

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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### 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
$S_{h\u00fc}$	[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	Type	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

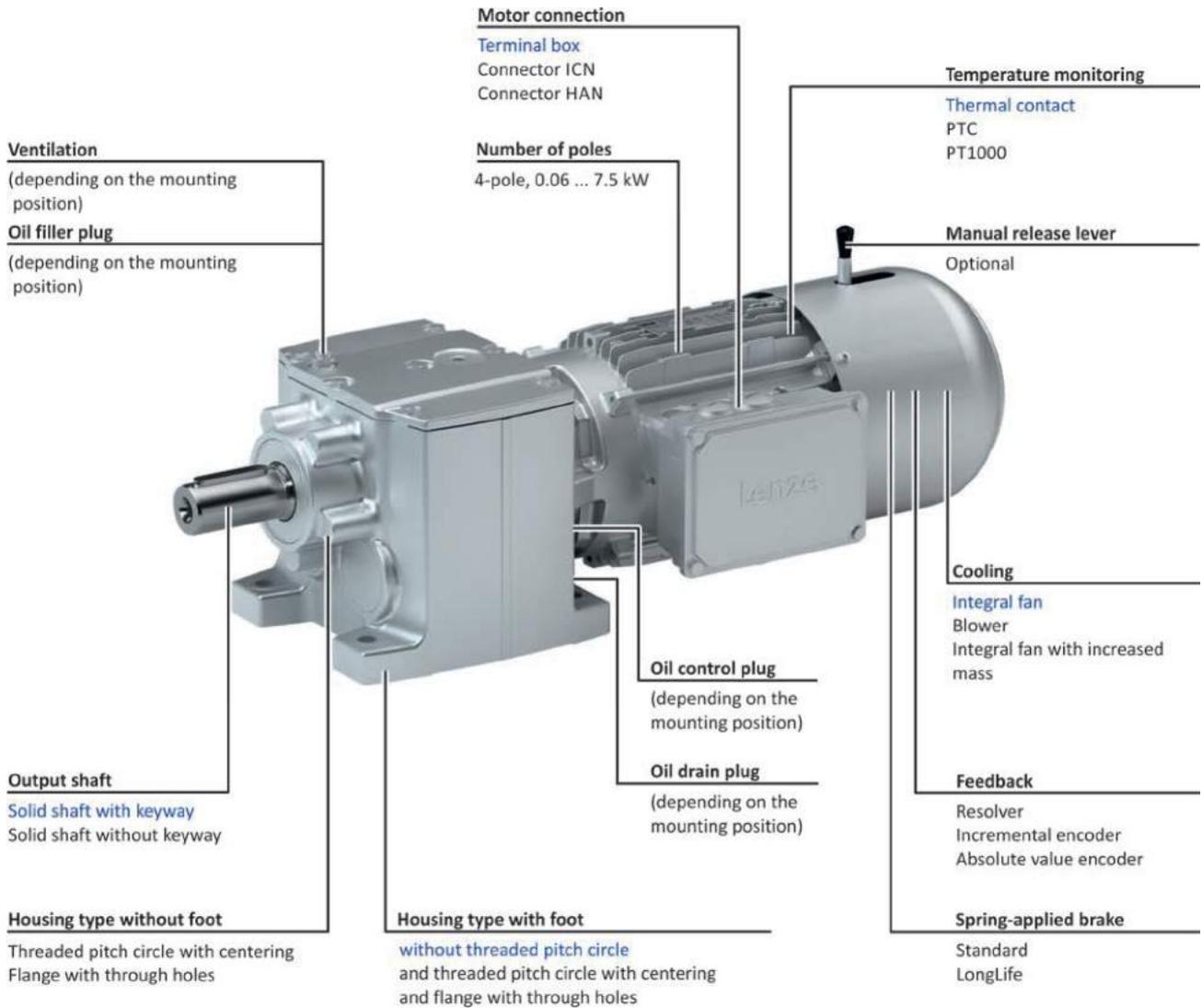


## General information

### Equipment

#### Overview

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



#### Standard design

10 - Detailed information on housing type.

# g500-H helical geared motors

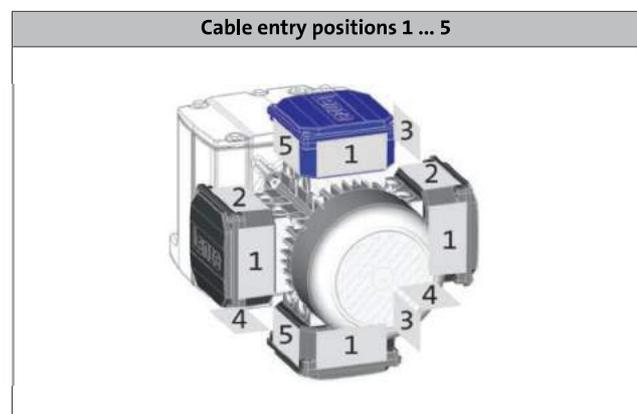
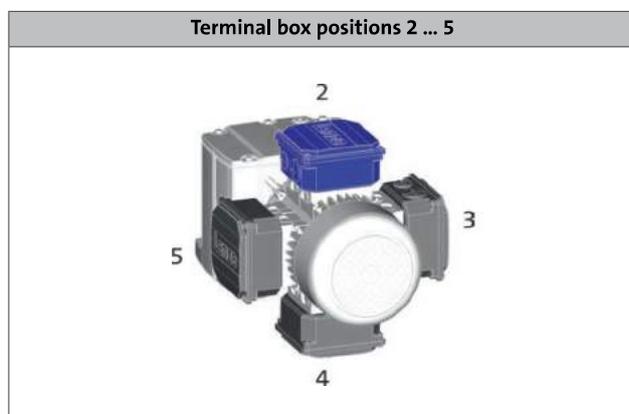
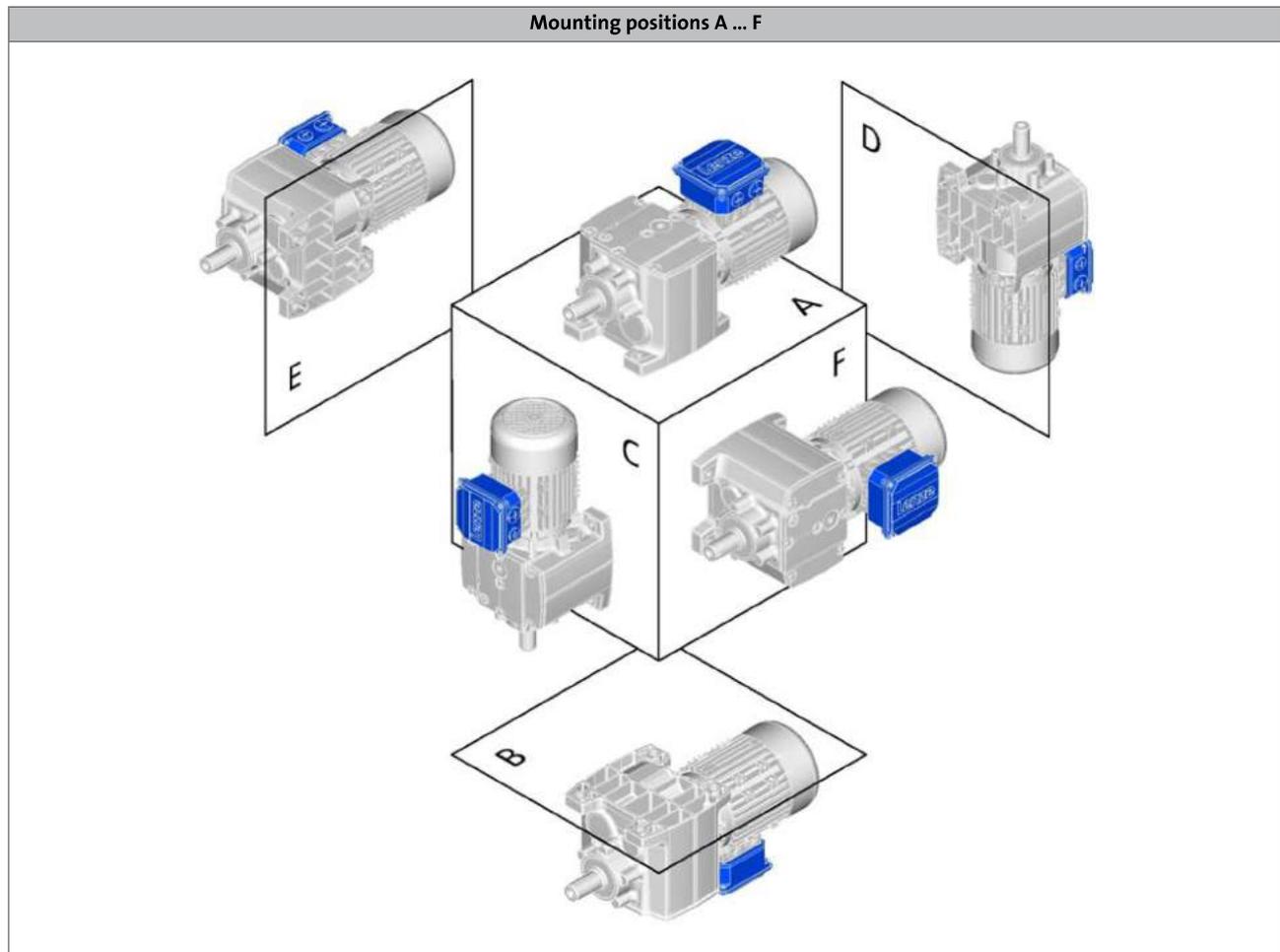
## General information



### 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.

Type	
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

Type	
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 PT1000 thermal detector

# g500-H helical geared motors

General information



## The geared motor kit

g500-H45 ... H450

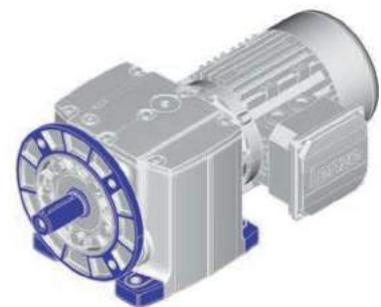
### Gearbox design: solid shaft, with foot



Without centring (VBR)



With centering (VAR)

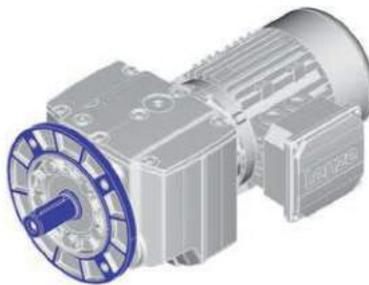


Flange with through holes (VAK)

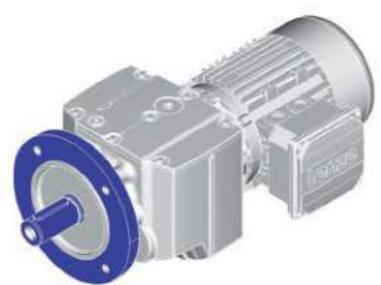
### Gearbox design: solid shaft, without foot



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.

Type	
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

Type	
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 PT1000 thermal detector

# g500-H helical geared motors

General information



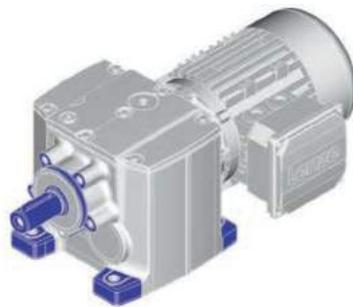
## The geared motor kit

g500-H600 ... H3000

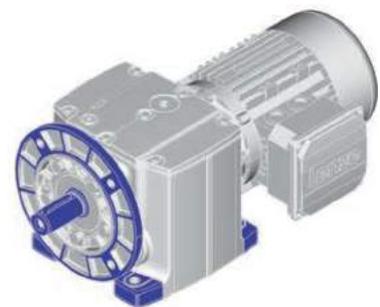
### Gearbox design: solid shaft, with foot



Without centring (VBR)



With centering (VAR)

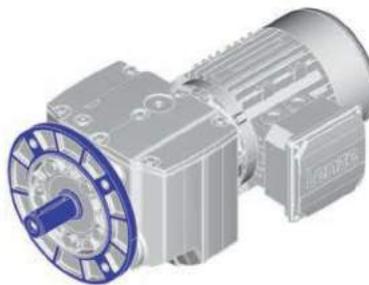


Flange with through holes (VAK)

### 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).

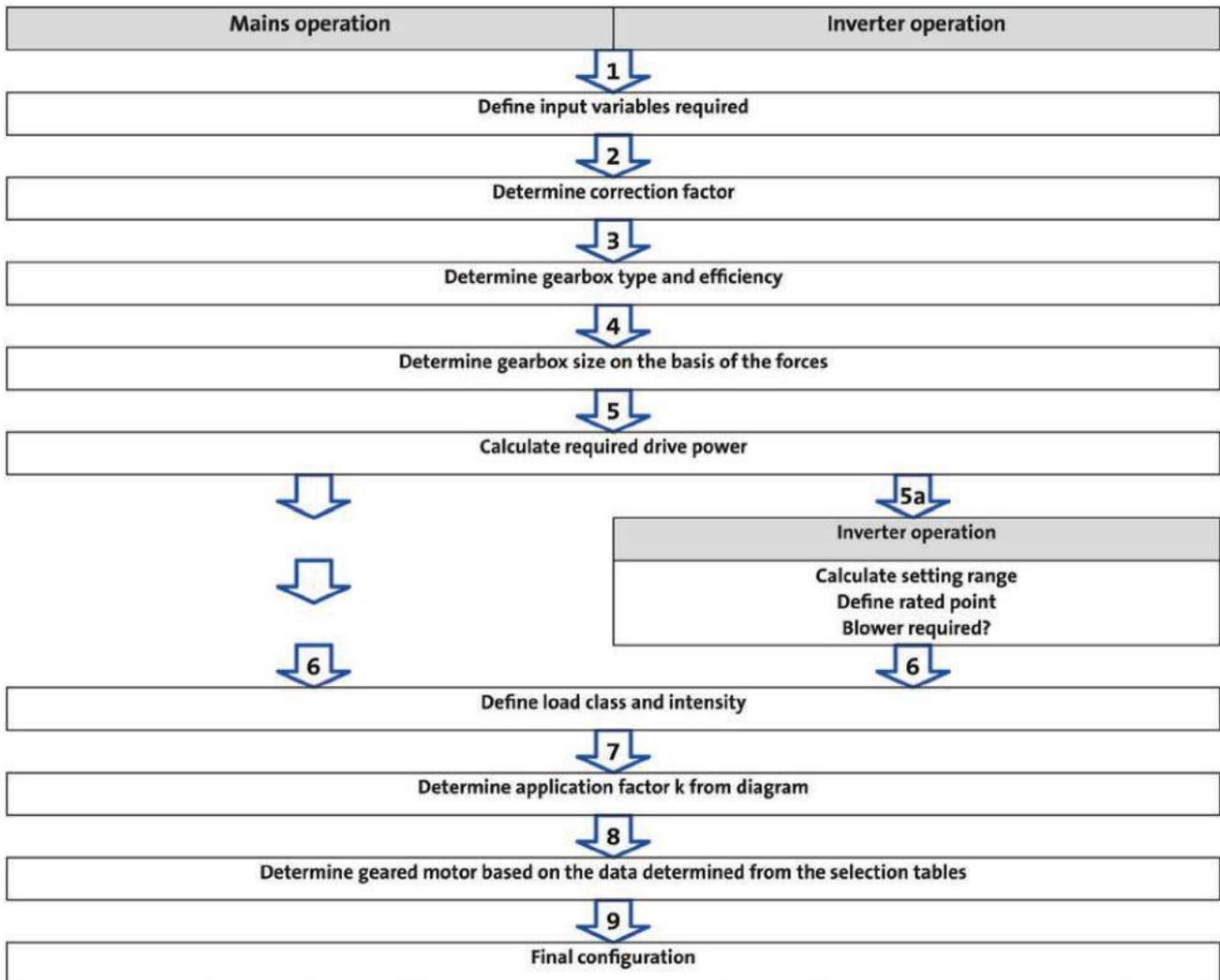
Under different operating conditions, the values obtained may vary from those listed here.

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]	$n_2$ [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	$2 < M_I \leq 2.5$	

23 - Duty classes

#### 7 determine application factor k from diagram

26 - Load capacity and application factor



### 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

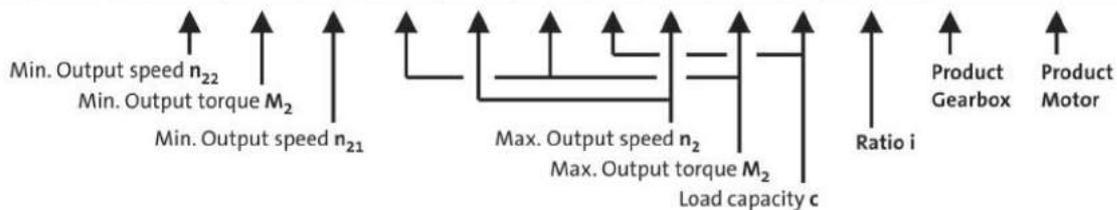
29 - Torque derating at low motor frequencies

### 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□□	
432	32	2.6	$n_{22}$ [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	3.267	-H140	090-32	82
420	33	1.9	44	23	184	32	432	32	2.6	771	32	2.1	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
-	-

# 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 1	Degree of protection	Code number 2	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).



### 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

- 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 ... 071 MH□MA□□080 ... 100	4000 r/min	3500 r/min	3000 r/min
MH□MA□□112 ... 132	3000 r/min	2600 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.

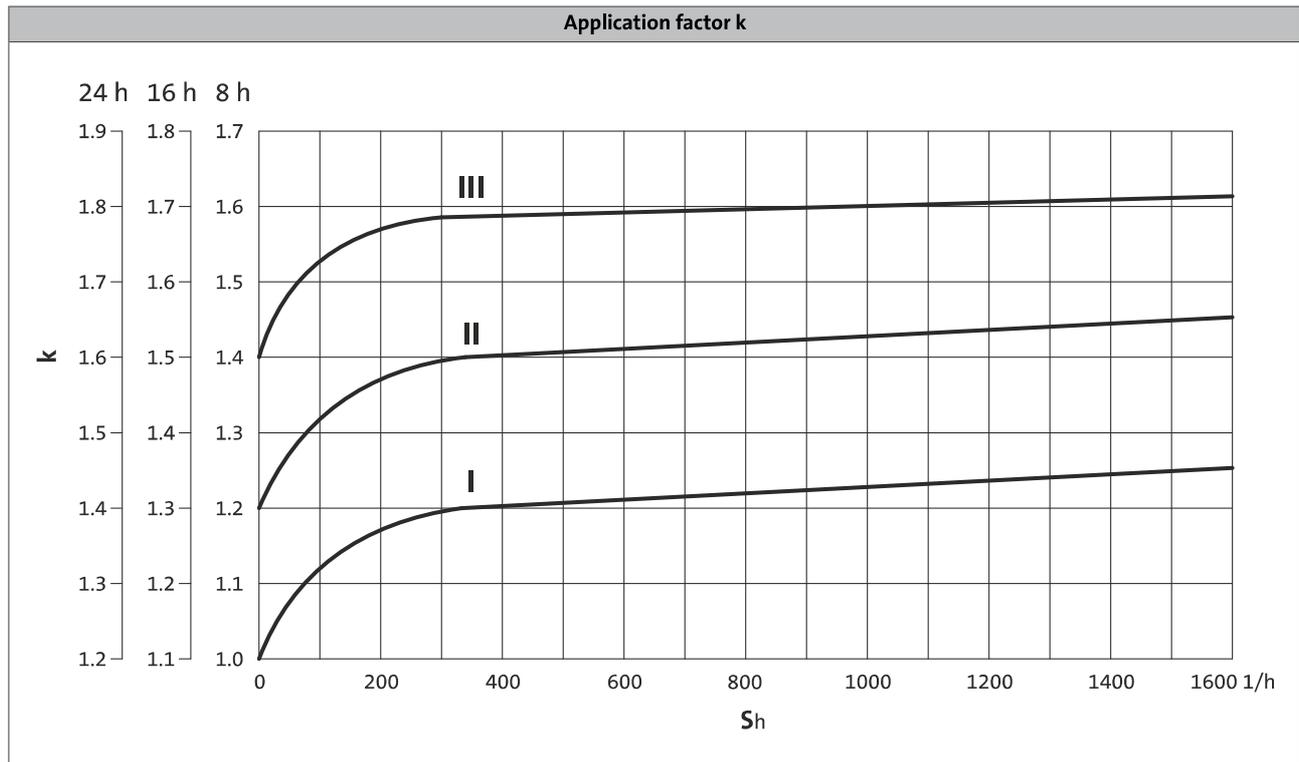
Required:  $c \geq k$

#### 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

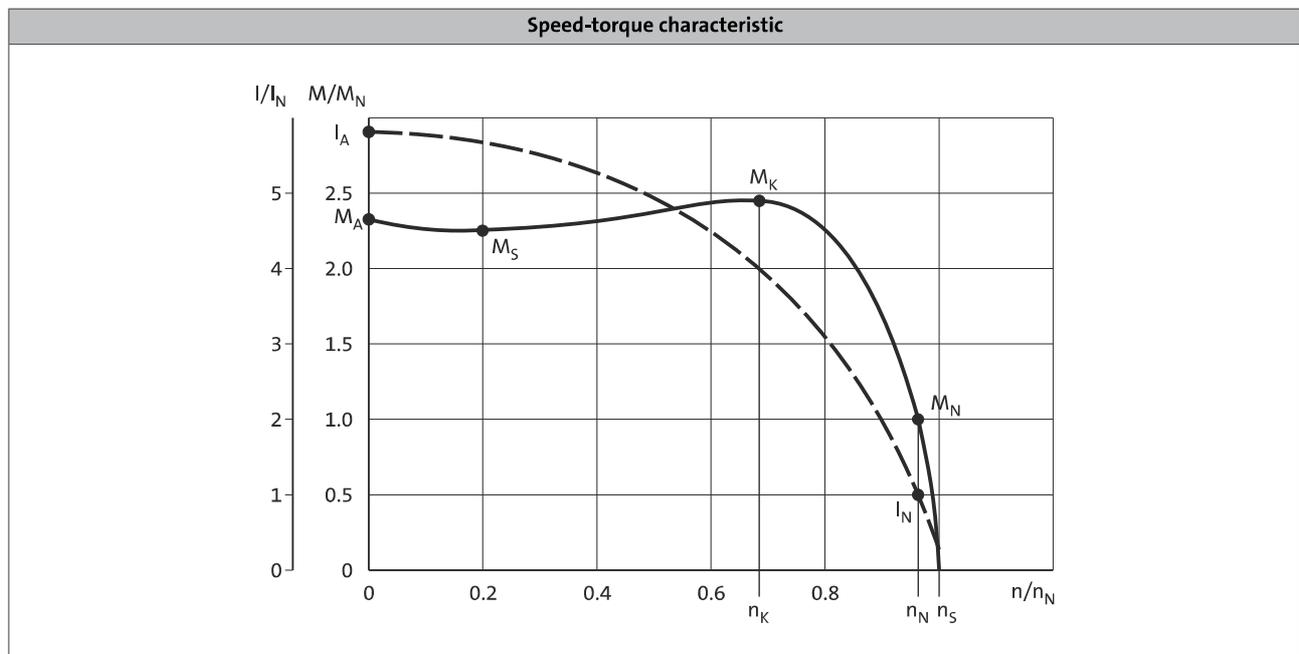


### Operational performance of three-phase AC geared motors

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".





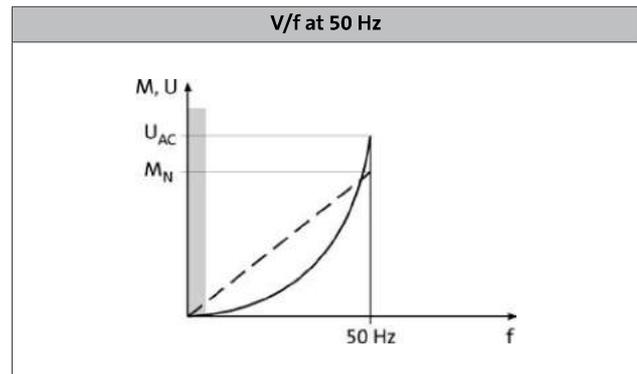
### Operational performance of three-phase AC geared motors

#### 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.

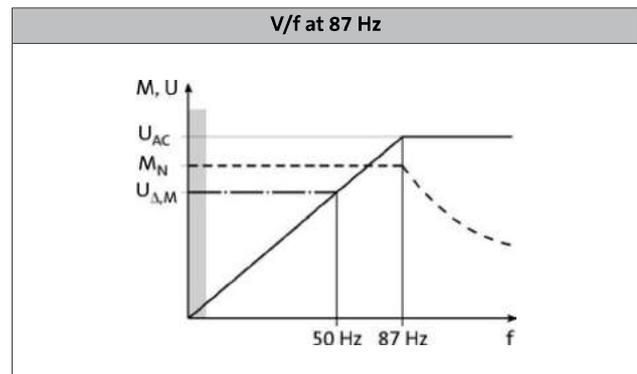
#### Standard setting

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.

