

SPECIAL APPLICATION MOTORS

Reliable. Robust. Purpose-Built.
Engineered for Demanding Applications.



HIGH
RELIABILITY



CUSTOMIZED
SOLUTIONS



GLOBAL
SUPPORT



QUALITY
ASSURED

SPECIAL APPLICATION MOTORS

Special Application Motors are a series of custom-oriented high-voltage three-phase asynchronous motors designed for heavy-duty, hazardous, and harsh working conditions in underground coal mines. Built on Wolong's 40 years of industrial expertise and integrated with Morley's 120-year heritage in mining motor technology, the series is engineered to deliver tailored solutions, stable performance, and strong reliability for coal mining machinery. It fully supports customer-specific customization to match unique equipment requirements and complex working conditions.



Safety & Explosion-proof

Adopts Ex db I Mb mining flameproof structure, eliminating spark and high-temperature risks at the design source, fully compliant with coal mine safety regulations.



High Protection & Durability

IP56/IP67 high protection grade, featuring water resistance, dust resistance and anti-corrosion performance, perfectly adapted to humid and dusty underground working conditions.



High-efficiency Water Cooling

Uniformly equipped with IC37W water cooling structure, delivering high heat dissipation efficiency and high power density, supporting long-term full-load operation.



Heavy-load & High Reliability

Adopts copper bar rotor, stable insulation system and high-strength bearing structure, with excellent impact resistance, long service life and low failure rate.



Customized Adaptation

Power, voltage, speed, mounting type and protection grade can be customized on demand to match different equipment and working conditions.



Global Service Support

Relying on global manufacturing and technology centers, we provide rapid response, full-life cycle technical support and after-sales guarantee services.



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PRODUCT SERIES

01 Coal Shearer Three-Phase Induction Motor

This high-performance three-phase asynchronous motor is custom-engineered for coal shearers, cutting units, crushers, and pumping stations in underground coal mines.

Excellent Torque Performance

High starting torque, strong overload capacity, ideal for heavy-duty mining conditions.

High Reliability

Stable insulation system, long service life, robust bearing structure for continuous operation.

Advanced Cooling System

Optimized IC37W water-cooling circuit, high heat exchange efficiency, high power density.

Easy Maintenance

Large junction box cavity, unique gland design for fast wiring and replacement; anti-corrosion treatment on water channels and spigots to extend service life.

Compact & Space-Saving

Optimized overall structure to save installation space in limited mining equipment compartments.



02 Roadheader-Bolter Three-Phase Induction Motor

This series high-voltage three-phase asynchronous motor is upgraded with Morley design and Nanyang explosion-proof technology, optimized for underground coal mine working conditions. It is specially designed for driving underground coal mine equipment, including roadheaders, bolter miners, bolt transfer machines, continuous miners and other similar mining machinery.

Excellent Running Performance

Vibration ≤ 1.2 mm/s; Noise $\leq L_p$ 85 dB(A); Starting torque ≥ 2.5 times rated torque

High Reliability

Stable insulation system, long service life; robust bearing structure with strong load capacity

Advanced Water Cooling

Optimized IC37W water circuit, high heat exchange efficiency, high power density

Easy Maintenance

Large junction box cavity for convenient wiring; enlarged grease filling space, grease interval extended by 1.5 times

Mining-Optimized Structure

Compact layout, lower center height, suitable for narrow underground installation space



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PRODUCT SERIES

03 Scraper Conveyor Three-Phase Induction Motor

This series high-voltage three-phase asynchronous motor is upgraded with Morley design and Nanyang explosion-proof technology, optimized for underground coal mine working conditions. It is specially designed to drive scraper conveyors, transfer conveyors, crushers, belt conveyors, pumps and other heavy-duty mining machinery.

Excellent Running Performance

Vibration ≤ 1.2 mm/s; Noise $\leq L_p$ 85 dB(A);
Starting torque ≥ 2.5 times rated torque

High Reliability

Stable insulation system, long service life;
robust bearing structure with strong load capacity

Advanced Water Cooling

Optimized IC37W water circuit, high heat
exchange efficiency, high power density

Easy Maintenance

Large junction box cavity for convenient wiring;
enlarged grease filling space, grease interval
extended by 1.5 times

Mining-Optimized Structure

Compact layout, lower center height, suitable
for narrow underground installation space



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TECHNICAL PARAMETERS

Item	Coal Shearer Three-Phase Induction Motor	Roadheader-Bolter Three-Phase Induction Motor	Scraper Conveyor Three-Phase Induction Motor
Cooling Method	IC37W	IC37W	IC37W
Power Range	20~1250 kW	36~540 kW	160~1600 kW
Speed Range	750~1500 rpm	750~1500 rpm	1500 rpm
Frequency	50Hz fixed; 5~100Hz variable frequency	50Hz	50Hz fixed; variable frequency optional
Voltage Range	380~3300 V	380~3300 V	660~11000 V
Protection Grade	IP56, IP67	IP56, IP67	IP56, IP67
Explosion-proofType	Ex db I Mb	Ex db I Mb	Ex db I Mb
Rotor Material	Copper bar	Copper bar	Copper bar
Mounting Type	B10	B10	IMB3, IMB35, IMB10
Bearing Type	Rolling bearing	Rolling bearing	Rolling bearing
Executive Standard	GB, IEC, EN	GB, IEC, EN	GB, IEC, EN
Certifications	IEC Ex, ATEX, CCC, MA	IEC Ex, ATEX, CCC, MA	IEC Ex, ATEX, CCC, MA
Ambient Temperature	0℃~+40℃	0℃~+40℃	0℃~+40℃
Relative Humidity	=95% (at 25℃)	=95% (at 25℃)	=95% (at 25℃)
Altitude	=1000m (standard); 1000~3000m (customized)	=1000m (standard); 1000~3000m (customized)	=1000m (standard); 1000~3000m (customized)



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APPLICATION RANGE



Coal Shearer Driving System



Roadway Excavation & Bolting Equipment



Other Mining & Heavy Duty Machinery



Mine pumping stations



Underground Conveying & Handling Equipment



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Company Introduction

We have decades of professional experience in the import and export of industrial control equipment, and are internationally renowned brands such as ABB, Schneider, Siemens, as well as the official authorized distributor of Xiamen Huadian. Especially in the overseas promotion and supply of Xiamen Huadian's full range of products, we have deep channel advantages and rich service experience.

We specialize in exporting a full range of industrial control products, including:

Transmission equipment and electrical machinery frequency converter

Low voltage electrical equipment

PLC system

Motor and related supporting components

Xiamen Huadian Switchgear, Switchgear and Supporting Electrical Products

Relying on a professional sales and technical team, we provide customers with one-stop comprehensive services, covering strict quality control, highly competitive prices, stable and reliable logistics, and comprehensive after-sales technical support.

At present, our products and solutions have been exported to over 80 countries and regions across six continents, serving core industries in various regions

Europe: Shipbuilding, New Energy, and Power Industries

Asia: Textile, sugar and equipment manufacturing industries

South America: Port logistics, shipping, and infrastructure sectors

We are always committed to stable, efficient, and long-term partnerships, and have established a good reputation in the global industrial control market with our professional strength, becoming a trusted supplier for customers at home and abroad.



Certificate



Our Team



Our Factory



Participate in exhibitions

