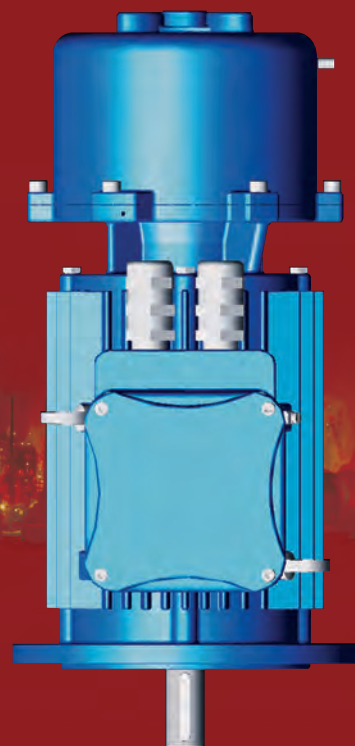


Flameproof motors with brake
Moteurs antidéflagrants avec frein
Explosionsgeschützte Motoren mit Bremse
Motores antideflagrantes con freno
Motori antideflagranti con freno

63 ÷ 250

II 2G, II 2GD

Ex d, Ex de • IIB, IIC



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Flameproof
Motors

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Motors



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63 ÷ 250

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1. General information

1.1 Range of ATEX flameproof motors with brake

1.1 Range of ATEX flameproof motors with brake

The motors offered in this catalogue comply with standards concerning equipment and protective systems intended for use in potentially explosive atmospheres, in compliance with European Directive 94/9/EC dated 23/3/94, otherwise known as the ATEX directive.

The ATEX directive states that two different certificates of conformity are to be issued.

One is the "EC-Type examination certificate" for the homologation of the prototype and the other is for the "Production Quality Assurance Notification".

The Certificates are issued by CESI in Milan, Notified Body no. 0722.

All motors in the ATEX series are available in 2G (for gas) or 2GD (for gas and dust) versions.

Table 1 A - Range of ATEX flameproof motors with brake

Version	Frame size [mm]	Output range [kW]	Ventilation	Operation	Temp. class (2G)	Maximum surface temperature (2GD)	Motor type			
							Ex d IIB	Ex de IIB	Ex d IIC	Ex de IIC
Single speed, three phase (2, 4, 6, 8 pole) (4, 6, 8 pole)	63 ÷ 250	0.18 ÷ 55.00	Unventilated IC410	S2, S4	T4	T 135°C	DB 30	DB 35	DC 30	DC 35
	71 ÷ 160	0.37 ÷ 18.50	Self-vent. IC411	S1, S4, S9	T4	T 135°C	HB 30	HB 35	HC 30	HC 35
	180 ÷ 250	18.50 ÷ 55.00	IC416 assisted ventilation	S1, S4, S9	T4	T 135°C	DB 30	DB 35	DC 30	DC 35
Two speeds, three phase (2/4, 4/8, pole) for general purpose	63 ÷ 250	0.15 ÷ 40.00	Unventilated IC410	S2, S4	T4	T 135°C	DB 20	DB 25	DC 20	DC 25
	71 ÷ 160	0.20 ÷ 15.00	Self-vent. IC411	S1, S4	T4	T 135°C	HB 20	HB 25	HC 20	HC 25
	180 ÷ 250	15.00 ÷ 40.00	IC416 assisted ventilation	S1, S4	T4	T 135°C	DB 20	DB 25	DC 20	DC 25
Motors for lifting*										
Single speed, three phase (6 pole)	71 ÷ 250	0.18 ÷ 37.00	Unventilated IC410	S2, S4	T4	T 135°C	DB 50	DB 55	DC 50	DC 55
	71 ÷ 160	0.18 ÷ 11.00	Self-vent. IC411	S2, S4	T4	T 135°C	HB 50	HB 55	HC 50	HC 55
	180 ÷ 250	15.00 ÷ 37.00	IC416 assisted ventilation	S2, S4	T4	T 135°C	DB 50	DB 55	DC 50	DC 55
Two speeds, three phase (2/8, 4/12, 4/16, pole)	71 ÷ 250	0.06 ÷ 5.80	Unventilated IC410	S2, S4	T4	T 135°C	DB 50	DB 55	DC 50	DC 55
	71 ÷ 160	0.06 ÷ 7.50	Self-vent. IC411	S2, S4	T4	T 135°C	HB 50	HB 55	HC 50	HC 55
	180 ÷ 250	2.00 ÷ 37.00	IC416 assisted ventilation	S2, S4	T4	T 135°C	DB 50	DB 55	DC 50	DC 55

For DB and DC series motors, starting from an axle height of 100, IC416 servo-assisted ventilation is available.

* Polarities shown in this section are specifically referred to motors for use with high starting torques. For alternative polarities please refer to general purpose motors.

Table 1 B - Temperature Class upon request

Version	T3	T5 (unventilated not included)
63 ÷ 132	Same power as T4	Same power as T4 (*)
160 ÷ 250	Same power as T4	Power lower than T4

(*) For 2-speed motors: power lower than T4.

1.2 Main characteristics

1.3 Main options

1.2 Main characteristics

- Flameproof, explosion proof motors that comply with the IEC EN 60079-0, 60079-1, and 60079-7 standards for atmospheres with the presence of gas, and IEC EN 61214-0 and 61241-1 standards for environments with the presence of combustible dust.
- Squirrel cage three-phase asynchronous motors.
- Completely closed, self-ventilated, servo-ventilated, or non ventilated, IP55 body with IP65 terminal board box.
- Dimensions to IEC 60072 standards.
- Mounting options B3, B5, B35, B14, B34.
- Motor power supply 400V / 3 / 50Hz
- Brake power supply:
 - 400V / 3 / 50Hz (for motors with axle height of 63÷160)
 - 230V / 1 / 50Hz (for motors with axle height of 180÷250)
- Class F insulation.
- Noise level within 80 dB (A).
- Terminal Box:
 - available both in a flameproof, or increased safety version
 - large size
 - standard position - top, opposite feet
 - rotate by 90° in 4 positions.
- Double terminal board box, one for the motor and the other for the brake, both can be rotated through 90° in 4 positions, for motors with an axle height of 180÷250.
- Motor frame and terminal box enclosure separated to avoid the transmission of explosions.
- Winding cables connected to the terminal board by means of terminal blocks or by a flameproof sealing device.
- Painting inside and outside of the mechanical components with epoxy polyester powder coating
 - stainless steel nameplate
 - corrosion-proof fixings.
- Highly resistant to impact:
 - frame, terminal box and cast iron endshields.
 - fan cover in sheet steel.
- Low friction dust seals.
- The conformity certificates also cover alternatives, such as:
 - altitude over 1000m
 - modification of the rated voltage and rated frequency
 - power supply from an inverter
 - motor protection through temperature detectors
 - duty S1 to S9.

Note:
Further information is available in the flameproof motors catalogue 14.

1.3 Main options

Main versions

- 2GD motors for areas classified as zone 21 and zone 22 (Dust).

Electrical variants

- Special power supply voltages and frequencies; maximum voltage 690 V both for the motors and the three-phase brake. For single-phase brakes, maximum voltage 440 V.
- Motors for tropical climates.
- Motors for low ambient temperatures (-50°C).
- Temperature rise below 80K.
- Motors insulated to class H.
- Motors with bimetal thermal protective devices, and PTC thermistors.
- Motors with anti-condensate heating coils for both the motor and the brake.
- Motors with special electrical design.

Mechanical variants

- Special flanges and shafts.
- Double ended shafts.
- Cable gland fitted to terminal box.
- Terminal box with special cable entries.
- Motors protection IP56 - IP65 - IP66.
- Motors with condensation drainage valves.
- Motors with special bearings.
- Grade B balancing.
- Motors with rain cap or sun shield.
- Side terminal board box for 180 to 250 heights.
- Separate terminal box for auxiliary terminals.
- High protection against corrosion for tropical climates or applications in marine environments:
 - External painting of mechanical components using epoxy paints
 - Protection of internal parts (winding and rotor) using protective paints.
 - Stainless steel fixings.

Accessories

- Motors suitable for frequency inverter drive.
- Motors with encoder.
- Motors with forced ventilation (from frame size 90).

Brake variants

- D.C. current brake
- Positive brake (brakes when energized) with uninterrupted current.

1.4 Nomenclature

1.4 Nomenclature

Pos. 1 = Motor series:

D	Flameproof motors with brakes that are non-ventilated or with assisted ventilation 63÷250	H	Flameproof motors with self-ventilated brake 71÷160
----------	---	----------	---

Pos. 2 = Type of application:

B	Enclosure group IIB
C	Enclosure group IIC

Pos. 3 = Type of motor (electric characteristics):

2	Three-phase 2 speed, constant torque	5	For hoist applications
3	Three-phase 1 speed	7	For inverters

Pos. 4 = Terminal box version:

0	Protection method Ex d	5	Protection method Ex e
----------	------------------------	----------	------------------------

Pos. 5 = Size (centre height):

63	90	132	200	
71	100	160	225	
80	112	180	250	

Pos. 6 = Length of stator pack:

	63	71	80	90	100	112	132	160	180	200	225	250		
							*	*						
Extra short							SA							
Short	A	A	A	S	LA		SB	S	MA		LA	S		
Medium						M	MB	M	MB	M				
Long	B	B	B	L	LB		ML	L	L	L	LB	M	M	
Extra long			L									ML		

* Three-phase, 2-speed version

Pos. 7 = Polarity:

2	2 poles	24	Double polarity: 2 / 4 poles	48	Double polarity: 4 / 8 poles
4	4 poles	28	Double polarity: 2 / 8 poles	41	Double polarity: 4 / 12 poles
6	6 poles			43	Double polarity: 4 / 16 poles
8	8 poles				

Pos. 8 = Mounting (IM Code I)

B3	
B5	
B14	
B34	
B35	

Pos. 9 = Supply:

3F xxxD / xxxS / xx	Three-phase 1-speed; voltage for delta connection; voltage for star connection; frequency
3F xxx / xx	Three-phase, 2-speed: voltage; frequency

D B 3 0 90 L 4 B5 3F 230D/400S/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 main components:

Frame size	Series DB - DC 63 ÷ 250	Series HB - HC 71 ÷ 160
Frame		
Endshields	Cast iron G200 (ISO 185)	Cast iron G200 (ISO 185)
Terminal box		
Fan cover	Steel	Steel
Rain cap		
Fan	Non sparking thermoplastic material or aluminium (IC 416)	Non sparking thermoplastic material or aluminium
Shaft	Steel C40	Steel C40
Rotor	Squirrel cage in pressure cast aluminium	Squirrel cage in pressure cast aluminium
Winding	Insulation class F or H	Insulation class F or H
Bolts and screws	Steel 8.8 zincd or A4-80 UNI EN ISO 3506-1	Steel 8.8 zincd or A4-80 UNI EN ISO 3506-1
Cable gland (on request)	Brass, nickel-plated brass, stainless steel	Brass, nickel-plated brass, stainless steel
Brake enclosure	Cast iron	Cast iron
Brake terminal box	Cast iron (180 ÷ 250)	---




Painting

Table 2 B - Paint system and characteristics

Frame size	63 ÷ 250
Pre-treatment	All components are sandblasted, cleaned and degreased
Painting	Polymerised epoxy polyester powder, oven-baked at 200°C
Thickness	Total 120 µm (different thicknesses available upon request)
Colour	RAL 5010 (special colours available upon request)
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
Operating temperature	-40 °C +130°C

The standard paint system with colour RAL 5010, is an acid-protection for heavy duty applications. Upon request, special colours are available by application of a final coat to the standard paint.

Nameplate

  	
0722 CESI 03ATEX111 n000001 y10 Electric Motor DB30 90L 4 3~ II 2GD Exd IIB T4 IP65	
⊕	⊕
V 230D 400Λ	A 6,24 3,60
Hz 50	1/min 1470
cos φ 0,79	kW 1,50
Brake MEC80 AC 400V/3~ 140VA 35Nm IC410 CLF Ta40 °C S2 J 0.283 kgm2 kg 43	
Manufacturer Cemp Srl - 20030 SENAGO (Milan) - ITALY regrease joints after any dismantling - fasteners quality 8.8 EN 20898	

The stainless steel nameplate is fitted on the motor frame.

Fig. 2 A

2.2 Bearing system

2.2.1 Bearing system

2.2.2 Bearing section

2.2.1 Bearing system

Standard motors are equipped with radial deep groove ball bearings (ZZ pre-greased series) or open bearings complete with grease nipples.

Where requested roller, or other special bearings can be fitted.

Lubrication

The ZZ series bearings are lubricated for life and require no further lubrication.

Open bearings are supplied with grease nipples and are to be lubricated according to the indications given in the table 2 C.

Bearing Seal

In order to prevent dust and water penetration, a seal ring is fitted to the endshield on the driving and non-driving ends.

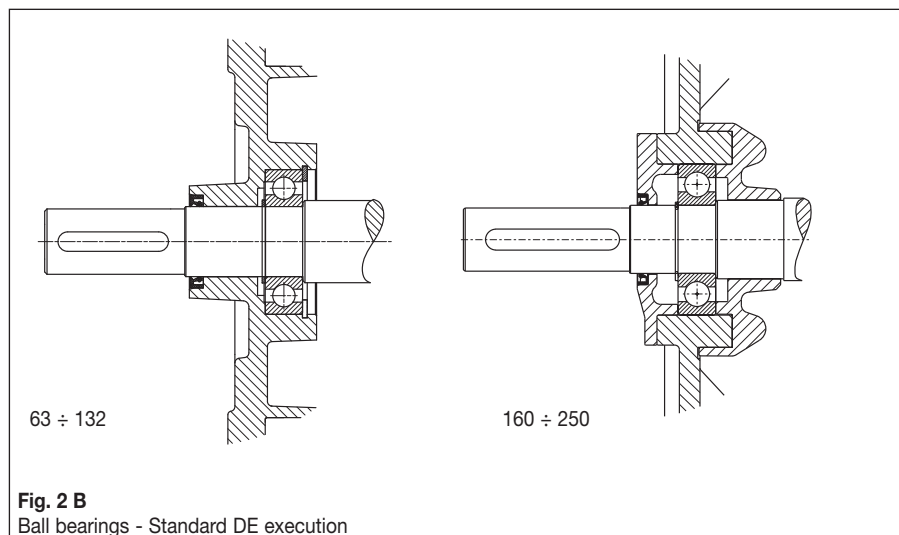
These seal rings are highly resistant to vibrations, thermally stable, and resistant to mineral oils and diluted acids.

Seals for media not listed above are available on request.

Table 2 C - Standard model
Closed non-lubricated bearings

Frame size	Poles	Bearing	
		Drive end	Non-Drive end
63	2 - 4 - 6 - 8	6202 ZZ	
71	2 - 4 - 6 - 8	6203 ZZ	
80	2 - 4 - 6 - 8	6204 ZZ	
90	2 - 4 - 6 - 8	6205 ZZ	
100	2 - 4 - 6 - 8	6206 ZZ	
112	2 - 4 - 6 - 8	6306 ZZ	
132	2 - 4 - 6 - 8	6308 ZZ C3	
160	2 - 4 - 6 - 8	6309 ZZ C3	
180	2 - 4 - 6 - 8	6310 ZZ C3	
200	2 - 4 - 6 - 8	6312 ZZ C3	
225	2 - 4 - 6 - 8	6313 ZZ C3	
250	2	6313 ZZ C3	
	4 - 6 - 8	6314 ZZ C3	6313 ZZ C3

2.2.2 Bearing section



2.3 Terminal box

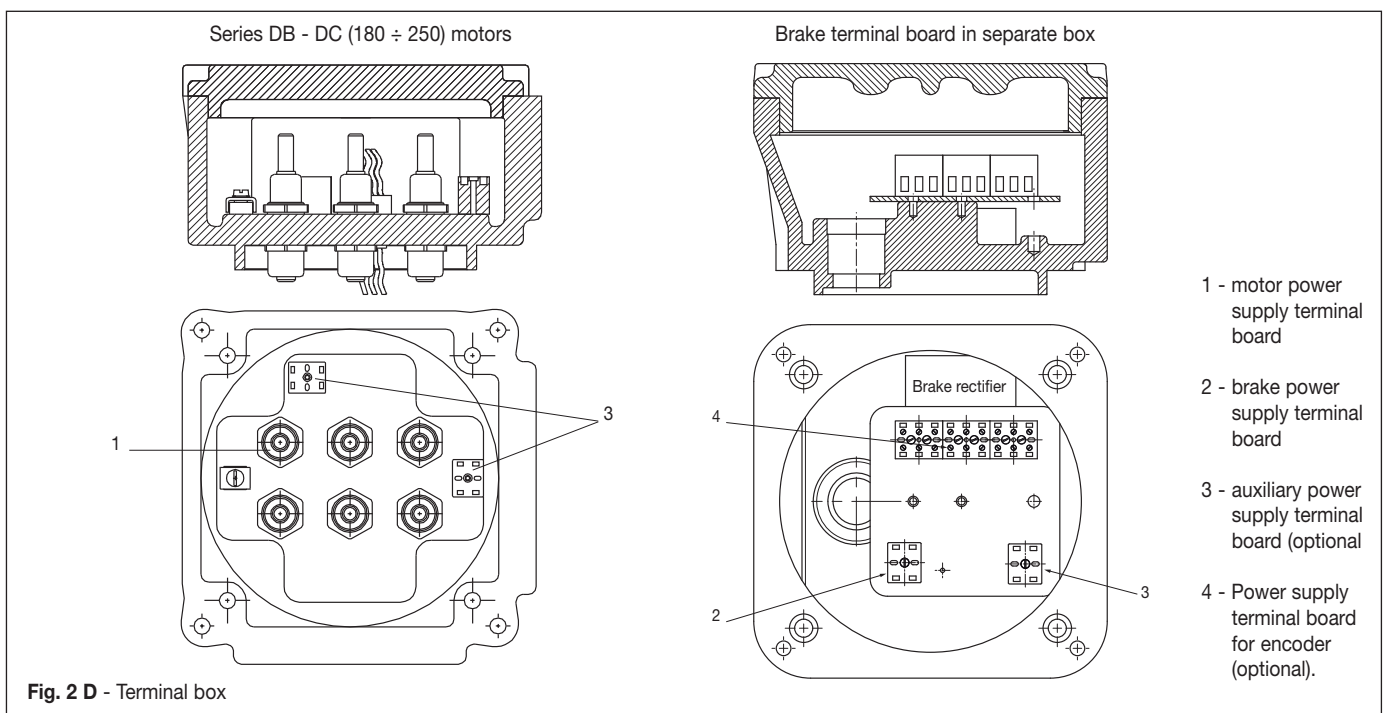
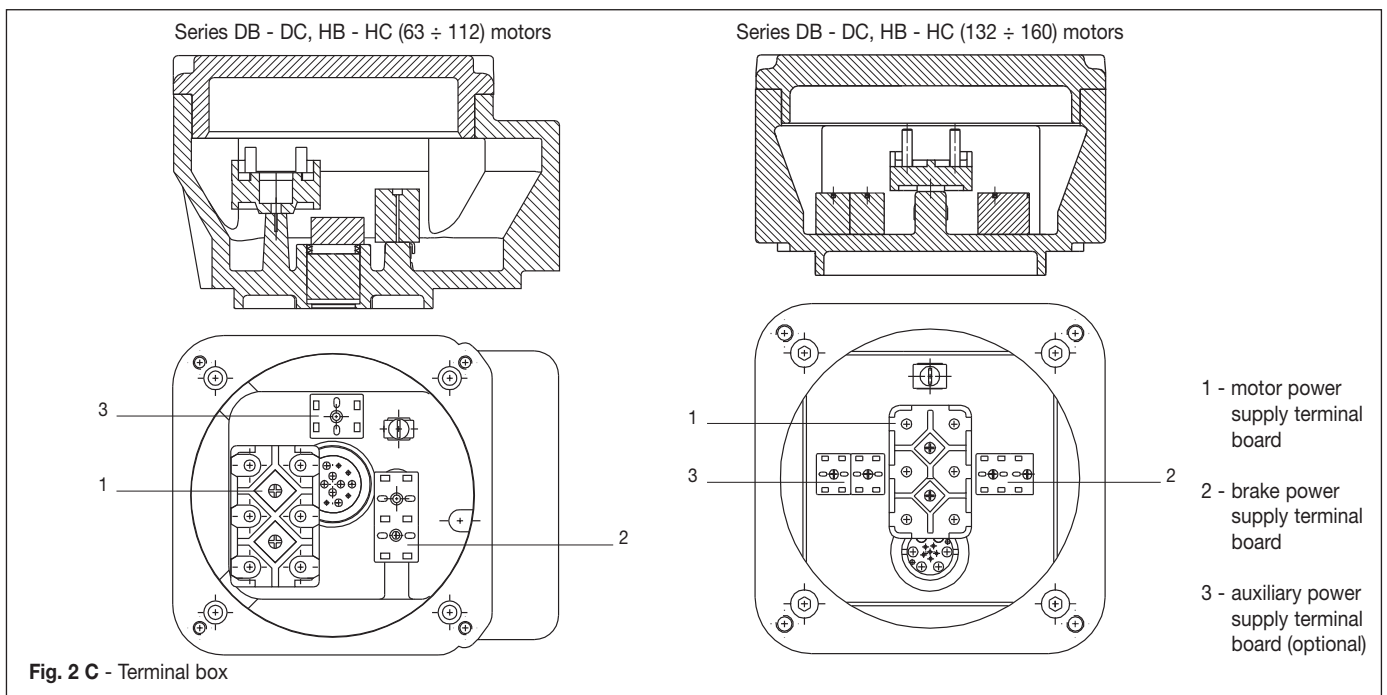
2.3.1 Terminal box design

The standard design has four basic versions:

- Ex d IIB
- Ex d IIC
- Ex de IIB
- Ex de IIC

Other alternatives available depending on customer requirements, i.e. additional terminal box for auxiliary terminals.

