

Intelligent Drivesystems, Worldwide Services



GB

M7010

Motors with smooth surface

Smooth motors type HM
Smooth motors type HMT **nsd tupH** surface


DRIVESYSTEMS

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Global presence

- **NORD** as subsidiaries in 35 countries
- With its representatives **NORD** is present in 52 countries
- further Service and sales partner
- Technical support
- Support for installation and commissioning
- Spare parts management

NORD DRIVESYSTEMS with its headquarters in Bargteheide near Hamburg is a global company with an extensive range of products and services for electrical, mechanical and electronic drive technology.

With a staff of approx. 2900 in its German factories and international production facilities, **NORD** produces and distributes drive technology for the global market.

The design of user-specific drive solutions with close customer support from the planning phase right up to commissioning is what makes **NORD** a strong and dependable partner.

We consider 24-hour service, fast availability and being close to our customers to be both a responsibility and an obligation, just as you can expect from a leading drive manufacturer such as **NORD**.

PRODUCTION SITES



NORD DRIVESYSTEMS, Headquarters
Bargteheide



NORD Electronic DRIVESYSTEMS
Aurich



Gear Factory NORD
Glinde



NORD Production Technology
Gadebusch

SOME OF OUR OVERSEAS PRODUCTION FACILITIES



NORD Motoriduttori
Italien, San Giovanni



NORD Napędy Sp. z o.o.
Polen, Nowa Sól



NORD Gear Corporation
USA, Waunakee, Wisconsin



NORD Power Transmission
China, Suzhou

NORD smooth surface motors

NORD DRIVESYSTEMS builds motors both with and without brakes for the international market.

Our own motor production facilities guarantee that NORD is independent from supply bottlenecks, ensuring short delivery times.

This is a decisive benefit for our customers.

The use of NORD energy-saving three-phase motors with considerably higher efficiencies allows you to reduce operating costs.

This catalogue presents unventilated and ventilated NORD motors with smooth surfaces. Smooth surfaces are important, for example, where motors must be simply and thoroughly cleaned.

Advantages

- Smooth surfaces, especially suitable for applications in the food and beverage industry.
- A wide choice of motor sizes 80, 90, 100 for the major applications.
- The aluminium frame motors are available with the optional **nsd tupH** surface treatment to give the benefits of stainless steel drives at very economic cost.
- The motors are based on the NORD modular construction system and therefore offer maximum flexibility.

Features

- Aluminium housing (smooth surface).
- Easy to clean thanks to smooth surfaces (Washdown = water always runs off).
- Special corrosion protection can be purchased with optional **nsd tupH** (⇒  B12).
- Perfectly suited for NORD smooth surface gear units as complete gearmotor assemblies.





Motor power labelling

Shaft height 80, 90, 100,

Power code

S, L

Efficiency class

H = high

IE3 unventilated

IE2 ventilated

Number of poles

4-pole

Motor type

Labelling only for motors with special characteristics

HM Smooth motors

HMT Smooth motors nsd tupH surface refinement

Variant

unventilated (Standard)

L/H ventilated

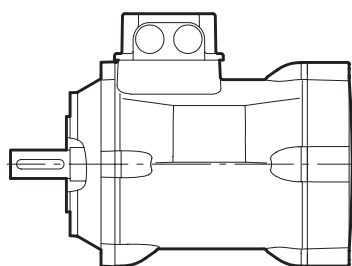
Option

⇒ A4-5

Example

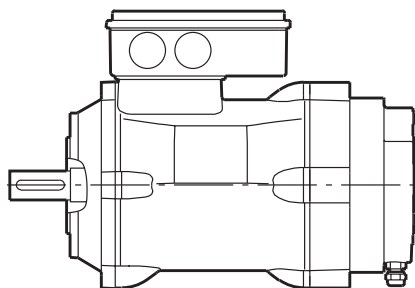
100 L H / 4 HM

TF = Shaft height **100** Power code **L** Efficiency class **H** No. of poles **4** Motor type **HM** Option **TF**



Standard

Smooth motor, unventilated



Standard

Smooth motor with brake, unventilated



NORD smooth surface motors always comply with protection class IP66 and can be combined with every gear unit type.

The tables on pages ⇒ A6-A7 help you dimensioning your application, especially in intermittent operation.

Options



		Smooth motor					
		unventilated		unventilated		ventilated	
		S / L		SH / LH		SH / LH	
		Standard HM	nsd tupH HMT 4)	Standard HM	nsd tupH HMT 4)	HM	nsd tupH HMT 4)
Abbreviations	Meaning						
IP66 BRE ...+ 1)	Brake / braking torque + sub-option			x	x 2)	x	x
IR	Current relay			x	x	x	x
FHL	Lockable manual release			-	-	x	x
HL	Manual brake release			x	-	x	x
MIK	Micro switch			x	-	x	x
BRB	Standstill heater / Brake			x	-	x	x
NRB 1	Noise-reduced brake			-	x	-	-
NRB 2	Noise-reduced brake			x	x	x	x
TF	Thermistor, PTC resistor	x	x	x	x	x	x
TW	Thermostat, bimetallic switch	x	x	x	x	x	x
SH 3)	Standstill heating	x	x	x	x	x	x
WE +	2. Shaft end			-	-	x	x
HR	Hand wheel			-	-	x	x
RD	Protective shield			-	-	x	x
RDT	Protective shield, textile fan cowl			-	-	x	x
RDD	Double fan-cowl			-	-	x	x
KB	closeable condensation hole	x	x	x	x	x	x
KKV	Terminal box, encapsulated	x	x	x	x	x	x
RS	Round connector			x	x	x	x
MS	Plug-on motor coupling			x	-	x	-
F	External fan			-	-	x	x
IG1 (IG11, 12)	Pulsed incremental encoder 1024			-	x	x	x
IG2 (IG21, 22)	Pulsed incremental encoder 2048			-	x	x	x
IG4 (IG41, 42)	Pulsed incremental encoder 4096			-	x	x	x
IG.K	Encoder with terminal box			-	-	x	-

1) it is quick-switching rectifier to use

2) integrated brake ⇒ B7

3) Brake terminal box

4) nsd tupH coating with A+B bearing cover, stator housing and terminal box



Thermal motor protection

NORD can supply two heat protection components.

