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SEGMENT BROCHURE

CERTIFIED MOTORS

For underground mining environments



- MSHA (Mine Safety and Health Administration) compliant ABB Baldor-Reliance motors for mining equipment.
- Designed and certified for hazardous mining atmospheres




ENGINEERED
TO OUTFIT

CERTIFIED MINING MOTORS

ABB Baldor-Reliance mining certified explosion-proof motors are designed for use in the underground mines where explosive atmospheres and combustible dusts exist. Tight machining tolerances of the housings, bearing brackets and the conduit box provide the explosion-proof integrity required by MSHA (Mine Safety and Health Administration) and other international certifying agencies. ABB Baldor-Reliance certified motors provide proven safety and compliance for mining environments, helping protect people, equipment and operations with confidence. Backed by decades of mining expertise and global support, ABB delivers trusted, reliable motor solutions you can depend on.

TECHNICAL COMPLIANCE & DESIGN

- Designed and certified for hazardous mining atmospheres
- Meets or exceeds global high efficiency standards
- Sinewave and Inverter Duty, up to 1140-volt capability
- NEMA 180 – 440, IEC 112 – 280 and associated Hp and kW rating range, 50-60 Hz
- Optional special shaft configurations
- Optional double shaft extensions
- Optional NEMA & IEC mounting configurations
- Listed approvals provide clear documentation and compliance confidence
- Certifications available: MSHA, IECEx, ATEX, ANZEx, South Africa (Certex)

Region - Country	Certification	Marking	Agency	Certificate
World	IECEX	EX d I Mb 	SIRA	IECEX SIR 09.0011X
EU	ATEX	I M2 Ex d L	SIRA	Sira 09ATEX1037X
Australia	ANZEx	Ex d I ANZEX	TestSafe	ANZEx 10.3003X
South Africa	South Africa	Ex I 150° Mb SANS IA CERTIFICATE	Explolabs	S-XPL/10.1294X
South Africa	South Africa	 Certification Excellence	CERTEX	CX1030 Edition 1.1
United States	MSHA		MSHA	MSHA



ELECTRICAL & MECHANICAL FEATURES

- Heavy-duty cast-iron enclosures for strength and long-term durability
- Precision-machined flame paths to contain internal explosions
- Robust insulation systems designed for harsh mining conditions
- Reinforced bearings and mechanical construction for continuous duty
- Equipment must be designed so it cannot cause ignition of methane-air/dust atmospheres
- Rugged conduit boxes and lead entry designs suitable for mining environments
- Custom-engineered motor solutions with flexible enclosure and cooling options (TEFC, TEAO, TENV) to meet specific mining requirements
- Designed to allow inspection and maintenance
- Enclosures, joints, fasteners, covers, and external parts must conform to MSHA's criteria to withstand mining stresses

SAFETY FOR PEACE OF MIND

- Proven explosion-proof designs help protect personnel, equipment, and facilities
- Reduced risk of ignition and unplanned downtime in hazardous locations
- Confidence in regulatory compliance for inspections and approvals
- Designed for reliable, continuous operation in demanding mining applications (short term duty available on request)
- Backed by decades of mining expertise and global support from ABB
- ABB provides certifying agencies with designs, drawings, specifications, and test procedures/ results for inspection and approval marking



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<https://new.abb.com/motors-generators/segments/mining>



Additional information

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