Motors with an axle height of 63 to 160 have a single terminal board box for the power supply to the motor and brake (fig. 2 C). Motors with an axle height of 180 to 250 have two separate terminal board boxes, one for the motor and the other for the brake (fig. 2 D).



2.3

2.3.2 Position of terminal box and cable entries

2.3.3 Cable-entries

2.3.2 Position of terminal box and cable entries

The terminal box is usually located on top and can be turned through 4 x 90° (Fig. 2 E).

For a horizontal mounted motor the cable entry is normally located on the right side (looking at the driving-end).

Cable entry:

- standard position: 1
- special positions upon request: 2, 3, 4.

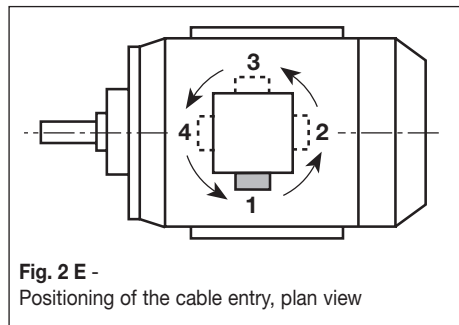


Fig. 2 E -
Positioning of the cable entry, plan view

2.3.3 Cable-entries

As standard, the motors are delivered with one or two threaded cable entries for flameproof packing glands.

Ex de motors can be also provided with Ex e packing glands.

Motors fitted with thermotectors or heaters are always provided with additional cable entry.

Tabla 2 D - Entrance for power supply cables

Frame size	Metric cylindrical threads (pitch 1,5) IEC 60423				Conical threading upon request*			
	Mains power supply		Power supply from an inverter		ANSI B 2.1		UNI 6125	
	Motors	Brake	Motors	Brake	Motors	Brake	Motors	Brake
63 ÷ 112	1 x M25	1 x M20	1 x M25 + 1 x M20	1 x M20	NPT 3/4"	NPT 1/2"	Gk 3/4"	Gk 1/2"
132 ÷ 160	2 x M32	1 x M20	1 x M32 + 1 x M20	1 x M20	NPT 1"	NPT 1/2"	Gk 1"	Gk 1/2"
180 ÷ 250	2 x M40	1 x M20	1 x M40 + 1 x M20	1 x M20	NPT 1.1/2"	NPT 1/2"	Gk 1.1/2"	Gk 1/2"
Auxiliaries cable entries								
63 ÷ 250	----	----	1 x M20	1 x M20	NPT 1/2"	NPT 1/2"	Gk 1/2"	Gk 1/2"

* Other threads available upon request

2.4 Construction details of brake

2.4.1 Series DB - DC and HB - HC

2.4.1 Series DB - DC and HB - HC

Construction method

Motors in these two series are built with an integrated brake and are considered as an integral unit, consequently, a single ATEX certificate is provided for both motor and brake.

The brake is enclosed in a special enclosure built with a Ex d IIB or IIC protection type and IP65 mechanical protection.

The temperature class and maximum surface temperature are those of the motor.

The electro-magnet winding is encapsulated in resin which isolates it and provides mechanical protection.

Motors with an axle height of 63 to 160 are normally fitted with a three-phase magneto with a power supply of 110V to 690V.

Alternatively, upon request, a magneto can be supplied with a direct current power supply using a rectifier, with a single-phase power supply of 48 V to 440 V.

If you have a direct current power supply line, the magneto can be powered directly using that line (from 24 V to 230 V).

Motors with an axle height of 180 to 250 use a "K10" type brake, which is only available with the magneto powered using direct current. This type of brake is always supplied with a direct current power supply using a rectifier, with a single-phase power supply of 48 V to 440 V.

Operation

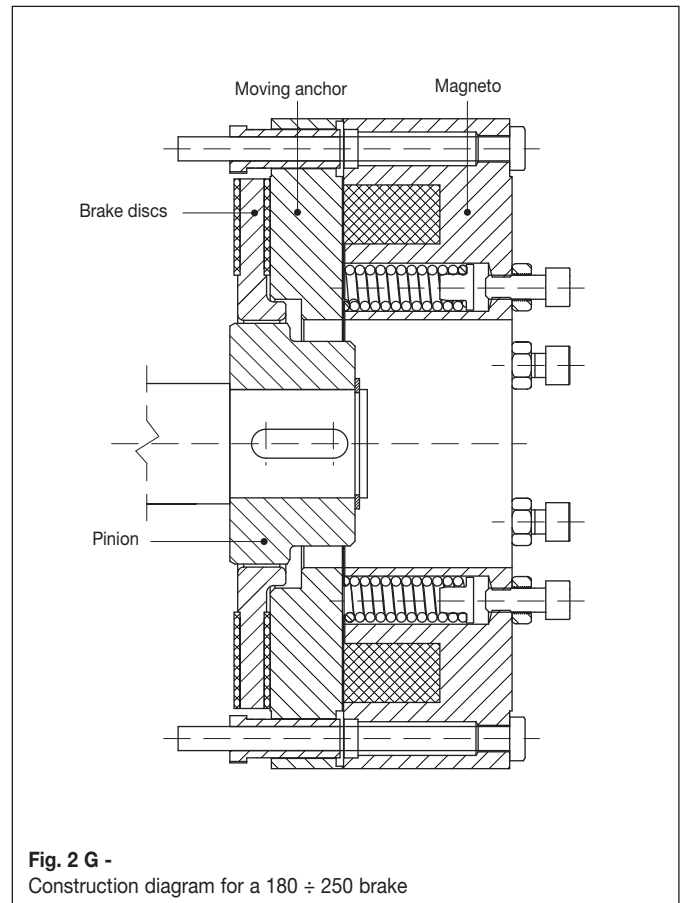
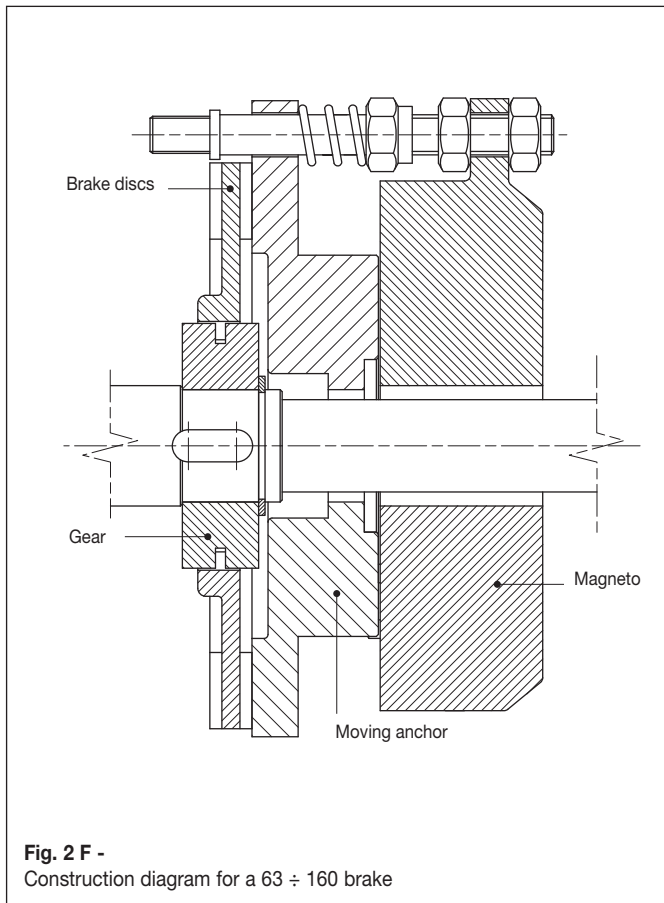
The brake is made up of:

- the magnet;
- the counter-magnet (or mobil armature) supported by three small columns where it can slide;
- braking disk
- toothed hub secured to the motor shaft.

When the coil is powered, the magnet attracts the mobil armature which thus releases the braking disk so the motor can rotate freely.

By removing voltage to the magnet, the springs push the mobil armature against the braking disk, which, by creating friction against the motor shield, locks the shaft rotation.

In rest conditions, when the brake is not powered, the motor remains locked.



2.4

2.4.1

2.4.1 Series DB - DC and HB - HC

Braking torque calibration

The motor is supplied with a ready-to-use calibrated brake.

Special calibration available on request. This is carried out during assembly before final testing.

Table 2 E shows the standard braking torques.

Manual release (71 ÷ 160)

DB - DC and HB - HC series flameproof motors with brake can be supplied on request with hand release lever for the brake.

Pressure is applied on the release mechanism which moves the mobile armature, freeing the motor's shaft.

When releasing pressure on the mechanism the brake automatically returns to the fail safe position.

Variants (63 ÷ 160)

On request: brake motors can be supplied with single-phase power supply brakes between 110V and 400V. This version is only available in the Ex d version, the terminal box contains a rectifier.

- supplied with D.C. current between 24V and 260V
- positive braking-when power is applied the brake activates and locks on. With the power supply off the brake is not energized and the motor shaft rotates freely. The positive brake is available only with D.C. current for motors with 71 ÷ 100 axis height.

Table 2 E - Standard technical data of the integrated brake

Frame size	Brake model	Static braking torque [Nm]	Air gap (+0.1 / 0) [mm]	On-off braking time requested [ms]	Number of disks [n°]	Maximum speed [1/min]	Power [VA]	Current max. [A]
63	AC1	4	0.2	20	1	3600	40	---
71	MEC 63	9	0.3	25	1	3600	50	---
80	T80	17	0.3	30	1	3600	60	---
90	MEC 80	35	0.3	40	1	3600	14	---
100	MEC 90 (♦)	48	0.3	40	1	3600	180	---
112	MEC 100 (♦)	70	0.3	45	1	3600	250	---
132	MEC 110 (♦)	90	0.3	90	1	3600	400	---
160	T140 (♦)	130	0.3	100	1	3600	480	---
180 ÷ 200	K10	400	0,3	220	1	1800	140	1,5
225 ÷ 250	K10	800	0,3	220	1	1800	140	1,5

(♦) 2 brake discs available by request (braking torque about + 50%).

3. Electrical design

3.1 Connection diagrams

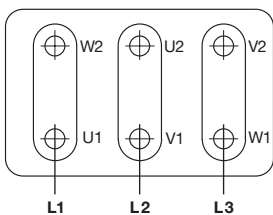
3.2 Hourly start-ups allowed (Braking: n° per hour)

3.1 Connection diagrams

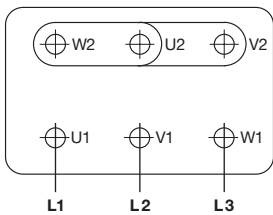
Connection to motor

Three-phase motors, single speed

Δ - Delta connection

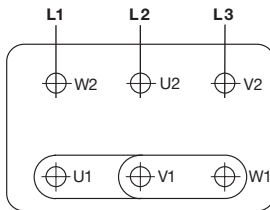


Y - Star connection

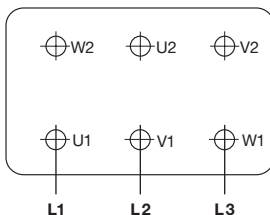


Three-phase motors, two speed, one winding

⏏ - High speed connection

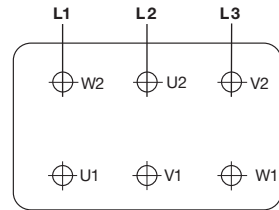


⏏ - Low speed connection

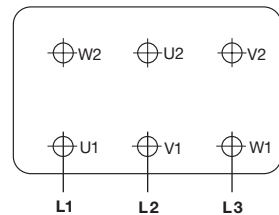


Three-phase motors, two speed, two windings

⏏ - High speed connection

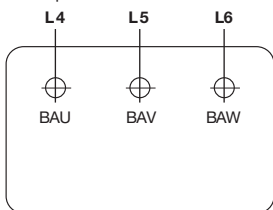


⏏ - Low speed connection

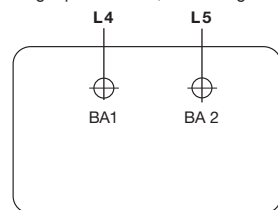


Brake connection with separate power supply

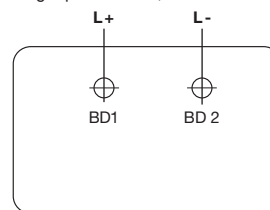
Three-phase A.C. brake



Single-phase brake, alternating current



Single-phase brake, direct current



Motor power supply line = L1, L2, L3

Brake power supply line = L4, L5, L6
= L+, L-

The rotation direction is reversible by inverting the two phases..

Fig. 3 A - Motor and brake connection diagrams

Other connection diagrams between motor and brake are available, including a single power supply for motor and brake, or power supply on the same terminal board.

3.2 Hourly start-ups allowed (Braking: n° per hour)

For motors with intermittent service (S4) the start-ups per hour allowed depend on the service time and load characteristics, of which inertia is particularly influential. In general, as inertia increases the number of start-ups reduces.

The data given in the column for the "Braking: n° per hour" in section "4. Nominal data" in this catalogue relate to operation with loads that have an inertia 1,5 times that of the motor.

4. Performance data

- 4.1 Three-phase motors, 1 speed
- 4.2 Three-phase motors, 2 speeds, for general purpose
- 4.3 Three-phase motors, 1 speed, for hoist applications
- 4.4 Three-phase motors, 2 speeds, for hoist applications

4. Données nominales

- 4.1 *Moteurs triphasés, 1 vitesse*
- 4.2 *Moteurs triphasés, 2 vitesses, pour usage général*
- 4.3 *Moteurs triphasés, 1 vitesse, pour levage*
- 4.4 *Moteurs triphasés, 2 vitesses, pour levage*

4. Betriebsdaten

- 4.1 Drehstrom Motoren, 1 Drehzahl
- 4.2 Drehstrom Motoren, 2 Drehzahlen, für allgemeinen Gebrauch
- 4.3 Drehstrom Motoren, 1 Drehzahl, Hubmotoren
- 4.4 Drehstrom Motoren, 2 Drehzahlen, Hubmotoren

4. Datos nominales

- 4.1 *Motores trifásicos, 1 velocidad*
- 4.2 *Motores trifásicos, 2 velocidades, para uso general*
- 4.3 *Motores trifásicos, 1 velocidad, para elevación*
- 4.4 *Motores trifásicos, 2 velocidades, para elevación*

4. Dati nominali

- 4.1 Motori trifase, 1 velocità
- 4.2 Motori trifase, 2 velocità, per uso generale
- 4.3 Motori trifase, 1 velocità, per sollevamento
- 4.4 Motori trifase, 2 velocità, per sollevamento

ENGLISH	Three-phase motors	II 2G	1	Speed	Rated data at	400 V	50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse	Données nominales à			démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl	Betriebsdaten bei			Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad	Datos nominales			arranque directo
ITALIANO	Motori trifase			Velocità	Dati nominali a			avviamento diretto

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	Leistungsfaktor	Moment
Tipo de motor	Potencia proporcionada	Velocidad	Corriente	Rendimiento	Factor de potencia	Par
Tipo motore	Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia

IIB		IIC		P _n [kW]	n [1/min]	I _n [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
DB30 63 A 2	DB35 63 A 2	DC30 63 A 2	DC35 63 A 2	0.18	2857	0.75	63.0	0.57	0.63
DB30 63 B 2	DB35 63 B 2	DC30 63 B 2	DC35 63 B 2	0.25	2805	0.85	66.4	0.66	0.84
(HB) DB30 71 A 2	(HB) DB35 71 A 2	(HC) DC30 71 A 2	(HC) DC35 71 A 2	0.37	2800	1.10	62.2	0.77	1.26
(HB) DB30 71 B 2	(HB) DB35 71 B 2	(HC) DC30 71 B 2	(HC) DC35 71 B 2	0.55	2830	1.40	71.0	0.79	1.85
(HB) DB30 80 A 2	(HB) DB35 80 A 2	(HC) DC30 80 A 2	(HC) DC35 80 A 2	0.75	2800	1.84	74.5	0.79	2.56
(HB) DB30 80 B 2	(HB) DB35 80 B 2	(HC) DC30 80 B 2	(HC) DC35 80 B 2	1.10	2845	2.68	77.0	0.77	3.69
(HB) DB30 90 S 2	(HB) DB35 90 S 2	(HC) DC30 90 S 2	(HC) DC35 90 S 2	1.50	2845	3.26	79.0	0.84	5.04
(HB) DB30 90 L 2	(HB) DB35 90 L 2	(HC) DC30 90 L 2	(HC) DC35 90 L 2	2.20	2820	4.53	80.5	0.87	7.44
(HB) DB30 100 LA 2	(HB) DB35 100 LA 2	(HC) DC30 100 LA 2	(HC) DC35 100 LA 2	3.00	2910	6.64	82.5	0.79	9.85
(HB) DB30 112 M 2	(HB) DB35 112 M 2	(HC) DC30 112 M 2	(HC) DC35 112 M 2	4.00	2900	8.00	84.2	0.86	13.17
(HB) DB30 132 SA 2	(HB) DB35 132 SA 2	(HC) DC30 132 SA 2	(HC) DC35 132 SA 2	5.50	2905	10.90	85.0	0.86	18.07
(HB) DB30 132 SB 2	(HB) DB35 132 SB 2	(HC) DC30 132 SB 2	(HC) DC35 132 SB 2	7.50	2925	14.80	86.0	0.85	24.48
(HB) DB30 132 MB 2	(HB) DB35 132 MB 2	(HC) DC30 132 MB 2	(HC) DC35 132 MB 2	9.20	2934	17.30	88.1	0.87	29.95
(HB) DB30 132 ML 2	(HB) DB35 132 ML 2	(HC) DC30 132 ML 2	(HC) DC35 132 ML 2	11.00	2930	20.55	92.0	0.84	35.85
(HB) DB30 160 MA 2	(HB) DB35 160 MA 2	(HC) DC30 160 MA 2	(HC) DC35 160 MA 2	11.00	2930	20.00	89.0	0.89	35.85
(HB) DB30 160 MB 2	(HB) DB35 160 MB 2	(HC) DC30 160 MB 2	(HC) DC35 160 MB 2	15.00	2950	26.80	89.7	0.90	48.56
(HB) DB30 160 L 2	(HB) DB35 160 L 2	(HC) DC30 160 L 2	(HC) DC35 160 L 2	18.50	2930	33.00	89.8	0.90	60.30

DB, DC

Unventilated S4 40%;
Non ventilés S4 40%;
Unbelüftet S4 40%;
No ventilados S4 40%;
Non ventilati S4 40%;

(HB), (HC)

Axis height 71 S1 fan cooled;
Autoventilé S1 avec hauteur d'axe de 71;
Eigenbelüftet S1 von Baugröße 71;
Ventilacion autónoma S1 con altura del eje 71;
Autoventilati S1 da altezza d'asse 71;

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

(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);

Duty type	IC410 S4 40%	Unventilated	IC411 IC416 (S1)	Fan cooled	Brake			3000	rpm	ENGLISH
Service type		Non ventilés		Autoventilé	Frein				tours/min	FRANÇAIS
Betrieb		Unbelüftet		Eigenbelüftet	Bremse				U/min	DEUTSCH
Régimen		No ventilados		Ventilacion autónoma	Freno				rev/min	ESPAÑOL
Servizio tipo		Non ventilati		Autoventilati	Freno				giri/min	ITALIANO

Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T
Intensité démarrage	Couple démarrage	Couple maximal	Pression sonore	Moment d'inertie	Masse	Couple	Puissance	Freinages par heure	CESI Certificat	Classe T
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T
Corriente de arranque	Par de arranque	Par máximo	Presión acústica	Momento de inercia	Peso	Par	Potencia	Frenados por hora	Certificados CESI	Clase T
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T