- **TF** = Thermistor temperature sensor (series)
- **TW** = Bimetal temperature sensor (for an extra charge)

These are used to directly monitor the temperature of the windings with full utilisation of the motor power;

E.g.: 80 LH/4 HM **TF**

Standstill heating (SH)

A standstill heater must be used in case of severe temperature fluctuations, high humidity or extreme climatic conditions. This prevents condensation inside the motor;

E.g.: 100 LH/4 HM **SH**

Micro switch (MIK)

Brake with electronic release monitor;

E.g.: 80 LH/4 HM **BRE5 MIK**

2. shaft end (WE)

Motors with a second shaft end on the B side;

E.g.: 100 LH/4 HM L/H **WE**

Handwheel (HR)

Motors with a handwheel mounted on the rear shaft end of the shaft;

E.g.: 90 SH/4 HM L/H **HR**

Protective cover (RD)

Protection against rain and entry of foreign bodies for vertical installation with the shaft pointing downwards;

E.g.: 100 LH/4 HM L/H **RD** (⇒  B9, B11)

Protective cover, textile fan cowl (RDT)

These motors have a fan cowl which is specially designed for use in the field of textiles. The lack of a normal ventilation grille prevents the build-up of flakes and fluff, which could impair the cooling of the motor;

E.g.: 80 LH/4 HM L/H **RDT** (⇒  B9, B11)

Double fan cowl (RDD)

Protection against rain and snow and entry of foreign bodies for vertical installation with the shaft pointing downwards. Suitable for water jets from all directions;

E.g.: 90 SH/4 HM L/H **RDD** (⇒  B9, B11)

Condensation drain hole (KB)

Depending on installation position, condensation drainage holes are drilled at the lowest position of the A or B bearing plate. These are closed with hex screws.

 The version must be stated!

E.g.: 80 LH/4 HM **KB**

Encapsulated terminal box (KKV)

Terminal box base encapsulated in direction of interior;

E.g.: 80 LH/4 HM **KKV**

Round connector (RS)

The M23 round connector is fitted on a low-profile terminal box. At the motor, there is a pin version with 3 power and 4 auxiliary contacts;

E.g.: 80 LH/4 HM **RS**

Motor plug connectors (MS)

Normal version

Terminal box at I, plug at II (to B-side, plug at I + III possible)

The plug connector is mounted on the side of the terminal box. Housings with 2-clamp transverse locking are used.

At the motor, there is a 10-pole pin version;

E.g.: 80 LH/4 HM **MS**

External fan (F)

Motor with separately controlled fan;

E.g.: 90 SH/4 HM **F**

Encoders

Incremental encoder (IG)

Incremental encoders with various pulse numbers and interfaces are available. With “unventilated” motor variants, the encoder is protected underneath an aluminium cover.

With the “ventilated” variants, the encoder is mounted under the fan cover.

IG1K, IG2K or IG4K

With ventilated motors, an alternative connection in a separate terminal box is possible with the options IG1K, IG2K or IG4K (extra charge).

Brake - attached brake IP66 (BRE)

By default, a closed brake is directly screwed to the B-bearing cover of the motor;

E.g.: 80 LH/4 HM **BRE5**

Brake - with cover (BRE) integrated brake

Especially for motors with **nsd tupH** coating, the brake is protected by an aluminium cover also coated with **nsd tupH**;

E.g.: 80 LH/4 HMT **BRE5** (⇒  B7 - integrated brake)

Current measuring relay (IR)

Generator operation is excluded after the motor was switched off;

E.g.: 80 LH/4 HM **BRE5 IR**

Standstill heater / brake (BRB)

To prevent the condensation of moisture and freezing of the brake, a standstill heater for the brake with bifilar windings (BRB) can be implemented;

E.g.: 80 LH/4 HM **BRB**

Quick-switching rectifier for installation in control cabinet



Extended operation range and intermittent operation S3

In the S3 mode, the motors are not subject to the efficiency classification. The following data can be used for motor planning. The breakdown torque is always higher than the 1.6-fold operating torque. The maximum utilisation of the motors is in accordance with thermal class 155 (F).

The heating of unventilated motors greatly depends on the installation conditions. The maximum surface temperature is only insignificantly below the temperature of the windings.

**400 V / 50 Hz
4 - pole**

unventilated

Type	S1			S3-60%			S3-40%			S3-25%		
	P _N	I	n	P	I	n	P	I	n	P	I	n
	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]
80 LH/4	0,37	0,98	1425	0,5	1,2	1390	0,63	1,5	1340	0,7	1,67	1325
90 SH/4	0,55	1,27	1435	0,75	1,61	1405	0,9	1,9	1385	1,2	2,66	1305
100 SH/4	0,75	1,65	1450	1,1	2,25	1420	1,35	2,75	1395	1,5	3,0	1390
100 LH/4	1,1	2,4	1445	1,5	3,05	1425	1,8	3,6	1410	2,2	4,4	1380

**460 V / 60 Hz
4 - pole**

unventilated

Type	S1			S3-60%			S3-40%			S3-25%		
	P _N	I	n	P	I	n	P	I	n	P	I	n
	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]
80 LH/4	0,37	0,89	1735	0,5	1,05	1710	0,63	1,26	1680	0,7	1,38	1670
90 SH/4	0,55	1,14	1740	0,75	1,4	1720	0,9	1,62	1705	1,2	2,13	1665
100 SH/4	0,75	1,47	1755	1,1	1,95	1735	1,35	2,32	1715	1,5	2,55	1710
100 LH/4	1,1	2,14	1755	1,5	2,65	1735	1,8	3,1	1725	2,2	3,7	1710

Motors with increased power are electrically and mechanically modified compared with the energy-efficient motors.

**400 V / 50 Hz
4 - pole**

unventilated / Increased power

Type	S1			S3-60%			S3-40%			S3-25%		
	P _N	I	n	P	I	n	P	I	n	P	I	n
	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]
80 L/4	0,47	1,25	1420	0,6	1,46	1395	0,75	1,76	1360	0,9	2,15	1310
90 S/4	0,67	1,58	1435	0,9	1,94	1410	1,1	2,3	1390	1,4	3,0	1335
100 S/4	1,0	2,2	1445	1,3	2,67	1425	1,5	3,0	1415	1,7	3,4	1405
100 L/4	1,3	2,95	1450	1,75	3,62	1430	2,1	4,22	1415	2,5	5,0	1395

**460 V / 60 Hz
4 - pole**

unventilated / Increased power

Type	S1			S3-60%			S3-40%			S3-25%		
	P _N	I	n	P	I	n	P	I	n	P	I	n
	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]
80 L/4	0,53	1,2	1720	0,7	1,43	1690	0,85	1,68	1665	1,0	1,97	1630
90 S/4	0,77	1,53	1735	1,0	1,84	1715	1,25	2,22	1690	1,6	2,86	1640
100 S/4	1,15	2,13	1740	1,5	2,62	1725	1,8	3,08	1705	2,05	3,48	1695
100 L/4	1,45	2,8	1750	2,0	3,5	1725	2,4	4,1	1710	2,9	4,9	1690



