

INDUSTRIAL ATEX — IEC Ex MOTORS FOR HAZARDOUS LOCATIONS

Industrial Motors

Commercial &
Appliance Motors

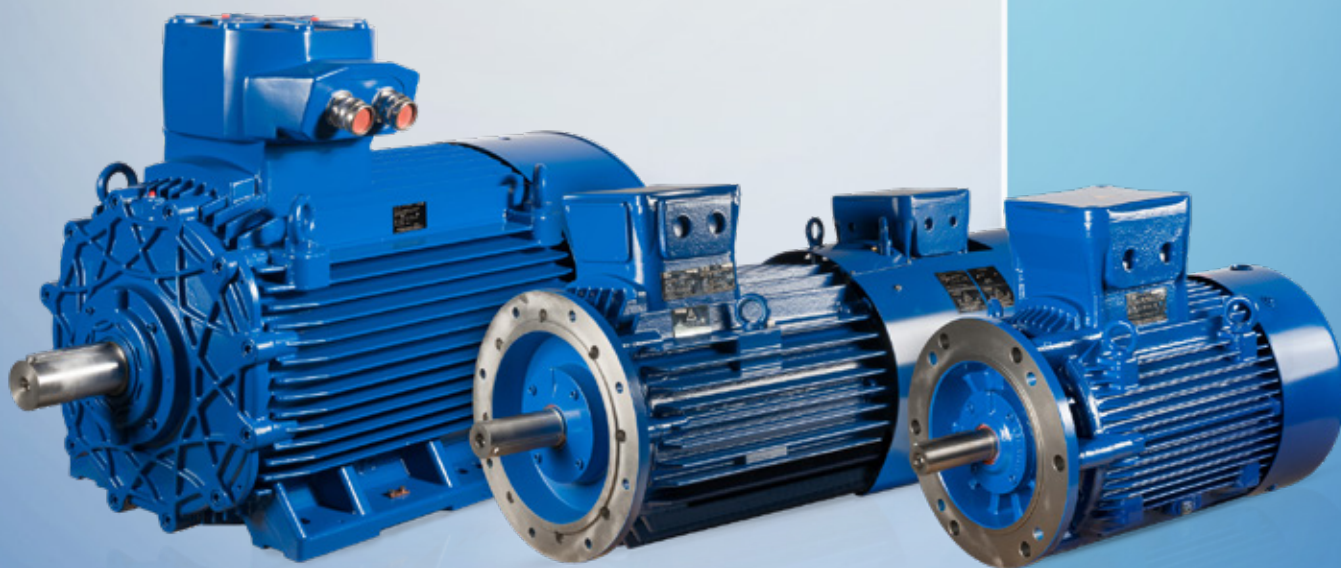
Automation

Digital &
Systems

Energy

Transmission &
Distribution

Coatings



A comprehensive range of motors for **hazardous areas**

Type of motor

Flameproof electric motor

E3A.../E4A... Series - IE3/IE4 Gas & Dust version

- According to standards:
 - IEC®/EN 600079-0, 1, 7, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
- Ex db, Ex db eb, Ex tb, Ex tc
 - Terminal box Ex db or Ex eb available
 - Continuous duty or intermittent duty
- ATEX® category I M2, II2G, II2D, II2GD
- Gas group I, IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3, T4, T5, T6
- Surface temperature classes (Dust)
T150°C - T135°C - T125°C - T100°C - T85°C
- Protection IP55, IP56, IP65, IP66
- Frame size from 80 to 355 (IEC)
- Power 0.75 - 375 kW
- 400 V, 50 Hz (multi voltage 380-400-415 V/50 Hz and 460 V/60 Hz)
- Pole 2, 4, 6, 8 and dual speed motor (separate windings or Dahlander)
- Self-cooling (IC411); forced cooling (IC416); not ventilated (IC410);
totally enclosed air over (IC418)
- Premium efficiency IE3 and super-premium efficiency IE4 available.
Legacy IE1 / IE2 still available
- Certified ATEX and IEC Ex®
- Certified GMEE®





Type of motor

TerraMAX® dust, non-sparking and increased safety electric motors

TCN/TCT/TCE/TCT3/TCNT Series Gas & Dust version

- According to standards:
 - IEC/EN 60079-0, 15, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
- Ex ec, Ex tb, Ex tc, Ex eb
- ATEX category II2G, II3G, II3GD, II2D
- Gas group IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3
- Surface temperature classes (Dust)
T150°C - T135°C - T120°C - T100°C - T85°C
- Protection IP55, IP56, IP65, IP66
- Frame size from 80 to 355 (IEC)
- Power 0.75 - 375 kW
- 400 V, 50 Hz and 460 V/60 Hz
- Pole 2, 4, 6, 8 and dual speed motor (separate windings or Dahlander)
- Self-cooling (IC411); forced cooling (IC416); not ventilated (IC410);
totally enclosed air over (IC418)
- Premium efficiency IE3; super-premium efficiency IE4 available
- Certified ATEX and IEC Ex®
- Certified GMEE