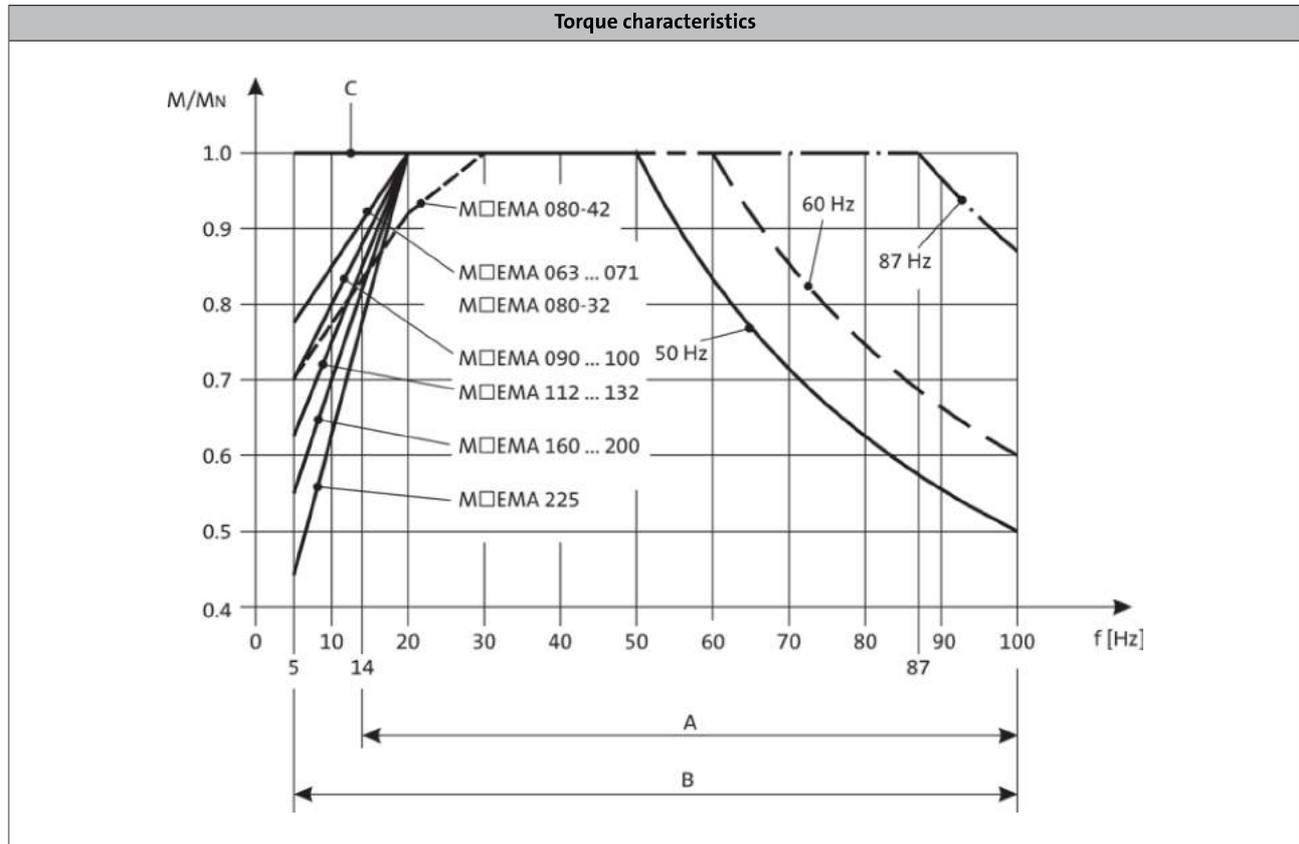




## Operational performance of three-phase AC geared motors

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

C = operation with blower

# 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	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$			$F_{\text{rad, max}}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
541	18	1.05	2.597	896	345	470	41	0.18	0.55
412	19	0.84	3.413	256	75	620	39	0.18	0.55
322	21	0.73	4.368	1376	315	670	39	0.18	0.55
264	27	0.77	5.312	1344	253	700	29	0.18	0.55
236	29	0.74	5.965	686	115	720	28	0.18	0.55
201	30	0.65	6.982	384	55	760	28	0.12	0.55
179	32	0.62	7.840	196	25	780	27	0.12	0.55
157	33	0.56	8.935	688	77	810	27	0.12	0.55
140	35	0.53	10.033	301	30	840	27	0.09	0.55
123	35	0.46	11.429	80	7	870	27	0.09	0.55
110	38	0.45	12.833	77	6	900	26	0.09	0.55
95.0	39	0.40	14.836	816	55	950	26	0.09	0.37
85.0	41	0.37	16.660	833	50	1000	26	0.09	0.37
74.0	42	0.34	19.013	1464	77	1050	26	0.06	0.37
66.0	44	0.31	21.350	427	20	1090	26	0.06	0.37
56.0	45	0.27	24.595	2976	121	1170	26	0.06	0.25
50.0	45	0.24	27.618	1519	55	1250	25	0.06	0.25
43.0	45	0.21	32.000	32	1	1340	26	0.06	0.25
38.0	45	0.18	35.933	539	15	1400	25	0.06	0.18
33.0	45	0.16	41.455	456	11	1450	26	0.06	0.18
31.0	45	0.15	46.550	931	20	1470	25	0.06	0.12
27.0	45	0.13	52.909	582	11	1500	26	0.06	0.12
24.0	45	0.12	59.413	4753	80	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	161	48	1180	29	0.25	1.50
314	72	2.44	4.600	23	5	1340	28	0.25	1.50
279	75	2.26	5.167	31	6	1410	25	0.25	1.50
245	81	2.14	5.887	989	168	1480	27	0.25	1.50
224	83	2.01	6.440	161	25	1540	27	0.18	1.50
204	86	1.89	7.086	248	35	1600	24	0.25	1.50
176	92	1.74	8.214	115	14	1700	27	0.18	1.50
159	96	1.65	9.068	1333	147	1770	24	0.25	1.50
143	99	1.53	10.063	161	16	1850	27	0.25	1.50
127	100	1.37	11.360	284	25	1940	22	0.18	1.50
114	100	1.23	12.653	620	49	2030	24	0.18	1.50
100	100	1.08	14.490	710	49	2150	22	0.18	1.10
93.0	100	1.01	15.500	31	2	2210	23	0.25	1.10
82.0	100	0.88	17.750	71	4	2330	22	0.25	0.75
74.0	100	0.80	19.486	682	35	2430	23	0.12	0.75
65.0	100	0.70	22.314	781	35	2560	22	0.12	0.75
58.0	100	0.62	25.095	527	21	2590	23	0.12	0.75
49.0	100	0.53	28.738	1207	42	2620	22	0.12	0.55
44.0	100	0.48	31.805	2449	77	2640	22	0.12	0.37
39.0	100	0.42	36.422	5609	154	2650	21	0.12	0.37
35.0	100	0.38	39.857	279	7	2650	22	0.12	0.37
31.0	100	0.33	45.643	639	14	2650	21	0.12	0.37
26.0	70	0.20	52.510	2573	49	2650	22	0.12	0.18
23.0	80	0.20	60.133	5893	98	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	49	15	1750	25	0.25	1.50
322	94	3.27	4.480	112	25	2000	24	0.25	1.50
252	103	2.80	5.733	86	15	2180	24	0.25	1.50
230	105	2.61	6.272	784	125	2260	23	0.18	1.50
198	106	2.27	7.269	189	26	2370	18	0.25	1.50
180	117	2.28	8.000	8	1	2430	24	0.18	1.50
160	117	2.02	9.029	316	35	2540	19	0.25	1.50
147	125	1.98	9.800	49	5	2630	23	0.25	1.50
125	128	1.72	11.554	3397	294	2800	18	0.25	1.50
114	132	1.63	12.640	316	25	2880	18	0.18	1.50
103	136	1.52	13.957	4536	325	2950	17	0.18	1.50
89.0	140	1.35	16.122	790	49	3050	18	0.18	1.50
81.0	140	1.22	17.802	1620	91	3150	18	0.18	1.50
73.0	140	1.10	19.750	79	4	3210	18	0.25	1.10
66.0	140	1.00	21.808	567	26	3300	17	0.25	1.10
58.0	140	0.88	24.829	869	35	3400	18	0.12	0.75
53.0	140	0.80	27.415	1782	65	3520	17	0.12	0.75
45.0	140	0.68	31.976	1343	42	3630	18	0.12	0.75
41.0	140	0.62	35.308	459	13	3700	17	0.12	0.75
35.0	140	0.53	40.526	6241	154	3850	17	0.12	0.37
32.0	140	0.48	44.748	6399	143	3920	17	0.12	0.37
28.0	129	0.39	50.786	711	14	4000	17	0.12	0.37
25.0	140	0.38	56.077	729	13	4050	17	0.12	0.37
20.0	89	0.20	66.908	6557	98	4100	17	0.12	0.18
18.0	98	0.20	73.879	6723	91	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	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
428	126	5.82	3.389	61	18	1980	23	0.55	3.00
312	143	4.81	4.648	488	105	2250	23	1.10	3.00
260	159	4.45	5.583	67	12	2400	19	0.55	3.00
232	158	3.95	6.250	25	4	2500	18	0.55	3.00
189	172	3.51	7.657	268	35	2680	19	1.10	3.00
169	171	3.12	8.571	60	7	2780	18	1.10	3.00
148	182	2.91	9.799	2881	294	2960	18	0.55	3.00
135	189	2.76	10.720	268	25	3030	18	0.25	3.00
121	186	2.43	12.000	12	1	3200	17	0.25	3.00
106	201	2.30	13.673	670	49	3350	18	0.25	2.20
95.0	200	2.05	15.306	750	49	3470	17	0.25	2.20
87.0	210	1.97	16.750	67	4	3590	18	0.55	2.20
77.0	210	1.74	18.750	75	4	3720	17	0.55	1.50
66.0	210	1.50	21.802	2747	126	3870	18	0.25	1.50
59.0	210	1.34	24.405	1025	42	3900	17	0.25	1.50
53.0	210	1.21	27.119	1139	42	3900	17	0.25	1.50
48.0	210	1.08	30.357	425	14	3900	17	0.25	1.10
41.0	210	0.94	35.095	737	21	3900	17	0.12	0.75
37.0	210	0.84	39.286	275	7	4020	16	0.12	0.75
33.0	183	0.65	42.593	5963	140	4100	17	0.12	0.55
30.0	206	0.66	47.679	1335	28	4220	16	0.12	0.55
26.0	137	0.38	54.438	871	16	4350	17	0.12	0.37
23.0	155	0.39	60.938	975	16	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	4556	105	4120	17	0.18	0.75
30.0	210	0.69	48.571	340	7	4240	16	0.12	0.75
26.0	210	0.60	55.529	48977	882	4350	17	0.12	0.75
23.0	210	0.52	62.160	18275	294	4470	16	0.12	0.55
20.0	210	0.46	71.026	62645	882	4620	17	0.12	0.55
18.0	210	0.41	79.507	23375	294	4740	16	0.12	0.37
15.0	210	0.35	92.205	19363	210	4800	17	0.12	0.37
14.0	210	0.32	103.214	1445	14	4800	16	0.12	0.37
12.0	210	0.27	118.162	69479	588	4800	17	0.12	0.25
10.0	210	0.24	132.270	25925	196	4800	16	0.12	0.25
9.00	210	0.21	152.853	35309	231	4800	17	0.12	0.25
8.00	210	0.18	171.104	13175	77	4800	16	0.12	0.18
7.00	210	0.16	198.873	12529	63	4800	17	0.12	0.18
6.00	210	0.15	222.619	4675	21	4800	16	0.12	0.12
6.00	210	0.13	257.631	21641	84	4800	17	0.12	0.12
5.00	210	0.11	288.393	8075	28	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	61	18	2180	20	0.55	4.00
313	189	6.38	4.648	488	105	2460	20	1.10	4.00
239	227	5.86	6.083	73	12	2670	16	0.55	4.00
210	218	4.95	6.910	539	78	2800	15	0.55	4.00
174	249	4.69	8.343	292	35	2950	16	1.10	4.00
153	238	3.94	9.477	616	65	3100	15	1.10	4.00
136	265	3.89	10.677	3139	294	3250	16	0.55	4.00
124	271	3.64	11.680	292	25	3330	16	0.25	4.00
120	254	3.28	12.128	473	39	3360	15	0.55	4.00
109	262	3.09	13.268	4312	325	3440	15	0.25	3.00
97.0	294	3.08	14.898	730	49	3600	15	0.25	3.00
86.0	281	2.60	16.923	220	13	3760	15	0.25	3.00
79.0	313	2.68	18.250	73	4	3870	15	0.55	3.00
70.0	299	2.26	20.731	539	26	4020	15	0.55	2.20
61.0	320	2.10	23.754	2993	126	4210	15	0.25	1.50
53.0	320	1.84	26.983	3157	117	4420	15	0.25	1.50
49.0	320	1.69	29.548	1241	42	4540	15	0.25	1.50
43.0	320	1.49	33.564	1309	39	4750	15	0.25	1.50
38.0	251	1.03	38.238	803	21	4970	15	0.12	0.75
33.0	285	1.03	43.436	1694	39	5190	14	0.12	0.75
30.0	218	0.71	46.407	6497	140	5310	15	0.12	0.55
27.0	248	0.71	52.715	6853	130	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	4964	105	5350	15	0.18	0.75
27.0	320	0.95	53.703	10472	195	5570	15	0.18	0.75
24.0	320	0.84	60.502	53363	882	5600	15	0.18	0.75
21.0	320	0.74	68.726	8041	117	5670	15	0.18	0.75
19.0	320	0.66	77.387	68255	882	5680	15	0.12	0.75
16.0	320	0.56	87.906	10285	117	5700	15	0.12	0.55
14.0	320	0.49	100.462	21097	210	5700	15	0.12	0.55
12.0	320	0.43	114.118	22253	195	5700	15	0.12	0.37
11.0	320	0.39	128.743	75701	588	5700	15	0.12	0.37
10.0	320	0.34	146.244	11407	78	5700	15	0.12	0.37
8.00	320	0.30	166.541	38471	231	5700	15	0.12	0.37
6.00	315	0.22	216.683	13651	63	5700	15	0.12	0.25
6.00	320	0.19	246.137	28798	117	5700	14	0.12	0.18
5.00	269	0.15	280.702	23579	84	5700	15	0.12	0.12
4.00	305	0.15	318.859	24871	78	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	31	9	2550	19	2.20	7.50
313	293	9.89	4.724	496	105	2850	18	2.20	7.50
260	315	8.85	5.678	511	90	3010	15	2.20	7.50
244	323	8.52	6.045	2666	441	3070	17	1.10	7.50
223	334	8.05	6.613	496	75	3160	17	1.10	7.50
190	354	7.25	7.787	584	75	3350	14	2.20	7.50
168	370	6.69	8.800	44	5	3470	14	2.20	7.50
148	385	6.15	9.965	3139	315	3650	14	1.10	7.50
130	400	5.59	11.262	473	42	3800	14	1.10	5.50
118	411	5.26	12.320	308	25	3900	13	1.10	5.50
105	426	4.83	13.905	292	21	4030	14	0.55	5.50
93.0	441	4.42	15.714	110	7	4240	13	0.55	5.50
85.0	450	4.14	17.033	511	30	4360	14	1.10	4.00
76.0	448	3.65	19.250	77	4	4520	13	1.10	4.00
65.0	450	3.18	22.170	2993	135	4720	14	0.55	3.00
58.0	450	2.81	25.056	451	18	4920	13	0.55	3.00
52.0	450	2.55	27.578	1241	45	5090	13	0.55	3.00
47.0	450	2.26	31.167	187	6	5280	13	0.55	2.20
40.0	450	1.96	35.689	1606	45	5490	13	0.25	1.50
36.0	450	1.74	40.333	121	3	5880	13	0.25	1.50
33.0	322	1.16	43.313	6497	150	6000	13	0.25	1.10
30.0	366	1.16	48.950	979	20	6300	13	0.25	1.10
26.0	270	0.75	54.750	219	4	6500	13	0.25	0.55
23.0	305	0.75	61.875	495	8	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	
$n_2$	$M_{2,max}$	$P_{1,max}$	$i$	$z_g$	$z_t$	$F_{rad,max}$	$\pm 20\%$	$P_{N,min}$	$P_{N,max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
33.0	450	1.61	44.124	9928	225	6050	14	0.25	1.50
29.0	450	1.43	49.867	748	15	6320	13	0.25	1.50
26.0	450	1.26	56.469	53363	945	6550	14	0.25	1.50
23.0	450	1.15	61.774	69496	1125	6700	14	0.18	1.10
21.0	450	1.02	69.813	5236	75	6860	13	0.18	1.10
18.0	450	0.90	78.794	4964	63	7000	14	0.18	1.10
16.0	450	0.80	89.048	1870	21	7100	13	0.18	0.75
15.0	450	0.74	96.522	8687	90	7100	14	0.25	0.75
13.0	450	0.66	109.083	1309	12	7100	13	0.25	0.75
12.0	450	0.57	121.342	27302	225	7100	14	0.12	0.55
10.0	450	0.50	137.133	2057	15	7100	13	0.12	0.55
9.00	450	0.44	156.274	21097	135	7100	14	0.12	0.55
8.00	450	0.39	176.611	3179	18	7100	13	0.12	0.37
7.00	450	0.35	198.059	98039	495	7100	14	0.12	0.37
6.00	450	0.31	223.833	1343	6	7100	13	0.12	0.37
6.00	450	0.27	248.200	1241	5	7100	14	0.12	0.25
5.00	450	0.24	280.500	561	2	7100	13	0.12	0.25
4.00	428	0.20	326.994	103003	315	7100	14	0.12	0.18
4.00	450	0.18	369.548	15521	42	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	49	15	4680	17	2.20	7.50
330	297	10.6	4.480	112	25	5080	15	2.20	7.50
258	339	9.42	5.733	86	15	5420	15	1.10	7.50
229	404	9.97	6.456	581	90	5600	14	2.20	7.50
204	435	9.56	7.250	29	4	5770	13	2.20	7.50
167	487	8.77	8.853	664	75	6080	13	2.20	7.50
148	510	8.17	9.943	348	35	6270	12	2.20	7.50
130	537	7.55	11.330	3569	315	6490	13	1.10	7.50
119	553	7.12	12.395	4648	375	6640	12	1.10	7.50
106	578	6.62	13.920	348	25	6850	12	1.10	7.50
93.0	600	6.05	15.810	332	21	7080	12	0.55	7.50
82.0	600	5.32	17.755	870	49	7300	12	0.55	5.50
75.0	600	4.88	19.367	581	30	7470	12	1.10	5.50
67.0	600	4.33	21.750	87	4	7700	12	1.10	4.00
58.0	600	3.73	25.207	3403	135	8000	12	0.55	4.00
51.0	600	3.32	28.310	1189	42	8260	12	0.55	4.00
46.0	600	2.99	31.356	1411	45	8480	12	0.55	3.00
41.0	600	2.66	35.214	493	14	8500	12	0.55	3.00
36.0	558	2.14	40.578	1826	45	8500	12	0.25	1.50
32.0	600	2.05	45.571	319	7	8500	12	0.25	1.50
29.0	456	1.44	49.247	7387	150	8500	12	0.25	1.10
26.0	513	1.44	55.307	7743	140	8500	12	0.25	1.10
23.0	307	0.75	62.250	249	4	8500	12	0.25	0.55
20.0	345	0.75	69.911	3915	56	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	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
46.0	600	3.05	31.197	49136	1575	8470	13	1.10	3.00
41.0	600	2.72	35.037	8584	245	8500	13	1.10	3.00
36.0	600	2.39	39.925	264106	6615	8500	13	0.55	2.20
33.0	600	2.18	43.676	49136	1125	8500	13	0.25	2.20
30.0	600	1.95	49.051	8584	175	8500	12	0.25	2.20
26.0	600	1.70	55.710	24568	441	8500	13	0.25	1.50
23.0	600	1.51	62.566	21460	343	8500	12	0.25	1.50
21.0	600	1.39	68.244	3071	45	8500	13	0.55	1.50
19.0	600	1.24	76.643	1073	14	8500	12	0.55	1.50
16.0	600	1.07	88.826	251822	2835	8500	13	0.25	1.10
14.0	600	0.95	99.757	43993	441	8500	12	0.25	1.10
13.0	600	0.86	110.491	104414	945	8500	13	0.25	0.75
12.0	600	0.77	124.088	18241	147	8500	12	0.25	0.75
10.0	600	0.66	142.988	135124	945	8500	13	0.12	0.75
9.00	600	0.57	160.585	23606	147	8500	12	0.12	0.55
8.00	600	0.53	173.536	273319	1575	8500	13	0.12	0.55
7.00	600	0.47	194.892	95497	490	8500	12	0.12	0.55
6.00	600	0.42	221.794	39923	180	8500	13	0.12	0.37
6.00	600	0.37	249.089	13949	56	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	1734	551	5070	16	4.00	7.50
339	379	13.8	4.362	663	152	5610	15	4.00	7.50
275	430	12.8	5.368	102	19	5980	14	2.20	7.50
248	551	14.8	5.946	1207	203	6170	13	4.00	7.50
222	578	13.9	6.644	578	87	6390	13	4.00	7.50
179	615	11.9	8.241	923	112	6830	13	4.00	7.50
160	649	11.2	9.208	221	24	7070	12	4.00	7.50
146	667	10.5	10.143	71	7	7280	12	2.20	7.50
130	696	9.77	11.360	284	25	7550	12	2.20	7.50
116	725	9.10	12.693	952	75	7810	12	2.20	7.50
102	758	8.34	14.490	710	49	8140	12	1.10	7.50
91.0	792	7.79	16.190	340	21	8420	12	1.10	7.50
83.0	814	7.31	17.750	71	4	8660	12	2.20	7.50
74.0	833	6.70	19.833	119	6	8970	12	2.20	7.50
63.0	850	5.80	23.103	2911	126	9400	12	1.10	5.50
57.0	850	5.19	25.815	697	27	9730	11	1.10	5.50
51.0	850	4.71	28.315	4757	168	10000	11	1.10	4.00
46.0	850	4.21	31.639	1139	36	10400	11	1.10	4.00
39.0	850	3.58	37.190	781	21	10900	11	0.55	3.00
35.0	850	3.20	41.556	374	9	11000	11	0.55	3.00
32.0	850	2.95	45.136	6319	140	11000	11	0.55	2.20
29.0	850	2.64	50.433	1513	30	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	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad, max}}$	$\pm 20\%$	$P_{N, \min}$	$P_{N, \max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
49.0	850	4.60	29.536	3692	125	10100	13	2.20	5.50
44.0	850	4.10	33.003	12376	375	10500	12	2.20	4.00
38.0	850	3.58	37.799	39689	1050	10900	13	1.10	4.00
35.0	850	3.27	41.350	25844	625	11000	13	1.10	4.00
31.0	850	2.92	46.204	86632	1875	11000	12	1.10	3.00
28.0	850	2.56	52.743	1846	35	11000	13	0.55	3.00
25.0	850	2.29	58.933	884	15	11000	12	0.55	2.20
22.0	850	2.10	64.610	6461	100	11000	13	1.10	2.20
20.0	850	1.87	72.193	10829	150	11000	12	1.10	2.20
17.0	850	1.59	84.096	37843	450	11000	13	0.55	1.50
15.0	850	1.43	93.966	63427	675	11000	12	0.55	1.50
14.0	850	1.29	104.607	15691	150	11000	12	0.55	1.50
12.0	850	1.15	116.884	26299	225	11000	12	0.55	1.10
11.0	850	1.00	135.373	10153	75	11000	12	0.25	1.10
10.0	850	0.88	151.262	34034	225	11000	12	0.25	1.10
9.00	850	0.82	164.294	82147	500	11000	12	0.25	0.75
8.00	850	0.74	183.577	137683	750	11000	12	0.25	0.75
7.00	850	0.63	207.675	8307	40	11000	12	0.25	0.55
6.00	850	0.57	232.050	4641	20	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	
$n_2$	$M_{2, \max}$	$P_{1, \max}$	$i$	$z_g$	$z_t$	$F_{\text{rad}, \max}$		$P_{N, \min}$	$P_{N, \max}$
							$\pm 20\%$		
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
395	775	33.0	3.743	1647	440	8500	14	5.50	30.00
311	924	31.0	4.758	2379	500	8900	13	5.50	30.00
274	1021	30.2	5.400	27	5	9200	11	5.50	30.00
237	1098	28.1	6.245	2623	420	9440	13	4.00	30.00
215	1157	26.9	6.864	858	125	9690	11	5.50	30.00
195	1217	25.6	7.592	949	125	9970	10	5.50	30.00
164	1320	23.4	9.010	946	105	10500	10	4.00	22.00
144	1380	21.5	10.267	154	15	10900	10	4.00	22.00
130	1400	19.7	11.356	511	45	11200	10	4.00	22.00
120	1420	18.4	12.362	1298	105	11400	10	2.20	22.00
108	1430	16.8	13.673	4307	315	11800	10	2.20	18.50
98.0	1440	15.2	15.156	682	45	12100	10	4.00	18.50
88.0	1450	13.7	16.763	2263	135	12500	10	4.00	15.00
72.0	1500	11.6	20.533	308	15	13200	10	2.20	7.50
65.0	1500	10.5	22.711	1022	45	13600	10	2.20	7.50
59.0	1500	9.58	24.933	374	15	13900	10	2.20	7.50
54.0	1500	8.68	27.578	1241	45	14300	9	2.20	7.50
45.0	1440	7.00	32.267	484	15	15000	10	1.10	4.00
41.0	1500	6.59	35.689	1606	45	15400	9	1.10	4.00
37.0	1463	5.86	39.160	979	25	15800	10	1.10	4.00
34.0	1500	5.42	43.313	6497	150	16300	9	1.10	4.00
29.0	1250	3.95	49.500	99	2	16900	10	1.10	2.20
26.0	1382	3.95	54.750	219	4	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	
$n_2$	$M_{2,max}$	$P_{1,max}$	$i$	$z_g$	$z_t$	$F_{rad,max}$	$\pm 20\%$	$P_{N,min}$	$P_{N,max}$
[r/min]	[Nm]	[kW]				[N]	[arcmin]	[kW]	[kW]
36.0	1500	5.92	40.517	2431	60	16000	11	4.00	5.50
33.0	1500	5.36	44.814	16133	360	16400	10	4.00	5.50
29.0	1500	4.82	49.867	748	15	17000	10	2.20	5.50
26.0	1500	4.27	55.851	20944	375	17000	10	2.20	4.00
24.0	1500	3.86	61.774	69496	1125	17000	10	2.20	4.00
20.0	1500	3.35	71.238	1496	21	17000	10	1.10	4.00
18.0	1500	3.02	78.794	4964	63	17000	10	1.10	3.00
17.0	1500	2.73	87.267	1309	15	17000	10	2.20	3.00
15.0	1500	2.47	96.522	8687	90	17000	10	2.20	3.00
13.0	1500	2.10	113.585	15334	135	17000	10	1.10	2.20
12.0	1500	1.91	125.632	50881	405	17000	10	1.10	2.20
10.0	1500	1.71	139.211	12529	90	17000	10	1.10	1.50
9.00	1500	1.55	153.976	83147	540	17000	10	1.10	1.50
8.00	1500	1.30	182.844	8228	45	17000	10	0.55	1.50
7.00	1500	1.17	202.237	27302	135	17000	10	0.55	1.10
6.00	1500	1.07	221.907	16643	75	17000	10	0.55	1.10
6.00	1500	0.97	245.442	110449	450	17000	10	0.55	1.10
5.00	1500	0.85	280.500	561	2	17000	10	0.55	0.75
5.00	1500	0.77	310.250	1241	4	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	1911	425	9600	12	11.00	30.00
250	1610	43.5	5.902	301	51	10200	12	11.00	30.00
233	1910	48.0	6.344	793	125	10500	10	11.00	30.00
212	2025	46.4	6.968	871	125	11000	9	11.00	30.00
178	2155	41.3	8.327	2623	315	11400	9	11.00	30.00
162	2225	38.8	9.146	2881	315	11600	9	11.00	30.00
148	2300	36.7	10.005	3752	375	12000	9	7.50	30.00
127	2400	33.0	11.619	244	21	12600	9	4.00	30.00
116	2475	30.9	12.762	268	21	13000	9	4.00	30.00
104	2530	28.4	14.233	427	30	13400	9	5.50	22.00
95.0	2610	26.7	15.633	469	30	13800	9	5.50	22.00
79.0	2750	23.4	18.752	5063	270	14600	9	4.00	22.00
72.0	2815	21.9	20.596	5561	270	15100	9	4.00	22.00
64.0	2900	20.1	23.044	1037	45	15600	9	4.00	22.00
58.0	2965	18.7	25.311	1139	45	16000	8	4.00	22.00
50.0	3000	16.0	29.822	1342	45	16900	9	2.20	7.50
45.0	3000	14.6	32.756	1474	45	17400	8	2.20	7.50
41.0	3000	13.2	36.193	5429	150	17900	9	2.20	7.50
37.0	3000	12.1	39.753	5963	150	18500	8	2.20	7.50
32.0	1712	5.88	45.750	183	4	19300	9	2.20	4.00
29.0	1880	5.87	50.250	201	4	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	
				$z_g$	$z_t$		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	2830	9.71	47.186	44591	945	19500	9	4.00	11.00
28.0	2910	9.09	51.828	48977	945	20000	9	4.00	11.00
28.0	2950	8.89	53.770	7259	135	20000	9	4.00	11.00
25.0	3000	8.22	59.059	7973	135	20000	9	4.00	7.50
23.0	3000	7.50	64.744	61183	945	20000	9	2.20	7.50
21.0	3000	6.84	71.112	67201	945	20000	9	2.20	7.50
19.0	3000	6.11	79.375	32147	405	20000	9	4.00	7.50
17.0	3000	5.49	87.183	35309	405	20000	9	4.00	5.50
14.0	3000	4.47	107.541	14518	135	20000	9	2.20	5.50
12.0	3000	4.04	118.119	15946	135	20000	9	2.20	4.00
11.0	3000	3.65	130.585	17629	135	20000	9	2.20	4.00
10.0	3000	3.32	143.430	19363	135	20000	9	2.20	4.00
9.00	3000	2.83	168.993	22814	135	20000	9	1.10	3.00
8.00	3000	2.56	185.615	25058	135	20000	9	1.10	3.00
7.00	3000	2.33	205.096	92293	450	20000	9	1.10	2.20
6.00	3000	2.10	225.269	101371	450	20000	9	1.10	2.20
6.00	3000	1.84	259.250	1037	4	20000	9	1.10	2.20
5.00	3000	1.68	284.750	1139	4	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>Indoor installation, no special corrosion protection necessary</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 gearboxes g500-H45 ... 210

### 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

The gearbox g500-H210 can be optionally ordered with breather elements.