400 V / 50 Hz
4 - pole

ventilated

Type	P_N	S1			S3-60%			S3-40%			S3-25%		
		P_{S1max}	I	n	P	I	n	P	I	n	P	I	n
	[kW]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]
80 LH/4 HM L/H	0,75	1,0	2,4	1360	1,1	2,63	1340	1,2	2,9	1310	1,3	3,17	1285
90 SH/4 HM L/H	1,1	1,5	3,28	1380	1,65	3,6	1365	1,8	3,93	1345	2,0	4,42	1315
100 SH/4 HM L/H	1,5	2,15	4,36	1400	2,35	4,77	1390	2,55	5,21	1375	2,85	5,94	1355
100 LH/4 HM L/H	2,2	2,75	5,65	1415	3,0	6,11	1405	3,3	6,7	1390	3,75	7,67	1370

460 V / 60 Hz
4 - pole

ventilated

Type	P_N	S1			S3-60%			S3-40%			S3-25%		
		P_{S1max}	I	n	P	I	n	P	I	n	P	I	n
	[kW]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]	[kW]	[A]	[1/min]
80 LH/4 HM L/H	0,75	1,25	2,46	1640	1,35	2,67	1620	1,45	2,89	1600	1,55	3,11	1585
90 SH/4 HM L/H	1,1	1,85	3,37	1665	2,0	3,63	1650	2,15	3,92	1635	2,35	3,44	1620
100 SH/4 HM L/H	1,5	2,55	4,38	1695	2,8	4,82	1680	3,0	5,18	1675	3,4	6,0	1645
100 LH/4 HM L/H	2,2	3,3	5,68	1705	3,65	6,25	1695	3,95	6,75	1685	4,45	7,66	1665





MOTOR DATA

DIMENSIONED DRAWINGS OF MOTORS

Standard HM/HMT unbelüftet



1500 1/min
50 Hz

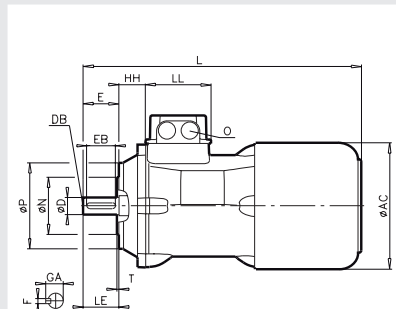
230/400 V / 400/690 V
4 - polig

S1														
Type	S1	P _N [kW]	I _N [A]	I ₂ [A]	cos φ	η	1200 P _N [W]	3400 P _N [W]	M ₂ [Nm]	M ₁ [Nm]	M _{0.5} [Nm]	I ₂ /I _N	J	
80 L144 100	0.47	1300	2.0	7.15	1.150/0.86	0.74	77.0	79.0	78.9	3.21	2.5	2.6	5.0	0.0019
90 D144 100	0.67	1400	2.45	8.42	1.430/0.82	0.84	79.0	81.0	81.0	4.58	2.4	2.7	5.8	0.0024
100 D144 100	1.0	1420	3.40	10.2	1.27	1.10	81.0	83.0	83.0	6.7	2.4	2.8	6.2	0.006
100 L144 100	1.3	1435	4.04	12.0	1.27	1.10	81.0	83.0	83.0	8.64	3.0	3.5	7.3	0.0075

1800 1/min
60 Hz

265/460 V / 460 V
4 - polig

S1														
Type	S1	P _N [kW]	I _N [A]	I ₂ [A]	cos φ	η	1200 P _N [W]	3400 P _N [W]	M ₂ [Nm]	M ₁ [Nm]	M _{0.5} [Nm]	I ₂ /I _N	J	
80 L144 100	0.60	1700	1.3	7.1	1.1	0.74	79.0	81.0	80.9	2.97	2.3	2.6	4.4	0.0019
90 D144 100	0.77	1700	2.4	7.38	1.38	0.84	80.0	83.0	83.0	4.33	2.4	2.8	6.0	0.0024



Standard HM/HMT unventilated



1500 1/min
50 Hz

230/400 V / 400/690 V
4-pole

IE3

S1

	P_N	n_N	I_N	I_N	$\cos$	η			M_N	M_A/M_N	M_K/M_N	I_A/I_N	J	$\frac{kg}{kg}$
Type	S1		230/400 V	400/690 V	φ	1/2xP _N	3/4xP _N	4/4xP _N						
	[kW]	[1/min]	[A]	[A]		[%]	[%]	[%]	[Nm]				[kgm ²]	[kg]
80 LH/4 HM	0,37	1425	1,7 /0,98	0,98/0,57	0,7	73,9	78,2	79,3	2,48	3,5	3,5	5,5	0,0019	10,2
90 SH/4 HM	0,55	1435	2,2 /1,27	1,27/0,73	0,78	76,2	80,1	81,2	3,66	3,6	4,1	7,2	0,0034	15,1
100 SH/4 HM	0,75	1450	2,86/1,65	1,65/0,95	0,8	76,9	81,0	82,5	4,94	3,5	4,1	7,7	0,006	21,0
100 LH/4 HM	1,1	1445	4,16/2,4	2,4 /1,39	0,78	79,5	83,0	84,1	7,25	3,9	4,3	7,9	0,0075	25,2

1800 1/min
60 Hz

265/460 V / 460 VΔ
4-pole

S1

	P_N	n_N	I_N	I_N	$\cos$	η			M_N	M_A/M_N	M_K/M_N	I_A/I_N	J	$\frac{kg}{kg}$
Type	S1		265/460 V	460 VΔ	φ	1/2xP _N	3/4xP _N	4/4xP _N						
	[kW]	[1/min]	[A]	[A]		[%]	[%]	[%]	[Nm]				[kgm ²]	[kg]
80 LH/4 HM	0,37	1735	1,54/0,89	0,89/0,51	0,68	69,8	75,6	78,2	2,03	4,2	4,3	6,5	0,0019	10,2
90 SH/4 HM	0,55	1740	1,97/1,14	1,14/0,66	0,75	73,7	78,9	81,1	3,01	4,3	4,9	8,2	0,0034	15,1
100 SH/4 HM	0,75	1755	2,55/1,47	1,47/0,85	0,78	79,9	83,9	85,5	4,08	4,2	4,9	8,8	0,006	21,0
100 LH/4 HM	1,1	1755	3,71/2,14	2,14/1,24	0,76	81,4	85,1	86,5	6,0	4,6	5,1	9,1	0,0075	25,2

