



CEMP Motors

EXPLOSION PROOF BRAKE MOTORS



MATERIALS ON THE MAIN COMPONENTS

Frame size	63+ 250	280+355
Frame Endshields Terminal box	Cast iron EN-GJL-200 (UNI EN 1561)	Cast iron EN-GJL-200 (UNI EN 1561)
Fan cover Rain cap	Steel	Steel
Fan	Non sparking thermoplastic material or aluminium brass for mining application motors	Aluminium brass for mining application motors
Shaft	Steel C45	Steel C45
Rotor	Squirrel cage in die cast aluminium	Squirrel cage in die cast aluminium
Winding	Insulation class F or H	Insulation class F or H
Fasteners	Galvanized steel 8.8 ISO 898-1 Stainless Steel A4 ISO 898-1	Galvanized steel 8.8 ISO 898-1 Stainless steel A4 ISO 898-1
Cable gland (on request)	Brass or stainless steel	Brass or stainless steel
Brake enclosure	Cast iron EN-GJL-200 (UNI EN 1561)	Cast iron EN-GJL-200 (UNI EN 1561)
Brake terminal box	Cast iron EN-GJL-200 (UNI EN 1561)	Cast iron EN-GJL-200 (UNI EN 1561)



EXPLOSION PROOF BRAKE MOTORS

MAIN OPTIONS

IE1- IE2

- Range frame 63- 315
- Single/ double speed
- Designed for continuous duty (S1) and non- continuous duty (S2, S3, S4, S6, S9)
- Low temperature design (for 180- 315 frame)
- Ac and DC brake options with our w/out rectifier

IE3- IE4

- -60°C / +60°C ambient temperatures
- Up to T6 temperature class
- Special version "IP67/68" on request
- Wide brake regulation range
- Extended inverter duty range
- Increased starting torque

SPECIAL OPTIONS

- Forced ventilation
- Encoder
- Stainless steel fan cover and rain canopy
- Auxiliary terminal boxes "taylor made"
- Customized C5-M painting
- Hand brake release
- Available IC411
- Space heater / PTC / PT100
- Microswitch



MOTOR SIZE 355 - IE3 / IE4



MAIN OPTIONS

Mechanical variants	Electrical	Accessories
<ul style="list-style-type: none"> Motors protection IP55, IP56, IP65, IP66 Low ambient temperature design up to -55°C Special flanges and shafts Locked bearings, roller bearings or special bearings Terminal box on side SPM probe (vibrations measurement) Cable glands fitted on terminal box Drain Valves Grade A or B balancing Rain cap or sun shield water shredding disk Auxiliary terminal box 	<ul style="list-style-type: none"> Special voltage and frequency Low inrush current Heaters Bimetallic thermal protection(NC, NO), thermistors (PTC), platinum resistor (PT100) Three phase 2 speeds Tropicalized Class H insulation VPI- Vacuum Pressure Impregnation 	<ul style="list-style-type: none"> Suitable for frequency converter drives Forced ventilation (IC416) Encodes (100-10000 ppr) Bearing sensors

TECHNICAL FEATURES

- Three phase squirrel cage asynchronous motors
- Totally enclosed, fan cooled, frame IP55 with terminal box IP65
- PTC thermistors
- Anti- condensation heater
- Terminal box designed to be rotated by 90° in 4 different positions
- High corrosion protection:
 - Internal anti- rust coating and external epoxy pain coating (minimum thickness 120µm)
 - stainless steel nameplate
 - anticorrosion plated fasteners
- High impact protection:
 - frame, terminal box and cast iron endshields;
 - fan cover in sheet steel
- Standard motors equipped with radial deep groove open bail bearings
- Low friction dust seals
- Bearings with greasing nipples
- Roller bearings for heavy loads



AB / AC IE1-IE2



- Standards:
 - IEC 60079 – 0,1,7,31
 - IEC 60034 – 1,2,5,6,7,8,9,12,14,30
 - IEC 60072
- Ex d, Ex de/ Ex-tb, Ex-tc
- ATEX category 2D, 2G, 2GD
- Group IIB, IIC
- Temperature Class T3, T4, T5, T6
- Zones 1, 2/ 21, 22
- Max surface temperature [°C] T150, T135, T125, T100, T85
- Protection IP55, IP56, IP65, IP66
- Frame size from 63 to 355 (IEC)
- Power from 0.12 to 375kW
- Three phase 1 or 2 speed
- Single phase (frame size 63- 100)
- 400V, 50Hz
- Poles: 2, 4, 6,8
- Ventilated & with forced ventilation
- Available IE1, IE2
- Available ATEX, IECx

E3AM / E4AM IE3-IE4



- Standards:
 - IEC 60079 – 0,1,7,31
 - IEC 60034 – 1,2,5,6,7,8,9,12,14,30
 - IEC 60072
- Ex d, Ex de
- ATEX category 1M2
- Group I (mine)
- Protection IP55, IP65,IP66
- Frame size from 63 to 355 (IEC)
- Power from 0.12 to 375kW
- Three phase 1 or 2 speed
- 400V, 50 Hz
- Poles: 2, 4, 6, 8
- Ventilated & with forced ventilation
- Available IE3, IE4
- Available ATEX, IECEx



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E3AB / E3AC IE3-IE4



- Standards:
 - IEC 60079 – 0,1,7,31
 - IEC 60034 – 1,2,5,6,7,8,9,12,14,30
 - IEC 60072
- Ex d, Ex de/ Ex-tb, Ex-tc
- ATEX category 2D, 2G, 2GD
- Group IIB, IIC
- Temperature Class T3, T4, T5, T6
- Zones 1, 2/ 21, 22
- Max surface temperature [°C] T150, T135, T125, T100, T85
- Protection IP55, IP56, IP65, IP66
- Frame size from 63 to 355 (IEC)
- Power from 0.12 to 375kW
- Three phase 1 or 2 speed
- Single phase (frame size 63- 100)
- 400V, 50Hz
- Poles: 2, 4, 6,8
- Ventilated & with forced ventilation
- Available IE2, IE3
- Available ATEX, IECx

Safe area motors IE1-IE2-IE3-IE4 TCA



- Standards:
 - IEC 60034 – 1,2,5,6,7,8,9,12,14,30
 - IEC 60072
- COO Europe available
- Protection IP55, IP56, IP65, IP66
- Frame size from 80 to 355 (IEC)
- Power 0.75- 375kW
- 400V, 50Hz (multi voltage 380- 400- 420/ 50Hz and 460V/60Hz)
- Pole 2, 4, 6, 8
- Self- cooling (IC411); Forced cooling (IC416), not ventilated (IC410), totally enclosed air over (IC418)
- Premium Efficiency IE3; Super Premium Efficiency IE4
- Certified GMEE