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 and ventilation		
Check		
Drain		

6.3

# 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 and ventilation		
Check		
Drain		

- ① g500-H210
- ② g500-H320  
g500-H450

# 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 and ventilation		
Check		
Drain		

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 and ventilation		
Check		
Drain		

# g500-H helical geared motors

Technical data



## Standards and operating conditions

### Geared motor data

Product			MD□MA□□	MH□MA□□
Motor				
Enclosure				
EN 60529			IP55 <sup>1)</sup> IP65 <sup>1)</sup> IP66 <sup>1)</sup>	
Energy efficiency class				
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)				
Conformity				
CE			Low-Voltage Directive 2006/95/EC	
EAC			TP TC 004/2011 (TR CU 004/2011)	
Approval				
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	
Temperature class				
IEC/EN 60034-1; utilisation			B	
IEC/EN 60034-1; insulation system (enamel-insulated wire)			F	
Min. ambient operating temperature				
	T <sub>opr,min</sub>	[°C]	-20	
Max. ambient operating temperature				
	T <sub>opr,max</sub>	[°C]	40	
With power reduction	T <sub>opr,max</sub>	[°C]	60 <sup>2)</sup>	
Site altitude				
Current derating at over 1000 m		[%/1000 m]	5.00	
Amsl	H <sub>max</sub>	[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

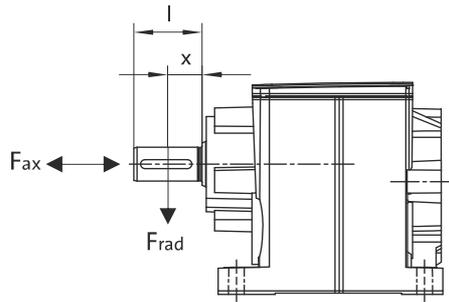
$$F_{rad,perm} = f_w \times F_{rad,max}$$

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

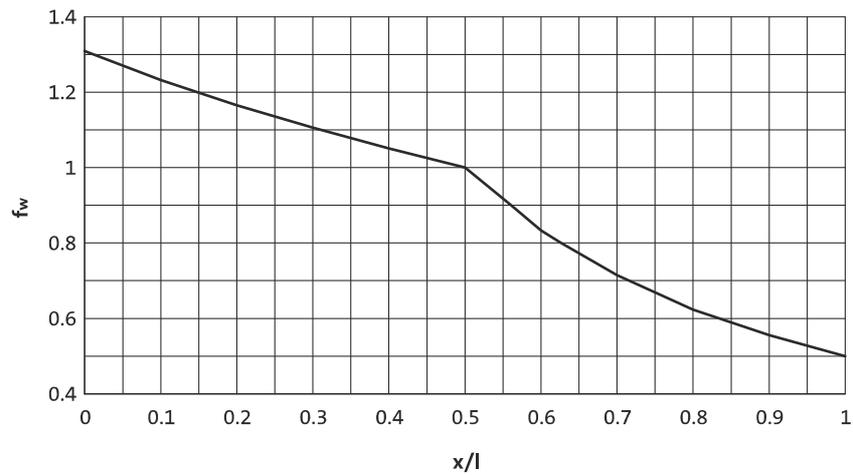
#### Permissible axial force

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

#### Application of forces



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



# 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 r/min.

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]						
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]						
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]						
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]						
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



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## 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	≤16
	$F_{rad,max}$ [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□□					
$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	$n_2$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	c	$n_{22}$ [r/min]	$M_{22}$ [Nm]	$n_{21}$ [r/min]	$M_2$ [Nm]	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

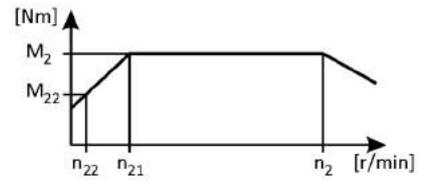


Technical data

## 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

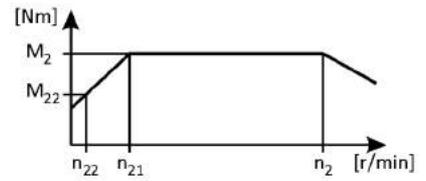


Technical data

## 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□□		
$n_{22}$ [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					
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

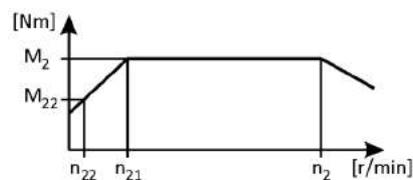


## Technical data

### 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

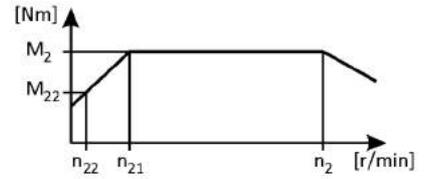


## Technical data

### 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				
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				
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

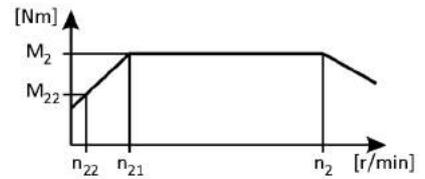


Technical data

## 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□□		
$n_{22}$ [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					
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

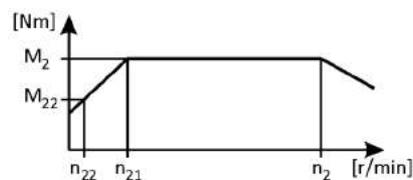


## Technical data

### 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

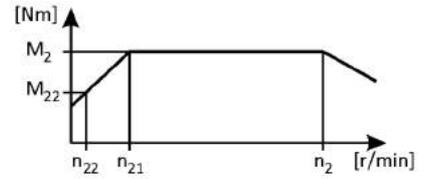


## Technical data

### 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 <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				
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 <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				
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

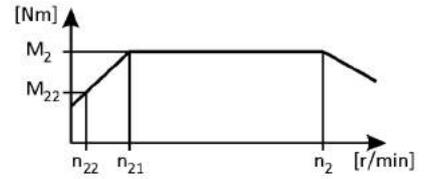


## Technical data

### 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□□	
$n_{22}$ [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	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



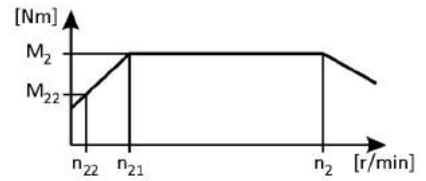
Technical data

## 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□□	
$n_{22}$ [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				
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

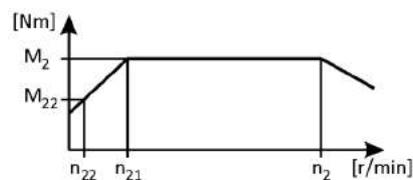


## Technical data

### 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□□		
$n_2$	$M_2$	c	$n_{22}$	$M_{22}$	$n_{21}$	$M_2$	$n_2$	$M_2$	c	$n_2$	$M_2$	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

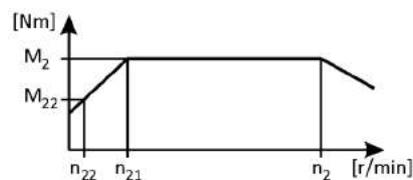


## Technical data

### 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

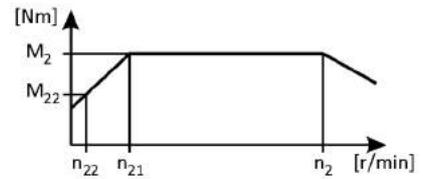


## Technical data

### 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□□	
$n_{22}$ [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				
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

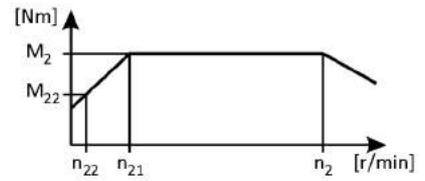


## Technical data

### 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

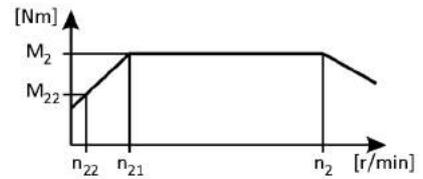


## Technical data

### 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□□		
$n_{22}$ [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					
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

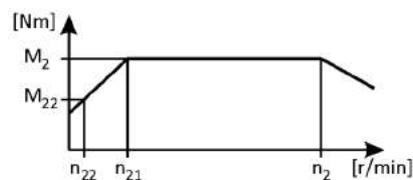


## Technical data

### 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□□	
$n_2$	$M_2$	c	$n_{22}$	$M_{22}$	$n_{21}$	$M_2$	$n_2$	$M_2$	c	$n_2$	$M_2$	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

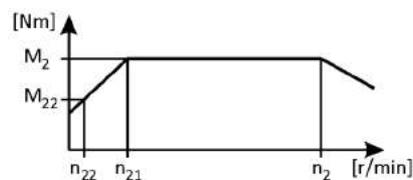


## Technical data

### 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□□	
$n_2$ [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	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

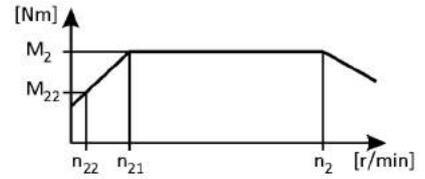


## Technical data

### 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>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				
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

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	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				
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

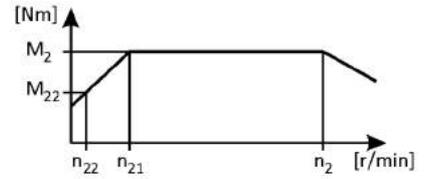


## Technical data

### 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]	$n_{21}$ [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

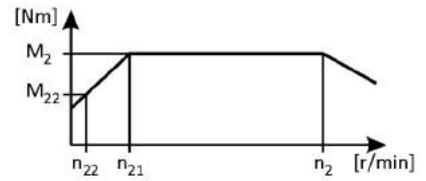


Technical data

## 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

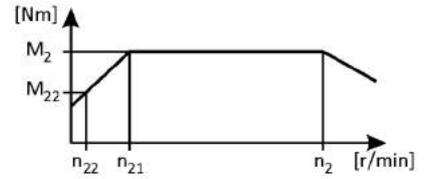


## Technical data

### 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

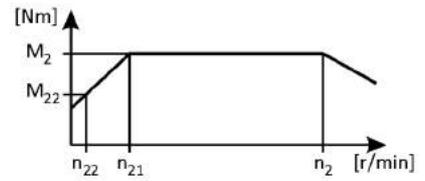


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 0.55$  kW  
 87 Hz:  $P_N = 1.0$  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

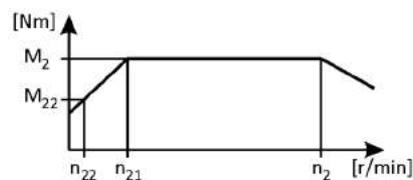


## Technical data

### 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□□	
$n_{22}$ [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				
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

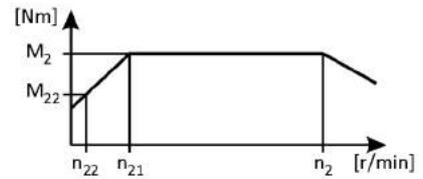


## Technical data

### 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

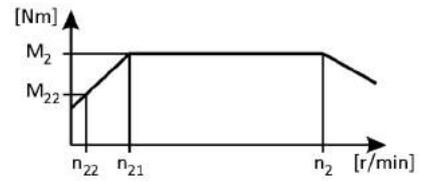


Technical data

## 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		
$n_2$ [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	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

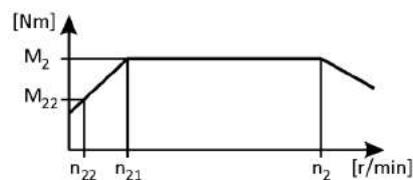


## Technical data

### 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

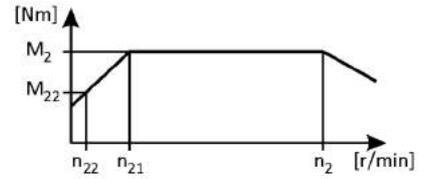


## Technical data

### 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

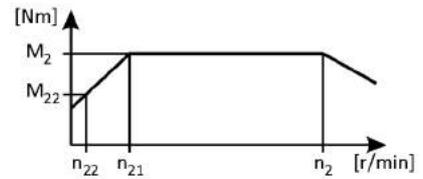


## Technical data

### 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				
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				
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

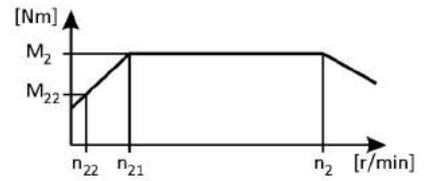


Technical data

## 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□□	
$n_{22}$ [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				
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

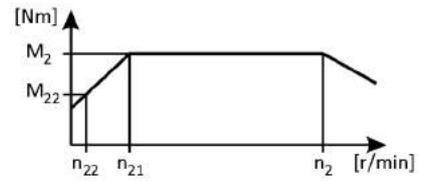
Technical data



## 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□□	
$n_{22}$ [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				
6.8	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

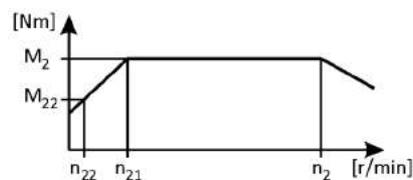


## Technical data

### 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□□	
			$n_{22}$ [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

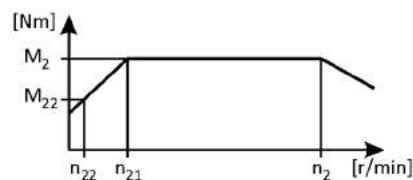


## Technical data

### 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]	$n_{21}$ [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

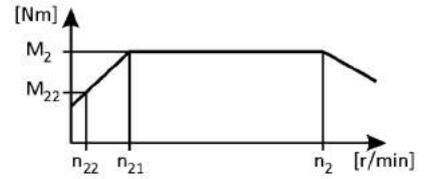


Technical data

## 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□□	
$n_{22}$ [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				
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

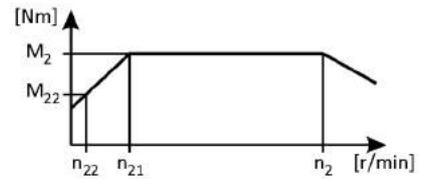


## Technical data

### 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		
$n_2$ [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				
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		
$n_2$ [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	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

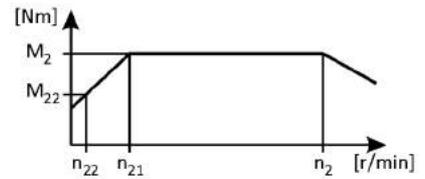


Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 1.1$  kW  
 87 Hz:  $P_N = 2.0$  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	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

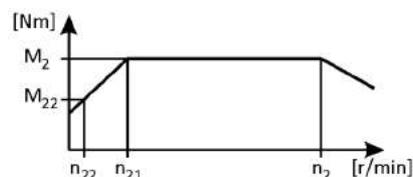


## Technical data

### 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□□	
$n_2$	$M_2$	c	$n_{22}$	$M_{22}$	$n_{21}$	$M_2$	$n_2$	$M_2$	c	$n_2$	$M_2$	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

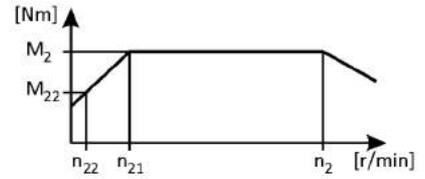


## Technical data

### 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

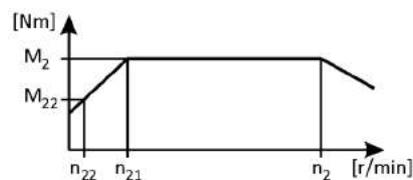


## Technical data

### 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□□		
$n_{22}$ [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					
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

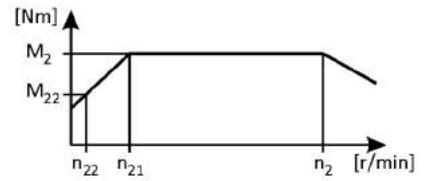


## Technical data

### 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□□	
$n_2$ [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				
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

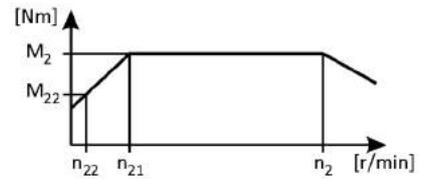


## Technical data

### 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□□	
			$n_{22}$ [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

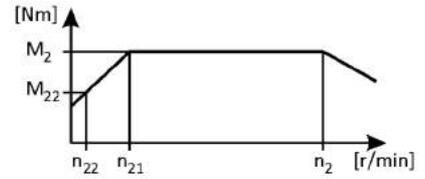


## Technical data

### 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□□	
$n_2$ [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	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

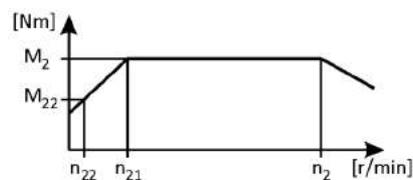


## Technical data

### 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				
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				
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

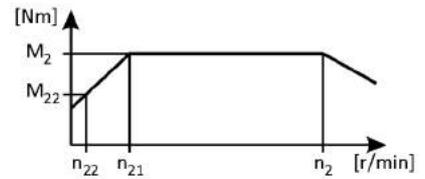


Technical data

## 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

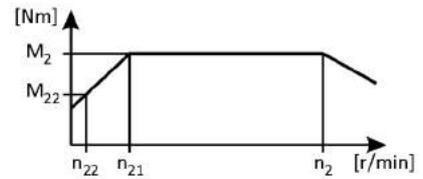


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 3.0 \text{ kW}$   
 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]	$n_{21}$ [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

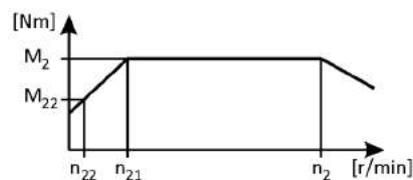


Technical data

## Selection tables, 4-pole motors

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

6.3

# g500-H helical geared motors

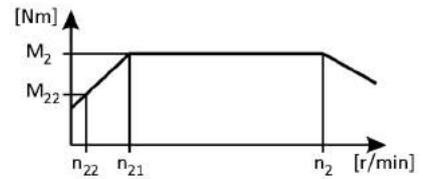


## Technical data

### 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				
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				
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

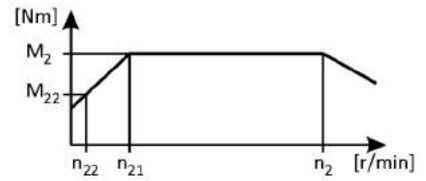


Technical data

## 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□□	
$n_{22}$ [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				
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

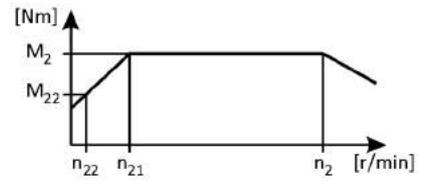


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0 \text{ kW}$   
 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□□	
			$n_{22}$ [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				
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

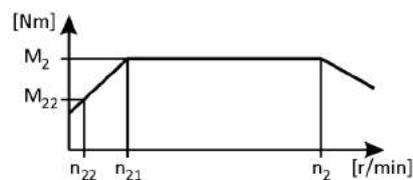


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 4.0 \text{ kW}$   
 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□□	
$n_{22}$ [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				
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

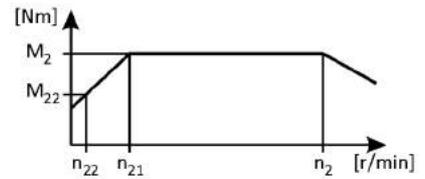


## Technical data

### 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		
$n_2$ [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				
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		
$n_2$ [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				
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

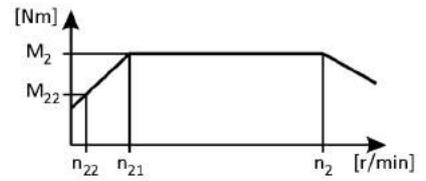


## Selection tables, 4-pole motors

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□□	
$n_{22}$ [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				
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

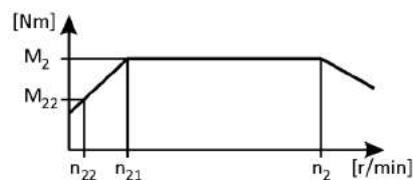


## Technical data

### 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		
$n_2$ [r/min]	$M_2$ [Nm]	c	5 Hz -		- 20 Hz		- 50 Hz (1:10)			- 87 Hz (1:17.4)				g500	MH□MA□□	
$n_2$	$M_2$		$n_{22}$	$M_{22}$	$n_{21}$	$M_2$	$n_2$	$M_2$	c	$n_2$	$M_2$	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

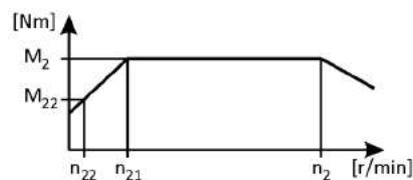


## Technical data

### 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□□	
$n_{22}$ [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				
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



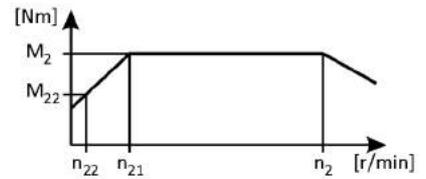
Technical data

## Selection tables, 4-pole motors

50 Hz:  $P_N = 5.5$  kW

87 Hz:  $P_N = 9.7$  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□□	
$n_{22}$ [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				
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

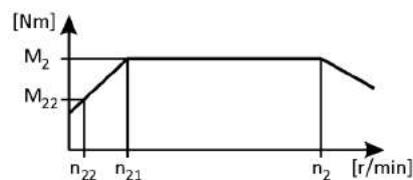


## Technical data

### Selection tables, 4-pole motors

50 Hz:  $P_N = 7.5$  kW  
 87 Hz:  $P_N = 13.2$  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]	$n_{21}$ [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

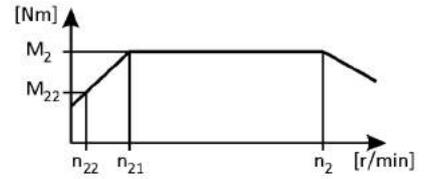


## Technical data

### 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		
$n_2$ [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				
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		
$n_2$ [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				
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

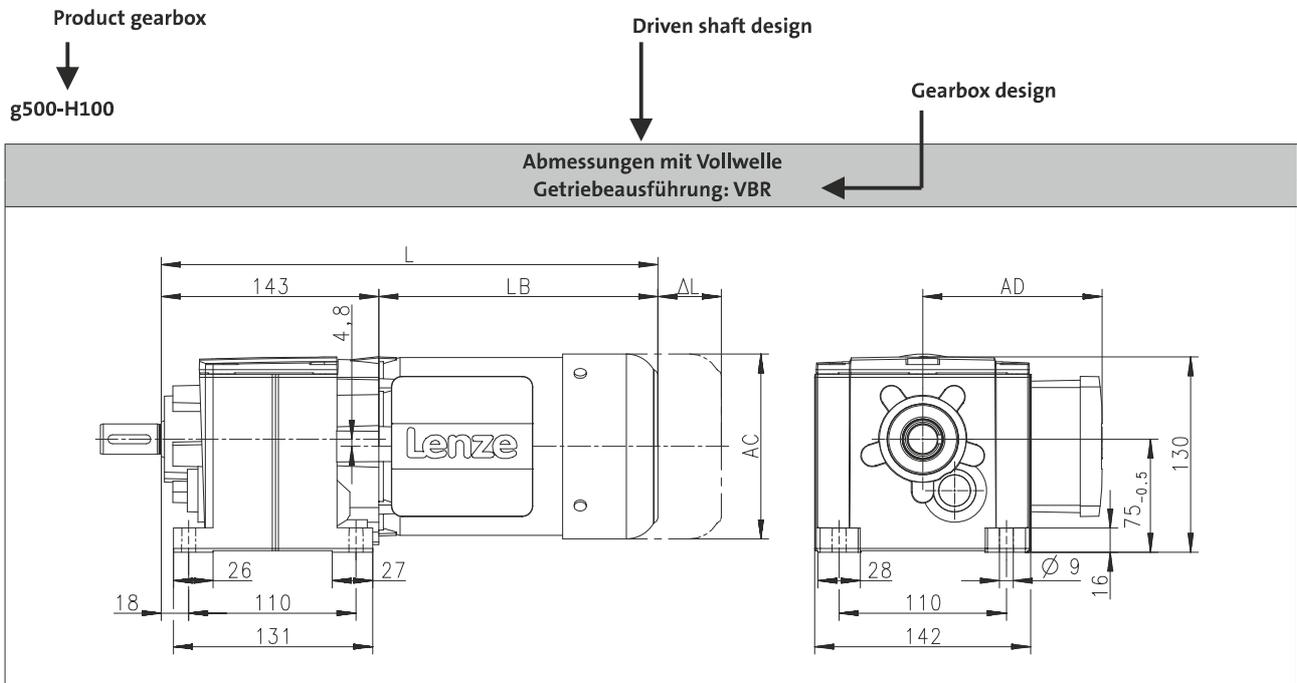


## Technical data

### Dimensions, notes

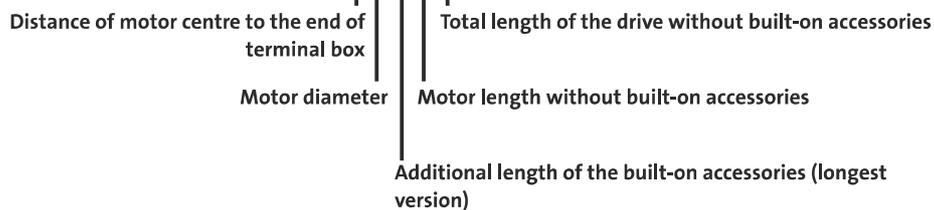
#### Notes on the dimensions

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



- 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

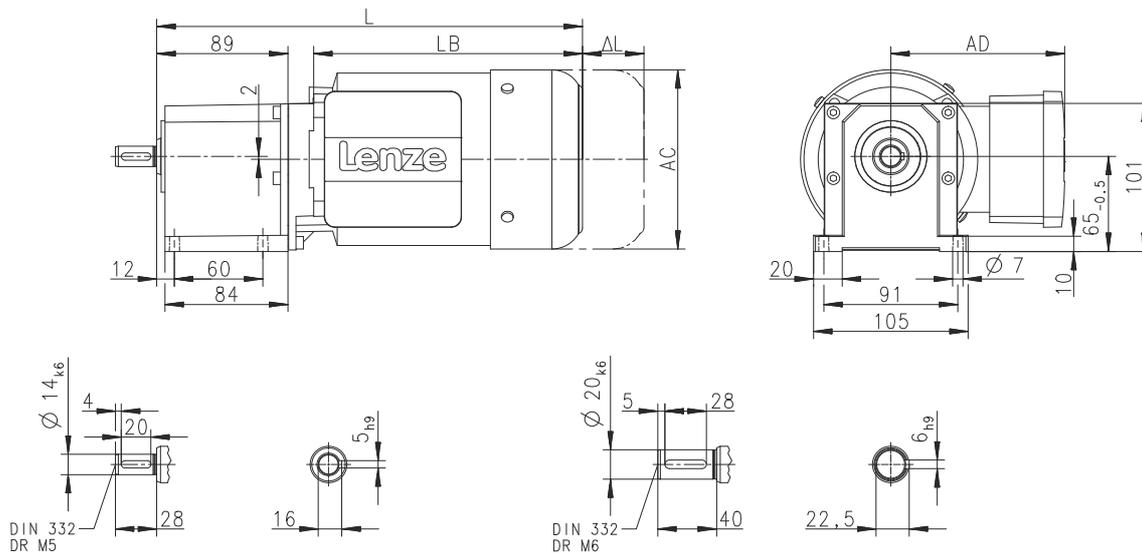
Technical data



## Dimensions, 4-pole motors

g500-H45

Dimensions with solid shaft  
Gearbox design: VBR



8800067-00

6.3

Product			MD□MA□□						
			063-02	063-12	063-22	063-32	063-42	071-32	071-42
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	261	288	261	288		309	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	156	183	156	183		204	
<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

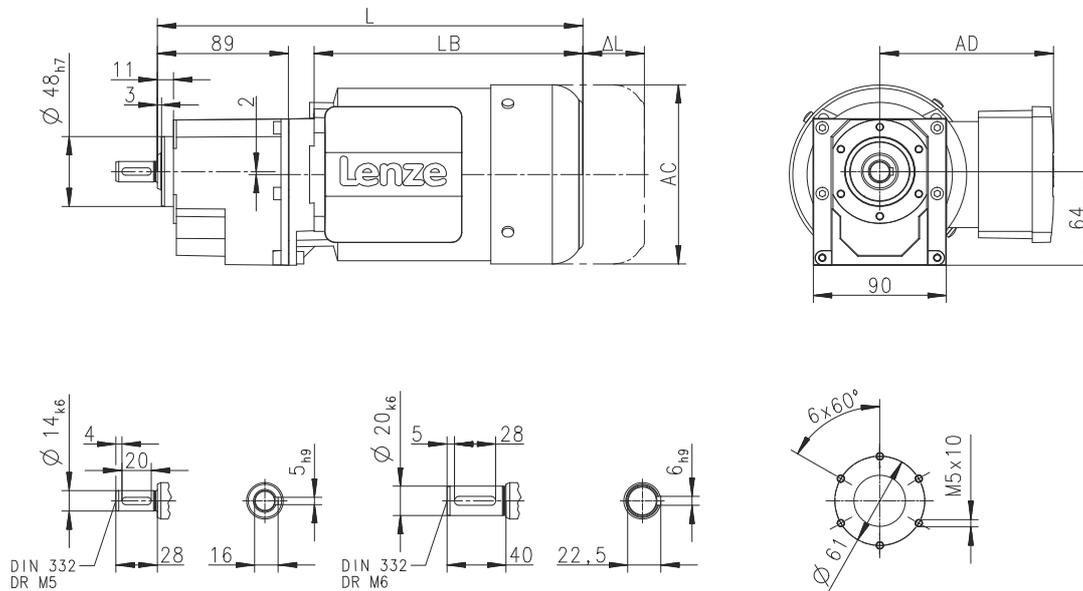
Technical data



## Dimensions, 4-pole motors

g500-H45

Dimensions with solid shaft and centering  
Gearbox design: VCR



8800069-00

6.3

Product			MD□MA□□						
			063-02	063-12	063-22	063-32	063-42	071-32	071-42
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	<b>[mm]</b>	261	288	261	288		309	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	156	183	156	183		204	
<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	