Type plate

Type SK 80 LH/4 HM TF

3 ~ Mot. No. 2009471123-100 12345678

Th.Cl. 155(F) IP 66 S1 IEC 60034 (H)

50 Hz 230/400 VΔ/Y 60 Hz 265/460 VΔ/Y

1,7/0,98 A 0,37 kW 1,54/0,89 A 0,37 kW

COS φ 0,7 1425 min⁻¹ COS φ 0,68 1735 min⁻¹

V V

A A

IE3 = 79,3 % IE3 = 78,2 %

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230/400 V / 400/690 V
4 - pole

265/460 V / 460 VΔ
4 - pole

B3

1500 1/min
50 Hz

230/400 V & 400/690 V
4 - pole

IE2

S1

Type	P_N	n_N	I_N		$\cos$	η			M_N	M_A/M_N	M_K/M_N	I_A/I_N	J	kg
	[kW]	[1/min]	230/400 V	400/690 V	φ	1/2xP _N	3/4xP _N	4/4xP _N	[Nm]				[kgm ²]	[kg]
80 LH/4 HM L/H	0,75	1420	3,23/1,87	1,87/1,08	0,7	80,4	82,0	81,6	5,05	3,15	3,3	5,3	0,0019	10,2
90 SH/4 HM L/H	1,1	1435	4,40/2,54	2,54/1,47	0,76	81,5	83,8	83,6	7,4	3,35	3,7	6,4	0,0034	15,1
100 SH/4 HM L/H	1,5	1445	5,56/3,21	3,21/1,85	0,8	84,9	86,3	85,8	10,1	3,05	3,65	7,2	0,006	21,0
100 LH/4 HM L/H	2,2	1440	8,33/4,81	4,81/2,78	0,8	85,4	86,4	85,8	15,2	3,2	3,7	7,1	0,0075	25,2

1800 1/min
60 Hz

265/460 V & 460 V D
4 - pole

S1

Type	P_N	n_N	I_N		$\cos$	η			M_N	M_A/M_N	M_K/M_N	I_A/I_N	J	kg
	[kW]	[1/min]	265/460 V	460 V	φ	1/2xP _N	3/4xP _N	4/4xP _N	[Nm]				[kgm ²]	[kg]
80 LH/4 HM L/H	0,75	1735	2,89/1,67	1,67	0,67	80,1	83,2	83,8	4,13	3,7	4,0	6,4	0,0019	10,2
90 SH/4 HM L/H	1,1	1745	3,91/2,26	2,26	0,73	81,5	84,3	85,1	6,1	3,9	4,6	7,8	0,0034	15,1
100 SH/4 HM L/H	1,5	1755	4,88/2,82	2,82	0,78	83,7	86,4	86,9	8,28	3,4	4,45	8,6	0,006	21,0
100 LH/4 HM L/H	2,2	1750	7,10/4,10	4,10	0,77	85,4	87,6	87,8	12,5	3,7	4,5	8,7	0,0075	25,2

Type plate




Type SK 80 LH/4 HM L/H TF

3 ~ Mot. No. 2009471123-100 12345678

Th.Cl.155(F) IP 66 S1 IEC 60034 (H)

50 Hz 230/400 V Δ/Y 60 Hz 265/460 V Δ/Y

3,23/1,87 A 0,75 kW 2,89/1,67 A 0,75 kW

COS φ 0,7 1420 min⁻¹ COS φ 0,67 1735 min⁻¹

V V

A A

IE2 = 81,6 % IE2 = 83,8 %

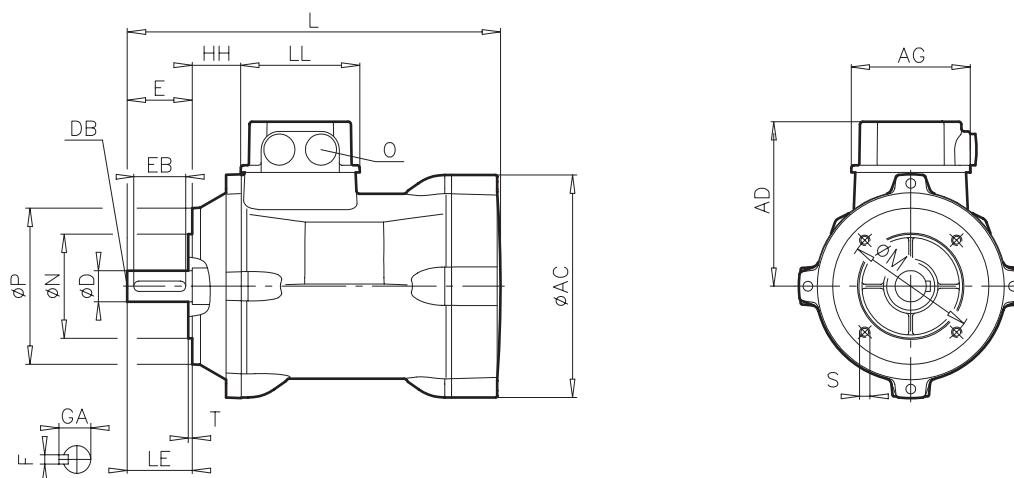
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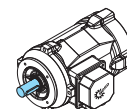
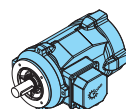
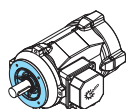


