



Increased safety motors, non sparking motors,
motors for combustible dust, motors for general use

Moteurs à sécurité renforcée, moteurs ne produisant pas d'étincelle,
moteurs pour poussières combustibles, moteurs pour une utilisation générale

Motoren in Schutzart erhöhte Sicherheit, funkenfreie Motoren,
Motoren für Umgebung mit brennbarem Staub, Standardmotoren

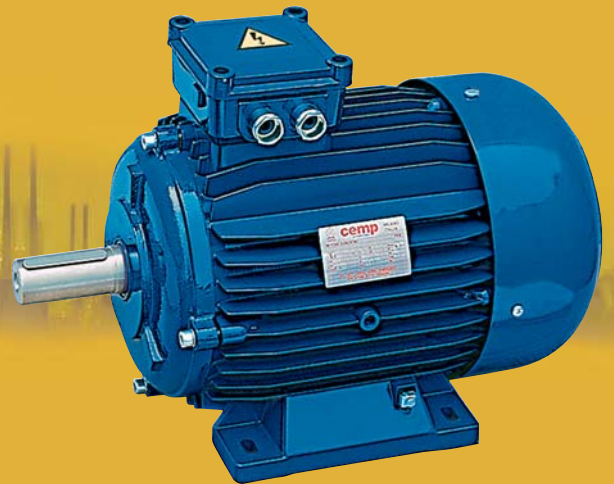
Motores de seguridad aumentada, motores non-sparking,
motores para polvos combustibles, motores para uso general

Motori a sicurezza aumentata, motori non sparking,
motori per polveri combustibili, motori per uso generale

63 ÷ 160

II 2G, II 3G, II 3D

Ex-e • Ex-nA • IP55



cemp

Flameproof
Motors



Atav - Les Ateliers de l'Avre

is a Cemp SpA trademark

cemp

Flameproof
Motors



**Increased safety motors, non sparking motors,
motors for combustible dust, motors for general use**

**Moteurs à sécurité renforcée, moteurs ne produisant pas d'étincelle,
moteurs pour poussières combustibles, moteurs pour une utilisation générale**

**Motoren in Schutzart erhöhte Sicherheit, funkenfreie Motoren,
Motoren für Umgebung mit brennbarem Staub, Standardmotoren**

**Motores de seguridad aumentada, motores non-sparking,
motores para polvos combustibles, motores para uso general**

**Motori a sicurezza aumentata, motori non sparking,
motori per polveri combustibili, motori per uso generale**

63 ÷ 160

II 2G, II 3G, II 3D

Ex-e • Ex-nA • IP55

GB CONTENTS

Page

0. Introduction	5	3. Electrical design	11
0.1 Standards and specifications	5	4. Performance data	44
1. General informations	6	4.1 Performance data for increased safety motors	44
1.1 Range of increased safety motors, non sparking motors, motors for combustible dust, motors for general use ...	6	4.2 Performance data for non sparking motors, motors for combustible dust, motors for general use ...	48
1.2 Main characteristics	7	5. Overall dimensions	52
1.3 Main options	7	6. Spare parts	56
1.4 Nomenclature	8		
2. Design features	9		
2.1 Materials, painting and nameplate	9		
2.2 Bearing system	10		

F SOMMAIRE

Page

0. Introduction	13	3. Caractéristiques électriques	19
0.1 Normes et spécifications	13	4. Données nominales	44
1. Informations générales	14	4.1 Données nominales des moteurs à sécurité renforcée ...	44
1.1 Gamme des moteurs à sécurité renforcée, moteurs ne produisant pas d'étincelle, pour poussières combustibles et pour une utilisation générale	14	4.2 Données nominales des moteurs ne produisant pas d'étincelles, des moteurs pour poussières combustibles et des moteurs pour une utilisation générale	48
1.2 Caractéristiques principales	15	5. Dimensions	52
1.3 Options principales	15	6. Pièces détachées	56
1.4 Identification de la référence commerciale	16		
2. Caractéristiques mécaniques	17		
2.1 Matériaux, peinture et plaque signalétique	17		
2.2 Roulements	18		

D INHALTSVERZEICHNIS

Seite

0. Einleitung	21	3. Elektrische Eigenschaften	27
0.1 Normen und Spezifikationen	21	4. Nennndaten	44
1. Allgemeine Informationen	22	4.1 Nennndaten der Motoren in Schutzart erhöhte Sicherheit	44
1.1 Baureihe Motoren in Schutzart erhöhte Sicherheit, funkenfreie Motoren, Motoren für Umgebung mit brennbarem Staub, Standardmotoren	22	4.2 Nennndaten der funkenfreie Motoren, Motoren für Umgebung mit brennbarem Staub, Standardmotoren ...	48
1.2 Hauptmerkmale	23	5. Abmessungen	52
1.3 Hauptausführungen	23	6. Ersatzteilliste	56
1.4 Bedeutung der Kürzel	24		
2. Mechanische Eigenschaften	25		
2.1 Material, Lackierung und Typenschild	25		
2.2 Lager	26		

E ÍNDICE

Página

0. Introducción	29	3. Características eléctricas	35
0.1 Normas y especificaciones	29	4. Datos nominales	44
1. Informaciones generales	30	4.1 Datos nominales motores de seguridad aumentada ...	44
1.1 Gama de motores de seguridad aumentada, non-sparking, para polvos combustibles, uso general ...	30	4.2 Datos nominales motores non-sparking, motores para polvos combustibles, motores para uso general	48
1.2 Características principales	31	5. Dimensiones de espacio máximo	52
1.3 Opciones principales	31	6. Piezas de repuesto	56
1.4 Identificación sigla	32		
2. Características mecánicas	33		
2.1 Materiales, pintado y placa	33		
2.2 Cojinetes	34		

I INDICE

Pagina

0. Introduzione	37	3. Caratteristiche elettriche	43
0.1 Norme e specifiche	37	4. Dati nominali	44
1. Informazioni generali	38	4.1 Dati nominali motori a sicurezza aumentata	44
1.1 Gamma dei motori a sicurezza aumentata, non sparking, per polveri combustibili, per uso generale	38	4.2 Dati nominali motori non sparking, motori per polveri combustibili, motori per uso generale	48
1.2 Caratteristiche principali	39	5. Dimensioni d'ingombro	52
1.3 Principali opzioni	39	6. Parti di ricambio	56
1.4 Identificazione della sigla	40		
2. Caratteristiche meccaniche	41		
2.1 Materiali, verniciatura e targa	41		
2.2 Cuscinetti	42		

0. Introduction

0.1 Standards and specifications

0.1 Standards and specifications

The following standards and specifications are applied on a case-by-case basis to the different series of electric motors listed in this catalogue:

Table 0 A

Title	INTERNATIONAL IEC	EU CENELEC	I CEI-EN	GB BS	F NFC	D DIN/VDE
Electrical rotating machines/rated operation and characteristic data	IEC 60034-1	EN 60034-1	CEI-EN 60034-1 (CEI 2-3)	BS 4999-1 BS 4999-69	NF C51-100 NF C51-111	VDE 0530-1
Methods for determining losses and efficiency of rotating electrical machines	IEC 60034-2	EN 60034-2	CEI-EN 60034-2 (CEI 2-6)	BS 4999-34	NF C51-112	VDE 0530-2
Protection types of rotating electrical machines	IEC 60034-5	EN 60034-5	CEI-EN 60034-5 (CEI 2-16)	BS 4999-20	NF C51-115	VDE 0530-5
Cooling methods of rotating electrical machines	IEC 60034-6	EN 60034-6	CEI-EN 60034-6 (CEI 2-7)	BS 4999-21	IEC 34-6	DIN IEC 34-6
Construction types of rotating electrical machines	IEC 60034-7	EN 60034-7	CEI-EN 60034-7 (CEI 2-14)	BS 4999-22	NF C51-117	DIN IEC 34-7
Terminal markings and direction of rotation for electrical machines	IEC 60034-8	HD 53 8	CEI 2-8	BS 4999-3	NF C51-118	VDE 0530-8
Noise emission, limit values	IEC 60034-9	EN 60034-9	CEI-EN 60034-9	BS 4999-51	NF C51-119	VDE 0530-9
Start-up behaviour of squirrel-cage motors at 50 Hz up to 660V	IEC 60034-12	EN 60034-12	CEI-EN 60034-12 (CEI 2-15)	BS 4999-112	IEC 34-12	VDE 0530 12
Vibration severity of rotating electrical machines	IEC 60034-14	EN 60034-14	CEI-EN 60034-14 (CEI 2-23)	BS 4999-50	NF C51-111	DIN ISO 2373
Protection level provided by enclosures for electrical equipment against mechanical impact (Code IK)	IEC 60068-1 IEC 60068-2-75	EN 50102	CEI-EN 50102	BS-EN 62262	NF-EN 50102 NF-EN 62262	DIN-EN 60102
Fixing dimensions and outputs for IM B3	IEC 60072	EN 50347	CEI-EN 50347	BS 4999-10	NF C51-104/110	DIN 42673
Fixing dimensions and outputs for IM B5, IM B14	IEC 60072	EN 50347	CEI-EN 50347	BS 4999-10	NF C51-104/110	DIN 42677
Cylindrical shaft ends for electrical machines	IEC 60072	IEC 72	IEC 60072	BS 4999-10	NF C51-111	DIN 748-3
Electrical equipment for hazardous areas General provisions	IEC 60079-0	EN 50014	CEI-EN 50014	BS 5501-1	NF C23-514	VDE 0171-1
Electrical equipment for hazardous areas Increased safety "e"	IEC 60079-7	EN 50019	CEI-EN 50019	BS 5501-6	NF C23-519	VDE 0171-6
Electrical equipment for use in explosive atmospheres due to the presence of gas Protection Mode "n"	IEC 60079-15	EN 50021	CEI-EN 60079-15	BS-EN 60079-15	NF-EN 60079-15	DIN-EN 60079-15
Electrical equipment made for use in environments containing combustible dust	IEC 61241-0	EN 50281-1-1	CEI EN 50281-1-1	BS EN 50281-1-1	NF EN 50281-1-1	DIN EN 50281-1-1

1. General informations

1.1 Range of increased safety motors, non sparking motors, motors for combustible dust, motors for general use

1.1 Range of increased safety motors, non sparking motors, motors for combustible dust, motors for general use

Table 1 A - Range

Version	Series	Frame size	Output range 2 pole [kW]	Protection	Temperature class - Surface temperature	ATEX Category	For dangerous areas
Increased safety, three-phase, single speed (2, 4, 6, 8 poles)	S	63 ÷ 132	0.18 ÷ 7.5	Ex-e	T3	2G	1▼
Non sparking, three-phase, single speed (2, 4, 6, 8 poles)	N	63 ÷ 160	0.18 ÷ 18.50	Ex-nA	T3	3G	2
For combustible gases and dust, three-phase, single speed (2, 4, 6, 8 poles)	ND	63 ÷ 160	0.18 ÷ 18.50	Ex-nA, IP55	T3, T125 °C	3G + 3D (2 plates)	2 + 22♦
For combustible dust, three-phase, single speed (2, 4, 6, 8 poles)	CD	63 ÷ 160	0.18 ÷ 18.50	IP55	T125 °C	3D	22♦
For general use, three-phase, single speed (2, 4, 6, 8 poles)	C	63 ÷ 160	0.18 ÷ 18.50	IP55	= =	= =	= =
For general use, three-phase, 2-speed (2/4, 4/8, 4/6, 6/8 poles)	C	63 ÷ 160	0.18 ÷ 18.50	IP55	= =	= =	= =

▼ With restrictions

♦ Non-conductive dusts

1.2 Main characteristics

1.3 Main options

1.2 Main characteristics

Common characteristics of all series

- Totally enclosed, three-phase, asynchronous motors, self-ventilated with die cast rotor.
- Motor frame and terminal box in aluminium.
- End shields and flanges in cast iron.
- Fan cover in sheet steel.
- Terminal box positioned high up, rotating by 90°.
- Class F insulation with highest over-heat temperature 80K.
- Stainless steel nameplate.
- Polyester powder paint finish, colour RAL 5010.
- Polarity: 2-4-6-8 poles.
- Frequency: 50 Hz
- Reference Standards: IEC 60034-1,-5,-6,-7,-8,-9,-12,-14; IEC 60072.