I _a /I _n	M _a /M _n	M _m /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
						S1	S4					
4.4	3.6	3.8	52	0.00015	22	3	4	40	240	03 ATEX 111	03 ATEX 110	4
3.9	3.5	3.7	52	0.00015	22	3	4	40	240	03 ATEX 111	03 ATEX 110	4
3.6	2.4	2.7	58	0.00082	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
4.3	2.5	2.8	58	0.00082	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
4.9	2.6	2.9	62	0.00140	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
5.3	3.0	2.9	62	0.00160	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
5.4	2.6	2.5	69	0.00230	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
6.0	2.4	3.0	69	0.00260	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
7.5	3.2	3.4	72	0.00512	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
6.8	2.0	2.5	72	0.00959	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
6.5	2.8	2.9	73	0.02056	124	60	90	400	236	03 ATEX 113	03 ATEX 112	4
6.4	2.5	3.0	75	0.02316	124	60	90	400	236	03 ATEX 113	03 ATEX 112	4
7.5	2.8	3.0	75	0.02596	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4
6.8	2.8	3.1	75	0.02976	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4
6.6	2.5	2.8	76	0.04101	217	90	130	480	136	03 ATEX 113	03 ATEX 112	4
7.0	2.9	3.0	76	0.05131	217	90	130	480	136	03 ATEX 113	03 ATEX 112	4
7.0	2.8	3.0	76	0.05841	230	90	130	480	136	03 ATEX 113	03 ATEX 112	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G	1	Speed	Rated data at	400 V	50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse	Données nominales à			démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl	Betriebsdaten bei			Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad	Datos nominales			arranque directo
ITALIANO	Motori trifase			Velocità	Dati nominali a			avviamento diretto

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

IIB		IIC		P _n [kW]	n [1/min]	I _n [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
DB30 63 A 4	DB35 63 A 4	DC30 63 A 4	DC35 63 A 4	0.12	1400	0.62	57.6	0.50	0.82
DB30 63 B 4	DB35 63 B 4	DC30 63 B 4	DC35 63 B 4	0.18	1340	0.67	61.5	0.62	1.28
(HB) DB30 71 A 4	(HB) DB35 71 A 4	(HC) DC30 71 A 4	(HC) DC35 71 A 4	0.25	1372	0.80	60.0	0.74	1.72
(HB) DB30 71 B 4	(HB) DB35 71 B 4	(HC) DC30 71 B 4	(HC) DC35 71 B 4	0.37	1390	1.10	69.0	0.72	2.53
(HB) DB30 80 A 4	(HB) DB35 80 A 4	(HC) DC30 80 A 4	(HC) DC35 80 A 4	0.55	1380	1.60	69.0	0.71	3.86
(HB) DB30 80 B 4	(HB) DB35 80 B 4	(HC) DC30 80 B 4	(HC) DC35 80 B 4	0.75	1390	2.06	73.0	0.72	5.15
(HB) DB30 90 S 4	(HB) DB35 90 S 4	(HC) DC30 90 S 4	(HC) DC35 90 S 4	1.10	1390	2.58	76.0	0.81	7.56
(HB) DB30 90 L 4	(HB) DB35 90 L 4	(HC) DC30 90 L 4	(HC) DC35 90 L 4	1.50	1400	3.54	77.5	0.79	10.22
(HB) DB30 100 LA 4	(HB) DB35 100 LA 4	(HC) DC30 100 LA 4	(HC) DC35 100 LA 4	2.20	1427	5.15	80.5	0.77	14.72
(HB) DB30 100 LB 4	(HB) DB35 100 LB 4	(HC) DC30 100 LB 4	(HC) DC35 100 LB 4	3.00	1436	7.07	81.7	0.75	19.95
(HB) DB30 112 M 4	(HB) DB35 112 M 4	(HC) DC30 112 M 4	(HC) DC35 112 M 4	4.00	1435	8.28	85.0	0.82	26.62
(HB) DB30 132 SB 4	(HB) DB35 132 SB 4	(HC) DC30 132 SB 4	(HC) DC35 132 SB 4	5.50	1455	11.90	87.0	0.77	36.11
(HB) DB30 132 MB 4	(HB) DB35 132 MB 4	(HC) DC30 132 MB 4	(HC) DC35 132 MB 4	7.50	1460	17.20	86.3	0.73	49.05
(HB) DB30 132 ML 4	(HB) DB35 132 ML 4	(HC) DC30 132 ML 4	(HC) DC35 132 ML 4	8.80	1455	18.50	87.0	0.79	57.77
(HB) DB30 160 MB 4	(HB) DB35 160 MB 4	(HC) DC30 160 MB 4	(HC) DC35 160 MB 4	11.00	1465	22.90	89.0	0.78	71.66
(HB) DB30 160 L 4	(HB) DB35 160 L 4	(HC) DC30 160 L 4	(HC) DC35 160 L 4	15.00	1470	31.40	89.5	0.77	97.42
(DB) DB30 180 M 4	(DB) DB35 180 M 4	(DC) DC30 180 M 4	(DC) DC35 180 M 4	18.50	1470	39.00	91.0	0.75	120.20
(DB) DB30 180 L 4	(DB) DB35 180 L 4	(DC) DC30 180 L 4	(DC) DC35 180 L 4	22.00	1470	44.00	92.0	0.78	143.00
(DB) DB30 200 LB 4	(DB) DB35 200 LB 4	(DC) DC30 200 LB 4	(DC) DC35 200 LB 4	30.00	1475	54.00	95.0	0.85	194.60
(DB) DB30 225 S 4	(DB) DB35 225 S 4	(DC) DC30 225 S 4	(DC) DC35 225 S 4	37.00	1480	70.00	95.0	0.81	232.60
(DB) DB30 225 M 4	(DB) DB35 225 M 4	(DC) DC30 225 M 4	(DC) DC35 225 M 4	45.00	1480	82.00	95.0	0.83	290.50
(DB) DB30 250 M 4	(DB) DB35 250 M 4	(DC) DC30 250 M 4	(DC) DC35 250 M 4	55.00	1485	96.00	94.0	0.88	354.70

DB, DC - 63 ÷ 250

Unventilated S4 40%;
Non ventilés S4 40%;
Unbelüftet S4 40%;
No ventilados S4 40%;
Non ventilati S4 40%;

(DB), (DC) - 180 ÷ 250

With S1 ventilated assistance;
Avec ventilation assistée S1 ;
Mit Fremdbelüftung S1,
Con ventilación asistida S1;
Con ventilazione assistita S1;

(HB), (HC) - 71 ÷ 160

S1 fan cooled;
Autoventilé S1;
Eigenbelüftet S1;
Ventilacion autónoma S1;
Autoventilati S1;

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

(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);

Duty type	IC410 S4 40%	Unventilated	IC411 IC416 (S1)	Fan cooled	Brake			1500	rpm	ENGLISH
Service type		Non ventilés		Autoventilé	Frein				tours/min	FRANÇAIS
Betrieb		Unbelüftet		Eigenbelüftet	Bremse				U/min	DEUTSCH
Régimen		No ventilados		Ventilacion autónoma	Freno				rev/min	ESPAÑOL
Servizio tipo		Non ventilati		Autoventilati	Freno				giri/min	ITALIANO

Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T
Intensité démarrage	Couple démarrage	Couple maximal	Pression sonore	Moment d'inertie	Masse	Couple	Puissance	Freinages par heure	CESI Certificat	Classe T
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T
Corriente de arranque	Par de arranque	Par máximo	Presión acústica	Momento de inercia	Peso	Par	Potencia	Frenados por hora	Certificados CESI	Clase T
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T

I _a /I _n	M _a /M _n	M _m /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
						S1	S4					
4.5 2.4	3.6 2.3	3.8 2.5	44 44	0.00025 0.00025	22 22	3 3	4 4	40 40	240 240	03 ATEX 111 03 ATEX 111	03 ATEX 110 03 ATEX 110	4 4
3.5 3.0	2.2 2.2	2.6 2.8	48 48	0.00102 0.00132	29 29	6 6	9 9	50 50	240 240	03 ATEX 111 03 ATEX 111	03 ATEX 110 03 ATEX 110	4 4
4.0 4.0	2.3 2.3	2.5 2.6	51 51	0.00170 0.00210	36 36	12 12	17 17	60 60	240 240	03 ATEX 111 03 ATEX 111	03 ATEX 110 03 ATEX 110	4 4
4.1 5.0	2.0 2.3	2.4 2.5	54 54	0.00310 0.00370	52 52	25 25	35 35	140 140	240 240	03 ATEX 111 03 ATEX 111	03 ATEX 110 03 ATEX 110	4 4
5.0 4.8	2.5 2.4	2.4 3.1	55 55	0.00562 0.00662	62 62	34 34	48 48	180 180	240 240	03 ATEX 111 03 ATEX 111	03 ATEX 110 03 ATEX 110	4 4
5.6	2.7	2.9	60	0.01249	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
6.3 5.8 6.8	2.4 2.7 2.5	2.8 3.4 3.5	64 67 67	0.03316 0.04056 0.04866	134 134 134	60 60 60	90 90 90	400 400 400	240 240 240	03 ATEX 113 03 ATEX 113 03 ATEX 113	03 ATEX 112 03 ATEX 112 03 ATEX 112	4 4 4
6.2 5.9	2.5 2.5	3.0 3.0	69 69	0.06771 0.08511	217 217	90 90	130 130	480 480	240 240	03 ATEX 113 03 ATEX 113	03 ATEX 112 03 ATEX 112	4 4
6.0 7.0	3.2 2.3	3.0 2.5	70 70	0.13560 0.16130	420 435	300 300	400 400	140 140	150 150	09 ATEX 021 09 ATEX 021	09 ATEX 020 09 ATEX 020	4 4
6.6	2.7	2.9	72	0.25760	495	300	400	140	150 150	09 ATEX 021	09 ATEX 020	4
7.1 6.2	2.7 2.4	3.0 2.8	73 73	0.38570 0.45990	710 750	600 600	800 800	140 140	150 150	09 ATEX 021 09 ATEX 021	09 ATEX 020 09 ATEX 020	4 4
7.5	2.9	2.9	75	0.77930	835	600	800	140	100	09 ATEX 021	09 ATEX 020	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G	1	Speed	Rated data at	400 V	50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse	Données nominales à			démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl	Betriebsdaten bei			Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad	Datos nominales			arranque directo
ITALIANO	Motori trifase			Velocità	Dati nominali a			avviamento diretto

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

IIB		IIC		P _n [kW]	n [1/min]	I _n [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
DB30 63 B 6	DB35 63 B 6	DC30 63 B 6	DC35 63 B 6	0.09	850	0.65	38.0	0.52	0.99
(HB) DB30 71 A 6	(HB) DB35 71 A 6	(HC) DC30 71 A 6	(HC) DC35 71 A 6	0.18	945	0.92	55.0	0.51	1.82
(HB) DB30 71 B 6	(HB) DB35 71 B 6	(HC) DC30 71 B 6	(HC) DC35 71 B 6	0.26	918	1.00	60.0	0.63	2.71
(HB) DB30 80 A 6	(HB) DB35 80 A 6	(HC) DC30 80 A 6	(HC) DC35 80 A 6	0.37	930	1.60	58.0	0.58	3.80
(HB) DB30 80 B 6	(HB) DB35 80 B 6	(HC) DC30 80 B 6	(HC) DC35 80 B 6	0.55	930	1.80	70.0	0.65	5.79
(HB) DB30 90 S 6	(HB) DB35 90 S 6	(HC) DC30 90 S 6	(HC) DC35 90 S 6	0.75	910	2.20	70.0	0.71	7.85
(HB) DB30 90 L 6	(HB) DB35 90 L 6	(HC) DC30 90 L 6	(HC) DC35 90 L 6	1.10	935	3.35	73.0	0.65	11.21
(HB) DB30 100 LB 6	(HB) DB35 100 LB 6	(HC) DC30 100 LB 6	(HC) DC35 100 LB 6	1.50	950	3.80	76.0	0.75	15.11
(HB) DB30 112 M 6	(HB) DB35 112 M 6	(HC) DC30 112 M 6	(HC) DC35 112 M 6	2.20	960	6.11	80.0	0.65	21.84
(HB) DB30 132 SB 6	(HB) DB35 132 SB 6	(HC) DC30 132 SB 6	(HC) DC35 132 SB 6	3.00	950	7.50	80.0	0.72	30.16
(HB) DB30 132 MB 6	(HB) DB35 132 MB 6	(HC) DC30 132 MB 6	(HC) DC35 132 MB 6	4.00	970	9.50	81.4	0.75	39.38
(HB) DB30 132 ML 6	(HB) DB35 132 ML 6	(HC) DC30 132 ML 6	(HC) DC35 132 ML 6	5.50	960	12.30	84.0	0.77	54.69
(HB) DB30 160 MB 6	(HB) DB35 160 MB 6	(HC) DC30 160 MB 6	(HC) DC35 160 MB 6	7.50	950	15.70	85.0	0.81	75.33
(HB) DB30 160 L 6	(HB) DB35 160 L 6	(HC) DC30 160 L 6	(HC) DC35 160 L 6	11.00	950	21.50	87.0	0.85	110.57
(DB) DB30 180 L 6	(DB) DB35 180 L 6	(DC) DC30 180 L 6	(DC) DC35 180 L 6	15.00	960	29.00	88.0	0.86	149.20
(DB) DB30 200 LA 6	(DB) DB35 200 LA 6	(DC) DC30 200 LA 6	(DC) DC35 200 LA 6	18.50	975	38.00	91.0	0.77	181.50
(DB) DB30 200 LB 6	(DB) DB35 200 LB 6	(DC) DC30 200 LB 6	(DC) DC35 200 LB 6	22.00	980	44.00	92.0	0.78	215.00
(DB) DB30 225 M 6	(DB) DB35 225 M 6	(DC) DC30 225 M 6	(DC) DC35 225 M 6	30.00	985	61.00	92.0	0.78	291.00
(DB) DB30 250 M 6	(DB) DB35 250 M 6	(DC) DC30 250 M 6	(DC) DC35 250 M 6	37.00	990	72.00	94.0	0.79	358.00
(DB) DB30 250 ML 6	(DB) DB35 250 ML 6	(DC) DC30 250 ML 6	(DC) DC35 250 ML 6	45.00	988	93.60	93.0	0.75	434.60

DB, DC - 63 ÷ 250

Unventilated S4 40%;
Non ventilés S4 40%;
Unbelüftet S4 40%;
No ventilados S4 40%;
Non ventilati S4 40%;

(DB), (DC) - 180 ÷ 250

With S1 ventilated assistance;
Avec ventilation assistée S1 ;
Mit Fremdbelüftung S1,
Con ventilación asistida S1;
Con ventilazione assistita S1;

(HB), (HC) - 71 ÷ 160

S1 fan cooled;
Autoventilé S1;
Eigenbelüftet S1;
Ventilación autónoma S1;
Autoventilati S1;

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

(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);

Duty type	IC410 S4 40%	Unventilated	IC411 IC416 (S1)	Fan cooled	Brake			1000	rpm	ENGLISH
Service type		Non ventilés		Autoventilé	Frein				tours/min	FRANÇAIS
Betrieb		Unbelüftet		Eigenbelüftet	Bremse				U/min	DEUTSCH
Régimen		No ventilados		Ventilacion autónoma	Freno				rev/min	ESPAÑOL
Servizio tipo		Non ventilati		Autoventilati	Freno				giri/min	ITALIANO

Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	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>Couple</i>	<i>Puissance</i>	<i>Freinages par heure</i>	<i>CESI Certificat</i>	<i>Classe T</i>		
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	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>	<i>Par</i>	<i>Potencia</i>	<i>Frenados por hora</i>	<i>Certificados CESI</i>	<i>Clase T</i>		
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T		
I_a/I_n	M_a/M_n	M_m/M_n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		max n. ●	IIB	IIC	◆	
						S1	S4	[VA]				
2.0	2.3	2.2	40	0.00025	22	3	4	40	240	03 ATEX 111	03 ATEX 110	4
3.7	3.7	3.7	42	0.00112	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
3.4	2.6	2.6	42	0.00142	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
3.1	2.9	3.2	45	0.00300	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
2.8	2.0	2.1	45	0.00350	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
3.0	1.8	2.1	46	0.00450	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
3.4	2.0	2.2	46	0.00600	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
4.2	2.0	2.3	55	0.01012	62	34	48	180	240 240	03 ATEX 111	03 ATEX 110	4
5.2	2.3	2.1	57	0.01939	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
5.8	1.4	1.7	60	0.04046	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
6.1	1.7	1.9	60	0.04766	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
4.7	1.8	2.0	60	0.05876	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
4.8	2.1	2.1	64	0.09691	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
6.2	1.7	2.0	64	0.12681	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
5.4	1.7	2.2	67	0.23830	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
5.9	1.6	2.1	69	0.31060	490	300	400	140	150	09 ATEX 021	09 ATEX 020	4
6.1	1.6	2.1	69	0.31840	515	300	400	140	150	09 ATEX 021	09 ATEX 020	4
5.8	2.0	2.5	70	0.77370	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
5.2	2.0	2.4	70	1.05950	813	600	800	140	150	09 ATEX 021	09 ATEX 020	4
8.6	3.0	1.9	70	1.23000	905	600	800	140	150	09 ATEX 021	09 ATEX 020	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage,
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G	1	Speed	Rated data at	400 V	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse	Données nominales à		démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl	Betriebsdaten bei		Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad	Datos nominales		arranque directo
ITALIANO	Motori trifase			Velocità	Dati nominali a		avviamento diretto

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

IIB		IIC		P _n [kW]	n [1/min]	I _n [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
DB30 63 B 8	DB35 63 B 8	DC30 63 B 8	DC35 63 B 8	0.05	590	0.44	27.0	0.60	0.79
(HB) DB30 71 B 8	(HB) DB35 71 B 8	(HC) DC30 71 B 8	(HC) DC35 71 B 8	0.15	600	0.57	54.0	0.75	2.54
(HB) DB30 80 A 8	(HB) DB35 80 A 8	(HC) DC30 80 A 8	(HC) DC35 80 A 8	0.18	705	0.97	55.0	0.52	2.63
(HB) DB30 80 B 8	(HB) DB35 80 B 8	(HC) DC30 80 B 8	(HC) DC35 80 B 8	0.25	690	1.00	61.0	0.60	3.53
(HB) DB30 90 S 8	(HB) DB35 90 S 8	(HC) DC30 90 S 8	(HC) DC35 90 S 8	0.37	680	1.30	75.0	0.55	5.20
(HB) DB30 90 L 8	(HB) DB35 90 L 8	(HC) DC30 90 L 8	(HC) DC35 90 L 8	0.55	680	1.90	80.0	0.52	7.73
(HB) DB30 100 LA 8	(HB) DB35 100 LA 8	(HC) DC30 100 LA 8	(HC) DC35 100 LA 8	0.75	700	2.85	67.5	0.57	10.20
(HB) DB30 100 LB 8	(HB) DB35 100 LB 8	(HC) DC30 100 LB 8	(HC) DC35 100 LB 8	1.10	675	3.10	75.0	0.68	15.50
(HB) DB30 112 M 8	(HB) DB35 112 M 8	(HC) DC30 112 M 8	(HC) DC35 112 M 8	1.50	720	4.40	76.0	0.65	20.00
(HB) DB30 132 SB 8	(HB) DB35 132 SB 8	(HC) DC30 132 SB 8	(HC) DC35 132 SB 8	2.20	720	6.50	75.0	0.66	29.20
(HB) DB30 132 MB 8	(HB) DB35 132 MB 8	(HC) DC30 132 MB 8	(HC) DC35 132 MB 8	3.00	720	8.50	82.0	0.63	40.25
(HB) DB30 160 MA 8	(HB) DB35 160 MA 8	(HC) DC30 160 MA 8	(HC) DC35 160 MA 8	4.00	718	9.70	85.0	0.70	53.20
(HB) DB30 160 MB 8	(HB) DB35 160 MB 8	(HC) DC30 160 MB 8	(HC) DC35 160 MB 8	5.50	725	14.00	85.0	0.77	73.00
(HB) DB30 160 L 8	(HB) DB35 160 L 8	(HC) DC30 160 L 8	(HC) DC35 160 L 8	7.50	720	18.00	76.0	0.77	99.50
(DB) DB30 180 L 8	(DB) DB35 180 L 8	(DC) DC30 180 L 8	(DC) DC35 180 L 8	11.00	720	23.00	87.0	0.79	146.00
(DB) DB30 200 LB 8	(DB) DB35 200 LB 8	(DC) DC30 200 LB 8	(DC) DC35 200 LB 8	15.00	735	35.00	89.0	0.70	196.00
(DB) DB30 225 S 8	(DB) DB35 225 S 8	(DC) DC30 225 S 8	(DC) DC35 225 S 8	18.50	735	42.30	88.0	0.72	243.30
(DB) DB30 225 M 8	(DB) DB35 225 M 8	(DC) DC30 225 M 8	(DC) DC35 225 M 8	22.00	730	46.00	88.0	0.79	288.00
(DB) DB30 250 M 8	(DB) DB35 250 M 8	(DC) DC30 250 M 8	(DC) DC35 250 M 8	30.00	740	61.00	94.0	0.76	386.90

DB, DC - 63 ÷ 250
 Unventilated S4 40%;
 Non ventilés S4 40%;
 Unbelüftet S4 40%;
 No ventilados S4 40%;
 Non ventilati S4 40%;

(DB), (DC) - 180 ÷ 250
 With S1 ventilated assistance;
 Avec ventilation assistée S1 ;
 Mit Fremdbelüftung S1,
 Con ventilación asistida S1;
 Con ventilazione assistita S1;

(HB), (HC) - 71 ÷ 160
 S1 fan cooled;
 Autoventilé S1;
 Eigenbelüftet S1;
 Ventilación autónoma S1;
 Autoventilati S1;