B14 unventilated

Standard

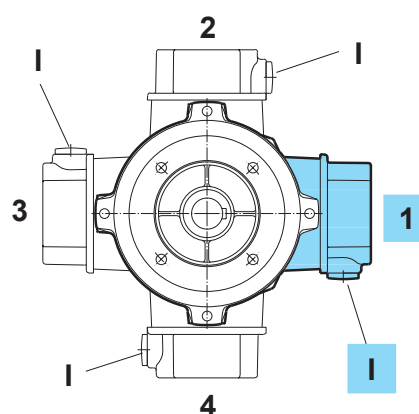
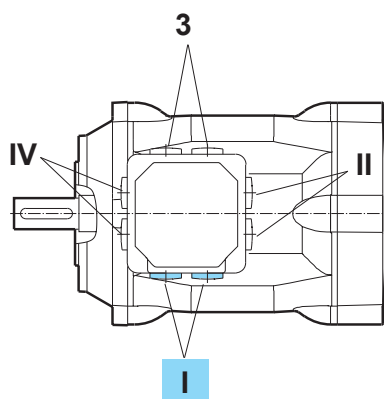
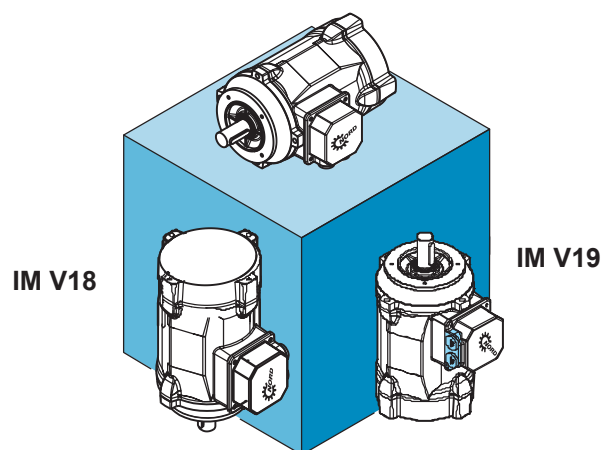


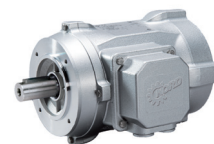
Type
HM / HMT
unventilated



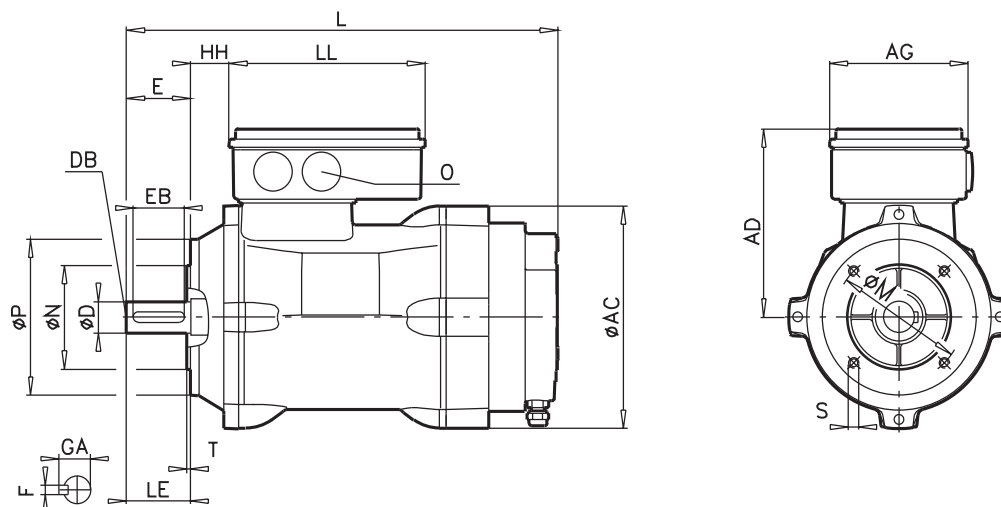
		M	N	P	S	T	AC	AD	AG	HH	L	O	LE	LL	D	DB	E	EB	F	GA
80	LH	100	80	120	M6x12	3.0	154	117	92	33	243	M20x1.5	40	92	19	M6	40	32	6	21.5
90	SH	115	95	140	M8x15	3.0	171	127	92	37	288	M20x1.5	50	92	24	M8	50	40	8	27
100	SH/LH	130	110	160	M8x16	3.5	192	135	92	43	324	M20x1.5	60	92	28	M10	60	50	8	31

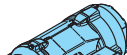
IM B14



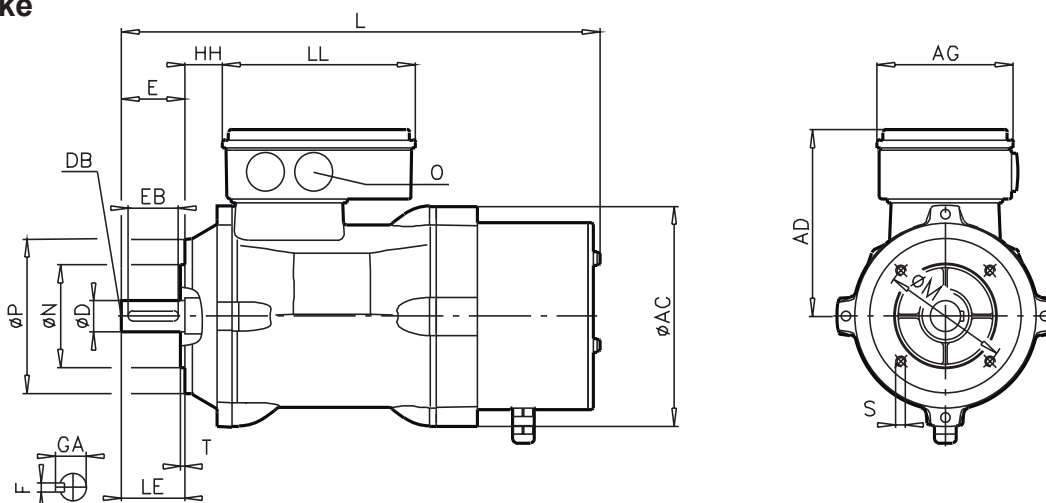


Standard



Type																																
HM unventilated		BRE [Nm]																														
			[mm]	M	N	P	S	T	AC	AD	AG	HH	L	O	LE	LL	D	DB	E	EB	F	GA										
80	LH	5 10	100	80	120	M6x12	3,0	154	135	108	26	281 286	M25x1.5	40	153	19	M6	40	32	6	21,5											
90	SH	10 20	115	95	140	M8x15	3,0	171	145	108	30	330 335	M25x1.5	50	153	24	M8	50	40	8	27											
100	SH/LH	10 20	130	110	160	M8x16	3,5	192	167	108	36	367 372	M32x1.5	60	153	28	M10	60	50	8	31											