Characteristics of the S Series Increased safety Ex-e motors

- Frame size: 63 ÷ 132.
- Voltage: 110 ÷ 500 volts.
- Nylon fan.
- Category Atex II 2G motors, suitable for use in areas classified as Zone 1 with presence of gas. The European directive n° 94/9/CE, known as the Atex directive, establishes that motors in this category be certified by a Notified Body.
- The CESI 03 ATEX 136 certificate relative to the S Series motors was issued by the Cesi laboratory of Milan, notified body n° 0722.
- Reference Standards: EN 50014; EN 50019; IEC 60079-0,-7.
- Temperature class T3.

Characteristics of the N Series Non sparking Ex-na motors

- Frame size: 63 ÷ 160.
- Voltage: 110 ÷ 690 volts.
- Nylon fan.
- Category Atex II 3G motors, suitable for use in areas classified as Zone 2 with presence of gas. For these motors, the Atex directive does not require certification from a Notified Body. The Series N motors come with a CE declaration of conformity to the reference standards issued by the producer, as provided for by the directive.
- Reference Standards: EN50014; EN50021; IEC 60079-0,-15.
- Temperature class T3.

Characteristics of the ND Series Non sparking motors Ex-na + IP55 for dust

- Frame size: 63 ÷ 160.
- Voltage: 110 ÷ 690 volts.
- Metal fan.
- Category Atex II 3G, II 3D motors, with double protection mode, suitable for use in areas classified as Zone 2 with presence of gas and in Zone 22 with presence of non-conductive dust. For these motors, the Atex directive does not require certification from a Notified Body. The Series ND motors come with a CE declaration of conformity to the reference standards issued by the producer, as provided for by the directive.
- Reference Standards: for zones with presence of gas EN 50014; EN 50021; IEC 60079-0, -15. For zones with presence of dust EN 50281-1-1, -1-2, -2-1; IEC 61241-0.

- Temperature class T3; Surface temperature T125°C.
- Double plates.

Characteristics of the CD Series IP55 motors for dust

- Frame size: 63 ÷ 160.
- Voltage: 110 ÷ 690 volts.
- Metal fan.
- Category Atex II 3D motors, suitable for use in areas classified as Zone 22 with presence of non-conductive dust. For these motors, the Atex directive does not require certification from a Notified Body. The Series CD motors come with a CE declaration of conformity to the reference standards issued by the producer, as provided for by the directive.
- Reference Standards: EN 50014; EN 50281-1-1, -1-2, -2-1; IEC 61241-0.
- Surface temperature T125°C.

Characteristics of the C Series TEFC motors for safe areas

- Frame size: 63 ÷ 160.
- Voltage: 110 ÷ 690 volts.
- Nylon fan.
- Motors suitable for use in safe areas.
- Mechanical protection class IP55.

1.3 Main options

Main options for the S Series

- Voltages and frequencies according to client specifications.
- Internal and external treatments for corrosive environments.
- Custom designed shafts and shafts with double protruding parts.
- Non-return and/or special bearings.
- Special flanges.
- Insulation in class H.
- Grade "R" vibrations.
- Anti-condensation heaters.
- Thermistors (excluding use as inverter).

Main options for the other series

- Voltages and frequencies according to client specifications.
- Internal and external treatments for corrosive environments.
- Custom designed shafts and shafts with double protruding parts.
- Non-return and/or special bearings.
- Special flanges.
- Insulation in class H.
- Grade "R" vibrations.
- Anti-condensation heaters.
- Polarity 10 - 12 - 16 poles.

- Double polarity.
- Motors with operation different from S1: variable and/or intermittent load (S2, S4, S9).
- Motor without terminal box with plate and loose cables.
- Thermistors.
- Automatic ventilation (from frame size 71).

1.4 Nomenclature

1.4 Nomenclature

GB

Pos. 1 = Motor series:

S Increased safety	N Non sparking	C IP55
	ND Non sparking + combustible dust	CD Combustible dust

Pos. 2 = Size (centre height):

63	90	132
71	100	160
80	112	

Pos. 3 = Length of stator pack:

	63	71	80	90	100	112	132		160	
								*		*
Extra short							SA			
Short	A	A	A	S	LA		SB	S	MA	
Medium						M	MB	M	MB	M
Long	B	B	B	L	LB		ML	L	L	L
Extra long			L							

*2 speeds

Pos. 4 = Polarity:

2 2 poles	24 Double polarity: 2 / 4 poles	46 Double polarity: 4 / 6 poles
4 4 poles		48 Double polarity: 6 / 8 poles
6 6 poles		68 Double polarity: 6 / 12 poles
8 8 poles		
10 10 poles		
12 12 poles		

Pos. 5 = Mounting (IM Code I):

B3	V5	V6
B5	V1	V3
B14	V18	V19
B35	V51	V36

Pos. 6 = Supply:

xxxD / xxxS / xx	Three-phase 1-speed; voltage for delta connection; voltage for star connection; frequency
xxx / xx	Three-phase, 2-speed: voltage; frequency

C 132 S 46 B5 400/50 = Example of the commercial codes

2. Design features

2.1 Materials, painting and nameplate

2.1 Materials, painting and nameplate

Materials

Table 2 A - Materials of the main components:

Frame size	Series S 63 ÷ 132; other series 63 ÷ 160
Frame	Aluminium
Endshields	Ghisa G200 (ISO 185)
Terminal box	Aluminium
Fan cover	Steel
Rain cap	
Fan	Non sparking thermoplastic material or aluminium
Shaft	Steel C40
Rotor	Squirrel cage in pressure cast aluminium
Winding	Insulation class F or H
Bolts and screws	Steel 8.8 zincd
Cable gland	Nylon

Painting


Table 2 B - Paint system and characteristics

Pre-treatment	All components are cleaned and degreased; cast iron and aluminium are sanded down
Painting	Dust paint on poly-ester resin base, polymerized in oven at 200 °C
Thickness	Total 100 µm
Colour	RAL 5010
Mechanical strength	Non-abrasive, elastic, insensitive to scratches, resistant to impact
Corrosion resistance	Highly resistant to water, water vapour, salt water
Chemical resistance	Good resistance in chemically aggressive environments
Temperature range	-40 °C +130 °C

The standard paint finish, RAL 5010, is suitable for average aggressive-corrosive environments.

Upon request, special colours are applied by adding a final coat over the standard paint finish.

Figure 2 A - Example of plate for 2G motors (S series)

		cemp	
0722 CESI 03ATEX136		n607645	y06
Electric Motor S		80B 2	3~
I12G Exe II T3 IP55			
⊕	V	A	Hz 1/min cos φ kW
	230 Δ	4,50	50 2830 0,75 1,10
	400 S	2,60	
Ia/In = 5,20 te =		9 s	
IC411 CLF Ta40 °C S1		kg 11	
Manufacturer Cemp SpA - I 20030 SENAGO (Milan) - ITALY			

GB

Figure 2 B - Example of plate for 3G motors (N series)


		cemp	
Electric Motor N		n607895	y06
I13G ExnA II T3 IP55		71A 2	3~
⊕	V	A	Hz 1/min cos φ kW
	230 Δ	1,91	50 2800 0,77 0,37
	400 S	1,10	
IC411 CLF Ta40 °C S1		kg 8	
Manufacturer Cemp SpA - I 20030 SENAGO (Milan) - ITALY			

Figure 2 C - Example of plate for 3D motors (CD series)



		cemp	
Electric Motor CD		n607895	y06
I13G T125 °C IP55		71A 2	3~
⊕	V	A	Hz 1/min cos φ kW
	230 Δ	1,91	50 2800 0,77 0,37
	400 S	1,10	
IC411 CLF Ta40 °C S1		kg 8	
Manufacturer Cemp SpA - I 20030 SENAGO (Milan) - ITALY			

Figure 2 D - Example of plate for general use motors (C series)

		cemp	
Electric Motor C		n607895	y06
IP55		71A 2	3~
⊕	V	A	Hz 1/min cos φ kW
	230 Δ	1,91	50 2800 0,77 0,37
	400 S	1,10	
IC411 CLF Ta40 °C S1		kg 8	
Manufacturer Cemp SpA - I 20030 SENAGO (Milan) - ITALY			

The stainless steel nameplate is fitted on the motor frame.

Note: 3GD motors come with two plates (Fig. 2 B and 2 C).

2.2 Bearing system

2.2 Bearing system

The motors are equipped with deep groove ball bearings (ZZ) both at drive end and non driving end.

When assembling ball bearings on both sides the bearings are axially preloaded. On request or for special applications special bearings and greases are used (e. g. unidirectional ball bearings).

Nominal Service Life

A service life for the ball bearings of 20.000 h for 2-pole and 40.000 for 4, 6 and 8-pole motors was used as the basis for calculation with a maximum ambient temperature of 40 °C.

Lubrication

Bearings of series ZZ are life-time lubricated. The standard grease is a lithium based one.

Bearing Seal

A dust seal is fitted in DE and NDE shields. This avoid water travelling along the shaft and penetrating into the bearing housing. The seals display good resistance to vibration and high thermal stability. They are resistant to mineral oils, salt solvent, alkalis and all diluted acids. Seals in "Viton" are available on request.