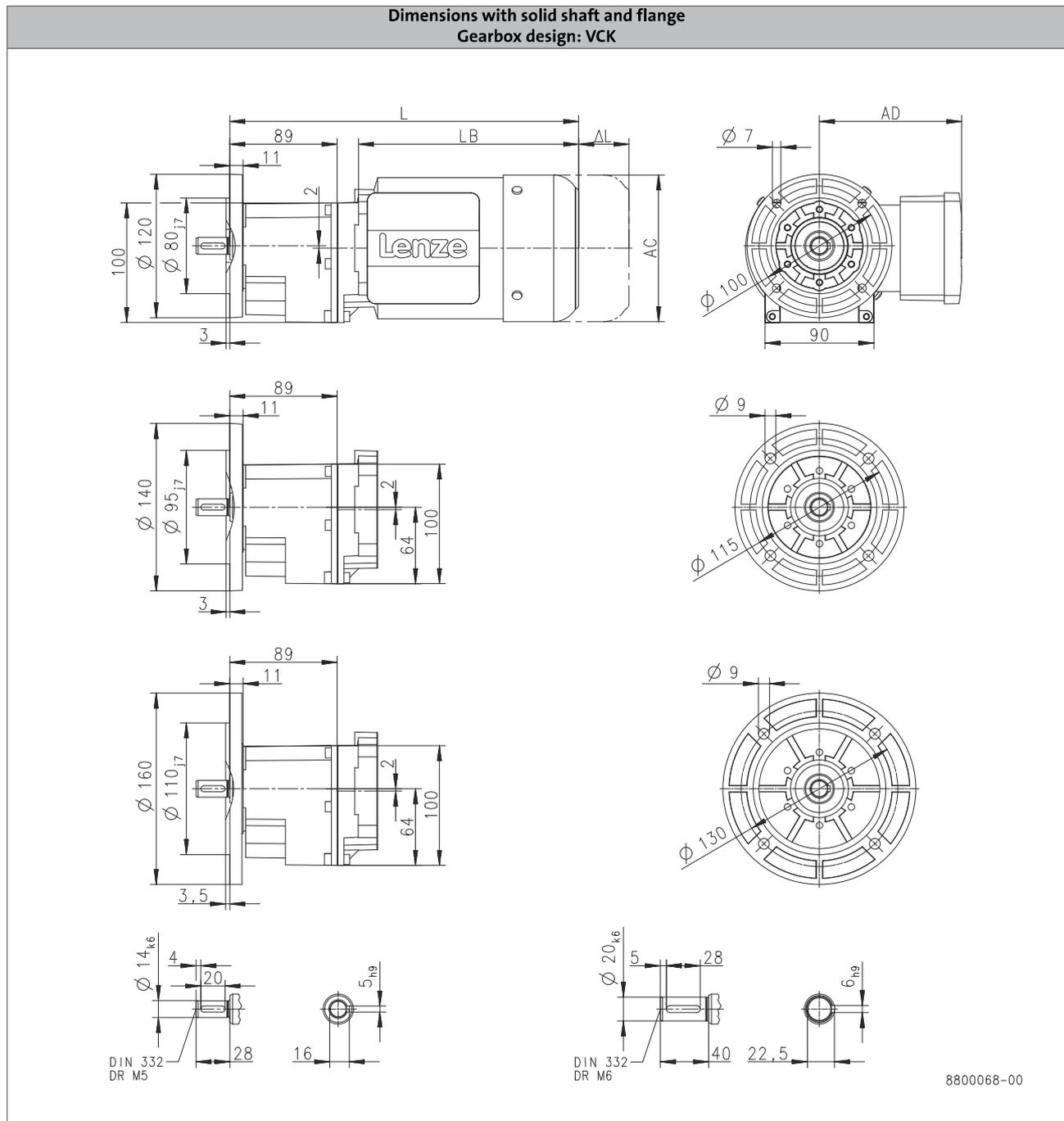
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-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		309
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	156	183	156	183		204
<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

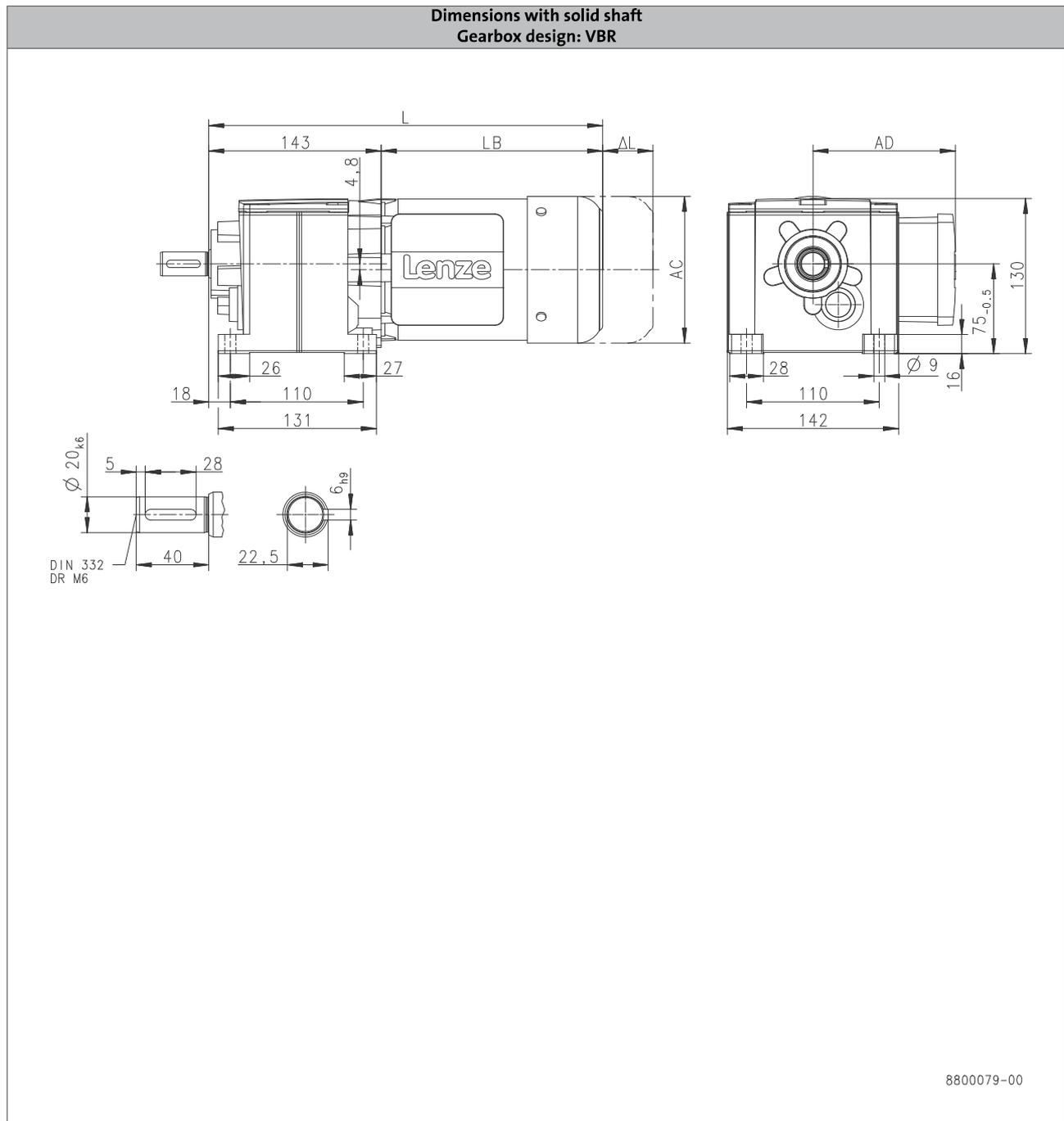
# g500-H helical geared motors

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		347		369		428
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		204		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

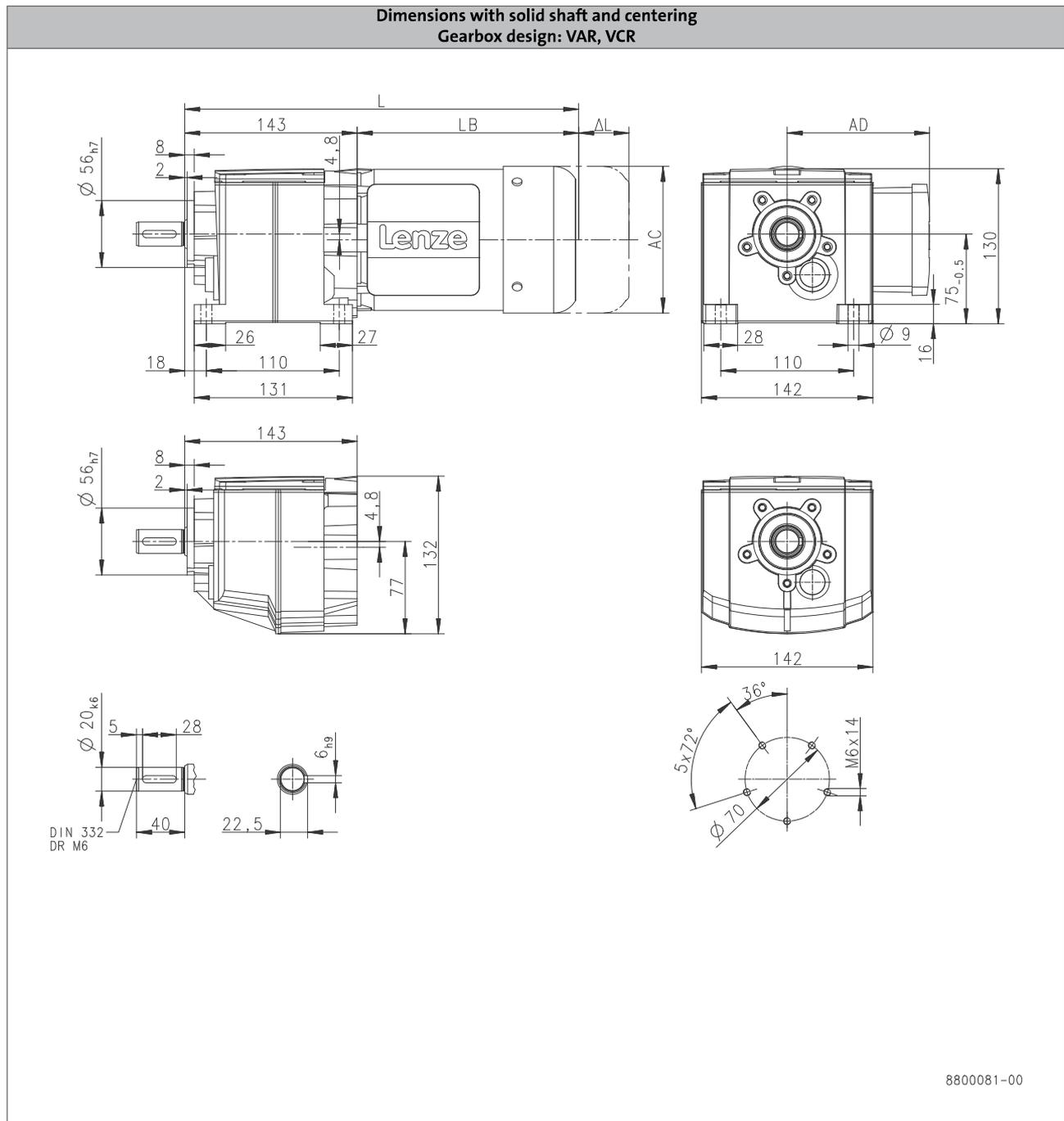
# g500-H helical geared motors

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		347		369	428	
<b>Motor length</b>	<b>LB</b>	[mm]	183		204		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

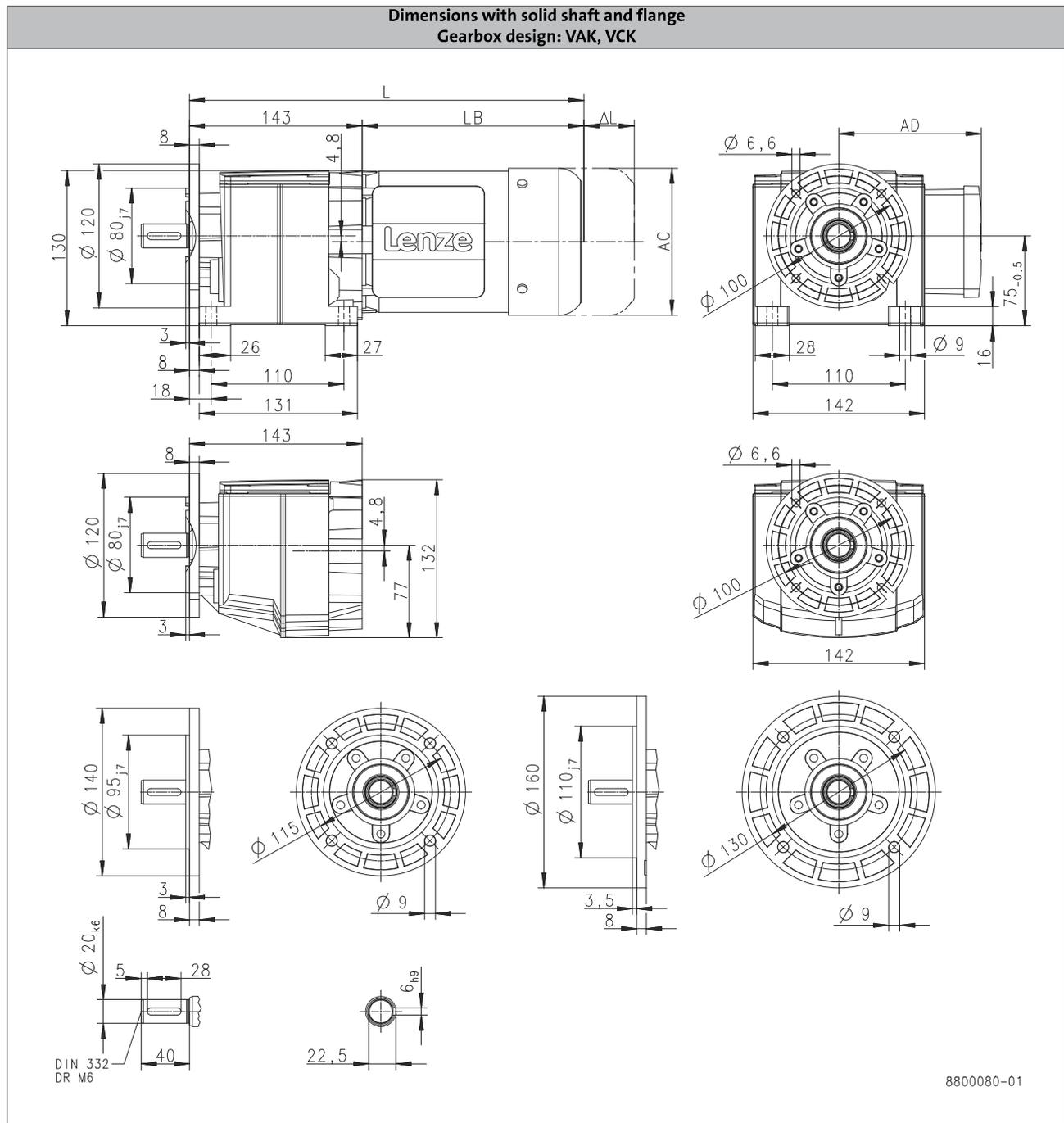
# g500-H helical geared motors

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>	[mm]	326		347	369	428	
<b>Motor length</b>	<b>LB</b>	[mm]	183		204	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

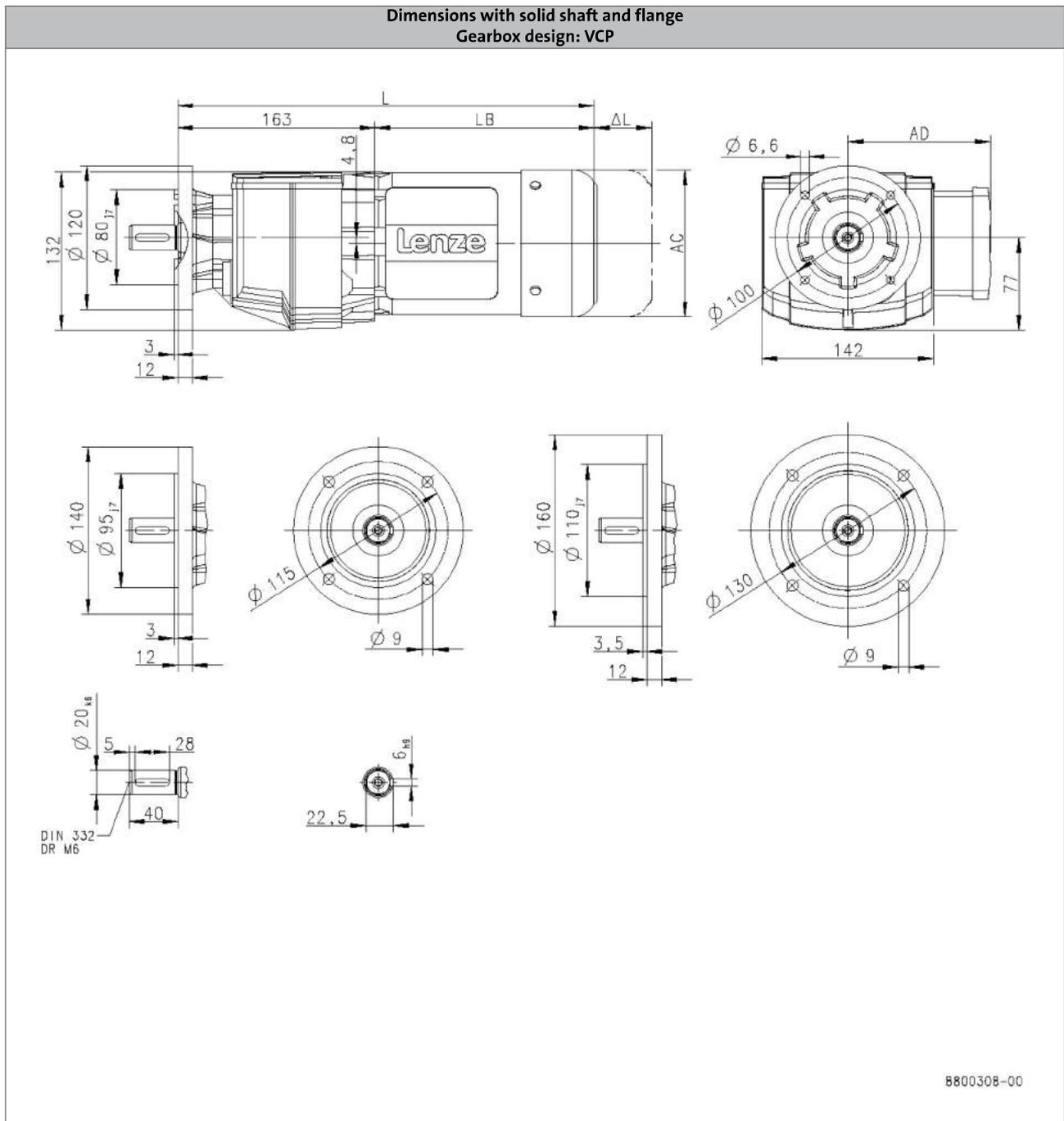
# g500-H helical geared motors

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>	[mm]		346		367		389		448
<b>Motor length</b>	<b>LB</b>	[mm]		183		204		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

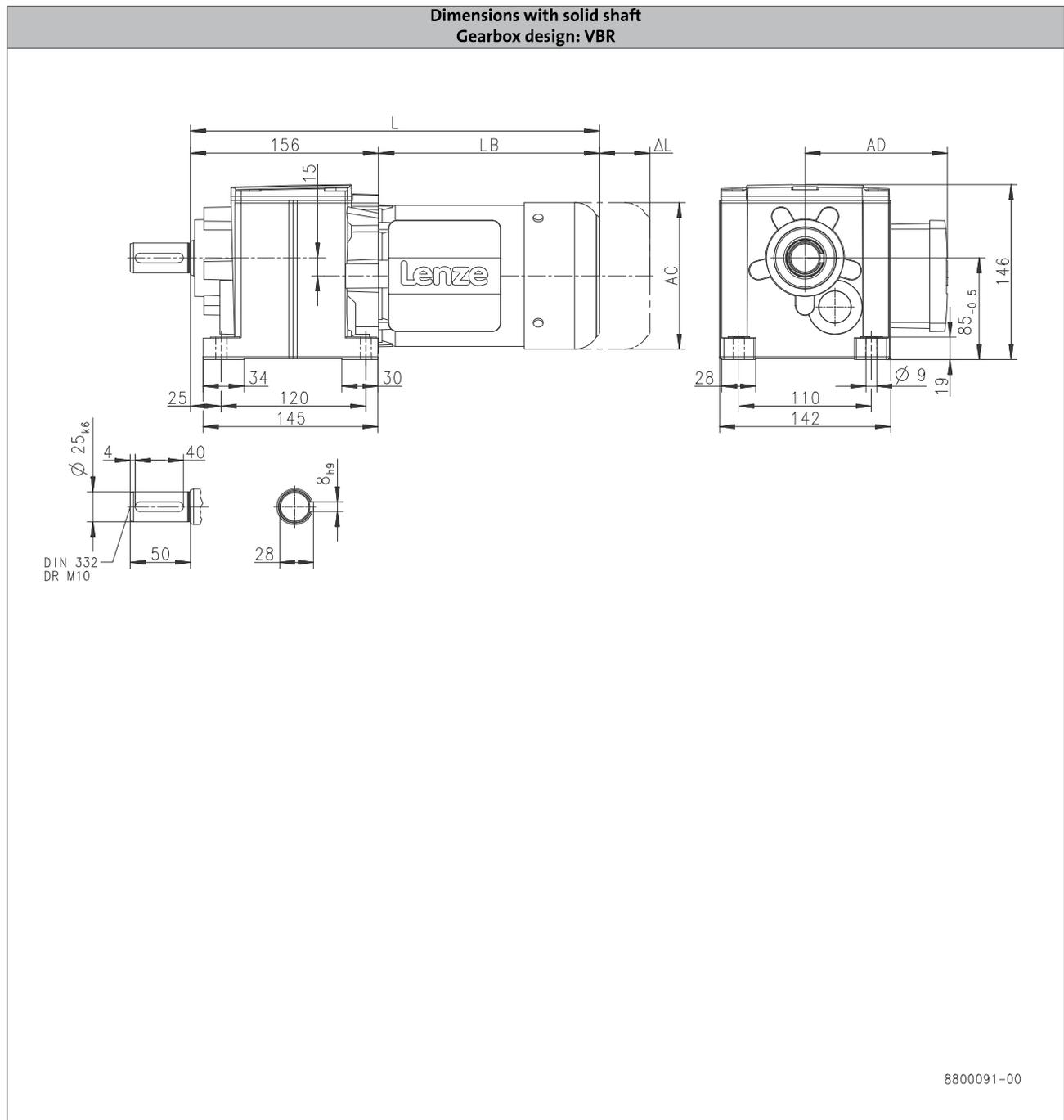
# g500-H helical geared motors

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			360		382	441	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183			204		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

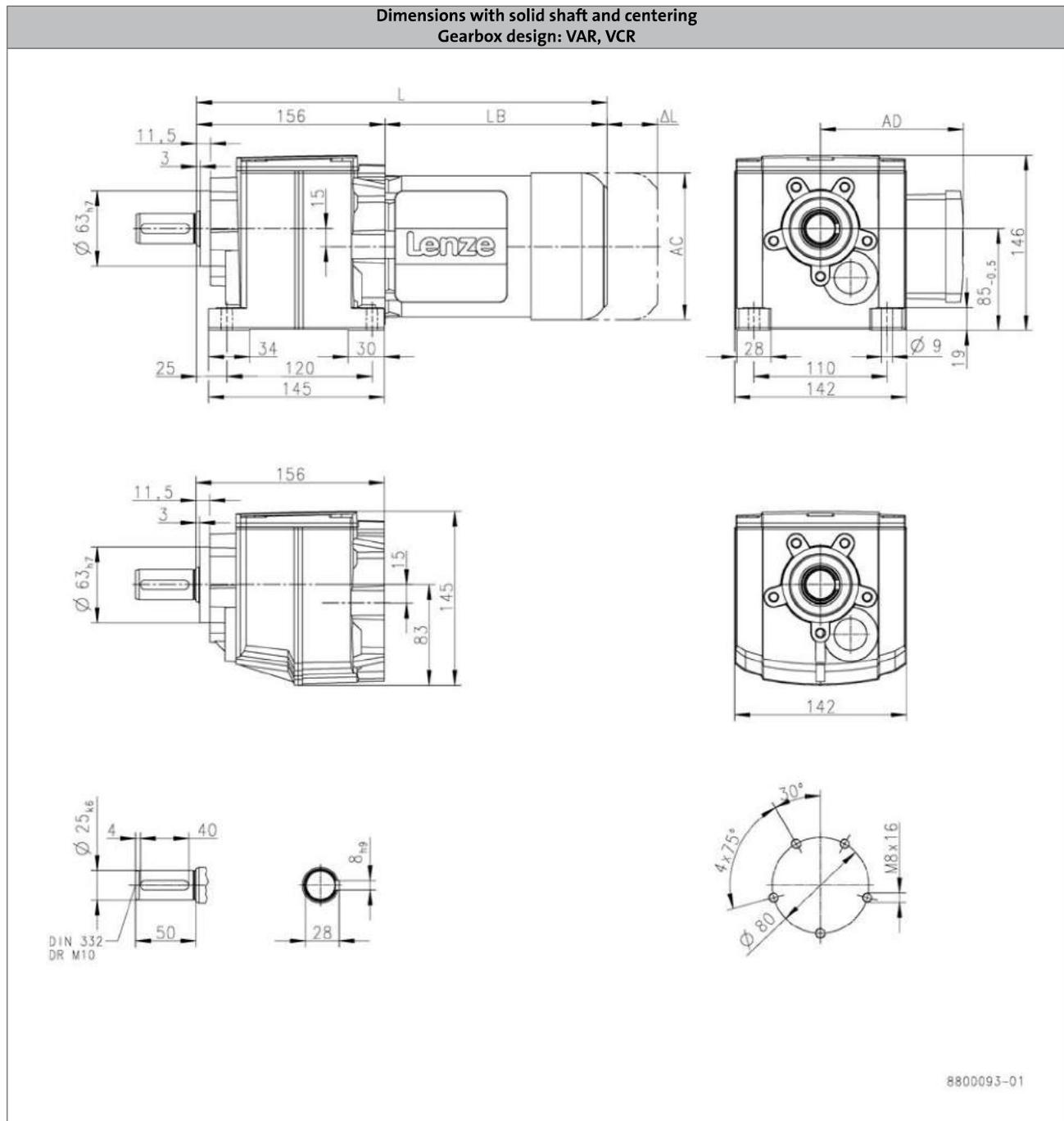
# g500-H helical geared motors

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		360		382		441
<b>Motor length</b>	<b>LB</b>	[mm]		183		204		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

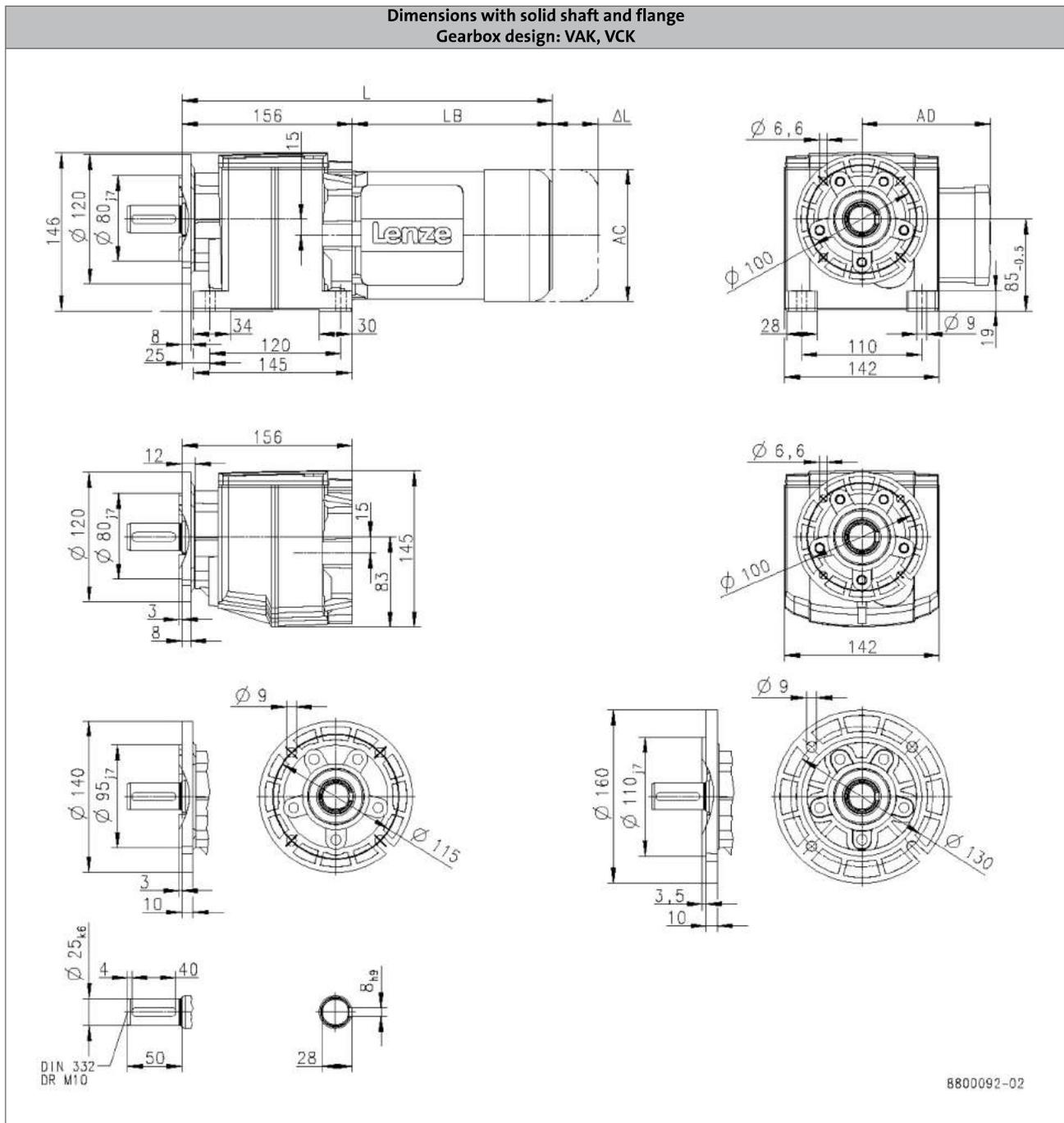
# g500-H helical geared motors

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>	[mm]	339		360		382	441	
<b>Motor length</b>	<b>LB</b>	[mm]	183		204		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