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

(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);

Duty type	Unventilated		Fan cooled		Brake			rpm		ENGLISH		
Service type	Non ventilés		Autoventilé		Frein			tours/min		FRANÇAIS		
Betrieb	IC410	Unbelüftet	IC411		Eigenbelüftet			Bremse		U/min	DEUTSCH	
Régimen	S4	No ventilados	IC416		Ventilacion autónoma			Freno		rev/min	ESPAÑOL	
Servizio tipo	40%	Non ventilati	(S1)		Autoventilati			Freno		750 giri/min	ITALIANO	
Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates		Class T	
Intensité démarrage	Couple démarrage	Couple maximal	Pression sonore	Moment d'inertie	Masse	Couple	Puissance	Freinages par heure	CESI Certificat		Classe T	
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremungen pro Stunde	CESI Konformitäts-Bescheinigung		Klasse T	
Corriente de arranque	Par de arranque	Par máximo	Presión acústica	Momento de inercia	Peso	Par	Potencia	Frenados por hora	Certificados CESI		Clase T	
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI		Classe T	
I _a /I _n	M _a /M _n	M _m /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
1.6	1.6	1.8	39	0.00025	22	3	4	40	240	03 ATEX 111	03 ATEX 110	4
2.1	1.3	1.5	40	0.00142	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
3.4	1.9	2.1	41	0.00300	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
3.3	1.4	1.7	41	0.00350	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
2.2	1.5	1.8	45	0.00450	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
2.1	1.5	1.8	45	0.00600	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
2.6	2.5	2.7	52	0.01012	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
2.7	1.8	2.2	52	0.01012	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
4.1	1.9	2.2	54	0.01939	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
4.0	1.8	2.3	58	0.04046	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
3.9	1.7	1.9	58	0.05876	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
4.5	2.3	2.5	62	0.09691	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
3.9	2.2	2.7	62	0.09691	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
4.2	2.4	2.8	62	0.12681	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
5.0	2.2	2.4	64	0.29110	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
5.3	1.6	2.1	65	0.47150	495	300	400	140	150	09 ATEX 021	09 ATEX 020	4
5.8	2.4	2.7	68	0.64570	710	600	800	140	150	09 ATEX 021	09 ATEX 020	4
5.0	2.1	2.3	68	0.77370	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
6.2	1.8	2.2	68	1.30810	840	600	800	140	150	09 ATEX 021	09 ATEX 020	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage,
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G II 2GD	2	Speeds, for general purpose	Rated data at	400 V 50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesses, pour usage général	Données nominales à		démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahlen, für allgemeinen Gebrauch	Betriebsdaten bei		Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidades, para uso general	Datos nominales		arranque directo
ITALIANO	Motori trifase			Velocità, per uso generale	Dati nominali a		avviamento diretto

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

IIB		IIC		P _n [kW]	n [1/min]	I _n \blacktriangleright [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
DB20 63 A 24	DB25 63 A 24	DC20 63 A 24	DC25 63 A 24	0.20	2740	0.52	68.0	0.83	0.71
				0.15	1310	0.59	49.0	0.74	1.09
(HB) DB20 71 A 24	(HB) DB25 71 A 24	(HC) DC20 71 A 24	(HC) DC25 71 A 24	0.30	2890	1.05	56.0	0.74	0.98
				0.20	1440	1.10	47.0	0.56	1.30
(HB) DB20 71 B 24	(HB) DB25 71 B 24	(HC) DC20 71 B 24	(HC) DC25 71 B 24	0.45	2805	1.26	62.0	0.83	1.53
				0.30	1420	1.20	59.0	0.63	2.02
(HB) DB20 80 A 24	(HB) DB25 80 A 24	(HC) DC20 80 A 24	(HC) DC25 80 A 24	0.60	2800	1.60	68.0	0.87	2.11
				0.45	1400	1.20	69.0	0.84	3.10
(HB) DB20 80 B 24	(HB) DB25 80 B 24	(HC) DC20 80 B 24	(HC) DC25 80 B 24	0.80	2800	2.10	64.0	0.85	2.72
				0.60	1400	1.70	72.0	0.71	4.10
(HB) DB20 90 S 24	(HB) DB25 90 S 24	(HC) DC20 90 S 24	(HC) DC25 90 S 24	1.25	2780	2.90	65.0	0.96	4.30
				0.90	1380	2.40	64.0	0.85	6.20
(HB) DB20 90 L 24	(HB) DB25 90 L 24	(HC) DC20 90 L 24	(HC) DC25 90 L 24	1.60	2800	3.60	72.0	0.90	5.50
				1.20	1400	2.90	78.0	0.77	8.20
(HB) DB20 100 LA 24	(HB) DB25 100 LA 24	(HC) DC20 100 LA 24	(HC) DC25 100 LA 24	2.35	2780	5.40	70.0	0.90	8.10
				1.85	1400	4.50	72.0	0.82	12.60
(HB) DB20 100 LB 24	(HB) DB25 100 LB 24	(HC) DC20 100 LB 24	(HC) DC25 100 LB 24	3.00	2880	7.30	73.0	0.82	10.00
				2.40	1420	5.70	79.0	0.77	16.10
(HB) DB20 112 M 24	(HB) DB25 112 M 24	(HC) DC20 112 M 24	(HC) DC25 112 M 24	4.00	2860	8.60	84.0	0.80	13.40
				3.30	1450	6.80	65.0	0.80	21.70
(HB) DB20 132 S 24	(HB) DB25 132 S 24	(HC) DC20 132 S 24	(HC) DC25 132 S 24	5.90	2880	11.50	80.0	0.93	19.60
				4.80	1430	10.00	81.0	0.85	32.10
(HB) DB20 132 M 24	(HB) DB25 132 M 24	(HC) DC20 132 M 24	(HC) DC25 132 M 24	7.50	2880	14.50	88.0	0.85	24.90
				5.50	1430	13.50	73.0	0.80	36.80
(HB) DB20 132 L 24	(HB) DB25 132 L 24	(HC) DC20 132 L 24	(HC) DC25 132 L 24	8.00	2890	19.00	72.0	0.85	26.90
				6.00	1440	17.00	63.0	0.80	39.34
(HB) DB20 160 M 24	(HB) DB25 160 M 24	(HC) DC20 160 M 24	(HC) DC25 160 M 24	11.00	2940	22.00	80.0	0.90	35.70
				8.80	1440	22.00	78.0	0.74	58.40
(HB) DB20 160 L 24	(HB) DB25 160 L 24	(HC) DC20 160 L 24	(HC) DC25 160 L 24	15.00	2945	29.50	77.0	0.95	48.60
				12.00	1450	28.50	81.0	0.75	79.00
(DB) DB20 180 M 24	(DB) DB25 180 M 24	(DC) DC20 180 M 24	(DC) DC25 180 M 24	18.50	○	○	○	○	○
				15.00	○	○	○	○	○
(DB) DB20 180 L 24	(DB) DB25 180 L 24	(DC) DC20 180 L 24	(DC) DC25 180 L 24	22.00	○	○	○	○	○
				18.50	○	○	○	○	○
(DB) DB20 200 LB 24	(DB) DB25 200 LB 24	(DC) DC20 200 LB 24	(DC) DC25 200 LB 24	30.00	○	○	○	○	○
				24.00	○	○	○	○	○
(DB) DB20 225 S 24	(DB) DB25 225 S 24	(DC) DC20 225 S 24	(DC) DC25 225 S 24	33.00	○	○	○	○	○
				30.00	○	○	○	○	○
(DB) DB20 225 M 24	(DB) DB25 225 M 24	(DC) DC20 225 M 24	(DC) DC25 225 M 24	40.00	○	○	○	○	○
				37.00	○	○	○	○	○
(DB) DB20 250 M 24	(DB) DB25 250 M 24	(DC) DC20 250 M 24	(DC) DC25 250 M 24	50.00	○	○	○	○	○
				42.00	○	○	○	○	○

DB, DC - 63 ÷ 250

Unventilated S4 40%;
Non ventilés S4 40%;
Unbelüftet S4 40%;
No ventilados S4 40%;
Non ventilati S4 40%;

(DB), (DC) - 180 ÷ 250

With S1 ventilated assistance;
Avec ventilation assistée S1 ;
Mit Fremdbelüftung S1,
Con ventilación asistida S1;
Con ventilazione assistita S1;

(HB), (HC) - 71 ÷ 160

S1 fan cooled;
Autoventilé S1;
Eigenbelüftet S1;
Ventilación autónoma S1;
Autoventilati S1;

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

(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);

Duty type	IC410 S4 40%	Unventilated	IC411 IC416 (S1)	Fan cooled	Brake			3000 1500	rpm	ENGLISH
Service type		Non ventilés		Autoventilé	Frein				tours/min	FRANÇAIS
Betrieb		Unbelüftet		Eigenbelüftet	Bremse				U/min	DEUTSCH
Régimen		No ventilados		Ventilacion autónoma	Freno				rev/min	ESPAÑOL
Servizio tipo		Non ventilati		Autoventilati	Freno				giri/min	ITALIANO

Starting current	Starting torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T
<i>Intensité démarrage</i>	<i>Couple démarrage</i>	<i>Pression sonore</i>	<i>Moment d'inertie</i>	<i>Masse</i>	<i>Couple</i>	<i>Puissance</i>	<i>Freinages par heure</i>	<i>CESI Certificat</i>	<i>Classe T</i>
Anlaufstrom	Anlaufmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T
<i>Corriente de arranque</i>	<i>Par de arranque</i>	<i>Presión acústica</i>	<i>Momento de inercia</i>	<i>Peso</i>	<i>Par</i>	<i>Potencia</i>	<i>Frenados por hora</i>	<i>Certificados CESI</i>	<i>Clase T</i>
Corrente avviamento	Coppia avviamento	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T

I _a /I _n	M _a /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
					S1	S4					
3.5	1.9	52	0.00025	22	3	4	40	240	03 ATEX 111	03 ATEX 110	4
2.2	1.6										
5.5	3.0	58	0.00102	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
3.7	3.4										
4.6	2.5	58	0.00132	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
3.4	2.3										
4.9	2.8	62	0.00170	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
4.7	2.3										
4.4	1.8	62	0.00210	36	12	17	60	240	03 ATEX 111	03 ATEX 110	4
4.1	1.7										
5.5	2.0	69	0.00310	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
4.6	1.8										
4.3	2.2	69	0.00370	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
4.3	2.1										
6.5	2.4	72	0.00562	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
5.4	2.1										
6.6	2.6	72	0.00662	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
5.2	2.4										
7.0	2.3	72	0.01249	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
6.2	2.2										
7.2	2.2	75	0.02316	124	60	90	400	236	03 ATEX 113	03 ATEX 112	4
6.4	2.1										
8.9	2.2	75	0.02596	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4
7.2	2.1										
7.5	2.3	75	0.02976	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4
6.3	2.2										
7.3	2.3	76	0.00671	217	90	130	480	136	03 ATEX 113	03 ATEX 112	4
6.5	2.1										
7.5	2.4	76	0.08511	230	90	130	480	136	03 ATEX 113	02 ATEX 112	4
6.6	2.3										
○	○	○	○	○	○	○	○	○	09 ATEX 021	09 ATEX 020	4
○	○										
○	○	○	○	○	○	○	○	○	09 ATEX 021	09 ATEX 020	4
○	○										
○	○	○	○	○	○	○	○	○	09 ATEX 021	09 ATEX 020	4
○	○										
○	○	○	○	○	○	○	○	○	09 ATEX 021	09 ATEX 020	4
○	○										
○	○	○	○	○	○	○	○	○	09 ATEX 021	09 ATEX 020	4
○	○										
○	○	○	○	○	○	○	○	○	09 ATEX 021	09 ATEX 020	4
○	○										

○ Data not indicated is supplied on request;
 Les données qui ne sont pas indiquées sont fournies sur demande;
 Die nicht angegebenen Daten werden auf Anfrage geliefert;
 Los datos que no se han precisado se pueden comunicar cuando se solicite;
 I dati non indicati sono forniti su richiesta;

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

● Higher number of start-ups by request;
 Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
 Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
 T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
 T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G II 2GD	2	Speeds, for general purpose	Rated data at	400 V 50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesses, pour usage général	Données nominales à		démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahlen, für allgemeinen Gebrauch	Betriebsdaten bei		Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidades, para uso general	Datos nominales		arranque directo
ITALIANO	Motori trifase			Velocità, per uso generale	Dati nominali a		avviamento diretto

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	Leistungsfaktor	Moment
Tipo de motor				Potencia proporcionada	Velocidad	Corriente	Rendimiento	Factor de potencia	Par
Tipo motore				Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia
IIB		IIC		P _n [kW]	n [1/min]	I _n [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
(HB) DB20 71 A 48	(HB) DB25 71 A 48	(HC) DC20 71 A 48	(HC) DC25 71 A 48	0.17	1405	0.45	68.0	0.80	1.16
				0.09	705	0.85	32.0	0.48	1.22
(HB) DB20 71 B 48	(HB) DB25 71 B 48	(HC) DC20 71 B 48	(HC) DC25 71 B 48	0.20	1400	0.71	68.0	0.80	1.35
				0.10	700	0.67	35.0	0.52	1.35
(HB) DB20 80 A 48	(HB) DB25 80 A 48	(HC) DC20 80 A 48	(HC) DC25 80 A 48	0.30	1430	0.77	72.0	0.79	2.00
				0.15	720	1.10	43.0	0.47	2.02
(HB) DB20 80 B 48	(HB) DB25 80 B 48	(HC) DC20 80 B 48	(HC) DC25 80 B 48	0.40	1400	0.95	71.0	0.86	2.72
				0.20	710	1.12	48.0	0.54	2.71
(HB) DB20 90 S 48	(HB) DB25 90 S 48	(HC) DC20 90 S 48	(HC) DC25 90 S 48	0.60	1390	1.40	75.0	0.83	4.10
				0.30	700	1.30	62.0	0.54	4.10
(HB) DB20 90 L 48	(HB) DB25 90 L 48	(HC) DC20 90 L 48	(HC) DC25 90 L 48	0.90	1370	2.00	74.0	0.90	6.40
				0.45	710	1.80	65.0	0.60	6.10
(HB) DB20 100 LA 48	(HB) DB25 100 LA 48	(HC) DC20 100 LA 48	(HC) DC25 100 LA 48	1.25	1400	3.30	81.0	0.70	8.50
				0.60	700	3.16	61.0	0.47	8.20
(HB) DB20 100 LB 48	(HB) DB25 100 LB 48	(HC) DC20 100 LB 48	(HC) DC25 100 LB 48	1.60	1445	3.60	73.0	0.88	10.60
				0.80	700	4.00	59.0	0.49	10.90
(HB) DB20 112 M 48	(HB) DB25 112 M 48	(HC) DC20 112 M 48	(HC) DC25 112 M 48	2.55	1420	5.40	78.0	0.87	17.15
				1.25	710	4.90	66.0	0.52	16.80
(HB) DB20 132 S 48	(HB) DB25 132 S 48	(HC) DC20 132 S 48	(HC) DC25 132 S 48	3.30	1430	7.20	77.0	0.86	22.50
				1.85	720	8.30	58.0	0.56	24.50
(HB) DB20 132 M 48	(HB) DB25 132 M 48	(HC) DC20 132 M 48	(HC) DC25 132 M 48	4.80	1410	10.50	77.0	0.85	32.50
				2.40	700	8.10	68.0	0.63	32.00
(HB) DB20 132 L 48	(HB) DB25 132 L 48	(HC) DC20 132 M 48	(HC) DC25 132 L 48	5.50	1450	11.00	87.0	0.83	36.20
				3.00	720	13.50	72.0	0.45	40.00
(HB) DB20 160 M 48	(HB) DB25 160 M 48	(HC) DC20 160 M 48	(HC) DC25 160 M 48	7.50	1450	16.00	82.0	0.82	49.40
				4.80	730	15.00	83.0	0.56	62.80
(HB) DB20 160 L 48	(HB) DB25 160 L 48	(HC) DC20 160 L 48	(HC) DC25 160 L 48	10.00	1440	21.00	76.0	0.91	66.30
				6.60	710	22.00	73.0	0.59	88.80
(DB) DB20 180 M 48	(DB) DB25 180 M 48	(DC) DC20 180 M 48	(DC) DC25 180 M 48	13.00	1470	26.50	81.0	0.87	84.10
				8.10	735	22.50	85.0	0.61	105.20
(DB) DB20 180 L 48	(DB) DB25 180 L 48	(DC) DC20 180 L 48	(DC) DC25 180 L 48	16.00	1470	31.00	85.0	0.88	103.90
				9.90	730	27.00	87.0	0.61	129.50
(DB) DB20 200 LB 48	(DB) DB25 200 LB 48	(DC) DC20 200 LB 48	(DC) DC25 200 LB 48	20.00	1480	37.30	91.0	0.85	129.00
				13.00	730	39.00	86.0	0.56	170.20
(DB) DB20 225 S 48	(DB) DB25 225 S 48	(DC) DC20 225 S 48	(DC) DC25 225 S 48	25.00	1460	47.50	82.0	0.93	163.50
				17.00	720	44.50	79.0	0.70	225.50
(DB) DB20 225 M 48	(DB) DB25 225 M 48	(DC) DC20 225 M 48	(DC) DC25 225 M 48	30.00	1485	57.30	90.0	0.84	193.60
				20.00	735	61.00	88.0	0.54	261.60
(DB) DB20 250 M 48	(DB) DB25 250 M 48	(DC) DC20 250 M 48	(DC) DC25 250 M 48	40.00	1480	73.00	91.00	0.88	258.40
				26.00	735	70.00	91.00	0.62	336.80

DB, DC - 63 ÷ 250
 Unventilated S4 40%;
 Non ventilés S4 40%;
 Unbelüftet S4 40%;
 No ventilados S4 40%;
 Non ventilati S4 40%;

(DB), (DC) - 180 ÷ 250
 With S1 ventilated assistance;
 Avec ventilation assistée S1 ;
 Mit Fremdbelüftung S1,
 Con ventilación asistida S1;
 Con ventilazione assistita S1;

(HB), (HC) - 71 ÷ 160
 S1 fan cooled;
 Autoventilé S1;
 Eigenbelüftet S1;
 Ventilación autónoma S1;
 Autoventilati S1;

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

(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);

Duty type	Unventilated		Fan cooled		Brake			rpm	1500 750	ENGLISH	
Service type	Non ventilés		Autoventilé		Frein					tours/min	FRANÇAIS
Betrieb	Unbelüftet		Eigenbelüftet		Bremse					U/min	DEUTSCH
Régimen	No ventilados		Ventilacion autónoma		Freno					rev/min	ESPAÑOL
Servizio tipo	Non ventilati		Autoventilati		Freno					giri/min	ITALIANO
Starting current	Starting torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T		
<i>Intensité démarrage</i>	<i>Couple démarrage</i>	<i>Pression sonore</i>	<i>Moment d'inertie</i>	<i>Masse</i>	<i>Couple</i>	<i>Puissance</i>	<i>Freinages par heure</i>	<i>CESI Certificat</i>	<i>Classe T</i>		
Anlaufstrom	Anlaufmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T		
<i>Corriente de arranque</i>	<i>Par de arranque</i>	<i>Presión acústica</i>	<i>Momento de inercia</i>	<i>Peso</i>	<i>Par</i>	<i>Potencia</i>	<i>Frenados por hora</i>	<i>Certificados CESI</i>	<i>Clase T</i>		
Corrente avviamento	Coppia avviamento	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T		
I_a/I_n	M_a/M_n	Lp [dB(A)]	$J \blacktriangledown$ [kgm ²]	m [kg]	[Nm]		max n. ●	IIB	IIC	◆	
					S1	S4	[VA]				
8.9	2.5	48	0.00112	29	3	9	50	240	03 ATEX 111	03 ATEX 110	4
2.4	3.0										
5.6	2.1	48	0.00142	29	3	9	50	240	03 ATEX 111	03 ATEX 110	4
3.0	3.0										
5.2	2.4	51	0.00300	36	6	17	60	240	03 ATEX 111	03 ATEX 110	4
1.2	3.4										
4.2	1.8	51	0.00350	36	6	17	60	240	03 ATEX 111	03 ATEX 110	4
1.3	2.6										
3.6	1.6	54	0.00450	52	12	35	140	240	03 ATEX 111	03 ATEX 110	4
2.7	1.5										
4.0	1.8	54	0.00600	52	12	35	140	240	03 ATEX 111	03 ATEX 110	4
2.9	1.6										
3.9	2.0	55	0.01012	62	25	48	180	240	03 ATEX 111	03 ATEX 110	4
3.0	1.8										
4.8	1.9	55	0.01012	62	25	48	180	240	03 ATEX 111	03 ATEX 110	4
3.7	1.6										
5.1	1.8	60	0.01939	100	34	70	250	240	03 ATEX 113	03 ATEX 112	4
4.1	2.5										
5.0	1.7	64	0.04046	134	50	90	400	240	03 ATEX 113	03 ATEX 112	4
3.6	1.6										
5.3	1.8	67	0.05876	134	50	90	400	240	03 ATEX 113	03 ATEX 112	4
4.4	1.7										
5.6	1.8	67	0.05876	134	50	90	400	240	03 ATEX 113	03 ATEX 112	4
4.6	1.8										
5.8	1.9	69	0.09691	217	60	130	480	240	03 ATEX 113	03 ATEX 112	4
4.8	1.7										
6.9	1.8	69	0.12681	217	60	130	480	240	03 ATEX 113	03 ATEX 112	4
3.0	1.8										
6.6	2.0	70	0.23830	435	90	400	140	150	09 ATEX 021	09 ATEX 020	4
5.3	2.0										
6.5	1.9	70	0.23830	435	90	400	140	150	09 ATEX 021	09 ATEX 020	4
5.3	1.9										
7.4	2.8	72	0.25760	495	300	400	140	150	09 ATEX 021	09 ATEX 020	4
4.6	2.9										
6.5	2.1	73	0.38570	710	600	800	140	150	09 ATEX 021	09 ATEX 020	4
5.2	1.9										
6.6	2.2	73	0.45990	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
5.5	2.1										
6.4	2.2	75	0.77930	835	600	800	140	100	09 ATEX 021	09 ATEX 020	4
5.5	2.0										