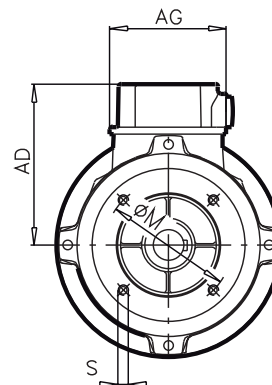
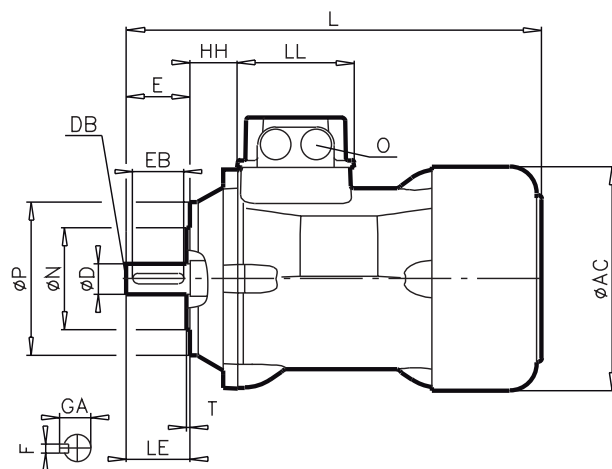
Integrated brake



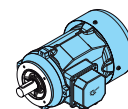
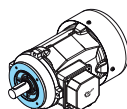
Type																							
HMT unventilated		BRE [Nm]																					
			[mm]	M	N	P	S	T	AC	AD	AG	HH	L	O	LE	LL	D	DB	E	EB	F	GA	
80	LH	5 10		100	80	120	M6x12	3,0	154	135	108	26	333	M25x1.5	40	153	19	M6	40	32	6	21,5	
90	SH	10 20		115	95	140	M8x15	3,0	171	145	108	30	378	M25x1.5	50	153	24	M8	50	40	8	27	
100	SH/LH	10 20		130	110	160	M8x16	3,5	192	167	108	36	415	M32x1.5	60	153	28	M10	60	50	8	31	



B14 ventilated



Type
HM / HMT
ventilated L/H

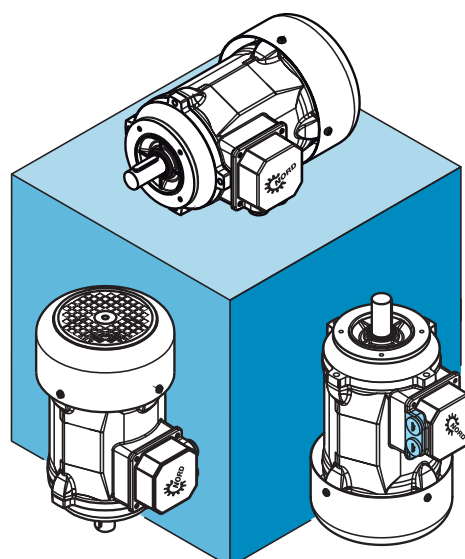


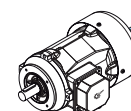
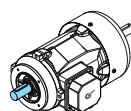
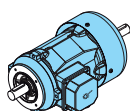
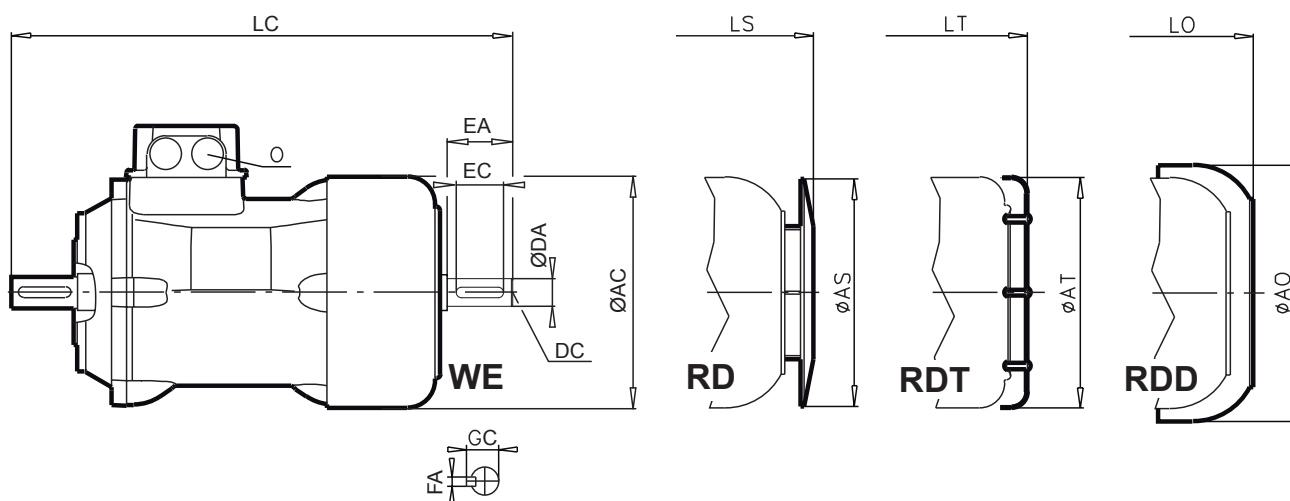
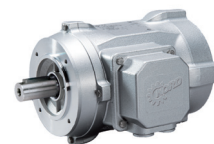
		[mm]	M	N	P	S	T	AC	AD	AG	HH	L	LE	LL	...
80	LH		100	80	120	M6 x 12	3.0	156	117	92	26	340	40	92	
90	SH		115	95	140	M8 x 15	3.0	176	127	92	30	401	50	92	
100	SH/LH		130	110	160	M8 x 16	3.5	194	135	92	36	457	60	92	

IM B14

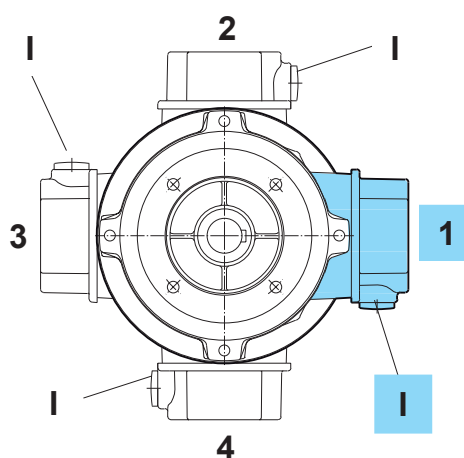
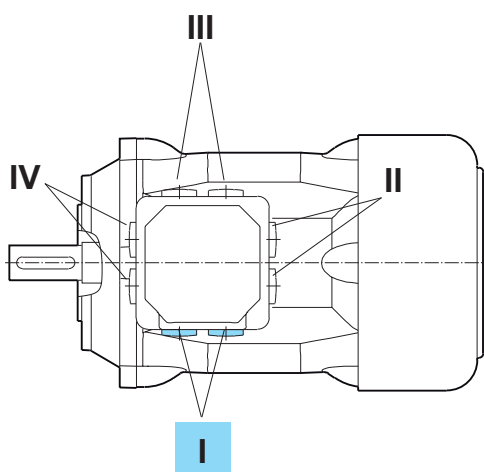
IM V18

