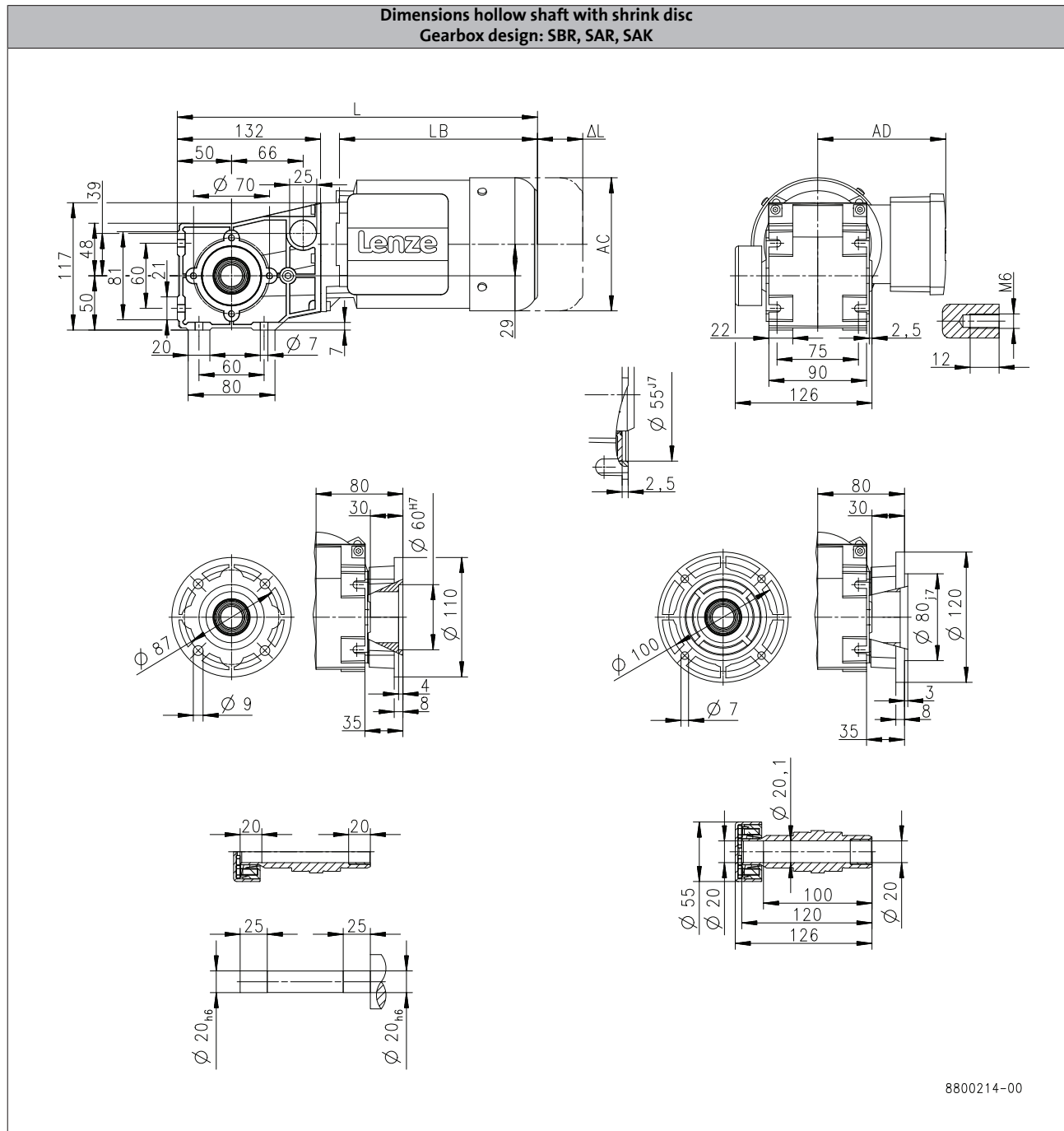
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B45



Product			MD□MA□□					
			063-02	063-12	063-22	063-32	063-42	071-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	305	332	305	332		352
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	156	183	156	183		203
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	135	170	135	170		165
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>			123			139
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>			100			109



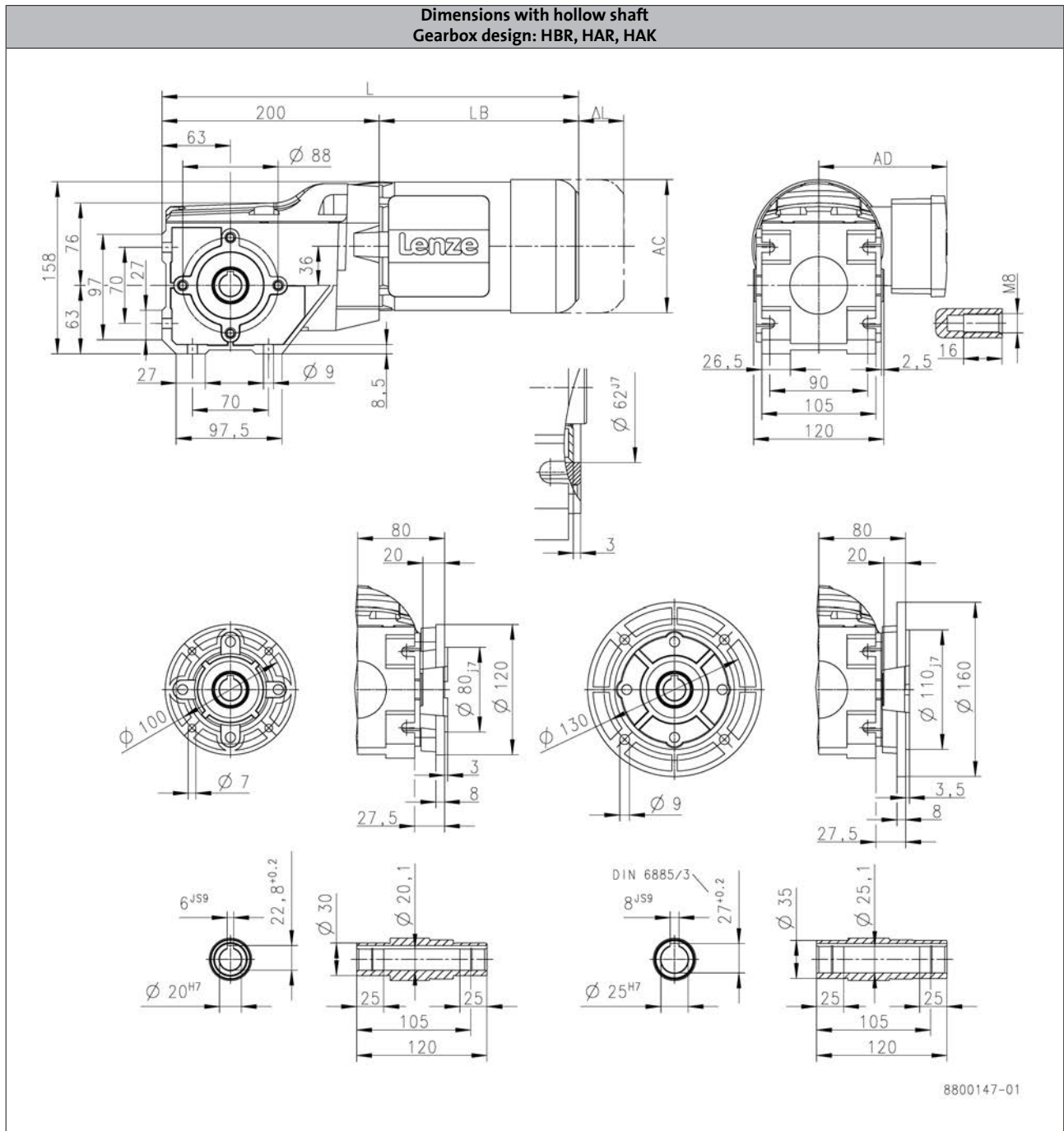
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B110



Product	MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	[mm]		383		403		426	485	
<b>Motor length</b>	<b>LB</b>	[mm]		183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]		170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]		123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]		100		109		150	152	157

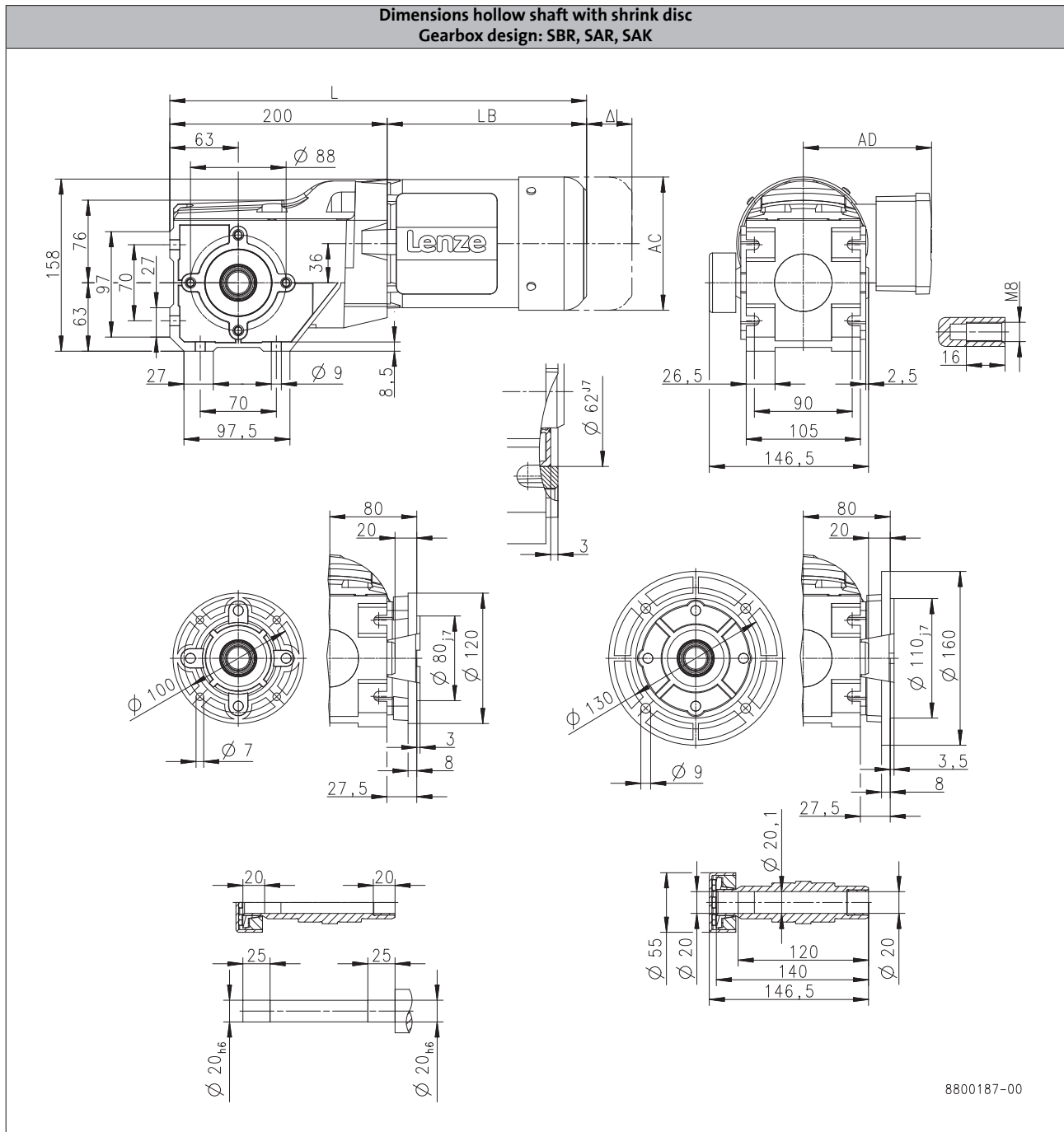
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B110



6.5

Product			MD□MA□□					MH□MA□□		
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		383		403		426		485
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226		285
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183		181
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156		176
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150	152	157

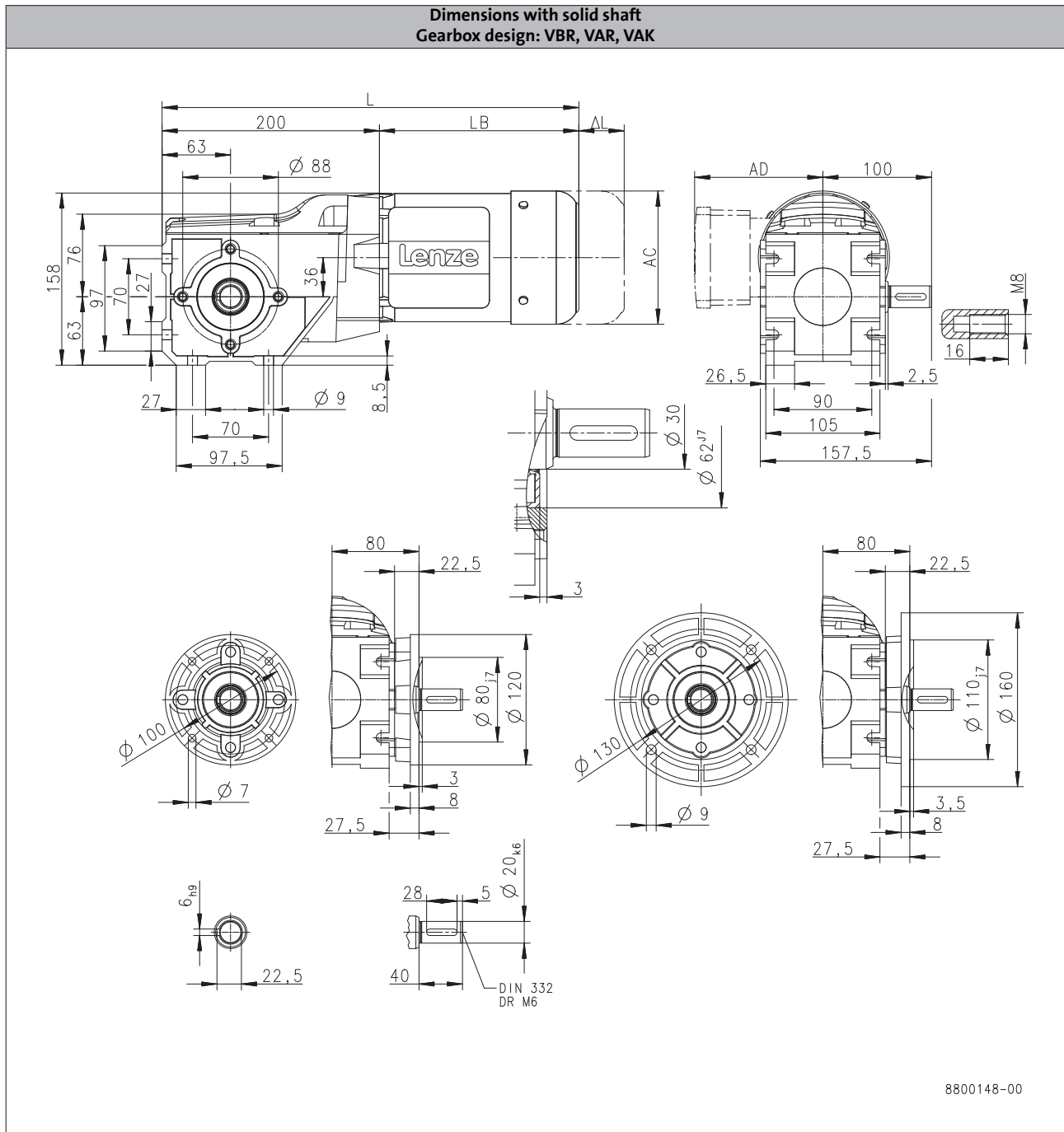
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B110



6.5

Product	MD□MA□□					MH□MA□□			
		063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	383		403		426	485	
<b>Motor length</b>	<b>LB</b>	[mm]	183		203		226	285	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165		183	181	
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139		156	176	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109		150	152	157

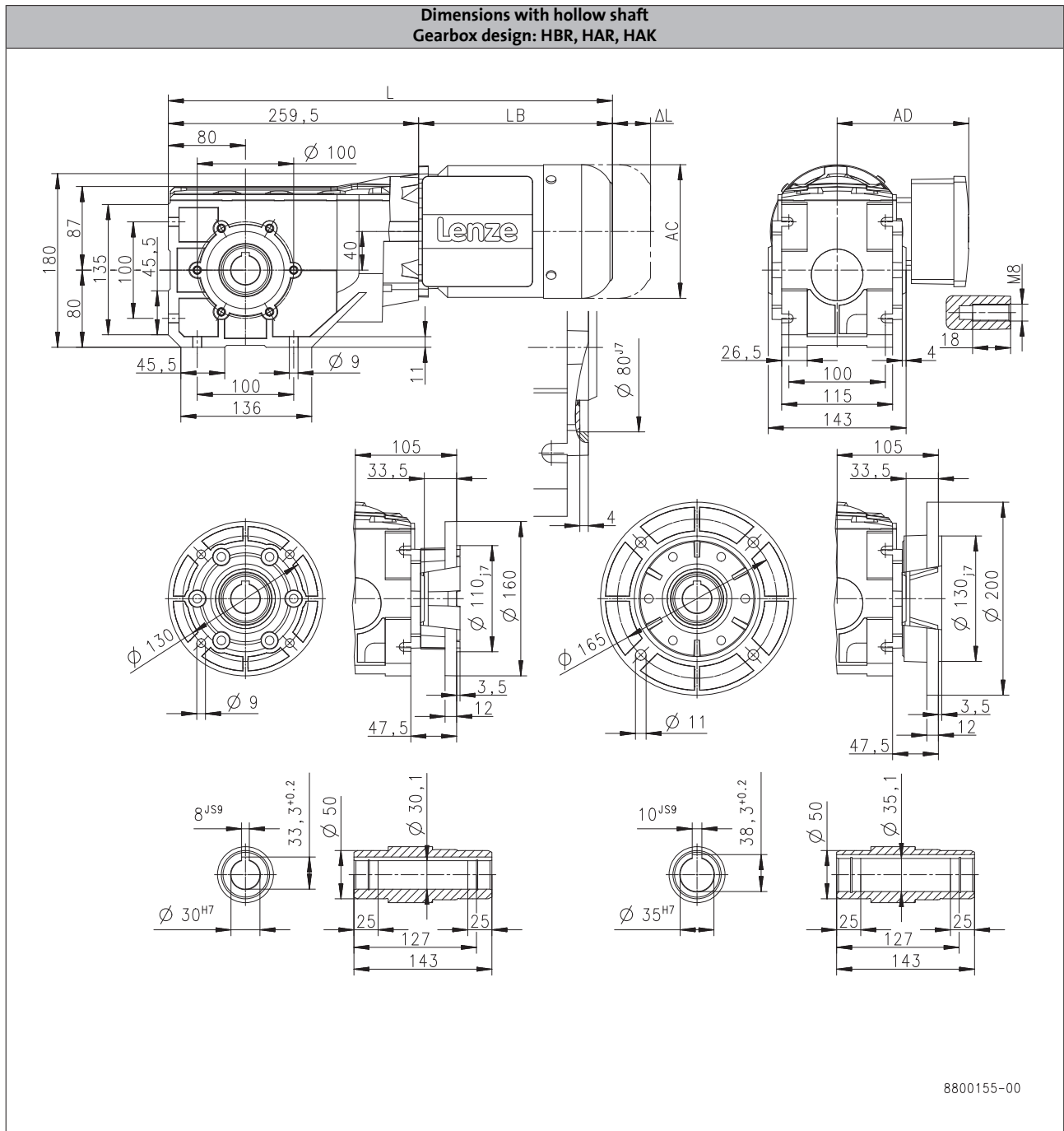
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B240



6.5

8800155-00

Product			MD□MA□□					MH□MA□□				
			063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		443		463		486	545	581	597	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226	285	321	337	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183	181		170	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156	176		194	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150	152	157	166	



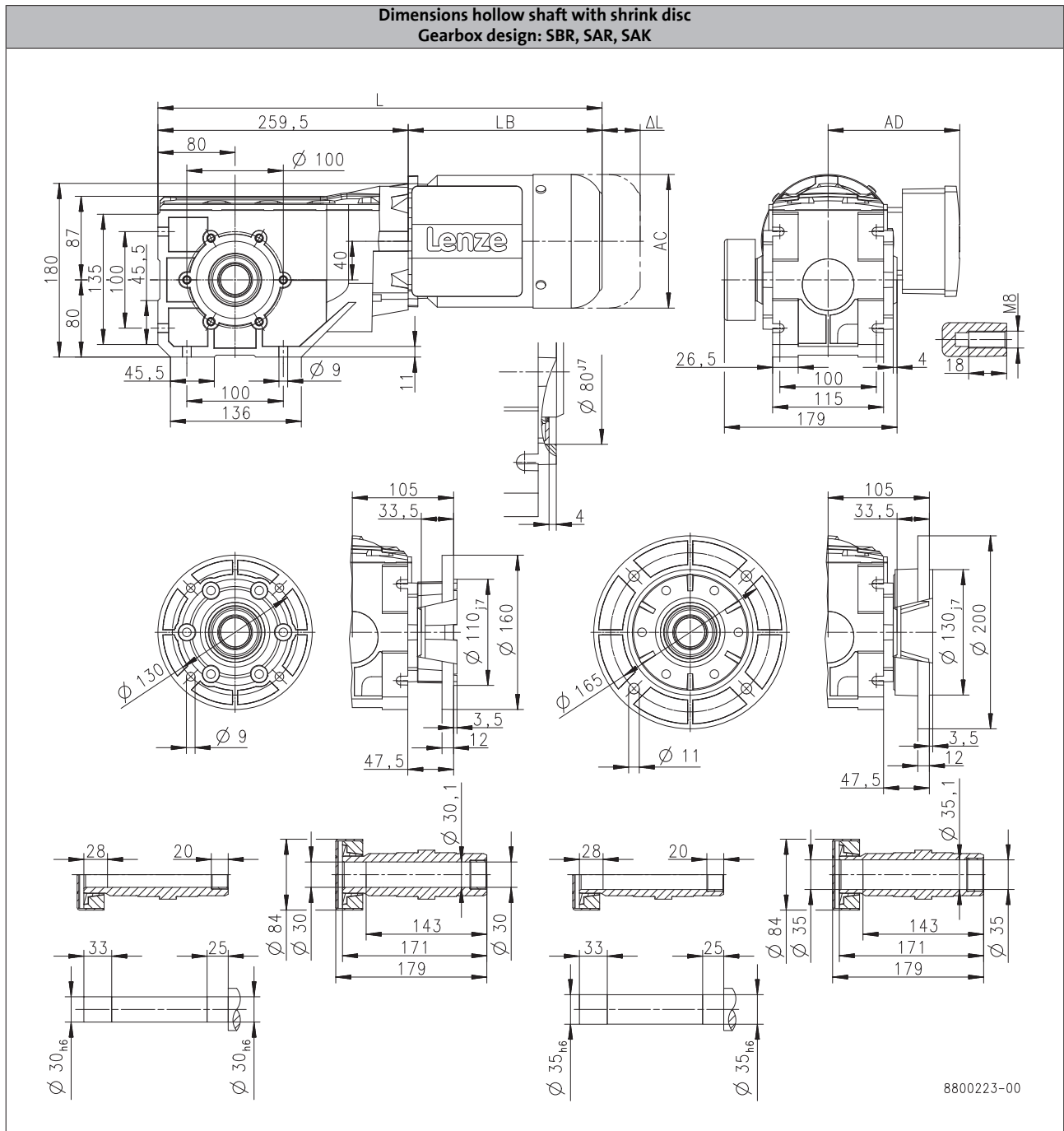
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B240



Product	MD□MA□□					MH□MA□□				
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>										
<b>Total length</b>	L	[mm]	443		463	486	545	581	597	
<b>Motor length</b>	LB	[mm]	183		203	226	285	321	337	
<b>Length of motor options</b>	Δ L	[mm]	170		165	183	181		170	
<b>Motor diameter</b>	AC	[mm]	123		139	156	176		194	
<b>Distance motor/connection</b>	AD	[mm]	100		109	150	152	157	166	

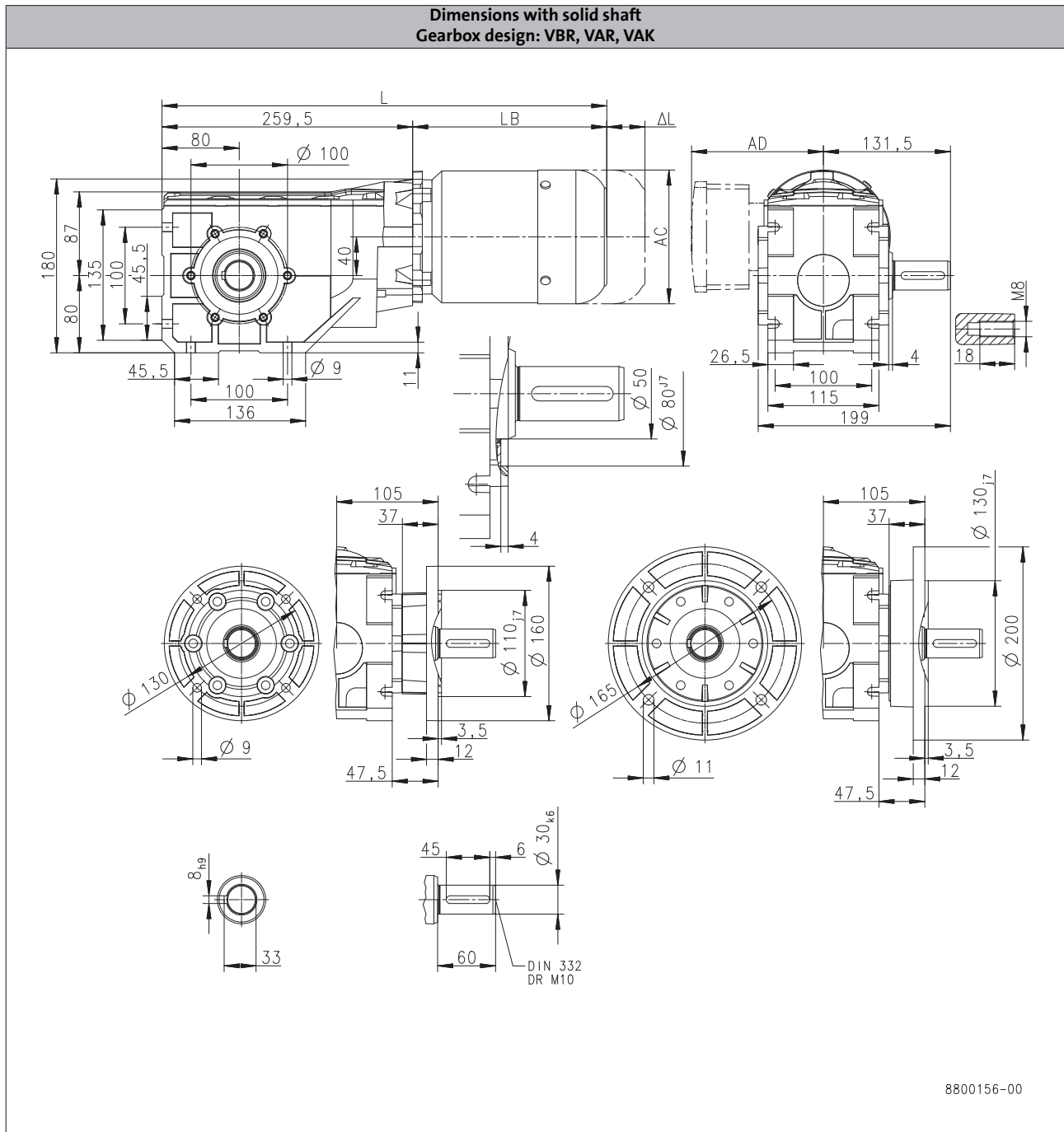
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B240



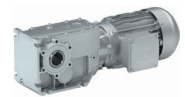
6.5

8800156-00

Product	MD□MA□□					MH□MA□□				
	063-12	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
<b>Dimensions</b>										
<b>Total length</b>	L	[mm]	443		463	486	545		581	597
<b>Motor length</b>	LB	[mm]	183		203	226	285		321	337
<b>Length of motor options</b>	Δ L	[mm]	170		165	183	181		170	
<b>Motor diameter</b>	AC	[mm]	123		139	156	176		194	
<b>Distance motor/connection</b>	AD	[mm]	100		109	150	152	157		166

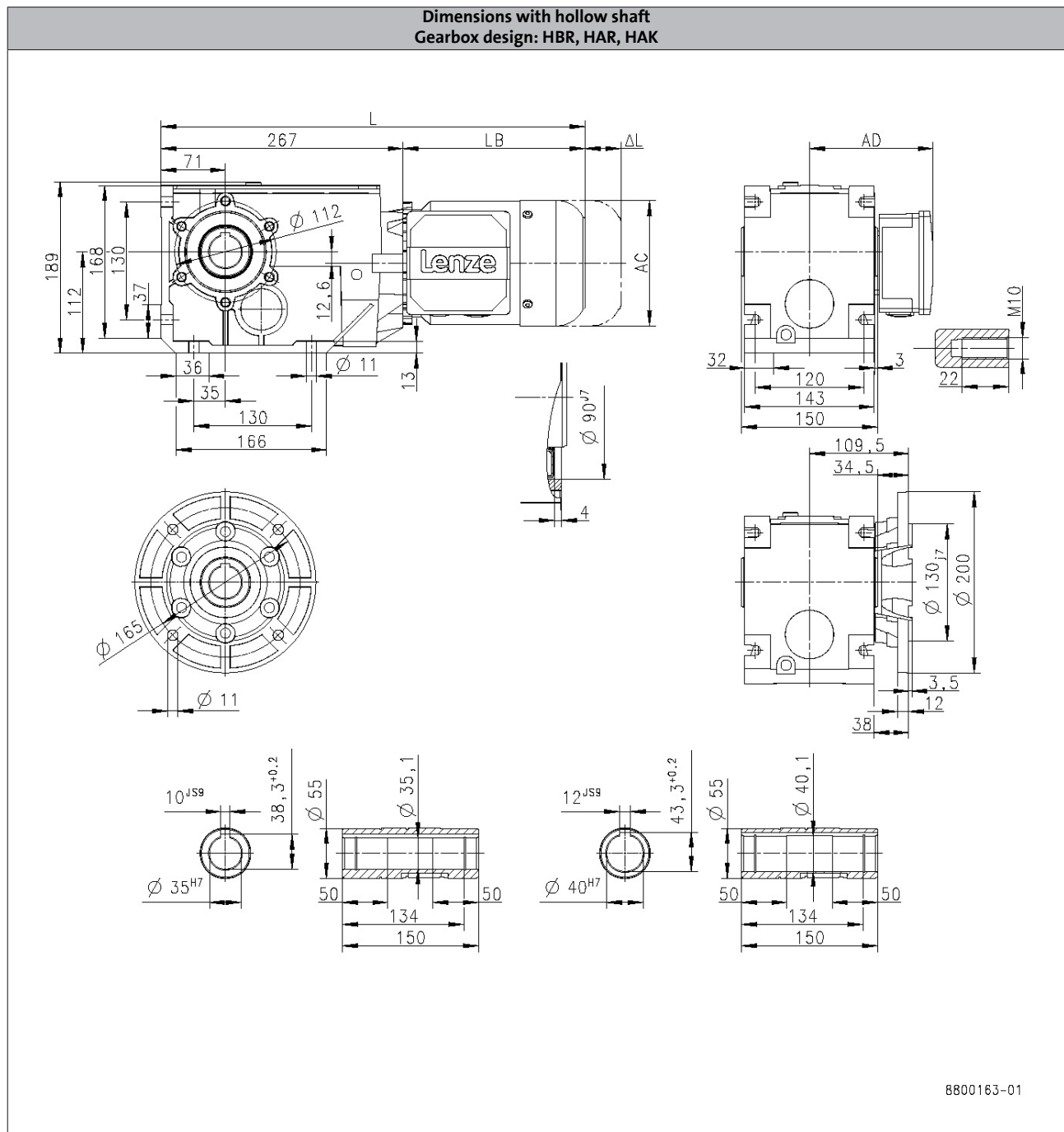
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B450



6.5

Product	MD□MA□□					MH□MA□□
	063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>						
<b>Total length</b>	<b>L</b>	[mm]	450		470	493
<b>Motor length</b>	<b>LB</b>	[mm]	183		203	226
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170		165	183
<b>Motor diameter</b>	<b>AC</b>	[mm]	123		139	156
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100		109	150

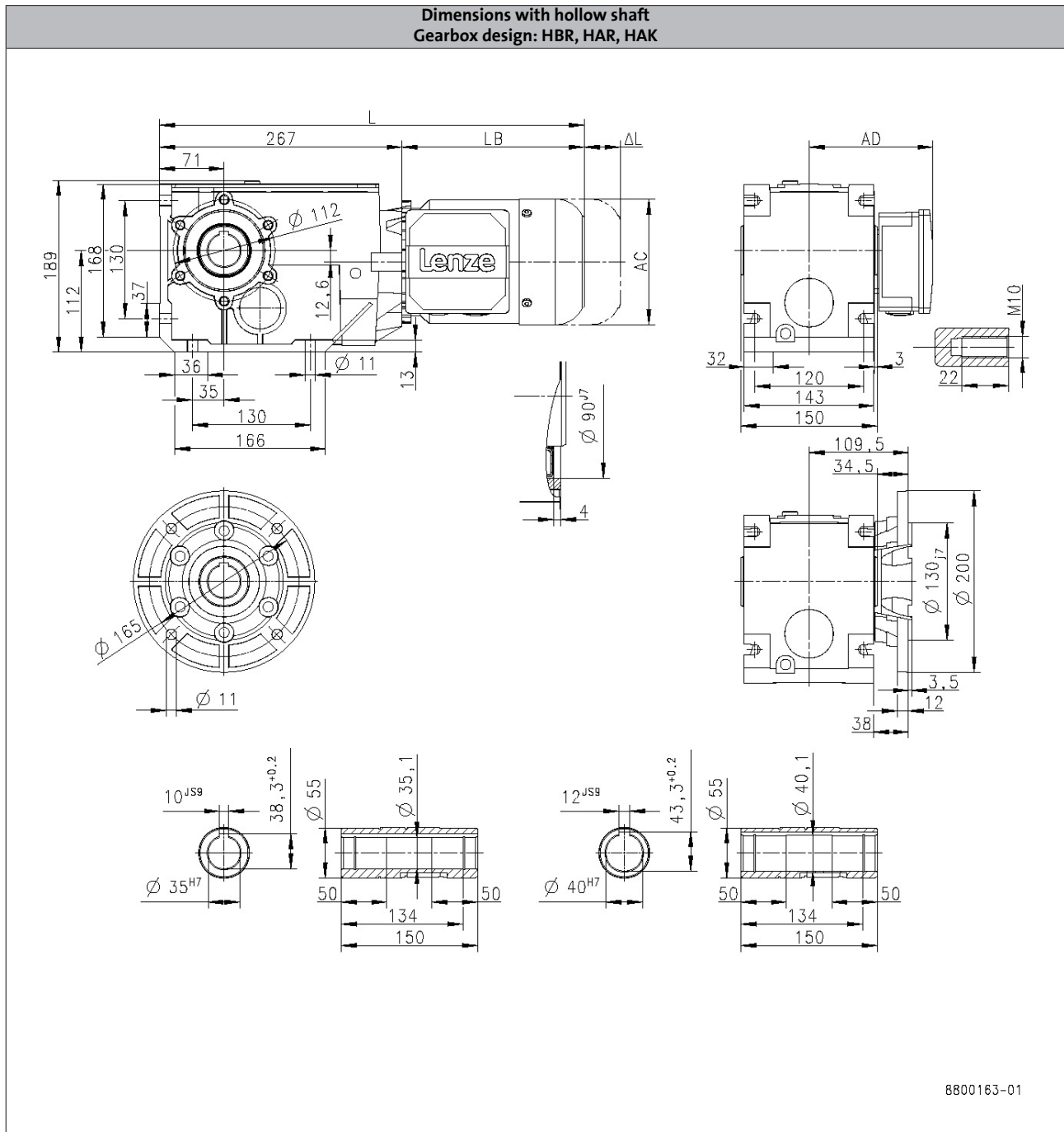
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B450



6.5

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	552		588	604	647	695
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]		176	194		218	258
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166		176	195