GB

Table 2 C - Bearings

Frame size	Drive-end	Non-drive end
63	6202 ZZ	6202 ZZ
71	6203 ZZ	6203 ZZ
80	6204 ZZ	6204 ZZ
90	6205 ZZ	6205 ZZ
100	6206 ZZ	6206 ZZ
112	6306 ZZ	6306 ZZ C3
132	6308 ZZ C3	6308 ZZ C3
160	6309 ZZ C3	6309 ZZ C3

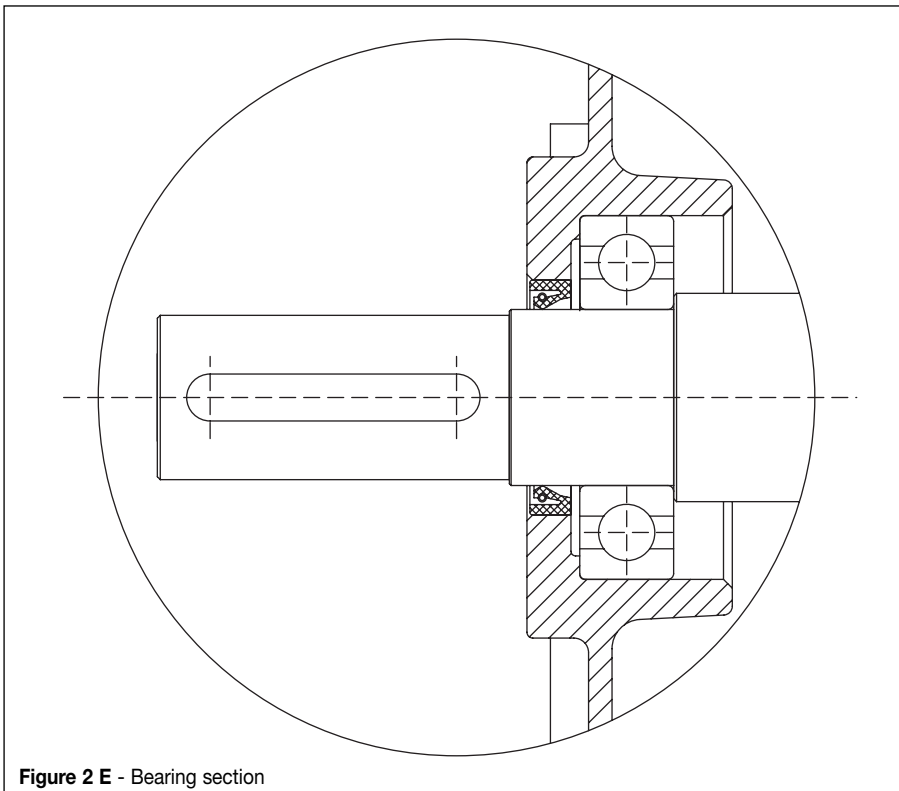


Figure 2 E - Bearing section


3. Electrical design

3. Electrical design

As a general rule, the electrical specifications of the motors listed in this catalogue are similar to those of flameproof motors (there are marginal differences for the increased safety motors).

Therefore, please refer to our catalogue 14 for flameproof motors for the electric specifications and connection diagrams.

GB	Performance data for increased safety motors
F	Données nominales des moteurs à sécurité renforcée
D	Nennndaten der Motoren in Schutzart erhöhte Sicherheit
E	4. Datos nominales motores de seguridad aumentada
I	4.1 Dati nominali motori a sicurezza aumentata

Motor type	Rated output	Speed	Current	Efficiency	Power factor	Torque
<i>Moteur type</i>	<i>Puissance</i>	<i>Vitesse</i>	<i>Intensité</i>	<i>Rendement</i>	<i>Facteur de puissance</i>	<i>Couple</i>
Motor Typ	Leistung	Drehzahl	Strom	Wirkungsgrad	Leistungsfaktor	Moment
<i>Tipo de motor</i>	<i>Potencia proporcionada</i>	<i>Velocidad</i>	<i>Corriente</i>	<i>Rendimiento</i>	<i>Factor de potencia</i>	<i>Par</i>
Tipo motore	Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia
Ex-e II	P _n [kW]	n [1/min]	I _n  [A]	η [%]	cos φ	M _n [Nm]
S63 A 2	0.18	2820	0.76	56	0.64	0.6
S63 B 2	0.25	2780	0.85	65	0.66	0.9
S71 A 2	0.37	2670	1.00	64	0.83	1.3
S71 B 2	0.50	2790	1.30	71	0.78	1.7
S80 A 2	0.75	2770	1.90	70	0.82	2.6
S80 B 2	1.10	2830	2.60	82	0.75	3.7
S90 S 2	1.50	2900	3.50	83	0.75	4.9
S90 L 2	2.00	2860	4.20	83	0.83	6.7
S100 LB 2	2.50	2910	6.95	75	0.70	8.2
S112 M 2	3.30	2915	6.80	87	0.81	10.8
S132 SB 2	5.50	2935	11.90	88	0.76	17.9
S132 MB 2	7.50	2935	13.90	89	0.86	24.4
S63 A 4	0.12	1340	0.65	40	0.67	0.9
S63 B 4	0.18	1300	0.67	57	0.68	1.3
S71 A 4	0.26	1360	0.80	62	0.76	1.8
S71 B 4	0.37	1350	1.00	68	0.79	2.6
S80 A 4	0.55	1380	1.50	72	0.74	4.1
S80 B 4	0.75	1400	1.90	79	0.72	5.1
S90 S 4	1.10	1390	2.70	76	0.78	7.6
S90 L 4	1.50	1420	3.50	81	0.76	10.1
S100 LA 4	2.00	1420	4.40	82	0.80	13.4
S100 LB 4	2.50	1430	6.20	83	0.70	16.7
S112 M 4	3.60	1425	7.20	86	0.84	24.1
S132 SB 4	5.00	1450	11.20	88	0.73	32.9
S132 MB 4	6.80	1455	13.80	93	0.76	44.5
S132 ML 4	7.50	1445	15.30	87	0.81	49.6

$$I'_n = I_n \cdot \frac{400}{U'}$$

(I'_n = current at U' Volt);
 (I'_n = intensité à U' Volt);
 (I'_n = Strom mit U' Volt);
 (I'_n = corriente de U' Voltios);
 (I'_n = corrente a U' Volt);

II 2G	1	Speed		Rated data at		direct on line start		3000 1500	rpm	GB	
		Vitesse		Données nominales à		démarrage direct					tours/min
		Drehzahl		Betriebsdaten bei		Direkteinschaltung					U/min
		Velocidad		Datos nominales		arranque directo					rev/min
		Velocità		Dati nominali a		avviamento diretto					giri/min
		400 V		50 Hz							
Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Heating time		CESI Certificates	Class T		
<i>Intensité démarrage</i>	<i>Couple démarrage</i>	<i>Couple maximal</i>	<i>Pression sonore</i>	<i>Moment d'inertie</i>	<i>Masse</i>	<i>Durée de réchauffement</i>		<i>CESI Certificat</i>	<i>Classe T</i>		
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Erwärmungszeit Bescheinigung		CESI Konformitäts-Bescheinigung	Klasse T		
<i>Corriente de arranque</i>	<i>Par de arranque</i>	<i>Par máximo</i>	<i>Presión acústica</i>	<i>Momento de inercia</i>	<i>Peso</i>	Tiempo de calentamiento		<i>Certificados CESI</i>	<i>Clase T</i>		
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Tempo di riscaldamento		Certificato CESI	Classe T		
I_a/I_n	M_a/M_n	M_m/M_n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	t _E (T3) [s]	t _E (T2, T1) [s]				
5.7	3.5	2.8	57	0.0001	5	25	30	03 ATEX 136	T3		
4.3	2.2	2.6	57	0.0001	5	25	30				
4.0	2.3	2.6	65	0.0004	6	12	20	03 ATEX 136	T3		
5.0	2.9	3.1	65	0.0004	8	10	18				
4.9	2.6	2.8	67	0.0006	9	12	24	03 ATEX 136	T3		
5.2	2.8	2.9	67	0.0006	12	9	18				
8.9	4.0	4.3	70	0.0015	16	7	15	03 ATEX 136	T3		
7.5	2.9	3.1	70	0.0015	16	5	12				
6.0	4.0	3.8	74	0.0053	23	6	15	03 ATEX 136	T3		
8.8	3.1	3.4	74	0.0074	29	6	15	03 ATEX 136	T3		
9.6	3.0	3.4	75	0.0150	46	5	12	03 ATEX 136	T3		
9.5	3.7	3.9	75	0.0216	60	5	10				
2.9	3.0	3.3	45	0.0002	5	30	30	03 ATEX 136	T3		
2.8	2.1	2.3	45	0.0002	5	30	30				
3.6	2.3	2.6	49	0.0006	6	25	25	03 ATEX 136	T3		
3.9	2.5	2.7	49	0.0009	8	30	20				
3.8	2.2	2.3	52	0.0009	9	30	30	03 ATEX 136	T3		
4.5	2.3	2.6	52	0.0013	11	25	25				
4.5	2.1	2.4	58	0.0020	14	12	25	03 ATEX 136	T3		
5.4	2.3	2.3	58	0.0026	16	20	20				
5.8	2.5	2.8	61	0.0043	21	15	15	03 ATEX 136	T3		
6.0	3.3	3.6	61	0.0053	23	15	15				
6.5	2.4	2.7	64	0.0103	31	10	12	03 ATEX 136	T3		
6.4	3.2	3.7	68	0.0250	46	11	13	03 ATEX 136	T3		
7.2	3.9	3.0	68	0.0405	60	6	15				
6.5	3.5	2.9	68	0.0405	60	6	15				

$$\nabla J = \frac{PD^2}{4}$$

GB	Performance data for increased safety motors
F	Données nominales des moteurs à sécurité renforcée
D	Nennndaten der Motoren in Schutzart erhöhte Sicherheit
E	4. Datos nominales motores de seguridad aumentada
I	4.1 Dati nominali motori a sicurezza aumentata