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G	1	Speed, for hoist applications	Rated data at	400 V	50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse, pour levage	Données nominales à			démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl, Hubmotoren	Betriebsdaten bei			Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad, para elevación	Datos nominales			arranque directo
ITALIANO	Motori trifase			Velocità, per sollevamento	Dati nominali a			avviamento diretto

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

IIB		IIC		P _n [kW]	n [1/min]	I _n \blacktriangleright [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
(HB) DB50 71 A 6	(HB) DB55 71 A 6	(HC) DC50 71 A 6	(HC) DC55 71 A 6	0.18	945	0.92	55.0	0.51	1.82
(HB) DB50 71 B 6	(HB) DB55 71 B 6	(HC) DC50 71 B 6	(HC) DC55 71 B 6	0.26	918	1.00	60.0	0.63	2.71
(HB) DB50 80 A 6	(HB) DB55 80 A 6	(HC) DC50 80 A 6	(HC) DC55 80 A 6	0.37	930	1.60	58.0	0.58	3.80
(HB) DB50 80 B 6	(HB) DB55 80 B 6	(HC) DC50 80 B 6	(HC) DC55 80 B 6	0.55	930	1.80	70.0	0.65	5.79
(HB) DB50 90 S 6	(HB) DB55 90 S 6	(HC) DC50 90 S 6	(HC) DC55 90 S 6	0.75	950	2.39	73.0	0.62	7.52
(HB) DB50 90 L 6	(HB) DB55 90 L 6	(HC) DC50 90 L 6	(HC) DC55 90 L 6	1.10	935	3.35	73.0	0.65	11.21
(HB) DB50 100 LB 6	(HB) DB55 100 LB 6	(HC) DC50 100 LB 6	(HC) DC55 100 LB 6	1.50	950	3.80	76.0	0.75	15.11
(HB) DB50 112 M 6	(HB) DB55 112 M 6	(HC) DC50 112 M 6	(HC) DC55 112 M 6	2.20	960	6.11	80.0	0.65	21.84
(HB) DB50 132 SB 6	(HB) DB55 132 SB 6	(HC) DC50 132 SB 6	(HC) DC55 132 SB 6	3.00	975	9.34	82.0	0.56	29.40
(HB) DB50 132 MB 6	(HB) DB55 132 MB 6	(HC) DC50 132 MB 6	(HC) DC55 132 MB 6	4.00	970	9.84	86.0	0.69	39.38
(HB) DB50 132 ML 6	(HB) DB55 132 ML 6	(HC) DC50 132 ML 6	(HC) DC55 132 ML 6	5.50	960	15.56	74.0	0.69	54.90
(HB) DB50 160 MB 6	(HB) DB55 160 MB 6	(HC) DC50 160 MB 6	(HC) DC55 160 MB 6	7.50	950	15.70	85.0	0.81	75.33
(HB) DB50 160 L 6	(HB) DB55 160 L 6	(HC) DC50 160 L 6	(HC) DC55 160 L 6	11.00	965	25.60	89.0	0.70	109.20
(DB) DB50 180 L 6	(DB) DB55 180 L 6	(DC) DC50 180 L 6	(DC) DC55 180 L 6	15.00	984	33.41	93.0	0.70	145.70
(DB) DB50 200 LA 6	(DB) DB55 200 LA 6	(DC) DC50 200 LA 6	(DC) DC55 200 LA 6	18.50	980	41.70	90.2	0.71	180.28
(DB) DB50 200 LB 6	(DB) DB55 200 LB 6	(DC) DC50 200 LB 6	(DC) DC55 200 LB 6	22.00	985	49.90	90.4	0.70	212.97
(DB) DB50 225 M 6	(DB) DB55 225 M 6	(DC) DC50 225 M 6	(DC) DC55 225 M 6	30.00	985	61.00	91.7	0.78	290.86
(DB) DB50 250 M 6	(DB) DB55 250 M 6	(DC) DC50 250 M 6	(DC) DC55 250 M 6	37.00	990	72.00	94.0	0.79	358.00

DB, DC - 63 ÷ 250

Unventilated S4 40%;
Non ventilés S4 40%;
Unbelüftet S4 40%;
No ventilados S4 40%;
Non ventilati S4 40%;

(DB), (DC) - 180 ÷ 250

With S1 ventilated assistance;
Avec ventilation assistée S1 ;
Mit Fremdbelüftung S1,
Con ventilación asistida S1;
Con ventilazione assistita S1;

(HB), (HC) - 71 ÷ 160

S1 fan cooled;
Autoventilé S1;
Eigenbelüftet S1;
Ventilación autónoma S1;
Autoventilati S1;

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

(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);

Duty type						Brake					rpm	ENGLISH
Service type						Frein					tours/min	FRANÇAIS
Betrieb	IC410					Bremse					U/min	DEUTSCH
Régimen	S4					Freno					rev/min	ESPAÑOL
Servizio tipo	40%					Freno			1000		giri/min	ITALIANO
Starting current	Starting torque	Maximum torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates		Class T	
Intensité démarrage	Couple démarrage	Couple maximal	Pression sonore	Moment d'inertie	Masse	Couple	Puissance	Freinages par heure	CESI Certificat		Classe T	
Anlaufstrom	Anlaufmoment	Kippmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung		Klasse T	
Corriente de arranque	Par de arranque	Par máximo	Presión acústica	Momento de inercia	Peso	Par	Potencia	Frenados por hora	Certificados CESI		Clase T	
Corrente avviamento	Coppia avviamento	Coppia massima	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI		Classe T	
I _a /I _n	M _a /M _n	M _m /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
						S1	S4					
3.7	3.7	3.7	42	0.00112	29	3	9	50	240	03 ATEX 111	03 ATEX 110	4
3.4	2.6	2.6	42	0.00142	29	3	9	50	240	03 ATEX 111	03 ATEX 110	4
3.1	2.9	3.2	45	0.00300	36	6	17	60	240	03 ATEX 111	03 ATEX 110	4
2.8	2.0	2.1	45	0.00350	36	6	17	60	240	03 ATEX 111	03 ATEX 110	4
4.0	3.0	3.3	46	0.00450	52	12	35	140	240	03 ATEX 111	03 ATEX 110	4
3.4	2.0	2.2	46	0.00600	52	12	35	140	240	03 ATEX 111	03 ATEX 110	4
4.2	2.0	2.3	55	0.01012	62	25	48	180	240	03 ATEX 111	03 ATEX 110	4
5.2	2.3	2.1	57	0.01939	100	34	70	250	240	03 ATEX 113	03 ATEX 112	4
6.4	3.3	3.5	60	0.04046	134	50	90	400	240	03 ATEX 113	03 ATEX 112	4
6.0	2.0	2.5	60	0.04766	134	50	90	400	240	03 ATEX 113	03 ATEX 112	4
5.5	2.7	3.0	60	0.05876	134	50	90	400	240	03 ATEX 113	03 ATEX 112	4
4.8	2.1	2.1	64	0.09691	217	60	130	480	240	03 ATEX 113	03 ATEX 112	4
5.0	2.5	2.9	64	0.12681	217	60	130	480	240	03 ATEX 113	03 ATEX 112	4
7.7	3.0	3.5	67	0.23830	435	90	400	140	150	09 ATEX 021	09 ATEX 020	4
7.2	2.5	3.7	69	0.31060	490	300	400	140	150	09 ATEX 021	09 ATEX 020	4
7.3	2.8	4.4	69	0.03184	515	300	400	140	150	09 ATEX 021	09 ATEX 020	4
5.8	2.0	2.5	70	0.77370	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
5.2	2.0	2.4	70	1.05950	815	600	800	140	150	09 ATEX 021	09 ATEX 020	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage,
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G II 2GD	2	Speed, for hoist applications	Rated data at	400 V 50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse, pour levage	Données nominales à		démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl, Hubmotoren	Betriebsdaten bei		Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad, para elevación	Datos nominales		arranque directo
ITALIANO	Motori trifase			Velocità, per sollevamento	Dati nominali a		avviamento diretto

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	Leistungsfaktor	Moment
Tipo de motor	Potencia proporcionada	Velocidad	Corriente	Rendimiento	Factor de potencia	Par
Tipo motore	Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia

IIB		IIC		P _n [kW]	n [1/min]	I _n \blacktriangleright [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
(HB) DB50 71 B 28	(HB) DB55 71 B 28	(HC) DC50 71 B 28	(HC) DC55 71 B 28	0.30	2850	1.50	38.0	0.75	0.99
				0.06	670	0.57	21.0	0.68	0.81
(HB) DB50 80 A 28	(HB) DB55 80 A 28	(HC) DC50 80 A 28	(HC) DC55 80 A 28	0.40	2935	1.05	75.0	0.73	1.30
				0.10	690	0.75	43.0	0.45	1.38
(HB) DB50 80 B 28	(HB) DB55 80 B 28	(HC) DC50 80 B 28	(HC) DC55 80 B 28	0.55	2922	1.32	77.0	0.78	1.80
				0.12	688	0.85	45.0	0.45	1.67
(HB) DB50 90 S 28	(HB) DB55 90 S 28	(HC) DC50 90 S 28	(HC) DC55 90 S 28	0.75	2852	2.30	52.0	0.91	2.53
				0.18	690	1.20	36.0	0.61	2.47
(HB) DB50 90 L 28	(HB) DB55 90 L 28	(HC) DC50 90 L 28	(HC) DC55 90 L 28	1.10	2880	2.50	71.0	0.89	3.65
				0.25	680	1.45	38.0	0.65	3.50
(HB) DB50 100 LA 28	(HB) DB55 100 LA 28	(HC) DC50 100 LA 28	(HC) DC55 100 LA 28	1.30	2960	3.60	71.1	0.78	4.30
				0.33	735	2.58	48.0	0.39	4.14
(HB) DB50 100 LB 28	(HB) DB55 100 LB 28	(HC) DC50 100 LB 28	(HC) DC55 100 LB 28	1.50	2930	4.00	70.0	0.78	4.89
				0.37	725	3.10	47.0	0.38	4.89
(HB) DB50 112 M 28	(HB) DB55 112 M 28	(HC) DC50 112 M 28	(HC) DC55 112 M 28	2.60	2950	5.50	86.0	0.81	8.51
				0.70	720	2.70	69.0	0.55	9.30
(HB) DB50 132 S 28	(HB) DB55 132 S 28	(HC) DC50 132 S 28	(HC) DC55 132 S 28	3.50	2950	6.80	83.0	0.91	11.45
				1.10	720	4.20	63.0	0.60	14.60
(HB) DB50 132 M 28	(HB) DB55 132 M 28	(HC) DC50 132 M 28	(HC) DC55 132 M 28	4.50	2965	8.80	89.0	0.84	14.66
				1.30	720	4.80	72.0	0.55	17.30
(HB) DB50 132 L 28	(HB) DB55 132 L 28	(HC) DC50 132 L 28	(HC) DC55 132 L 28	5.80	2940	12.60	75.0	0.90	19.05
				1.50	720	5.30	70.0	0.59	19.93

DB, DC

Unventilated;
Non ventilés;
Unbelüftet;
No ventilados;
Non ventilati;

(HB), (HC)

Fan cooled;
Autoventilé;
Eigenbelüftet;
Ventilacion autónoma;
Autoventilati;

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

(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);

Duty type	IC410 S4 40%	Brake						3000 750	rpm	ENGLISH
Service type		Frein							tours/min	FRANÇAIS
Betrieb		Bremse							U/min	DEUTSCH
Régimen		Freno							rev/min	ESPAÑOL
Servizio tipo		Freno							giri/min	ITALIANO

Starting current	Starting torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T
<i>Intensité démarrage</i>	<i>Couple démarrage</i>	<i>Pression sonore</i>	<i>Moment d'inertie</i>	<i>Masse</i>	<i>Couple</i>	<i>Puissance</i>	<i>Freinages par heure</i>	<i>CESI Certificat</i>	<i>Classe T</i>
Anlaufstrom	Anlaufmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T
<i>Corriente de arranque</i>	<i>Par de arranque</i>	<i>Presión acústica</i>	<i>Momento de inercia</i>	<i>Peso</i>	<i>Par</i>	<i>Potencia</i>	<i>Frenados por hora</i>	<i>Certificados CESI</i>	<i>Clase T</i>
Corrente avviamento	Coppia avviamento	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T

I _a /I _n	M _a /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
					S1	S4					
3.5 1.6	2.0 1.4	58	0.0009	29	6	9	50	240	03 ATEX 111	03 ATEX 110	4
8.0 1.9 6.4 1.6	3.3 1.6 2.4 1.3				62	12					
5.0 2.2 4.7 2.5	3.4 3.2 1.8 1.5	69	0.0020	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
8.6 2.9 6.1 2.4	3.7 3.6 2.5 3.7	72	0.0043	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
6.1 2.4	2.5 3.7	72	0.0053	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
8.3 3.1	2.6 2.5	72	0.0103	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
8.5 3.3	2.7 2.3	75	0.03316	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4
11.0 3.3	3.0 2.0	75	0.04056	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4
7.5 3.0	2.4 1.8	75	0.04866	134	60	90	400	236	03 ATEX 113	03 ATEX 112	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G	2	Speed, for hoist applications	Rated data at	400 V	50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse, pour levage	Données nominales à			démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl, Hubmotoren	Betriebsdaten bei			Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad, para elevación	Datos nominales			arranque directo
ITALIANO	Motori trifase			Velocità, per sollevamento	Dati nominali a			avviamento diretto

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	Leistungsfaktor	Moment
Tipo de motor	Potencia proporcionada	Velocidad	Corriente	Rendimiento	Factor de potencia	Par
Tipo motore	Potenza resa	Velocità	Corrente	Rendimento	Fattore potenza	Coppia

IIB		IIC		P _n [kW]	n [1/min]	I _n [▷] [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
(HB) DB50 90 S 41	(HB) DB55 90 S 41	(HC) DC50 90 S 41	(HC) DC55 90 S 41	0.55	○	○	○	○	○
(HB) DB50 90 L 41	(HB) DB55 90 L 41	(HC) DC50 90 L 41	(HC) DC55 90 L 41	0.18	○	○	○	○	○
(HB) DB50 100 LA 41	(HB) DB55 100 LA 41	(HC) DC50 100 LA 41	(HC) DC55 100 LA 41	0.75	○	○	○	○	○
(HB) DB50 100 LB 41	(HB) DB55 100 LB 41	(HC) DC50 100 LB 41	(HC) DC55 100 LB 41	0.25	○	○	○	○	○
(HB) DB50 112 M 41	(HB) DB55 112 M 41	(HC) DC50 112 M 41	(HC) DC55 112 M 41	1.10	○	○	○	○	○
(HB) DB50 132 S 41	(HB) DB55 132 S 41	(HC) DC50 132 S 41	(HC) DC55 132 S 41	0.37	○	○	○	○	○
(HB) DB50 132 M 41	(HB) DB55 132 M 41	(HC) DC50 132 M 41	(HC) DC55 132 M 41	1.50	○	○	○	○	○
(HB) DB50 132 L 41	(HB) DB55 132 L 41	(HC) DC50 132 L 41	(HC) DC55 132 L 41	0.50	○	○	○	○	○
(HB) DB50 160 M 41	(HB) DB55 160 M 41	(HC) DC50 160 M 41	(HC) DC55 160 M 41	1.80	○	○	○	○	○
(HB) DB50 160 L 41	(HB) DB55 160 L 41	(HC) DC50 160 L 41	(HC) DC55 160 L 41	0.60	○	○	○	○	○
(DB) DB50 180 M 41	(DB) DB55 180 M 41	(DC) DC50 180 M 41	(DC) DC55 180 M 41	2.20	○	○	○	○	○
(DB) DB50 180 L 41	(DB) DB55 180 L 41	(DC) DC50 180 L 41	(DC) DC55 180 L 41	0.73	○	○	○	○	○
(DB) DB50 200 LA 41	(DB) DB55 200 LA 41	(DC) DC50 200 LA 41	(DC) DC55 200 LA 41	3.50	○	○	○	○	○
(DB) DB50 200 LB 41	(DB) DB55 200 LB 41	(DC) DC50 200 LB 41	(DC) DC55 200 LB 41	1.17	○	○	○	○	○
(DB) DB50 225 S 41	(DB) DB55 225 S 41	(DC) DC50 225 S 41	(DC) DC55 225 S 41	4.00	○	○	○	○	○
(DB) DB50 225 M 41	(DB) DB55 225 M 41	(DC) DC50 225 M 41	(DC) DC55 225 M 41	1.33	○	○	○	○	○
(DB) DB50 250 M 41	(DB) DC55 250 M 41	(DC) DC50 250 M 41	(DC) DC55 250 M 41	5.50	○	○	○	○	○
				1.83	○	○	○	○	○
				7.50	○	○	○	○	○
				2.50	○	○	○	○	○
				9.00	1485	19.97	92.0	0.71	57.9
				3.00	485	20.22	60.0	0.36	59.1
				11.60	1480	26.00	93.0	0.73	74.9
				3.80	480	24.50	62.0	0.38	75.6
				13.00	1488	30.69	89.0	0.69	83.4
				4.33	488	24.48	69.0	0.37	84.7
				16.00	1490	36.45	90.0	0.71	102.6
				5.33	491	27.60	71.0	0.39	103.8
				18.00	1475	38.90	90.0	0.74	116.4
				6.00	485	22.30	78.0	0.50	119.6
				20.00	1470	42.53	91.0	0.75	129.9
				6.67	480	22.99	79.0	0.53	132.7
				37.00	1475	81.11	90.0	0.73	239.6
				9.50	480	37.10	77.0	0.48	189.0

DB, DC

Unventilated;
Non ventilés;
Unbelüftet;
No ventilados;
Non ventilati;

(HB), (HC)

Fan cooled;
Autoventilé;
Eigenbelüftet;
Ventilacion autónoma;
Autoventilati;



Data not indicated is supplied on request;
Les données qui ne sont pas indiquées sont fournies sur demande;
Die nicht angegebenen Daten werden auf Anfrage geliefert;
Los datos que no se han precisado se pueden comunicar cuando se solicite;
I dati non indicati sono forniti su richiesta;



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

(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);

Duty type	IC410 S4 40%	Brake						1500 500	rpm	ENGLISH	
Service type		Frein							tours/min	FRANÇAIS	
Betrieb		Bremse							U/min	DEUTSCH	
Régimen		Freno							rev/min	ESPAÑOL	
Servizio tipo		Freno							giri/min	ITALIANO	
Starting current	Starting torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T		
<i>Intensité démarrage</i>	<i>Couple démarrage</i>	<i>Pression sonore</i>	<i>Moment d'inertie</i>	<i>Masse</i>	<i>Couple</i>	<i>Puissance</i>	<i>Freinages par heure</i>	<i>CESI Certificat</i>	<i>Classe T</i>		
Anlaufstrom	Anlaufmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremsungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T		
<i>Corriente de arranque</i>	<i>Par de arranque</i>	<i>Presión acústica</i>	<i>Momento de inercia</i>	<i>Peso</i>	<i>Par</i>	<i>Potencia</i>	<i>Frenados por hora</i>	<i>Certificados CESI</i>	<i>Clase T</i>		
Corrente avviamento	Coppia avviamento	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T		
I_a/I_n	M_a/M_n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
○	○	○	○	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
○	○	○	○	52	25	35	140	240	03 ATEX 111	03 ATEX 110	4
○	○	○	○	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
○	○	○	○	62	34	48	180	240	03 ATEX 111	03 ATEX 110	4
○	○	○	○	100	50	70	250	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	217	90	130	480	240	03 ATEX 113	03 ATEX 112	4
10.4	3.7	70	0.2383	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
2.8	2.2	70	0.2383	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
8.0	3.5	70	0.2383	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
2.5	1.8	70	0.2383	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
11.9	3.0	72	0.3184	515	300	400	140	150	09 ATEX 021	09 ATEX 020	4
2.8	4.3	72	0.3184	515	300	400	140	150	09 ATEX 021	09 ATEX 020	4
10.0	2.8	72	0.3184	515	300	400	140	150	09 ATEX 021	09 ATEX 020	4
2.7	3.8	72	0.3184	515	300	400	140	150	09 ATEX 021	09 ATEX 020	4
11.6	3.8	73	0.7737	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
1.9	2.7	73	0.7737	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
10.6	3.4	73	0.7737	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
1.7	2.7	73	0.7737	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
9.2	3.5	75	1.2300	905	600	800	140	100	09 ATEX 021	09 ATEX 020	4
1.8	3.0	75	1.2300	905	600	800	140	100	09 ATEX 021	09 ATEX 020	4