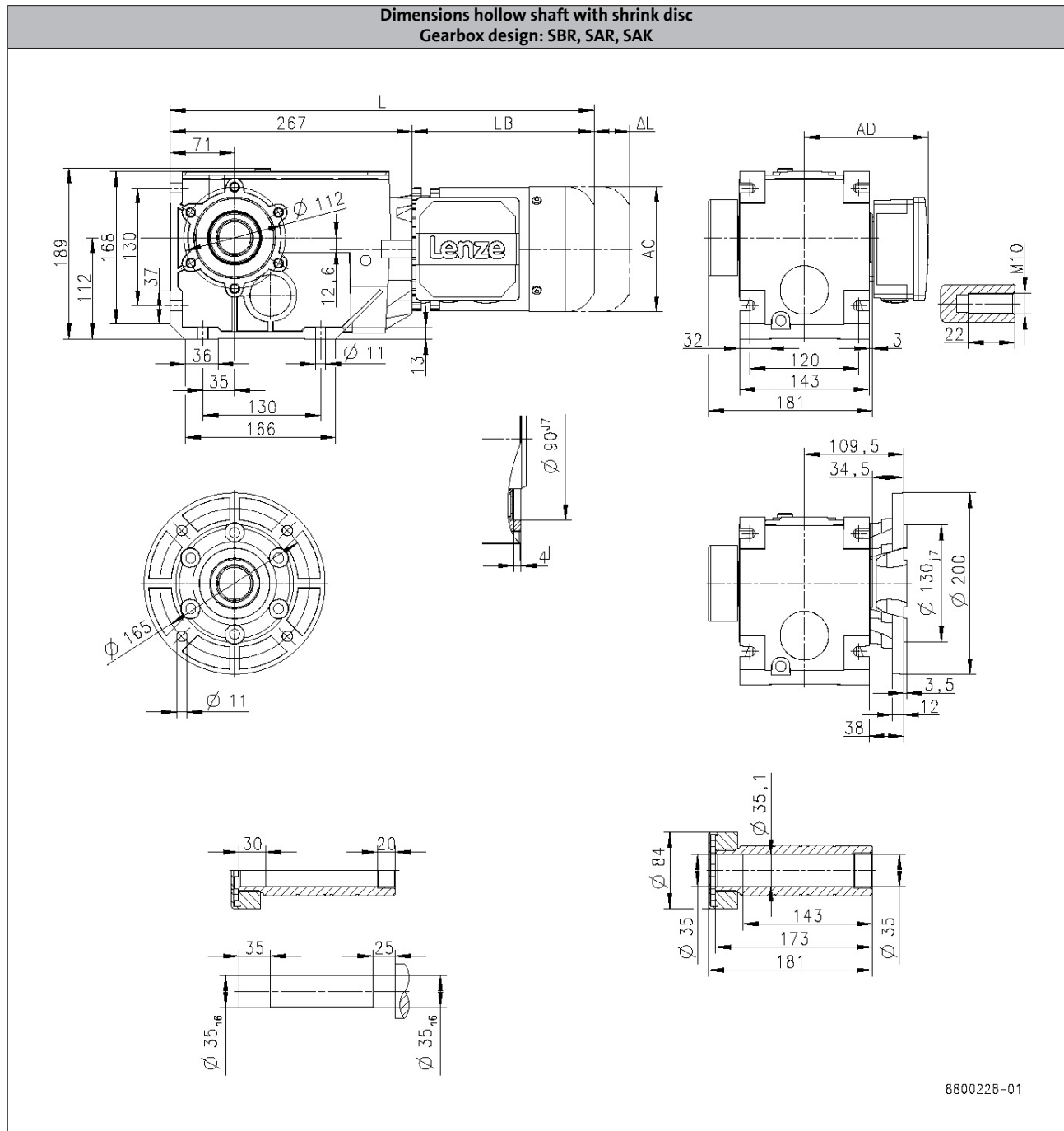
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B450



Product			MD□MA□□				MH□MA□□	
			063-12	063-32	063-42	071-32	071-42	080-32
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		450		470		493
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203		226
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165		183
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139		156
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109		150



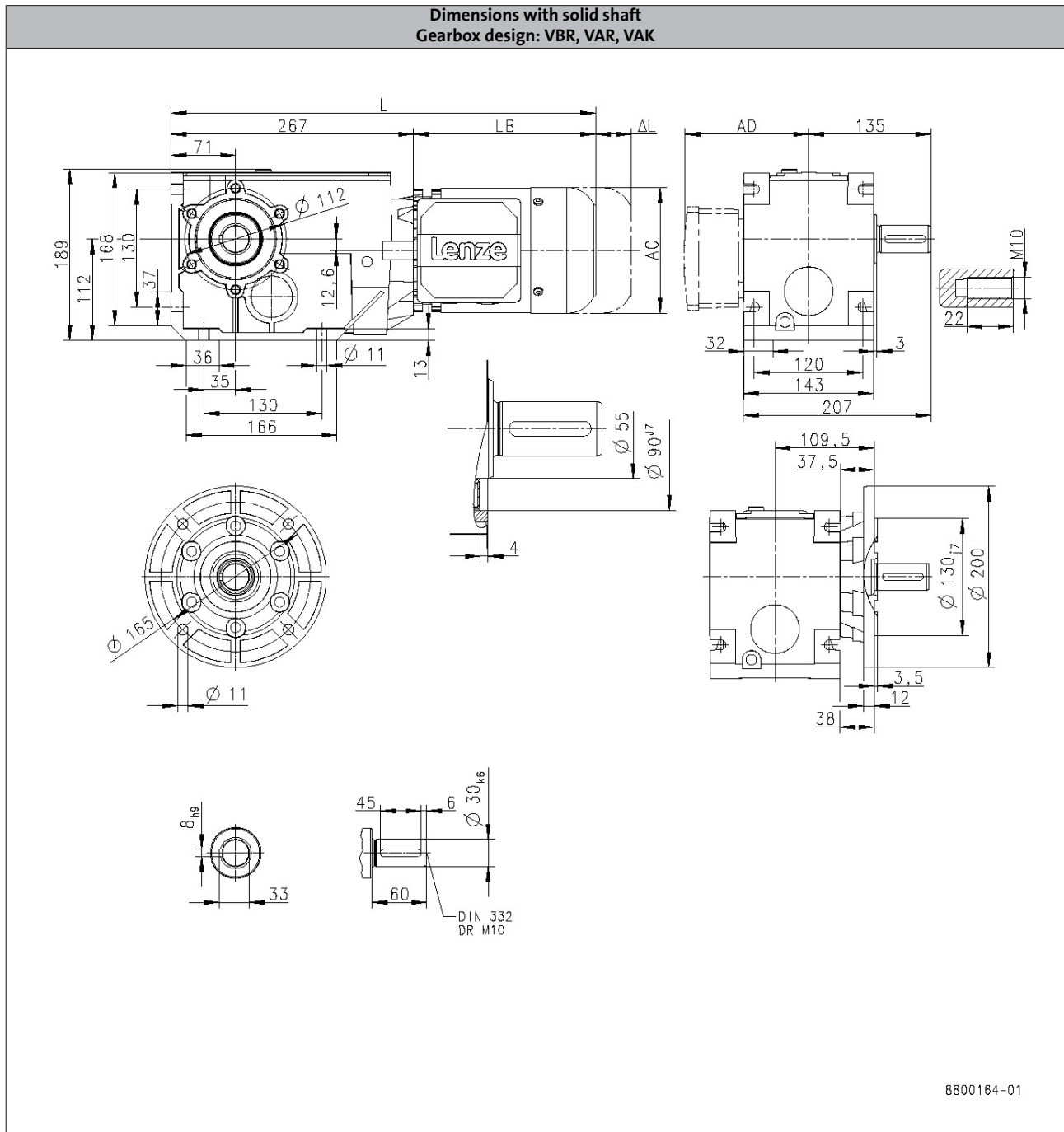
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B450



6.5

Product			MD□MA□□				MH□MA□□
			063-12	063-32	063-42	071-32	071-42
<b>Dimensions</b>							
<b>Total length</b>	<b>L</b>	<b>[mm]</b>		450		470	493
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		203	226
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>		170		165	183
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		123		139	156
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>		100		109	150

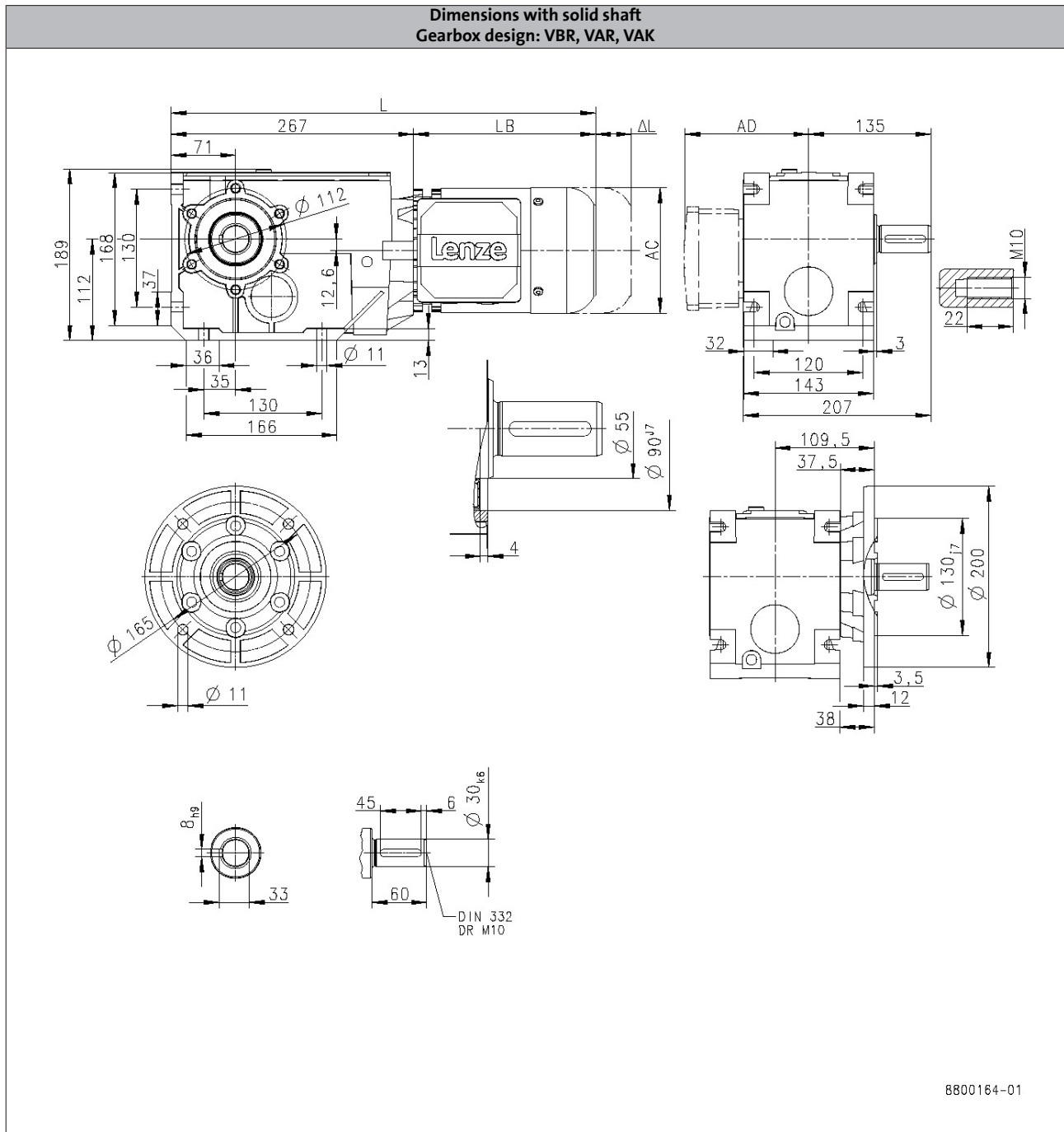
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B450



Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	552	588	604	647	695	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	176		194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166	176	195	



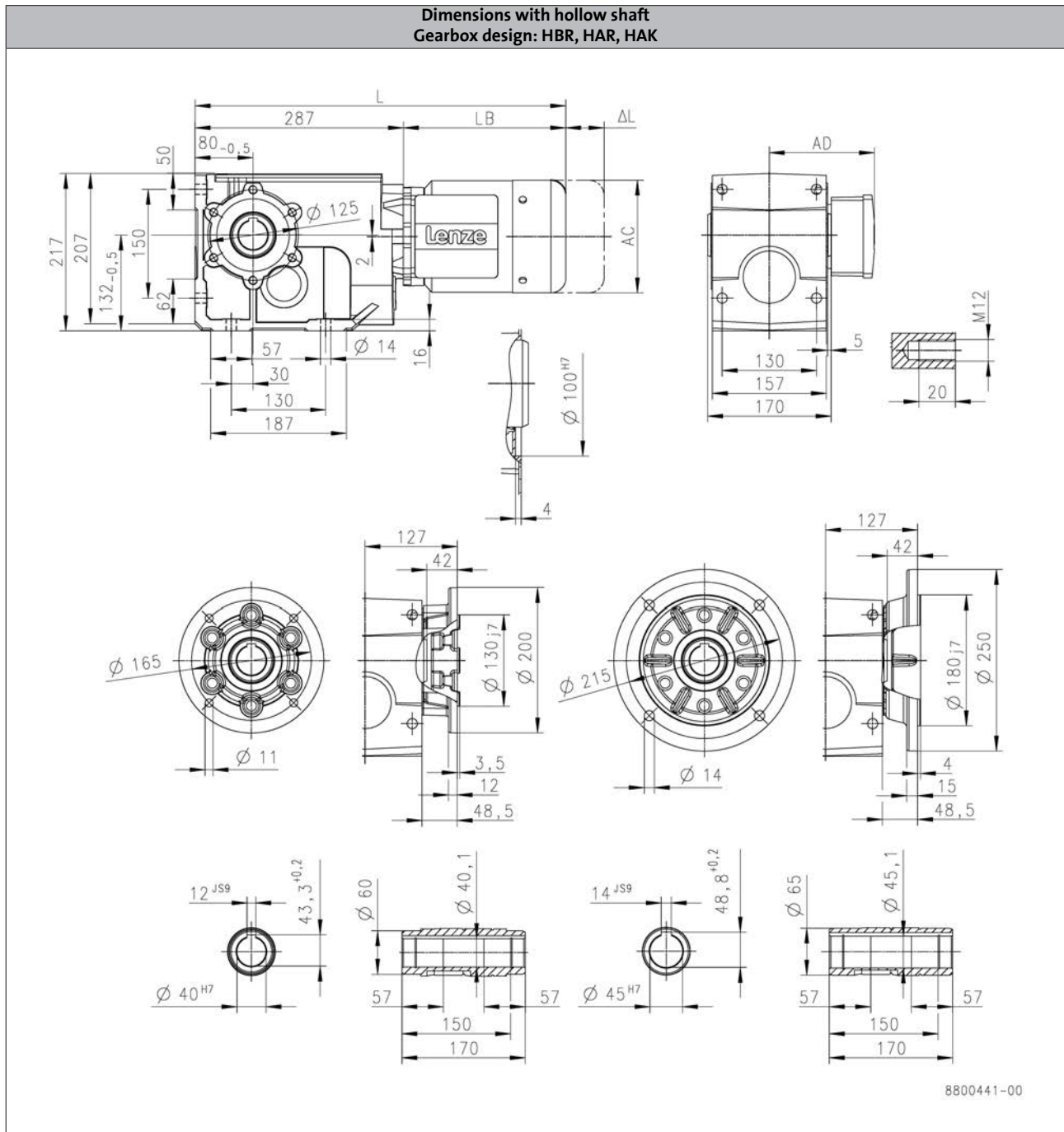
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B600



6.5

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	470	490	513	572	608	624	667	715		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195		

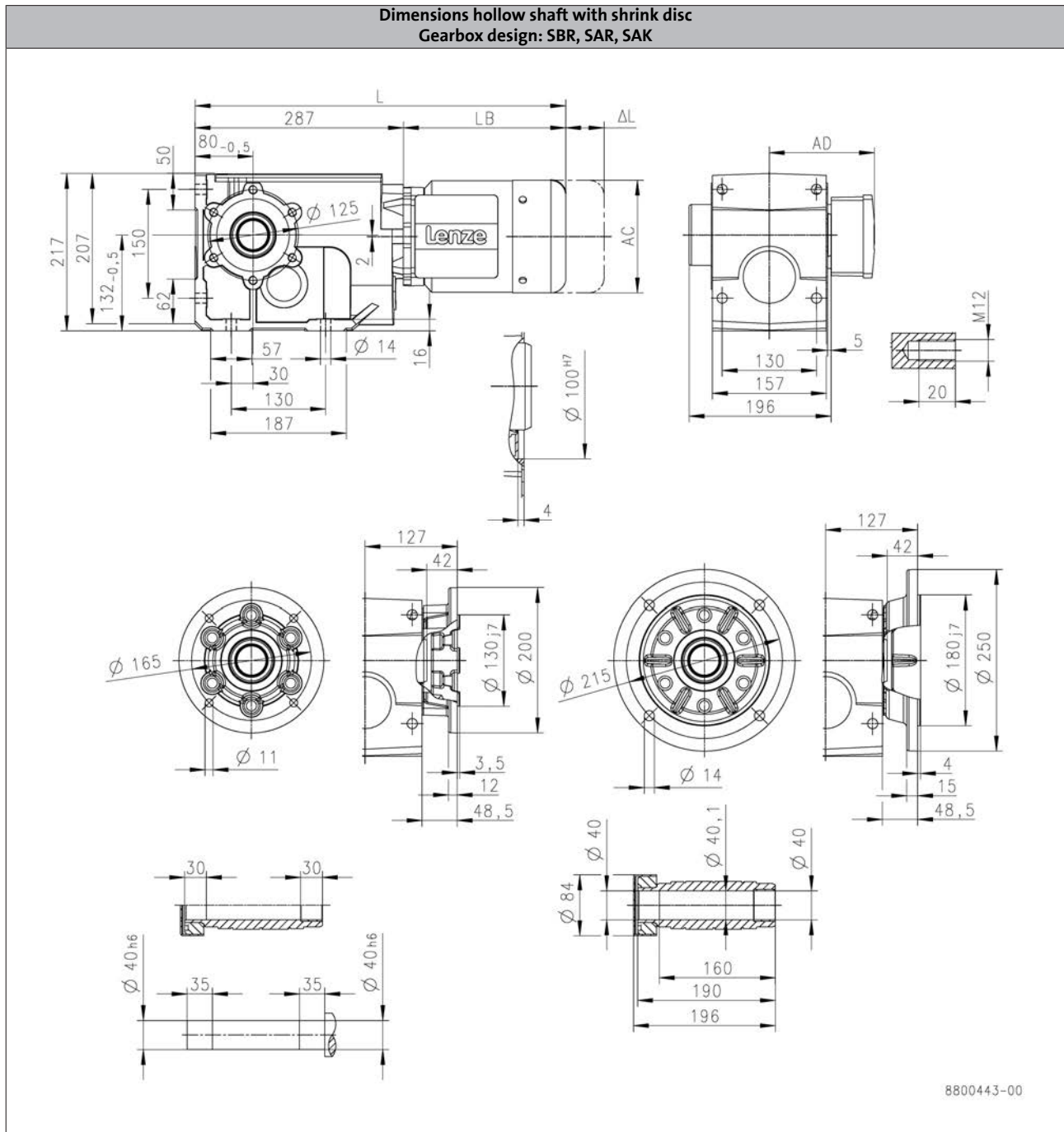
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B600



6.5

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	470	490	513	572	608	624	667	715		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195		

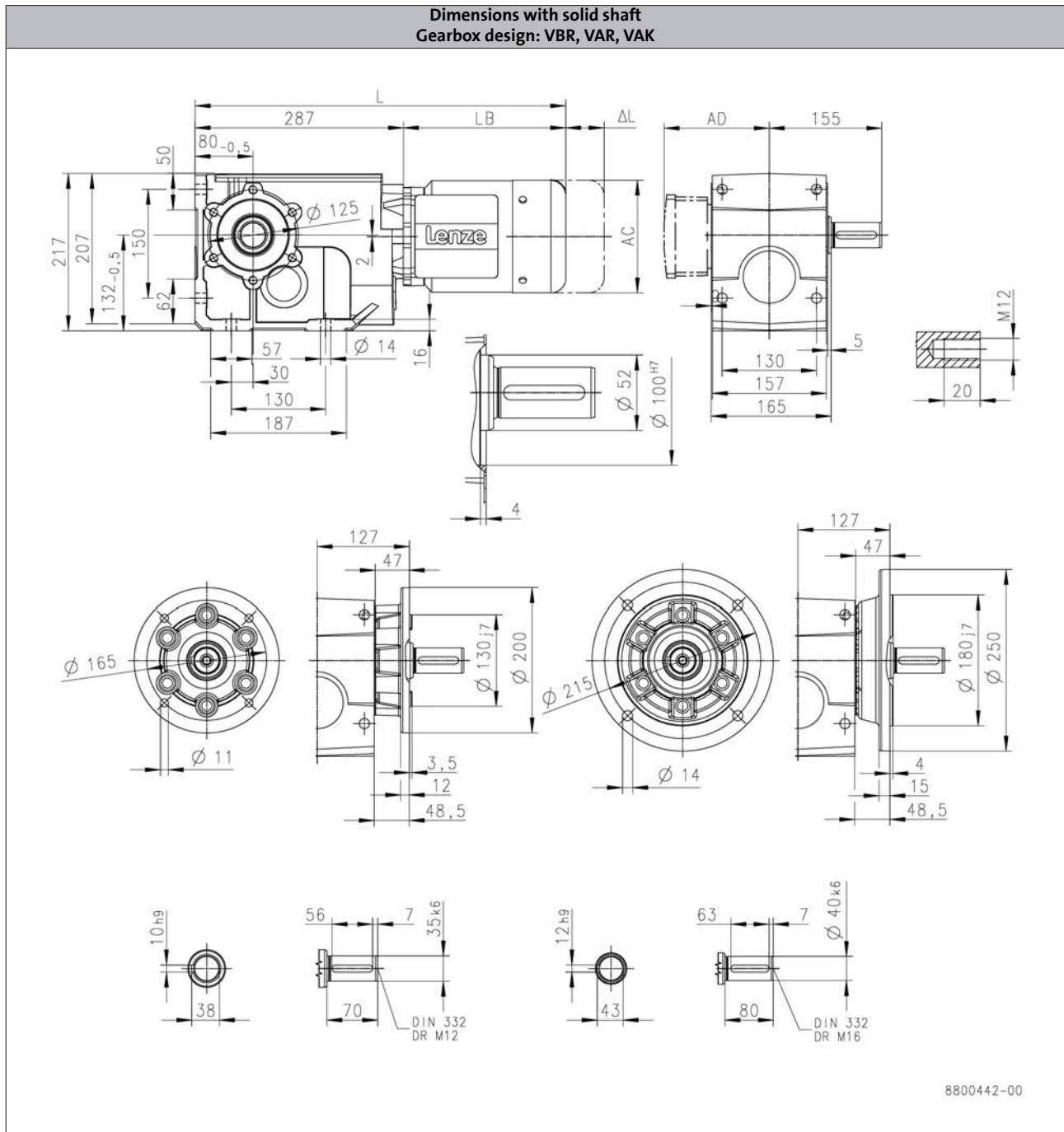
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

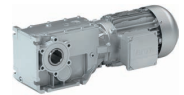
g500-B600



Product			MD□MA□□				MH□MA□□					
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	470	490	513	572	608	624	667	715		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195		

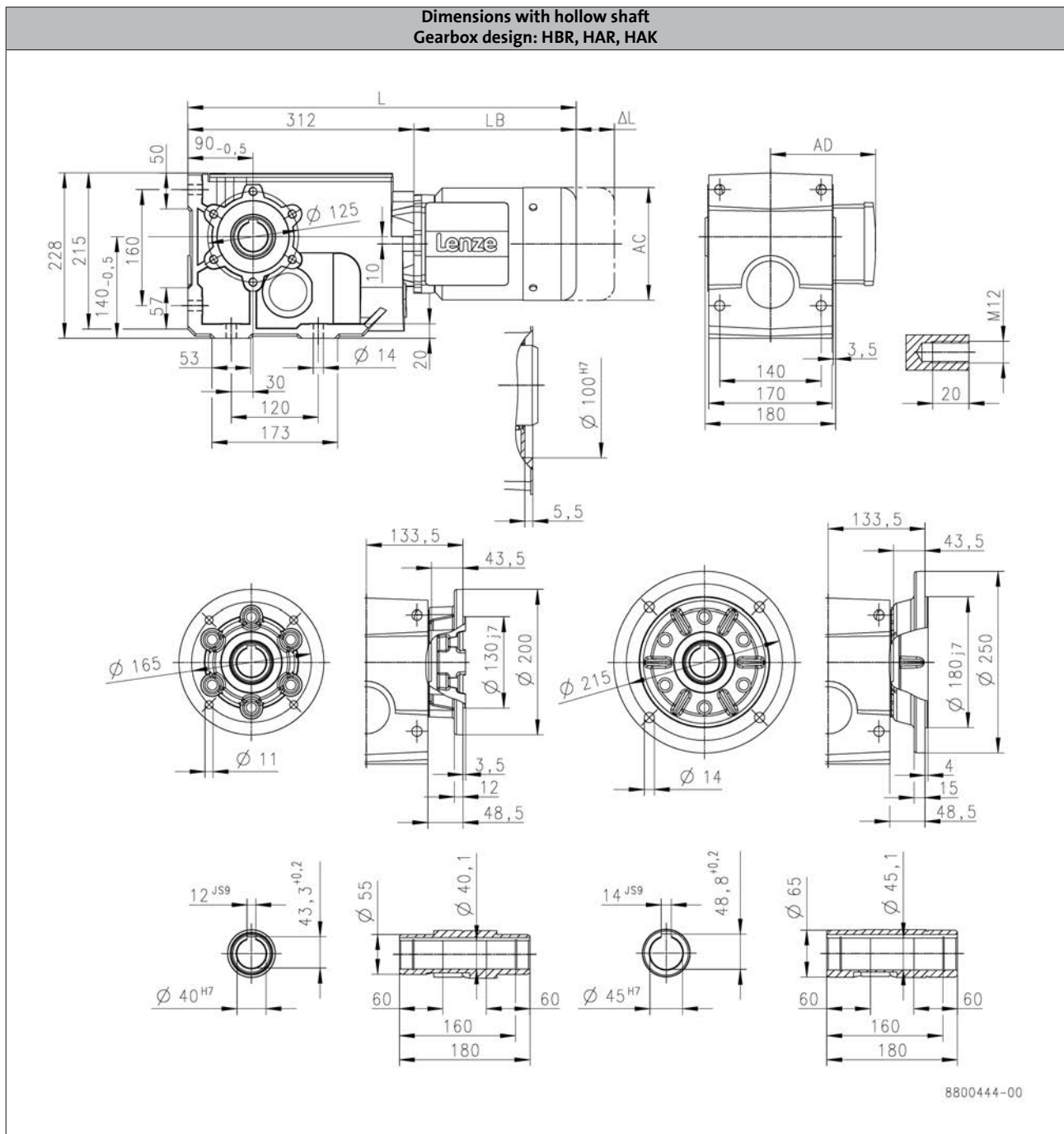
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B820



6.5

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	495	515	538	597	633	649	692	740		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195		

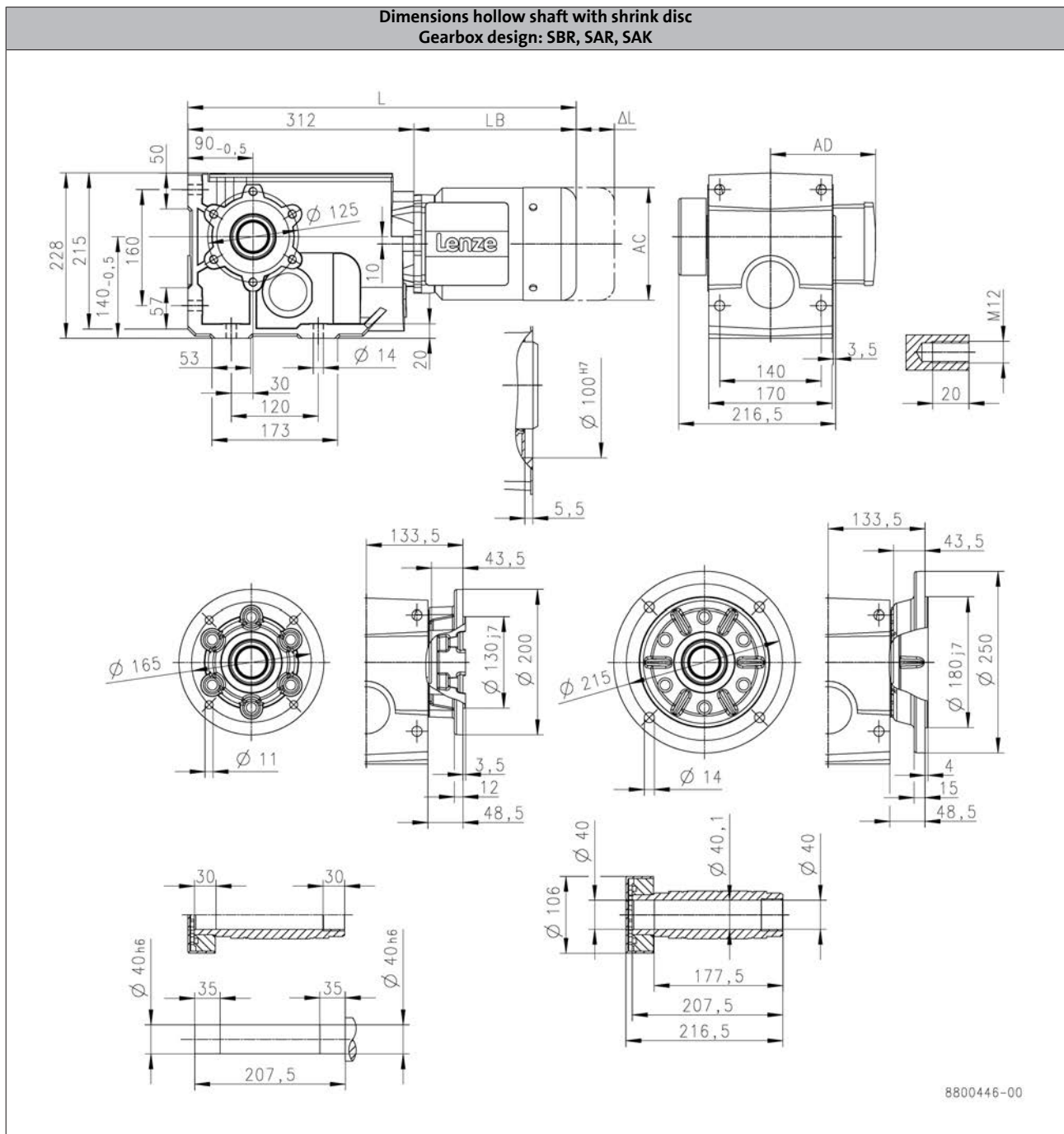
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B820



6.5

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]	495	515	538	597	633	649	692	740		
<b>Motor length</b>	<b>LB</b>	[mm]	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	[mm]	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	100	109	150	152	157	166	176	195		

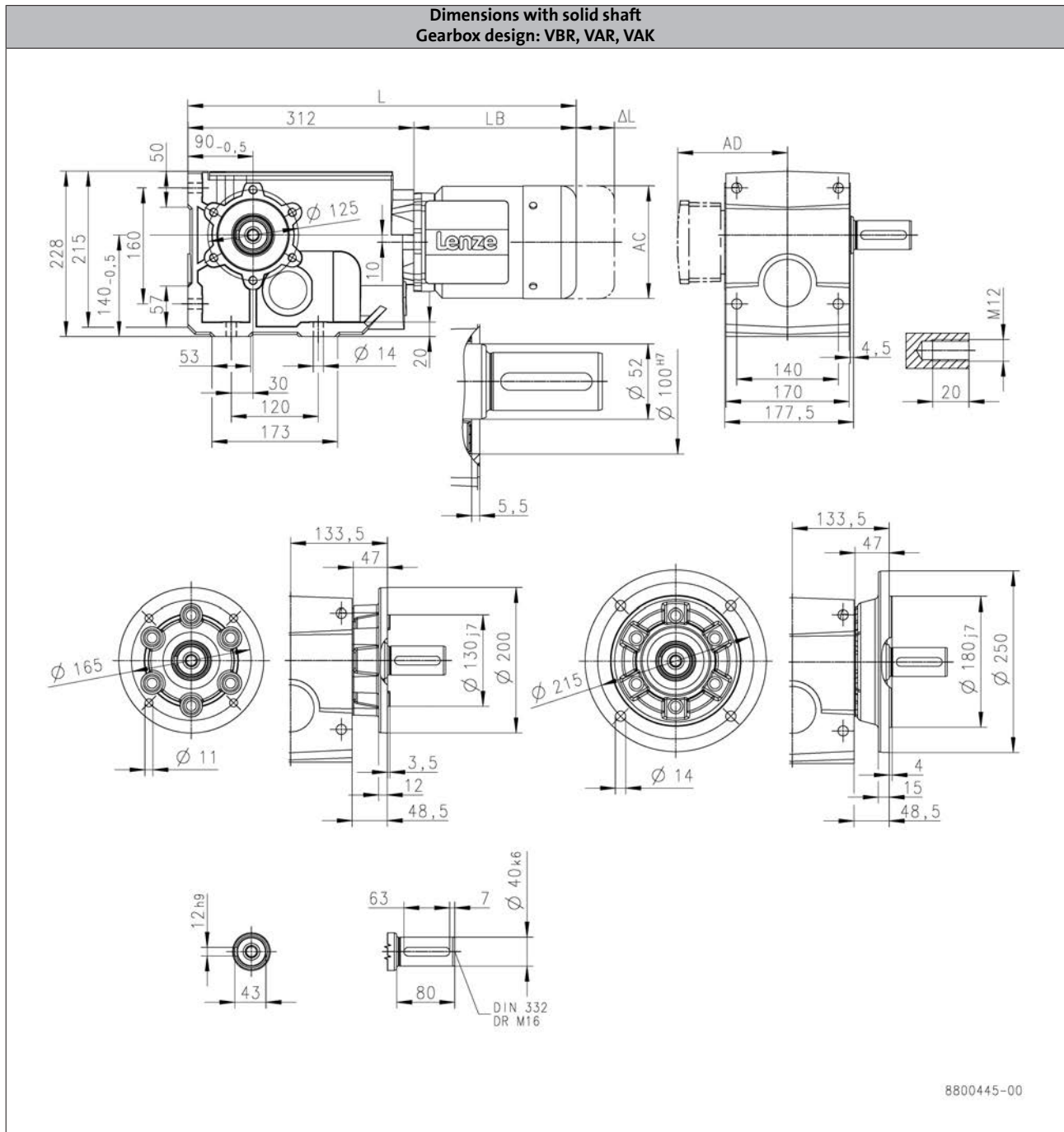
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B820



6.5

Product			MD□MA□□					MH□MA□□				
			063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	495	515	538	597	633	649	692	740		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	170	165	183	181	170	183	202			
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	123	139	156	176	194	218	258			
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	100	109	150	152	157	166	176	195		

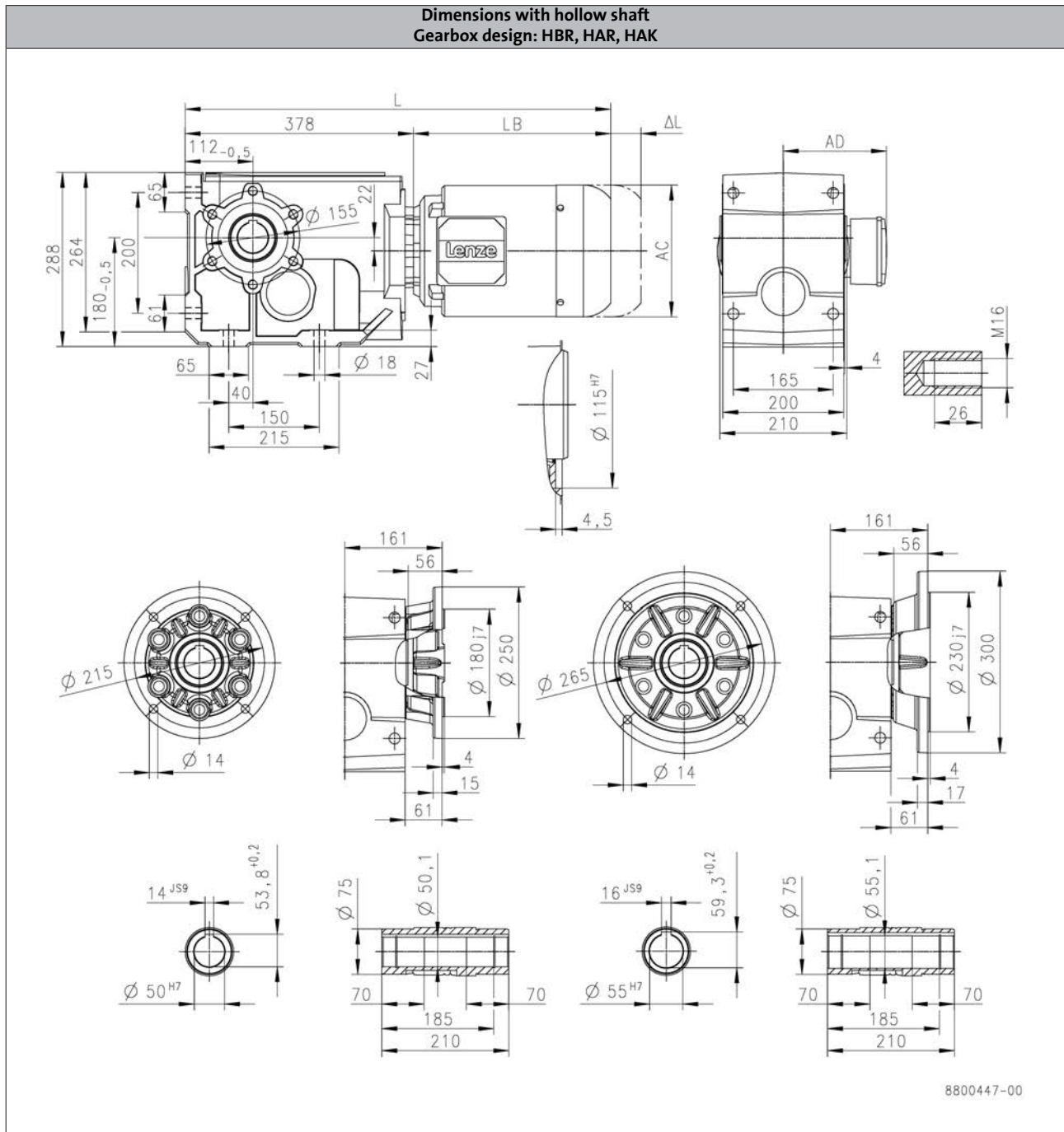
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B1500