Motor type	Rated output	Speed	Current	Efficiency	Power factor	Torque
<i>Moteur type</i>	<i>Puissance</i>	<i>Vitesse</i>	<i>Intensité</i>	<i>Rendement</i>	<i>Facteur de puissance</i>	<i>Couple</i>
Motor Typ	Leistung	Drehzahl	Strom	Wirkungsgrad	Leistungsfaktor	Moment
<i>Tipo de motor</i>	<i>Potencia proporcionada</i>	<i>Velocidad</i>	<i>Corriente</i>	<i>Rendimiento</i>	<i>Factor de potencia</i>	<i>Par</i>
Tipo motore	Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia
Ex-e II	P _n [kW]	n [1/min]	I _n [▶] [A]	η [%]	cos φ	M _n [Nm]
S71 B 6	0.18	915	0.73	62	1.9	1.9
S80 A 6	0.37	960	1.50	69	3.7	3.7
S80 B 6	0.55	935	1.71	71	5.6	5.6
S90 L 6	0.75	930	2.80	69	7.7	7.7
S100 LB 6	1.30	940	3.60	79	13.2	13.2
S112 M 6	1.90	960	5.50	76	18.9	18.9
S132 SB 6	2.50	970	6.90	81	24.6	24.6
S132 MA 6	3.50	970	8.40	84	34.3	34.3
S132 ML 6	4.50	965	10.30	85	44.5	44.5
S80 A 8	0.18	710	1.18	45	0.48	2.4
S80 B 8	0.25	700	1.22	54	0.55	3.4
S90 S 8	0.37	710	2.40	56	0.40	5.0
S90 L 8	0.55	695	2.60	61	0.50	7.6
S100 LA 8	0.75	700	2.75	72	0.56	10.2
S100 LB 8	0.95	690	3.20	66	0.65	13.1
S112 M 8	1.30	720	4.70	67	0.60	17.2
S132 SB 8	1.90	710	5.90	71	0.66	25.6
S132 MA 8	2.60	715	7.10	80	0.66	34.7

$$I'_n = I_n \cdot \frac{400}{U'}$$

(I'_n = current at U' Volt);
 (I'_n = intensité à U' Volt);
 (I'_n = Strom mit U' Volt);
 (I'_n = corriente de U' Voltios);
 (I'_n = corrente a U' Volt);

II 2G	1	Speed		Rated data at		direct on line start		1000 750	rpm	GB	
		Vitesse		Données nominales à		démarrage direct					tours/min
		Drehzahl		Betriebsdaten bei		Direkteinschaltung					U/min
		Velocidad		Datos nominales		arranque directo					rev/min
		Velocità		Dati nominali a		avviamento diretto					giri/min
400 V		50 Hz									
Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Heating time		CESI Certificates	Class T		
Intensité démarrage	Couple démarrage	Couple maximal	Pression sonore	Moment d'inertie	Masse	Durée de réchauffement		CESI Certificat	Classe T		
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Erwärmungszeit Bescheinigung		CESI Konformitäts-Bescheinigung	Klasse T		
Corriente de arranque	Par de arranque	Par máximo	Presión acústica	Momento de inercia	Peso	Tiempo de calentamiento		Certificados CESI	Clase T		
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Tempo di riscaldamento		Certificato CESI	Classe T		
I_a/I_n	M_a/M_n	M_m/M_n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	t _E (T3) [s]	t _E (T2, T1) [s]				
2.9	2.0	1.8	48	0.0010	8	40	40	03 ATEX 136	T3		
4.4	2.8	2.9	49	0.0027	11	30	30	03 ATEX 136	T3		
4.1	2.6	2.1	49	0.0027	11	30	30	03 ATEX 136	T3		
3.7	3.0	3.2	53	0.0049	18	30	30	03 ATEX 136	T3		
4.5	2.4	2.8	55	0.0088	23	20	25	03 ATEX 136	T3		
5.7	2.6	2.8	57	0.0172	31	20	25	03 ATEX 136	T3		
6.7	1.9	2.1	60	0.0323	46	15	20	03 ATEX 136	T3		
7.3	2.8	3.2	60	0.0506	60	13	25				
6.0	2.4	2.7	60	0.0506	60	13	15				
3.0	3.2	2.2	42	0.0027	11	40	40	03 ATEX 136	T3		
2.9	2.7	1.7	42	0.0027	11	40	40	03 ATEX 136	T3		
2.6	2.9	2.5	50	0.0034	18	40	40	03 ATEX 136	T3		
2.3	1.9	1.7	50	0.0049	18	40	40	03 ATEX 136	T3		
3.5	2.6	3.3	52	0.0088	23	25	25	03 ATEX 136	T3		
3.1	2.1	2.7	52	0.0088	23	25	30	03 ATEX 136	T3		
4.2	2.5	2.9	54	0.0172	31	20	25	03 ATEX 136	T3		
4.5	2.1	2.7	58	0.0323	46	25	25	03 ATEX 136	T3		
5.0	2.2	2.6	58	0.0506	53	25	25				

$$\nabla J = \frac{PD^2}{4}$$

GB	Performance data for non sparking motors, motors for combustible dust, motors for general use
F	Données nominales des moteurs ne produisant pas d'étincelles, des moteurs pour poussières combustibles et des moteurs pour une utilisation générale
D	Nennndaten der funkenfreie Motoren, Motoren für Umgebung mit brennbarem Staub, Standardmotoren
E	4. Datos nominales motores non-sparking, motores para polvos combustibles, motores para uso general
I	4.2. Dati nominali motori non sparking, motori per polveri combustibili, motori per uso generale

Motor type	Rated output	Speed	Current	Efficiency	Power factor	Torque
<i>Moteur type</i>	<i>Puissance</i>	<i>Vitesse</i>	<i>Intensité</i>	<i>Rendement</i>	<i>Facteur de puissance</i>	<i>Couple</i>
Motor Typ	Leistung	Drehzahl	Strom	Wirkungsgrad	Leistungs-faktor	Moment
<i>Tipo de motor</i>	<i>Potencia proporcionada</i>	<i>Velocidad</i>	<i>Corriente</i>	<i>Rendimiento</i>	<i>Factor de potencia</i>	<i>Par</i>
Tipo motore	Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia

II 3G Ex-nA	II 3GD Ex-nA + IP55◆	II 3D IP55◆	IP 55●	P _n [kW]	n [1/min]	I _n ▶ [A]	η [%]	cos φ	M _n [Nm]
N63 A 2	ND63 A 2	CD63 A 2	C63 A 2	0.18	2810	0.85	41	0.65	0.6
N63 B 2	ND63 B 2	CD63 B 2	C63 B 2	0.25	2805	0.90	65	0.66	0.9
N71 A 2	ND71 A 2	CD71 A 2	C71 A 2	0.37	2800	1.10	62	0.77	1.3
N71 B 2	ND71 B 2	CD71 B 2	C71 B 2	0.55	2830	1.40	71	0.79	1.9
N80 A 2	ND80 A 2	CD80 A 2	C80 A 2	0.75	2800	1.90	67	0.80	2.6
N80 B 2	ND80 B 2	CD80 B 2	C80 B 2	1.10	2830	2.60	78	0.78	3.7
----	----	----	C80 L 2	1.50	2850	3.35	82	0.79	5.0
N90 S 2	ND90 S 2	CD90 S 2	C90 S 2	1.50	2870	3.10	87	0.80	5.0
N90 L 2	ND90 L 2	CD90 L 2	C90 L 2	2.20	2860	5.40	76	0.77	7.3
N100 LA 2	ND100 LA 2	CD100 LA 2	C100 LA 2	3.00	2860	7.30	73	0.81	10.0
----	----	----	C100 LB 2	4.00	2870	9.20	75	0.82	13.3
N112 M 2	ND112 M 2	CD112 M 2	C112 M 2	4.00	2900	8.70	80	0.83	13.2
----	----	----	C112 L 2	5.50	2900	12.00	80	0.84	18.2
N132 SA 2	ND132 SA 2	CD132 SA 2	C132 SA 2	5.50	2890	11.50	79	0.87	18.2
N132 SB 2	ND132 SB 2	CD132 SB 2	C132 SB 2	7.50	2910	15.00	81	0.89	24.6
N132 MA 2	ND132 MA 2	CD132 MA 2	C132 MA 2	9.20	2900	18.00	84	0.88	30.3
N132 MB 2	ND132 MB 2	CD132 MB 2	C132 MB 2	11.00	2929	20.00	92	0.86	35.9
N160 MA 2	ND160 MA 2	CD160 MA 2	C160 MA 2	11.00	2940	22.70	83	0.84	35.9
N160 MB 2	ND160 MB 2	CD160 MB 2	C160 MB 2	15.00	2940	29.50	82	0.90	48.7
N160 L 2	ND160 L 2	CD160 L 2	C160 L 2	18.50	2950	35.00	90	0.85	59.9
N63 A 4	ND63 A 4	CD63 A 4	C63 A 4	0.12	1340	0.67	37	0.70	0.9
N63 B 4	ND63 B 4	CD63 B 4	C63 B 4	0.18	1340	0.67	59	0.65	1.3
N71 A 4	ND71 A 4	CD71 A 4	C71 A 4	0.26	1380	0.77	65	0.71	1.8
N71 B 4	ND71 B 4	CD71 B 4	C71 B 4	0.37	1385	1.10	69	0.72	2.6
N80 A 4	ND80 A 4	CD80 A 4	C80 A 4	0.55	1380	1.60	70	0.71	3.8
N80 B 4	ND80 B 4	CD80 B 4	C80 B 4	0.75	1400	2.00	75	0.70	5.1
----	----	----	C80 L 4	0.88	1400	2.20	76	0.74	6.0
N90 S 4	ND90 S 4	CD90 S 4	C90 S 4	1.10	1405	2.80	76	0.79	7.5
N90 L 4	ND90 L 4	CD90 L 4	C90 L 4	1.50	1405	3.60	76	0.79	10.2
N100 LA 4	ND100 LA 4	CD100 LA 4	C100 LA 4	2.20	1420	5.10	76	0.82	14.8
N100 LB 4	ND100 LB 4	CD100 LB 4	C100 LB 4	3.00	1430	6.90	85	0.74	20.0
N112 M 4	ND112 M 4	CD112 M 4	C112 M 4	4.00	1440	8.20	86	0.83	26.5
N132 SB 4	ND132 SB 4	CD132 SB 4	C132 SB 4	5.50	1450	11.00	93	0.78	36.2
N132 MB 4	ND132 MB 4	CD132 MB 4	C132 MB 4	7.50	1450	16.50	85	0.77	49.4
N132 ML 4	ND132 ML 4	CD132 ML 4	C132 ML 4	9.20	1455	18.50	87	0.79	57.8
N160 M 4	ND160 M 4	CD160 M 4	C160 M 4	11.00	1470	23.30	89	0.76	71.9
N160 L 4	ND160 L 4	CD160 L 4	C160 L 4	15.00	1470	30.00	92	0.79	97.4

◆
for dust
pour poussières
für Staub
para polvos
per polveri

●
for general use
pour une utilisation générale
Standardmotoren
para uso general
per uso generale

$$I_n = I_n \cdot \frac{400}{U}$$

(I_n = current at U' Volt);
(I_n = intensité à U' Volt);
(I_n = Strom mit U' Volt);
(I_n = corriente de U' Voltios);
(I_n = corrente a U' Volt);