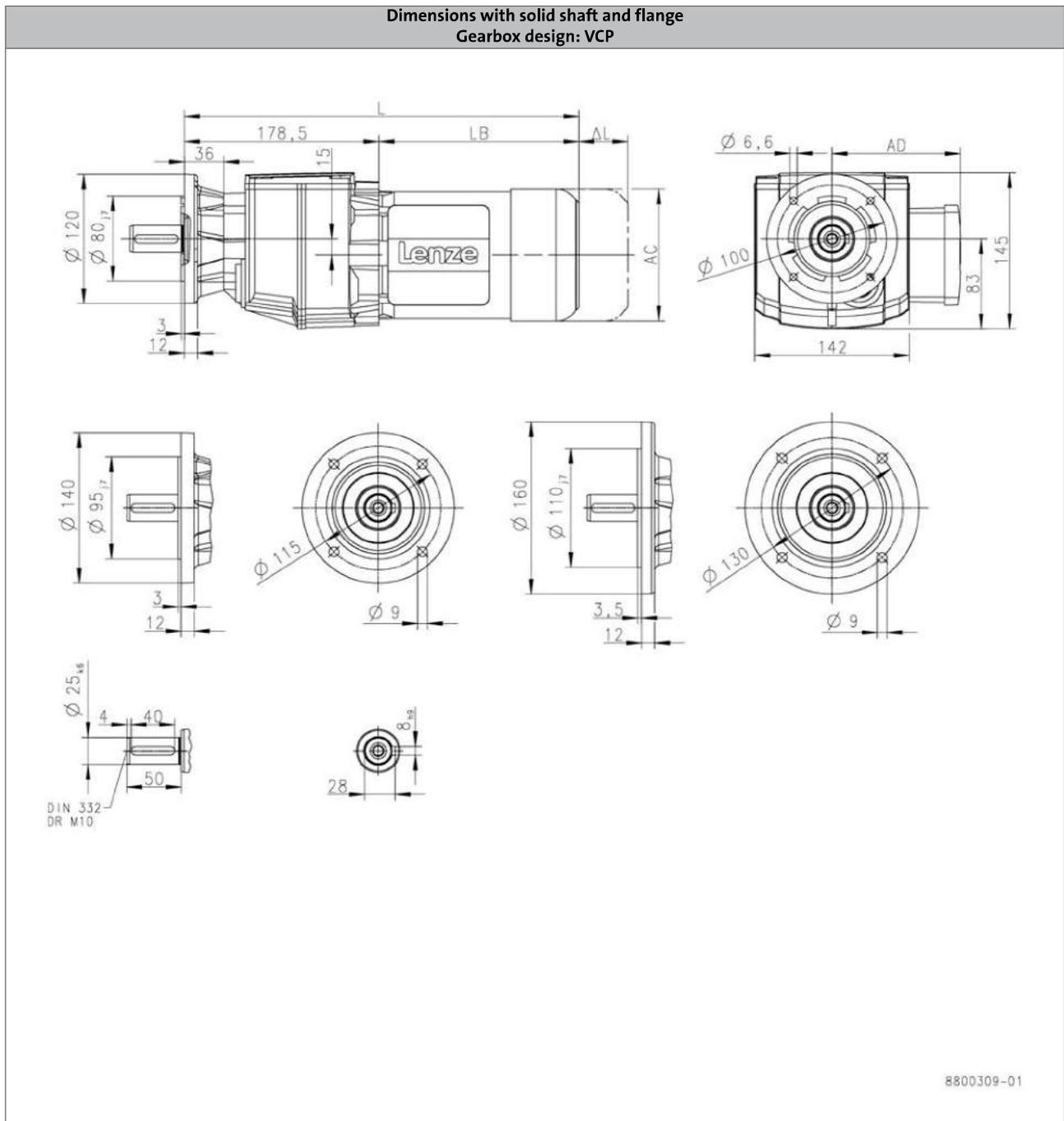
# g500-H helical geared motors

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>	[mm]	362		383		405	464	
<b>Motor length</b>	<b>LB</b>	[mm]	183		204		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

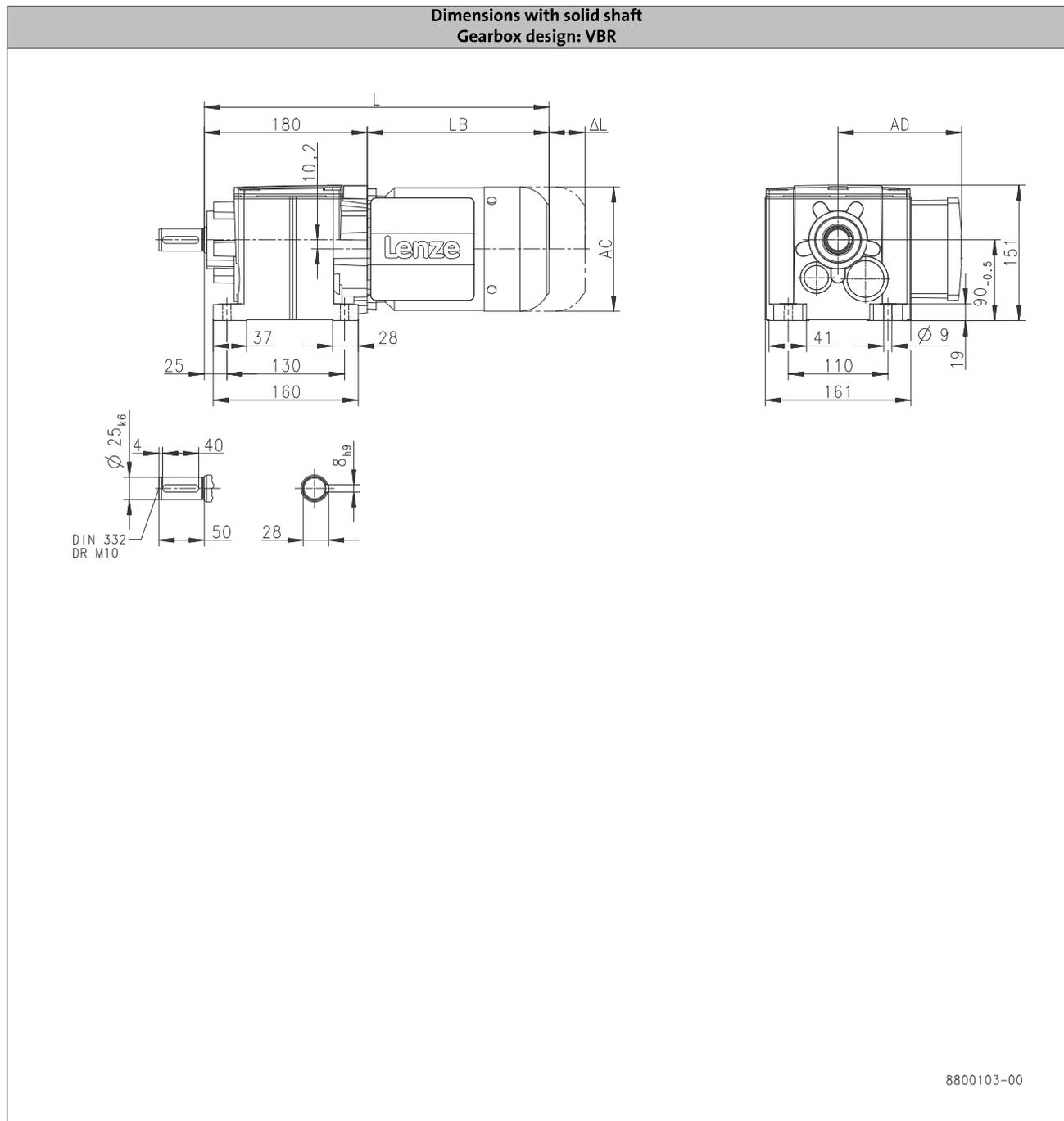
# g500-H helical geared motors

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			384	406	465		515	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183			204	226	285		335	
<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	

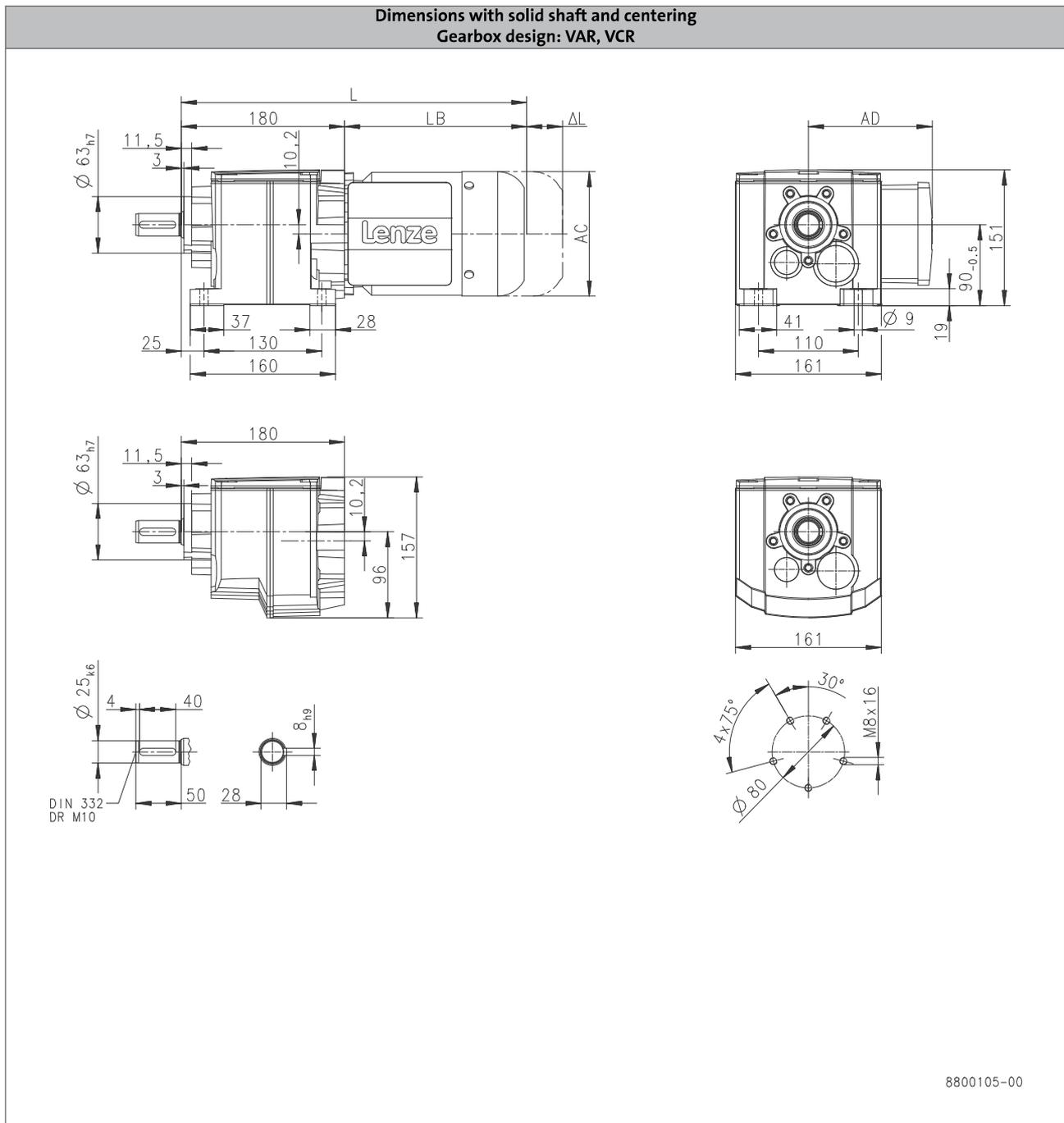
# g500-H helical geared motors

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>	<b>[mm]</b>		363		384		406	465		515	
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		204		226	285		335	
<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	

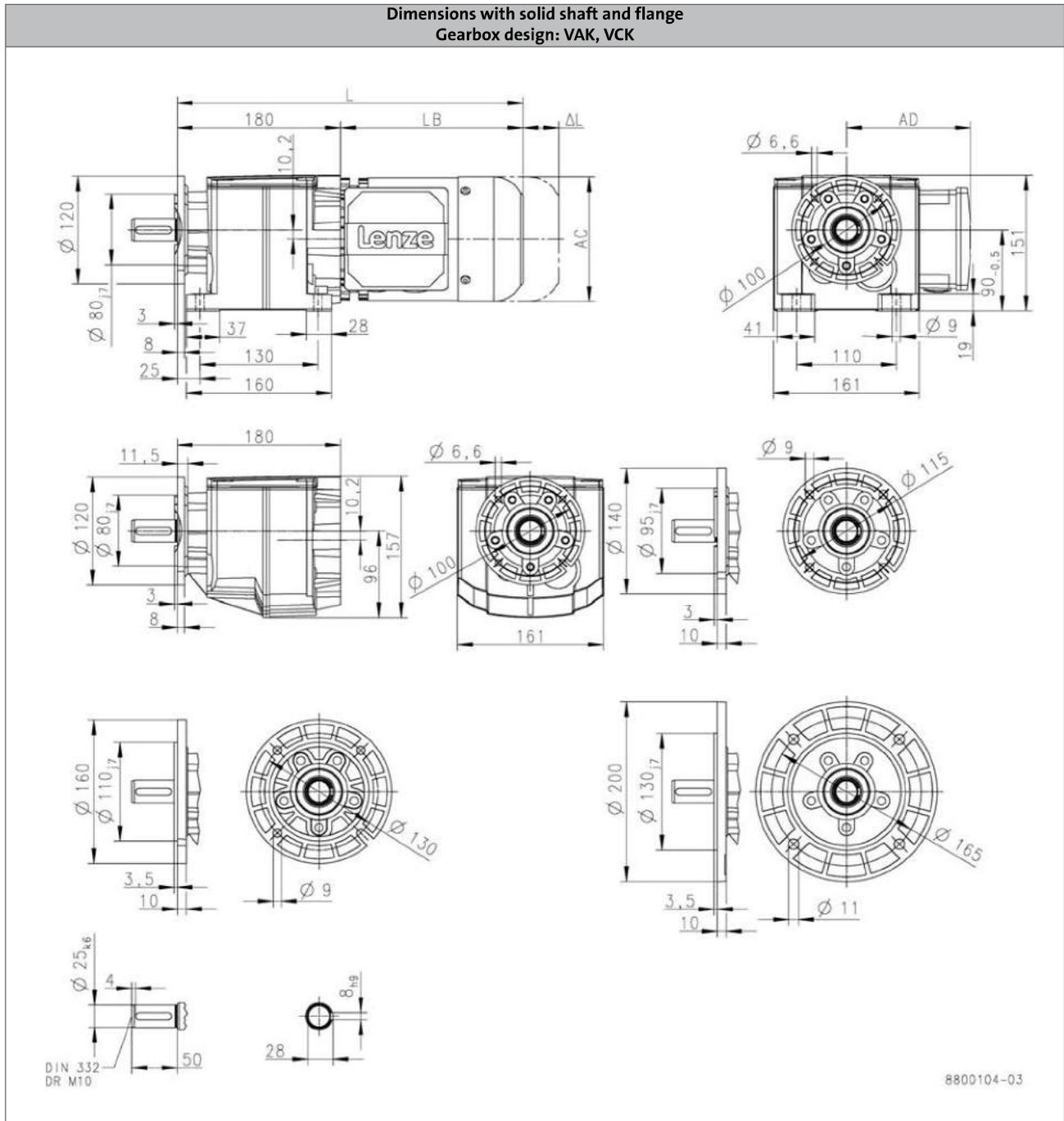
# g500-H helical geared motors

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>	L	[mm]	363		384	406	465		515	
<b>Motor length</b>	LB	[mm]	183		204	226	285		335	
<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

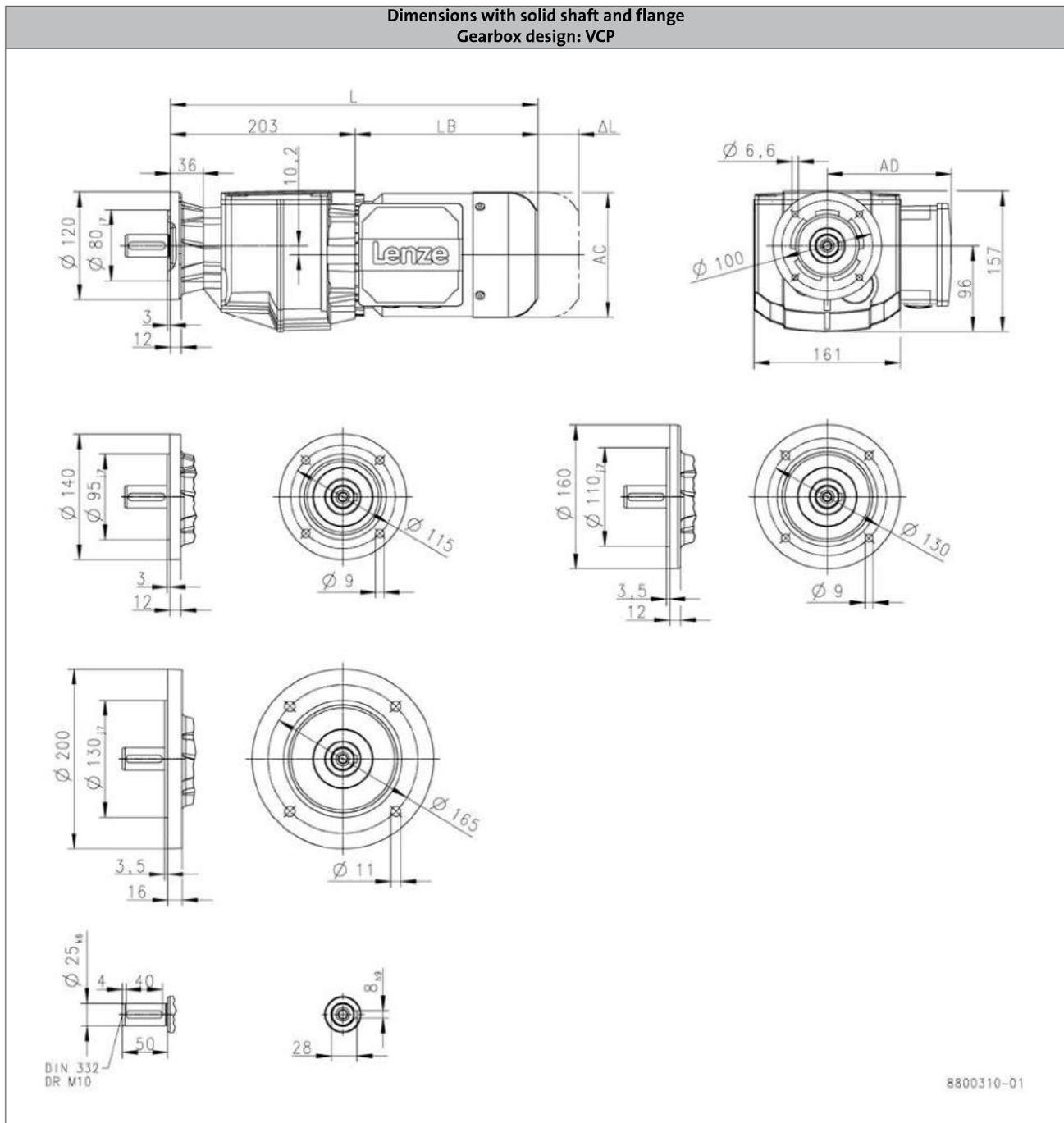
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-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]	386		407		429		488		538
<b>Motor length</b>	<b>LB</b>	[mm]	183		204		226		285		335
<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

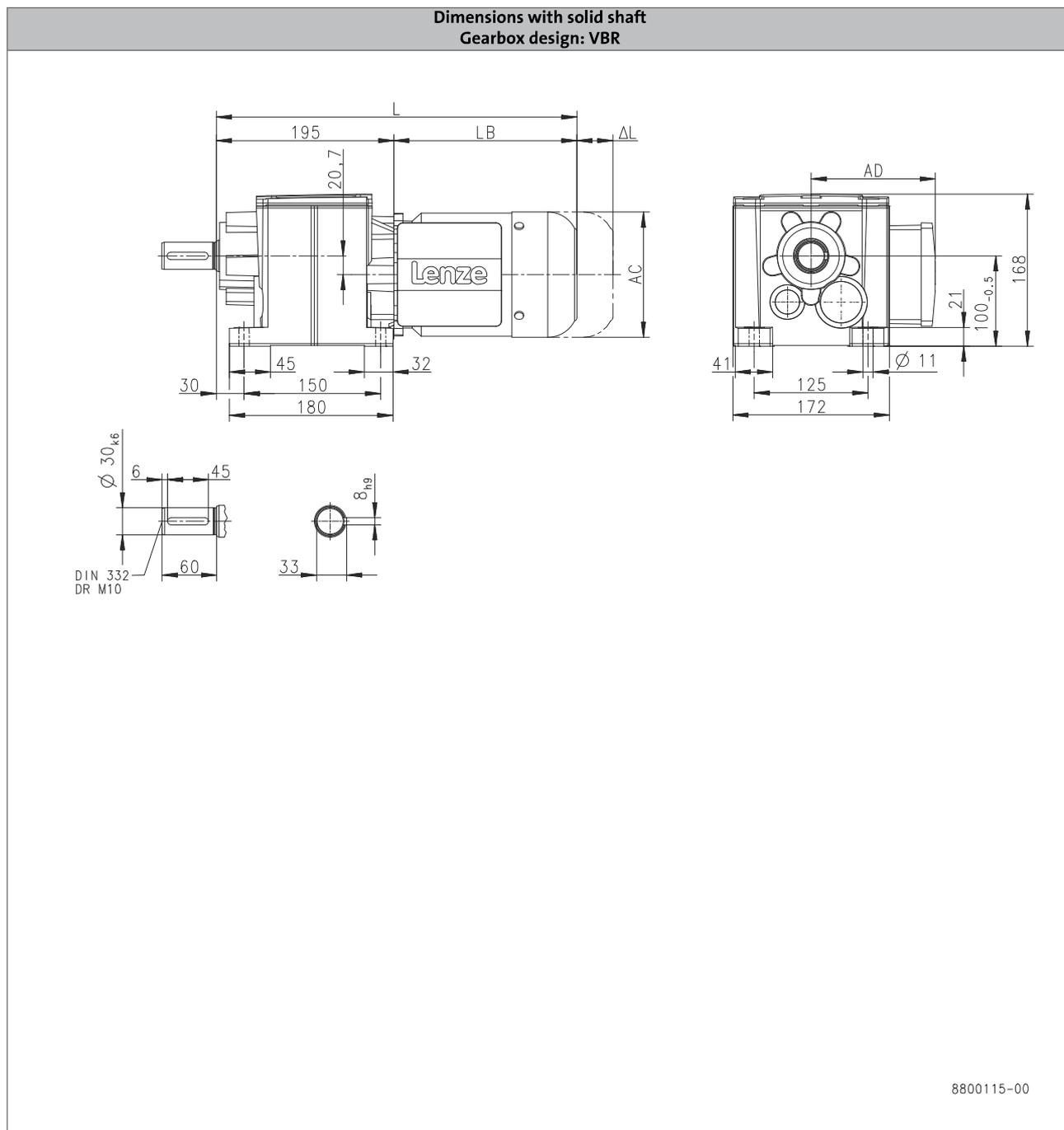
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-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		399		421	480		530		575
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183		204		226	285		335		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

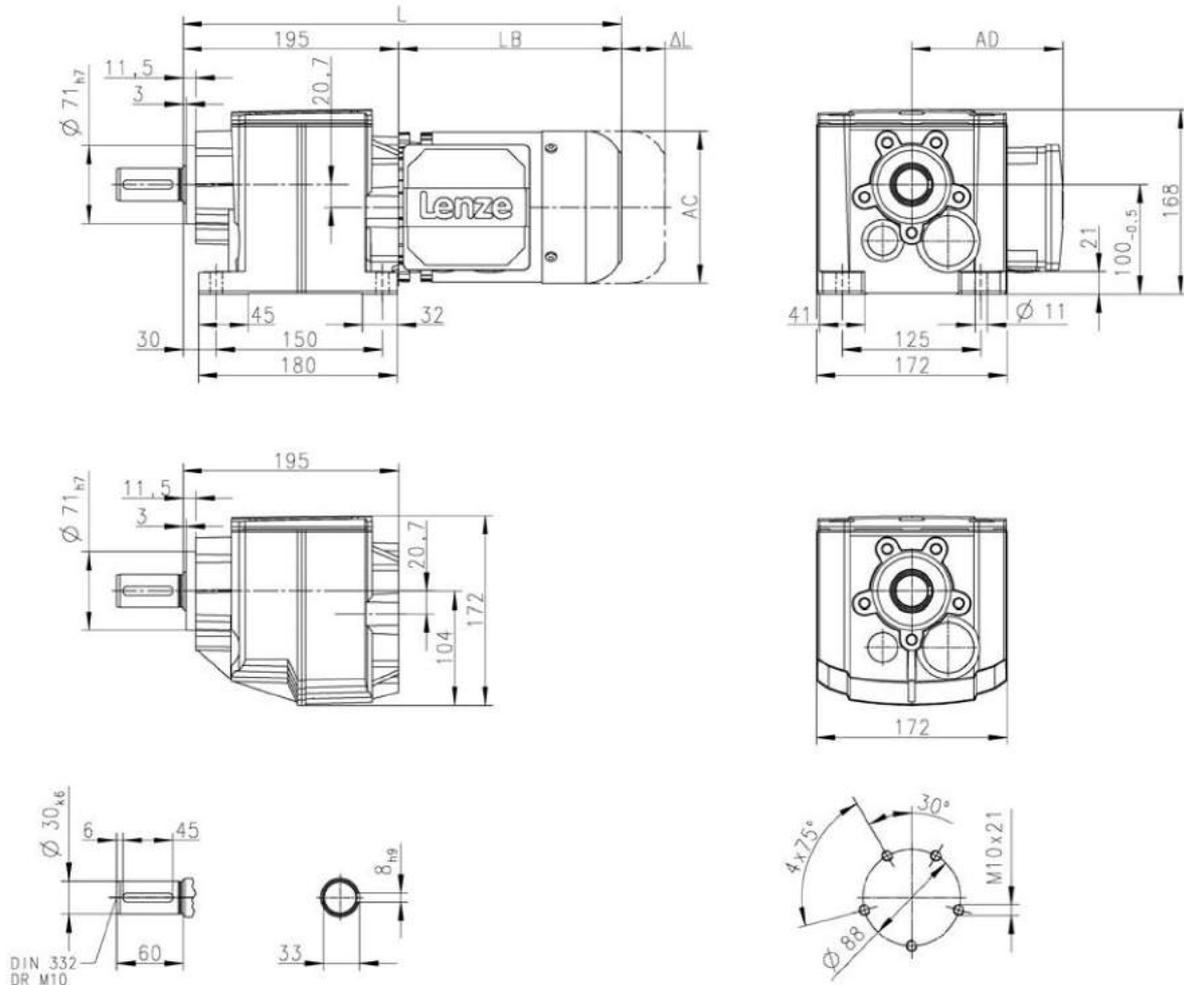
Technical data



## Dimensions, 4-pole motors

g500-H320

Dimensions with solid shaft and centering  
Gearbox design: VAR, VCR



8800117-01

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		399		421	480		530		575
<b>Motor length</b>	<b>LB</b>	[mm]	183		204		226	285		335		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

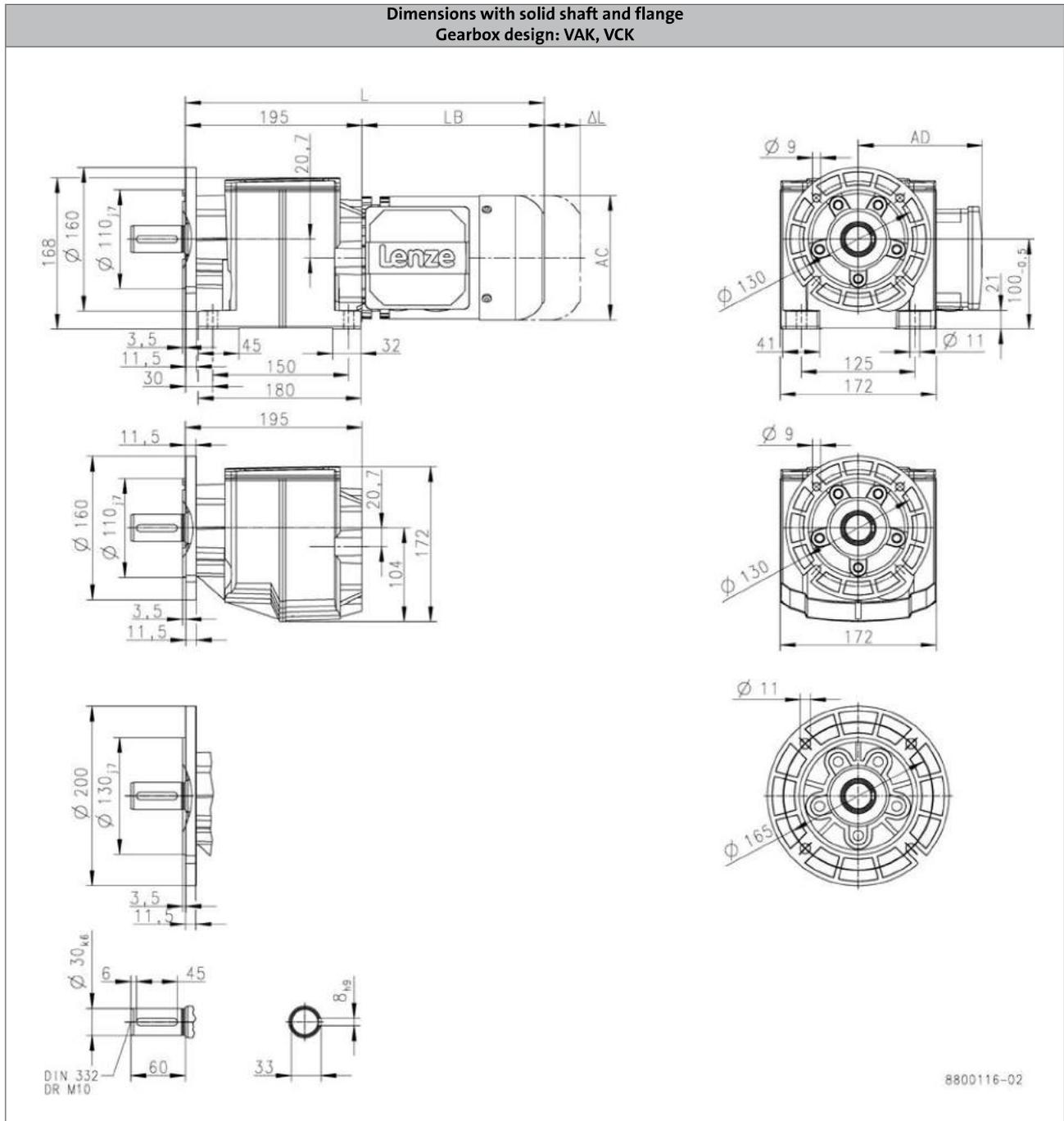
# g500-H helical geared motors

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		399		421		480		530	575
<b>Motor length</b>	<b>LB</b>	[mm]		183		204		226		285		335	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