Product			MD□MA□□				MH□MA□□			
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>										
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	581	604	663	699	715	758	806	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	203	226	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>			181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	139	156	176		194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	109	150	152	157	166	176	195	

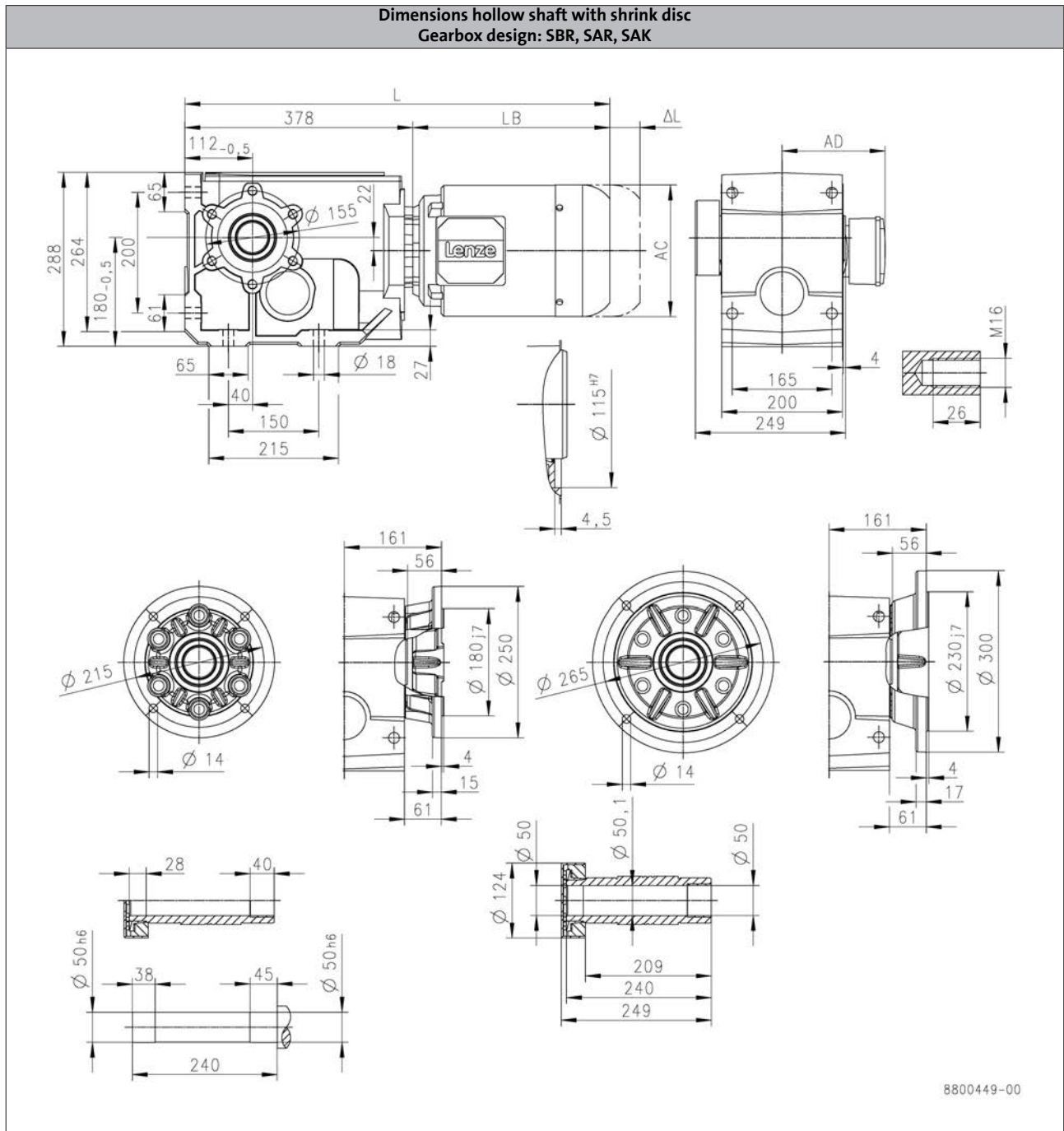
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B1500



6.5

Product			MD□MA□□				MH□MA□□				
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	[mm]	581	604	663	699	715	758		806	
<b>Motor length</b>	<b>LB</b>	[mm]	203	226	285	321	337	380		428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]			181		170	183		202	
<b>Motor diameter</b>	<b>AC</b>	[mm]	139	156	176		194	218		258	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	109	150	152	157	166	176		195	



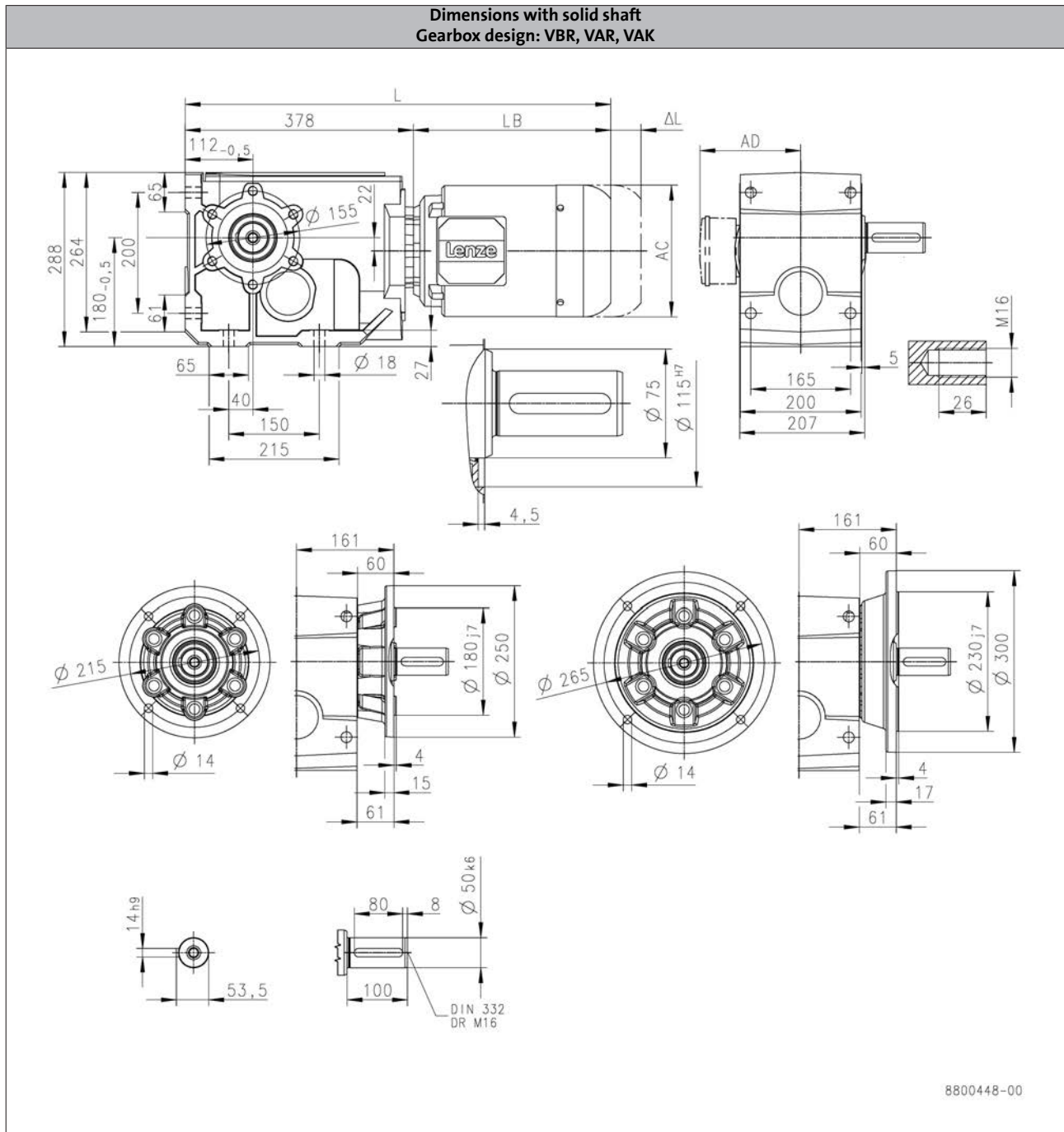
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B1500



Product			MD□MA□□		MH□MA□□						
			071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>											
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	581	604	663	699	715	758	806		
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	203	226	285	321	337	380	428		
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	165	183	181		170	183	202		
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>	139	156	176		194	218	258		
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	109	150	152	157	166	176	195		

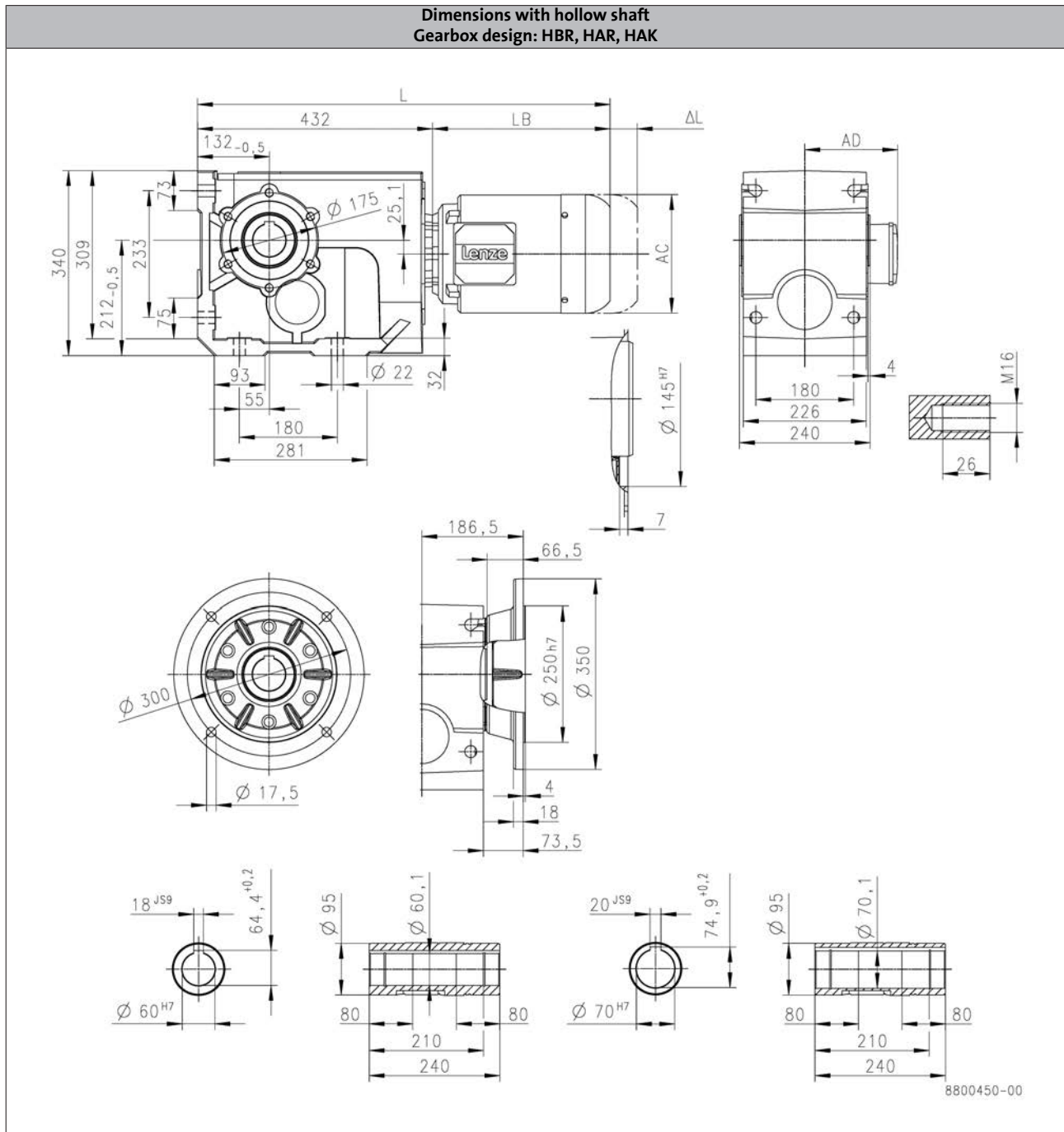
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B2700



6.5

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	717		753	769	812	860
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]			176		194	218
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157		166	176	195

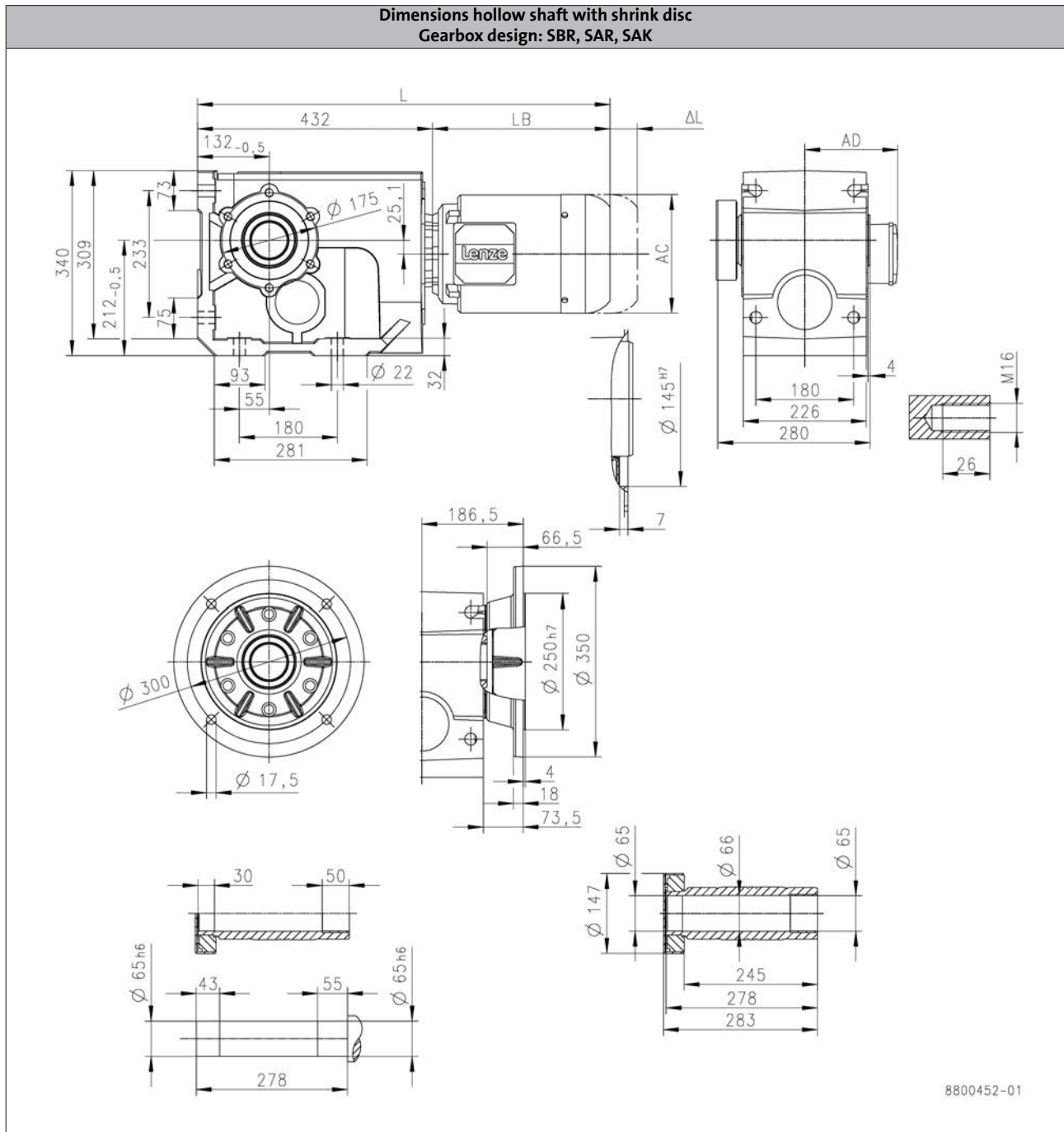
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B2700



Product	MH□MA□□								
			090-12	090-32	100-12	100-32	112-22	132-12	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	717		753	769	812		860
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		321	337	380		428
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170		183		202
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		176		194	218		258
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157		166	176		195

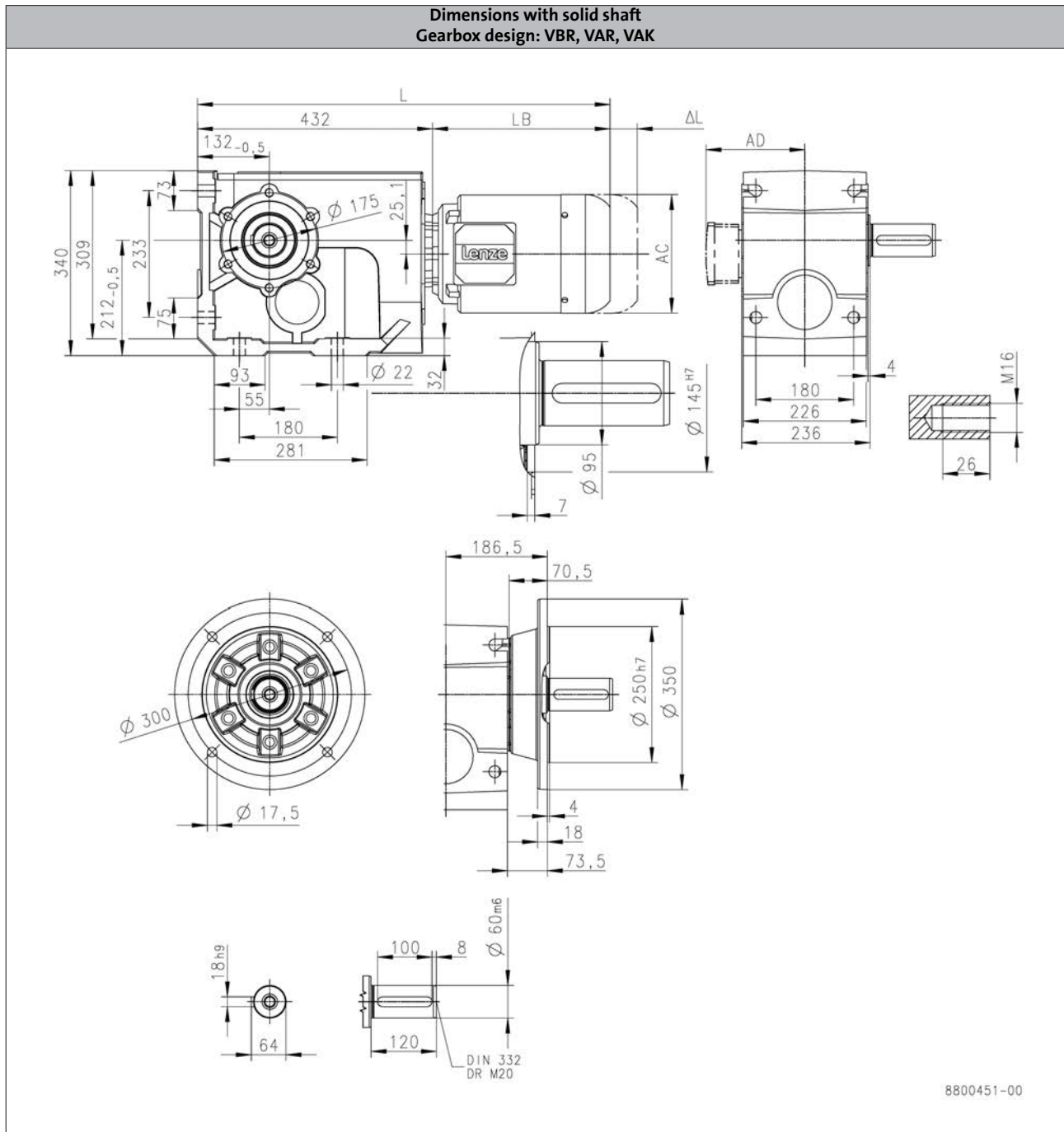
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B2700

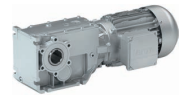


6.5

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	717	753	769	812	860	
<b>Motor length</b>	<b>LB</b>	[mm]	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	[mm]		176	194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166	176	195	

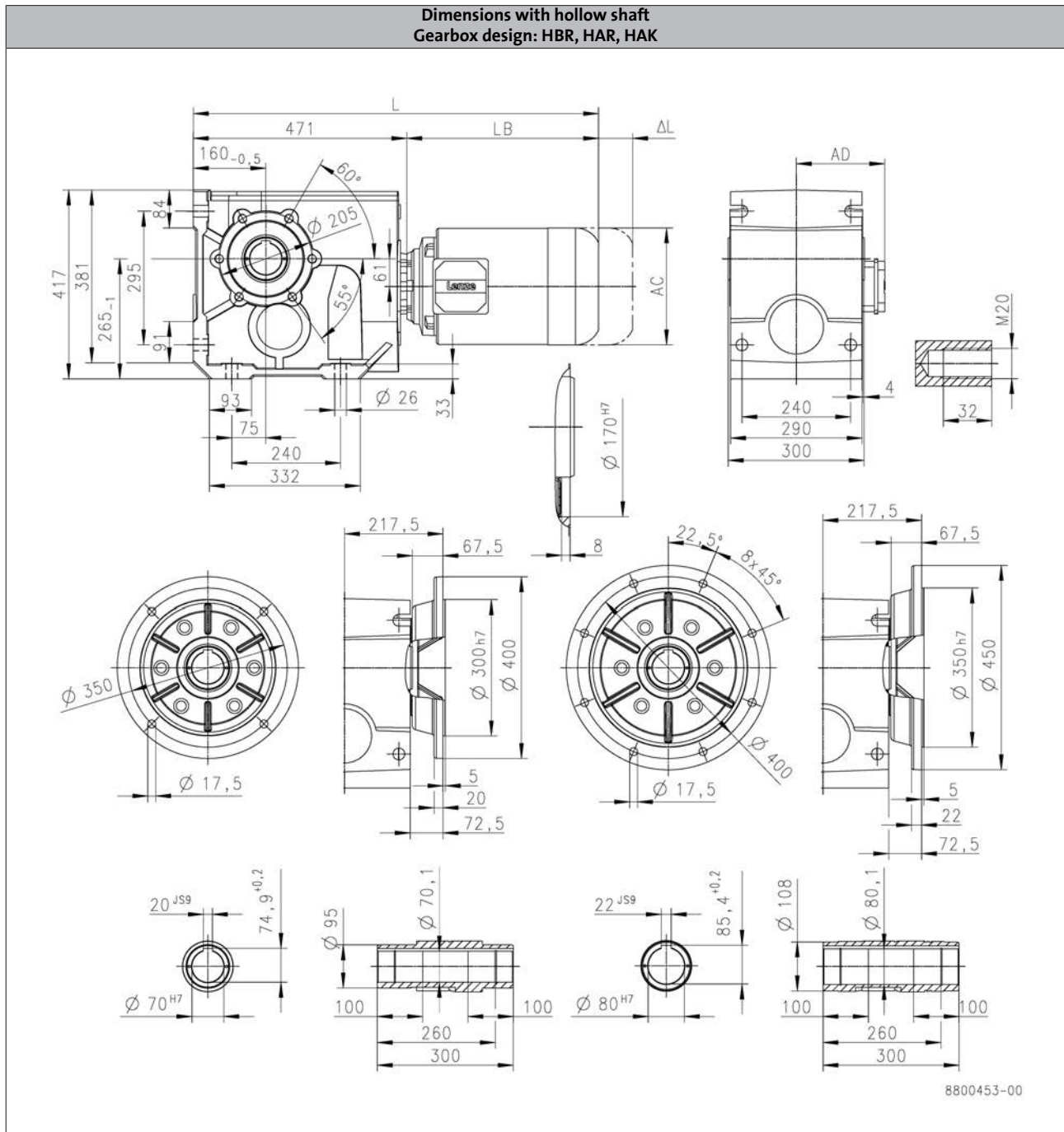
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B4300



Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	756		792	808	851	899
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>Δ L</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]			176		194	218
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157		166	176	195

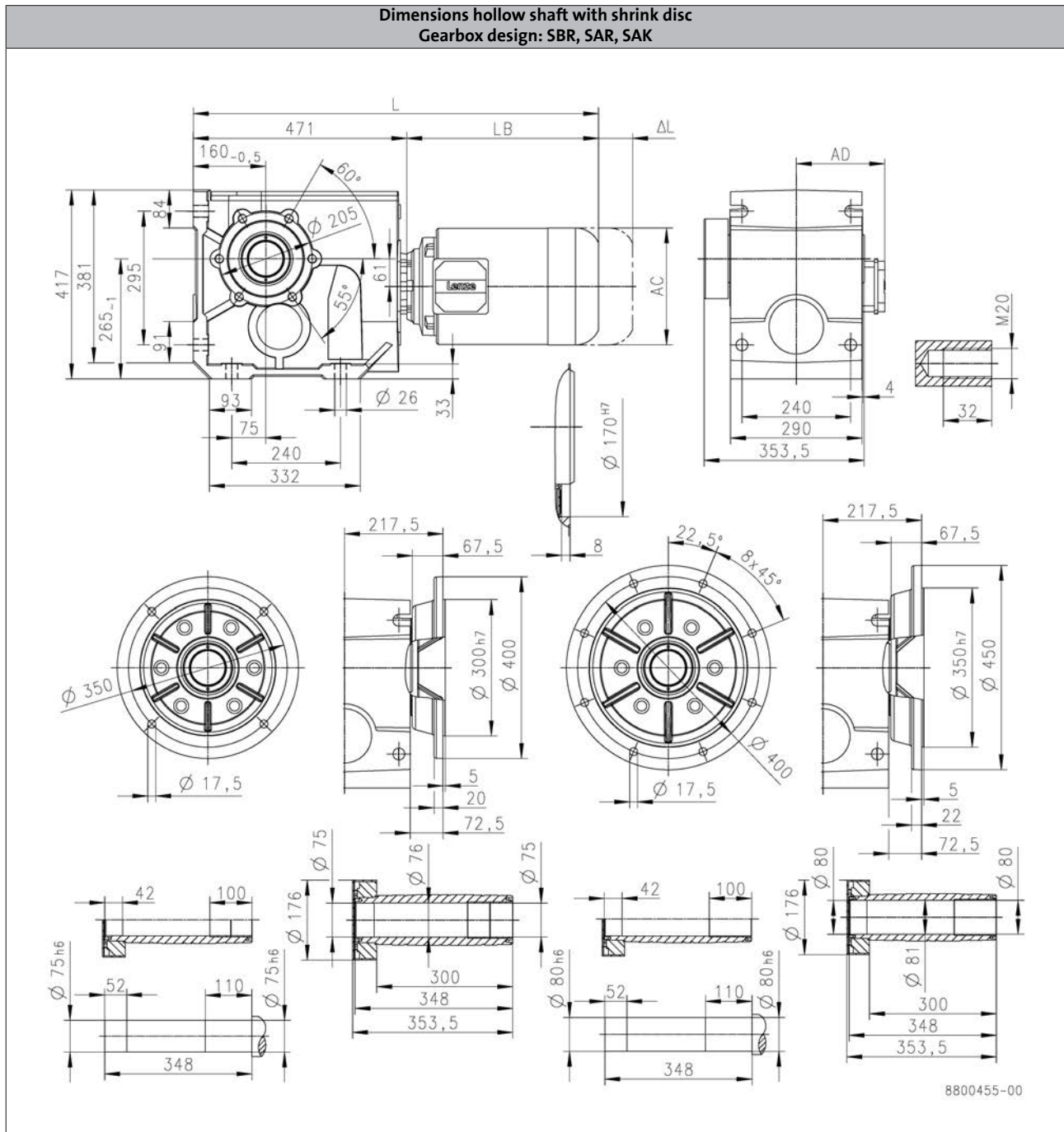
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

g500-B4300

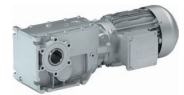


6.5

Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	756		792	808	851	899
<b>Motor length</b>	<b>LB</b>	[mm]	285		321	337	380	428
<b>Length of motor options</b>	<b>ΔL</b>	[mm]	181		170		183	202
<b>Motor diameter</b>	<b>AC</b>	[mm]			176		218	258
<b>Distance motor/connection</b>	<b>AD</b>	[mm]	152	157	166		176	195

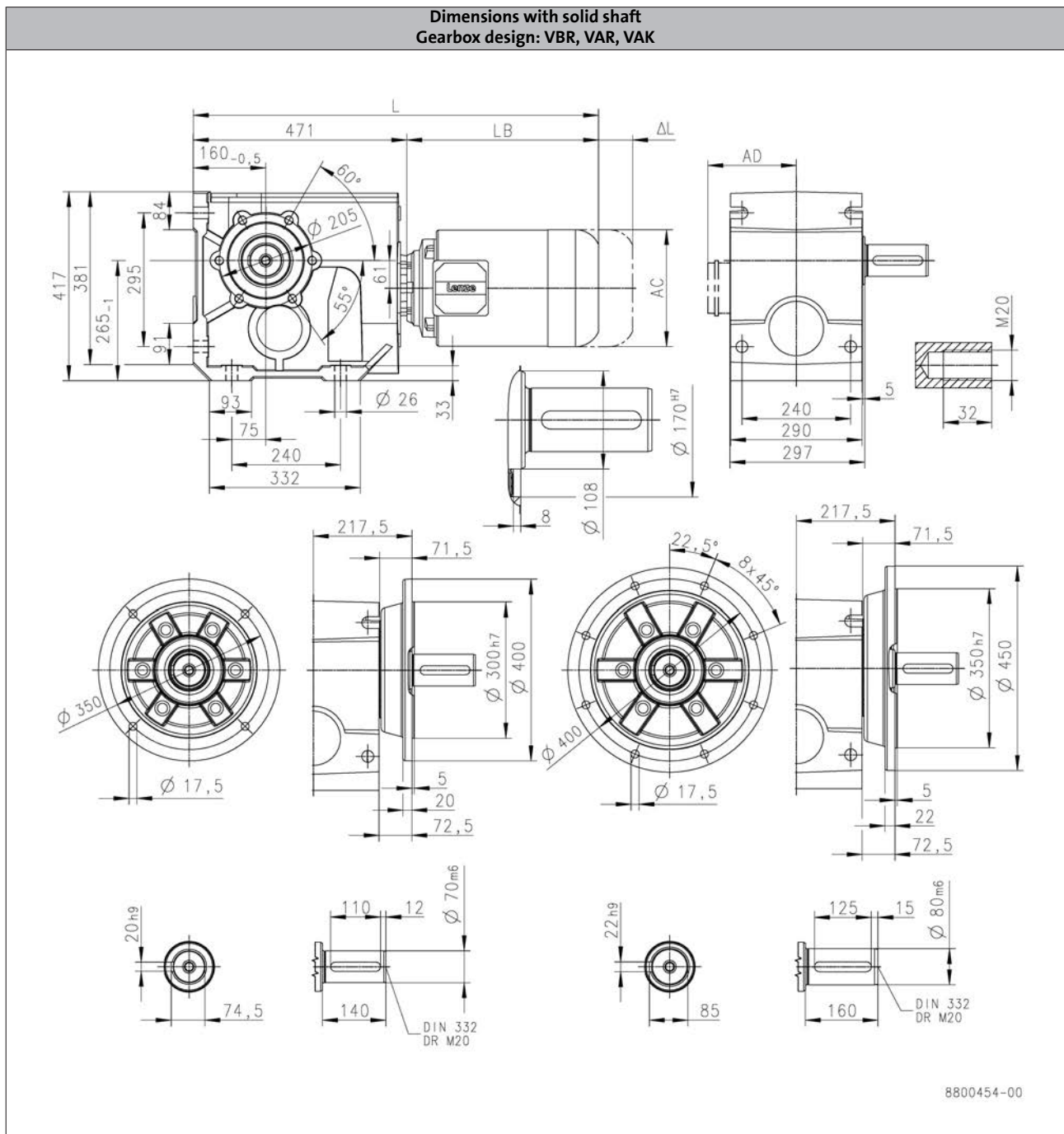
# g500-B bevel geared motors

Technical data



## Dimensions, 4-pole motors

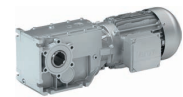
g500-B4300



Product			MH□MA□□					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	756	792	808	851	899	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285	321	337	380	428	
<b>Length of motor options</b>	<b>Δ L</b>	<b>[mm]</b>	181		170	183	202	
<b>Motor diameter</b>	<b>AC</b>	<b>[mm]</b>		176	194	218	258	
<b>Distance motor/connection</b>	<b>AD</b>	<b>[mm]</b>	152	157	166	176	195	

# g500-B bevel geared motors

Technical data



## Additional length of the built-on accessories

Dimensions, self-ventilated (4-pole)

Product			MD□MA□□			MH□MA□□				
			063-02 063-22	063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake			71.0	40.0	52.0	73.0	68.0	76.0	90.0	110
Feedback	Δ L	[mm]	71.0	56.0	52.0	111	87.0	81.0	80.0	103
Brake + Feedback			135	103	96.0	111	105	101	120	125
	Δ L	[mm]	135	103	96.0	111	105	101	120	125

Dimensions, forced ventilated (4-pole)

Product			MD□MA□□			MH□MA□□				
			063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22	
Brake			170	165	183	181	170	183	202	
Feedback	Δ L	[mm]	170	165	183	181	170	183	202	
Brake + Feedback			128				109	183	202	
	Δ L	[mm]	170	165	183	181	170	183	202	



# g500-B bevel geared motors

Technical data



## Weights, 4-pole motors

### 2-stage gearboxes

				MD□MA□□						MH□MA□□					
				063-02	063-12	063-22	063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32
g500	-B45	m	[kg]	6.7	7.3	6.7	7.3	7.6	9.0	9.6					
	-B110	m	[kg]		8.9		8.9	9.2	11		16	21	23		
	-B240	m	[kg]		13		13	14	15	16	20	25	27	33	35

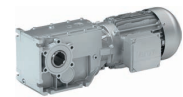
### 3-stage gearboxes

				MD□MA□□				MH□MA□□							
				063-12 063-32	063-42	071-32	071-42	080-32	090-12	090-32	100-12	100-32	112-22	132-12	132-22
g500	-B240	m	[kg]	13	14	15	16								
	-B450	m	[kg]	16	17	18	19	23	28	30	36	39	50	68	75
	-B600	m	[kg]		35	36	37	41	46	48	54	57	68	86	93
	-B820	m	[kg]		40	41	42	46	51	53	59	62	73	91	98
	-B1500	m	[kg]				72	77	82	84	90	92	103	122	129
	-B2700	m	[kg]						123	125	131	133	144	163	170
	-B4300	m	[kg]						185	187	193	195	206	225	232

- Weights with oil capacity for mounting position A, all given as approximate values.  
The weights refer to the basic version, observe additional weights!

# g500-B bevel geared motors

Technical data



## Additional weights for gearboxes

Product			g500-B45	g500-B110	g500-B240	g500-B450
<b>Mass</b>						
Solid shaft	m	[kg]	0.4	0.5	1.4	1.0
Shrink disc	m	[kg]	0.2	0.2	0.7	0.6
Flange	m	[kg]	0.3	0.4	0.7	0.9

Product			g500-B600	g500-B820	g500-B1500	g500-B2700	g500-B4300
<b>Mass</b>							
Solid shaft	m	[kg]	1.5	1.9	3.7	6.0	15.5
Shrink disc	m	[kg]	0.6	1.2	1.7	2.3	4.3
Flange	m	[kg]	6.1	6.1	11.5	15.0	29.0

## Additional weights for motors

### 4-pole motors

Product			MD□MA□□			MH□MA□□				
			063-02 063-22	063-12 063-32 063-42	071-32 071-42	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Brake			06	06	08	08	10	10	12	14
	m	[kg]	0.9	0.9	1.5	1.5	2.6	2.6	4.2	5.8
Blower										
	m	[kg]		2.0	2.1	2.3	2.7	3.0	3.1	4.2

# g500-B bevel geared motors

Product extensions



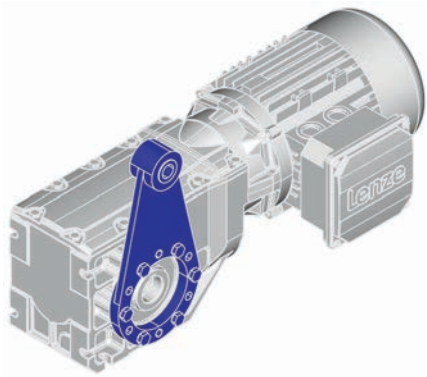
## Overview

### Torque plate

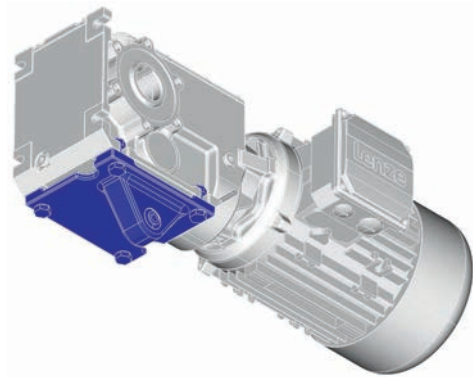
The torque is usually supported via the foot or the flange. Another simple option are the attachable torque plates. Here, the torque is supported only via one point and is, among other things, suitable for shaft-mounted gearboxes. The supplied rubber buffers provide for a low-tension installation and absorb slight shocks. The torque plates are available in two versions, for being installed at the existing threaded pitch circle or for the foot at the gearbox.

In addition, torque support for the g500-B45 gearbox can be effected via the holding fixture of the housing, which is integrated on both sides, by means of a rubber buffer. The rubber buffers can be ordered optionally.