II 3G II 3D	1	Speed		Rated data at		direct on line start		rpm	GB		
		Vitesse		Données nominales à		démarrage direct				tours/min	F
		Drehzahl		Betriebsdaten bei		Direkteinschaltung				U/min	D
		Velocidad		Datos nominales		arranque directo				rev/min	E
		Velocità		Dati nominali a		avviamento diretto				giri/min	I
400 V		50 Hz		3000		1500					
Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass		Surface T	Class T			
Intensité démarrage	Couple démarrage	Couple maximal	Pression sonore	Moment d'inertie	Masse		T superficielle	Classe T			
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse		Oberflächentemp. T	Klasse T			
Corriente de arranque	Par de arranque	Par máximo	Presión acústica	Momento de inercia	Peso		T superficiale	Clase T			
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa		T superficiale	Classe T			
I_a/I_n	M_a/M_n	M_m/M_n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]		ND - CD	N			
4.2	3.6	3.8	57	0.0001	5		125°C	T3			
4.1	3.5	3.7	57	0.0001	5						
3.6	2.4	2.6	65	0.0004	6		125°C	T3			
4.3	2.5	2.7	65	0.0004	8						
4.8	2.6	2.8	67	0.0006	9						
5.2	2.8	2.9	67	0.0008	12		125°C	T3			
5.5	2.8	3.0	67	0.0010	13						
6.2	2.3	2.5	70	0.0012	16		125°C	T3			
6.4	4.1	3.0	70	0.0015	16						
6.8	2.6	2.7	74	0.0029	22		125°C	T3			
6.9	2.6	2.8	74	0.0032	23						
7.0	2.3	2.5	74	0.0074	27		125°C	T3			
6.9	2.5	2.8	74	0.0085	29						
6.8	2.6	2.9	75	0.0124	44						
7.0	2.8	3.0	75	0.0150	46		125°C	T3			
7.0	2.8	3.0	75	0.0178	57						
6.9	2.8	3.1	75	0.0216	60						
6.6	2.5	2.7	80	0.0360	110						
6.8	2.6	2.8	80	0.0463	120		125°C	T3			
6.9	2.8	3.0	80	0.0534	135						
2.9	2.3	2.5	45	0.0002	5		125°C	T3			
2.4	2.3	2.5	45	0.0002	5						
3.1	2.2	2.6	49	0.0006	6		125°C	T3			
3.5	2.2	2.7	49	0.0009	8						
4.0	2.3	2.5	52	0.0009	9						
4.0	2.3	2.6	52	0.0013	11		125°C	T3			
4.0	2.3	2.6	52	0.0015	12						
4.0	2.0	2.4	58	0.0020	14		125°C	T3			
4.8	2.3	2.5	58	0.0026	16						
5.9	2.5	2.7	61	0.0043	21		125°C	T3			
6.5	2.6	2.9	61	0.0053	23						
5.5	2.1	2.9	64	0.0103	31		125°C	T3			
6.2	2.4	2.8	68	0.0250	46						
6.7	2.5	3.4	68	0.0324	60		125°C	T3			
6.8	2.5	3.5	68	0.0405	60						
5.6	2.5	3.0	70	0.0627	105		125°C	T3			
5.9	2.5	3.0	70	0.0801	125						

2-speed motors available upon request
Moteurs à 2 vitesses disponibles sur demande
Motoren mit 2 Drehzahlstufen sind auf Anfrage lieferbar
Motores con 2 velocidades disponibles bajo pedido
Motori a 2 velocità disponibili su richiesta

$$\nabla J = \frac{PD^2}{4}$$

Motor type				Rated output	Speed	Current	Efficiency	Power factor	Torque
Moteur type				Puissance	Vitesse	Intensité	Rendement	Facteur de puissance	Couple
Motor Typ				Leistung	Drehzahl	Strom	Wirkungsgrad	Leistungs-faktor	Moment
Tipo de motor				Potencia proporcionada	Velocidad	Corriente	Rendimiento	Factor de potencia	Par
Tipo motore				Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia
II 3G Ex-nA	II 3GD Ex-nA + IP55◆	II 3D IP55◆	IP 55●	P _n [kW]	n [1/min]	I _n ▷ [A]	η [%]	cos φ	M _n [Nm]
N63 B 6	ND63 B 6	CD63 B 6	C63 B 6	0.12	860	0.76	39	0.58	1.3
N71 A 6	ND71 A 6	CD71 A 6	C71 A 6	0.18	930	1.10	41	0.58	1.8
N71 B 6	ND71 B 6	CD71 B 6	C71 B 6	0.26	925	1.05	59	0.61	2.8
N80 A 6	ND80 A 6	CD80 A 6	C80 A 6	0.37	920	1.80	68	0.66	3.8
N80 B 6	ND80 B 6	CD80 B 6	C80 B 6	0.55	930	1.80	68	0.65	5.6
N90 S 6	ND90 S 6	CD90 S 6	C90 S 6	0.75	910	2.20	72	0.71	7.8
N90 L 6	ND90 L 6	CD90 L 6	C90 L 6	1.10	935	3.20	84	0.59	11.2
N100 LA 6	ND100 LA 6	CD100 LA 6	C100 LA 6	1.50	950	3.80	76	0.75	15.1
N112 M 6	ND112 M 6	CD112 M 6	C112 M 6	2.20	960	5.50	81	0.71	22.3
N132 SB 6	ND132 SB 6	CD132 SB 6	C132 SB 6	3.00	950	8.50	71	0.72	30.2
N132 MB 6	ND132 MB 6	CD132 MB 6	C132 MB 6	4.00	970	9.50	81	0.75	39.4
N132 ML 6	ND132 ML 6	CD132 ML 6	C132 ML 6	5.50	960	12.00	86	0.77	54.7
N160 M 6	ND160 M 6	CD160 M 6	C160 M 6	7.50	950	16.00	84	0.81	75.4
N160 L 6	ND160 L 6	CD160 L 6	C160 L 6	11.00	950	23.00	81	0.85	110.6
N63 B 8	ND63 B 8	CD63 B 8	C63 B 8	0.09	620	0.33	67	0.59	1.4
N71 B 8	ND71 B 8	CD71 B 8	C71 B 8	0.18	680	0.86	52	0.58	2.5
N80 A 8	ND80 A 8	CD80 A 8	C80 A 8	0.18	707	1.03	51	0.49	2.5
N80 B 8	ND80 B 8	CD80 B 8	C80 B 8	0.37	680	1.30	75	0.55	5.2
N90 L 8	ND90 L 8	CD90 L 8	C90 L 8	0.55	680	1.90	80	0.52	7.7
N100 LA 8	ND100 LA 8	CD100 LA 8	C100 LA 8	0.75	720	2.90	71	0.56	9.9
N100 LB 8	ND100 LB 8	CD100 LB 8	C100 LB 8	0.10	675	3.10	75	0.68	15.6
N112 M 8	ND112 M 8	CD112 M 8	C112 M 8	1.50	715	4.40	76	0.65	20.0
N132 SA 8	ND132 SA 8	CD132 SA 8	C132 SA 8	2.20	720	6.50	75	0.67	30.0
N132 SB 8	ND132 SB 8	CD132 SB 8	C132 SB 8	3.00	720	8.00	75	0.72	39.8
N160 MA 8	ND160 MA 8	CD160 MA 8	C160 MA 8	4.00	730	10.50	74	0.74	52.3
N160 MB 8	ND160 MB 8	CD160 MB 8	C160 MB 8	5.50	725	13.50	76	0.77	72.4
N160 L 8	ND160 L 8	CD160 L 8	C160 L 8	7.50	720	17.50	80	0.77	99.5

◆
for dust
pour poussières
für Staub
para polvos
per polveri

●
for general use
pour une utilisation générale
Standardmotoren
para uso general
per uso generale

▷
 $I'_n = I_n \cdot \frac{400}{U}$ (I'_n = current at U' Volt);
(I'_n = intensité à U' Volt);
(I'_n = Strom mit U' Volt);
(I'_n = corriente de U' Voltios);
(I'_n = corrente a U' Volt);

II 3G II 3D	1	Rated data at				direct on line start		1000 750	rpm tours/min U/min rev/min giri/min	GB F D E I
		Speed								
		Vitesse	Données nominales à			démarrage direct				
		Drehzahl	Betriebsdaten bei			Direkteinschaltung				
		Velocidad	Datos nominales			arranque directo				
Velocità	Dati nominali a			avviamento diretto						
Starting current		Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Surface T	Class T		
<i>Intensité démarrage</i>		<i>Couple démarrage</i>	<i>Couple maximal</i>	<i>Pression sonore</i>	<i>Moment d'inertie</i>	<i>Masse</i>	<i>T superficielle</i>	<i>Classe T</i>		
Anlaufstrom		Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Oberflächentemp. T	Klasse T		
<i>Corriente de arranque</i>		<i>Par de arranque</i>	<i>Par máximo</i>	<i>Presión acústica</i>	<i>Momento de inercia</i>	<i>Peso</i>	<i>T superficial</i>	<i>Clase T</i>		
Corrente avviamento		Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	T superficiale	Classe T		
I_a/I_n	M_a/M_n	M_m/M_n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]		ND - CD	N		
2.0	2.00	1.9	42	0.0002	5		125°C	T3		
2.5	2.00	1.8	48	0.0007	7		125°C	T3		
3.2	2.60	1.8	48	0.0010	8					
2.4	2.10	2.0	49	0.0022	11		125°C	T3		
2.8	2.00	2.1	49	0.0027	11					
3.0	1.80	2.1	53	0.0034	16		125°C	T3		
3.4	2.00	2.2	53	0.0049	18					
4.1	2.00	2.3	55	0.0088	23		125°C	T3		
5.3	2.40	2.3	57	0.0172	31		125°C	T3		
5.8	2.20	2.4	60	0.0323	46					
6.1	2.40	2.6	60	0.0395	60		125°C	T3		
6.3	2.40	2.7	60	0.0506	60					
5.9	2.30	2.9	64	0.0919	120		125°C	T3		
6.2	2.50	3.0	64	0.1218	135					
2.0	1.60	1.8	40	0.0002	5		125°C	T3		
2.0	1.40	1.7	42	0.0022	8		125°C	T3		
2.6	3.25	1.7	42	0.0027	8		125°C	T3		
2.2	1.50	1.8	50	0.0034	8					
2.1	1.50	1.8	50	0.0049	11		125°C	T3		
3.4	2.00	2.2	52	0.0088	21		125°C	T3		
2.7	1.80	2.2	52	0.0088	23					
4.1	1.90	2.2	54	0.0172	31		125°C	T3		
3.9	1.80	2.3	58	0.0323	48		125°C	T3		
4.1	1.80	2.3	58	0.0506	55					
5.2	2.20	2.6	62	0.0919	120		125°C	T3		
4.1	2.20	2.7	62	0.0919	125					
4.2	2.40	2.8	62	0.1218	135					

2-speed motors available upon request
Moteurs à 2 vitesses disponibles sur demande
Motoren mit 2 Drehzahlstufen sind auf Anfrage lieferbar
Motores con 2 velocidades disponibles bajo pedido
Motori a 2 velocità disponibili su richiesta

$$\nabla J = \frac{PD^2}{4}$$

GB

Overall dimensions [mm]