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

ENGLISH	Three-phase motors	II 2G II 2GD	2	Speed, for hoist applications	Rated data at	400 V 50 Hz	direct on line start
FRANÇAIS	Moteurs triphasés			Vitesse, pour levage	Données nominales à		démarrage direct
DEUTSCH	Drehstrom Motoren			Drehzahl, Hubmotoren	Betriebsdaten bei		Direkteinschaltung
ESPAÑOL	Motores trifásicos			Velocidad, para elevación	Datos nominales		arranque directo
ITALIANO	Motori trifase			Velocità, per sollevamento	Dati nominali a		avviamento diretto

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

IIB		IIC		P _n [kW]	n [1/min]	I _n [▷] [A]	η [%]	cos φ	M _n [Nm]
Ex d	Ex de	Ex d	Ex de						
(HB) DB50 132 S 43	(HB) DB55 132 S 43	(HC) DC50 132 S 43	(HC) DC55 132 S 43	2.20	○	○	○	○	○
(HB) DB50 132 M 43	(HB) DB55 132 M 43	(HC) DC50 132 M 43	(HC) DC55 132 M 43	0.55	○	○	○	○	○
(HB) DB50 132 L 43	(HB) DB55 132 L 43	(HC) DC50 132 L 43	(HC) DC55 132 L 43	3.50	○	○	○	○	○
(HB) DB50 160 M 43	(HB) DB55 160 M 43	(HC) DC50 160 M 43	(HC) DC55 160 M 43	0.88	○	○	○	○	○
(HB) DB50 160 L 43	(HB) DB55 160 L 43	(HC) DC50 160 L 43	(HC) DC55 160 L 43	4.00	○	○	○	○	○
(DB) DB50 180 M 43	(DB) DB55 180 M 43	(DC) DC50 180 M 43	(DC) DC55 180 M 43	1.00	○	○	○	○	○
(DB) DB50 180 L 43	(DB) DB55 180 L 43	(DC) DC50 180 L 43	(DC) DC55 180 L 43	5.50	○	○	○	○	○
(DB) DB50 200 LA 43	(DB) DB55 200 LA 43	(DC) DC50 200 LA 43	(DC) DC55 200 LA 43	1.38	○	○	○	○	○
(DB) DB50 200 LB 43	(DB) DB55 200 LB 43	(DC) DC50 200 LB 43	(DC) DC55 200 LB 43	7.50	○	○	○	○	○
(DB) DB50 225 S 43	(DB) DB55 225 S 43	(DC) DC50 225 S 43	(DC) DC55 225 S 43	1.88	○	○	○	○	○
(DB) DB50 225 M 43	(DB) DB55 225 M 43	(DC) DC50 225 M 43	(DC) DC55 225 M 43	8.00	1485	19.90	84.0	0.72	51.5
(DB) DB50 250 M 43	(DB) DB55 250 M 43	(DC) DC50 250 M 43	(DC) DC55 250 M 43	2.00	370	17.69	51.0	0.32	51.6
				9.50	1480	21.20	87.0	0.75	61.6
				2.38	365	18.70	56.0	0.34	63.3
				11.00	1492	25.50	89.0	0.71	70.4
				2.75	368	21.20	54.0	0.35	71.5
				13.00	1490	28.00	90.0	0.75	83.3
				3.50	365	21.50	58.0	0.38	85.0
				15.00	1490	27.80	93.0	0.85	96.4
				3.75	365	19.20	74.0	0.38	98.2
				18.50	1488	35.16	90.0	0.84	118.7
				4.65	360	25.72	73.0	0.36	123.4
				35.00	1488	63.00	94.0	0.86	224.8
				8.50	360	41.00	69.0	0.43	225.7

DB, DC

Unventilated;
Non ventilés;
Unbelüftet;
No ventilados;
Non ventilati;

(HB), (HC)

Fan cooled;
Autoventilé;
Eigenbelüftet;
Ventilacion autónoma;
Autoventilati;

○

Data not indicated is supplied on request;
Les données qui ne sont pas indiquées sont fournies sur demande;
Die nicht angegebenen Daten werden auf Anfrage geliefert;
Los datos que no se han precisado se pueden comunicar cuando se solicite;
I dati non indicati sono forniti su richiesta;

$$I_n^{\blacktriangleright} = I_n \cdot \frac{400}{U'}$$

(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);

Duty type	IC410 S4 40%	Brake						1500 375	rpm	ENGLISH	
Service type		Frein							tours/min	FRANÇAIS	
Betrieb		Bremse							U/min	DEUTSCH	
Régimen		Freno							rev/min	ESPAÑOL	
Servizio tipo		Freno							giri/min	ITALIANO	
Starting current	Starting torque	Sound pressure	Moment of inertia	Mass	Torque	Power	Braking: n° per hour	CESI Certificates	Class T		
Intensité démarrage	Couple démarrage	Pression sonore	Moment d'inertie	Masse	Couple	Puissance	Freinages par heure	CESI Certificat	Classe T		
Anlaufstrom	Anlaufmoment	Geräuschwerte	Trägheitsmoment	Masse	Moment	Leistung	Bremungen pro Stunde	CESI Konformitäts-Bescheinigung	Klasse T		
Corriente de arranque	Par de arranque	Presión acústica	Momento de inercia	Peso	Par	Potencia	Frenados por hora	Certificados CESI	Clase T		
Corrente avviamento	Coppia avviamento	Pressione sonora	Momento d'inerzia	Massa	Coppia	Potenza	Frenate per ora	Certificato CESI	Classe T		
I _a /I _n	M _a /M _n	Lp [dB(A)]	J ▼ [kgm ²]	m [kg]	[Nm]		[VA]	max n. ●	IIB	IIC	◆
○	○	○	○	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	134	60	90	400	240	03 ATEX 113	03 ATEX 112	4
○	○	○	○	217	90	130	480	240	03 ATEX 113	02 ATEX 112	4
○	○	○	○	217	90	130	480	240	03 ATEX 113	02 ATEX 112	4
6.3	2.5	70	0.2911	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
2.3	2.1	70	0.2911	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
5.7	2.3	70	0.2911	435	300	400	140	150	09 ATEX 021	09 ATEX 020	4
2.2	1.9	72	0.2576	495	300	400	140	150	09 ATEX 021	09 ATEX 020	4
11.6	5.1	72	0.2576	495	300	400	140	150	09 ATEX 021	09 ATEX 020	4
1.9	2.5	72	0.2576	495	300	400	140	150	09 ATEX 021	09 ATEX 020	4
10.5	4.4	72	0.2576	495	300	400	140	150	09 ATEX 021	09 ATEX 020	4
1.9	2.1	73	0.3857	710	600	800	140	150	09 ATEX 021	09 ATEX 020	4
8.4	2.3	73	0.3857	710	600	800	140	150	09 ATEX 021	09 ATEX 020	4
2.3	1.8	73	0.4599	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
7.1	2.1	73	0.4599	750	600	800	140	150	09 ATEX 021	09 ATEX 020	4
1.9	1.8	75	0.7793	835	600	800	140	100	09 ATEX 021	09 ATEX 020	4
8.7	2.6	75	0.7793	835	600	800	140	100	09 ATEX 021	09 ATEX 020	4
2.0	1.4										

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

● Higher number of start-ups by request;
Nombre de démarrages supérieurs sur demande ;
 Höhere Anzahl von Starts pro Stunde auf Anfrage;
Número de arranques superiores a petición;
 Numero di avviamenti superiori su richiesta;

◆ T3, T5 see table 1B;
T3, T5 voir tableau 1B;
 T3, T5 siehe Tabelle 1B;
T3, T5 véase tabla 1B;
 T3, T5 vedi tabella 1B;

5. Overall dimensions

5.1 Motors non ventilated and self-ventilated

5.2 Motors not ventilated or with assisted ventilation

5. Dimensions

5.1 Moteurs non ventilés et autoventilés

5.2 Moteurs non ventilés ou avec ventilation assistée

5. Abmessungen

5.1 Nicht belüftete und selbstbelüftete Motoren

5.2 Nicht belüftete oder fremdbelüftete Motoren

5. Dimensiones

5.1 Motores no ventilados y con ventilación autónoma

5.2 Motores no ventilados o con ventilación asistida

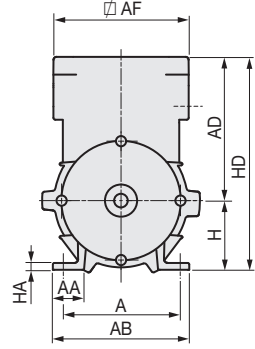
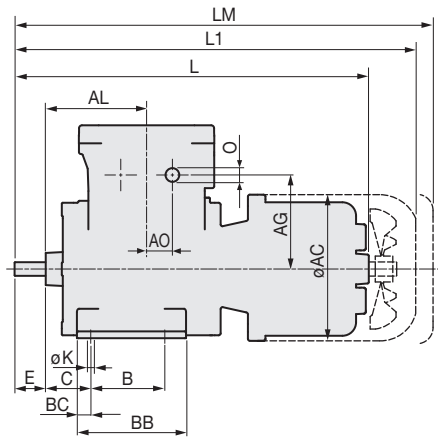
5. Dimensioni d'ingombro

5.1 Motori non ventilati e autoventilati

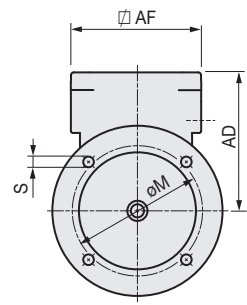
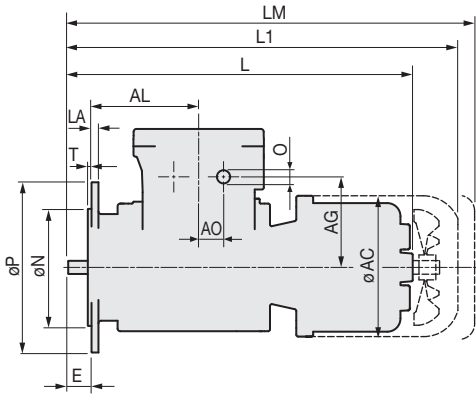
5.2 Motori non ventilati o con ventilazione assistita

5.
5.1

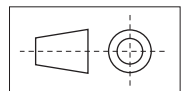
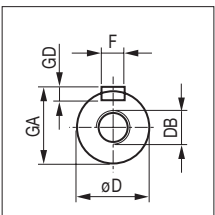
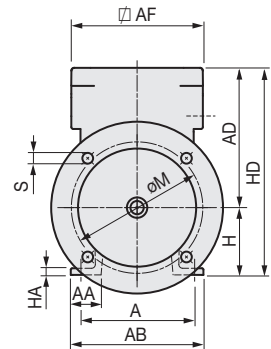
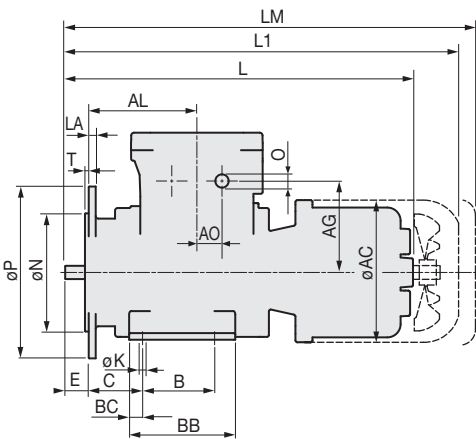
IM B3



IM B5



IM B35



Overall dimensions [mm]

ENGLISH

Dimensions [mm]

FRANÇAIS

Abmessungen [mm]

DEUTSCH

Dimensiones [mm]

ESPAÑOL

Dimensioni d'ingombro [mm]

ITALIANO

Type	A	AA	AB	ø AC	AD	AF	IM B5 AL	IM B3-B35 AL	B	BC	BB	C	H ⁰ _{-0.5}	HA	HD	ø K	● L	▼ L1
63	100	25	125	134	176	145	95	95	80	9.5	105	40	63	6	239	7	310	
71	112	32	140	165	186	145	106	106	90	11	112	45	71	7	257	7	365	410
80	125	40	160	183	196	145	142	142	100	15	130	50	80	8	276	9	423	478
90 S	140	45	175	208	206	145	125	125	100	14	157	56	90	9	296	9	502	557
90 L	140	45	175	208	206	145	125	125	125	14	157	56	90	9	296	9	502	557
100	160	45	200	234	216	145	125	125	140	15	170	63	100	10	316	12	537	595
112	190	45	235	259	237	145	228	138	140	17	175	70	112	12	349	12	609	668
132 S	216	56	272	311	260	205	193	163	140	22	222	89	132	13	392	12	650	722
132 M-L	216	56	272	311	260	205	268	163	178	22	222	89	132	13	392	12	725	797
160 M	254	64	318	348	290	205	311	166	210	25	305	108	160	15	450	14	823	901
160 L	254	64	318	348	290	205	311	166	254	25	305	108	160	15	450	14	823	901

Type	* ▼ LM	AO	IEC 60432 n. x O	AG	ø D	E	F	GA	GD	DB	LA	ø M	ø N	ø P	S	T
63		26	1xM25 1xM20	96	11j6	23	4	12.5	4	M4	6.5	115	95j6	140	10	3
71	438	26	1xM25 1xM20	106	14j6	30	5	16	5	M5	6.5	130	110j6	160	10	3.5
80	507	26	1xM25 1xM20	116	19j6	40	6	21.5	6	M6	11	165	130j6	200	12	3.5
90 S	585	26	1xM25 1xM20	126	24j6	50	8	27	7	M8	12	165	130j6	200	12	3.5
90 L	585	26	1xM25 1xM20	126	24j6	50	8	27	7	M8	12	165	130j6	200	12	3.5
100	624	26	1xM25 1xM20	136	28j6	60	8	31	7	M10	14	215	180j6	250	15	4
112	697	26	1xM25 1xM20	157	28j6	60	8	31	7	M10	16	215	180j6	250	15	4
132 S	767	35	2xM32 1xM20	185	38k6	80	10	41	8	M12	17	265	230j6	300	15	4
132 M-L	842	35	2xM32 1xM20	185	38k6	80	10	41	8	M12	17	265	230j6	300	15	4
160 M	946	35	2xM32 1xM20	215	42k6	110	12	45	8	M16	18	300	250h6	350	18	5
160 L	946	35	2xM32 1xM20	215	42k6	110	12	45	8	M16	18	300	250h6	350	18	5

●
Version DB, DC
Version DB, DC
Ausführung DB, DC
Versión DB, DC
Versione DB, DC

▼
Version HB, HC
Version HB, HC
Ausführung HB, HC
Versión HB, HC
Versione HB, HC

⊥
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

*
rain cover: normally found only on self-ventilating motors (IC411) for vertical assembly, shaft at the bottom
capot parapluie: normalement, elle n'est présente que sur les moteurs autoventilés (IC411) destinés à un montage vertical, arbre en bas
Regenschutz: ist normalerweise nur bei den eigenbelüfteten Motoren (IC411) für die senkrechte Montage, Welle unten, vorhanden
tapa de protección contra la lluvia: normalmente sólo está presente en los motores autoventilados (IC411) para el montaje en vertical, con el eje en la parte inferior
parapioggia: normalmente presente solo nei motori autoventilati (IC411) per montaggio verticale, albero in basso

5.
5.1

Motors non ventilated and self-ventilated
Moteurs non ventilés et autoventilés
Nicht belüftete und selbstbelüftete Motoren
Motores no ventilados y con ventilación autónoma
Motori non ventilati e autoventilati

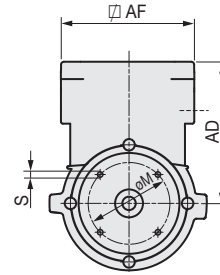
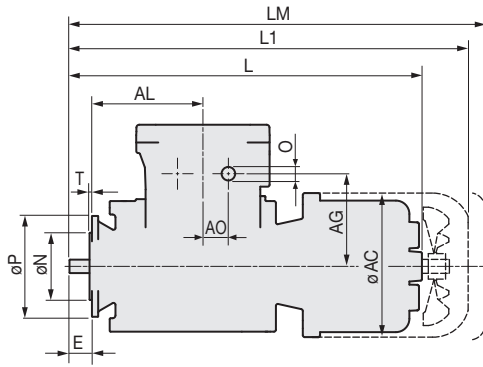
DB
DC
63÷160

HB
HC
71÷160

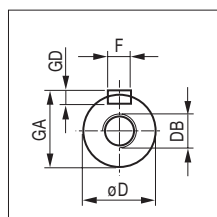
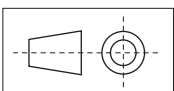
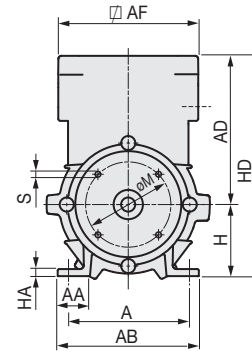
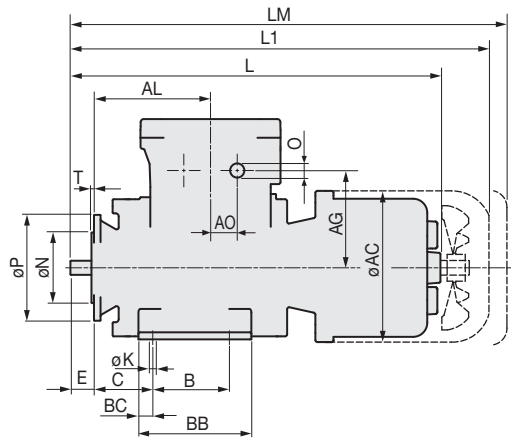
IM B14

IM B34

IM B14



IM B34



Overall dimensions [mm]

ENGLISH

Dimensions [mm]

FRANÇAIS

Abmessungen [mm]

DEUTSCH

Dimensiones [mm]

ESPAÑOL

Dimensioni d'ingombro [mm]

ITALIANO

Type	A	AA	AB	ø AC	AD	AF	IM B14 AL	IM B34 AL	B	BC	BB	C	H _{0.5}	HA	HD	ø K	● L	▼ L1
63	100	25	125	134	176	145	95	95	80	9.5	105	40	63	6	239	7	310	
71	112	32	140	165	186	145	106	106	90	11	112	45	71	7	257	7	365	410
80	125	40	160	183	196	145	142	142	100	15	130	50	80	8	276	9	423	478
90 S	140	45	175	208	206	145	125	125	100	14	157	56	90	9	296	9	502	557
90 L	140	45	175	208	206	145	125	125	125	14	157	56	90	9	296	9	502	557
100	160	45	200	234	216	145	125	125	140	15	170	63	100	10	316	12	537	595
112	190	45	235	259	237	145	228	138	140	17	175	70	112	12	349	12	609	668
132 S	216	56	272	311	260	205	193	163	140	22	222	89	132	13	392	12	650	722
132 M-L	216	56	272	311	260	205	268	163	178	22	222	89	132	13	392	12	725	797
160 M	254	64	318	348	290	205	311	166	210	25	305	108	160	15	450	14	823	901
160 L	254	64	318	348	290	205	311	166	254	25	305	108	160	15	450	14	823	901

Type	* ▼ LM	AO	IEC 60432 n. x O	AG	ø D	E	F	GA	GD	DB	ø M	ø N	ø P	S	T
63		26	1xM25 1xM20	96	11j6	23	4	12.5	4	M4	75	60j6	90	M5	2.5
71	438	26	1xM25 1xM20	106	14j6	30	5	16	5	M5	85	70j6	105	M6	2.5
80	507	26	1xM25 1xM20	116	19j6	40	6	21.5	6	M6	100	80j6	120	M6	3
90 S	585	26	1xM25 1xM20	126	24j6	50	8	27	7	M8	115	95j6	140	M8	3
90 L	585	26	1xM25 1xM20	126	24j6	50	8	27	7	M8	115	95j6	140	M8	3
100	624	26	1xM25 1xM20	136	28j6	60	8	31	7	M10	130	110j6	160	M8	3.5
112	697	26	1xM25 1xM20	157	28j6	60	8	31	7	M10	130	110j6	160	M8	3.5
132 S	767	35	2xM32 1xM20	185	38k6	80	10	41	8	M12	165	130j6	200	M10	3.5
132 M-L	842	35	2xM32 1xM20	185	38k6	80	10	41	8	M12	165	130j6	200	M10	3.5
160 M	946	35	2xM32 1xM20	215	42k6	110	12	45	8	M16	215	180h6	250	M12	4
160 L	946	35	2xM32 1xM20	215	42k6	110	12	45	8	M16	215	180h6	250	M12	4