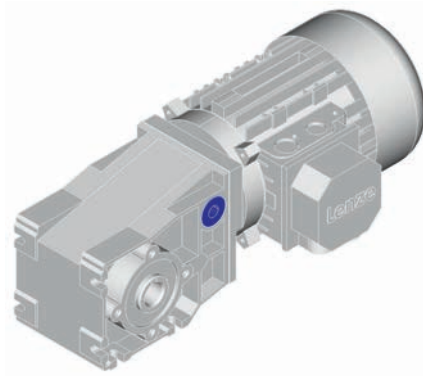
Torque plate on threaded pitch circle



Torque plate at housing foot

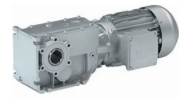


Rubber buffer for torque plate



# g500-B bevel geared motors

Product extensions



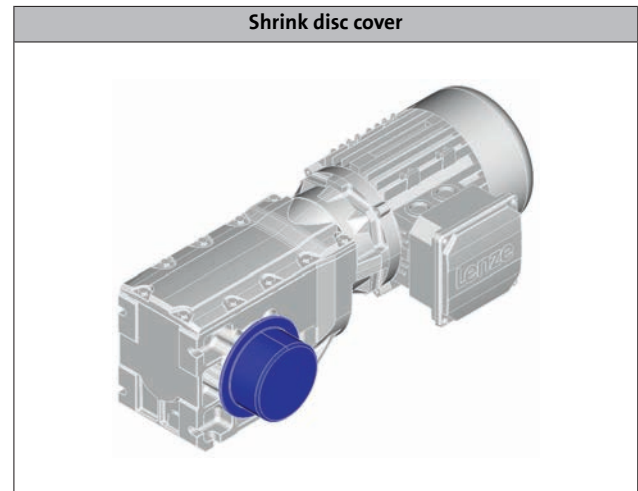
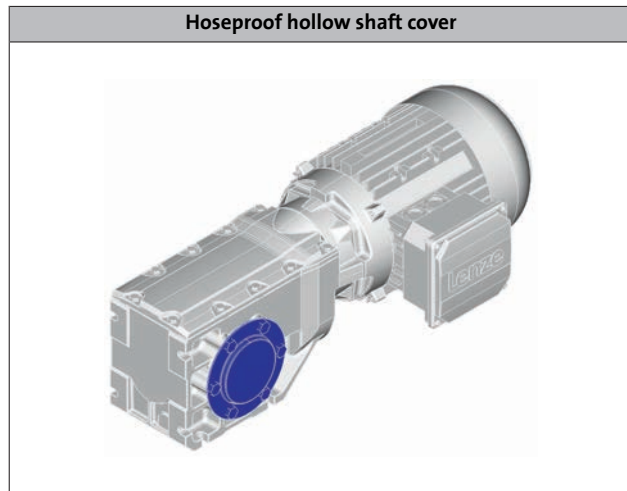
## Overview

### Shaft cover

The hoseproof hollow shaft cover protects the hollow shaft from objects falling in. It is sealed by a flat gasket between cover and housing. Thus, the hollow shaft is protected from dust and water jets.

The cover is loosely enclosed and can be mounted on both sides of the hollow shaft bore.

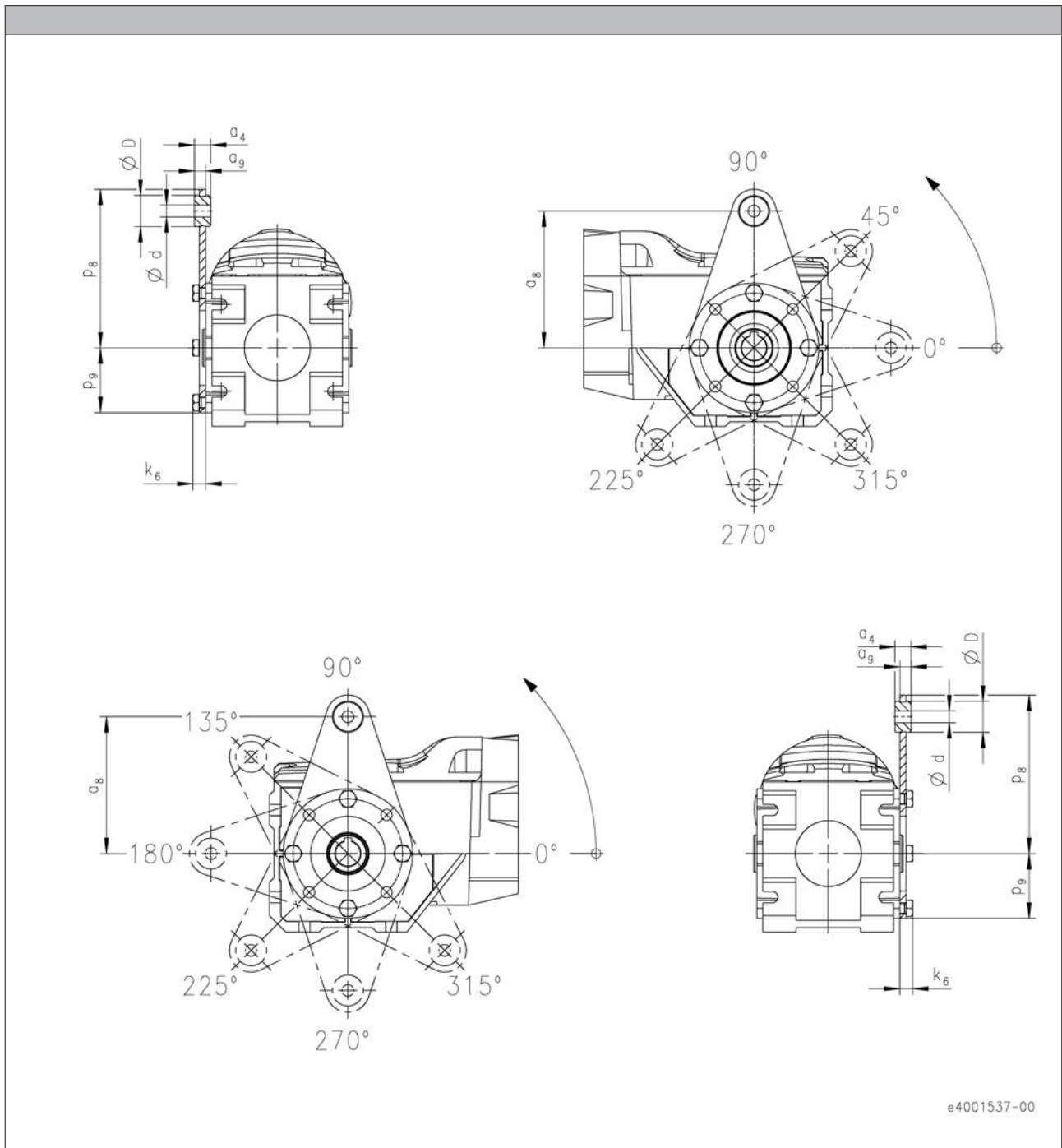
The optional shrink disc cover is provided for the shrink disc to be protected from contact.





## Torque plate

### Torque plate on threaded pitch circle



Product	Dimensions								Mass
	a <sub>4</sub> [mm]	a <sub>8</sub> [mm]	a <sub>9</sub> [mm]	d [mm]	D [mm]	p <sub>8</sub> [mm]	p <sub>9</sub> [mm]	k <sub>6</sub> [mm]	m [kg]
g500-B45	12.0	100	8.0	8.0	20.0	115	42.0	9.0	0.3
g500-B110	13.0	110	9.0	10.0	25.0	128	54.0	11.0	0.5

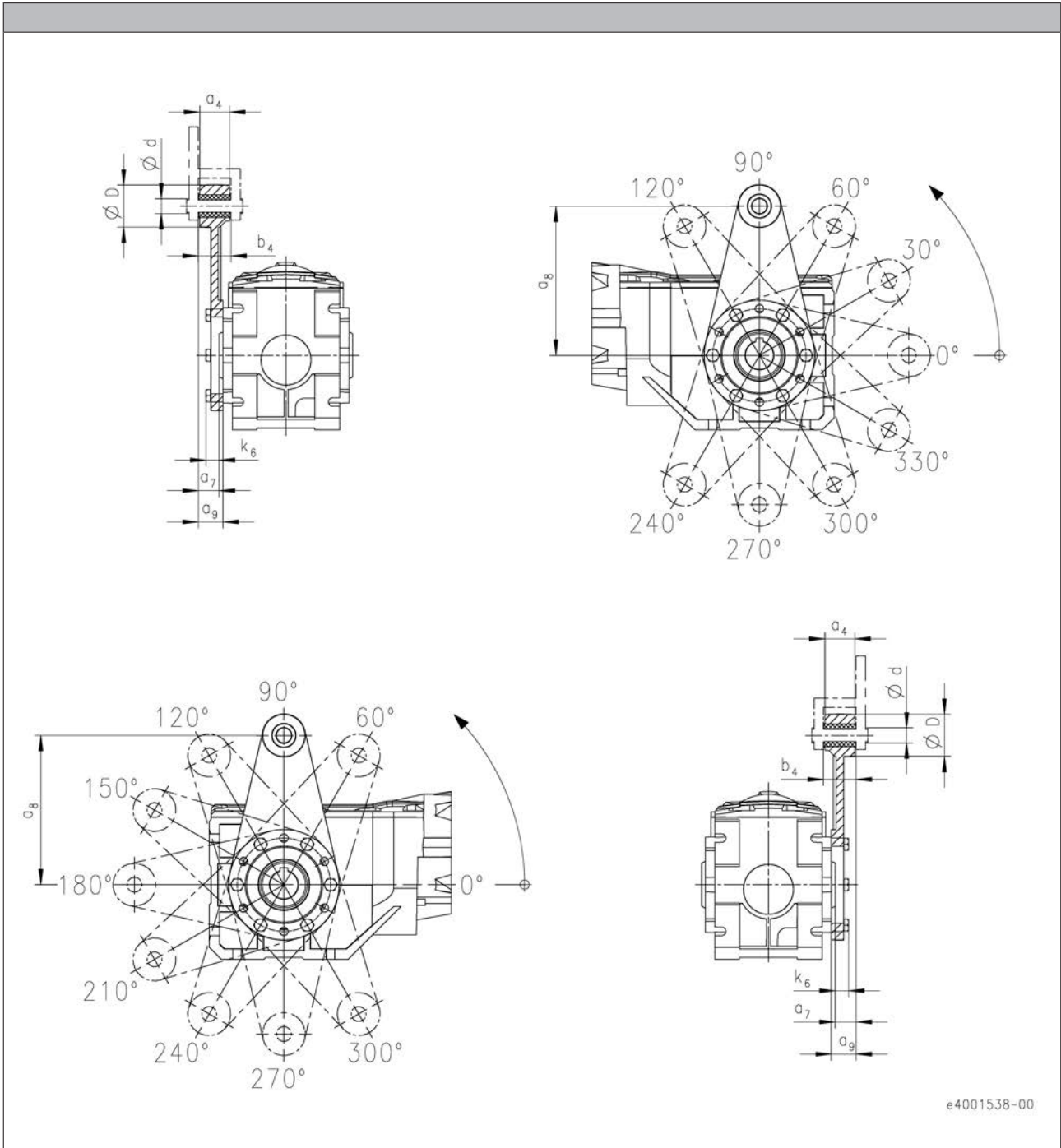
# g500-B bevel geared motors

Product extensions



## Torque plate

Torque plate on threaded pitch circle



6.5

Product	Dimensions								Mass
	a <sub>4</sub> [mm]	a <sub>7</sub> [mm]	a <sub>8</sub> [mm]	a <sub>9</sub> [mm]	b <sub>4</sub> [mm]	d [mm]	D [mm]	k <sub>6</sub> [mm]	m [kg]
g500-B240	34.0	23.5	160	27.5	38.5	16.0	45.0	15.0	1.3
g500-B450	40.0	29.0	200	32.0	44.5	20.0	50.0	18.0	2.5
g500-B600	38.0	26.5	200	31.5	40.0	20.0	50.0	19.0	2.5

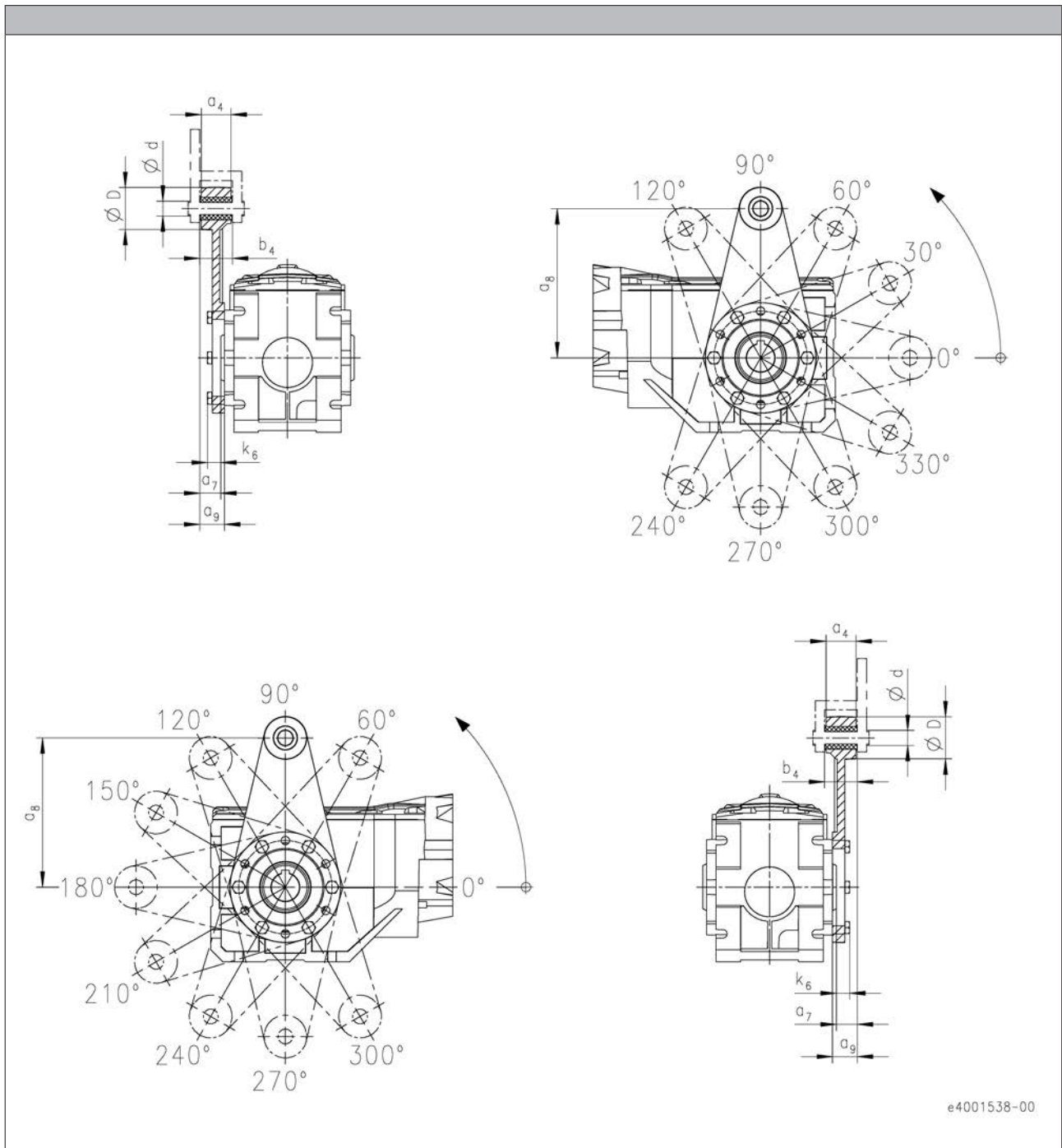
# g500-B bevel geared motors

Product extensions



## Torque plate

Torque plate on threaded pitch circle



Product	Dimensions								Mass
	a <sub>4</sub> [mm]	a <sub>7</sub> [mm]	a <sub>8</sub> [mm]	a <sub>9</sub> [mm]	b <sub>4</sub> [mm]	d [mm]	D [mm]	k <sub>6</sub> [mm]	m [kg]
g500-B820	38.0	28.0	200	31.5	40.0	20.0	50.0	20.5	2.5
g500-B1500	44.0	32.0	250	36.0	46.0	25.0	65.0	24.0	4.5

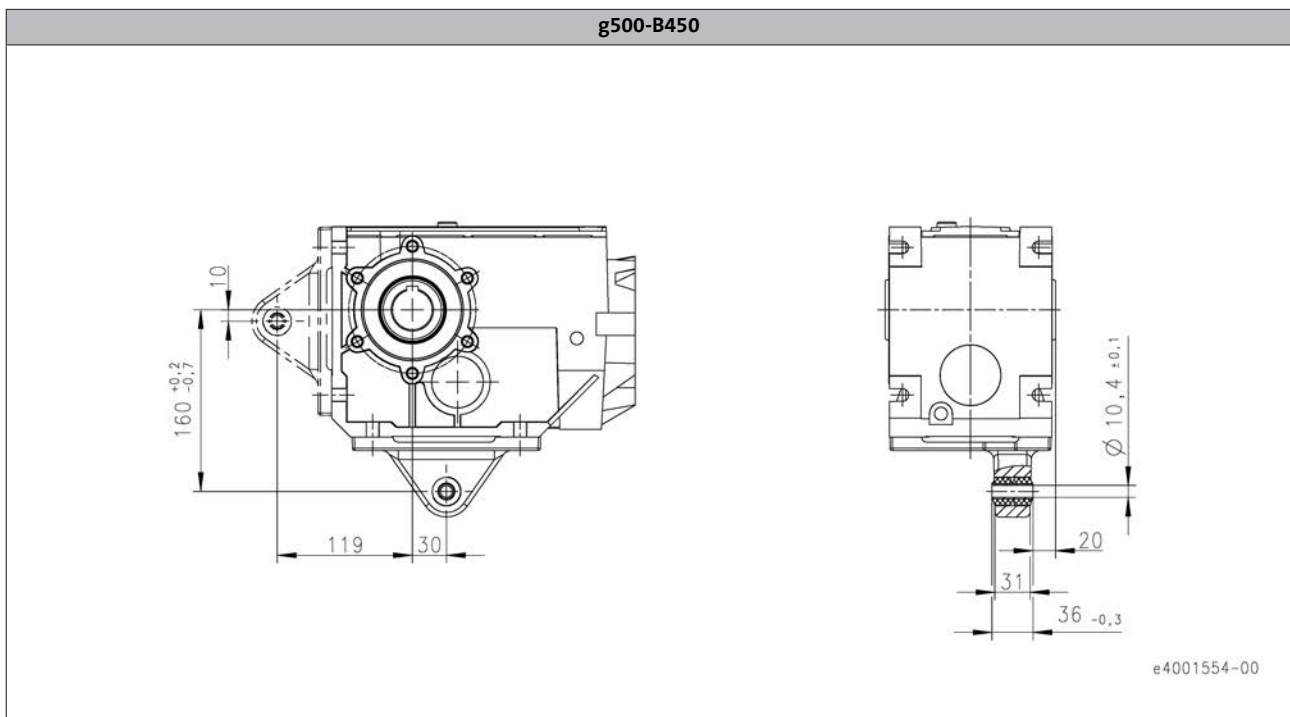
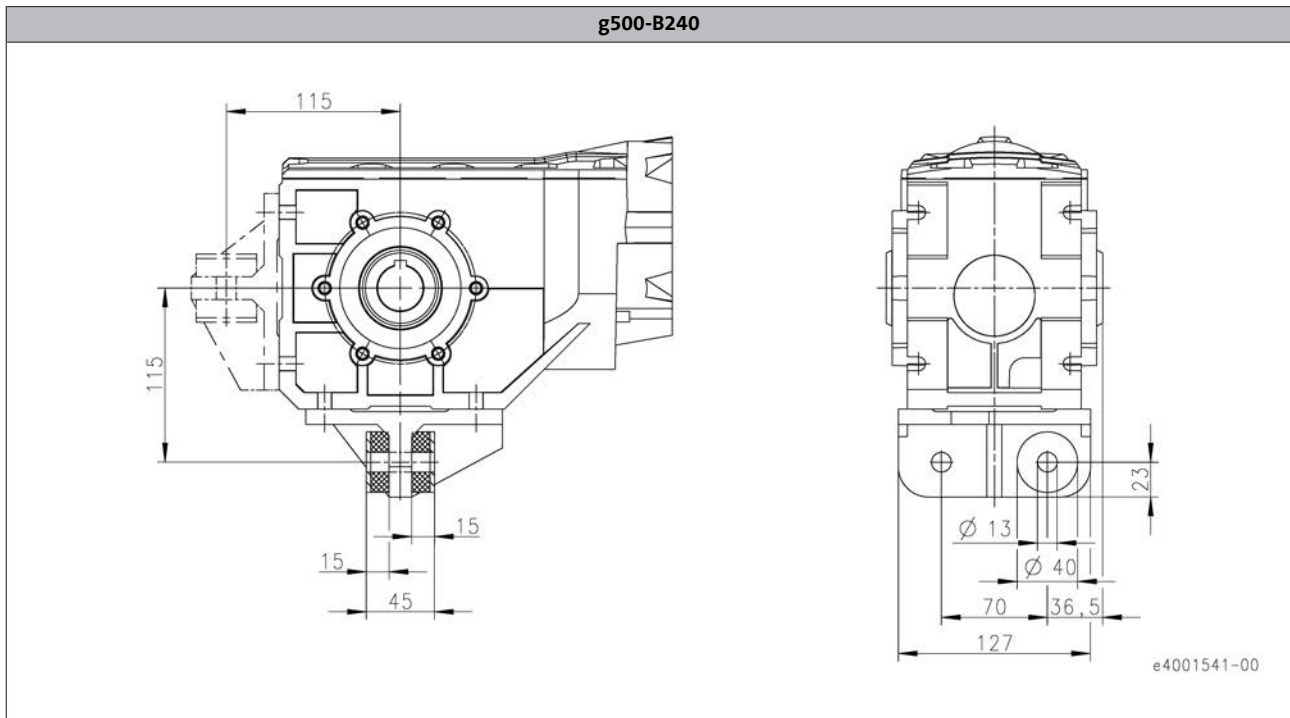
# g500-B bevel geared motors

Product extensions



## Torque plate

Torque plate at housing foot



6.5

Product	Mass
	m
	[kg]
g500-B240	2.4
g500-B450	1.1



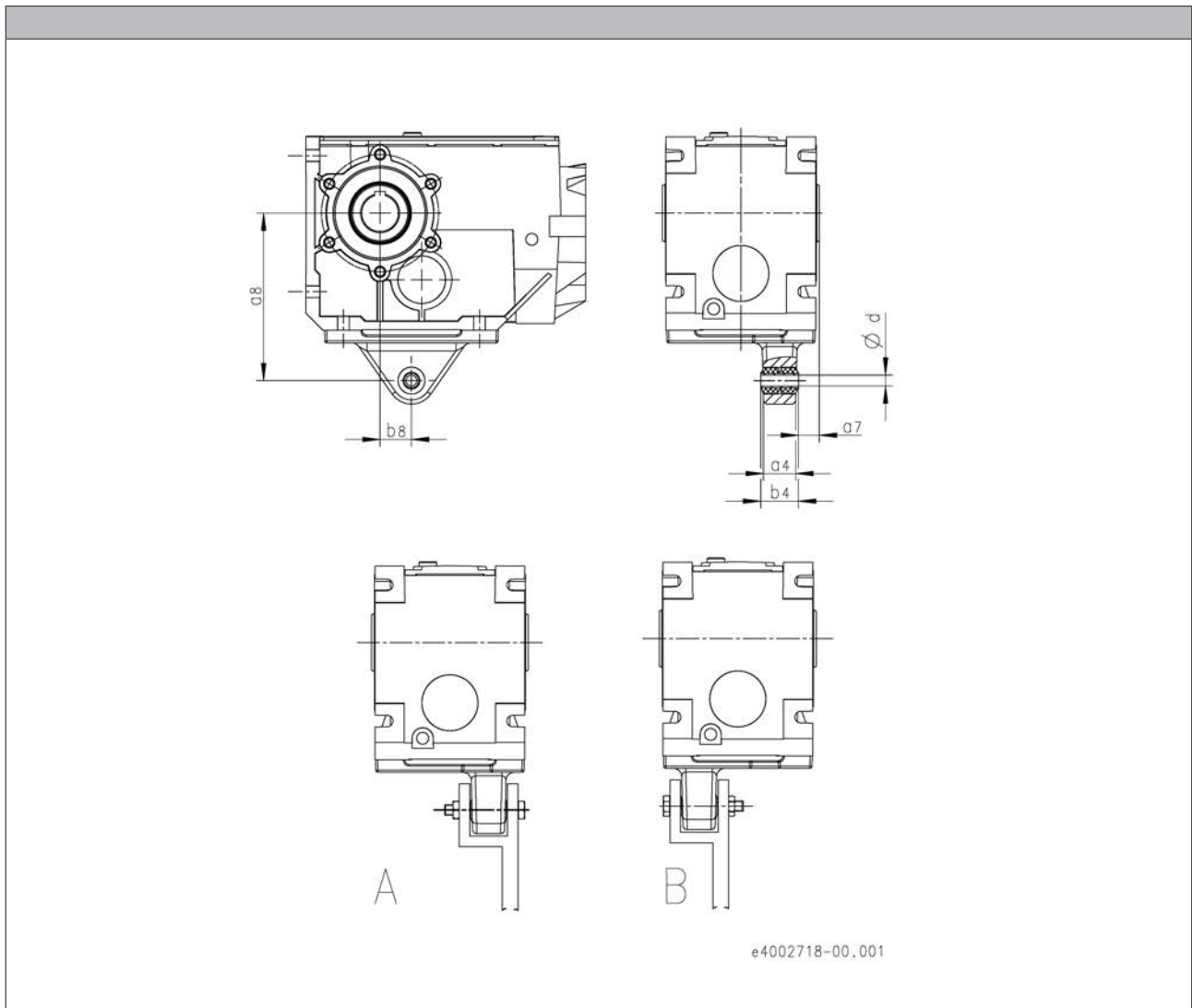
# g500-B bevel geared motors

Product extensions



## Torque plate

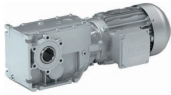
Torque plate at housing foot



Product	Dimensions						Mass m
	d [mm]	a <sub>8</sub> [mm]	b <sub>8</sub> [mm]	a <sub>4</sub> [mm]	b <sub>4</sub> [mm]	a <sub>7</sub> [mm]	
g500-B600	16.4	192	40.0	55.0	60.0	18.0	2.8
g500-B820	16.4	200	45.0	55.0	60.0	25.0	3.0
g500-B1500	16.4	250	52.5	55.0	60.0	25.0	4.3
g500-B2700	25.0	300	60.0	72.0	80.0	30.0	10.0
g500-B4300	25.0	350	70.0	92.0	100	40.0	13.0
g500-B8000	40.0	450	74.0	80.0	88.0	57.0	15.0
g500-B13000	40.0	550	60.0	80.0	88.0	7.00	25.0
g500-B20000	70.0	700	50.0	111	120	2.00	64.0

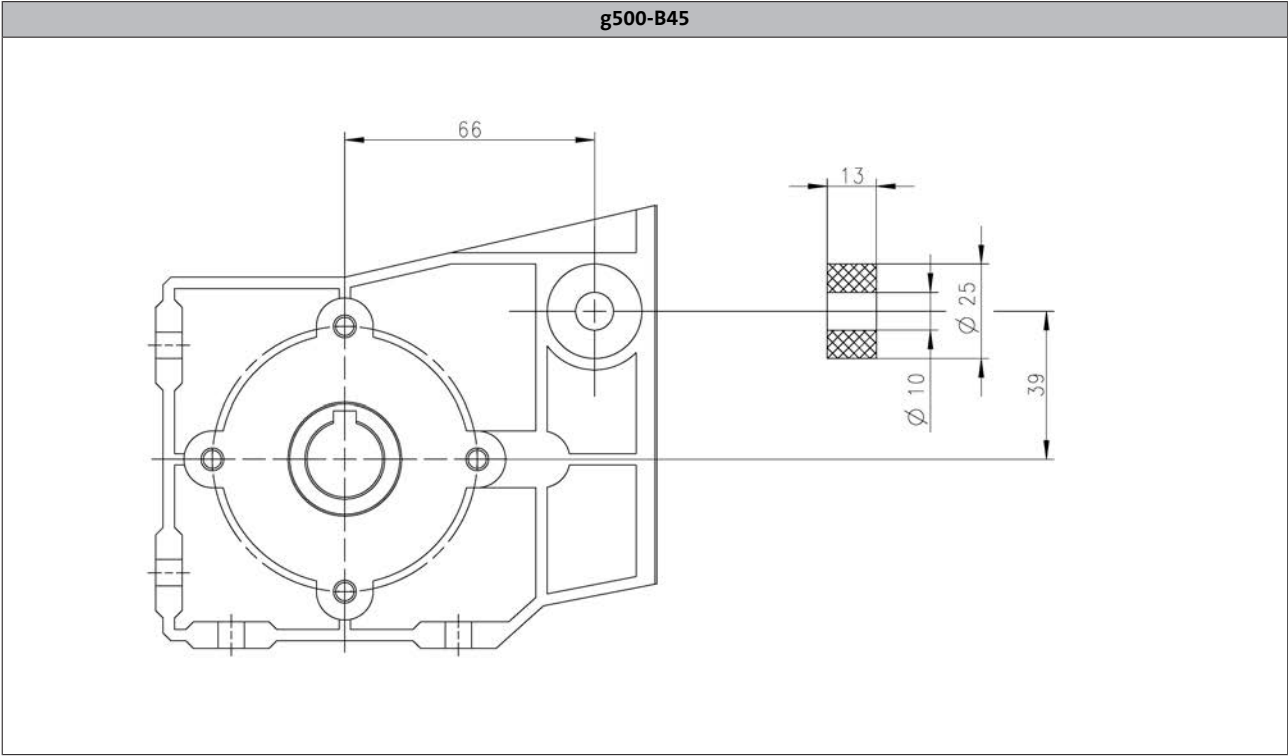
# g500-B bevel geared motors

Product extensions



## Torque plate

Rubber buffer for torque plate



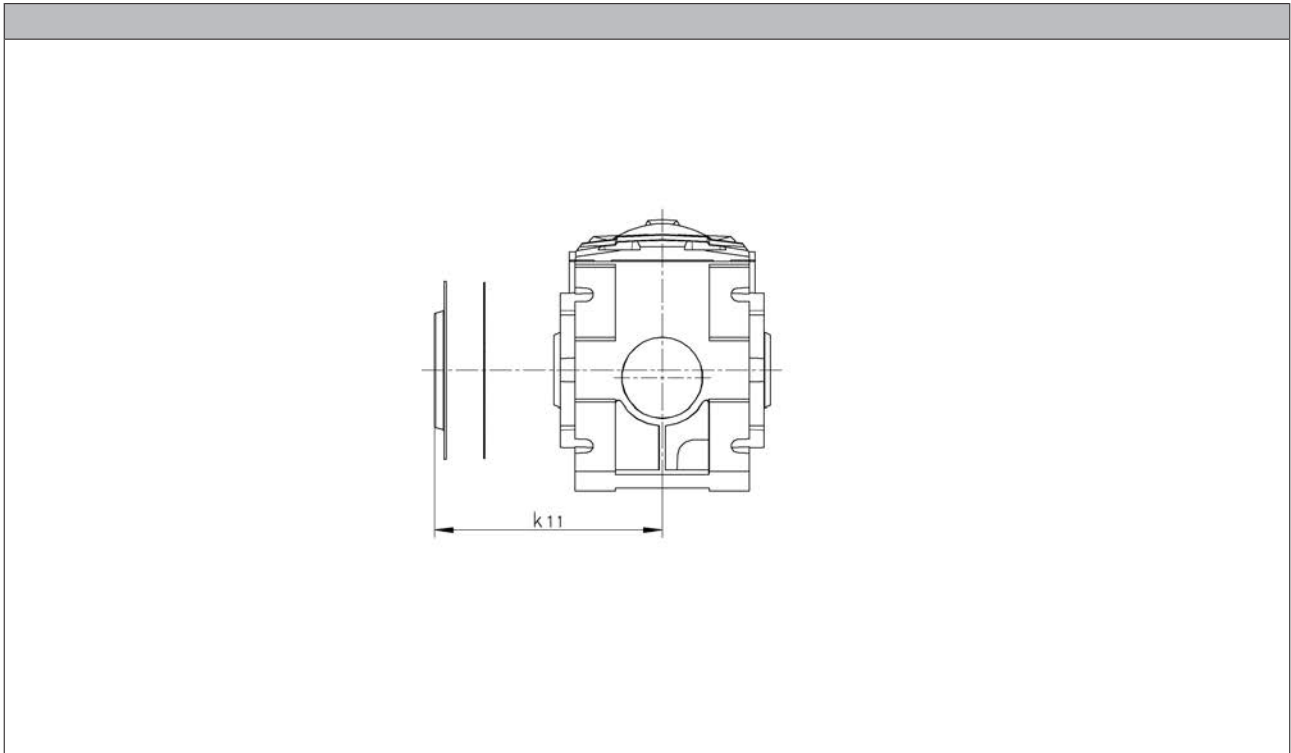
# g500-B bevel geared motors

Product extensions



## Shaft cover

Hoseproof hollow shaft cover



Product	Dimensions	Mass
	$k_{11}$	m
	[mm]	[kg]
g500-B45	55.0	0.1
g500-B110	65.0	0.1
g500-B240	75.0	0.1
g500-B450	79.5	0.2
g500-B600	90.0	0.3
g500-B820	97.0	0.3
g500-B1500	113	0.6
g500-B2700	131	0.6
g500-B4300	161	0.8
g500-B8000	250	0.5
g500-B13000	313	0.6
g500-B20000	372	0.9

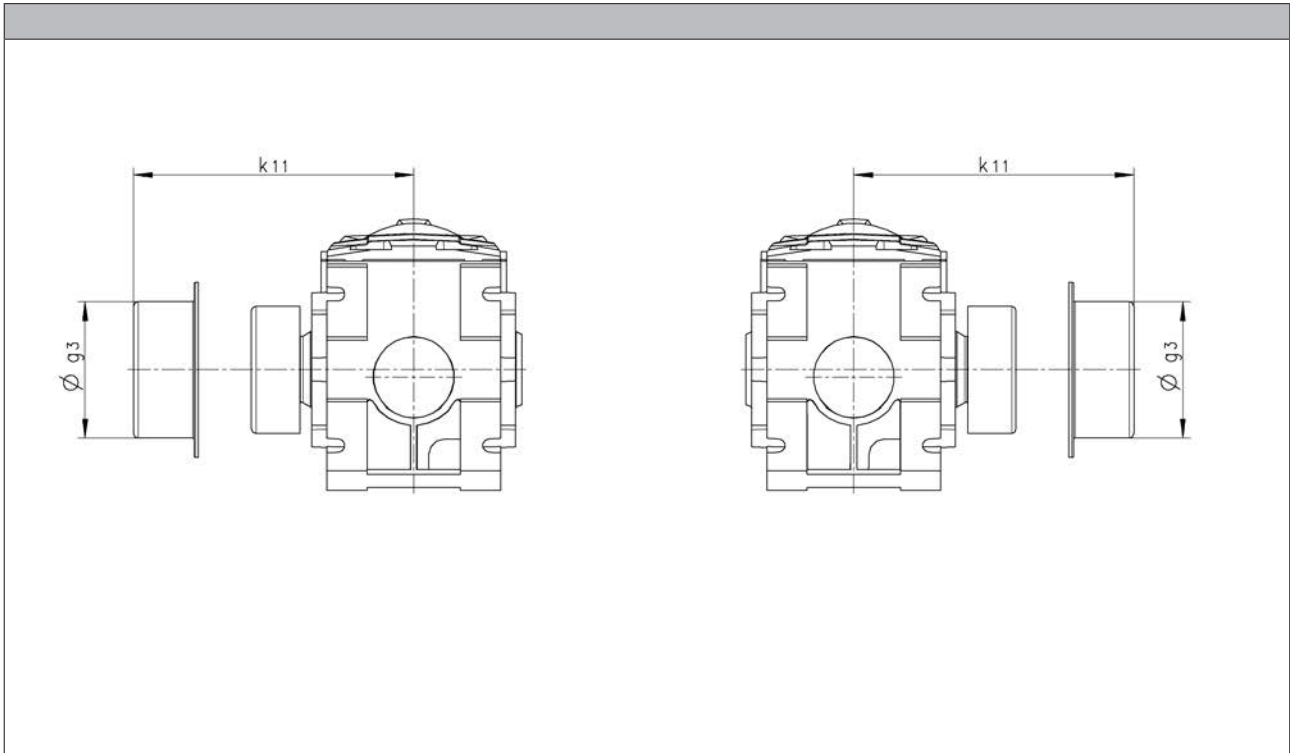
# g500-B bevel geared motors

Product extensions



## Shaft cover

Shrink disc cover



Product	Dimensions		Mass
	$g_3$ [mm]	$k_{11}$ [mm]	m [kg]
g500-B45	65.0	87.5	0.1
g500-B110	79.0	97.5	0.1
g500-B240	90.0	111	0.1
g500-B450	90.0	108	0.1
g500-B600	110	124	0.1
g500-B820	110	131	0.1
g500-B1500	128	148	0.2
g500-B2700	155	171	0.3
g500-B4300	188	205	0.4
g500-B8000	218	250	0.5
g500-B13000	258	313	0.6
g500-B20000	310	372	0.9