F

Dimensions [mm]

D

Abmessungen [mm]

E

Dimensiones [mm]

I

5. Dimensioni d'ingombro [mm]

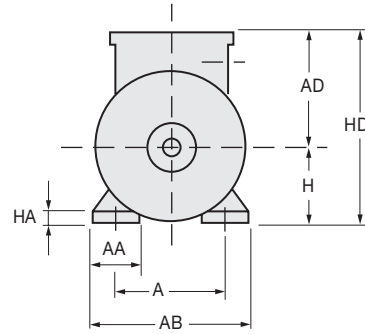
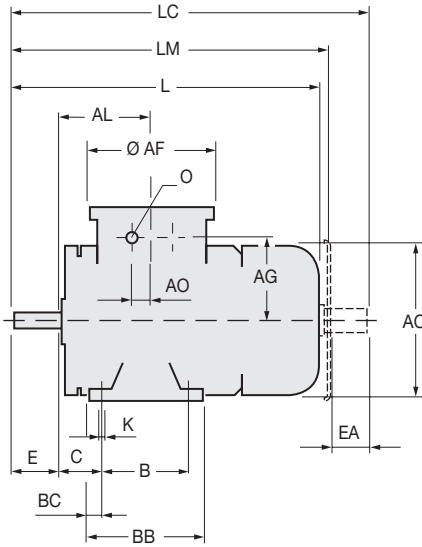
63÷160

IM B3

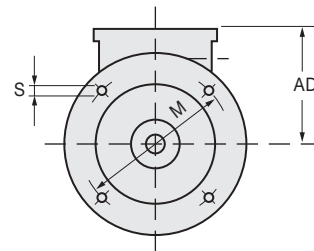
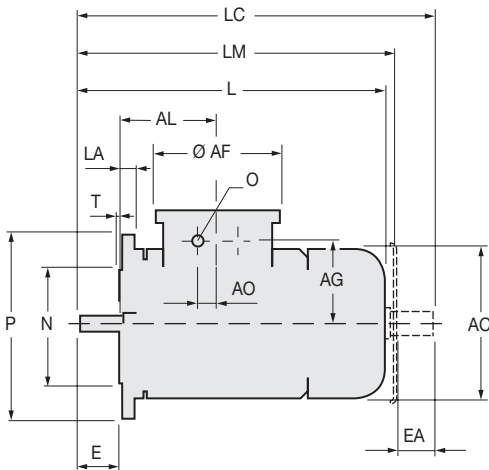
IM B5

IM B35

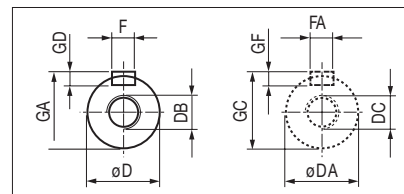
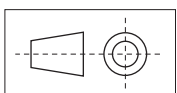
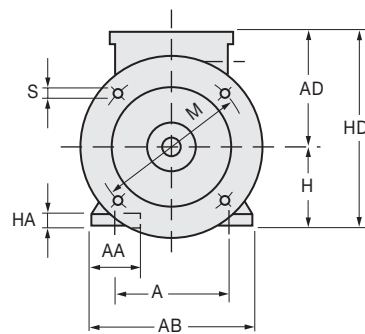
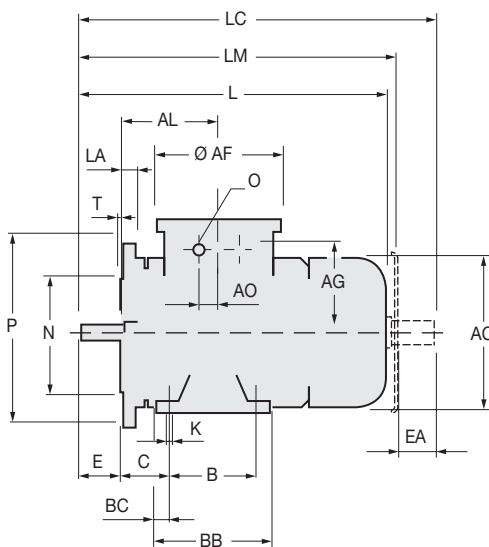
IM B3



IM B5



IM B35



Overall dimensions [mm]

GB

Dimensions [mm]

F

Abmessungen [mm]

D

Dimensiones [mm]

E

Dimensioni d'ingombro [mm]

I

Type	A	AA	AB	∅ AC	AD	∅ AF	AL	B	BC	BB	C	H _{0.5} ⁰	HA	HD	∅ K	L	LC
63	100	30	125	123	122	109	75	80	12.5	105	40	63	10	185	7	210	236
71	112	34	140	138	132	109	84	90	9	108	45	71	11	203	7	242	275
80	125	34	160	156	141	109	85	100	12.5	125	50	80	11	221	9	274	317
90 S	140	43	182	177	151	109	96	100	15	130	56	90	13	241	9	300	353
90 L	140	43	182	177	151	109	96	125	15	155	56	90	13	241	9	325	378
100	160	47	200	194	160	109	90	140	17.5	175	63	100	14	260	11	365	428
112	190	56	235	218	172	109	91	140	17.5	175	70	112	14	284	11	383	446
132 S	216	58	260	257	188	125	115	140	20	180	89	132	19.5	320	11	447	530
132 ML	216	58	260	257	188	125	115	178	20	218	89	132	19.5	320	11	485	568
160 M	254	64	318	316	235	180	155	210	25	260	108	160	22	395	13	605	725
160 L	254	64	318	316	235	180	155	254	25	304	108	160	22	395	13	650	770

Type	* LM	AO	IEC 423 n. x O	AG	∅ D ∅ DA	E EA	F FA	GA GC	GD GF	DB	LA	∅ M	∅ N	∅ P	S	T
63	235	16	1 x M20	82	11j6	23	4	12.5	4	M4	10	115	95j6	140	10	3
71	267	16	1 x M20	92	14j6	30	5	16	5	M5	10	130	110j6	160	10	3.5
80	299	16	1 x M20	101	19j6	40	6	21.5	6	M6	12	165	130j6	200	12	3.5
90 S	325	16	1 x M20	111	24j6	50	8	27	7	M8	10	165	130j6	200	12	3.5
90 L	350	16	1 x M20	111	24j6	50	8	27	7	M8	10	165	130j6	200	12	3.5
100	390	16	1 x M20	120	28j6	60	8	31	7	M10	16	215	180j6	250	14.5	4
112	408	16	1 x M20	132	28k6	60	8	31	7	M10	14	215	180j6	250	14.5	4
132 S	492	18	1 x M32	150	38k6	80	10	41	8	M12	18	265	230j6	300	14.5	4
132 ML	530	18	1 x M32	150	38k6	80	10	41	8	M12	18	265	230j6	300	14.5	4
160 M	650	30	2 x M32	185	42k6	110	12	45	8	M16	14	300	250j6	350	18.5	5
160 L	650	30	2 x M32	185	42k6	110	12	45	8	M16	14	300	250j6	350	18.5	5

*

rain canopy: only when vertical shaft-down mounting

parapluie: uniquement pour position verticale, arbre vers le bas

Regenschutzdach: nur für die Vertikalbauformen

tapa de protección contra la lluvia: sólo para montaje en vertical, eje en la parte inferior

parapioggia: normalmente presente solo per montaggio verticale, albero in basso



1 in the terminal box, 1 on the frame

1 à l'intérieur de la boîte à bornes, 1 sur la carcasse

1 am Klemmkasten, 1 am Motorgehäuse

1 en la caja de bornes, 1 en la carcasa

1 nella scatola morsetti, 1 sulla carcassa

Tolerances allowed

Dimensions données à titre indicatif

Übliche Toleranzen

Cotas no vinculantes

Quote non impegnative

GB

Overall dimensions [mm]

F

Dimensions [mm]

D

Abmessungen [mm]

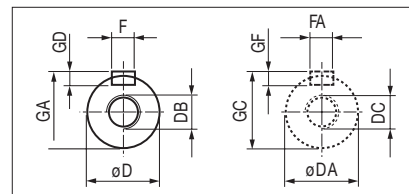
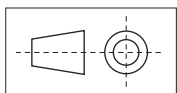
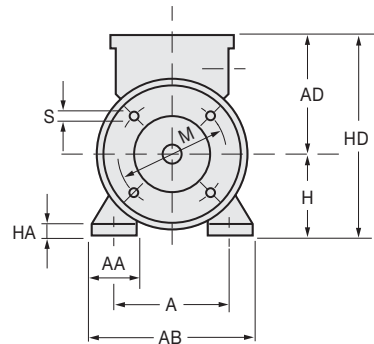
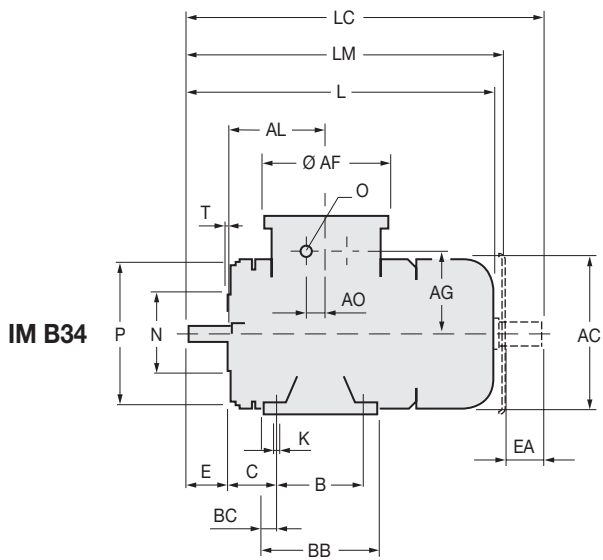
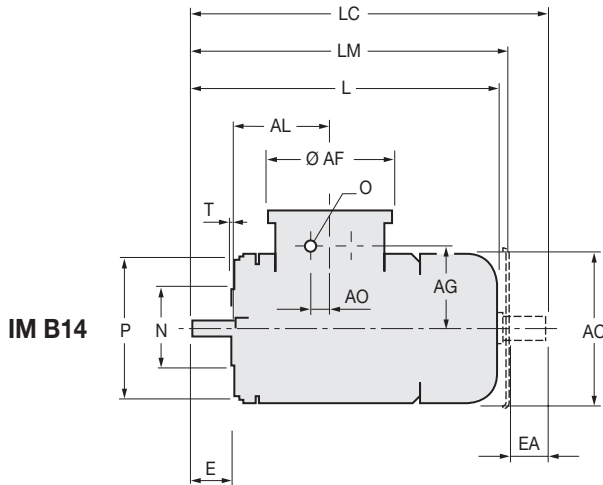
E

Dimensiones [mm]

I

5. Dimensioni d'ingombro [mm]

63÷132 IM B14 IM B34



Overall dimensions [mm]