●
Version DB, DC
Version DB, DC
Ausführung DB, DC
Versión DB, DC
Versione DB, DC

▼
Version HB, HC
Version HB, HC
Ausführung HB, HC
Versión HB, HC
Versione HB, HC

⏏ 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

*
rain cover: normally found only on self-ventilating motors (IC411) for vertical assembly, shaft at the bottom
capot parapluie: normalement, elle n'est présente que sur les moteurs autoventilés (IC411) destinés à un montage vertical, arbre en bas
Regenschutz: ist normalerweise nur bei den eigenbelüfteten Motoren (IC411) für die senkrechte Montage, Welle unten, vorhanden
tapa de protección contra la lluvia: normalmente sólo está presente en los motores autoventilados (IC411) para el montaje en vertical, con el eje en la parte inferior
parapioggia: normalmente presente solo nei motori autoventilati (IC411) per montaggio verticale, albero in basso

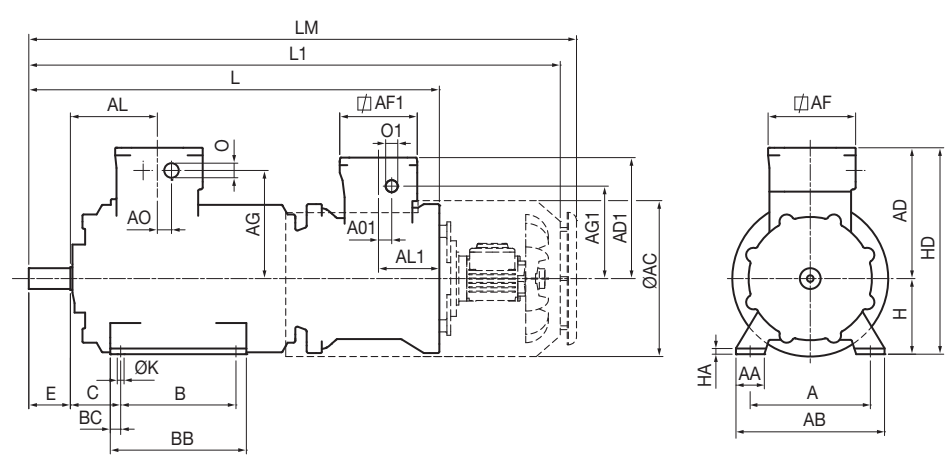
ENGLISH
 FRANÇAIS
 DEUTSCH
 ESPAÑOL
 ITALIANO

5.
5.2

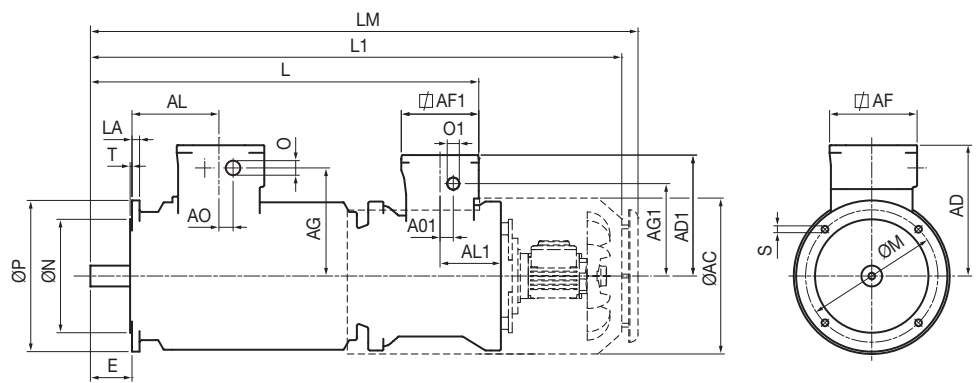
Motors not ventilated or with assisted ventilation
Moteurs non ventilés ou avec ventilation assistée
 Nicht belüftete oder fremdbelüftete Motoren
Motores no ventilados o con ventilación asistida
 Motori non ventilati o con ventilazione assistita

DB
DC
180÷250 IM B3 IM B5 IM B35

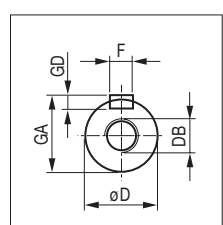
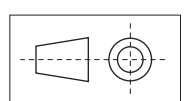
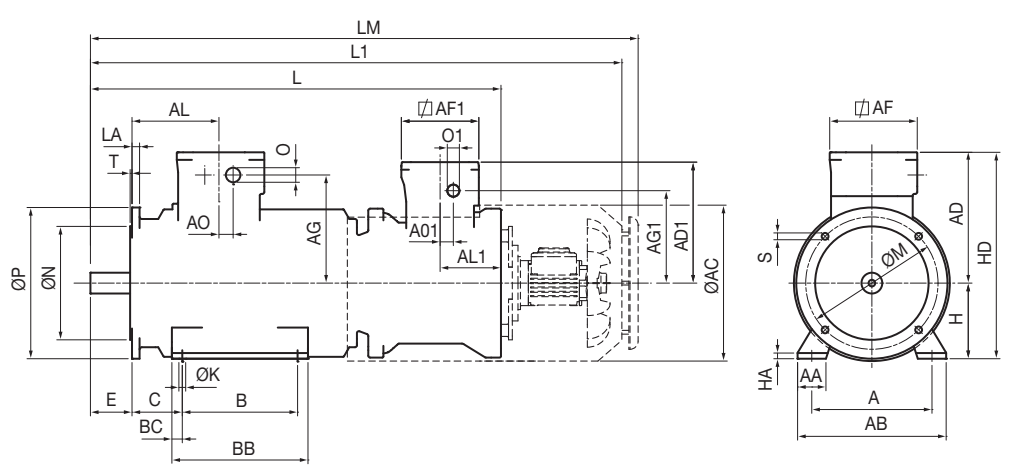
IM B3



IM B5



IM B35



225 - 250

- ◆ 8 holes
- 8 trous
- 8 Bohrungen
- 8 orificios
- 8 fori

Overall dimensions [mm]

ENGLISH

Dimensions [mm]

FRANÇAIS

Abmessungen [mm]

DEUTSCH

Dimensiones [mm]

ESPAÑOL

Dimensioni d'ingombro [mm]

ITALIANO

Type	A	AA	AB	ø AC	AD	AD1	∅ AF	∅ AF1	AL	AL1	B	BC	BB	C	H _{-0,5} ⁰	HA	HD	ø K	L	L1
180 M	279	71	350	394	326	320	223	205	223	161	241	25	340	121	180	17	506	14	1055	1376
180 L	279	71	350	394	326	320	223	205	223	161	279	25	340	121	180	17	506	14	1055	1376
200	318	75	393	394	346	320	223	205	230	161	305	27	360	133	200	18	546	18	1086	1412
225 S	356	78	431	394	371	320	223	205	240	161	286	38	380	149	225	20	596	18	1156	1501
225 M 4-8	356	78	431	394	371	320	223	205	240	161	311	38	380	149	225	20	596	18	1156	1501
250 M 4-8	406	95	500	394	396	320	223	205	221	161	349	33	415	168	250	22	646	24	1157	1503

Type	LM	AO	A01	IEC 60432 n. x 0	IEC 60432 n. x 01	AG	AG1	ØD	E	F	GA	GD	DB	LA	ØM	ØN	ØP	S	T
180 M	1419	38	35	2xM40	1xM25	266	245	48k6	110	14	52	9	M16	20	300	250h6	350	18	5
180 L	1419	38	35	2xM40	1xM25	266	245	48k6	110	14	52	9	M16	20	300	250h6	350	18	5
200	1455	38	35	2xM40	1xM25	286	245	55m6	110	16	59	10	M20	20	350	300h6	400	18	5
225 S	1544	38	35	2xM40	1xM25	311	245	60m6	140	18	64	11	M20	22	400	350h6	450	18	5
225 M 4-8	1544	38	35	2xM40	1xM25	311	245	60m6	140	18	64	11	M20	22	400	350h6	450	18	5
250 M 4-8	1546	38	35	2xM40	1xM25	338	245	60m6	140	18	69	11	M20	22	500	450h6	550	18	5



1 in the motor terminal box, 1 on the motor frame and 1 in the brake terminal box
 1 dans la boîte à bornes du moteur, 1 sur la carcasse et 1 dans la boîte à bornes du frein
 1 im Klemmenkasten des Motors, 1 auf dem Gehäuse und 1 im Klemmenkasten der Bremse
 1 en la caja de bornes del motor, 1 en la carcasa y 1 en la caja de bornes del freno
 1 nella scatola morsetti del motore, 1 sulla carcassa e 1 nella scatola morsetti del freno

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

6. Spare parts

- 6.1 Motors not ventilated 63 ÷ 160
- 6.2 Motors self-ventilated 71 ÷ 160
- 6.3 Motors not ventilated or with assisted ventilation 180 ÷ 250

6. Pièces détachées

- 6.1 Moteurs non ventilés 63 ÷ 160
- 6.2 Moteurs autoventilés 71 ÷ 160
- 6.3 Moteurs non ventilés ou avec ventilation assistée 180 ÷ 250

6. Ersatzteilliste

- 6.1 Nicht belüftete Motoren 63 ÷ 160
- 6.2 Selbstbelüftete Motoren 71 ÷ 160
- 6.3 Nicht belüftete oder fremdbelüftete Motoren 180 ÷ 250

6. Piezas de repuesto

- 6.1 Motores no ventilados 63 ÷ 160
- 6.2 Motores con ventilación autónoma 71 ÷ 160
- 6.3 Motores no ventilados o con ventilación asistida 180 ÷ 250

6. Parti di ricambio

- 6.1 Motori non ventilati 63 ÷ 160
- 6.2 Motori autoventilati 71 ÷ 160
- 6.3 Motori non ventilati o con ventilazione assistita 180 ÷ 250

Motors not ventilated 63 ÷ 160

Moteurs non ventilés 63 ÷ 160

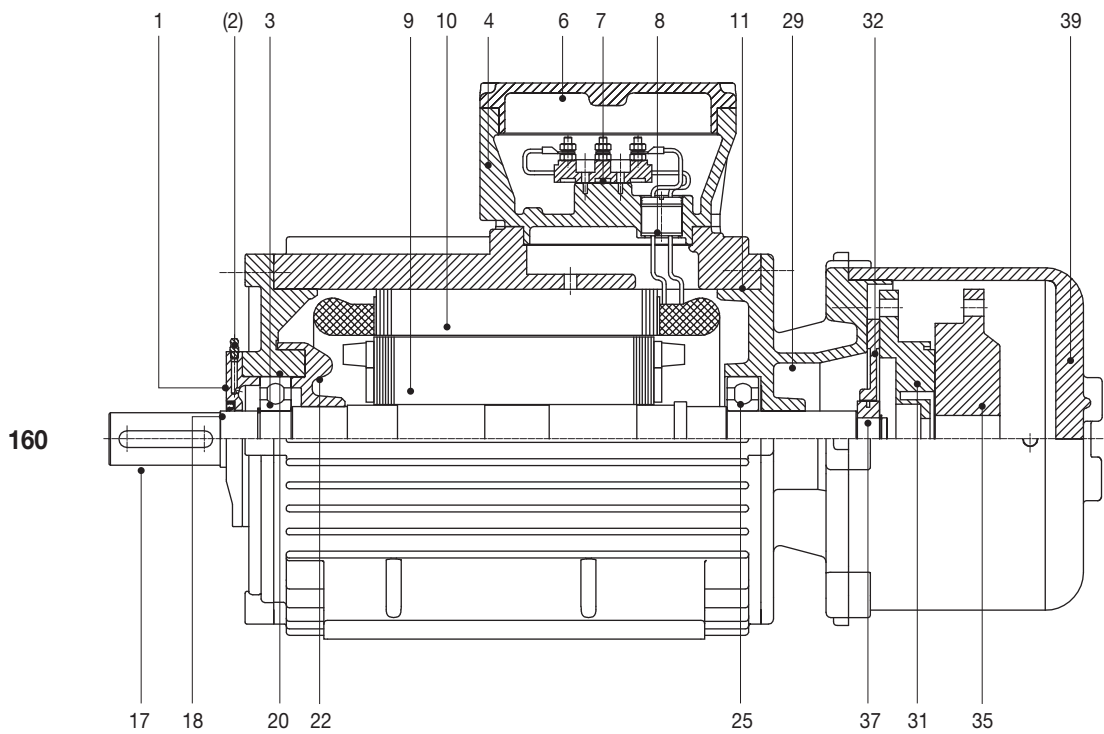
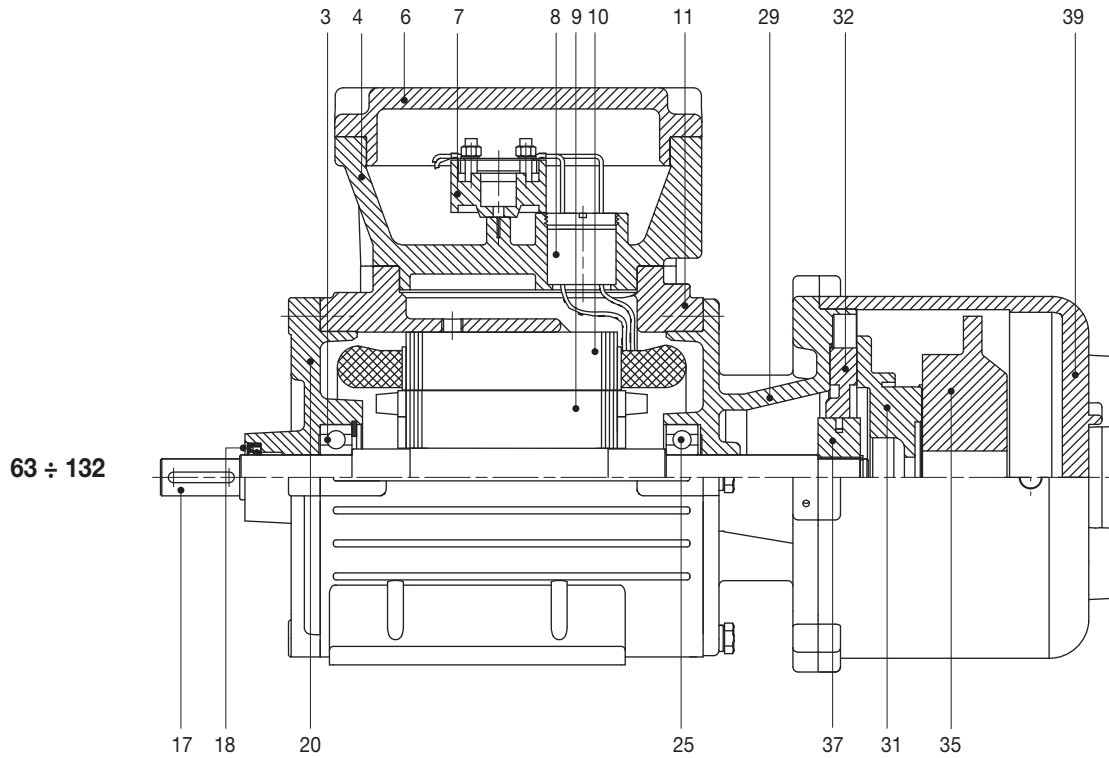
Nicht belüftete Motoren 63 ÷ 160

Motores no ventilados 63 ÷ 160

Motori non ventilati 63 ÷ 160

DB
DC
63÷160

6.
6.1



(46) - (47)

see page 92; voir page 92; siehe Seite 92; véase página 92; vedi pagina 92;

ENGLISH

1 End cap - front	10 Stator	31 Mobil armature
(2) Grease nipple - front	11 Frame	32 Braking disks
3 Front bearing	17 Shaft	35 Magnet
4 Terminal box	18 Sealing ring - front	37 Gear
6 Terminal box lid	20 Endshield - front	39 Brake cover enclosure
7 Terminal board	22 Inner bearing cap - front	(46) Release lever (see page 92)
8 Cable nipple	25 Rear bearing	(47) Release tube (see page 92)
9 Rotor	29 Brake holder back shield	

(...) = when provided

FRANÇAIS

1 Couvercle avant	10 Stator	31 Armature
(2) Graisseur avant	11 Carcasse	32 Disques de freinage
3 Roulement avant	17 Arbre	35 Aimant
4 Boîte à bornes	18 Bague avant d'étanchéité	37 Engrenage
6 Couvercle boîte à bornes	20 Flasque avant	39 Carter de protection du frein
7 Bornes	22 Flasque intérieur avant	(46) Levier de déblocage (voir la page 92)
8 Dispositif pour le passage des câbles	25 Roulement arrière	(47) Tube de déblocage (voir la page 92)
9 Rotor	29 Flasque arrière porte-frein	

(...) = si prévu

DEUTSCH

1 Äußerer Fettkammerdeckel A-Seite	10 Statorpaket	31 Anker
(2) Schmiernippel A-Seite	11 Motorgehäuse	32 Bremsscheiben
3 Kugellager A-Seite	17 Welle	35 Magnet
4 Klemmkasten	18 Dichtungsring A-Seite	37 Zahnrad
6 Klemmkastendeckel	20 Lagerschild A-Seite	39 Kapselung Bremsabdeckung
7 Klemmbrett	22 Innerer Fettkammerdeckel A-Seite	(46) Entsperrungshebel (siehe Seite 92)
8 Druckfeste Kabeldurchführung	25 Kugellager B-Seite	(47) Entsperrungsrohr (siehe Seite 92)
9 Läufer	29 Lagerschild B-Seite Bremsenhalter	

(...) = wenn vorgesehen

ESPAÑOL

1 Tapa externa delantera	10 Estator	31 Placa móvil
(2) Engrasador delantero	11 Armazón	32 Discos de freno
3 Cojinete delantero	17 Eje	35 Imán
4 Caja de bornes	18 Anillo de retención delantero	37 Piñón dentado
6 Tapa de la caja de bornes	20 Escudo delantero	39 Protector del freno
7 Placa de bornes	22 Fondo interno delantero	(46) Palanca de desbloqueo (véase página 92)
8 Niple paso cables	25 Cojinete trasero	(47) Tubo de desbloqueo (véase página 92)
9 Rotor	29 Escudo posterior portafrenos	