# g500-B bevel geared motors

## Appendix

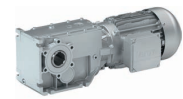


### Gearbox code

Example	G	50	A	B	045	M	H	B	R	2	C	1A
Meaning	Variant											
Product family	G	50										
Generation			A									
			B									
Gearbox type				B								
Output torque					045							
					111							
					124							
					145							
					160							
					182							
					215							
					227							
					243							
					280							
					313							
				320								
Type of construction						M						
						N						
Shaft type							V					
							H					
							S					
Housing type								A				
								B				
								C				
Flange mounting									R			
									k			
Number of stages										2		
										3		
Motor mounting											C	
											N	
											A	
											S	
Drive size											1A	
											...	
											□H	

# g500-B bevel geared motors

## Appendix



### Motor code

Example		M	D	E	MA	XX	063	-	4	2	C1	C
Meaning	Variant	Motor code										
Product family		M										
Efficiency class	IE1		D									
	IE2		H									
Cooling	Natural ventilation			S								
	Integral fan			E								
	Blower			F								
Internal key					MA							
Built-on accessories	Without built-on accessories					XX						
	Brake					BR						
	Brake + resolver					BS						
	Brake + incremental encoder					BI						
	Brake + SinCos absolute value encoder					BA						
	Resolver					RS						
	Incremental encoder					IG						
	SinCos absolute value encoder					AG						
Size							063					
							071					
							080					
							090					
							100					
							112					
							132					
Overall length									0			
									1			
								-	2			
									3			
									4			
Number of pole pairs	4-pole motors									2		
Internal key											C1	
Approval	CE											C
	cURus											U
	CCC											3

Geared motors

# Motor data







# Motor data

## Contents



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		Connections via HAN connectors	6.6 - 55
		Spring-applied brake	6.6 - 58
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		Blower	6.6 - 71
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# Motor data MD

Technical data



## Rated data for 50 Hz

### 4-pole motors

Product	$P_N$	$n_N$	$n_{max}$	$M_N$	$M_a$	$M_b$	$J^{1)}$	$m^{1)}$
	[kW]	[r/min]	[r/min]	[Nm]	[Nm]	[Nm]	[kgcm <sup>2</sup> ]	[kg]
MD□MA□□063-02	0.060	1425	4500	0.40	1.30	1.36	3.30	3.90
MD□MA□□063-22	0.090	1375	4500	0.63	1.30	1.39	3.30	3.90
MD□MA□□063-12	0.12	1425	4500	0.80	2.50	2.64	3.30	4.10
MD□MA□□063-32	0.18	1365	4500	1.26	2.50	2.61	3.30	4.10
MD□MA□□063-42	0.25	1370	4500	1.74	3.80	4.10	3.70	4.40
MD□MA□□071-32	0.37	1410	4500	2.51	4.76	5.81	10.7	5.80
MD□MA□□071-42	0.55	1405	4500	3.74	7.85	9.12	12.8	6.40

Product	$U_{N,\Delta}$	$I_{N,\Delta}$	$U_{N,\gamma}$	$I_{N,\gamma}$	$I_a/I_N$	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$
	$\pm 10\%$		$\pm 10\%$					
	[V]	[A]	[V]	[A]			[%]	[%]
MD□MA□□063-02	230	0.42	400	0.24	3.5	0.57	59.0	63.0
MD□MA□□063-22	230	0.48	400	0.28	2.9	0.71	63.0	65.0
MD□MA□□063-12	230	0.85	400	0.49	3.1	0.56	58.0	63.0
MD□MA□□063-32	230	1.00	400	0.58	2.7	0.70	63.0	64.0
MD□MA□□063-42	230	1.40	400	0.82	2.9	0.67	65.0	66.0
MD□MA□□071-32	230	1.60	400	0.95	3.3	0.77	73.0	73.0
MD□MA□□071-42	230	2.40	400	1.40	3.5	0.77	74.0	74.0

<sup>1)</sup> Without accessories

# Motor data MD

Technical data



## Rated data for 87 Hz

### 4-pole motors

Product	$P_N$	$n_N$	$n_{max}$	$M_N$	$M_{max}$	$J^{1)}$	$m^{1)}$
	[kW]	[r/min]	[r/min]	[Nm]	[Nm]	[kgcm <sup>2</sup> ]	[kg]
MD□MA□□063-02	0.11	2535	4500	0.40	1.60	3.30	3.90
MD□MA□□063-22	0.16	2485	4500	0.63	2.50	3.30	3.90
MD□MA□□063-12	0.21	2535	4500	0.80	3.20	3.30	4.10
MD□MA□□063-32	0.33	2475	4500	1.26	5.00	3.30	4.10
MD□MA□□063-42	0.45	2480	4500	1.74	7.00	3.70	4.40
MD□MA□□071-32	0.66	2520	4500	2.51	10.0	10.7	5.80
MD□MA□□071-42	1.00	2515	4500	3.74	15.0	12.8	6.40

Product	$U_{N,\Delta}$	$I_{N,\Delta}$	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$
	$\pm 10\%$				
	[V]	[A]		[%]	[%]
MD□MA□□063-02	400	0.42	0.55	62.0	67.0
MD□MA□□063-22	400	0.48	0.67	66.0	70.0
MD□MA□□063-12	400	0.85	0.52	61.0	66.0
MD□MA□□063-32	400	1.00	0.65	68.0	71.0
MD□MA□□063-42	400	1.40	0.63	66.0	73.0
MD□MA□□071-32	400	1.60	0.72	76.0	78.0
MD□MA□□071-42	400	2.40	0.74	79.0	80.0

<sup>1)</sup> Without accessories

# Motor data MD

Technical data



## Motor – inverter assignment

- ▶ Decentralised inverter 8400 motec (E84DVB)
- ▶ Inverter Drives 8400 (E84AV)

### Rated frequency 50/60 Hz

Rated power	Product	Product key	
		Inverter	
$P_N$ [kW]			
0.12	MD□MA□□063-12		E84AV□□□2512□□0
0.18	MD□MA□□063-32		
0.25	MD□MA□□063-42		
0.37	MD□MA□□071-32	E84DVB□3714S□□□2□	E84AV□□□3714□□0
0.55	MD□MA□□071-42	E84DVB□5514S□□□2□	E84AV□□□5514□□0

### Rated frequency 87 Hz

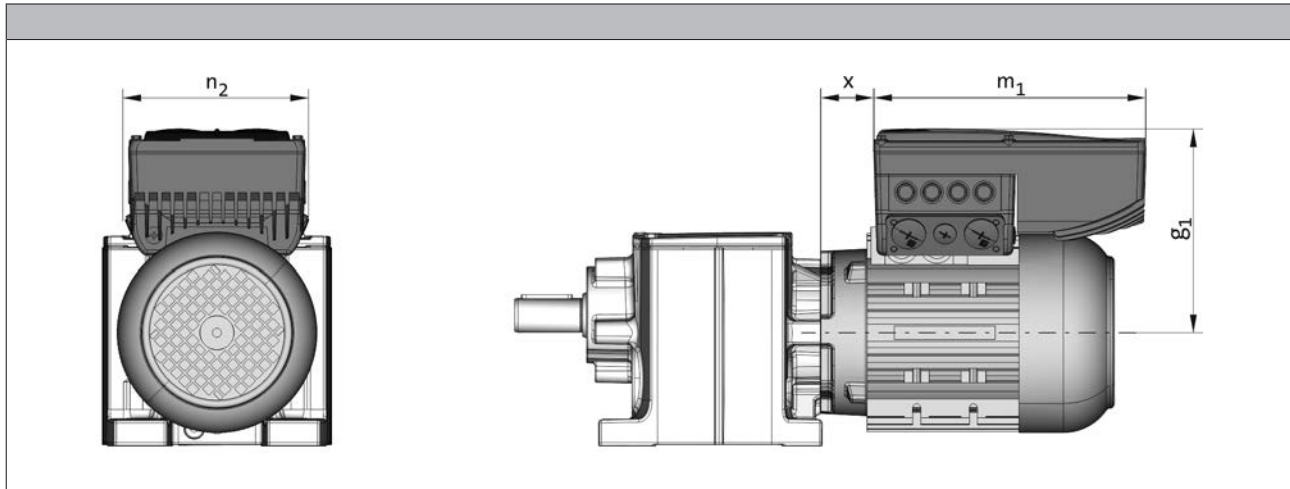
Rated power	Product	Product key	
		Inverter	
$P_N$ [kW]			
0.21	MD□MA□□063-12	E84DVB□5514S□□□2□	E84AV□□□5514□□0
0.33	MD□MA□□063-32		
0.45	MD□MA□□063-42		
0.66	MD□MA□□071-32	E84DVB□7514S□□□2□	E84AV□□□7514□□0
1.00	MD□MA□□071-42	E84DVB□1124S□□□2□	E84AV□□□1124□□0

# Motor data MD

Technical data



## Dimensions, 8400 motec inverter



### Rated frequency 50/60 Hz

Product	Product key	Dimensions			
		$g_1, 50\text{Hz}$ [mm]	$m_1, 50\text{Hz}$ [mm]	$n_2, 50\text{Hz}$ [mm]	$x_{50\text{Hz}}$ [mm]
MD□MA□□071-32	E84DVB□3714S□□□2□	163	241	161	17
MD□MA□□071-42	E84DVB□5514S□□□2□				

### Rated frequency 87 Hz

Product	Product key	Dimensions			
		$g_1, 87\text{Hz}$ [mm]	$m_1, 87\text{Hz}$ [mm]	$n_2, 87\text{Hz}$ [mm]	$x_{87\text{Hz}}$ [mm]
MD□MA□□063-32	E84DVB□3714S□□□2□	154	241	161	15
MD□MA□□063-42	E84DVB□5514S□□□2□				
MD□MA□□071-32	E84DVB□7514S□□□2□	163			17
MD□MA□□071-42	E84DVB□1124S□□□2□				

# Motor data MD

Technical data

---





### Motor connection

The three-phase AC motors are designed for operation at a constant mains frequency and with an inverter.

For 50 Hz operation, the motors are operated in  $\Delta$  configuration at 230 V or in star configuration at 400 V.

For inverter operation, the base frequency has been specified as 87 Hz at a rated voltage of 400 V in  $\Delta$  configuration.

The standard connection is implemented via a terminal box. Furthermore ICN and HAN connectors are provided to quickly carry out commissioning or maintenance operations.

### Overview of the connection options

Product	MD□MA□□063-02 MD□MA□□063-22 MD□MA□□063-12 MD□MA□□063-32 MD□MA□□063-42	MD□MA□□071-32 MD□MA□□071-42
<b>Power connection/brake connection</b>		
Terminal box	●	●
ICN connector M23	●	●
HAN 10E connector	●	●
HAN modular connector	●	●
<b>Feedback connection</b>		
Terminal box	●	●
ICN connector M23	●	●
ICN connector M12 <sup>1)</sup>	●	●
<b>Blower connection</b>		
Terminal box	●	●
ICN connector M17	●	●
<b>Temperature sensor connection</b>		
Terminal box	●	●
ICN connector M23 <sup>2)</sup>	●	●
HAN 10E connector	●	●
HAN modular connector	●	●

<sup>1)</sup> Connection for IG128-24V-H incremental encoder

<sup>2)</sup> TCO or PTC connected in the power connection and KTY connected in the feedback connection.

# Motor data MD

Product extensions



## Motor connection

### Assignment: motor terminal box - built-on accessories

- Depending on the motor version, terminal boxes of different sizes (KK1 ... KK3) are used.

Product	MD□MA□□063-02 MD□MA□□063-22 MD□MA□□063-12 MD□MA□□063-32 MD□MA□□063-42	MD□MA□□071-32 MD□MA□□071-42
<b>Built-on accessories with 1 thermal sensor</b>		
Without	KK1 KK1 + ICN HAN 10 E HAN modular	KK1 KK1 + ICN HAN 10 E HAN modular
Feedback	KK2 KK2 + ICN	KK2 KK2 + ICN
Brake	KK2 KK2 + ICN HAN 10 E HAN modular	KK2 KK2 + ICN HAN 10 E HAN modular
Brake + Feedback	KK3 KK2 + ICN	KK3 KK2 + ICN
<b>Built-on accessories with 2 thermal sensors</b>		
Without	KK2	KK2
Feedback	KK2	KK2
Brake (2-pole terminal)	KK2	KK2
Brake (rectifier)	KK2	KK2
Brake + Feedback	KK3	KK3

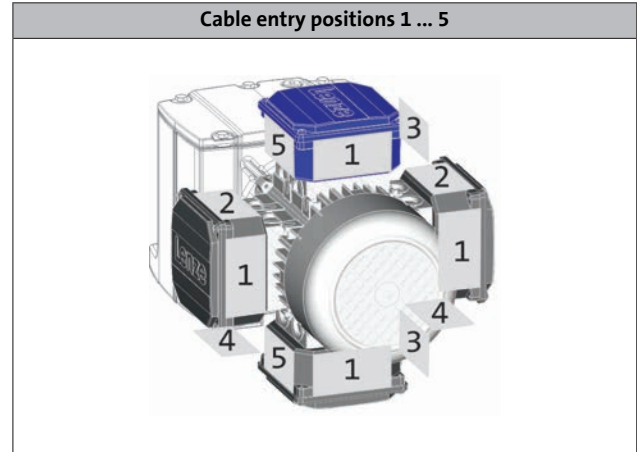
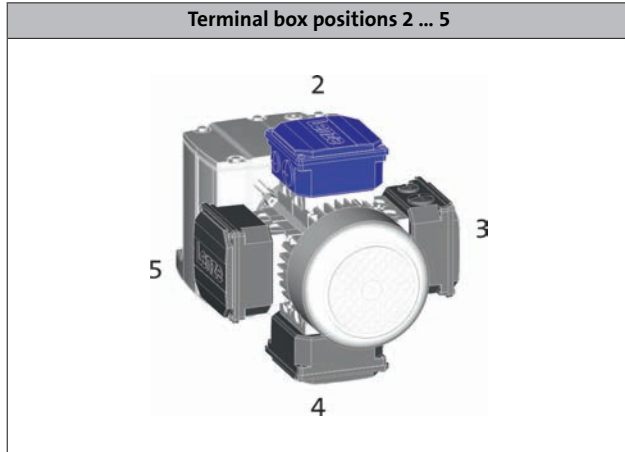




## Motor connection

### Position of cable entry/connector

For geared motors, the position of the cable entry must be selected as a function of the terminal box position.



Terminal box position	2	3	4	5
	Cable entry positions			
KK1	1/3/5*	1/2*/4	1/3*/5	1/2/4*
KK2	3+5	2+4	3+5	2+4
KK3	3+5	2+4	3+5	2+4
	Connector position			
HAN	1/3/5	1/2/4	1/3/5	1/2/4
KK1 + ICN	1/3/5*	1/2*/4	1/3*/5	1/2/4*
KK2 + ICN	3/5*	2*/4	3/5*	2/4*

- ▶ If preferred positions are not specified in the order, the cable entry will be positioned as indicated by \* on the diagram below.
- ▶ If preferred positions are not specified in the order, the connector will be positioned as indicated by \* on the diagram below.

# Motor data MD

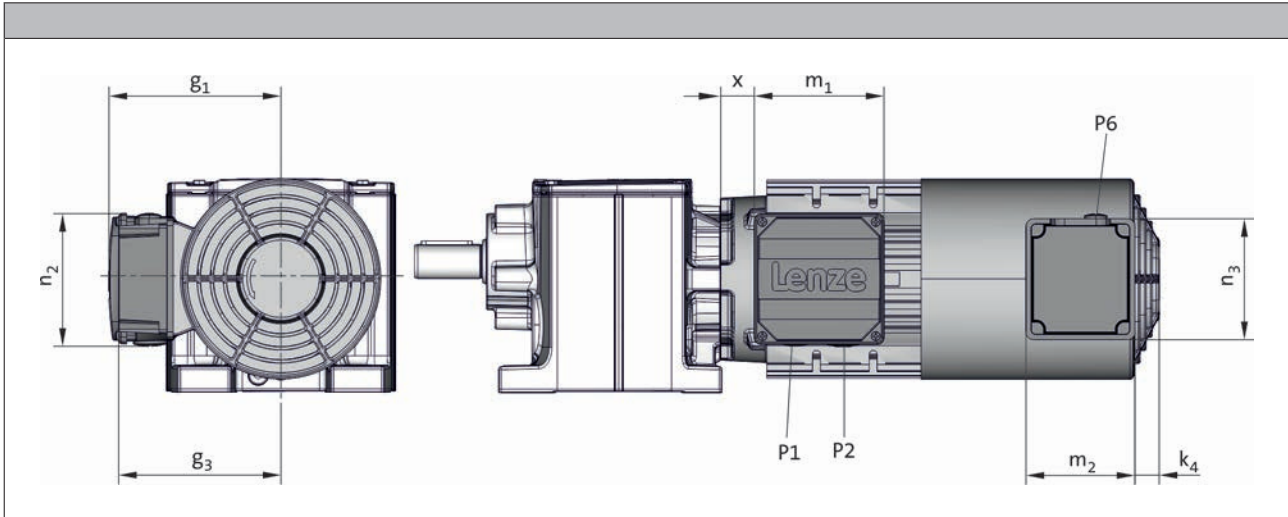
## Product extensions



### Connection via terminal box

#### Dimensions of KK1

The connection in the terminal box is implemented by means of conventional cable glands.



Product			MD□MA□□	
			063-02 063-12 063-22 063-32 063-42	071-42 071-32
Dimensions				
	x	[mm]	17	20
	g <sub>1</sub>	[mm]	100	109
	m <sub>1</sub>	[mm]		75.0
	n <sub>2</sub>	[mm]		75.0
	P <sub>1</sub>	[mm]		M16x1.5
	P <sub>2</sub>	[mm]		M20x1.5
	k <sub>4</sub>	[mm]		12
	g <sub>3</sub>	[mm]	115	122
	m <sub>2</sub>	[mm]		95
	n <sub>3</sub>	[mm]		105
	P <sub>6</sub>	[mm]		1x M16x1.5

# Motor data MD

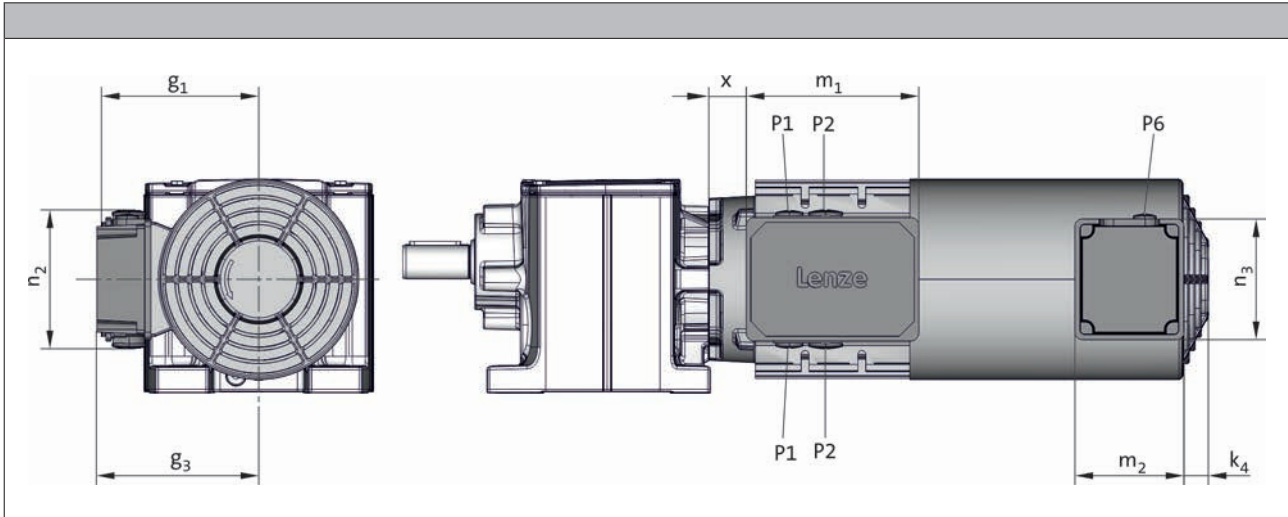
Product extensions



## Connection via terminal box

### Dimensions of KK2

The connection in the terminal box is implemented by means of conventional cable glands.



Product			MD□MA□□	
			063-02 063-12 063-22 063-32 063-42	071-42 071-32
Dimensions				
	x	[mm]	9	11
	g <sub>1</sub>	[mm]	107	118
	m <sub>1</sub>	[mm]	136	
	n <sub>2</sub>	[mm]	103	
	P <sub>1</sub>	[mm]	M16x1.5	
	P <sub>2</sub>	[mm]	M20x1.5	
	k <sub>4</sub>	[mm]	12	
	g <sub>3</sub>	[mm]	115	122
	m <sub>2</sub>	[mm]	95	
	n <sub>3</sub>	[mm]	105	
	P <sub>6</sub>	[mm]	1x M16x1.5	

# Motor data MD

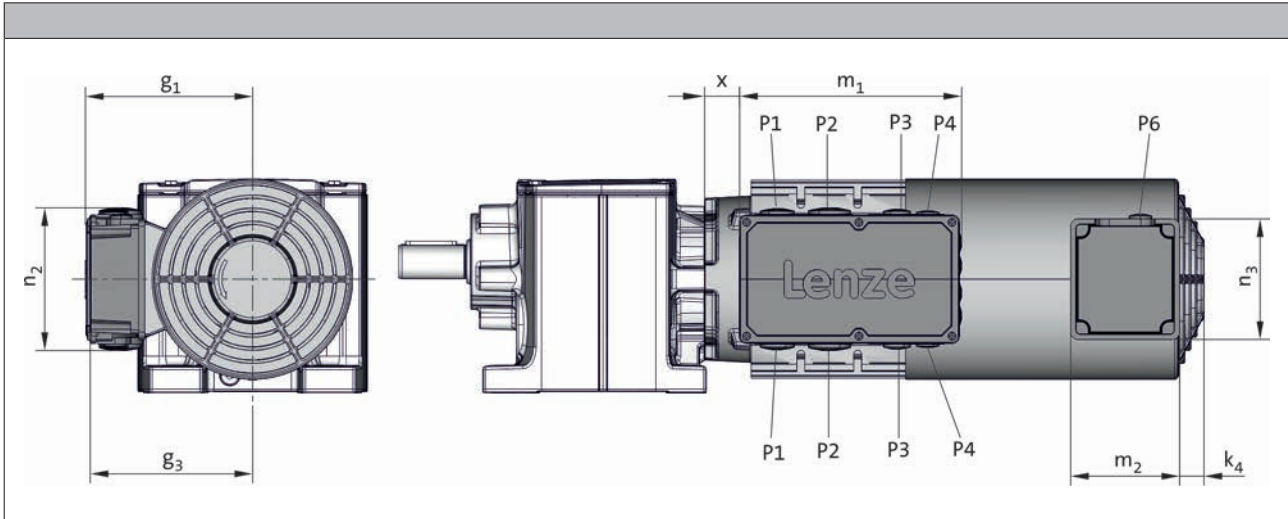
## Product extensions



### Connection via terminal box

#### Dimensions of KK3

The connection in the terminal box is implemented by means of conventional cable glands.



Product			MD□MA□□	
			063-02 063-12 063-22 063-32 063-42	071-42 071-32
Dimensions				
	x	[mm]	-2	1
	g <sub>1</sub>	[mm]	124	133
	m <sub>1</sub>	[mm]	195	
	n <sub>2</sub>	[mm]	125	
	P <sub>1</sub>	[mm]	M25x1.5	
	P <sub>2</sub>	[mm]	M32x1.5	
	P <sub>3</sub>	[mm]	M20x1.5	
	P <sub>4</sub>	[mm]	M20x1.5	
	k <sub>4</sub>	[mm]	12	
	g <sub>3</sub>	[mm]	115	122
	m <sub>2</sub>	[mm]	95	
	n <sub>3</sub>	[mm]	105	
	P <sub>6</sub>	[mm]	1x M16x1.5	

# Motor data MD

## Product extensions



### Connections via ICN connectors

A connector is used for the power connection, connection of the brake, and the temperature monitoring connection. The feedback and blower connections are implemented via a separate connector in each case.

#### Connection for power, brake and temperature monitoring

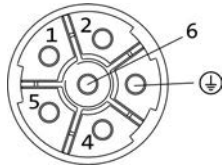
For the power connection of the connector, a max. rated motor current of 16 A is permissible. The connectors can be rotated by 270° and are equipped with a bayonet catch for SpeedTec connectors. As the connector fixing is also compatible with conventional box nuts, existing mating connectors can still be used without difficulty. The motor connection is determined in the terminal box.



#### ICN M23 6-pole

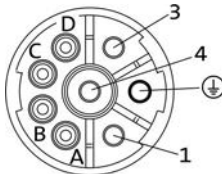
- ▶ No temperature monitoring connection possible!  
If a feedback is used, the thermal detector KTY connection can be realised in the separate connection of the feedback (ICN M23 connector).

Pin assignment		
Contact	Designation	Meaning
1	BD1 / BA1	Brake +/AC
2	BD2 / BA2	Brake -/AC
PE	PE	PE conductor
4	U	Phase U power
5	V	Phase V power
6	W	Phase W power



#### ICN M23 8-pole

Pin assignment		
Contact	Designation	Meaning
1	U	Phase U power
PE	PE	PE conductor
3	W	Phase W power
4	V	Phase V power
A	TB1 / TP1 / R1	Thermal sensor: TKO/PTC/ +KTY
B	TB2 / TP2 / R2	Thermal sensor: TKO/PTC/-KTY
C	BD1 / BA1	Brake +/AC
D	BD2 / BA2	Brake -/AC





## Connections via ICN connectors

### Blower connection

The blower is also optionally available with an ICN connector fixed to the terminal box of the blower for exceptionally fast commissioning. The connectors are fitted with a bayonet fixing, which is also compatible with conventional union nuts. Existing counter plugs can therefore continue to be used without difficulty.



For the blower, the terminal box cover including the connector can be rotated by 90 ° step by step, if required.

### ICN M17 for 1-ph blower

Pin assignment			
Contact	Designation	Meaning	
PE	PE	PE conductor	
1	U1	Fan	
2	U2		
3	Not assigned	Not assigned	
4			
5			
6			

### ICN M17 for 3-ph blower

Pin assignment			
Contact	Designation	Meaning	
PE	PE	PE conductor	
1	U	Phase U power	
2		Not assigned	
3	V	Phase V power	
4	Not assigned	Not assigned	
5			
6	W	Phase W power	

# Motor data MD

Product extensions



## Connections via ICN connectors

### Feedback connection

All encoder systems (apart from IG128-24V-H) are also available with an ICN connector fixed to the motor terminal box for exceptionally fast commissioning. The connectors are fitted with a bayonet fixing, which is also compatible with conventional union nuts. Existing mating connectors can therefore continue to be used without difficulty.

The feedback connector is located on the terminal box side opposite to the power connection



### ICN M23 for resolver

Pin assignment		
Contact	Designation	Meaning
1	+Ref	Transformer windings
2	-Ref	
3	+VCC ETS	Supply: Electronic nameplate
4	+COS	Cosine stator windings
5	-COS	
6	+SIN	Sine stator windings
7	-SIN	
8		Not assigned
9		
10		
11	+KTY	KTY temperature sensor
12	-KTY	

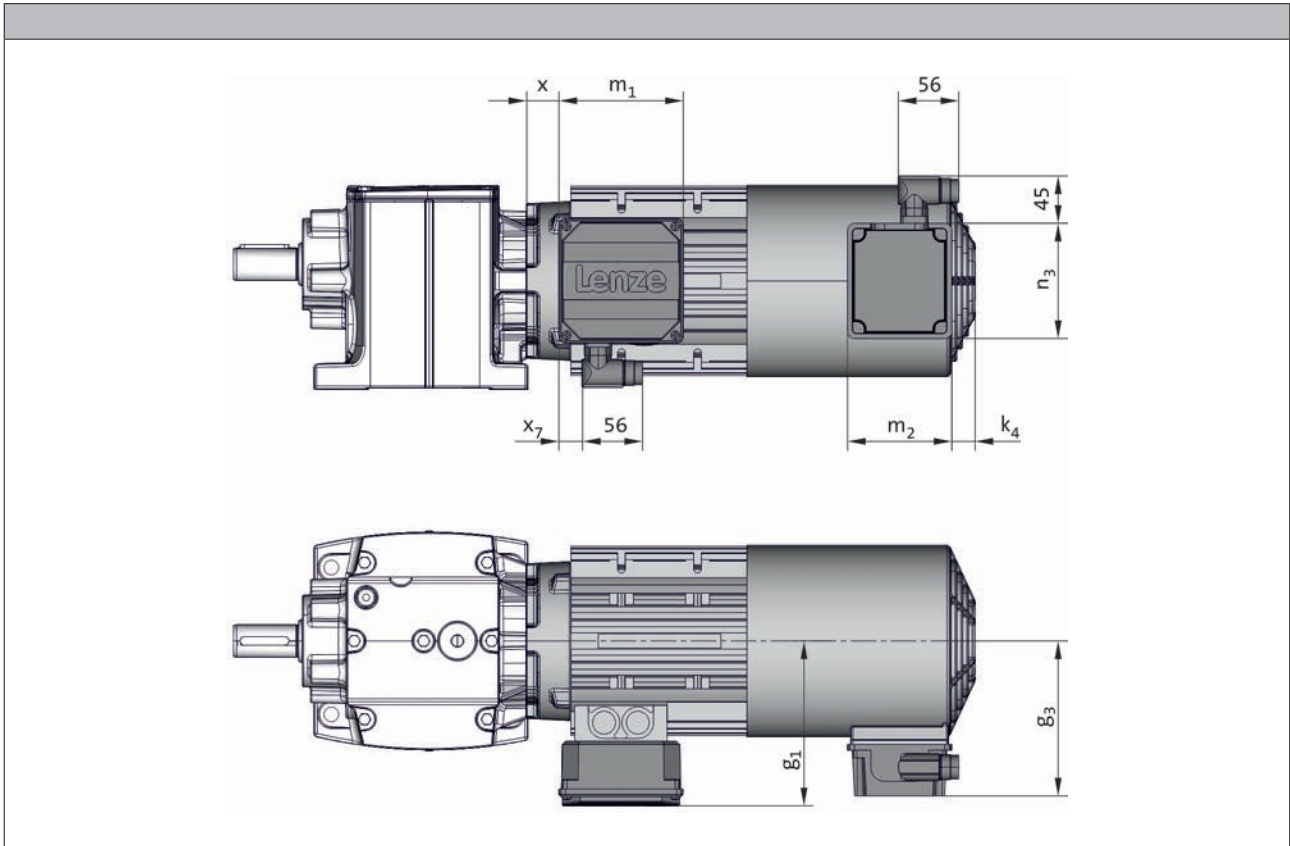
### ICN M23 for incremental encoder and SinCos absolute value encoder hiperface

Pin assignment		
Contact	Designation	Meaning
1	B	Track B/+SIN
2	A <sup>-</sup>	Track A inverse/-COS
3	A	Track A/+COS
4	+U <sub>B</sub>	Supply +
5	GND	Mass
6	Z <sup>-</sup>	Zero track inverse/-RS485
7	Z	Zero track/+RS485
8		Not assigned
9	B <sup>-</sup>	Track B inverse/-SIN
10		Not assigned
11	+KTY	KTY temperature sensor
12	-KTY	



## Connections via ICN connectors

### Dimensions KK1+ICN



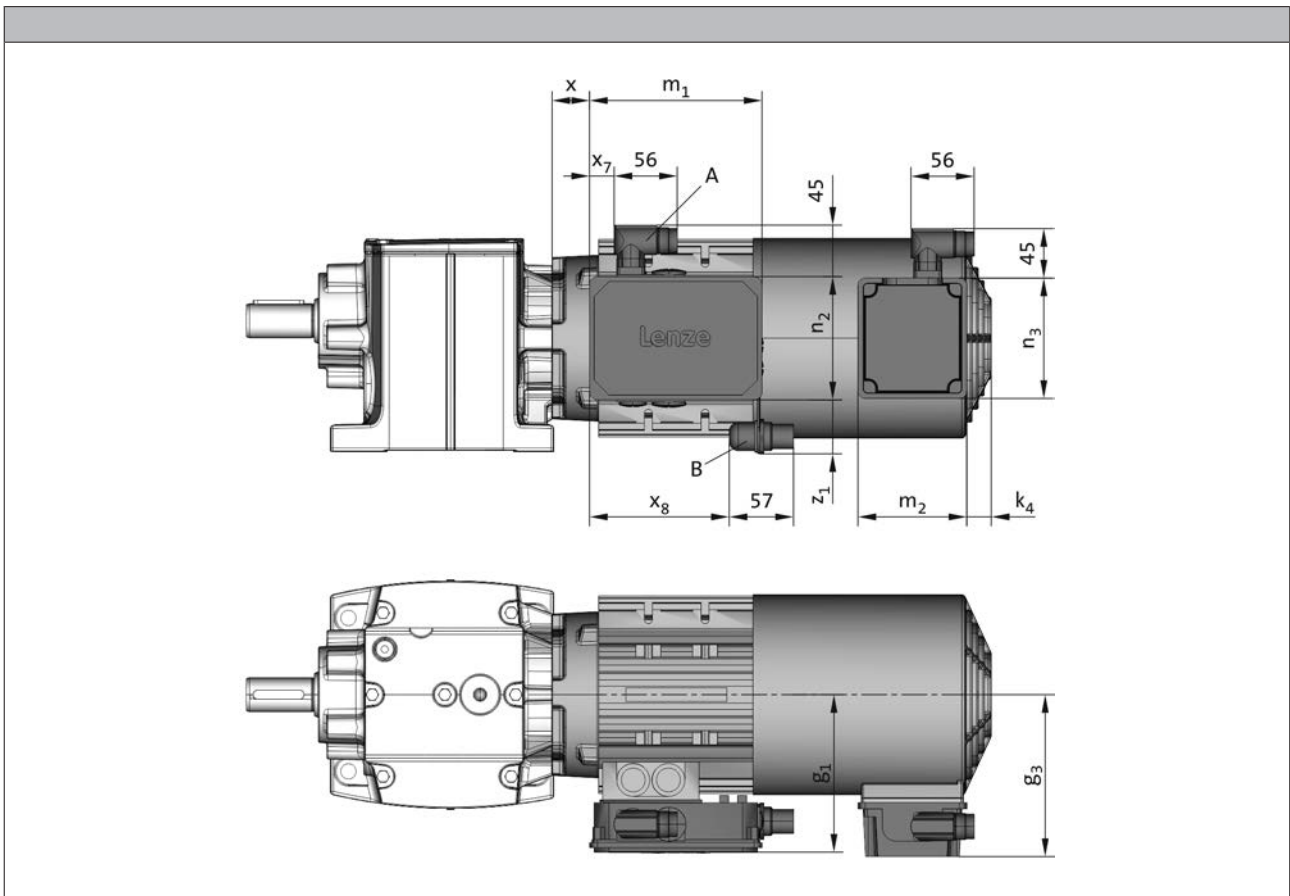
Product		MD□MA□□	
		063-02 063-12 063-22 063-32 063-42	071-42 071-32
Dimensions			
x	[mm]	17	20
g <sub>1</sub>	[mm]	100	109
m <sub>1</sub>	[mm]		75.0
n <sub>2</sub>	[mm]		75.0
x <sub>7</sub>	[mm]		16
k <sub>4</sub>	[mm]		12
g <sub>3</sub>	[mm]	115	122
m <sub>2</sub>	[mm]		95
n <sub>3</sub>	[mm]		105





## Connections via ICN connectors

### Dimensions KK2+ICN



Product			MD□MA□□	
			063-02 063-12 063-22 063-32 063-42	071-42 071-32
Dimensions				
	x	[mm]	9	11
	g <sub>1</sub>	[mm]	107	118
	m <sub>1</sub>	[mm]	136	
	n <sub>2</sub>	[mm]	103	
	x <sub>7</sub>	[mm]	16	
	x <sub>8</sub>	[mm]	109	
	z <sub>1, max</sub>	[mm]	43	
	k <sub>4</sub>	[mm]	12	
	g <sub>3</sub>	[mm]	115	122
	m <sub>2</sub>	[mm]	95	
	n <sub>3</sub>	[mm]	105	

A= power connection  
B= feedback connection (not for KK1)

# Motor data MD

Product extensions



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## Connection via ICN M12 connector

### IG128-24V-H incremental encoder connection

As a standard this incremental encoder is equipped with a connection cable of about 0.5 m length and with a common industry standard M12 connector at its end.

Pin assignment		
Contact	Designation	Meaning
1	+U <sub>B</sub>	Supply +
2	B	Track B
3	GND	Mass
4	A	Track A

# Motor data MD

Product extensions



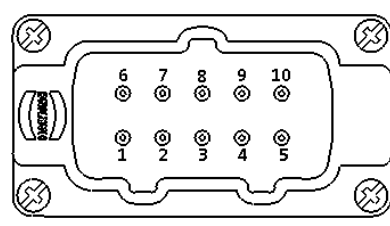
## Connections via HAN connectors

### HAN 10 E

In the case of the rectangular HAN 10E connectors, all six ends of the three winding phases are taken out to the power contacts. The motor circuit is therefore determined in the mating connector.



Pin assignment	
Contact	Meaning
1	Terminal board: U1
2	Terminal board: V1
3	Terminal board: W1
4	Brake +/AC
5	Brake -/AC
6	Terminal board: W2
7	Terminal board: U2
8	Terminal board: V2
9	Thermal sensor: +KTY/PTC/TKO
10	Thermal sensor: KTY/PTC/TKO



# Motor data MD

Product extensions



## Connections via HAN connectors

### HAN modular

The connector is available with two different power modules (16 A or 40 A), depending on the rated motor current. The motor connection is determined in the terminal box and must be checked before commissioning.