GB

Dimensions [mm]

F

Abmessungen [mm]

D

Dimensiones [mm]

E

Dimensioni d'ingombro [mm]

I

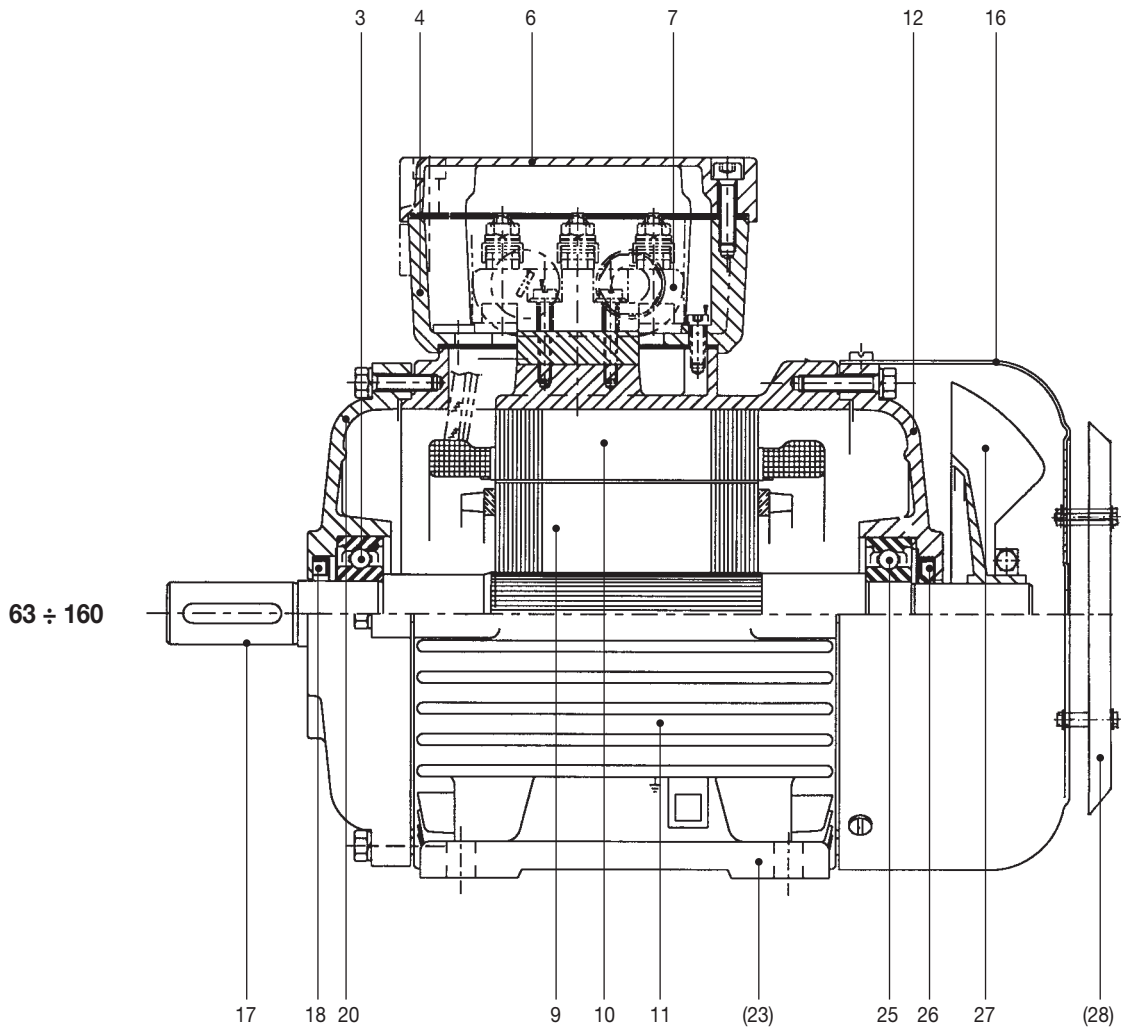
Type	A	AA	AB	∅ AC	AD	∅ AF	AL	B	BC	BB	C	H _{0.5} ⁰	HA	HD	∅ K	L	LC
63	100	30	125	123	122	109	75	80	12.5	105	40	63	10	185	7	210	236
71	112	34	140	138	132	109	84	90	9	108	45	71	11	203	7	242	275
80	125	34	160	156	141	109	85	100	12.5	125	50	80	11	221	9	274	317
90 S	140	43	182	177	151	109	96	100	15	130	56	90	13	241	9	300	353
90 L	140	43	182	177	151	109	96	125	15	155	56	90	13	241	9	325	378
100	160	47	200	194	160	109	90	140	17.5	175	63	100	14	260	11	365	428
112	190	56	235	218	172	109	91	140	17.5	175	70	112	14	284	11	383	446
132 S	216	58	260	257	188	125	115	140	20	180	89	132	19.5	320	11	447	530
132 ML	216	58	260	257	188	125	115	178	20	218	89	132	19.5	320	11	485	568

Type	* LM	AO	IEC 423 n. x O	AG	∅ D ∅ DA	E EA	F FA	GA GC	GD GF	DB DC	LA	∅ M	∅ N	∅ P	S	T
63	235	16	1 x M20	82	11j6	23	4	12.5	4	M4	---	75	60j6	90	M5	3
71	267	16	1 x M20	92	14j6	30	5	16	5	M5	---	85	70j6	105	M6	3.5
80	299	16	1 x M20	101	19j6	40	6	21.5	6	M6	---	100	80j6	120	M6	3.5
90 S	325	16	1 x M20	111	24j6	50	8	27	7	M8	---	115	95j6	140	M8	3.5
90 L	350	16	1 x M20	111	24j6	50	8	27	7	M8	---	115	95j6	140	M8	3.5
100	390	16	1 x M20	120	28j6	60	8	31	7	M10	---	130	110j6	160	M8	4
112	408	16	1 x M20	132	28j6	60	8	31	7	M10	---	130	110j6	160	M8	4
132 S	492	18	1 x M32	150	38j6	80	10	41	8	M12	---	165	130j6	200	M10	4
132 ML	530	18	1 x M32	150	38j6	80	10	41	8	M12	---	165	130j6	200	M10	4

*
rain canopy: only when vertical shaft-down mounting
parapluie: uniquement pour position verticale, arbre vers le bas
Regenschutzdach: nur für die Vertikalbauformen
tapa de protección contra la lluvia: sólo para montaje en vertical, eje en la parte inferior
parapioggia: normalmente presente solo per montaggio verticale, albero in basso

⊥ 1 in the terminal box, 1 on the frame
1 à l'intérieur de la boîte à bornes, 1 sur la carcasse
1 am Klemmkasten, 1 am Motorgehäuse
1 en la caja de bornes, 1 en la carcasa
1 nella scatola morsetti, 1 sulla carcassa

Tolerances allowed
Dimensions données à titre indicatif
Übliche Toleranzen
Cotas no vinculantes
Quote non impegnative



GB

3 Front bearing	11 Frame	(23) Feet
4 Terminal box	12 Endshield - rear	25 Rear bearing
6 Terminal box lid	16 Fan cover (cowl)	26 Sealing ring - rear
7 Terminal board	17 Shaft	27 Cooling fan
9 Rotor	18 Sealing ring - front	(28) Rain cap
10 Stator	20 Endshield - front	

(...) = when provided

F

3 Roulement avant	11 Carcasse	(23) Pattes
4 Boîte à bornes	12 Flasque arrière	25 Roulement arrière
6 Couverture boîte à bornes	16 Capot de ventilateur	26 Bague arrière d'étanchéité
7 Bornes	17 Arbre	27 Ventilateur
9 Rotor	18 Bague avant d'étanchéité	(28) Tôle parapluie
10 Stator	20 Flasque avant	

(...) = si c'est prévu

D

3 Kugellager A-Seite	11 Motorgehäuse	(23) Füße
4 Klemmkasten	12 Lagerschild B-Seite	25 Kugellager B-Seite
6 Klemmkastendeckel	16 Lüfterhaube	26 Dichtungsring B-Seite
7 Klemmbrett	17 Welle	27 Lüfterflügel
9 Läufer	18 Dichtungsring A-Seite	(28) Regenschutzdach
10 Statorpaket	20 Lagerschild A-Seite	

(...) = wenn vorgesehen

E

3 Cojinete delantero	11 Armazón	(23) Pies
4 Caja de bornes	12 Escudo trasero	25 Cojinete trasero
6 Tapa de la caja de bornes	16 Casquete cubre ventilador	26 Anillo de retención trasero
7 Placa de bornes	17 Eje	27 Ventilador
9 Rotor	18 Anillo de retención delantero	(28) Tapa de protección contra la lluvia
10 Estator	20 Escudo delantero	

(...) = cuando previsto

I

3 Cuscinetto anteriore	11 Carcassa	(23) Piedi
4 Scatola morsetti	12 Scudo posteriore	25 Cuscinetto posteriore
6 Coperchio scatola morsetti	16 Calotta copriventola	26 Anello di tenuta posteriore
7 Morsetti	17 Albero	27 Ventola
9 Rotore	18 Anello di tenuta anteriore	(28) Tettuccio parapiovanna
10 Statore	20 Scudo anteriore	