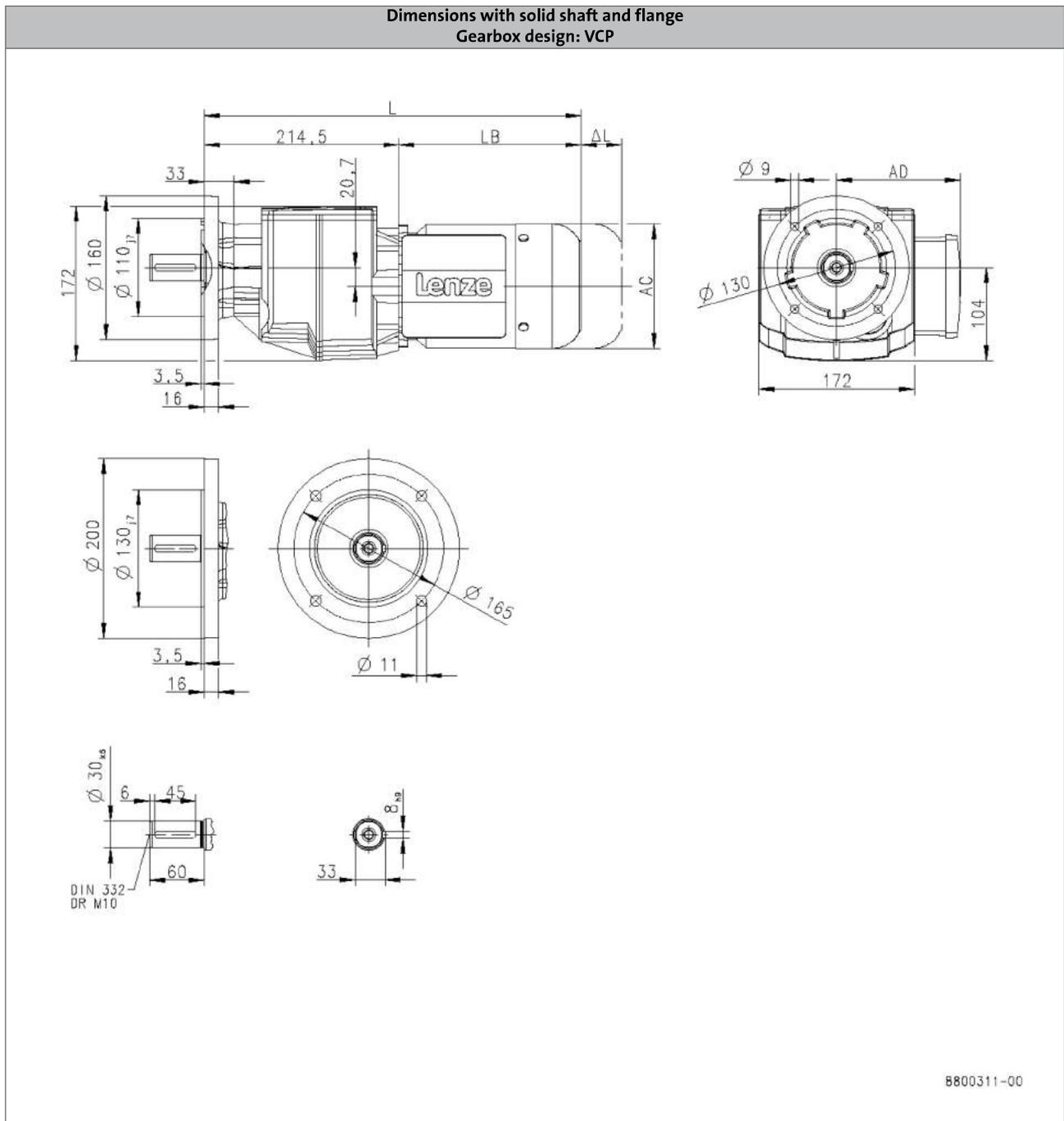
# g500-H helical geared motors

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]	398		419		441	500		550		595	
<b>Motor length</b>	<b>LB</b>	[mm]	183		204		226	285		335		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	

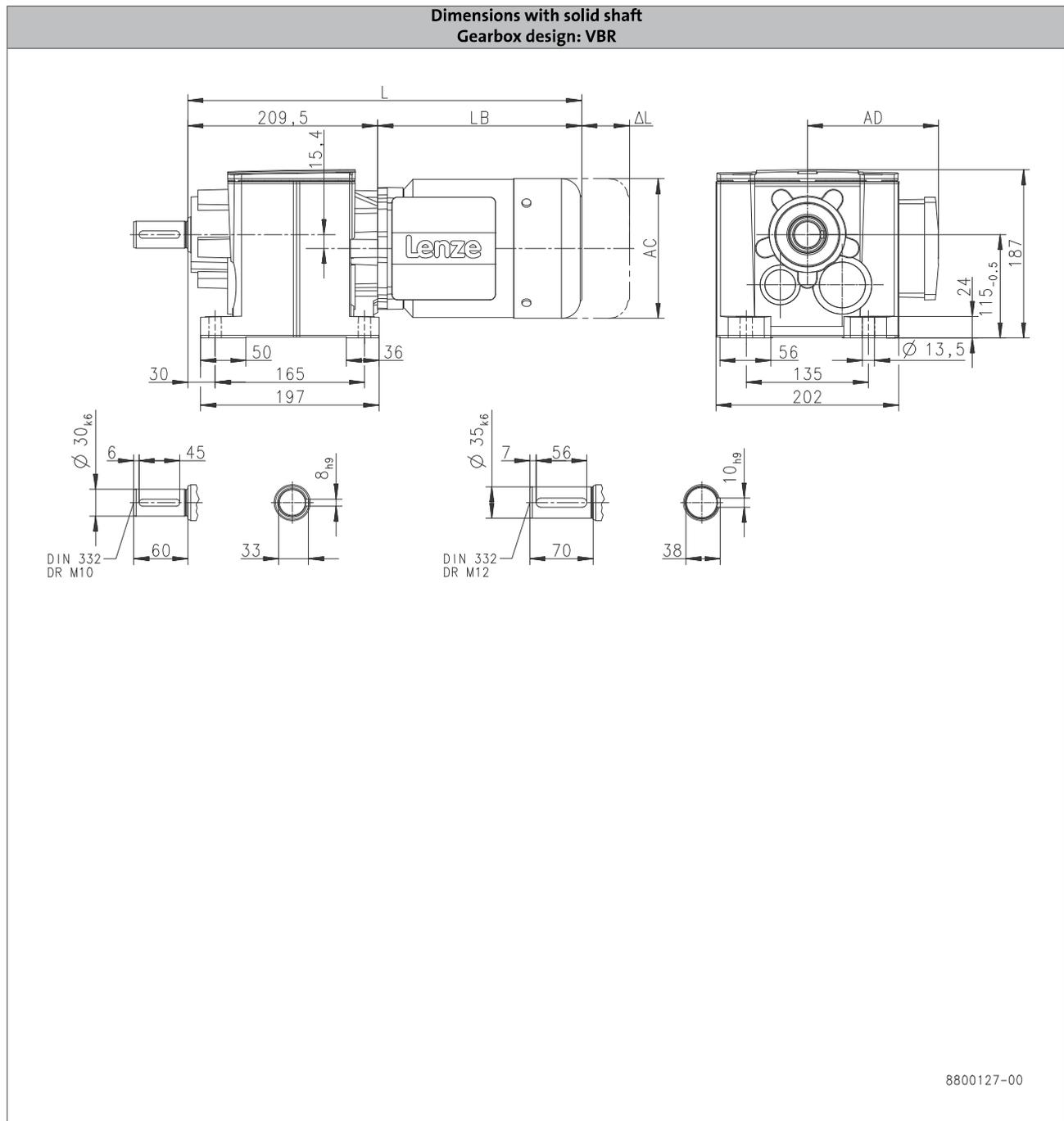
# g500-H helical geared motors

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>	<b>[mm]</b>		393		414		436
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>		183		204		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

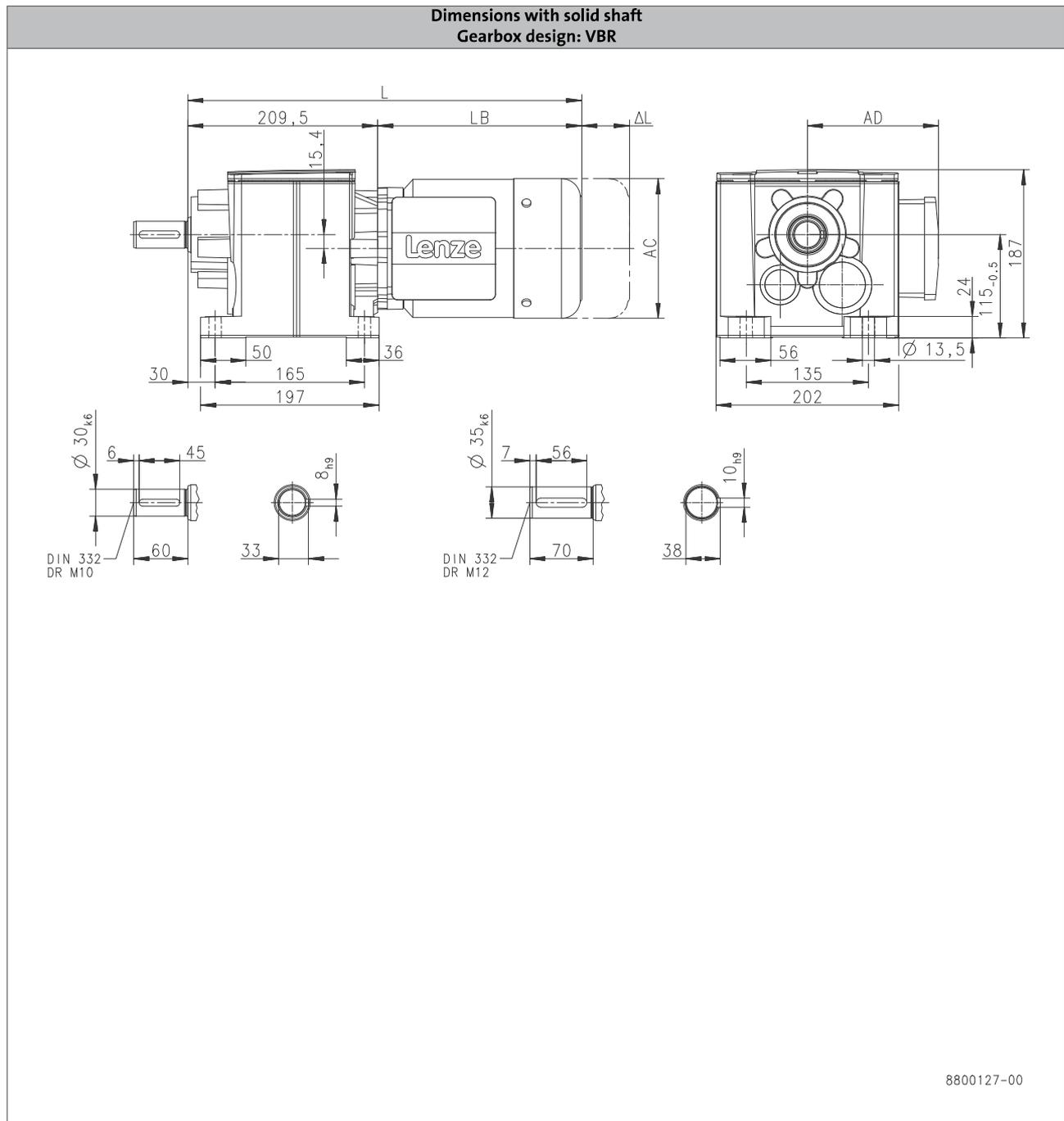
# g500-H helical geared motors

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>	495		545		590		638
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		335		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

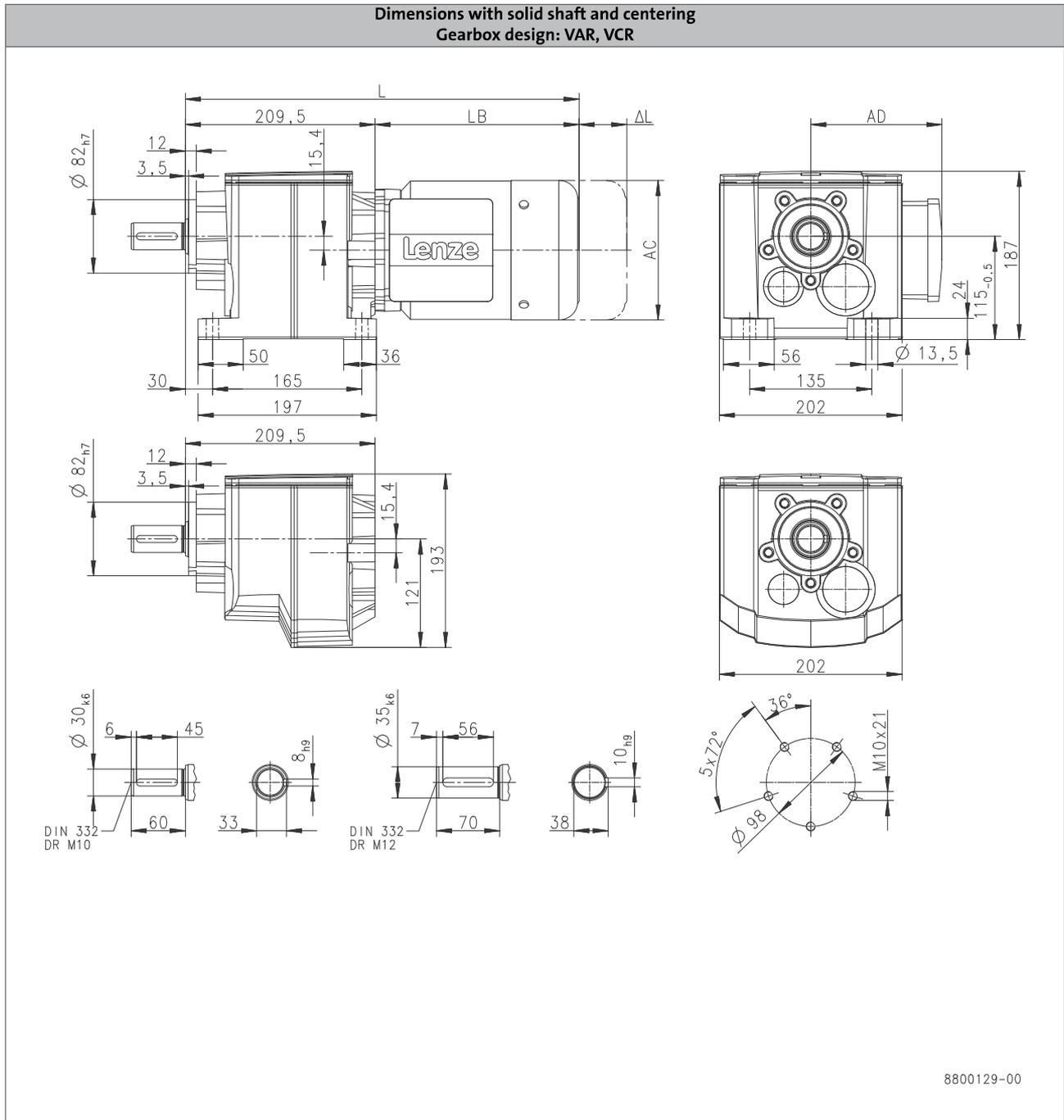
# g500-H helical geared motors

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		414	436
<b>Motor length</b>	<b>LB</b>	[mm]	183		204	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

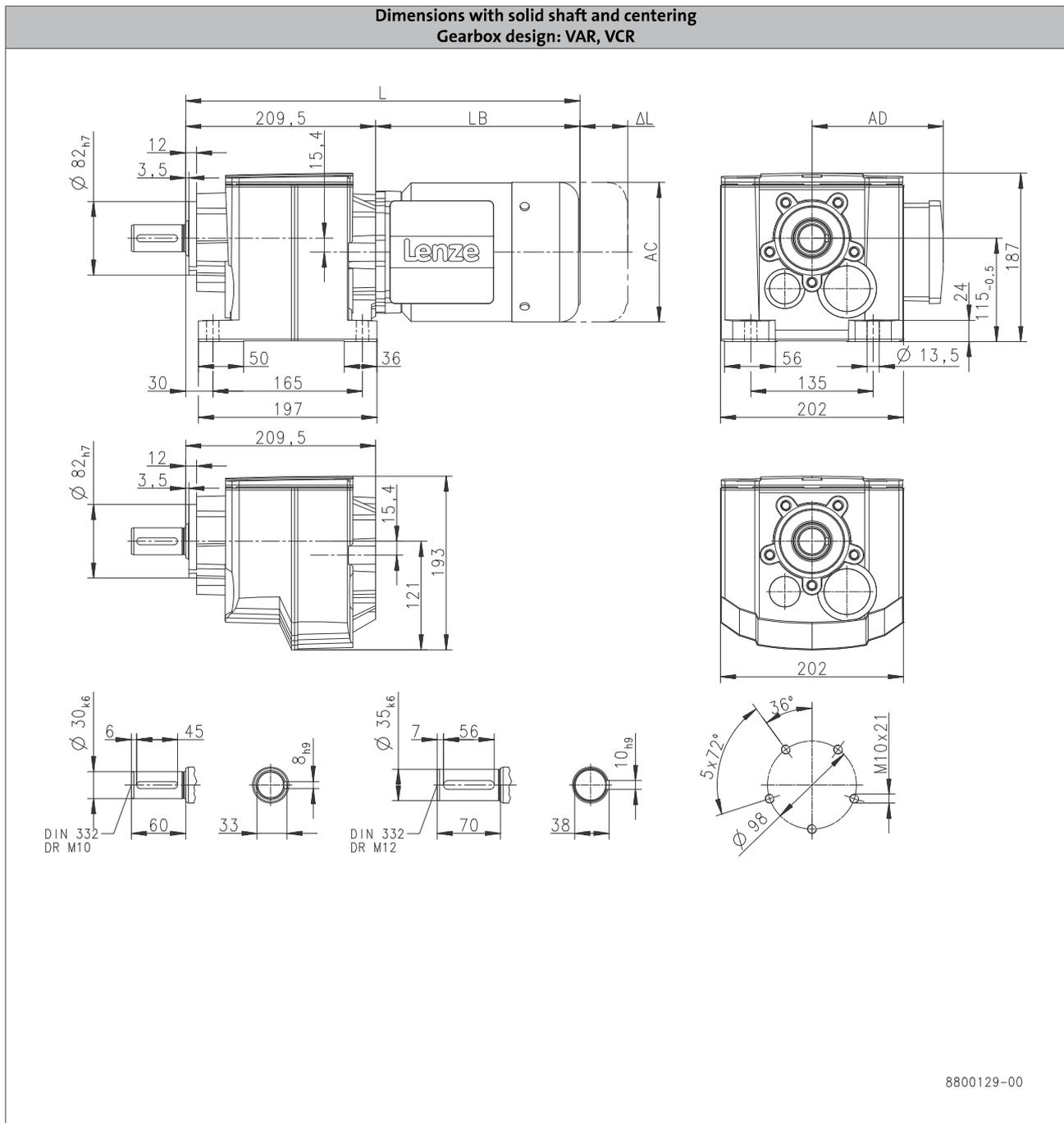
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



8800129-00

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		545		590		638
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		335		380		428
<b>Length of motor options</b>	<b><math>\Delta L</math></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

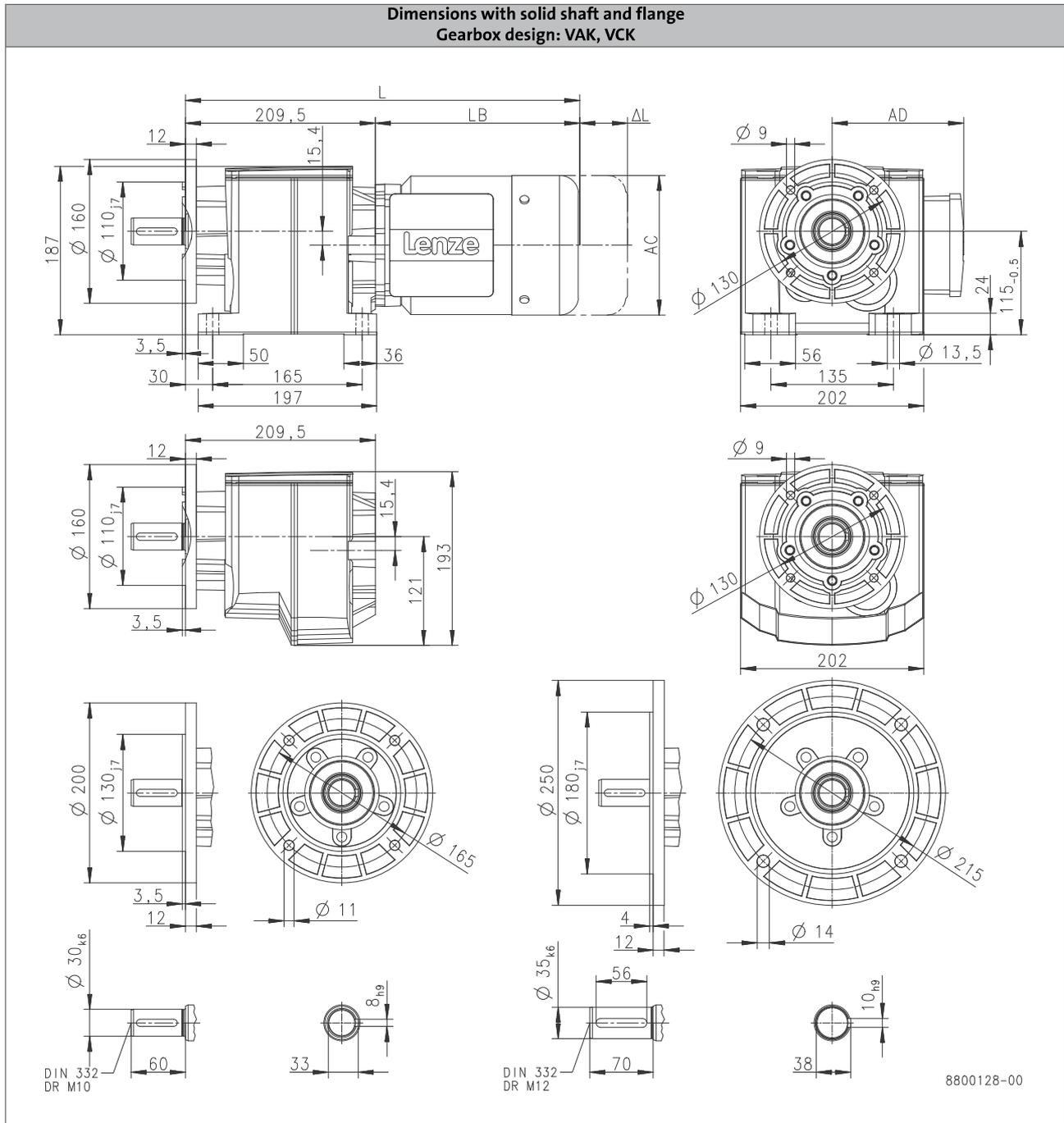
# g500-H helical geared motors

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		414		436
<b>Motor length</b>	<b>LB</b>	[mm]		183		204		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

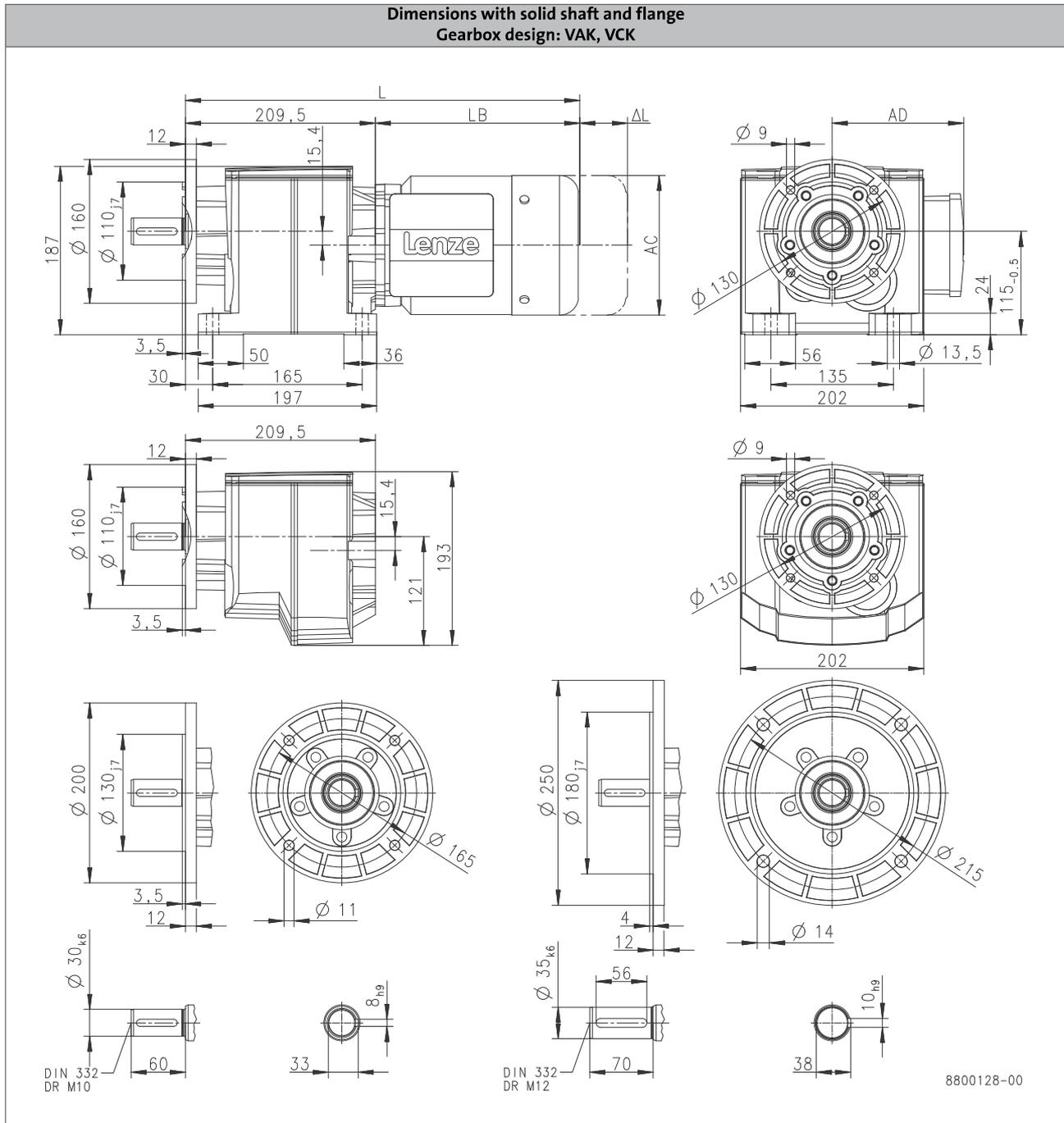
# g500-H helical geared motors

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		545		590	638
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		335		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