IM V19



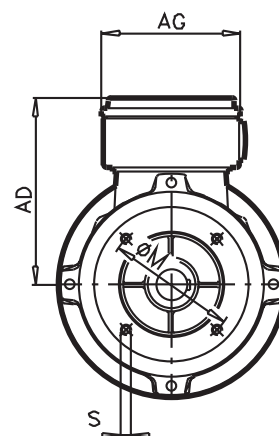
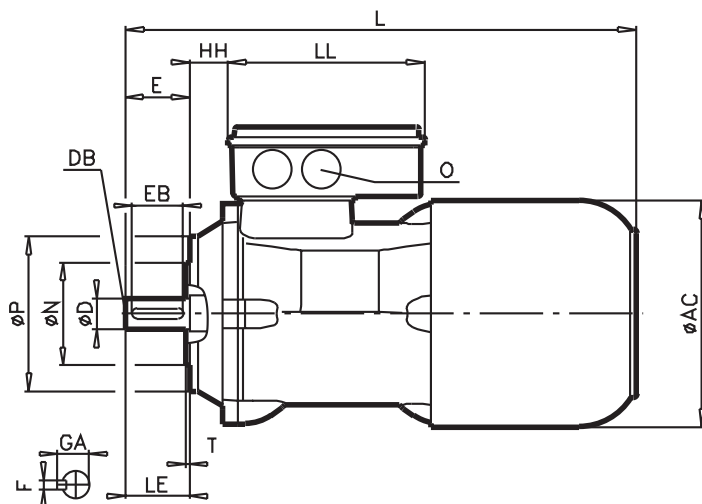


LC	AS	AT	AO	LS	LT	LO	O	D	DB	E	EB	F	GA	DA	DC	EA	EC	FA	GC
374	156	156	176	355	360	366	M20 x 1.5	19	M6	40	32	6	21.5	14	M5	30	20	5	16.0
439	176	176	194	416	420	431	M20 x 1.5	24	M8	50	40	8	27.0	14	M5	30	20	5	16.0
517	194	194	218	472	480	485	M20 x 1.5	28	M10	60	50	8	31.0	24	M8	50	40	8	27.0

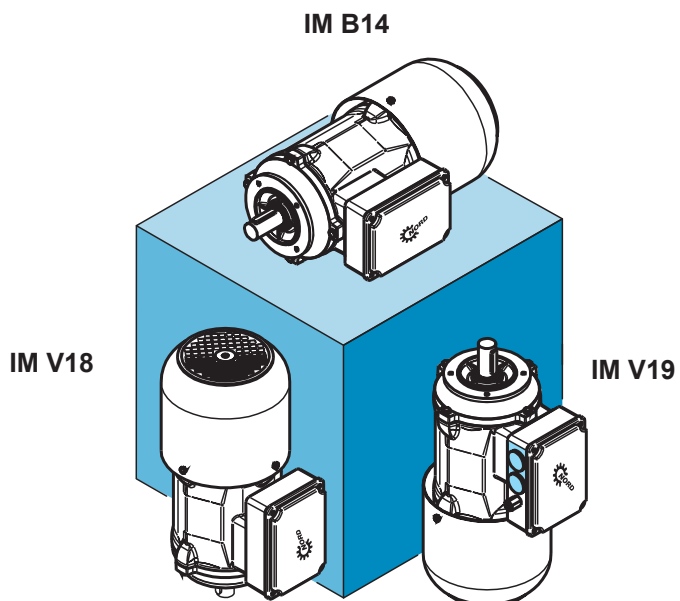


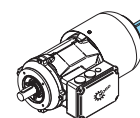
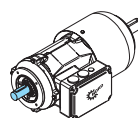
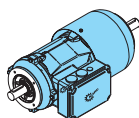
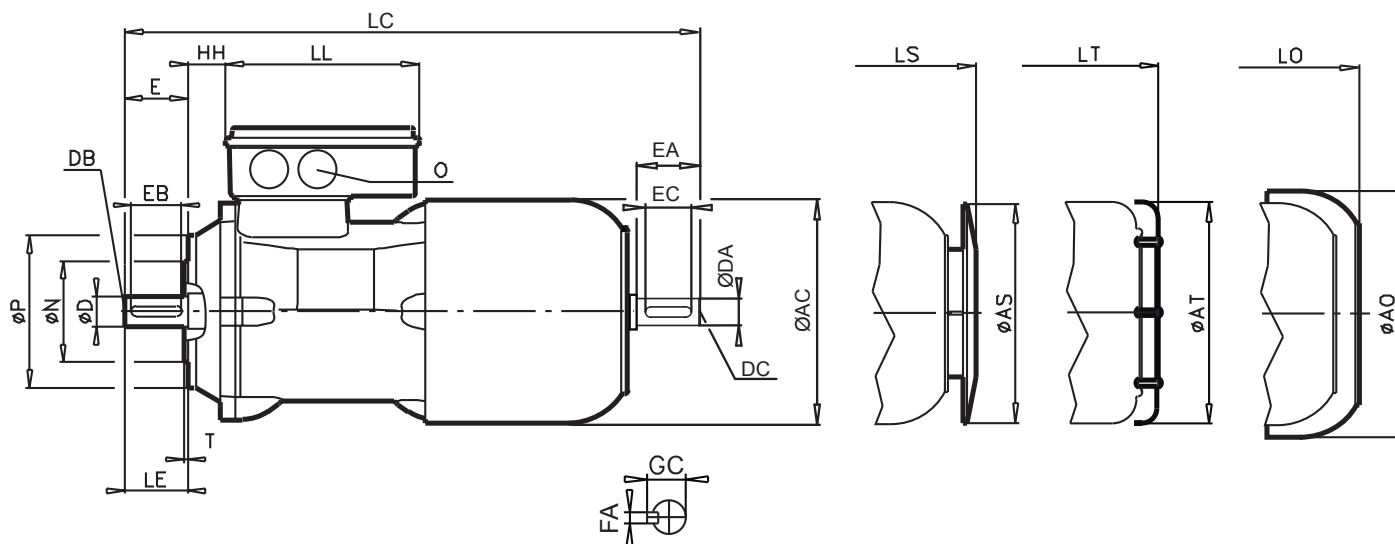
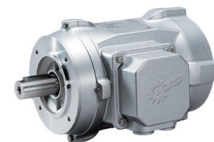