#### ► HAN modular 16 A

Pin assignment			
Module	Contact	Meaning	
A	1	Terminal board: U1	
	2	Terminal board: V1	
	3	Terminal board: W1	
B		Dummy module	
C	1	Thermal sensor: +KTY/PTC/TKO	
	2	Brake +/-AC	
	3	Brake -/AC	
	4	Rectifier: Switching contact	
	6	Thermal sensor: KTY/PTC/TKO	

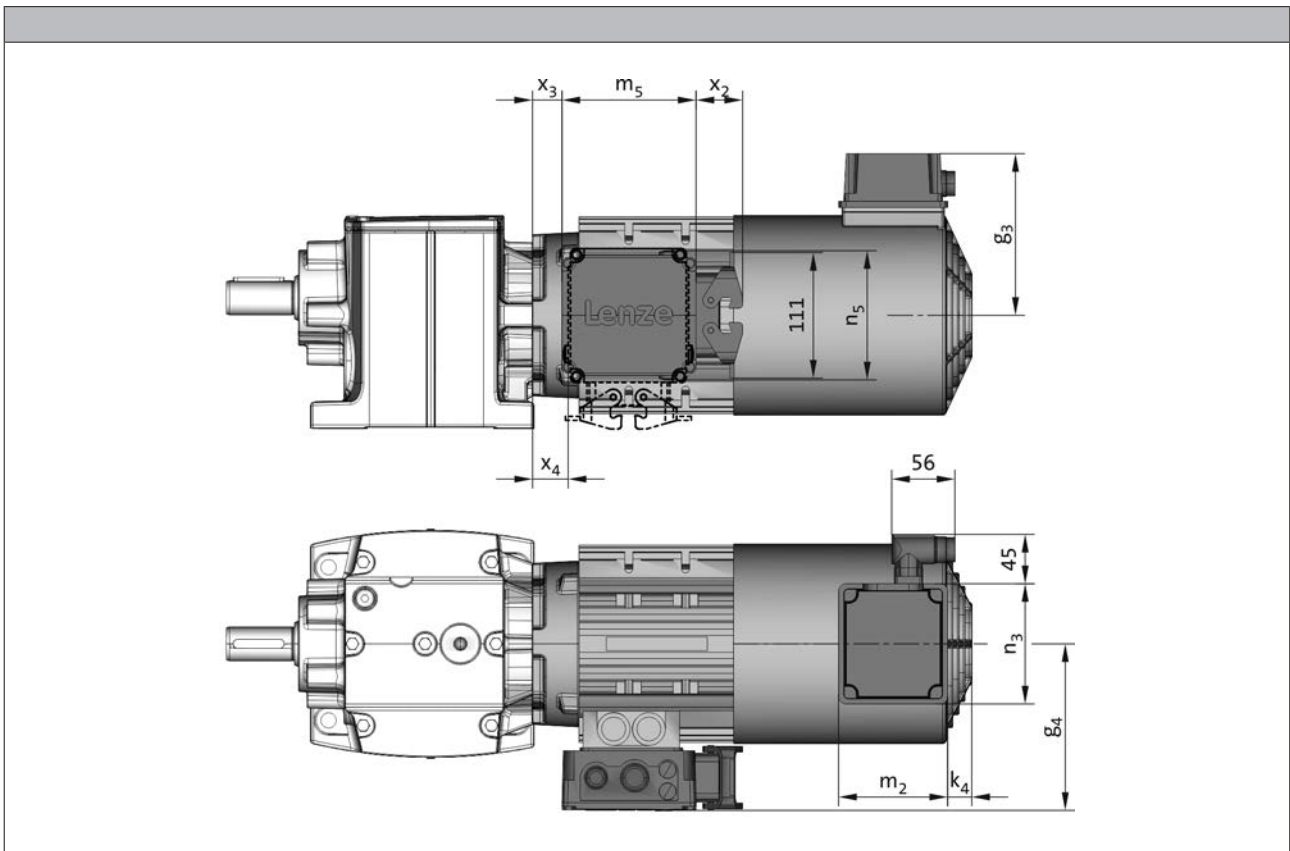
#### ► HAN modular 40 A

Pin assignment			
Module	Contact	Meaning	
A	1	Terminal board: U1	
	2	Terminal board: V1	
	3	Terminal board: W1	
B		Dummy module	
C	1	Thermal sensor: +KTY/PTC/TKO	
	2	Brake +/-AC	
	3	Brake -/AC	
	4	Rectifier: Switching contact	
	6	Thermal sensor: KTY/PTC/TKO	



## Connections via HAN connectors

### Dimensions



Product		MD□MA□□	
		063-02 063-12 063-22 063-32 063-42	071-42 071-32
Dimensions			
	g <sub>4</sub> [mm]	120	129
	x <sub>3</sub> [mm]	1	3
	x <sub>4</sub> [mm]	2	4
	x <sub>2</sub> [mm]		41
	m <sub>5</sub> [mm]		118
	n <sub>5</sub> [mm]		102
	k <sub>4</sub> [mm]		12
	g <sub>3</sub> [mm]	115	122
	m <sub>2</sub> [mm]		95
	n <sub>3</sub> [mm]		105



### Spring-applied brake

The three-phase AC motors can be equipped with a spring-applied brake which is active when the supply voltage has been switched off (closed-circuit principle). In the deenergised state, the brake is applied. This prevents possible movement of the motor shaft with regard to the load after switch-off or in the event of a power failure. For optimum adaptation of the brake motor to the application, several brake sizes and control variants are provided for each motor.

#### Versions

- **Standard**
  - $1 \times 10^6$  repeating switching cycles
  - $1 \times 10^6$  reversing switching cycles
- **LongLife**
  - $10 \times 10^6$  repeating switching cycles
  - $15 \times 10^6$  reversing switching cycles

#### Braking torques

In addition to the standard braking torque, depending on the brake size, the possibility of choosing between a reduced and an increased braking torque is provided.

- When the braking torque is reduced, great wear reserves can be attained. This is enabled by a reduction of the spring rate.
- In order to obtain a greater braking torque, the spring rate is increased. This is practical, for instance, for hoists, since here the gravity acts as an additional acceleration in the negative direction.

#### Manual release

By using the manual release lever, the brake can be released manually in deenergised operating state. The manual release makes positioning and maintenance work easier.



### Spring-applied brake

#### Direct connection without rectifier

If the brake is activated directly without a rectifier, a freewheeling diode or a spark suppressor is required for protection against induction peaks.

- Supply voltages  
DC 24 V

#### Connection via mains voltage with brake rectifier

If the brake is not directly supplied with DC voltage, a rectifier is required. This is included in the scope of supply and is located in the terminal box of the motor. The rectifier converts the AC voltage of the connection into DC voltage. The following rectifiers are available:

##### Rectifier, 6-pole

- Approval UL / CSA
- Supply voltages  
AC 230 V  
AC 400 V  
AC 460 V

##### Bridge/half-wave rectifier, 6-pole

- Supply voltage / brake coil voltage ratio  
up to the overexcitation time = 1.11  
From the overexcitation time = 2.22
- Supply voltages  
AC 230 V  
AC 400 V



During the switching operation the bridge/half-wave rectifier functions as a bridge rectifier for the overexcitation time  $t_{ij}$  and then as a half-wave rectifier. This combination optimises the performance of the brake – depending on the assignment of brake coil voltage and supply voltage:

##### • Short-time overexcitation of the brake coil

Activating the brake coil for the overexcitation time  $t_{ij}$  with twice the rated voltage allows the disengagement time to be reduced. The brake opens more quickly and wear on the friction lining is reduced.

These features make this activation version particularly suitable for lifting applications. It is therefore only available in combination with a brake with increased braking torque.

##### • Holding current reduction (cold brake)

By reducing the holding current, the bridge/half-wave rectifier is able to reduce the power input to the open brake. As the brake heats up less, this type of activation is known as "cold brake".

# Motor data MD

Product extensions



## Spring-applied brake

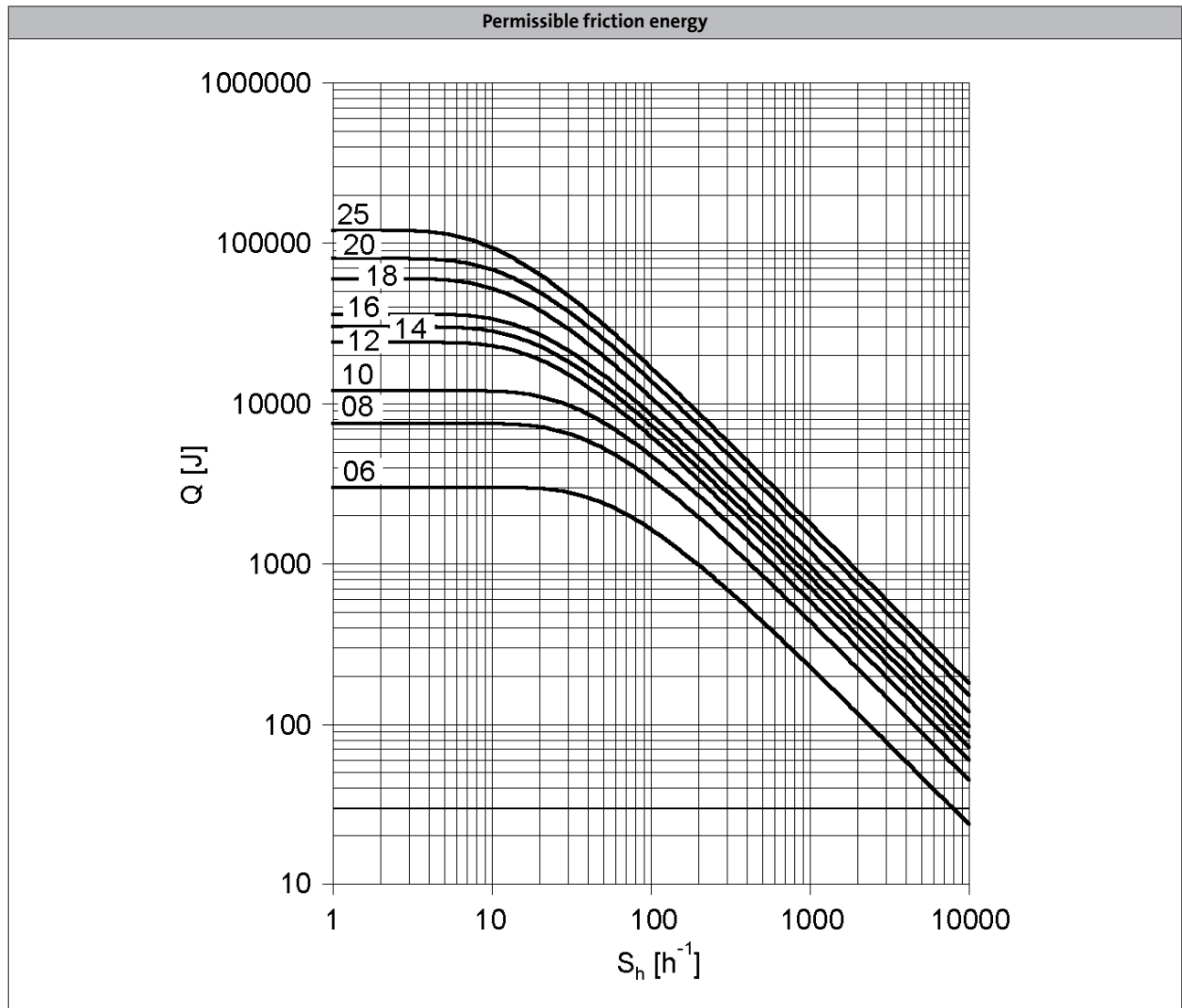
Assignment of 4-pole motors and brakes

Design	Standard		LongLife	
Product	Size Brake	Rated torque $M_k$ [Nm]	Size Brake	Rated torque $M_k$ [Nm]
MD□MA□□063-02	06 06	2.50 4.00	06	4.00
MD□MA□□063-12				
MD□MA□□063-22				
MD□MA□□063-32				
MD□MA□□063-42				
MD□MA□□071-32	06	2.50	06	4.00
	06	4.00	08	3.50
	08	3.50		
MD□MA□□071-42	06	2.50	06	4.00
	06	4.00	08	3.50
	08	3.50	08	8.00
	08	8.00		





## Spring-applied brake



Q = Switching energy per switching cycle

$S_h$  = Operating frequency

Brake size = 06 to 25



## Spring-applied brake

### Rated data with reduced braking torque

- ▶ In case of the braking torque and the maximum switching energy, the unit for the values (100 ... 3600) is rpm.
- ▶ Please enquire for braking torques and maximum switching work values not listed here.

Size			06	08
<b>Power input</b>				
	$P_{in}$	[kW]	0.020	0.025
<b>Braking torque</b>				
100	$M_B$	[Nm]	2.50	3.50
1000	$M_B$	[Nm]	2.30	3.10
1200	$M_B$	[Nm]	2.30	3.10
1500	$M_B$	[Nm]	2.20	3.00
1800	$M_B$	[Nm]	2.10	2.90
3000	$M_B$	[Nm]	2.00	2.80
3600	$M_B$	[Nm]	2.00	2.70
<b>Maximum switching energy</b>				
100	$Q_E$	[KJ]	3.00	7.50
1000	$Q_E$	[KJ]	3.00	7.50
1200	$Q_E$	[KJ]	3.00	7.50
1500	$Q_E$	[KJ]	3.00	7.50
1800	$Q_E$	[KJ]	3.00	7.50
3000	$Q_E$	[KJ]	3.00	7.50
3600	$Q_E$	[KJ]	3.00	7.50
<b>Transition operating frequency</b>				
	$S_{h\ddot{u}}$	[1/h]	79.0	50.0
<b>Moment of inertia</b>				
	$J$	[kgcm <sup>2</sup> ]	0.15	0.61
<b>Mass</b>				
	$m$	[kg]	0.90	1.50



## Spring-applied brake

### Rated data with reduced braking torque

- Activation via half-wave or bridge rectifier

Size			06	08
<b>Friction energy</b>	$Q_{BW}$	[MJ]	113	210
<b>Delay time</b>				
Engaging	$t_{11}$	[ms]	11.0	14.0
<b>Rise time</b>				
Braking torque	$t_{12}$	[ms]	13.0	10.0
<b>Engagement time</b>			24.0	
	$t_1$	[ms]		
<b>Disengagement time</b>				
	$t_2$	[ms]	35.0	37.0

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)	
Size			06	08
<b>Friction energy</b>	$Q_{BW}$	[MJ]	113	210
<b>Overexcitation time</b>			300	
	$t_{\ddot{u}}$	[ms]		
<b>Min. rest time</b>			900	
	t	[ms]		
<b>Delay time</b>				
Engaging	$t_{11}$	[ms]	12.0	22.0
<b>Rise time</b>				
Braking torque	$t_{12}$	[ms]	14.0	16.0
<b>Engagement time</b>				
	$t_1$	[ms]	26.0	38.0
<b>Disengagement time</b>				
	$t_2$	[ms]	35.0	37.0

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time  $t_2$  – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.



## Spring-applied brake

### Rated data with standard braking torque

- ▶ In case of the braking torque and the maximum switching energy, the unit for the values (100 ... 3600) is rpm.
- ▶ Please enquire for braking torques and maximum switching work values not listed here.

Size			06	08
<b>Power input</b>				
	$P_{in}$	[kW]	0.020	0.025
<b>Braking torque</b>				
100	$M_B$	[Nm]	4.00	8.00
1000	$M_B$	[Nm]	3.70	7.20
1200	$M_B$	[Nm]	3.60	7.00
1500	$M_B$	[Nm]	3.50	6.80
1800	$M_B$	[Nm]	3.40	6.70
3000	$M_B$	[Nm]	3.20	6.30
3600	$M_B$	[Nm]	3.20	6.10
<b>Maximum switching energy</b>				
100	$Q_E$	[KJ]	3.00	7.50
1000	$Q_E$	[KJ]	3.00	7.50
1200	$Q_E$	[KJ]	3.00	7.50
1500	$Q_E$	[KJ]	3.00	7.50
1800	$Q_E$	[KJ]	3.00	7.50
3000	$Q_E$	[KJ]	3.00	7.50
3600	$Q_E$	[KJ]	3.00	7.50
<b>Transition operating frequency</b>				
	$S_{h\ddot{u}}$	[1/h]	79.0	50.0
<b>Moment of inertia</b>				
	$J$	[kgcm <sup>2</sup> ]	0.15	0.61
<b>Mass</b>				
	$m$	[kg]	0.90	1.50



## Spring-applied brake

### Rated data with standard braking torque

- Activation via half-wave or bridge rectifier

Size			06	08
<b>Friction energy</b>	$Q_{BW}$	[MJ]	85.0	158
<b>Delay time</b>			15.0	
Engaging	$t_{11}$	[ms]	15.0	
<b>Rise time</b>				
Braking torque	$t_{12}$	[ms]	13.0	16.0
<b>Engagement time</b>				
	$t_1$	[ms]	28.0	31.0
<b>Disengagement time</b>				
	$t_2$	[ms]	45.0	57.0

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)	
Size			06	08
<b>Friction energy</b>	$Q_{BW}$	[MJ]	85.0	158
<b>Overexcitation time</b>			300	
Min. rest time	$t_{\ddot{u}}$	[ms]	300	
	$t$	[ms]	900	
<b>Delay time</b>				
Engaging	$t_{11}$	[ms]	16.0	25.0
<b>Rise time</b>				
Braking torque	$t_{12}$	[ms]	14.0	27.0
<b>Engagement time</b>				
	$t_1$	[ms]	30.0	52.0
<b>Disengagement time</b>				
	$t_2$	[ms]	45.0	57.0

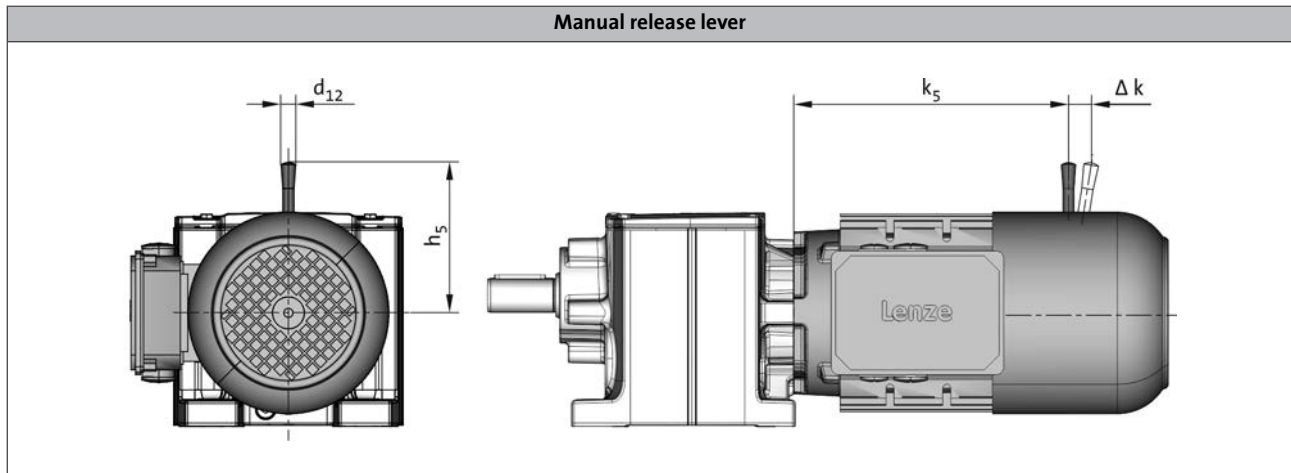
- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time  $t_2$  – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.



## Spring-applied brake

### Manual release

By using the manual release lever, the brake can be released manually in deenergised operating state. The manual release makes positioning and maintenance work easier.



Product	Size Brake	Dimensions			
		$k_5$ [mm]	$\Delta k$ [mm]	$h_5$ [mm]	$d_{12}$ [mm]
MD□MA□□063-02 MD□MA□□063-22	06	185	29	107	13.0
MD□MA□□063-12 MD□MA□□063-32 MD□MA□□063-42	06	169	29	107	13.0
MD□MA□□071-32 MD□MA□□071-42	06 08	182 183	29 27	107 116	13.0 13.0

The following combinations with manual release lever and motor connection in the same position are not possible:

- HAN connector with connection in position 1
- Inverter motec
- Terminal box of motor size 071 for brake and retracting (M□□MA BR/BS/BA/BI)



### Feedback

Depending on the application, the following resolvers, incremental encoders or absolute value encoders are provided for speed and position detection.

#### Resolver

The stator-supplied resolver with two stator windings shifted by 90° and a rotor winding with transformer winding can detect both the speed and the rotor position. The rotor position is retained in the event of a voltage failure.

- The three-phase AC motors with resolver cannot be used for speed-dependent safety functions in connection with the SM 301 safety module.

<b>Product key</b>				RS1
<b>Accuracy</b>				
		[°]		-10 ... 10
<b>Absolute positioning</b>				
				1 revolution
<b>Max. input voltage</b>				
DC	$U_{in,max}$	[V]		10.0
<b>Max. input frequency</b>				
	$f_{in,max}$	[kHz]		4.00
<b>Ratio</b>				
Stator / rotor		± 5 %		0.30
<b>Rotor impedance</b>				
	$Z_{ro}$	[Ω]		51 + j90
<b>Stator impedance</b>				
	$Z_{so}$	[Ω]		102 + j150
<b>Impedance</b>				
	$Z_{rs}$	[Ω]		44 + j76
<b>Min. insulation resistance</b>				
At DC 500 V	R	[MΩ]		10.0
<b>Number of pole pairs</b>				
				1



## Feedback

### Incremental encoder and SinCos absolute value encoder

Incremental encoders can only be used for speed measurement, but not for speed control. Homing is required in order to enable positioning later.

Absolute value encoders can detect the speed, the rotor position, and the machine position with a very high resolution. They are used for the positioning of dynamic applications and do not require homing.

- The three-phase AC motors with incremental encoders or SinCos absolute value encoders cannot be used for speed-dependent safety functions in connection with the SM 301 safety module.

Encoder type			HTL incremental				TTL incremental			SinCos absolute value
<b>Product key</b>			IG128-24V-H	IG512-24V-H	IG1024-24V-H	IG2048-24V-H	IG512-5V-T	IG1024-5V-T	IG2048-5V-T	AM1024-8V-H
<b>Encoder type</b>										Multi-turn
<b>Pulses</b>			128	512	1024	2048	512	1024	2048	1024
<b>Output signals</b>			HTL				TTL			1 Vss
<b>Interfaces</b>			A, B track	A, B, N track and inverted					Hiperface	
<b>Absolute revolutions</b>			0							4096
<b>Accuracy</b>			-22.5 ... 22.5		-2 ... 2		-0.8 ... 0.8			
<b>Min. input voltage</b>			8.00				4.75		7.00	
DC	$U_{in,min}$	[V]	8.00				4.75		7.00	
<b>Max. input voltage</b>			26.0		30.0		5.25		12.0	
DC	$U_{in,max}$	[V]	26.0		30.0		5.25		12.0	
<b>Max. current consumption</b>			0.040		0.15		0.080			
	$I_{max}$	[A]	0.040		0.15		0.080			
<b>Limit frequency</b>			30.0		160		300		200	
	$f_{max}$	[kHz]	30.0		160		300		200	



# Motor data MD

## Product extensions



### Blower

During operation with the rated torque at low speeds (< 20 Hz), the integral fan does not rotate fast enough anymore to ensure sufficient cooling of the motor. In order to prevent overheating, operation without a blower requires a torque reduction of the motor. The blower cools the motor steadily and irrespective of the motor speed. A torque reduction is not required and the motor can be actuated with its rated torque from 5 Hz to the rated frequency.

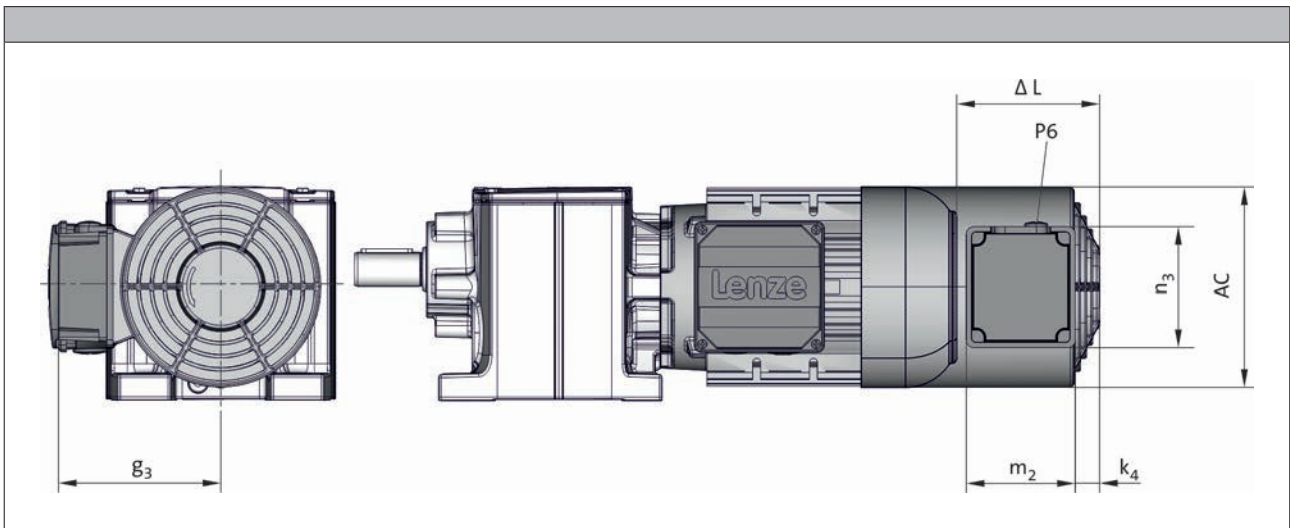
### Rated data for 50 Hz

Product	Number of phases	Connection method	$U_{min}$	$U_{max}$	$P_{max}$	$I_{max}$	m
			[V]	[V]	[kW]	[A]	[kg]
MD□MA□□063-12	1		230	277	0.027	0.11	2.00
MD□MA□□063-32	3	Δ	200	303	0.028	0.12	
MD□MA□□063-42		Y	346	525		0.070	
MD□MA□□071-32	1		230	277	0.027	0.10	2.10
MD□MA□□071-42	3	Δ	200	303	0.031	0.11	
		Y	346	525		0.060	



### Blower

#### Dimensions, 4-pole motors



Built-on accessories					
	Without	Brake	Brake + Feedback	Feedback	

Product	Dimensions				
	$\Delta L$ [mm]	$\Delta L$ [mm]	$\Delta L$ [mm]	$\Delta L$ [mm]	AC [mm]
MD□MA□□063-12 MD□MA□□063-32 MD□MA□□063-42	128	170	170	128	123
MD□MA□□071-32 MD□MA□□071-32 MD□MA□□071-42		165	165		138

Product	Dimensions				
	$k_4$ [mm]	$g_3$ [mm]	$m_2$ [mm]	$n_3$ [mm]	$P_6$ [mm]
MD□MA□□063-12 MD□MA□□063-32 MD□MA□□063-42	12	115	95	105	1x M16x1.5
MD□MA□□071-32 MD□MA□□071-42		122			



### Temperature monitoring

To protect the motor against overheating, the following thermal sensors are provided.

The thermal sensors are integrated into the windings. We recommend using an additional motor protection switch.

#### TKO thermal contacts

The TCO thermal contact (thermal NC contact) is a bimetallic-element switch. The TCO monitors the motor winding temperature; at too high temperatures, the motor relay switches. The motor is disconnected from the mains.

Function	Operating temperature	Min. reset temperature	Max. reset temperature	Max. input current	Max. input voltage
					AC
	T	$T_{min}$	$T_{max}$	$I_{in,max}$	$U_{in,max}$
	-5 ... 5				
	[°C]	[°C]	[°C]	[A]	[V]
NC contact	150	90.0	135	2.50	250

#### PTC thermistor

The PTC thermistor is actuated in connection with a tripping unit. If the motor gets too hot, the motor can be switched off by means of a contactor. In contrast to the thermal contact, quick restart is possible.

Function	Operating temperature	Rated resistance			Standard
		155 °C	-20 °C	140 °C	
	T	$R_N$	$R_N$	$R_N$	
	-5 ... 5				
	[°C]	[Ω]	[Ω]	[Ω]	
Sudden change in resistance	150	550	30.0	250	DIN 44080 DIN VDE 0660 Part 303

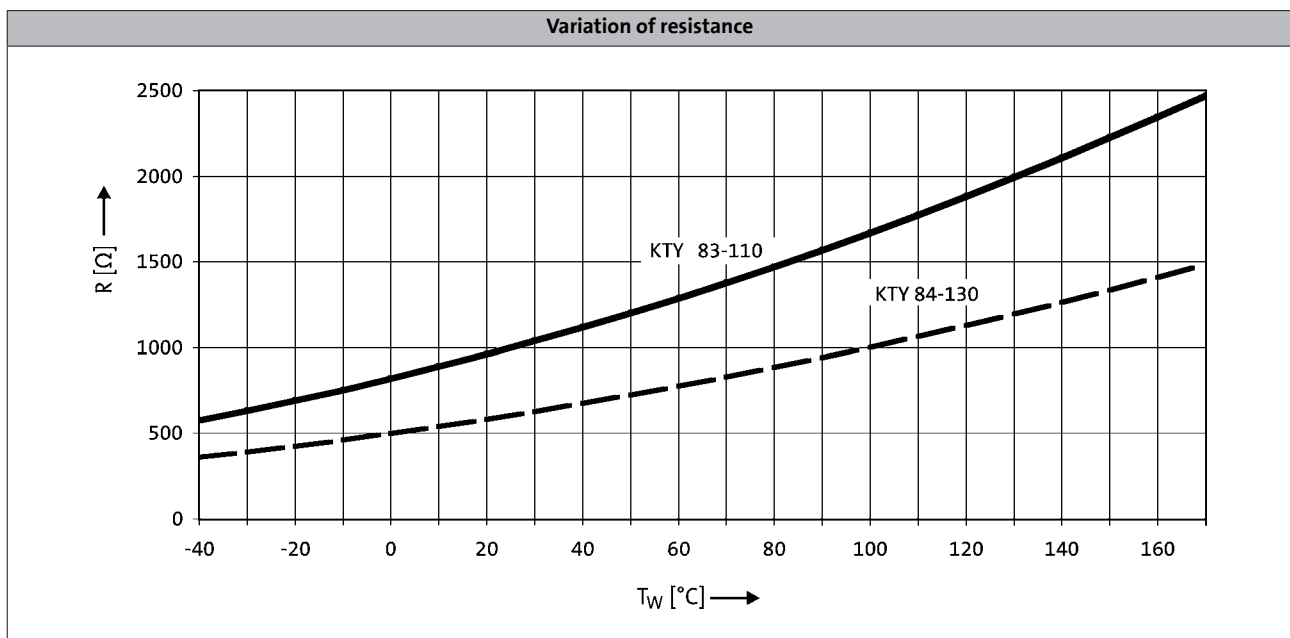


## Temperature monitoring

### KTY temperature sensor

The KTY thermal detectors work as continuously variable resistors, showing a similar tendency as PTC thermistors. However, with an increasing temperature, the resistance only increases comparatively slowly, enabling the controller to determine the temperature at regular intervals and to already perform a process evaluation at an early stage. In this way, the motor can already be switched off before it is overheated.

	Function	Rated resistance			Max. input current	
		25 °C	150 °C	170 °C	25 °C	170 °C
		$R_N$	$R_N$	$R_N$	$I_{in,max}$	$I_{in,max}$
		[ $\Omega$ ]	[ $\Omega$ ]	[ $\Omega$ ]	[A]	[A]
KTY83-110	Continuous resistance change	1000	2225	2471	0.010	0.002
KTY84-130	Continuous resistance change	603	1334	1482	0.010	0.002



- If the thermal sensor is supplied with a measurement current of 1 mA, the above relationship between the temperature and the resistance applies.

# Motor data MH

## Technical data



### Rated data for 50 Hz

#### 4-pole motors

Product	$P_N$	$n_N$	$M_N$	$M_a$	$M_b$	$J^{1)}$	$m^{1)}$
	[kW]	[r/min]	[Nm]	[Nm]	[Nm]	[kgcm <sup>2</sup> ]	[kg]
MH□MA□□080-32	0.75	1410	5.08	12.0	12.1	28.0	11.0
MH□MA□□090-12	1.10	1430	7.35	20.3	24.2	32.0	16.0
MH□MA□□090-32	1.50	1435	10.0	33.0	34.0	36.0	18.0
MH□MA□□100-12	2.20	1445	14.5	48.0	55.0	61.0	24.0
MH□MA□□100-32	3.00	1445	19.8	67.0	76.0	66.0	26.5
MH□MA□□112-22	4.00	1455	26.3	81.0	100	135	38.0
MH□MA□□132-12	5.50	1470	35.7	90.0	108	290	59.0
MH□MA□□132-22	7.50	1460	49.1	110	175	336	66.0

Product	$U_{N,\Delta}^{2)}$	$I_{N,\Delta}$	$U_{N,Y}$	$I_{N,Y}$	$I_a/I_N$	$\cos \phi$	$\eta_{50\%}$	$\eta_{75\%}$	$\eta_{100\%}$
	$\pm 10\%$		$\pm 10\%$						
	[V]	[A]	[V]	[A]			[%]	[%]	[%]
MH□MA□□080-32	230	3.10	400	1.80	5.0	0.84	74.9	79.6	79.6
MH□MA□□090-12	230	4.60	400	2.70	5.4	0.76	77.4	81.6	82.0
MH□MA□□090-32	230	5.80	400	3.30	6.3	0.76	82.2	83.4	82.8
MH□MA□□100-12	230	8.60	400	5.00	6.0	0.80	85.4	86.7	86.3
MH□MA□□100-32	230	12.1	400	7.00	6.5	0.73	83.8	85.6	85.5
MH□MA□□112-22	230	14.5	400	8.40	6.0	0.80	86.3	88.2	88.3
MH□MA□□132-12	230 400 <sup>3)</sup>	20.6 11.9	400	11.9	6.1	0.77	88.2	89.3	89.2
MH□MA□□132-22	230 400 <sup>3)</sup>	27.0 15.6	400	15.6	8.5	0.79	87.6	88.9	88.7

<sup>1)</sup> Without accessories

<sup>2)</sup> Operation at 87 Hz is possible with 4-pole motors whose rated data at 50 Hz displays the voltage values  $\Delta$  230 V.

With motor frame sizes 132-12 to 225-22, the required voltage must also be specified in your order.

<sup>3)</sup> Star/delta start-up possible at 400 V.