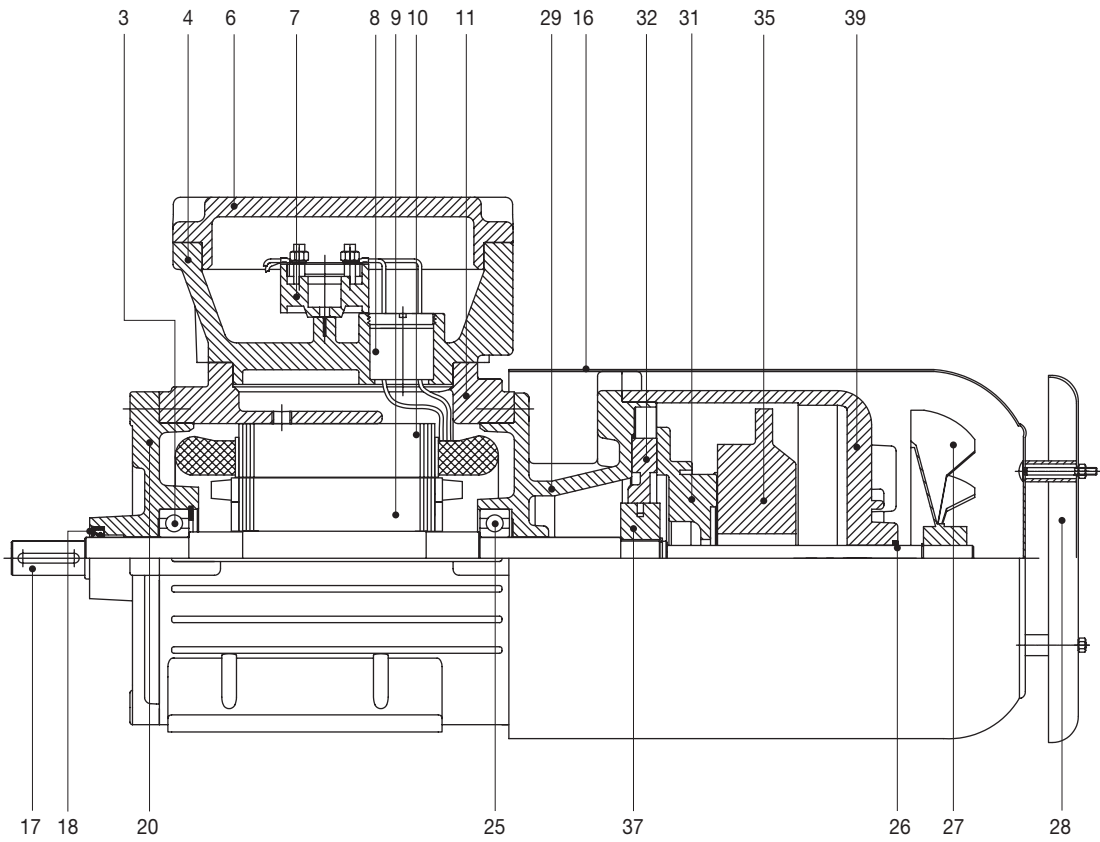
(...) = cuando previsto

ITALIANO

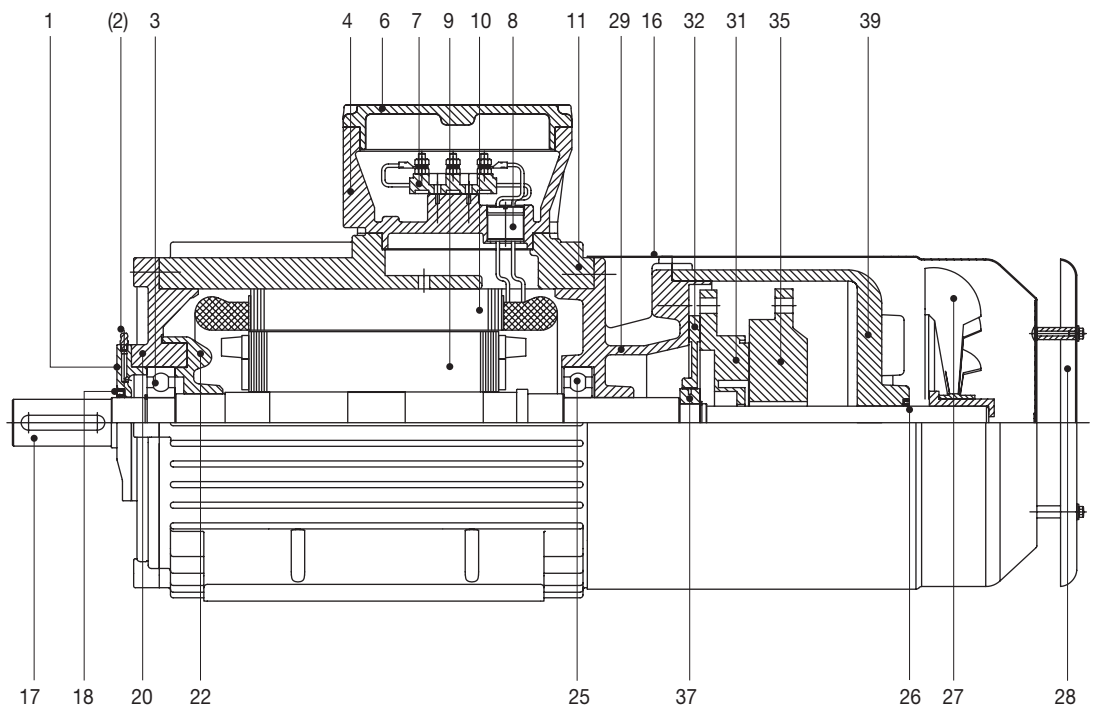
1 Fondello esterno anteriore	10 Statore	31 Ancora mobile
(2) Ingrassatore anteriore	11 Carcassa	32 Dischi frenanti
3 Cuscinetto anteriore	17 Albero	35 Magnete
4 Scatola morsetti	18 Anello di tenuta anteriore	37 Ingranaggio
6 Coperchio scatola morsetti	20 Scudo anteriore	39 Custodia coprifreno
7 Morsettiera	22 Fondello interno anteriore	(46) Leva di sbocco (vedi pagina 92)
8 Nipplo passaggio cavi	25 Cuscinetto posteriore	(47) Tubo di sblocco (vedi pagina 92)
9 Rotore	29 Scudo posteriore portafreno	

(...) = quando previsto

71 ÷ 132



160



(46) - (47)

see page 92; voir page 92; siehe Seite 92; véase página 92; vedi pagina 92;

ENGLISH

1 End cap - front	11 Frame	(28) Rain cap
(2) Grease nipple - front	16 Fan cover (cowl)	29 Brake holder back shield
3 Front bearing	17 Shaft	31 Mobil armature
4 Terminal box	18 Sealing ring - front	32 Braking disks
6 Terminal box lid	20 Endshield - front	35 Magnet
7 Terminal board	22 Inner bearing cap - front	37 Gear
8 Cable nipple	25 Rear bearing	39 Brake cover enclosure
9 Rotor	26 Sealing ring - rear	(46) Release lever (see page 92)
10 Stator	27 Cooling fan	(47) Release tube (see page 92)

(...) = when provided

FRANÇAIS

1 Couvercle avant	11 Carcasse	(28) Tôle parapluie
(2) Graisseur avant	16 Capot de ventilateur	29 Flasque arrière porte-frein
3 Roulement avant	17 Arbre	31 Armature
4 Boîte à bornes	18 Bague avant d'étanchéité	32 Disques de freinage
6 Couvercle boîte à bornes	20 Flasque avant	35 Aimant
7 Bornes	22 Flasque intérieur avant	37 Engrenage
8 Dispositif pour le passage des câbles	25 Roulement arrière	39 Carter de protection du frein
9 Rotor	26 Bague arrière d'étanchéité	(46) Levier de déblocage (voir la page 92)
10 Stator	27 Ventilateur	(47) Tube de déblocage (voir la page 92)

(...) = si prévu

DEUTSCH

1 Äußerer Fettkammerdeckel A-Seite	11 Motorgehäuse	(28) Regenschutzdach
(2) Schmiernippel A-Seite	16 Lüfterhaube	29 Lagerschild B-Seite Bremsenhalter
3 Kugellager A-Seite	17 Welle	31 Anker
4 Klemmkasten	18 Dichtungsring A-Seite	32 Bremsscheiben
6 Klemmkastendeckel	20 Lagerschild A-Seite	35 Magnet
7 Klemmbrett	22 Innerer Fettkammerdeckel A-Seite	37 Zahnrad
8 Druckfeste Kabeldurchführung	25 Kugellager B-Seite	39 Kapselung Bremsabdeckung
9 Läufer	26 Dichtungsring B-Seite	(46) Entsperrungshebel (siehe Seite 92)
10 Statorpaket	27 Lüfterflügel	(47) Entsperrungsrohr (siehe Seite 92)

(...) = wenn vorgesehen

ESPAÑOL

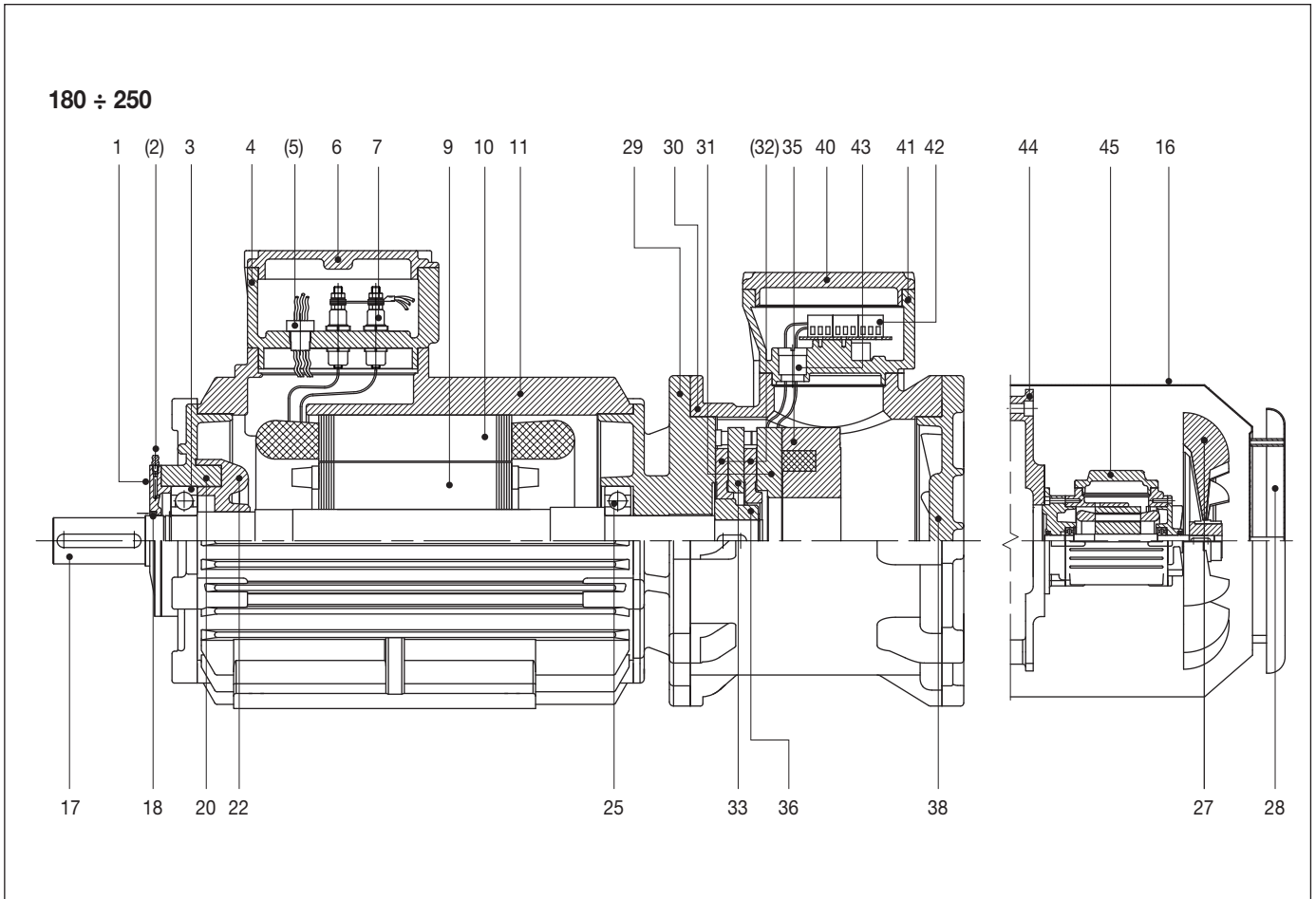
1 Tapa externa delantera	11 Armazón	(28) Tapa de protección contra la lluvia
(2) Engrasador delantero	16 Casquete cubre ventilador	29 Escudo posterior portafrenos
3 Cojinete delantero	17 Eje	31 Placa móvil
4 Caja de bornes	18 Anillo de retención delantero	32 Discos de freno
6 Tapa de la caja de bornes	20 Escudo delantero	35 Imán
7 Placa de bornes	22 Fondo interno delantero	37 Piñón dentado
8 Niple paso cables	25 Cojinete trasero	39 Protector del freno
9 Rotor	26 Anillo de retención trasero	(46) Palanca de desbloqueo (véase página 92)
10 Estator	27 Ventilador	(47) Tubo de desbloqueo (véase página 92)

(...) = cuando previsto

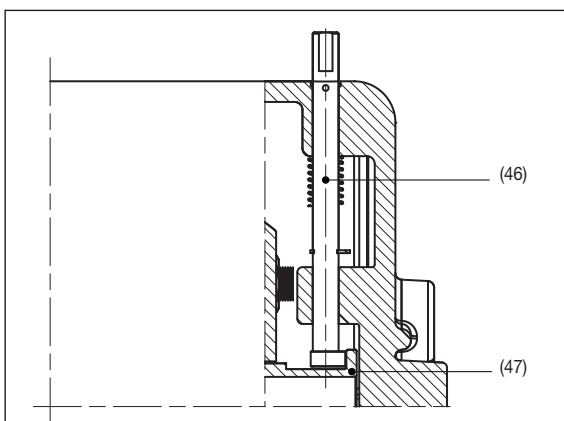
ITALIANO

1 Fondello esterno anteriore	11 Carcassa	(28) Tettuccio parapioviggia
(2) Ingrassatore anteriore	16 Calotta copriventola	29 Scudo posteriore portafreno
3 Cuscinetto anteriore	17 Albero	31 Ancora mobile
4 Scatola morsetti	18 Anello di tenuta anteriore	32 Dischi frenanti
6 Coperchio scatola morsetti	20 Scudo anteriore	35 Magnete
7 Morsettiera	22 Fondello interno anteriore	37 Ingranaggio
8 Nipplo passaggio cavi	25 Cuscinetto posteriore	39 Custodia coprifreno
9 Rotore	26 Anello di tenuta posteriore	(46) Leva di sbocco (vedi pagina 92)
10 Statore	27 Ventola	(47) Tubo di sbocco (vedi pagina 92)

(...) = quando previsto



Note for page 89 and page 91; *Remarque pour les pages 89 et 91* ; Anmerkung für S. 89 und S. 91, *Nota para pág. 89 y pág. 91*; Nota per pag. 89 e pag. 91;



ENGLISH		
1 End cap - front	18 Sealing ring - front	34 Ring nut
(2) Grease nipple - front	20 Endshield - front	35 Magnet
3 Front bearing	22 Inner bearing cap - front	36 Pinion
4 Motor terminal box	25 Rear bearing	38 Brake shield
(5) Auxiliary connections	26 Sealing ring - rear	40 Brake terminal box lid
6 Motor terminal box lid	27 Cooling fan	41 Brake terminal box
7 Motor terminal board	(28) Rain cap	42 Brake terminal board
9 Rotor	29 NDE shield brake holder	44 Forced ventilation bracket
10 Stator	30 Brake enclosure	45 Forced ventilation motor
11 Frame	31 Mobil armature	
16 Fan cover (cowl)	32 Braking disks (*)	(...) = when provided
17 Shaft	33 Friction disk	(*) Standard, 1 brake disc
FRANÇAIS		
1 Couvercle avant	18 Bague avant d'étanchéité	34 Bague
(2) Graisseur avant	20 Flasque avant	35 Aimant
3 Roulement avant	22 Flasque intérieur avant	36 Pignon
4 Boîte à bornes du moteur	25 Roulement arrière	38 Couvercle du frein
(5) Dispositif pour le passage des auxiliaires	26 Bague arrière d'étanchéité	40 Couvercle de la boîte à bornes du frein
6 Couvercle de la boîte à bornes du moteur	27 Ventilateur	41 Boîte à bornes du frein
7 Bornier du moteur	(28) Tôle parapluie	42 Bornier du frein
9 Rotor	29 Flasque arrière porte-frein	44 Support du moteur avec ventilation assistée
10 Stator	30 Carter du frein	45 Moteur avec ventilation assistée
11 Carcasse	31 Armature	
16 Capot de ventilateur	32 Disques de freinage (*)	(...) = si c'est prévu
17 Arbre	33 Disque de friction	(*) Standard 1 disque de freinage
DEUTSCH		
1 Äußerer Fettkammerdeckel A-Seite	18 Dichtungsring A-Seite	34 Nutmutter
(2) Schmiernippel A-Seite	20 Lagerschild A-Seite	35 Magnet
3 Kugellager A-Seite	22 Innerer Fettkammerdeckel A-Seite	36 Ritzel
4 Motor-Klemmenkasten	25 Kugellager B-Seite	38 Deckel Bremse
(5) Kabeldurchführung Hilfskreise	26 Dichtungsring B-Seite	40 Deckel Bremsen-Klemmenkasten
6 Deckel Motor-Klemmenkasten	27 Lüfterflügel	41 Bremsen-Klemmenkasten
7 Motor-Anschlussklemmen	(28) Regenschutzdach	42 Bremsen-Anschlussklemmen
9 Läufer	29 Lagerschild B-Seite Bremsenhalter	44 Träger Motor Fremdbelüftung
10 Statorpaket	30 Kapselung der Bremse	45 Motor Fremdbelüftung
11 Motorgehäuse	31 Anker	
16 Lüfterhaube	32 Bremsscheiben (*)	(...) = wenn vorgesehen
17 Welle	33 Reibscheibe	(*) Standard 1 Bremsscheibe
ESPAÑOL		
1 Tapa externa delantera	18 Anillo de retención delantero	34 Anillo
(2) Engrasador delantero	20 Escudo delantero	35 Imán
3 Cojinete delantero	22 Fondo interno delantero	36 Piñón
4 Caja de bornes motor	25 Cojinete trasero	38 Tapa del freno
(5) Niple paso auxiliares	26 Anillo de retención trasero	40 Tapa caja de bornes freno
6 Tapa caja de bornes motor	27 Ventilador	41 Caja de bornes freno
7 Placa de bornes motor	(28) Tapa de protección contra la lluvia	42 Placa de bornes freno
9 Rotor	29 Escudo posterior portafrenos	44 Soporte motor ventilación asistida
10 Estator	30 Envoltente del freno	45 Motor ventilación asistida
11 Armazón	31 Placa móvil	
16 Casquete cubre ventilador	32 Discos de freno (*)	(...) = cuando previsto
17 Eje	33 Disco de rozamiento	(*) Estándar 1 disco de frenado
ITALIANO		
1 Fondello esterno anteriore	18 Anello di tenuta anteriore	34 Ghiera
(2) Ingrassatore anteriore	20 Scudo anteriore	35 Magnete
3 Cuscinetto anteriore	22 Fondello interno anteriore	36 Pignone
4 Scatola morsetti motore	25 Cuscinetto posteriore	38 Scudo custodia freno
(5) Nipplo passaggio ausiliari	26 Anello di tenuta posteriore	40 Coperchio scatola morsetti freno
6 Coperchio scatola morsetti motore	27 Ventola	41 Scatola morsetti freno
7 Morsettiera motore	(28) Tettuccio parapiooggia	42 Morsettiera freno
9 Rotore	29 Scudo posteriore portafreno	44 Supporto motore ventilazione assistita
10 Statore	30 Custodia freno	45 Motore ventilazione assistita
11 Carcassa	31 Ancora mobile	
16 Calotta copriventola	32 Dischi frenanti (*)	(...) = quando previsto
17 Albero	33 Dischetto d'attrito	(*) Standard 1 disco frenante

Flameproof-Explosion proof motors**Ex d, Ex de**

- frame size 56 ÷ 315
- power 0.06 ÷ 200 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**Ex d, Ex de**

- hauteur d'axe 56 ÷ 315
- puissance 0.06 ÷ 200 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

Explosionsgeschützte Motoren**Ex d, Ex de**

- Baugrößen 56 ÷ 315
- Leistung 0.06 ÷ 200 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 antideflagrantes**Ex d, Ex de**

- tamaños 56 ÷ 315
- potencia 0.06 ÷ 200 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 antideflagranti**Ex d, Ex de**

- altezza d'asse 56 ÷ 315
- potenze 0.06 ÷ 200 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**

- frame size 63 ÷ 132
- power 0.12 ÷ 7.5 kW
- threephase
- group II
- category 2G
- temperature class T3

Moteurs à sécurité augmentée**Ex e**

- 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**

- Baugrößen 63 ÷ 132
- Leistung 0.12 ÷ 7.5 kW
- Drehstrommotoren
- Gruppe II
- Kategorie 2G
- Temperaturklassen T3

Motores de seguridad aumentada**Ex e**

- tamaños 63 ÷ 132
- potencia 0.12 ÷ 7.5 kW
- trifásicos
- grupo II
- categoría 2G
- clase temperatura T3

Motori a sicurezza aumentata**Ex e**

- 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**

- 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**

- 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**

- 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**

- 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**

- 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

- frame size 63 ÷ 315
- power 0.12 ÷ 132 kW
- threephase, 1 or 2 speed
- category 3D
- protection IP55

Moteurs fermés IP55 CEI/IEC avec ventilation extérieure

- 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

- Baugrößen 63 ÷ 315
- Leistung 0.12 ÷ 132 kW
- Drehstrommotoren, 1 oder 2 Geschwindigkeiten
- Kategorie 3D
- Schutzart IP55

Motores cerrados con ventilación exterior IP55

- tamaños 63 ÷ 315
- potencia 0.12 ÷ 132 kW
- trifásicos, 1 o 2 velocidades
- categoría 3D
- protección IP55

Motori chiusi con ventilazione esterna CEI/IEC

- 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**Ex d - Ex de**

- 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**Ex d - Ex de**

- 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

Explosionsgeschützte Zentrifugal-Elektropumpen für Druckmaschinen**Ex d - Ex de**

- Gruppe IIB, IIC
- Leistung bis 300 l/min
- Bis zu 15 m Förderhöhe
- Eintauchtiefe 170 ÷ 550 mm
- Sonderanwendungen
- Motor vom Pumpenkörper abnehmbar

Electrobombas centrifugas antideflagrantes para máquinas de impresión**Ex d - Ex de**

- 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 antideflagranti per macchine da stampa**Ex d - Ex de**

- 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

- submersible
- output over 300 l/min
- head up to 30 m
- stem length 90 ÷ 550 mm
- special applications

Electropompes centrifuges pour machines-outils

- immergeables
- débit supérieur à 300 l/min
- hauteur de refoulement jusqu'à 30 m
- corps immergé 90 ÷ 550 mm
- applications spéciales

Elektropumpen für Werkzeugmaschinen

- Eintauchfähig
- Leistung mehr als 300 l/min
- Bis zu 30 m Förderhöhe
- Eintauchtiefe 90 ÷ 550 mm
- Sonderanwendungen

Electrobombas centrifugas para máquinas herramientas

- sumergibles
- capacidad: más 300 l/min
- altura: hasta 30 m
- cuerpos sumergidos 90 ÷ 550 mm
- aplicaciones especiales

Elettropompe centrifughe per macchine utensili

- ad immersione
- portate oltre 300 l/min
- prevalenze fino a 30 m
- corpi immersi 90 ÷ 550 mm
- applicazioni speciali

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