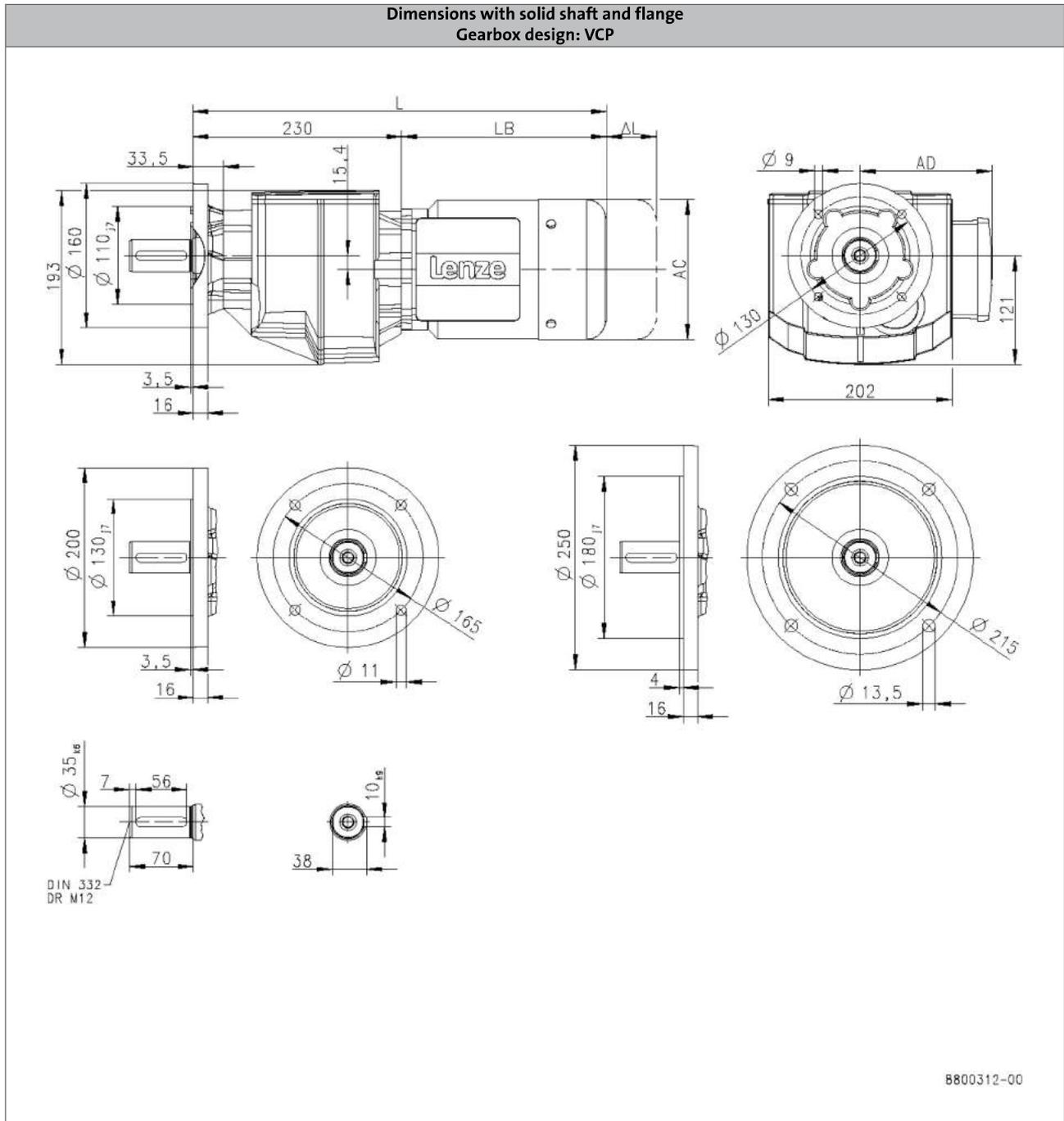
# g500-H helical geared motors

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]		413			434	456
<b>Motor length</b>	<b>LB</b>	[mm]		183			204	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

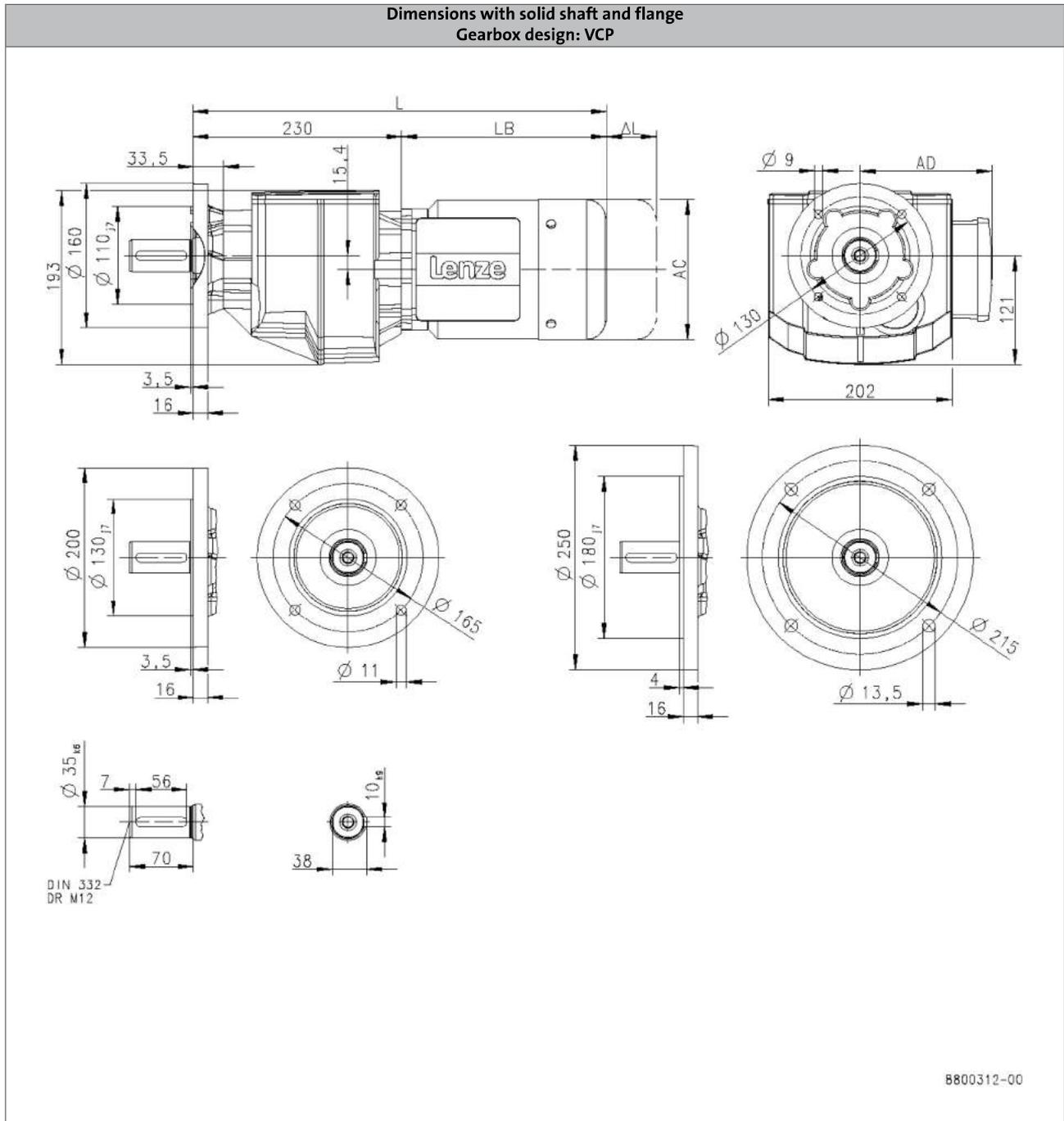
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H450



6.3

Product	MH0MA00								
			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]	515		565		610		658
<b>Motor length</b>	<b>LB</b>	[mm]	285		335		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

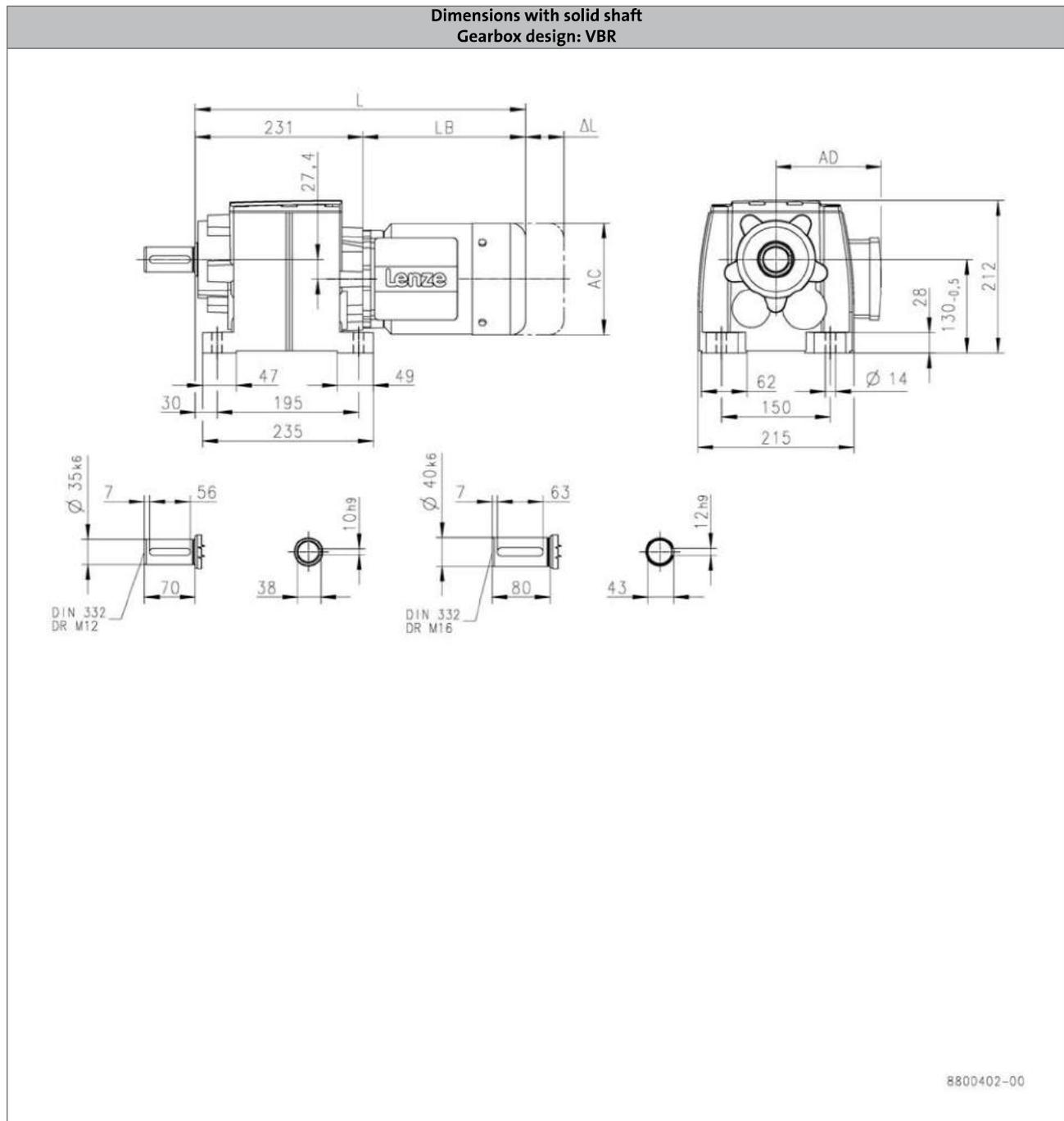
# g500-H helical geared motors

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>								
Total length	L	[mm]		414			435	457
Motor length	LB	[mm]		183			204	226
Length of motor options	Δ L	[mm]		170			165	183
Motor diameter	AC	[mm]		123			139	156
Distance motor/connection	AD	[mm]		100			109	150

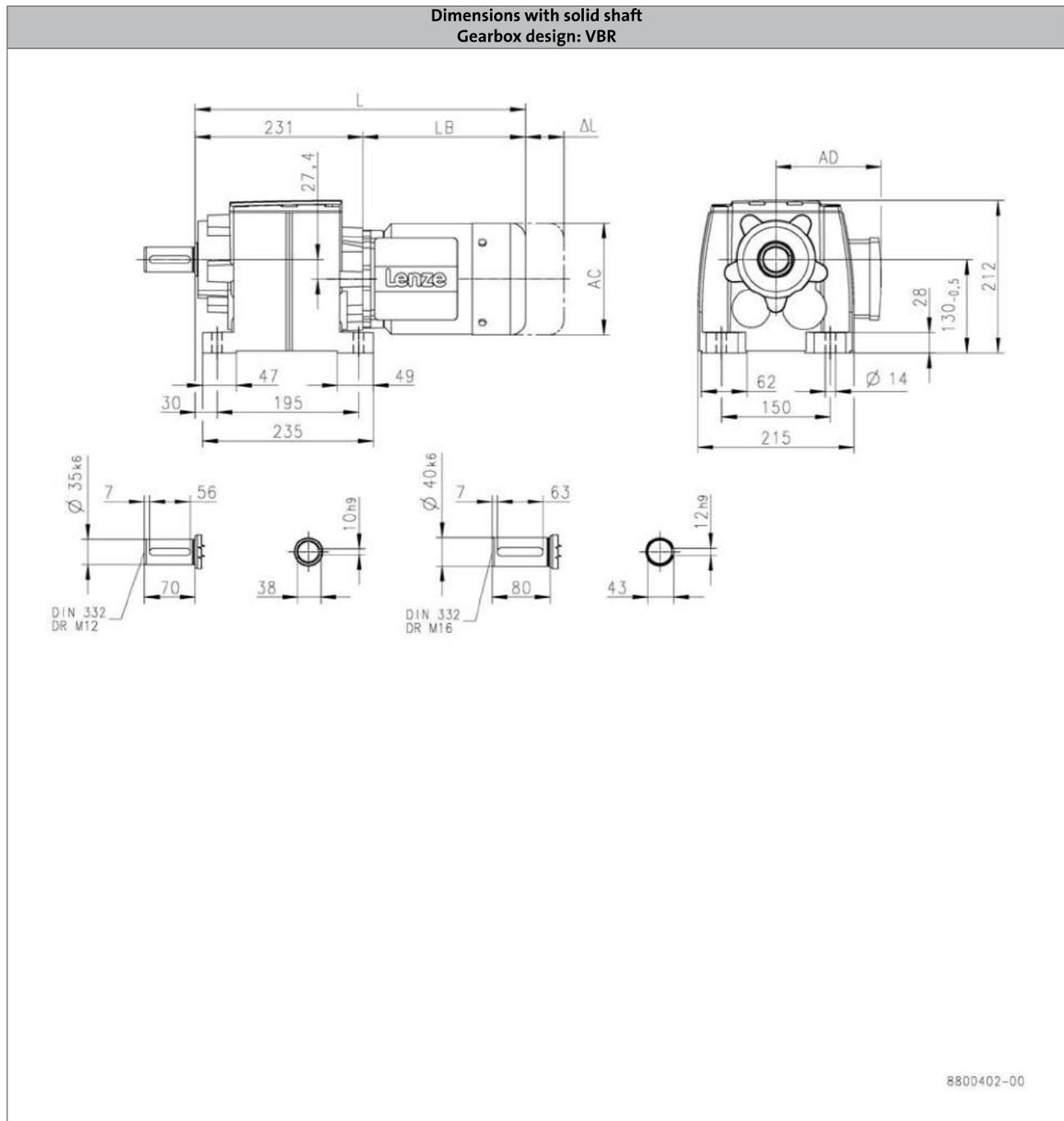
# g500-H helical geared motors

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	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	516		566		611		659
<b>Motor length</b>	<b>LB</b>	[mm]	285		335		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

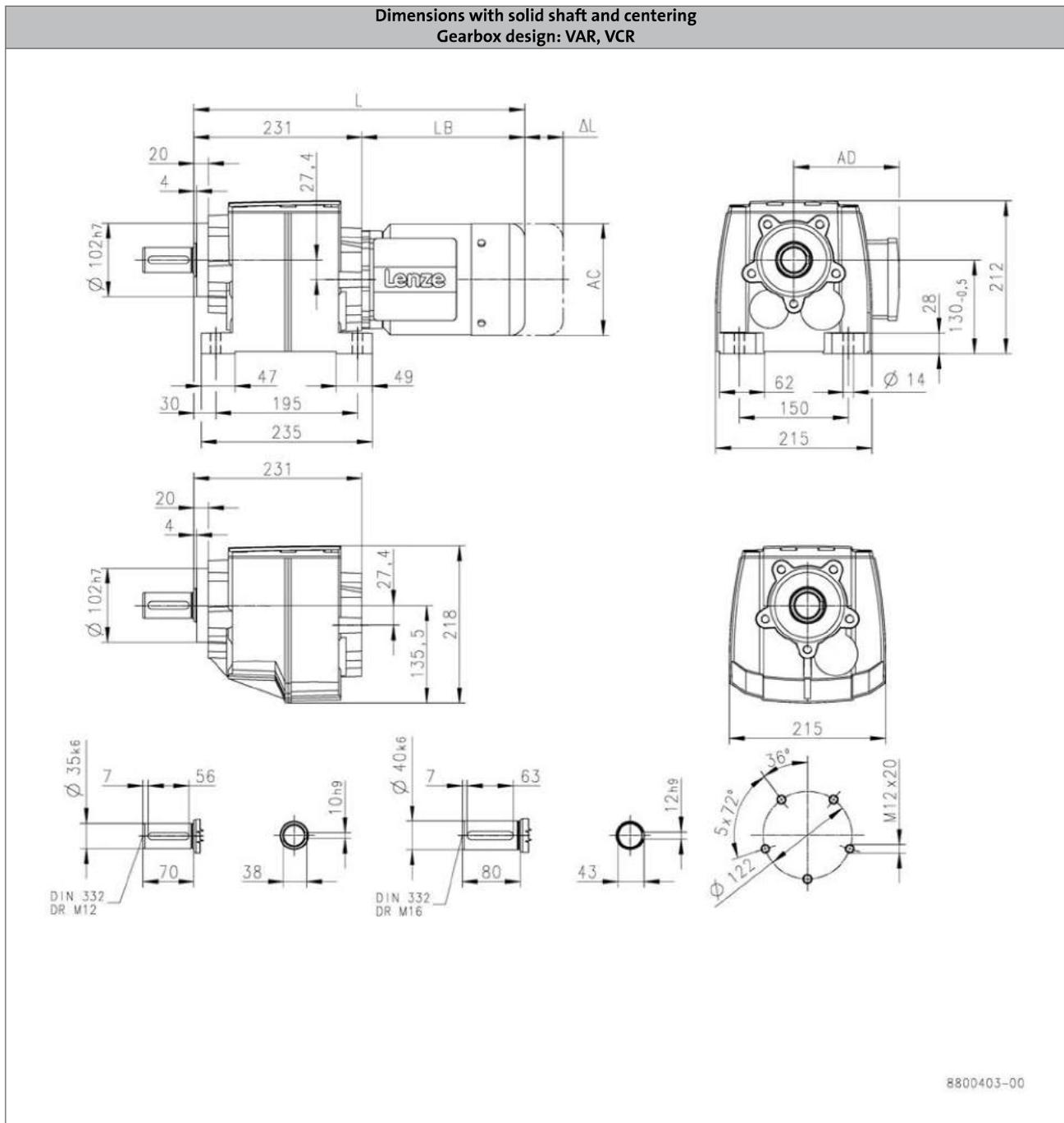
# g500-H helical geared motors

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	
<b>Dimensions</b>						
<b>Total length</b>	<b>L</b>	[mm]	414		435	457
<b>Motor length</b>	<b>LB</b>	[mm]	183		204	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

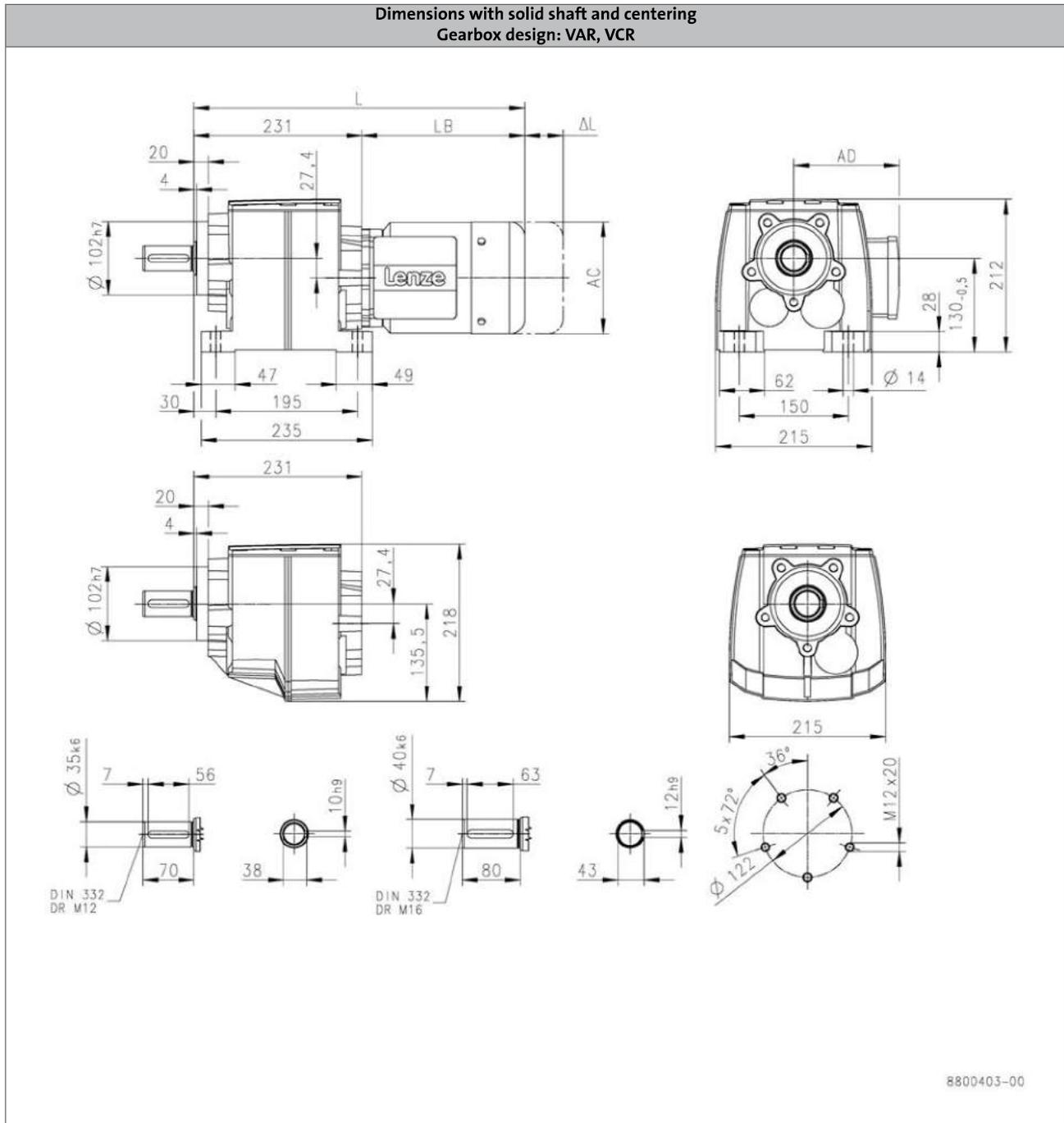
# g500-H helical geared motors

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		566		611	659
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	285		335		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

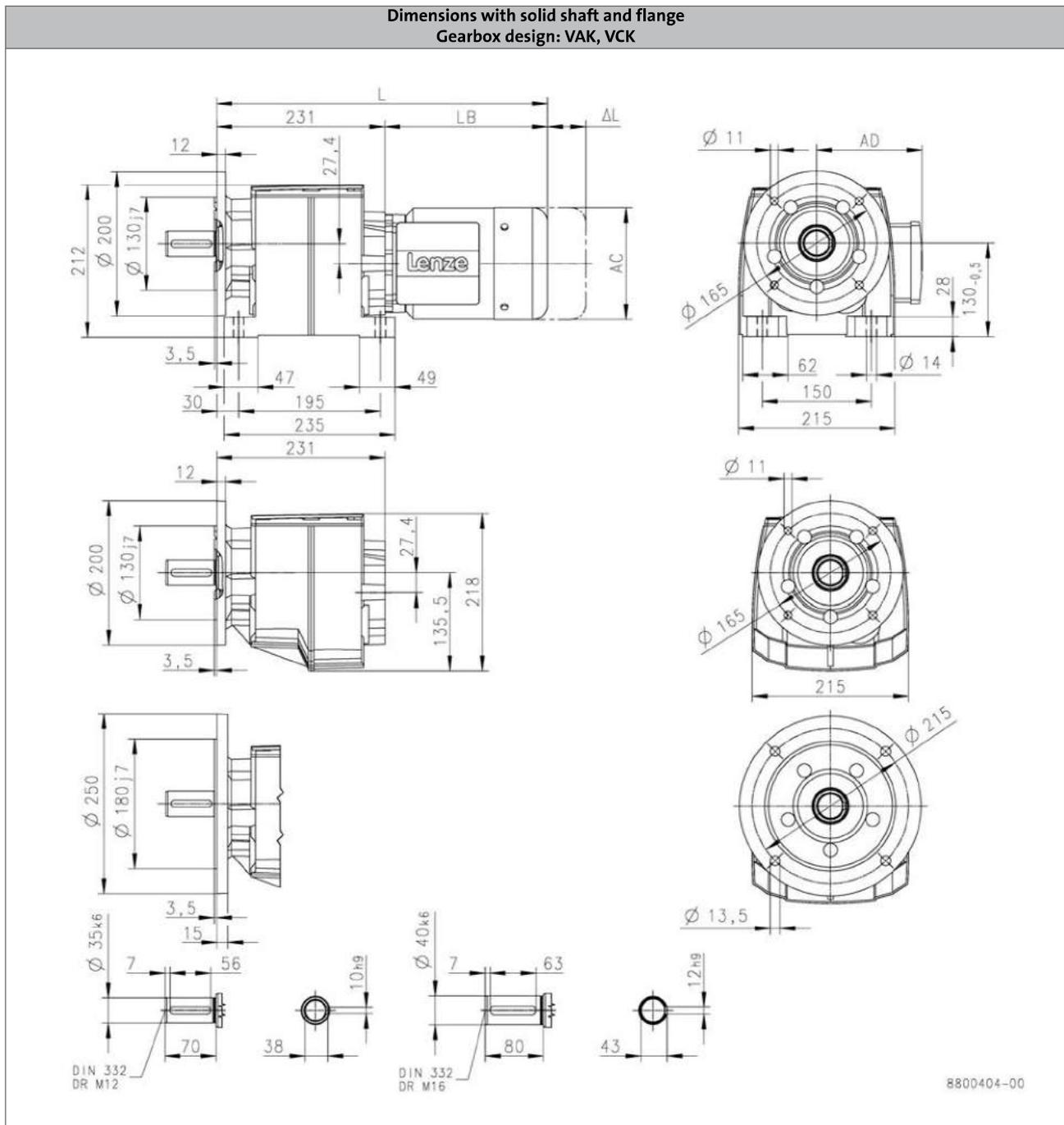
# g500-H helical geared motors

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>								
Total length	L	[mm]		414			435	457
Motor length	LB	[mm]		183			204	226
Length of motor options	Δ L	[mm]		170			165	183
Motor diameter	AC	[mm]		123			139	156
Distance motor/connection	AD	[mm]		100			109	150

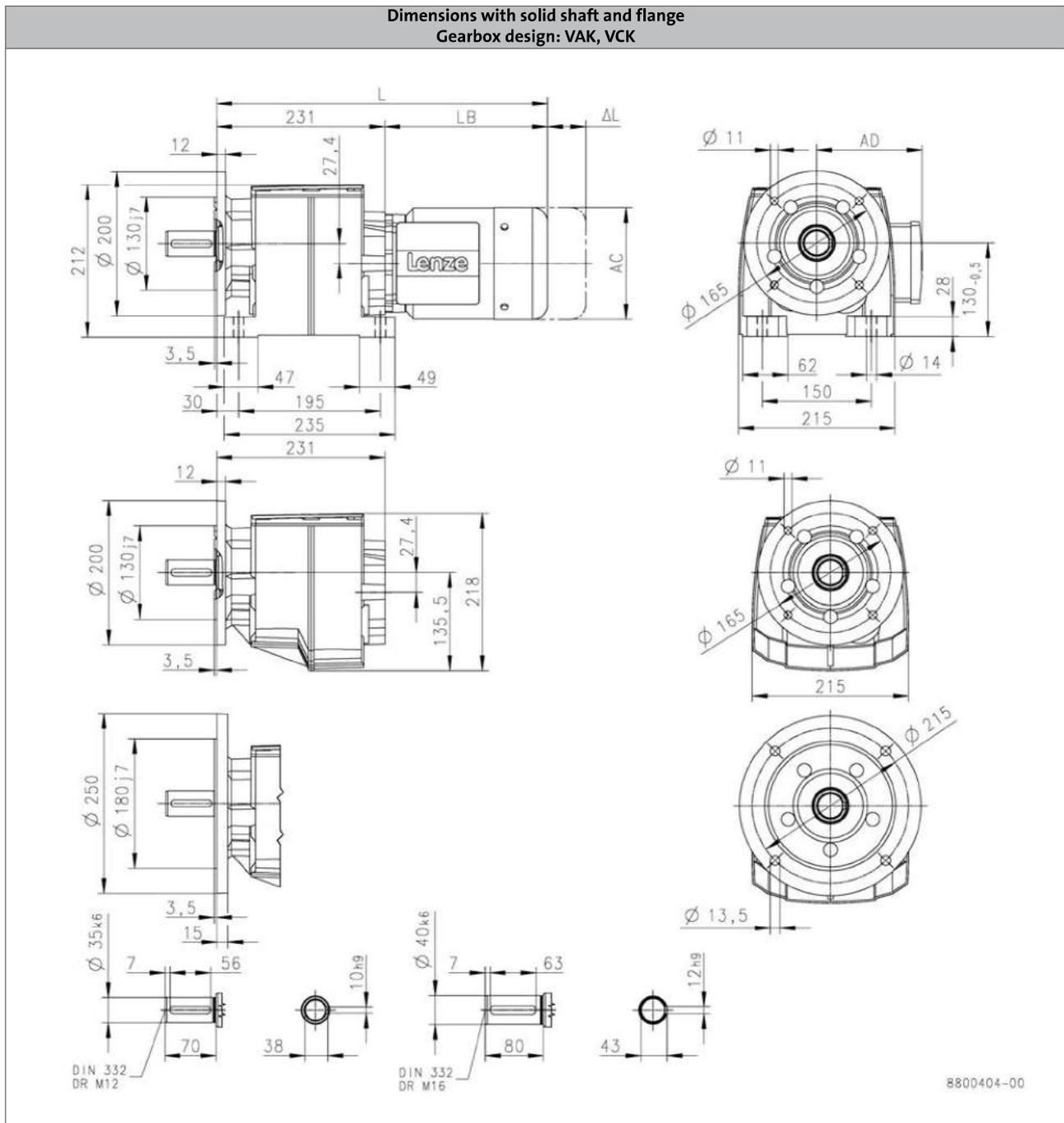
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-H600