# Motor data MH

Technical data



## Rated data for 87 Hz

### 4-pole motors

Product	$P_N$	$n_N$	$M_N$	$M_{max}$	$J^{1)}$	$m^{1)}$
	[kW]	[r/min]	[Nm]	[Nm]	[kgcm <sup>2</sup> ]	[kg]
MH□MA□□080-32	1.35	2520	5.12	20.0	28.0	11.0
MH□MA□□090-12	2.00	2540	7.52	30.0	32.0	16.0
MH□MA□□090-32	2.70	2545	10.1	40.0	36.0	18.0
MH□MA□□100-12	3.90	2555	14.6	60.0	61.0	24.0
MH□MA□□100-32	5.40	2555	20.2	80.0	66.0	26.5
MH□MA□□112-22	7.10	2565	26.4	106	135	38.0
MH□MA□□132-12	9.70	2580	35.9	144	290	59.0
MH□MA□□132-22	13.2	2570	49.1	196	336	66.0

Product	$U_{N,\Delta}$	$I_{N,\Delta}$	$\cos \phi$	$\eta_{50\%}$	$\eta_{75\%}$	$\eta_{100\%}$
	$\pm 10\%$					
	[V]	[A]		[%]	[%]	[%]
MH□MA□□080-32	400	3.10	0.84	77.3	81.6	83.5
MH□MA□□090-12	400	4.60	0.78	80.4	84.9	86.5
MH□MA□□090-32	400	5.80	0.76	82.3	85.5	86.0
MH□MA□□100-12	400	8.60	0.83	85.7	89.6	90.0
MH□MA□□100-32	400	12.1	0.76	84.7	87.9	88.5
MH□MA□□112-22	400	14.5	0.83	87.4	90.2	90.9
MH□MA□□132-12	400	20.6	0.82	88.2	91.4	91.8
MH□MA□□132-22	400	27.0	0.82	88.2	90.1	90.7

<sup>1)</sup> Without accessories

# Motor data MH

Technical data



## Motor – inverter assignment

- ▶ Decentralised inverter 8400 motec (E84DVB)
- ▶ Inverter Drives 8400 (E84AV)

Rated frequency 50/60 Hz

Rated power	Product	Product key	
		Inverter	
$P_N$ [kW]			
0.75	MH□MA□□080-32	E84DVB□7514S□□□□2□	E84AV□□□□7514□□□0
1.10	MH□MA□□090-12	E84DVB□1124S□□□□2□	E84AV□□□□1124□□□0
1.50	MH□MA□□090-32	E84DVB□1524S□□□□2□	E84AV□□□□1524□□□0
2.20	MH□MA□□100-12	E84DVB□2224S□□□□2□	E84AV□□□□2224□□□0
3.00	MH□MA□□100-32	E84DVB□3024S□□□□2□	E84AV□□□□3024□□□0
4.00	MH□MA□□112-22	E84DVB□4024S□□□□2□	E84AV□□□□4024□□□0
5.50	MH□MA□□132-12	E84DVB□5524S□□□□2□	E84AV□□□□5524□□□0
7.50	MH□MA□□132-22	E84DVB□7524S□□□□2□	E84AV□□□□7524□□□0

Rated frequency 87 Hz

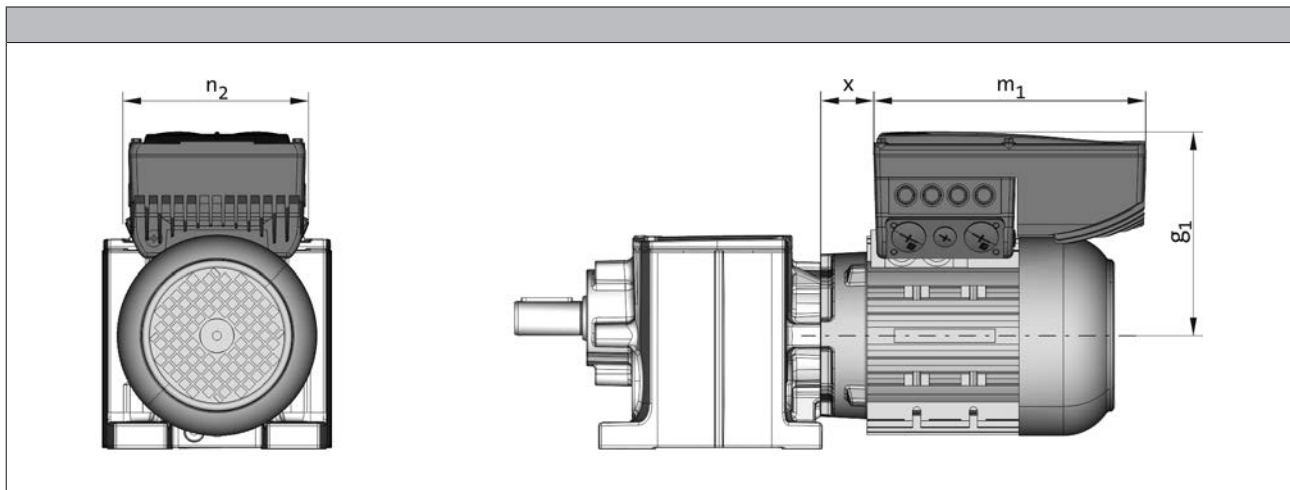
Rated power	Product	Product key	
		Inverter	
$P_N$ [kW]			
1.35	MH□MA□□080-32	E84DVB□1524S□□□□2□	E84AV□□□□1524□□□0
2.00	MH□MA□□090-12	E84DVB□2224S□□□□2□	E84AV□□□□2224□□□0
2.70	MH□MA□□090-32	E84DVB□3024S□□□□2□	E84AV□□□□3024□□□0
3.90	MH□MA□□100-12	E84DVB□4024S□□□□2□	E84AV□□□□4024□□□0
5.40	MH□MA□□100-32	E84DVB□5524S□□□□2□	E84AV□□□□5524□□□0
7.10	MH□MA□□112-22	E84DVB□7524S□□□□2□	E84AV□□□□7524□□□0
9.70	MH□MA□□132-12		E84AV□□□□1134□□□0
13.2	MH□MA□□132-22		E84AV□□□□1534□□□0

# Motor data MH

Technical data



## Dimensions, 8400 motec inverter



### Rated frequency 50/60 Hz

Product	Product key Inverter	Dimensions			
		$\varnothing_1$ , 50Hz [mm]	$m_1$ , 50Hz [mm]	$n_2$ , 50Hz [mm]	$x_{50Hz}$ [mm]
MH□MA□□080-32	E84DVB□7514S□□□2□	172	241	161	27
MH□MA□□090-12	E84DVB□1124S□□□2□	177			40
MH□MA□□090-32	E84DVB□1524S□□□2□	217	260	176	41
MH□MA□□100-12	E84DVB□2224S□□□2□				
MH□MA□□100-32	E84DVB□3024S□□□2□	282	325	195	36
MH□MA□□112-22	E84DVB□4024S□□□2□				
MH□MA□□132-12	E84DVB□5524S□□□2□	301	325	195	60
MH□MA□□132-22	E84DVB□7524S□□□2□				

### Rated frequency 87 Hz

Product	Product key Inverter	Dimensions			
		$\varnothing_1$ , 87Hz [mm]	$m_1$ , 87Hz [mm]	$n_2$ , 87Hz [mm]	$x_{87Hz}$ [mm]
MH□MA□□080-32	E84DVB□1524S□□□2□	172	241	161	27
MH□MA□□090-12	E84DVB□2224S□□□2□	206	260	176	39
MH□MA□□090-32	E84DVB□3024S□□□2□				
MH□MA□□100-12	E84DVB□4024S□□□2□	272	325	195	28
MH□MA□□100-32	E84DVB□5524S□□□2□				
MH□MA□□112-22	E84DVB□7524S□□□2□	282	325	195	36





### Motor connection

The three-phase AC motors are designed for operation at a constant mains frequency and with an inverter.

For 50 Hz operation, the motors are operated in  $\Delta$  configuration at 230 V or in star configuration at 400 V.

For inverter operation, the base frequency has been specified as 87 Hz at a rated voltage of 400 V in  $\Delta$  configuration.

The standard connection is implemented via a terminal box. Furthermore ICN and HAN connectors are provided to quickly carry out commissioning or maintenance operations.

### Overview of the connection options

Product	MH□MA□□	MH□MA□□	MH□MA□□	MH□MA□□	MH□MA□□
	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
<b>Power connection/brake connection</b>					
Terminal box	●	●	●	●	●
ICN connector M23	●	●	●	●	●
HAN 10E connector	●	●	●	●	
HAN modular connector	●	●	●	●	●
<b>Feedback connection</b>					
Terminal box	●	●	●	●	●
ICN connector M23	●	●	●	●	●
ICN connector M12 <sup>1)</sup>	●	●	●	●	●
<b>Blower connection</b>					
Terminal box	●	●	●	●	●
ICN connector M17	●	●	●	●	●
<b>Temperature sensor connection</b>					
Terminal box	●	●	●	●	●
ICN connector M23 <sup>2)</sup>	●	●	●	●	●
HAN 10E connector	●	●	●	●	
HAN modular connector	●	●	●	●	●

<sup>1)</sup> Connection for IG128-24V-H incremental encoder

<sup>2)</sup> TCO or PTC connected in the power connection and KTY connected in the feedback connection.

# Motor data MH

## Product extensions



### Motor connection

#### Assignment: motor terminal box - built-on accessories

- Depending on the motor version, terminal boxes of different sizes (KK1 ... KK3) are used.

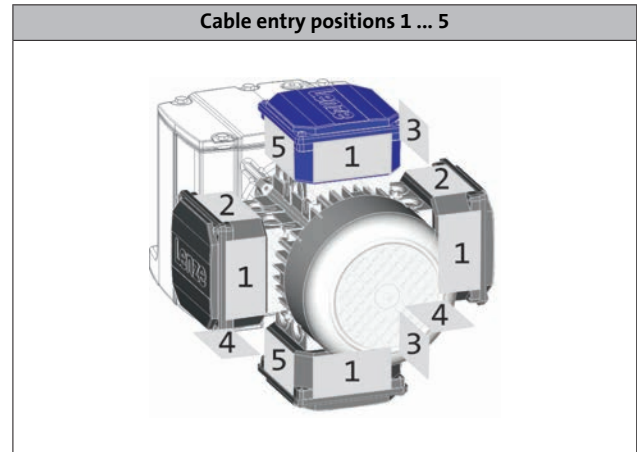
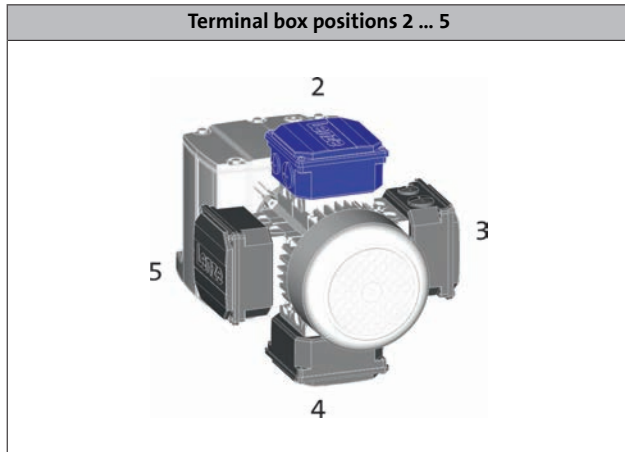
Product	MH□MA□□	MH□MA□□	MH□MA□□	MH□MA□□	MH□MA□□
	080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
<b>Built-on accessories with 1 thermal sensor</b>					
Without	KK1 KK1 + ICN HAN 10 E HAN modular	KK1 KK1 + ICN HAN 10 E HAN modular	KK1 KK1 + ICN HAN 10 E HAN modular	KK1 KK1 + ICN HAN 10 E HAN modular	KK1 KK1 + ICN HAN modular
Feedback	KK2 KK2 + ICN	KK2 KK2 + ICN	KK2 KK2 + ICN	KK2 KK2 + ICN	KK3 KK3 + ICN
Brake	KK2 KK2 + ICN HAN 10 E HAN modular	KK2 KK2 + ICN HAN 10 E HAN modular	KK2 KK2 + ICN HAN 10 E HAN modular	KK2 KK2 + ICN HAN 10 E HAN modular	KK3 KK3 + ICN HAN modular
Brake + Feedback	KK3 KK2 + ICN	KK3 KK2 + ICN	KK3 KK2 + ICN	KK3 KK2 + ICN	KK3 KK3 + ICN
<b>Built-on accessories with 2 thermal sensors</b>					
Without	KK2	KK2	KK2	KK2	KK3
Feedback	KK2	KK2	KK2	KK2	KK3
Brake (2-pole terminal)	KK2	KK2	KK2	KK2	KK3
Brake (rectifier)	KK2	KK2	KK2	KK2	KK3
Brake + Feedback	KK3	KK3	KK3	KK3	KK3



## Motor connection

### Position of cable entry/connector

For geared motors, the position of the cable entry must be selected as a function of the terminal box position.



Terminal box position	2	3	4	5
	Cable entry positions			
KK1	1/3/5*	1/2*/4	1/3*/5	1/2/4*
KK2	3+5	2+4	3+5	2+4
KK3	3+5	2+4	3+5	2+4
	Connector position			
HAN	1/3/5	1/2/4	1/3/5	1/2/4
KK1 + ICN	1/3/5*	1/2*/4	1/3*/5	1/2/4*
KK2 + ICN	3/5*	2*/4	3/5*	2/4*

- ▶ If preferred positions are not specified in the order, the cable entry will be positioned as indicated by \* on the diagram below.
- ▶ If preferred positions are not specified in the order, the connector will be positioned as indicated by \* on the diagram below.

# Motor data MH

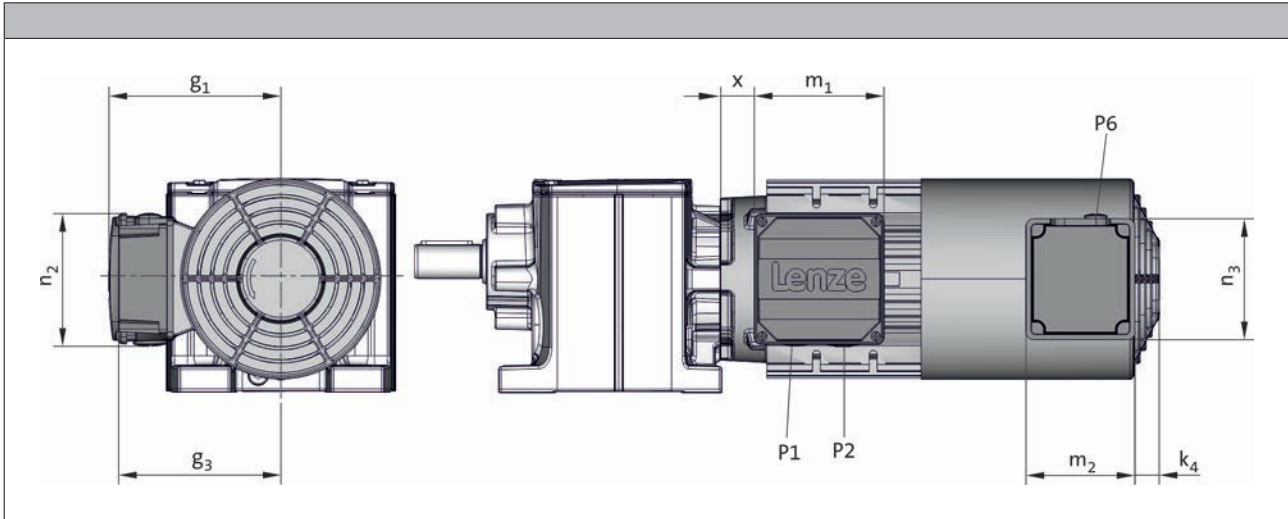
## Product extensions



### Connection via terminal box

#### Dimensions of KK1

The connection in the terminal box is implemented by means of conventional cable glands.



Product			MH□MA□□				
			080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Dimensions							
	x	[mm]	15	30	31	39	58
	g <sub>1</sub>	[mm]	150	157	166	176	195
	m <sub>1</sub>	[mm]	115				122
	n <sub>2</sub>	[mm]	115				122
	P <sub>1</sub>	[mm]	M20x1.5				M32x1.5
	P <sub>2</sub>	[mm]	M25x1.5				M32x1.5
	k <sub>4</sub>	[mm]	13	22		32	
	g <sub>3</sub>	[mm]	132	141	150	162	182
	m <sub>2</sub>	[mm]	95				
	n <sub>3</sub>	[mm]	105				
	P <sub>6</sub>	[mm]	1x M16x1.5				

# Motor data MH

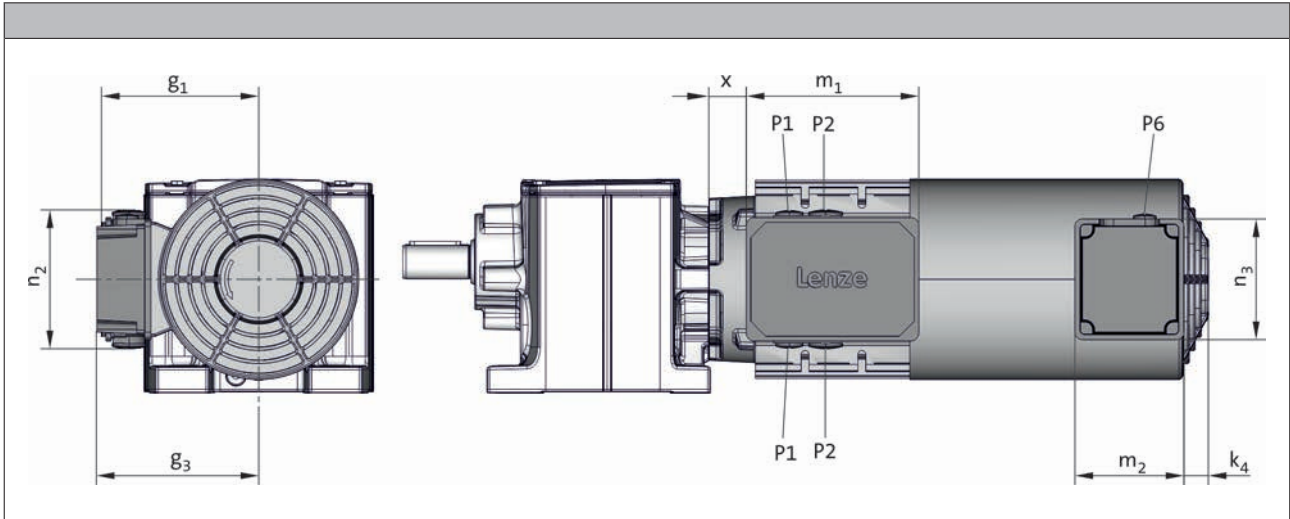
Product extensions



## Connection via terminal box

### Dimensions of KK2

The connection in the terminal box is implemented by means of conventional cable glands.



Product			MH□MA□□			
			080-32	090-12 090-32	100-12 100-32	112-22
Dimensions	x	[mm]	18	33	34	42
	g <sub>1</sub>	[mm]	132	137	147	158
	m <sub>1</sub>	[mm]	152			
	n <sub>2</sub>	[mm]	121			
	P <sub>1</sub>	[mm]	M20x1.5			
	P <sub>2</sub>	[mm]	M25x1.5			
	k <sub>4</sub>	[mm]	13	22		
	g <sub>3</sub>	[mm]	132	141	150	162
	m <sub>2</sub>	[mm]	95			
	n <sub>3</sub>	[mm]	105			
	P <sub>6</sub>	[mm]	1x M16x1.5			

# Motor data MH

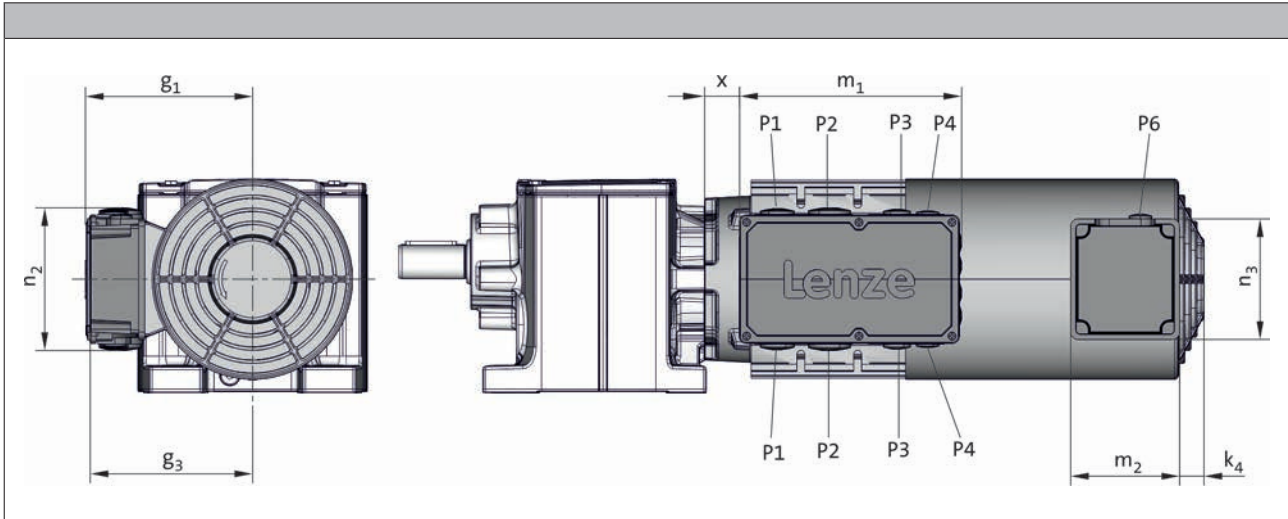
## Product extensions



### Connection via terminal box

#### Dimensions of KK3

The connection in the terminal box is implemented by means of conventional cable glands.



Product			MH□MA□□				
			080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Dimensions	x	[mm]	16	31	32	40	63
	g <sub>1</sub>	[mm]	142	147	158	168	187
	m <sub>1</sub>	[mm]	195				
	n <sub>2</sub>	[mm]	125				
	P <sub>1</sub>	[mm]	M25x1.5				
	P <sub>2</sub>	[mm]	M32x1.5				
	P <sub>3</sub>	[mm]	M20x1.5				
	P <sub>4</sub>	[mm]	M20x1.5				
	k <sub>4</sub>	[mm]	13	22			32
	g <sub>3</sub>	[mm]	132	141	150	162	182
	m <sub>2</sub>	[mm]	95				
	n <sub>3</sub>	[mm]	105				
	P <sub>6</sub>	[mm]	1x M16x1.5				

# Motor data MH

## Product extensions



### Connections via ICN connectors

A connector is used for the power connection, connection of the brake, and the temperature monitoring connection.  
The feedback and blower connections are implemented via a separate connector in each case.

#### Connection for power, brake and temperature monitoring

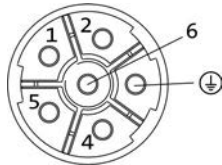
For the power connection of the connector, a max. rated motor current of 16 A is permissible.  
The connectors can be rotated by 270° and are equipped with a bayonet catch for SpeedTec connectors. As the connector fixing is also compatible with conventional box nuts, existing mating connectors can still be used without difficulty. The motor connection is determined in the terminal box.



#### ICN M23 6-pole

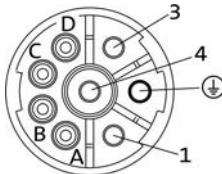
- ▶ No temperature monitoring connection possible!  
If a feedback is used, the thermal detector KTY connection can be realised in the separate connection of the feedback (ICN M23 connector).

Pin assignment		
Contact	Designation	Meaning
1	BD1 / BA1	Brake +/AC
2	BD2 / BA2	Brake -/AC
PE	PE	PE conductor
4	U	Phase U power
5	V	Phase V power
6	W	Phase W power



#### ICN M23 8-pole

Pin assignment		
Contact	Designation	Meaning
1	U	Phase U power
PE	PE	PE conductor
3	W	Phase W power
4	V	Phase V power
A	TB1 / TP1 / R1	Thermal sensor: TKO/PTC/ +KTY
B	TB2 / TP2 / R2	Thermal sensor: TKO/PTC/-KTY
C	BD1 / BA1	Brake +/AC
D	BD2 / BA2	Brake -/AC



# Motor data MH

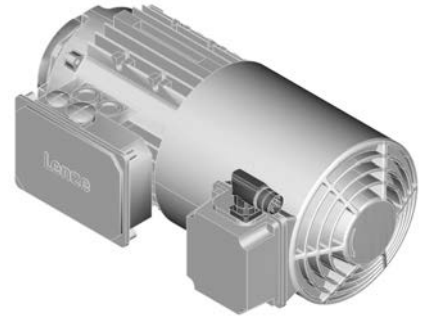
Product extensions



## Connections via ICN connectors

### Blower connection

The blower is also optionally available with an ICN connector fixed to the terminal box of the blower for exceptionally fast commissioning. The connectors are fitted with a bayonet fixing, which is also compatible with conventional union nuts. Existing counter plugs can therefore continue to be used without difficulty.



For the blower, the terminal box cover including the connector can be rotated by 90 ° step by step, if required.

### ICN M17 for 1-ph blower

Pin assignment		
Contact	Designation	Meaning
PE	PE	PE conductor
1	U1	Fan
2	U2	
3	Not assigned	Not assigned
4		
5		
6		

### ICN M17 for 3-ph blower

Pin assignment		
Contact	Designation	Meaning
PE	PE	PE conductor
1	U	Phase U power
2		Not assigned
3	V	Phase V power
4	Not assigned	Not assigned
5		
6	W	Phase W power



# Motor data MH

Product extensions



## Connections via ICN connectors

### Feedback connection

All encoder systems (apart from IG128-24V-H) are also available with an ICN connector fixed to the motor terminal box for exceptionally fast commissioning. The connectors are fitted with a bayonet fixing, which is also compatible with conventional union nuts. Existing mating connectors can therefore continue to be used without difficulty.

The feedback connector is located on the terminal box side opposite to the power connection



### ICN M23 for resolver

Pin assignment		
Contact	Designation	Meaning
1	+Ref	Transformer windings
2	-Ref	
3	+VCC ETS	Supply: Electronic nameplate
4	+COS	Cosine stator windings
5	-COS	
6	+SIN	Sine stator windings
7	-SIN	
8		Not assigned
9		
10		
11	+KTY	KTY temperature sensor
12	-KTY	

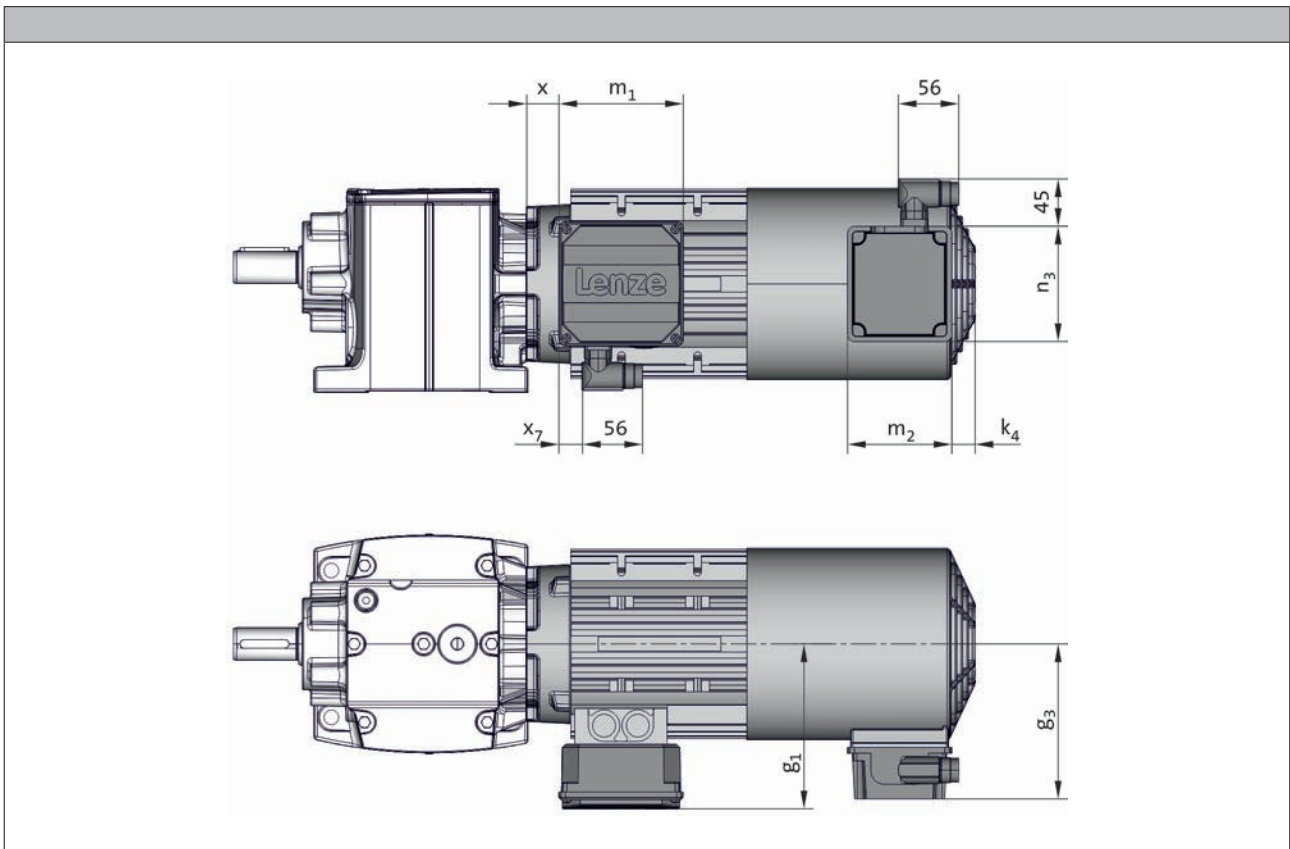
### ICN M23 for incremental encoder and SinCos absolute value encoder hiperface

Pin assignment		
Contact	Designation	Meaning
1	B	Track B/+SIN
2	A <sup>-</sup>	Track A inverse/-COS
3	A	Track A/+COS
4	+U <sub>B</sub>	Supply +
5	GND	Mass
6	Z <sup>-</sup>	Zero track inverse/-RS485
7	Z	Zero track/+RS485
8		Not assigned
9	B <sup>-</sup>	Track B inverse/-SIN
10		Not assigned
11	+KTY	KTY temperature sensor
12	-KTY	



## Connections via ICN connectors

### Dimensions KK1+ICN

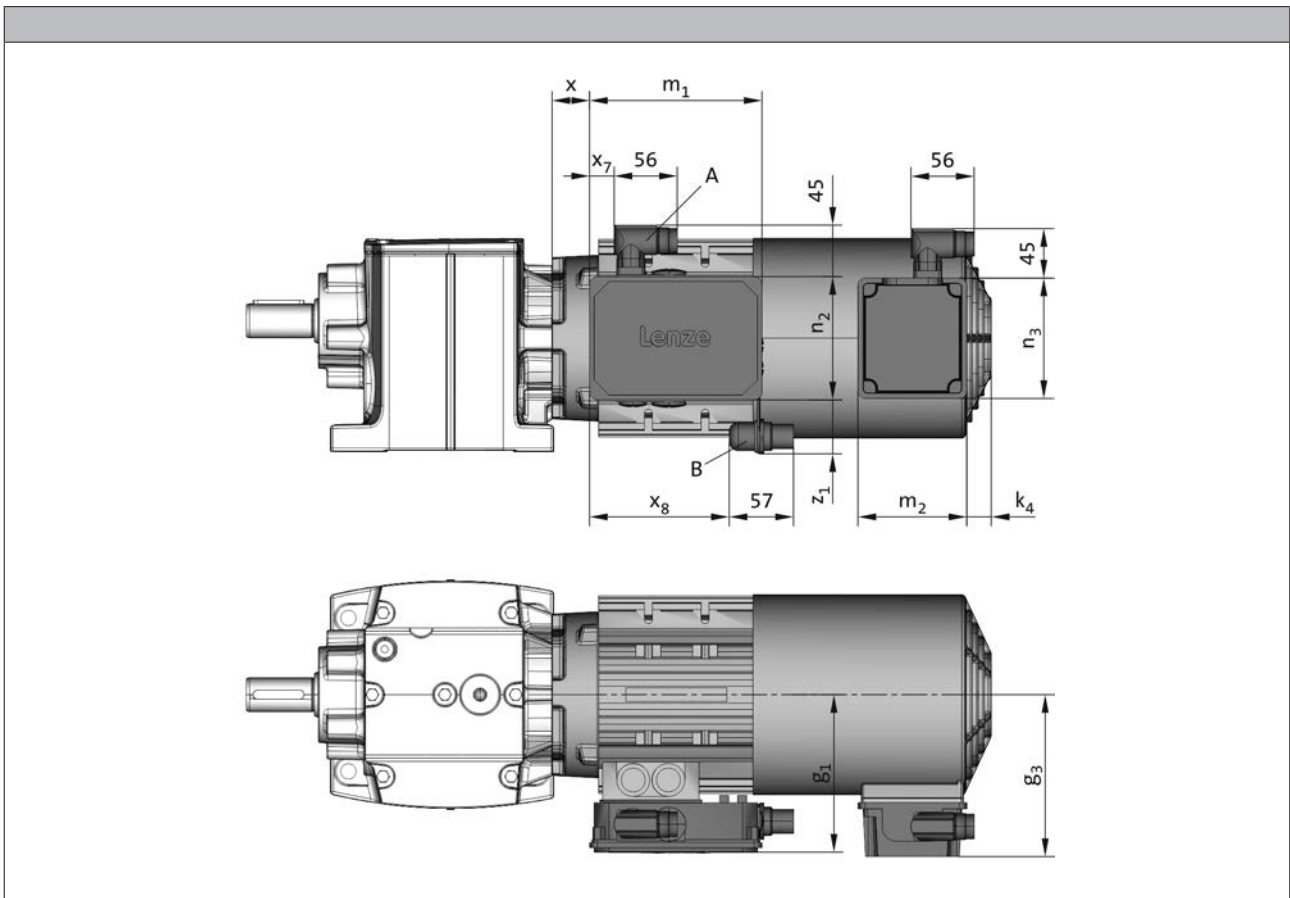


Product			MH□MA□□						
			080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22		
Dimensions			x	[mm]	15	30	31	39	58
			g <sub>1</sub>	[mm]	150	157	166	176	195
			m <sub>1</sub>	[mm]	115			122	
			n <sub>2</sub>	[mm]	115			122	
			x <sub>7</sub>	[mm]	23			27	
			k <sub>4</sub>	[mm]	13	22		32	
			g <sub>3</sub>	[mm]	132	141	150	162	182
			m <sub>2</sub>	[mm]	95				
			n <sub>3</sub>	[mm]	105				



## Connections via ICN connectors

### Dimensions KK2+ICN and KK3+ICN



Product			MH□MA□□				
			080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Dimensions	x	[mm]	18	33	34	42	63
	g <sub>1</sub>	[mm]	132	137	147	158	187
	m <sub>1</sub>	[mm]	152				195
	n <sub>2</sub>	[mm]	121				125
	x <sub>7</sub>	[mm]	23				27
	x <sub>8</sub>	[mm]	125				166
	z <sub>1, max</sub>	[mm]	41				71
	k <sub>4</sub>	[mm]	13	22		32	
	g <sub>3</sub>	[mm]	132	141	150	162	182
	m <sub>2</sub>	[mm]	95				
n <sub>3</sub>	[mm]	105					

A= power connection

B= feedback connection (not for KK1)

# Motor data MH

Product extensions



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## Connection via ICN M12 connector

### IG128-24V-H incremental encoder connection

As a standard this incremental encoder is equipped with a connection cable of about 0.5 m length and with a common industry standard M12 connector at its end.

Pin assignment		
Contact	Designation	Meaning
1	+U <sub>B</sub>	Supply +
2	B	Track B
3	GND	Mass
4	A	Track A

# Motor data MH

Product extensions



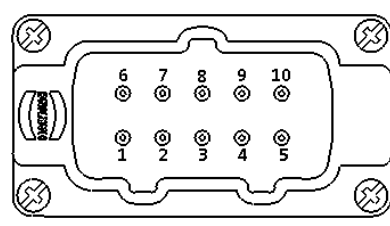
## Connections via HAN connectors

### HAN 10 E

In the case of the rectangular HAN 10E connectors, all six ends of the three winding phases are taken out to the power contacts. The motor circuit is therefore determined in the mating connector.



Pin assignment	
Contact	Meaning
1	Terminal board: U1
2	Terminal board: V1
3	Terminal board: W1
4	Brake +/AC
5	Brake -/AC
6	Terminal board: W2
7	Terminal board: U2
8	Terminal board: V2
9	Thermal sensor: +KTY/PTC/TKO
10	Thermal sensor: KTY/PTC/TKO



# Motor data MH

Product extensions



## Connections via HAN connectors

### HAN modular

The connector is available with two different power modules (16 A or 40 A), depending on the rated motor current. The motor connection is determined in the terminal box and must be checked before commissioning.



#### ► HAN modular 16 A

Pin assignment			
Module	Contact	Meaning	
A	1	Terminal board: U1	
	2	Terminal board: V1	
	3	Terminal board: W1	
B		Dummy module	
C	1	Thermal sensor: +KTY/PTC/TKO	
	2	Brake +/-AC	
	3	Brake -/AC	
	4	Rectifier: Switching contact	
	6	Thermal sensor: KTY/PTC/TKO	

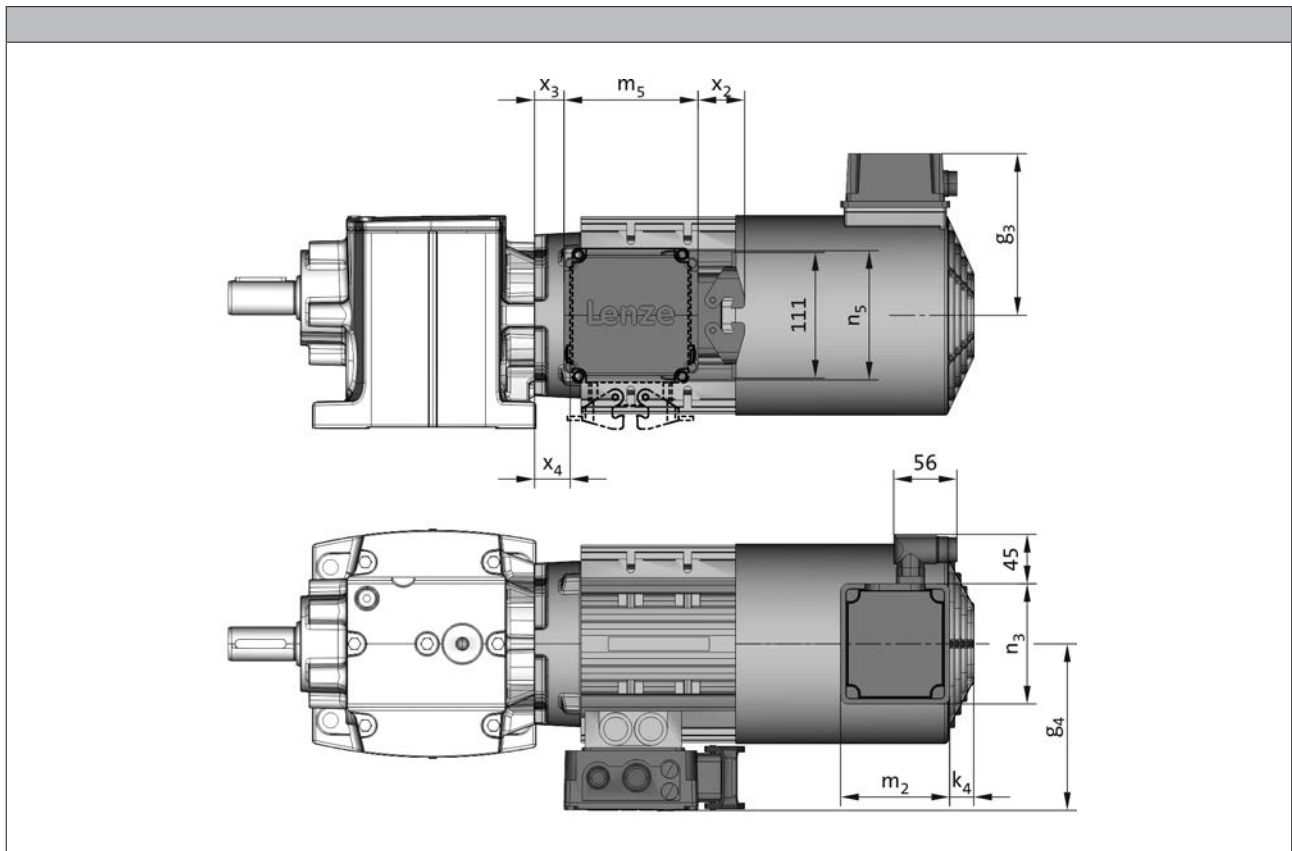
#### ► HAN modular 40 A

Pin assignment			
Module	Contact	Meaning	
A	1	Terminal board: U1	
	2	Terminal board: V1	
	3	Terminal board: W1	
B		Dummy module	
C	1	Thermal sensor: +KTY/PTC/TKO	
	2	Brake +/-AC	
	3	Brake -/AC	
	4	Rectifier: Switching contact	
	6	Thermal sensor: KTY/PTC/TKO	



## Connections via HAN connectors

### Dimensions



Product			MH□MA□□				
			080-32	090-12 090-32	100-12 100-32	112-22	132-12 132-22
Dimensions	g <sub>4</sub>	[mm]	138	143	154	164	233
	x <sub>3</sub>	[mm]	12	26	27	31	60
	x <sub>4</sub>	[mm]	20	34	35	39	30
	x <sub>2</sub>	[mm]	41				47
	m <sub>5</sub>	[mm]	118				120
	n <sub>5</sub>	[mm]	102				180
	k <sub>4</sub>	[mm]	13	22			32
	g <sub>3</sub>	[mm]	132	141	150	162	182
	m <sub>2</sub>	[mm]	95				
	n <sub>3</sub>	[mm]	105				



### Spring-applied brake

The three-phase AC motors can be equipped with a spring-applied brake which is active when the supply voltage has been switched off (closed-circuit principle). In the deenergised state, the brake is applied. This prevents possible movement of the motor shaft with regard to the load after switch-off or in the event of a power failure. For optimum adaptation of the brake motor to the application, several brake sizes and control variants are provided for each motor.