B14-BRE ventilated

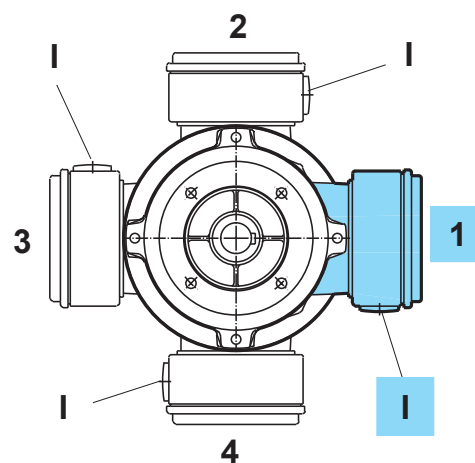
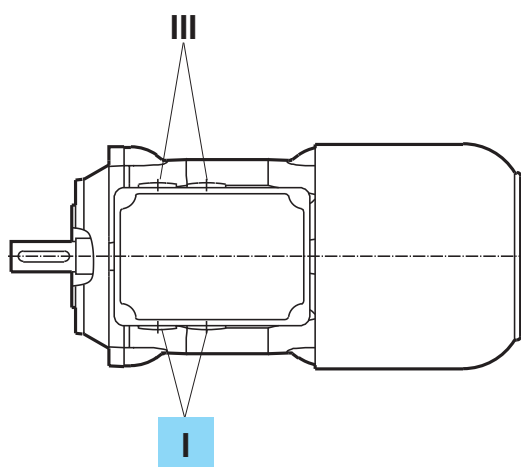


Type														
HM / HMT ventilated L/H		BRE [Nm]												
			(mm)											
			M	N	P	S	D	AC	AD	AG	HH	L	LE	LL
80	LH	5 10	100	80	120	M6 x 12	3.0	156	135	108	26	340	40	153
90	SH	10 20	115	95	140	M8 x 15	3.0	176	145	108	30	401	50	153
100	SH/LH	10 20	130	110	160	M8 x 16	3.5	194	167	108	36	457	60	153





LC	AS	AT	AO	LS	LT	LO	O	D	DB	E	EB	F	GA	DA	DC	EA	EC	FA	GC
374	156	156	176	355	360	366	M25x1.5	19	M6	40	32	6	21.5	14	M5	30	20	5	16.0
439	176	176	194	416	420	431	M25x1.5	24	M8	50	40	8	27.0	14	M5	30	20	5	16.0
517	194	194	218	472	480	485	M32x1.5	28	M10	60	50	8	31.0	24	M8	50	40	8	27.0

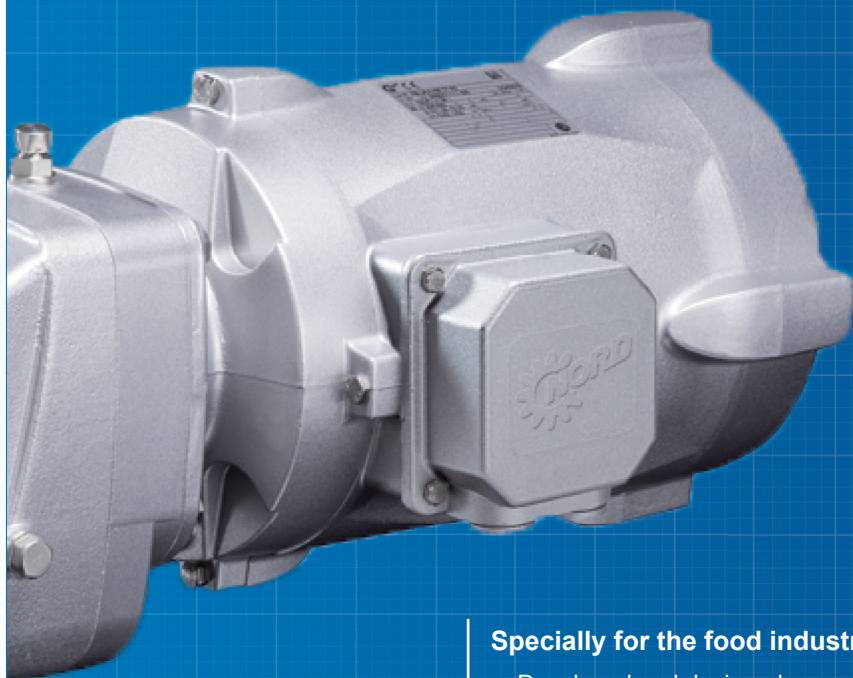


NORD smooth surface motors



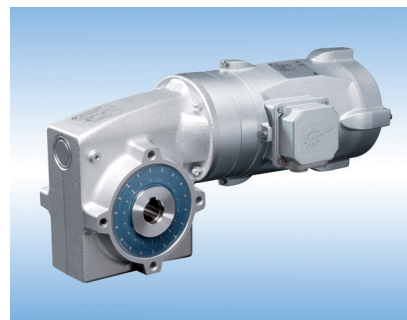
Sealed Surface Conversion System

- Surface treatment
- No detachment possible
- No corrosion (like stainless steel)
- No flaking
- No undercutting

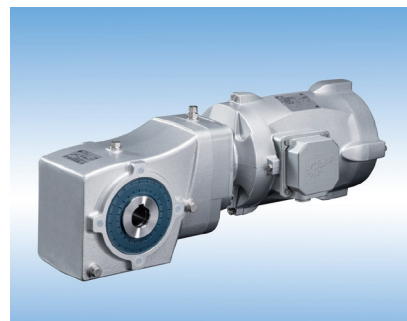


Specially for the food industry

- Developed and designed as per the following standards:
EHEDG, ASNI / BISSC, ANSI / NSF
- Compliant with FDA Title 21
CFR 175, 300



Smooth motor – unventilated
with SMI worm gear



Smooth motor – unventilated
with 2-stage bevel gear

An overview of the NORD range

G1000 Fixed speeds UNICASE housing 50 Hz, 60 Hz

- Helical geared motors
- Parallel geared motors
- Bevel geared motors
- Helical worm geared motors

G1012 NORDBLOC.1 50 Hz

- Helical geared motors

G1050 Industrial gear units

G1001 Explosion protected drive units

- Category 2G, Zone 1, gas

G1022 Explosion protected drive units

- Category 3D, Zone 22, dust

F3020 Frequency inverter SK200E
F3050 Frequency inverter SK500E
F3070 Frequency inverter NORD SK700E





www.nord.com/locator

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