6.3

Product			MH0MA00					
			090-12	090-32	100-12	100-32	112-22	132-12
<b>Dimensions</b>								
<b>Total length</b>	<b>L</b>	[mm]	516		566		611	659
<b>Motor length</b>	<b>LB</b>	[mm]	285		335		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

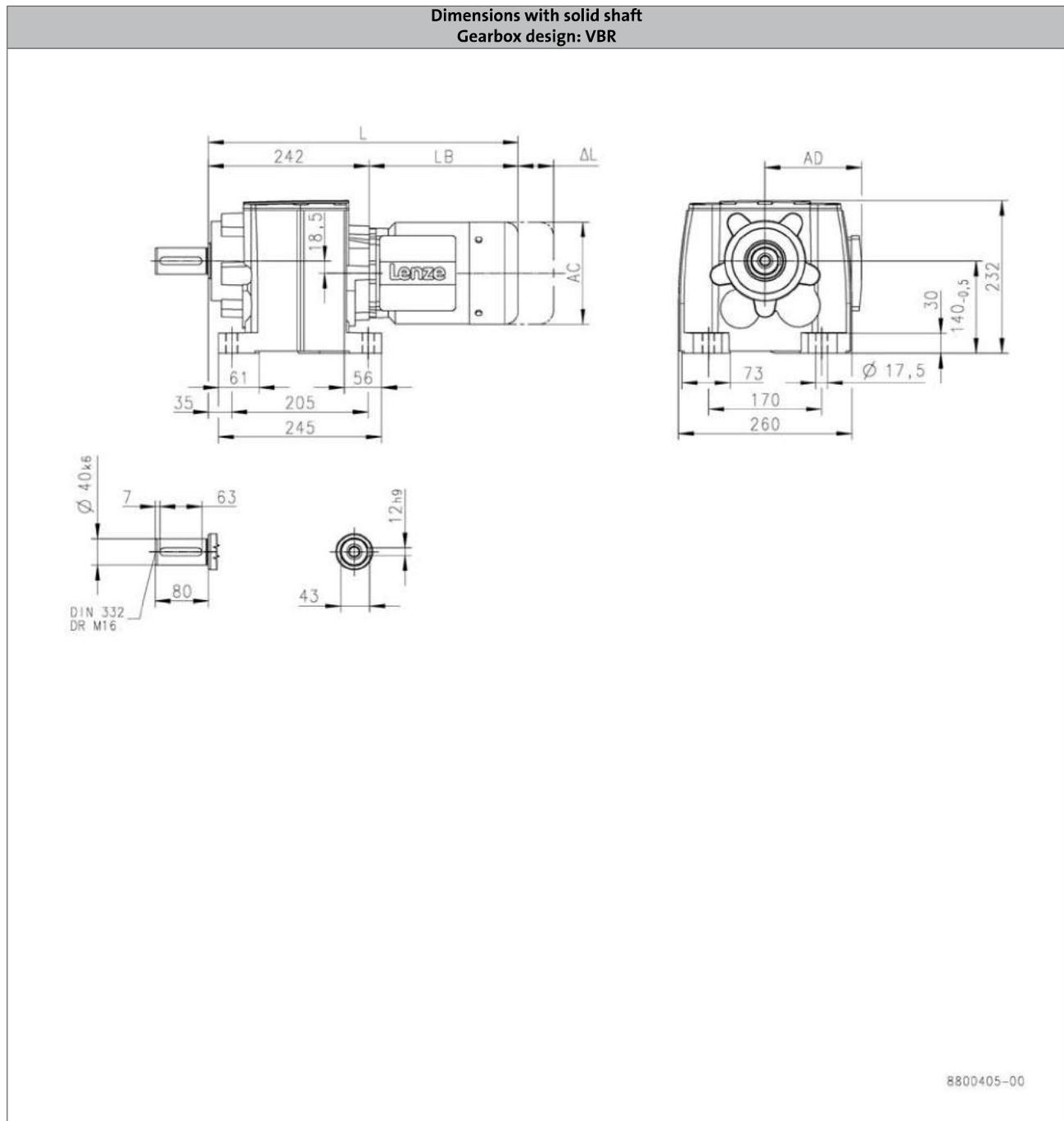
# g500-H helical geared motors

Technical data



## Dimensions, 4-pole motors

g500-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
<b>Dimensions</b>												
<b>Total length</b>	<b>L</b>	[mm]	425	446	468	527	577	622	670			
<b>Motor length</b>	<b>LB</b>	[mm]	183	204	226	285	335	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		

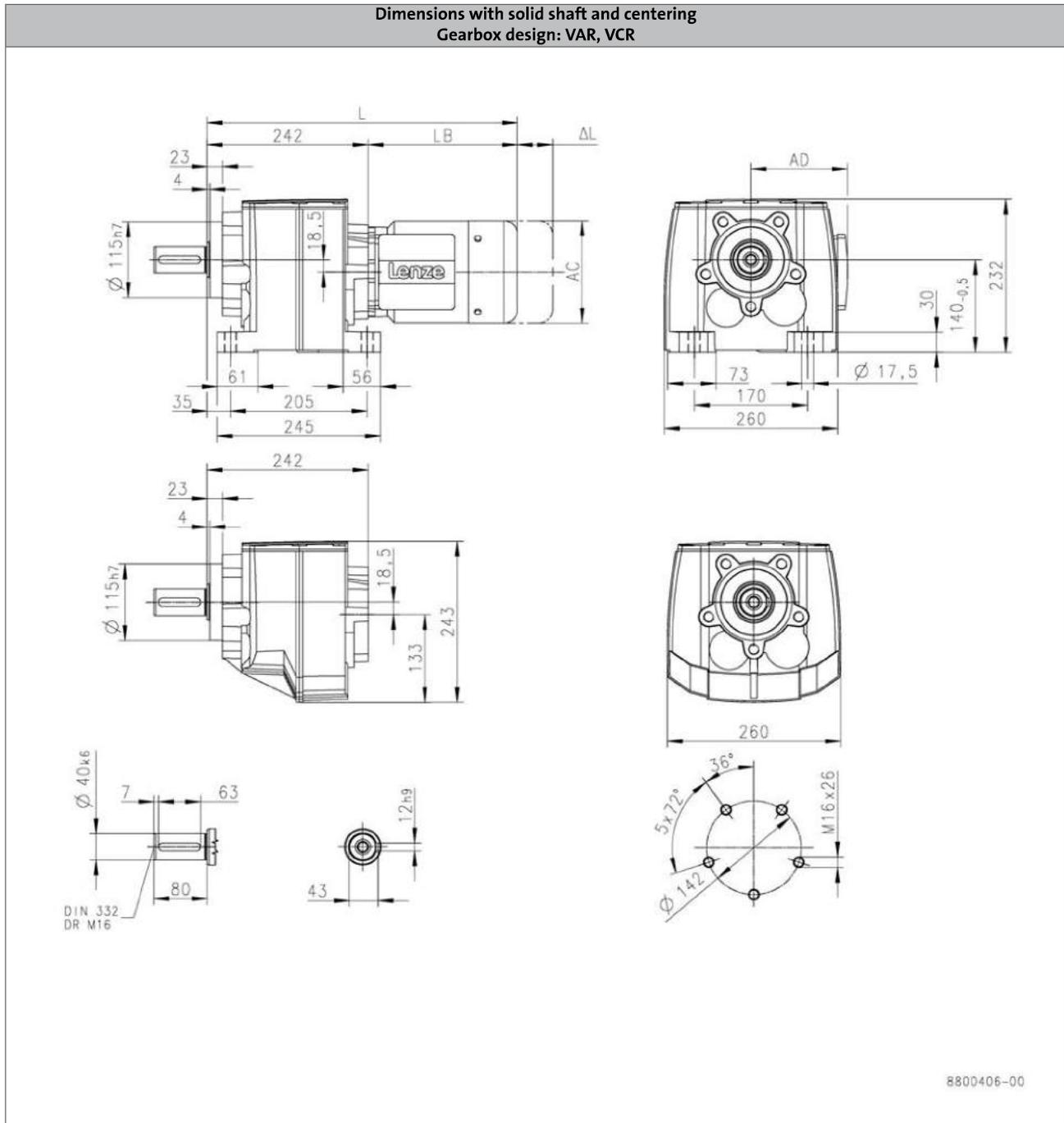
# g500-H helical geared motors

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	446	468	527	577	622	670				
<b>Motor length</b>	<b>LB</b>	<b>[mm]</b>	183	204	226	285	335	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			



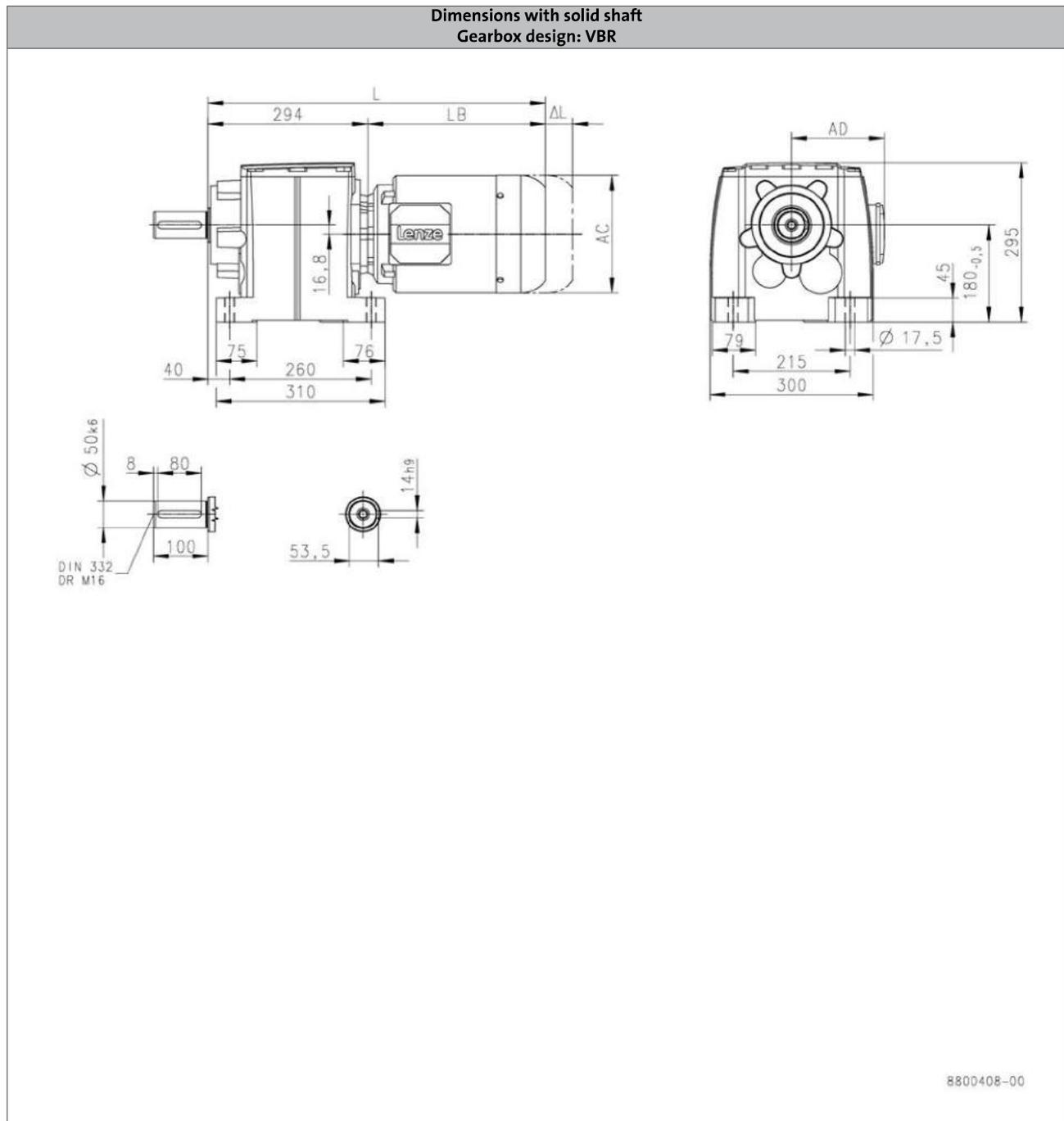
# g500-H helical geared motors

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>	[mm]	498	520	579	629	674	722			
<b>Motor length</b>	<b>LB</b>	[mm]	204	226	285	335	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		

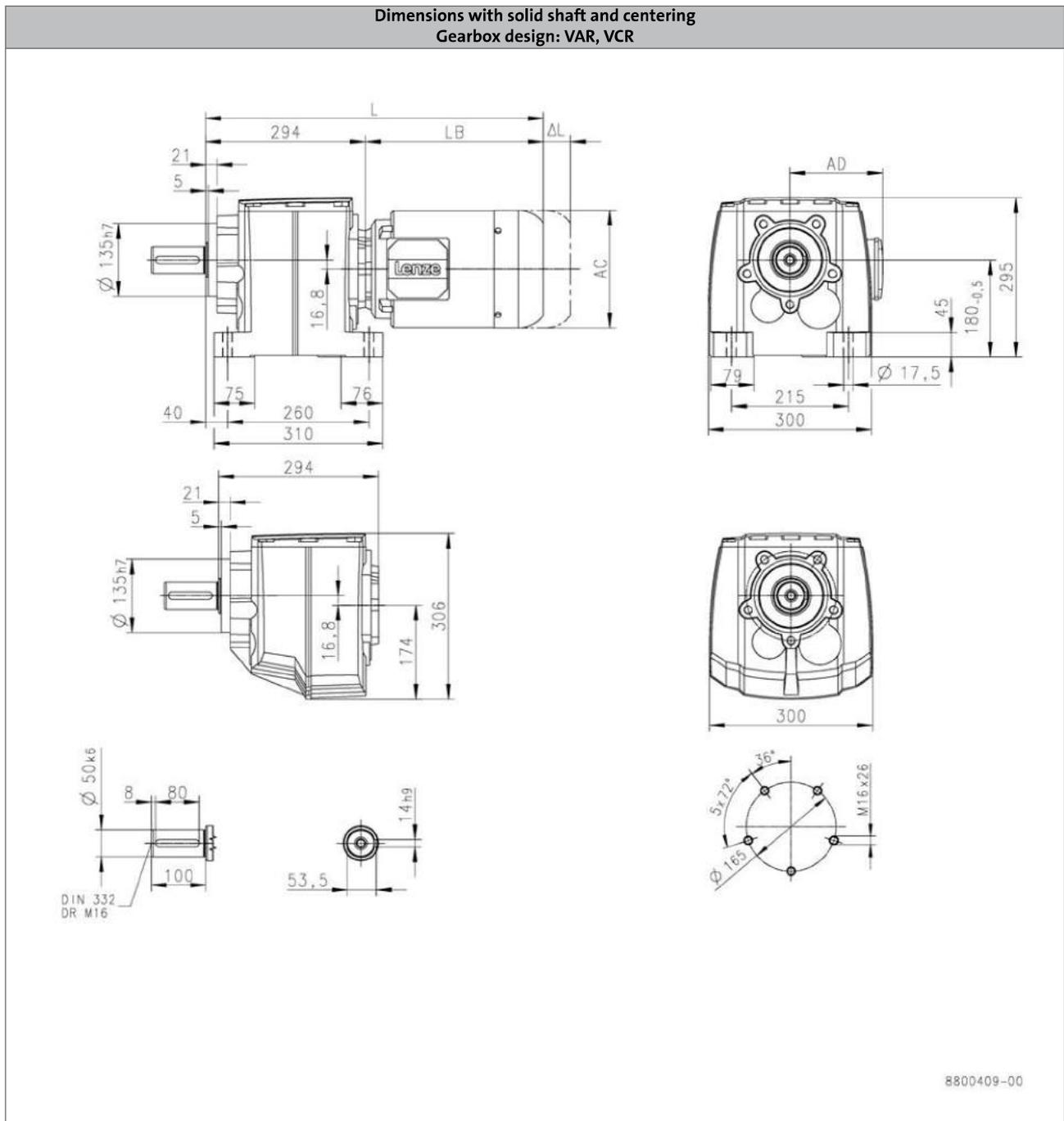
# g500-H helical geared motors

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>	[mm]	498	520	579	629	674	722		
<b>Motor length</b>	<b>LB</b>	[mm]	204	226	285	335	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	

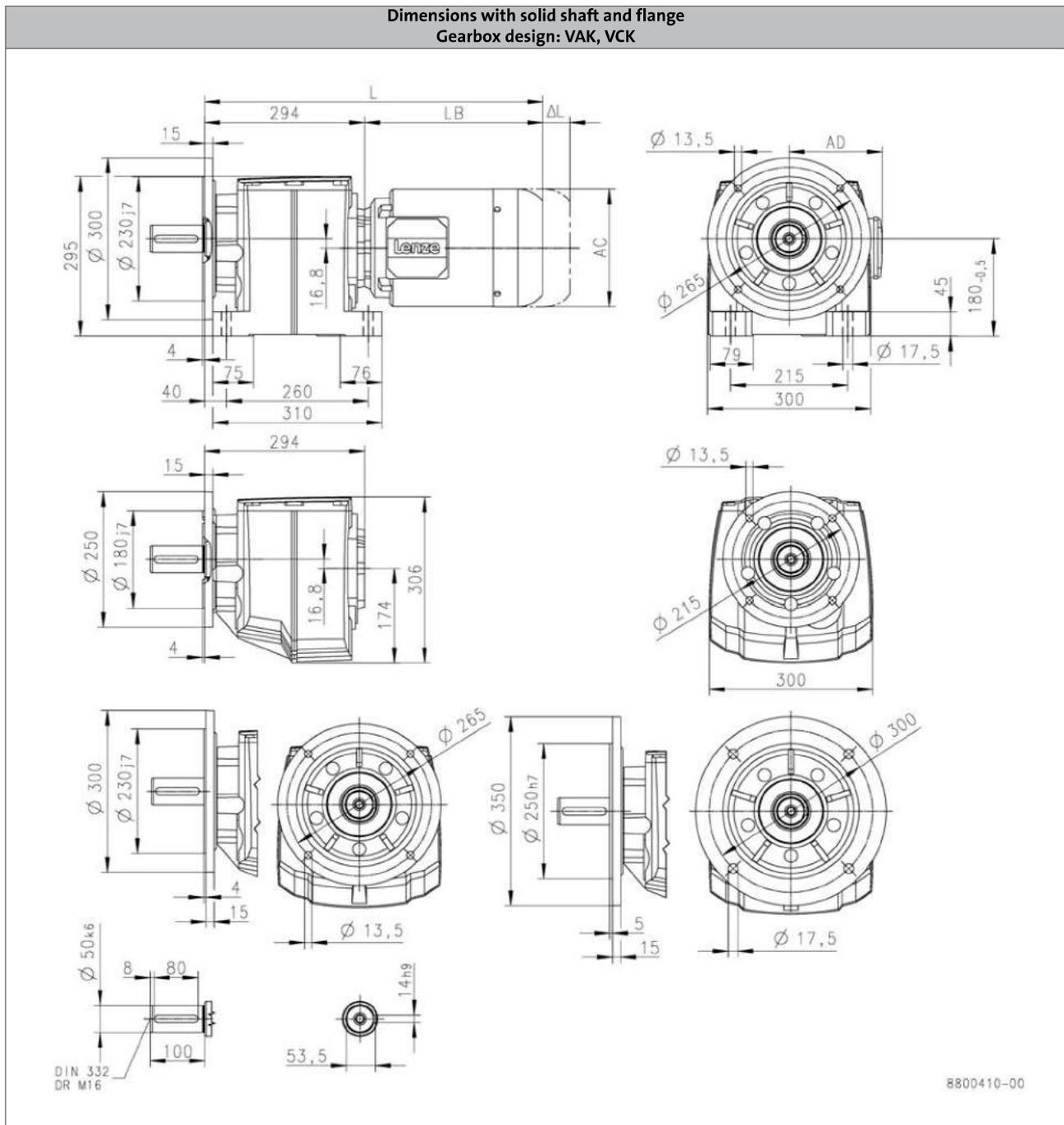
# g500-H helical geared motors

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>	[mm]	498	520	579	629	674	722			
<b>Motor length</b>	<b>LB</b>	[mm]	204	226	285	335	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		

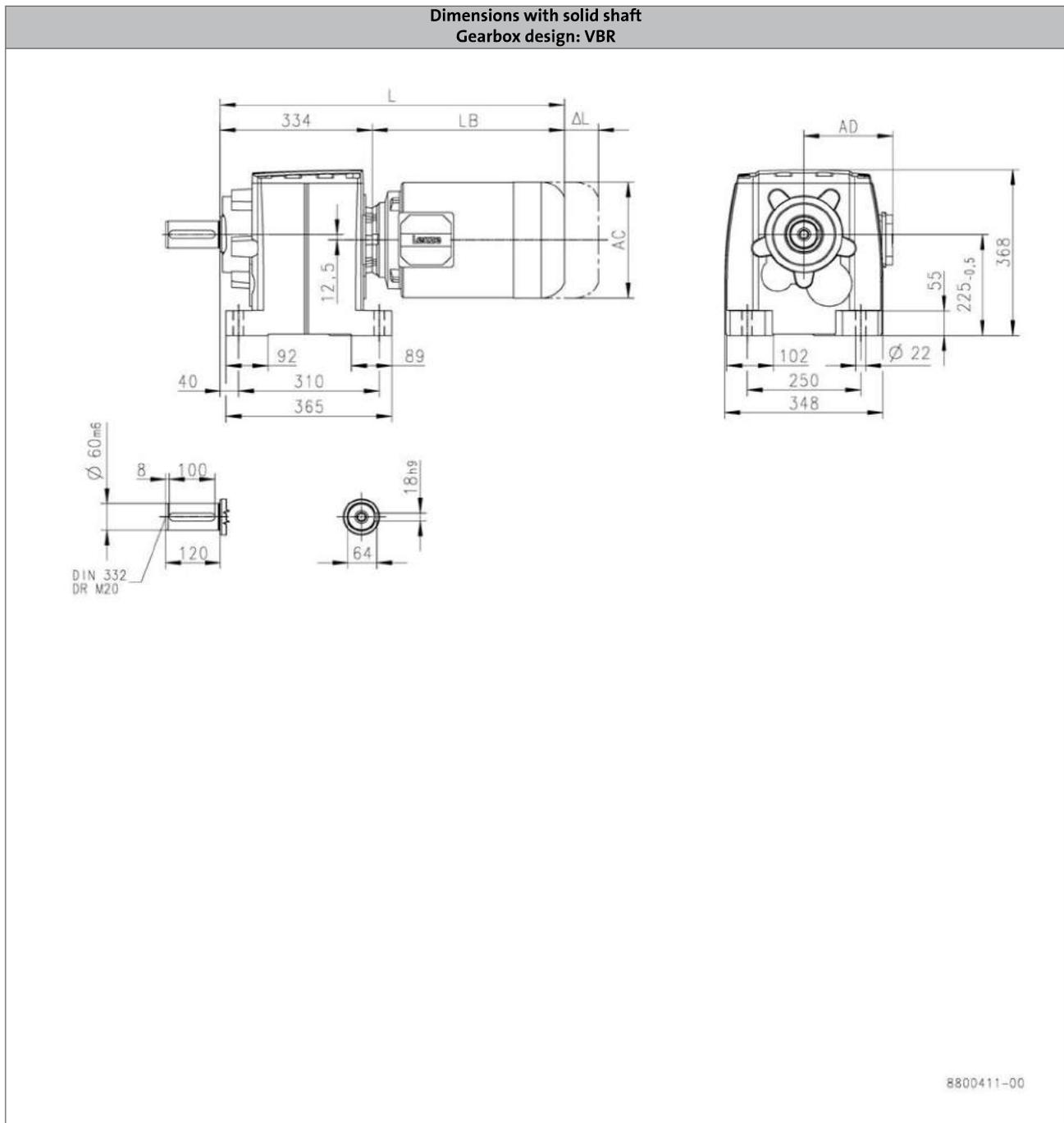
# g500-H helical geared motors

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		669		714		762
<b>Motor length</b>	<b>LB</b>	[mm]	285		335		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

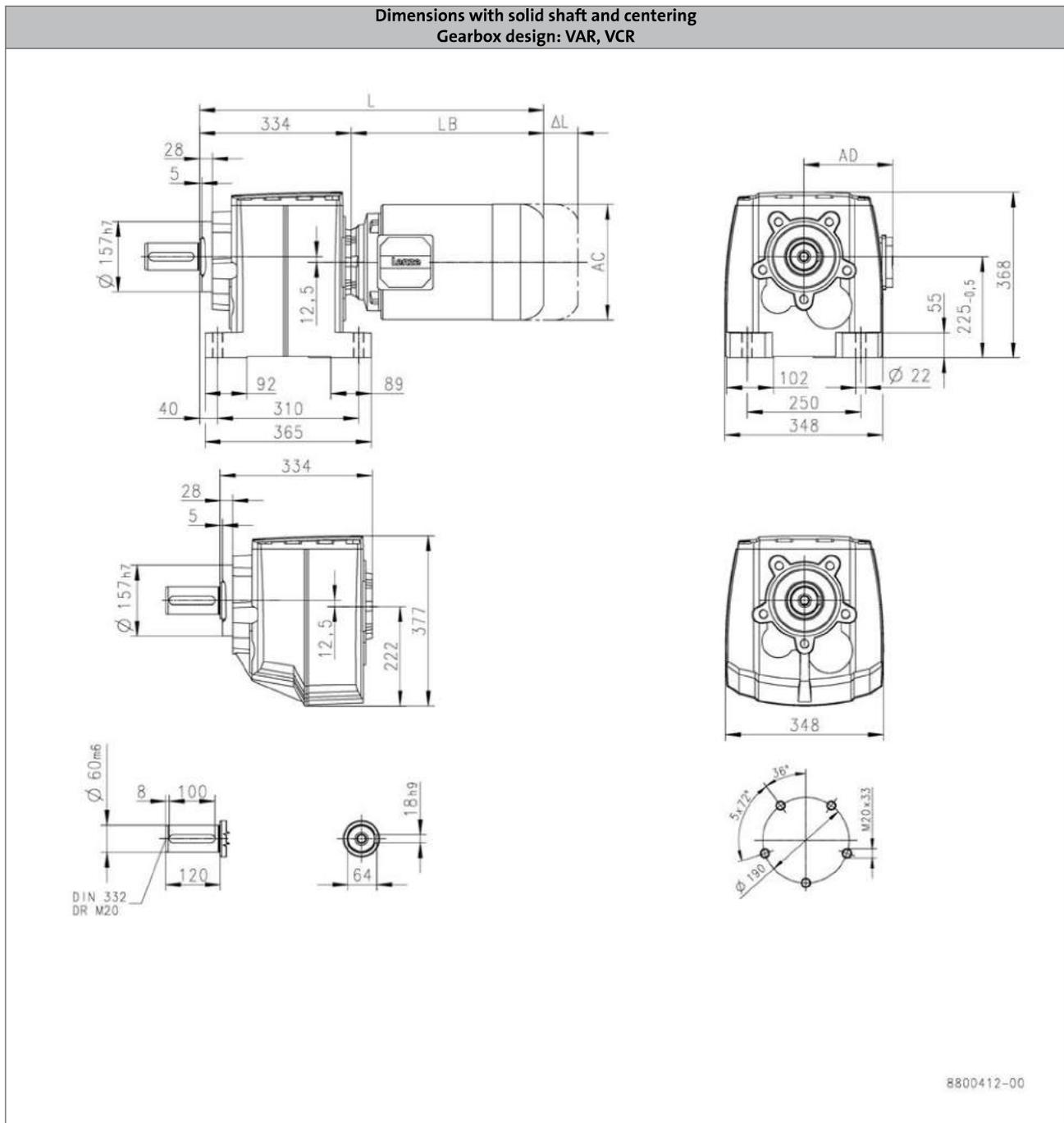
# g500-H helical geared motors

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	132-22
<b>Dimensions</b>									
<b>Total length</b>	<b>L</b>	[mm]	619		669		714		762
<b>Motor length</b>	<b>LB</b>	[mm]	285		335		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	80.0
Feedback										
	Δ L	[mm]	71.0	56.0	51.0	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		
Blower											
	Δ L	[mm]	128				109	102	115		
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]	5.4	5.7	5.4	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	10 12	12	14 16
	m	[kg]	0.9	0.9 1.5	1.5	1.5 2.6	2.6 4.2	2.6 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