(...) = quando previsto

Sales programme	Programme	Verkaufsprogramm	Programa de venta	Programma di vendita
Flameproof-Explosion proof motors EEx-d, EEx-de <ul style="list-style-type: none"> • frame size 56 ÷ 315 • power 0.06 ÷ 132 kW • threephase, 1 or 2 speed, singlephase • ventilated, unventilated • group I, IIA, IIB, IIC • category M2, 2G, 2D, 2GD • temperature class T3, T4, T5, T6 • maximum surface temperature [°C] T150, 135, 125, 100, 85, 70 • with brake 	Moteurs antidéflagrants EEx-d, EEx-de <ul style="list-style-type: none"> • hauteur d'axe 56 ÷ 315 • puissance 0.06 ÷ 132 kW • triphasés, à 1 ou 2 vitesses, monophasés • ventilés, non ventilés • groupe I, IIA, IIB, IIC • catégorie M2, 2G, 2D, 2GD • classes de température T3, T4, T5, T6 • température superficielle maximum [°C] T150, 135, 125, 100, 85, 70 • avec frein 	Explosiongeschützte Motoren EEx-d, EEx-de <ul style="list-style-type: none"> • Baugrößen 56 ÷ 315 • Leistung 0.06 ÷ 132 kW • Drehstrommotoren, 1 oder 2 Geschwindigkeiten, Einphasenmotoren • mit Lüftung, ohne Lüftung • Gruppe I, IIA, IIB, IIC • Kategorie M2, 2G, 2D, 2GD • Temperaturklassen T3, T4, T5, T6 • maximale Oberflächen-temperatur [°C] T150, 135, 125, 100, 85, 70 • mit Bremse 	Motores antidéflagrantes EEx-d, EEx-de <ul style="list-style-type: none"> • tamaños 56 ÷ 315 • potencia 0.06 ÷ 132 kW • trifásicos, 1 o 2 velocidades, monofásicos • autoventilados o no • grupo I, IIA, IIB, IIC • categoría M2, 2G, 2D, 2GD • clase temperatura T3, T4, T5, T6 • máxima temperatura superficial [°C] T150, 135, 125, 100, 85, 70 • con freno 	Motori antidéflagranti EEx-d, EEx-de <ul style="list-style-type: none"> • altezza d'asse 56 ÷ 315 • potenze 0.06 ÷ 132 kW • trifase, 1 o 2 velocità, monofase • ventilato, non ventilato • gruppo I, IIA, IIB, IIC • categoria M2, 2G, 2D, 2GD • classi di temperatura T3, T4, T5, T6 • massima temperatura superficiale [°C] T150, 135, 125, 100, 85, 70 • con freno
Increased safety motors Ex-e <ul style="list-style-type: none"> • frame size 63 ÷ 132 • power 0.12 ÷ 7.5 kW • threephase • group II • category 2G • temperature class T3 	Moteurs à sécurité augmentée Ex-e <ul style="list-style-type: none"> • hauteur d'axe 63 ÷ 132 • puissance 0.12 ÷ 7.5 kW • triphasés • groupe II • catégorie 2G • classes de température T3 	Motoren für erhöhte Sicherheit Ex-e <ul style="list-style-type: none"> • Baugrößen 63 ÷ 132 • Leistung 0.12 ÷ 7.5 kW • Drehstrommotoren • Gruppe II • Kategorie 2G • Temperaturklassen T3 	Motores de seguridad aumentada Ex-e <ul style="list-style-type: none"> • tamaños 63 ÷ 132 • potencia 0.12 ÷ 7.5 kW • trifásicos • grupo II • categoría 2G • clase temperatura T3 	Motori a sicurezza aumentata Ex-e <ul style="list-style-type: none"> • altezza d'asse 63 ÷ 132 • potenze 0.12 ÷ 7.5 kW • trifase • gruppo II • categoria 2G • classe di temperatura T3
Non sparking motors Ex-nA <ul style="list-style-type: none"> • frame size 63 ÷ 315 • power 0.12 ÷ 132 kW • threephase, 1 or 2 speed • group II • category 3G, 3GD • temperature class T3 	Moteurs anti-étincelles Ex-nA <ul style="list-style-type: none"> • hauteur d'axe 63 ÷ 315 • puissance 0.12 ÷ 132 kW • triphasés, à 1 ou 2 vitesses • groupe II • catégorie 3G, 3GD • classes de température T3 	Funkenfreie Motoren Ex-nA <ul style="list-style-type: none"> • Baugrößen 63 ÷ 315 • Leistung 0.12 ÷ 132 kW • Drehstrommotoren, 1 oder 2 Geschwindigkeiten • Gruppe II • Kategorie 3G, 3GD • Temperaturklassen T3 	Motores no sparking Ex-nA <ul style="list-style-type: none"> • tamaños 63 ÷ 315 • potencia 0.12 ÷ 132 kW • trifásicos, 1 o 2 velocidades • grupo II • categoría 3G, 3GD • clase temperatura T3 	Motori non sparking Ex-nA <ul style="list-style-type: none"> • altezza d'asse 63 ÷ 315 • potenze 0.12 ÷ 132 kW • trifase, 1 o 2 velocità • gruppo II • categoria 3G, 3GD • classe di temperatura T3
Totally enclosed fan cooled IEC motors <ul style="list-style-type: none"> • frame size 63 ÷ 315 • power 0.12 ÷ 132 kW • threephase, 1 or 2 speed • category 3D • protection IP55 	Moteurs fermés IP 55 CEI/IEC avec ventilation extérieure <ul style="list-style-type: none"> • hauteur d'axe 63 ÷ 315 • puissance 0.12 ÷ 132 kW • triphasés, à 1 ou 2 vitesses • catégorie 3D • protection IP55 	Geschlossene Motoren mit Fremdbelüftung nach IEC <ul style="list-style-type: none"> • Baugrößen 63 ÷ 315 • Leistung 0.12 ÷ 132 kW • Drehstrommotoren, 1 oder 2 Geschwindigkeiten • Kategorie 3D • Schutzart IP55 	Motores cerrados con ventilación exterior IP55 <ul style="list-style-type: none"> • tamaños 63 ÷ 315 • potencia 0.12 ÷ 132 kW • trifásicos, 1 o 2 velocidades • categoría 3D • protección IP55 	Motori chiusi con ventilazione esterna CEI/IEC <ul style="list-style-type: none"> • altezza d'asse 63 ÷ 315 • potenze 0.12 ÷ 132 kW • trifase, 1 o 2 velocità • categoria 3D • protezione IP55
Centrifugal flameproof electric pumps for printing machines EEx-d - EEx-de <ul style="list-style-type: none"> • group IIB, IIC • output over 300 l/min • head up to 15 m • stem length 170 ÷ 550 mm • special applications • detachable motor from the pump unit 	Electropompes centrifuges antidéflagrantes pour machines d'imprimerie EEx-d - EEx-de <ul style="list-style-type: none"> • groupe IIB, IIC • débit supérieur à 300 l/min • hauteur de refoulement jusqu'à 15 m • corps immergé 170 ÷ 550 mm • applications spéciales • moteur détachable de l'unité pompe 	Explosiongeschützte Zentrifugal-Electropumpen für Druckmaschinen EEx-d - EEx-de <ul style="list-style-type: none"> • Gruppe IIB, IIC • Leistung bis 300 l/min • Bis zu 15 m Förderhöhe • Eintauchtiefe 170 ÷ 550 mm • Sonderanwendungen • Motor vom Pumpenkörper abnehmbar 	Electrobombas centrifugas antidéflagrantes para máquinas de impresión EEx-d - EEx-de <ul style="list-style-type: none"> • grupo IIB, IIC • capacidad: más 300 l/min • altura: hasta 15 m • cuerpos sumergidos 170 ÷ 550 mm • aplicaciones especiales • motor separable del cuerpo bomba 	Elettropompe centrifughe antidéflagranti per macchine da stampa EEx-d - EEx-de <ul style="list-style-type: none"> • gruppo IIB, IIC • portate oltre 300 l/min • prevalenze fino a 15 m • corpi immersi 170 ÷ 550 mm • applicazioni speciali • motore separabile dal corpo pompa
Centrifugal electric pumps for machine tools <ul style="list-style-type: none"> • submersible • output over 300 l/min • head up to 30 m • stem length 90 ÷ 550 mm • special applications 	Electropompes centrifuges pour machines-outils <ul style="list-style-type: none"> • immergeables • débit supérieur à 300 l/min • hauteur de refoulement jusqu'à 30 m • corps immergé 90 ÷ 550 mm • applications spéciales 	Elektropumpen für Werkzeugmaschinen <ul style="list-style-type: none"> • Eintauchfähig • Leistung mehr als 300 l/min • Bis zu 30 m Förderhöhe • Eintauchtiefe 90 ÷ 550 mm • Sonderanwendungen 	Electrobombas centrifugas para máquinas herramientas <ul style="list-style-type: none"> • sumergibles • capacidad: más 300 l/min • altura: hasta 30 m • cuerpos sumergidos 90 ÷ 550 mm • aplicaciones especiales 	Elettropompe centrifughe per macchine utensili <ul style="list-style-type: none"> • ad immersione • portate oltre 300 l/min • prevalenze fino a 30 m • corpi immersi 90 ÷ 550 mm • applicazioni speciali

Every care has been taken to ensure the accuracy of the information contained in this publication.

Due to **Cemp's** policy of continuous development and improvement, the company reserves the right to supply products which may differ slightly from those illustrated and described in this publication.

Descriptions and technical features listed in this brochure may not be considered as binding. Under no circumstances should data in this publication be considered as a contractual obligation.

Dans la préparation de cette documentation nous avons pris le soin d'y intégrer les informations les plus exactes possibles.

Néanmoins, compte tenu de notre politique de développement et d'amélioration continue des produits, la Société **Cemp** se réserve le droit et la faculté d'apporter toute modification sur la documentation et sur les produits, à tout moment et sans préavis.

Les descriptifs et les caractéristiques techniques contenus dans ce catalogue n'engagent pas la Société. Par conséquent, ces données ne constituent en aucun cas un engagement contractuel.

Die Ausführungen und technischen Eigenschaften, die in dieser Broschüre angegeben sind, dürfen nicht als verbindlich angesehen werden.

In keinem Fall können jedoch die in diesem Dokument aufgeführten technischen Daten als rechtlich verbindlich angesehen werden.

Cemp behält sich das Recht vor, ohne Mitteilung, jegliche Abweichungen und Änderungen jederzeit vorzunehmen, sowohl in diesem Dokument als auch bei den Produkten, die hier beschrieben sind.

La presente documentación se ha redactado de manera muy atenta para poder asegurar que las informaciones que contiene son correctas.

No obstante, como consecuencia de la política de continuo desarrollo y mejora de la calidad del producto que **Cemp** pone en práctica, la sociedad se reserva el derecho y la facultad de modificar en lo que fuera necesario, en cualquier momento y sin que para ello medie preaviso alguno, tanto este documento como sus productos.

Por lo tanto, las descripciones y las características técnicas indicadas en el presente documento no son vinculantes, y los datos que contiene no constituyen en ningún caso, vínculo contractual.

Nel redigere questa documentazione è stata posta ogni cura al fine di assicurare la correttezza delle informazioni contenute.

Tuttavia, anche in conseguenza della politica di continuo sviluppo e miglioramento della qualità del prodotto perseguita da **Cemp**, la società si riserva il diritto e la facoltà di apportare modifiche di qualsiasi genere, in qualsiasi momento e senza preavviso, sia a questo documento sia ai propri prodotti.

Le descrizioni e le caratteristiche tecniche della presente pubblicazione non sono quindi impegnative e i dati riportati non costituiscono, in nessun caso, impegno contrattuale.

Cemp SpA

Via Piemonte, 16
I 20030 SENAGO (MI)
Tel. +39 02 99 01 08 04
Fax +39 02 99 89 177
cemp@cemp.eu
www.cemp.eu



Cemp France SA

6 et 8, avenue Victor Hugo
F 27320 NONANCOURT
Tél. +33 (0)2 32 58 03 81
Fax +33 (0)2 32 32 12 98
cemp-france@cemp.eu
www.cemp.eu

Cemp International GmbH

Am Mollnhof 2
D 94036 PASSAU
Tel. +49 (0)851 96 68 68 28
Fax +49 (0)851 96 68 68 29
cemp-deutschland@cemp.eu
www.cemp.eu

Overall sales network at www.cemp.eu