#### Versions

- **Standard**
  - $1 \times 10^6$  repeating switching cycles
  - $1 \times 10^6$  reversing switching cycles
- **LongLife**
  - $10 \times 10^6$  repeating switching cycles
  - $15 \times 10^6$  reversing switching cycles

#### Braking torques

In addition to the standard braking torque, depending on the brake size, the possibility of choosing between a reduced and an increased braking torque is provided.

- When the braking torque is reduced, great wear reserves can be attained. This is enabled by a reduction of the spring rate.
- In order to obtain a greater braking torque, the spring rate is increased. This is practical, for instance, for hoists, since here the gravity acts as an additional acceleration in the negative direction.

#### Manual release

By using the manual release lever, the brake can be released manually in deenergised operating state. The manual release makes positioning and maintenance work easier.





### Spring-applied brake

#### Direct connection without rectifier

If the brake is activated directly without a rectifier, a freewheeling diode or a spark suppressor is required for protection against induction peaks.

- Supply voltages  
DC 24 V

#### Connection via mains voltage with brake rectifier

If the brake is not directly supplied with DC voltage, a rectifier is required. This is included in the scope of supply and is located in the terminal box of the motor. The rectifier converts the AC voltage of the connection into DC voltage. The following rectifiers are available:

##### Rectifier, 6-pole

- Approval UL / CSA
- Supply voltages  
AC 230 V  
AC 400 V  
AC 460 V

##### Bridge/half-wave rectifier, 6-pole

- Supply voltage / brake coil voltage ratio  
up to the overexcitation time = 1.11  
From the overexcitation time = 2.22
- Supply voltages  
AC 230 V  
AC 400 V



During the switching operation the bridge/half-wave rectifier functions as a bridge rectifier for the overexcitation time  $t_{ij}$  and then as a half-wave rectifier. This combination optimises the performance of the brake – depending on the assignment of brake coil voltage and supply voltage:

##### • Short-time overexcitation of the brake coil

Activating the brake coil for the overexcitation time  $t_{ij}$  with twice the rated voltage allows the disengagement time to be reduced. The brake opens more quickly and wear on the friction lining is reduced.

These features make this activation version particularly suitable for lifting applications. It is therefore only available in combination with a brake with increased braking torque.

##### • Holding current reduction (cold brake)

By reducing the holding current, the bridge/half-wave rectifier is able to reduce the power input to the open brake. As the brake heats up less, this type of activation is known as "cold brake".

# Motor data MH

Product extensions



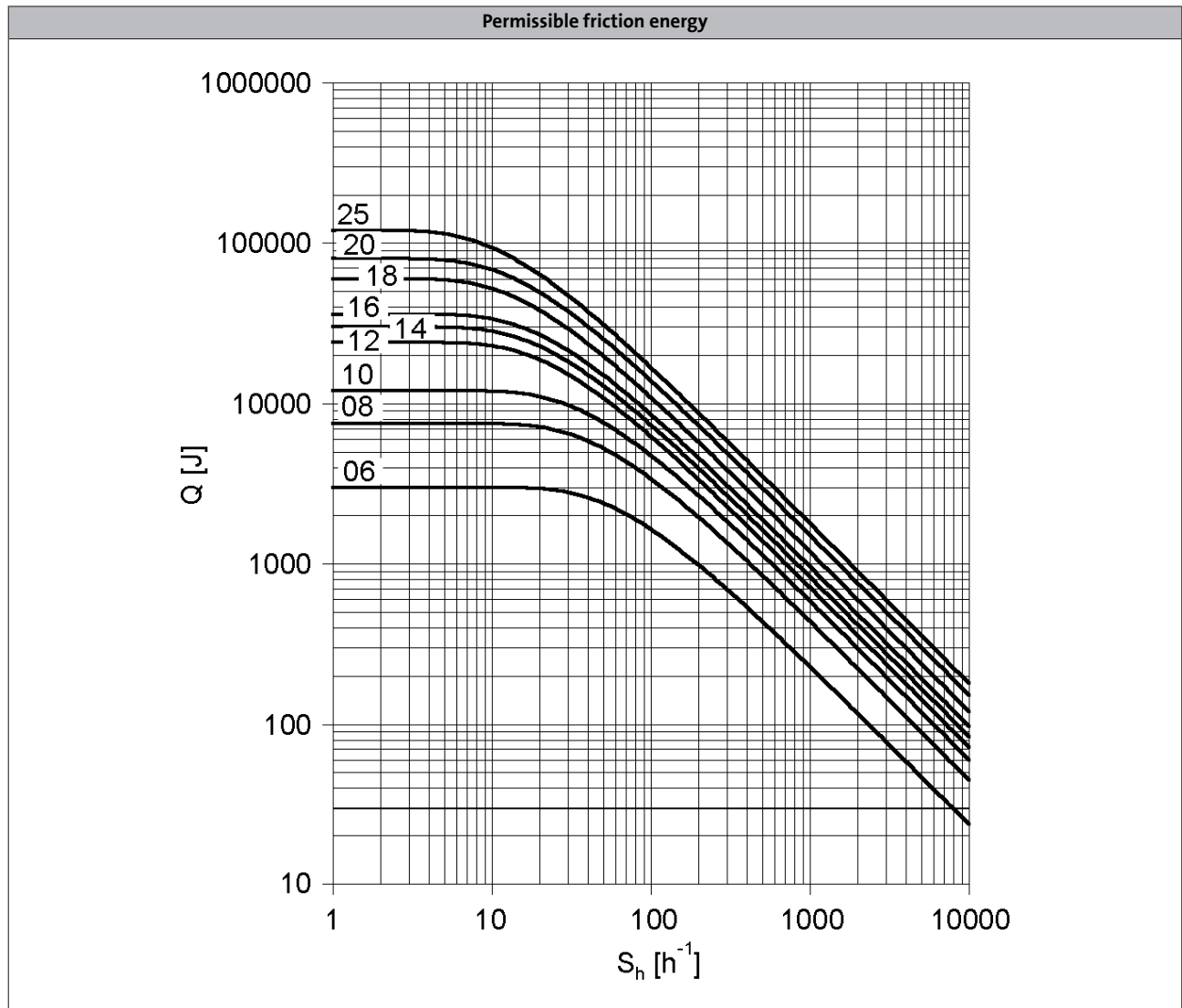
## Spring-applied brake

Assignment of 4-pole motors and brakes

Design	Standard		LongLife	
Product	Size	Rated torque	Size	Rated torque
	Brake		Brake	
		$M_k$		$M_k$
		[Nm]		[Nm]
MH□MA□□080-32	08	3.50	08 10	8.00
	08	8.00		7.00
	10	7.00		
MH□MA□□090-12 MH□MA□□090-32	08	3.50	08 10 10	8.00
	08	8.00		7.00
	10	7.00		16.0
	10	23.0		16.0
MH□MA□□100-12	10	7.00	10 12 12	16.0 14.0 32.0
	10	16.0		
	12	14.0		
	12	32.0		
MH□MA□□100-32	10	7.00		
	10	16.0		
	12	14.0		
	12	32.0		
	12	46.0		
MH□MA□□112-22	12	14.0		
	12	32.0		
	14	35.0		
	14	60.0		
MH□MA□□132-12	14	35.0		
	14	60.0		
	16	60.0		
	16	80.0		
MH□MA□□132-22	14	35.0		
	14	60.0		
	16	60.0		
	16	80.0		
	16	100		



## Spring-applied brake



$Q$  = Switching energy per switching cycle

$S_h$  = Operating frequency

Brake size = 06 to 25



## Spring-applied brake

### Rated data with reduced braking torque

- ▶ In case of the braking torque and the maximum switching energy, the unit for the values (100 ... 3600) is rpm.
- ▶ Please enquire for braking torques and maximum switching work values not listed here.

Size			06	08	10	12	14	16	18	20	25
<b>Power input</b>											
	$P_{in}$	[kW]	0.020	0.025	0.030	0.040	0.050	0.055	0.085	0.10	0.11
<b>Braking torque</b>											
100	$M_B$	[Nm]	2.50	3.50	7.00	14.0	35.0	60.0	80.0	145	265
1000	$M_B$	[Nm]	2.30	3.10	6.10	12.0	30.0	50.0	65.0	115	203
1200	$M_B$	[Nm]	2.30	3.10	6.00	12.0	29.0	48.0	63.0	112	199
1500	$M_B$	[Nm]	2.20	3.00	5.80	11.0	28.0	47.0	61.0	109 <sup>1)</sup>	193 <sup>1)</sup>
1800	$M_B$	[Nm]	2.10	2.90	5.70	11.0	28.0	46.0	60.0 <sup>1)</sup>		
3000	$M_B$	[Nm]	2.00	2.80	5.30	10.0	26.0 <sup>1)</sup>	43.0 <sup>1)</sup>			
3600	$M_B$	[Nm]	2.00	2.70	5.20	10.0 <sup>1)</sup>					
<b>Maximum switching energy</b>											
100	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1000	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1200	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1500	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	24.0 <sup>1)</sup>	36.0 <sup>1)</sup>
1800	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	36.0 <sup>1)</sup>		
3000	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	18.0 <sup>1)</sup>	11.0 <sup>1)</sup>			
3600	$Q_E$	[KJ]	3.00	7.50	12.0	7.00 <sup>1)</sup>					
<b>Transition operating frequency</b>											
	$S_{h\ddot{u}}$	[1/h]	79.0	50.0	40.0	30.0	28.0	27.0	20.0	19.0	15.0
<b>Moment of inertia</b>											
	J	[kgcm <sup>2</sup> ]	0.15	0.61	2.00	4.50	6.30	15.0	29.0	73.0	200
<b>Mass</b>											
	m	[kg]	0.90	1.50	2.60	4.20	5.80	8.70	12.6	19.5	31.0

<sup>1)</sup> In the region of the load limit the value for friction energy  $Q_{BW}$  can be reduced to 40 %.



## Spring-applied brake

### Rated data with reduced braking torque

- Activation via half-wave or bridge rectifier

Size			06	08	10	12	14	16	18	20	25
<b>Friction energy</b>	$Q_{BW}$	[MJ]	113	210	264	706	761	966	1542	2322	3522
<b>Delay time</b>											
Engaging	$t_{11}$	[ms]	11.0	14.0	20.0	21.0	37.0	53.0	32.0	47.0	264
<b>Rise time</b>											
Braking torque	$t_{12}$	[ms]	13.0	10.0	17.0	19.0	22.0	30.0	20.0	100	120
<b>Engagement time</b>											
	$t_1$	[ms]	24.0		37.0	40.0	59.0	83.0	52.0	147	384
<b>Disengagement time</b>											
	$t_2$	[ms]	35.0	37.0	57.0	65.0	148	169	230	207	269

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)								
Size			06	08	10	12	14	16	18	20	25
<b>Friction energy</b>	$Q_{BW}$	[MJ]	113	210	264	706	761	966	1542	2322	3522
<b>Overexcitation time</b>											
	$t_{\ddot{u}}$	[ms]	300				1300				
<b>Min. rest time</b>											
	t	[ms]	900				3900				
<b>Delay time</b>											
Engaging	$t_{11}$	[ms]	12.0	22.0	35.0	49.0	61.0	114	83.0	126	304
<b>Rise time</b>											
Braking torque	$t_{12}$	[ms]	14.0	16.0	30.0	45.0	37.0	65.0	52.0	269	138
<b>Engagement time</b>											
	$t_1$	[ms]	26.0	38.0	66.0	93.0	97.0	180	134	395	443
<b>Disengagement time</b>											
	$t_2$	[ms]	35.0	37.0	57.0	65.0	148	169	230	207	269

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time  $t_2$  – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.



## Spring-applied brake

### Rated data with standard braking torque

- ▶ In case of the braking torque and the maximum switching energy, the unit for the values (100 ... 3600) is rpm.
- ▶ Please enquire for braking torques and maximum switching work values not listed here.

Size			06	08	10	12	14	16	18	20	25
<b>Power input</b>											
	$P_{in}$	[kW]	0.020	0.025	0.030	0.040	0.050	0.055	0.085	0.10	0.11
<b>Braking torque</b>											
100	$M_B$	[Nm]	4.00	8.00	16.0	32.0	60.0	80.0	150	260	400
1000	$M_B$	[Nm]	3.70	7.20	14.0	27.0	51.0	66.0	121	206	307
1200	$M_B$	[Nm]	3.60	7.00	14.0	27.0	50.0	65.0	118	201	300
1500	$M_B$	[Nm]	3.50	6.80	13.0	26.0	48.0	63.0	115	195 <sup>1)</sup>	291 <sup>1)</sup>
1800	$M_B$	[Nm]	3.40	6.70	13.0	26.0	47.0	61.0	112 <sup>1)</sup>		
3000	$M_B$	[Nm]	3.20	6.30	12.0	24.0	44.0 <sup>1)</sup>	57.0 <sup>1)</sup>			
3600	$M_B$	[Nm]	3.20	6.10	12.0	23.0 <sup>1)</sup>					
<b>Maximum switching energy</b>											
100	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1000	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1200	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1500	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	24.0 <sup>1)</sup>	36.0 <sup>1)</sup>
1800	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	36.0 <sup>1)</sup>		
3000	$Q_E$	[KJ]	3.00	7.50	12.0	24.0	18.0 <sup>1)</sup>	11.0 <sup>1)</sup>			
3600	$Q_E$	[KJ]	3.00	7.50	12.0	7.00 <sup>1)</sup>					
<b>Transition operating frequency</b>											
	$S_{h\ddot{u}}$	[1/h]	79.0	50.0	40.0	30.0	28.0	27.0	20.0	19.0	15.0
<b>Moment of inertia</b>											
	J	[kgcm <sup>2</sup> ]	0.15	0.61	2.00	4.50	6.30	15.0	29.0	73.0	200
<b>Mass</b>											
	m	[kg]	0.90	1.50	2.60	4.20	5.80	8.70	12.6	19.5	31.0

<sup>1)</sup> In the region of the load limit the value for friction energy  $Q_{BW}$  can be reduced to 40 %.



## Spring-applied brake

### Rated data with standard braking torque

- Activation via half-wave or bridge rectifier

Size			06	08	10	12	14	16	18	20	25
<b>Friction energy</b>	$Q_{BW}$	[MJ]	85.0	158	264	530	571	966	1542	2322	3522
<b>Delay time</b>											
Engaging	$t_{11}$	[ms]	15.0		28.0		17.0	27.0	33.0	65.0	110
<b>Rise time</b>											
Braking torque	$t_{12}$	[ms]	13.0	16.0	19.0	25.0		30.0	45.0	100	120
<b>Engagement time</b>											
	$t_1$	[ms]	28.0	31.0	47.0	53.0	42.0	57.0	78.0	165	230
<b>Disengagement time</b>											
	$t_2$	[ms]	45.0	57.0	76.0	115	210	220	270	340	390

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)								
Size			06	08	10	12	14	16	18	20	25
<b>Friction energy</b>	$Q_{BW}$	[MJ]	85.0	158	264	530	571	966	1542	2322	3522
<b>Overexcitation time</b>											
	$t_{\ddot{u}}$	[ms]	300				1300				
<b>Min. rest time</b>											
	t	[ms]	900				3900				
<b>Delay time</b>											
Engaging	$t_{11}$	[ms]	16.0	25.0	31.0	48.0	33.0	58.0	80.0	102	154
<b>Rise time</b>											
Braking torque	$t_{12}$	[ms]	14.0	27.0	21.0	43.0	49.0	64.0	109	157	168
<b>Engagement time</b>											
	$t_1$	[ms]	30.0	52.0		90.0	82.0	122	189	259	322
<b>Disengagement time</b>											
	$t_2$	[ms]	45.0	57.0	76.0	115	210	220	270	340	390

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time  $t_2$  – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.



## Spring-applied brake

### Rated data with increased braking torque

- ▶ In case of the braking torque and the maximum switching energy, the unit for the values (100 ... 3600) is rpm.
- ▶ Please enquire for braking torques and maximum switching work values not listed here.

Size			10	12	14	16	16	18	20	20	25	25
<b>Power input</b>												
	$P_{in}$	[kW]	0.030	0.040	0.050	0.055	0.055	0.085	0.10	0.10	0.11	0.11
<b>Braking torque</b>												
100	$M_B$	[Nm]	23.0	46.0	75.0	100	125	200	315	400	490	600
1000	$M_B$	[Nm]	20.0	39.0	64.0	83.0	103	162	249	317	376	461
1200	$M_B$	[Nm]	20.0	39.0	62.0	81.0	101	158	244	309	367	449
1500	$M_B$	[Nm]	19.0	38.0	60.0	78.0	98.0	153	237 <sup>1)</sup>	300 <sup>1)</sup>	356 <sup>1)</sup>	436 <sup>1)</sup>
1800	$M_B$	[Nm]	19.0	37.0	59.0	77.0	96.0	150 <sup>1)</sup>				
3000	$M_B$	[Nm]	17.0	34.0	55.0 <sup>1)</sup>	71.0 <sup>1)</sup>	89.0 <sup>1)</sup>					
3600	$M_B$	[Nm]	17.0	33.0 <sup>1)</sup>								
<b>Maximum switching energy</b>												
100	$Q_E$	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	80.0	80.0	120	120
1000	$Q_E$	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	80.0	80.0	120	120
1200	$Q_E$	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	80.0	80.0	120	120
1500	$Q_E$	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	24.0 <sup>1)</sup>	24.0 <sup>1)</sup>	36.0 <sup>1)</sup>	36.0 <sup>1)</sup>
1800	$Q_E$	[KJ]	12.0	24.0	30.0	36.0	36.0	36.0 <sup>1)</sup>				
3000	$Q_E$	[KJ]	12.0	24.0	18.0 <sup>1)</sup>	11.0 <sup>1)</sup>	11.0 <sup>1)</sup>					
3600	$Q_E$	[KJ]	12.0	7.00 <sup>1)</sup>								
<b>Transition operating frequency</b>												
	$S_{hü}$	[1/h]	40.0	30.0	28.0	27.0	27.0	20.0	19.0	19.0	15.0	15.0
<b>Moment of inertia</b>												
	J	[kgcm <sup>2</sup> ]	2.00	4.50	6.30	15.0	15.0	29.0	73.0	73.0	200	200
<b>Mass</b>												
	m	[kg]	2.60	4.20	5.80	8.70	8.70	12.6	19.5	19.5	31.0	31.0

<sup>1)</sup> In the region of the load limit the value for friction energy  $Q_{BW}$  can be reduced to 40 %.

- ▶ Activation via half-wave or bridge rectifier

Size			10	12	14	16	18	20	25			
<b>Friction energy</b>												
	$Q_{BW}$	[MJ]	198	353	253	563	241	578	1596	580	2465	1409
<b>Delay time</b>												
Engaging	$t_{11}$	[ms]	10.0	16.0	11.0	22.0	17.0	24.0	46.0	17.0	77.0	38.0
<b>Rise time</b>												
Braking torque	$t_{12}$	[ms]	19.0	25.0	30.0	45.0	100	120				
<b>Engagement time</b>												
	$t_1$	[ms]	29.0	41.0	36.0	52.0	47.0	69.0	146	117	197	158
<b>Disengagement time</b>												
	$t_2$	[ms]	109	193	308	297	435	356	378	470	451	532





## Spring-applied brake

### Rated data with increased braking torque

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)									
Size			10	12	14	16	18	20	25			
<b>Friction energy</b>												
	$Q_{BW}$	[MJ]	198	353	253	563	241	578	1596	580	2465	1409
<b>Overexcitation time</b>												
	$t_{\ddot{u}}$	[ms]	300				1300					
<b>Min. rest time</b>												
	t	[ms]	900				3900					
<b>Delay time</b>												
Engaging	$t_{11}$	[ms]	24.0	27.0	17.0	41.0	21.0	60.0	69.0	17.0	123	85.0
<b>Rise time</b>												
Braking torque	$t_{12}$	[ms]	44.0	43.0	37.0	55.0	37.0	113	148	100	190	270
<b>Engagement time</b>												
	$t_1$	[ms]	68.0	70.0	54.0	97.0	57.0	173	217	334	313	355
<b>Disengagement time</b>												
	$t_2$	[ms]	109	193	308	297	435	356	378	470	451	532

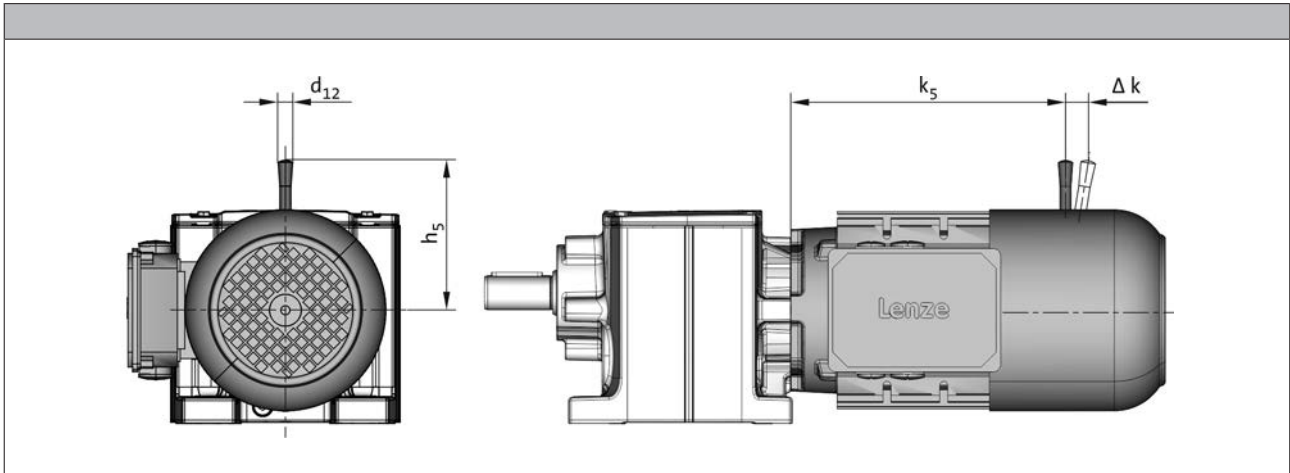
Design			Over-excitation									
Size			10	12	14	16	18	20	25			
<b>Friction energy</b>												
	$Q_{BW}$	[MJ]	264	706	761	966	1542	2322	3522			
<b>Overexcitation time</b>												
	$t_{\ddot{u}}$	[ms]	300				1300					
<b>Min. rest time</b>												
	t	[ms]	900				3900					
<b>Delay time</b>												
Engaging	$t_{11}$	[ms]	29.0	54.0	31.0	70.0	46.0	86.0	103	55.0	171	135
<b>Rise time</b>												
Braking torque	$t_{12}$	[ms]	53.0	87.0	68.0	93.0	83.0	160	222	319	266	430
<b>Engagement time</b>												
	$t_1$	[ms]	82.0	141	99.0	163	129	246	325	374	437	565
<b>Disengagement time</b>												
	$t_2$	[ms]	53.0	81.0	117	141	168	151	160	167	184	204

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time  $t_2$  – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.



## Spring-applied brake

### Manual release lever



Product	Size Brake	Dimensions			
		$k_5$ [mm]	$\Delta k$ [mm]	$h_5$ [mm]	$d_{12}$ [mm]
MH□MA□□080-32	06	208	29	107	13.0
	08	219	27	116	13.0
MH□MA□□090-12	08	256	27	116	13.0
	10	267	28	132	13.0
MH□MA□□100-12	10	290	28	132	13.0
	12	292	37	161	13.0
MH□MA□□100-32	10	305	28	132	13.0
	12	307	37	161	13.0
MH□MA□□112-22	12	309	37	161	13.0
	14	313	41	195	24.0
MH□MA□□132-12	14	398	41	195	24.0
	16	398	55	240	24.0

The following combinations with manual release lever and motor connection in the same position are not possible:

- HAN connector with connection in position 1
- Inverter motec
- Terminal box of motor sizes 071, 080, 090 for brake and retracting (M□□MA BR/BS/BA/BI)

# Motor data MH

## Product extensions



### Feedback

Depending on the application, the following resolvers, incremental encoders or absolute value encoders are provided for speed and position detection.

#### Resolver

The stator-supplied resolver with two stator windings shifted by 90° and a rotor winding with transformer winding can detect both the speed and the rotor position. The rotor position is retained in the event of a voltage failure.

- The three-phase AC motors with resolver cannot be used for speed-dependent safety functions in connection with the SM 301 safety module.

<b>Product key</b>				RS1
<b>Accuracy</b>				
			[°]	-10 ... 10
<b>Absolute positioning</b>				
				1 revolution
<b>Max. input voltage</b>				
DC	$U_{in,max}$		[V]	10.0
<b>Max. input frequency</b>				
	$f_{in,max}$		[kHz]	4.00
<b>Ratio</b>				
Stator / rotor		$\pm 5\%$		0.30
<b>Rotor impedance</b>				
	$Z_{ro}$		[Ω]	51 + j90
<b>Stator impedance</b>				
	$Z_{so}$		[Ω]	102 + j150
<b>Impedance</b>				
	$Z_{rs}$		[Ω]	44 + j76
<b>Min. insulation resistance</b>				
At DC 500 V	R		[MΩ]	10.0
<b>Number of pole pairs</b>				
				1



## Feedback

### Incremental encoder and SinCos absolute value encoder

Incremental encoders can only be used for speed measurement, but not for speed control. Homing is required in order to enable positioning later.

Absolute value encoders can detect the speed, the rotor position, and the machine position with a very high resolution. They are used for the positioning of dynamic applications and do not require homing.

- The three-phase AC motors with incremental encoders or SinCos absolute value encoders cannot be used for speed-dependent safety functions in connection with the SM 301 safety module.

Encoder type			HTL incremental				TTL incremental			SinCos absolute value
<b>Product key</b>			IG128-24V-H	IG512-24V-H	IG1024-24V-H	IG2048-24V-H	IG512-5V-T	IG1024-5V-T	IG2048-5V-T	AM1024-8V-H
<b>Encoder type</b>										Multi-turn
<b>Pulses</b>			128	512	1024	2048	512	1024	2048	1024
<b>Output signals</b>			HTL				TTL			1 Vss
<b>Interfaces</b>			A, B track	A, B, N track and inverted					Hiperface	
<b>Absolute revolutions</b>			0							4096
<b>Accuracy</b>			-22.5 ... 22.5		-2 ... 2				-0.8 ... 0.8	
<b>Min. input voltage</b>			8.00				4.75			7.00
DC	$U_{in,min}$	[V]	8.00				4.75			7.00
<b>Max. input voltage</b>			30.0				5.25			12.0
DC	$U_{in,max}$	[V]	26.0	30.0			5.25			12.0
<b>Max. current consumption</b>			0.15				0.080			
	$I_{max}$	[A]	0.040	0.15			0.080			
<b>Limit frequency</b>			160				300			200
	$f_{max}$	[kHz]	30.0	160			300			200



### Blower

During operation with the rated torque at low speeds (< 20 Hz), the integral fan does not rotate fast enough anymore to ensure sufficient cooling of the motor. In order to prevent overheating, operation without a blower requires a torque reduction of the motor. The blower cools the motor steadily and irrespective of the motor speed. A torque reduction is not required and the motor can be actuated with its rated torque from 5 Hz to the rated frequency.

### Rated data for 50 Hz

Product	Number of phases	Connection method	$U_{min}$	$U_{max}$	$P_{max}$	$I_{max}$	m
			[V]	[V]	[kW]	[A]	[kg]
MH□MA□□080-32	1		230	277	0.029	0.11	2.30
	3	Δ	200	303	0.031	0.060	
		Y	346	525			
MH□MA□□090-12 MH□MA□□090-32	1		220	277	0.065	0.29	2.70
	3	Δ	200	303	0.091	0.22	
		Y	346	525			
MH□MA□□100-12 MH□MA□□100-32	1		220	277	0.066	0.28	3.00
	3	Δ	200	303	0.091	0.22	
		Y	346	525			
MH□MA□□112-22	1		220	277	0.071	0.28	3.10
	3	Δ	200	303	0.097	0.20	
		Y	346	525			
MH□MA□□132-12 MH□MA□□132-22	1		230	277	0.098	0.40	4.20
	3	Δ	200	303	0.12	0.33	
		Y	346	525			

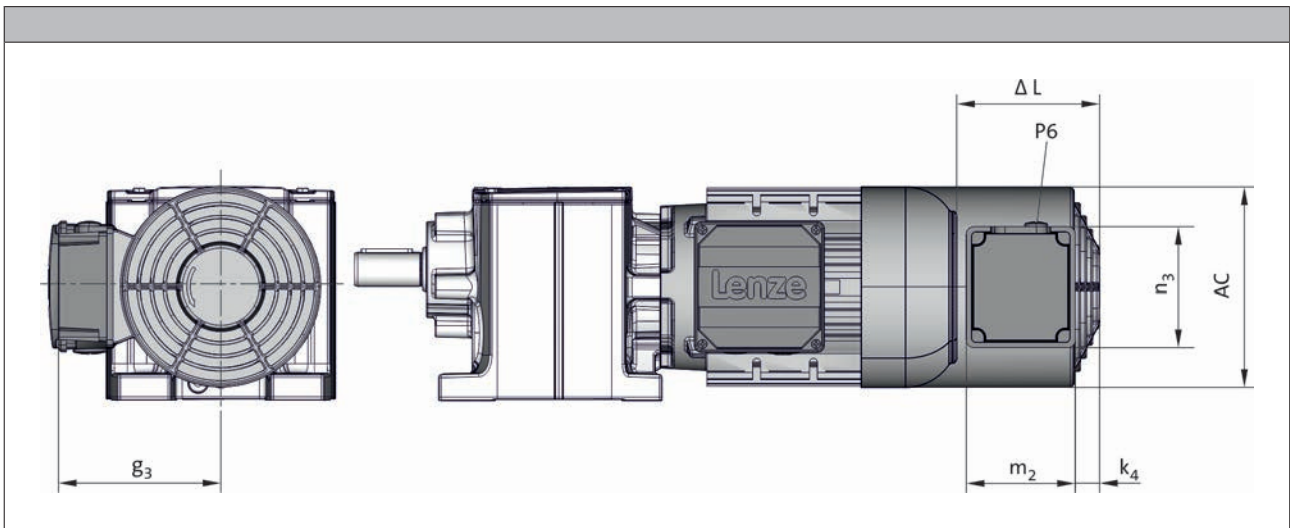
# Motor data MH

Product extensions



## Blower

Dimensions, 4-pole motors



Built-on accessories					
	Without	Brake	Brake + Feedback	Feedback	

Product	Dimensions				
	$\Delta L$ [mm]	$\Delta L$ [mm]	$\Delta L$ [mm]	$\Delta L$ [mm]	AC [mm]
MH□MA□□080-32	128	183	183	128	156
MH□MA□□090-12		181	181		176
MH□MA□□100-12	109	170	170	109	194
MH□MA□□112-22	102	183	183	183	218
MH□MA□□132-12	115	202	202	202	257

Product	Dimensions				
	$k_4$ [mm]	$g_3$ [mm]	$m_2$ [mm]	$n_3$ [mm]	$P_6$ [mm]
MH□MA□□080-32	13	132	95	105	1x M16x1.5
MH□MA□□090-12		141			
MH□MA□□100-12	22	150			
MH□MA□□112-22	162				
MH□MA□□132-12	32	182			



### Temperature monitoring

To protect the motor against overheating, the following thermal sensors are provided.

The thermal sensors are integrated into the windings. We recommend using an additional motor protection switch.

#### TKO thermal contacts

The TCO thermal contact (thermal NC contact) is a bimetallic-element switch. The TCO monitors the motor winding temperature; at too high temperatures, the motor relay switches. The motor is disconnected from the mains.

Function	Operating temperature	Min. reset temperature	Max. reset temperature	Max. input current	Max. input voltage
					AC
	T	$T_{min}$	$T_{max}$	$I_{in,max}$	$U_{in,max}$
	-5 ... 5				
	[°C]	[°C]	[°C]	[A]	[V]
NC contact	150	90.0	135	2.50	250

#### PTC thermistor

The PTC thermistor is actuated in connection with a tripping unit. If the motor gets too hot, the motor can be switched off by means of a contactor. In contrast to the thermal contact, quick restart is possible.

Function	Operating temperature	Rated resistance			Standard
		155 °C	-20 °C	140 °C	
	T	$R_N$	$R_N$	$R_N$	
	-5 ... 5				
	[°C]	[Ω]	[Ω]	[Ω]	
Sudden change in resistance	150	550	30.0	250	DIN 44080 DIN VDE 0660 Part 303

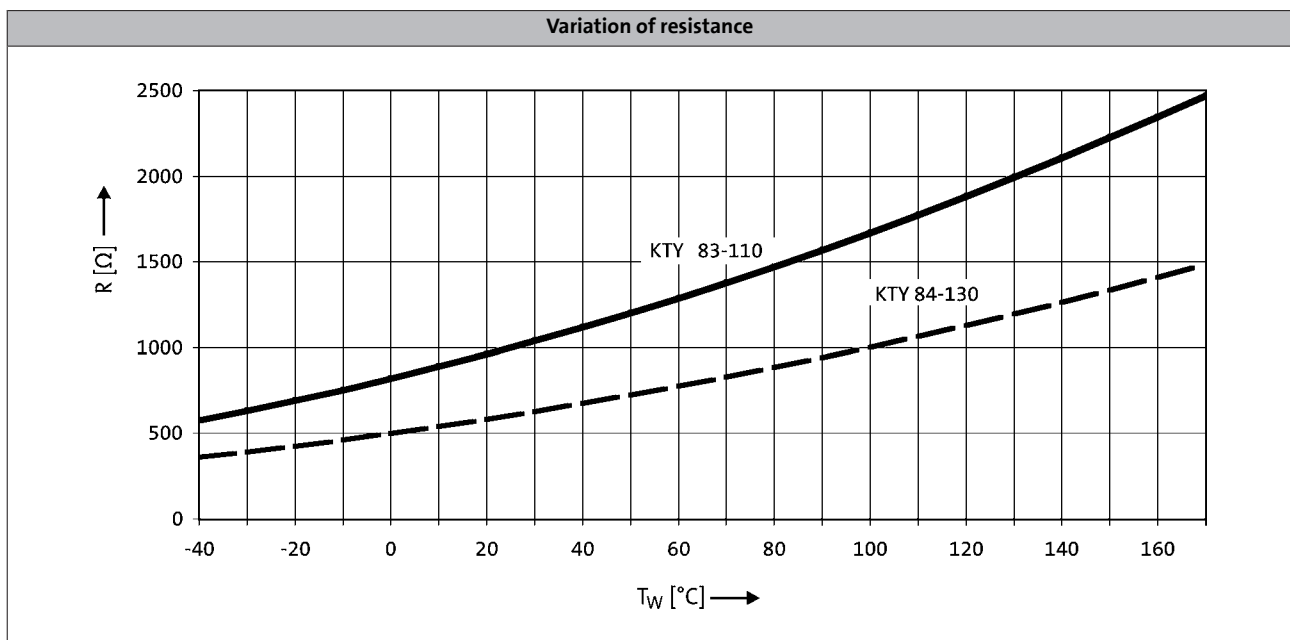


## Temperature monitoring

### KTY temperature sensor

The KTY thermal detectors work as continuously variable resistors, showing a similar tendency as PTC thermistors. However, with an increasing temperature, the resistance only increases comparatively slowly, enabling the controller to determine the temperature at regular intervals and to already perform a process evaluation at an early stage. In this way, the motor can already be switched off before it is overheated.

	Function	Rated resistance			Max. input current	
		25 °C	150 °C	170 °C	25 °C	170 °C
		R <sub>N</sub>	R <sub>N</sub>	R <sub>N</sub>	I <sub>in,max</sub>	I <sub>in,max</sub>
		[Ω]	[Ω]	[Ω]	[A]	[A]
KTY83-110	Continuous resistance change	1000	2225	2471	0.010	0.002
KTY84-130	Continuous resistance change	603	1334	1482	0.010	0.002



- If the thermal sensor is supplied with a measurement current of 1 mA, the above relationship between the temperature and the resistance applies.



# Motor data MD

Product extensions

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# Motor data MD

Product extensions

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