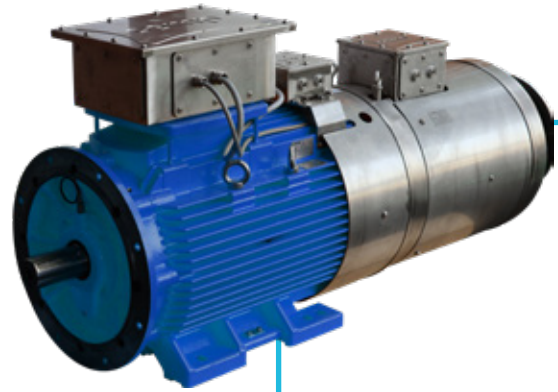


Type of motor

Flameproof electric motors with brake

E3H/D... - E4H/D... series - IE3/IE4 Gas & Dust version

- According to standards:
 - IEC/EN 600079-0, 1, 7, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
 - Motor enclosure Ex db (flameproof) and brake in separate Ex db enclosure
 - Terminal box Ex db or Ex eb available
 - Multiple choice for brake torque available
 - Continuous duty or intermittent duty
- Ex db, Ex db eb, Ex tb, Ex tc
- ATEX category II2G, II2D, II2GD
- Gas group IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3, T4, T5, T6
- Surface temperature classes (Dust)
T150°C - T135°C - T125°C - T100°C - T85°C
- Protection IP55, IP56, IP65, IP66
- Frame size 80 to 250 (IE3-IE4) and up to 315 (IE1-IE2)
- Power 0.75 - 200 kW
- 400 V, 50 Hz
- Pole 2, 4, 6, 8 and dual speed motor (separate windings or Dahlander)
- Self-cooling (IC411); forced cooling (IC416); not ventilated (IC410)
- Premium efficiency IE3; super-premium efficiency IE4 available.
Legacy IE1 / IE2 still available
- Certified ATEX and IEC Ex®
- Certified GMEE
- IE1-IE2 with three phase brake up to 160 frame and single phase brake available on request
- IE1-IE2 from 180 to 315 and IE3-IE4 from 80 to 250 only single phase brake



Type of motor

Aluminum frame 56

AAB... / AAC... series Gas & Dust version

- According to standards:
 - IEC/EN 600079-0, 1, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
- Ex db, Ex tb
- ATEX category II2G, II2GD
- Gas group IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3, T4, T5, T6
- Surface temperature classes (Dust)
T150°C - T135°C - T125°C - T100°C - T85°C
- Protection IP55, IP56, IP65, IP66
- Frame size 56 (IEC)
- Mounting B3, B14, B34, B5, B35, PAD mounted
- Power 0.06 – 0.12 kW
- Three-phase
- 400 V, 50 Hz (multi voltage 380-400-415 V/50 Hz and 460 V/60 Hz)
- Pole 2, 4, 6
- Not ventilated (IC410) / terminal box on the back side
- PTC for inverter use
- Certified ATEX and IEC Ex®



Main options

Mechanical

- Special flanges and shafts
- Plate with cables gland, or seal joints and conduit (terminal box not included)
- Locked bearings, roller bearings or special bearings
- Terminal box on side
- SPM probe (vibration measurement)
- Double ended shafts
- Cable gland fitted to terminal box
- Condensation drain valve
- Grade A or B vibration levels
- Rain cap, sun shield or water shredding disk
- Low noise
- Auxiliary terminal box
- Increased Ex eb terminal boxes for motor and brake in stainless steel AISI 316
- Low (-60 °C) temperature motors

Accessories

- Forced ventilation (IC416)
- Encoders (100 – 10,000 ppr)
- Bearing sensors
- Bimetallic thermal protection (NC, NO), thermistors (PTC), platinum resistor (Pt-100)
- Anti-condensation heaters

Electrical

- Special voltage and frequency
- Three-phase 2 speeds
- Single phase with permanent capacitor
- Motors for tropical climates
- Electrical special designs
- Class H insulation
- Suitable for frequency converter drives

Brake

- AC disc brakes
- DC disc brakes
- Brake hand release
- Braking when not energized
- Micro switch available from frame 90 and above

Engineering services

- Start-up behavior analysis
- Superimposed curve (Motor-driven machine)
- Load test and thermal test as per IEC 60034-2-1
- Torque speed curve measurement (Dynamic method)
- Insulation test
- ATEX, IEC Ex and UL approved for thermal test
- Bureau Veritas and Korean Register type approval for naval applications

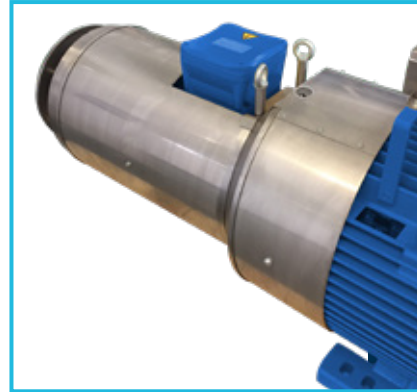


Main options

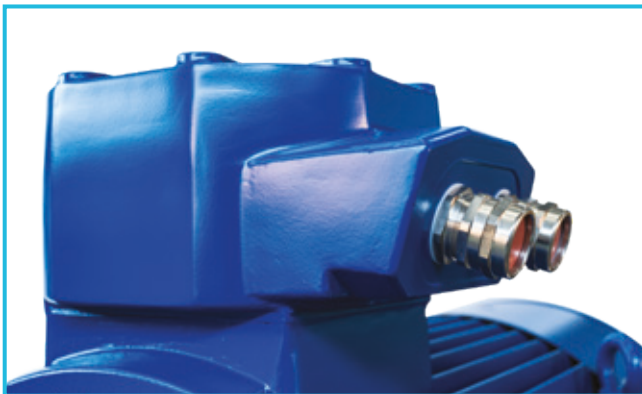
Ex eb increased safety terminal box



Totally enclosed fan ventilated



Oversized terminal box



Brake enclosure



The scope of WEG Group solutions
is not limited to products and solutions
presented in this catalogue.
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operations visit our website**



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The values shown are subject to change without prior notice.
The information contained is reference values.