

Royals Electric, is a new pioneering brand since 2005 of top quality industrial electric motors on the global stage. With more than 1,600,000sqf world-class ISO certified engineering & manufacturing facilities in China, plus extensive contracted supplier partnerships, we deliver world-wide customers the broadest range of exceptionally robust AC & DC motors excelling in performance, productivity and durability for general and harshest industries, applications and environments, with unparalleled pricing and fastest global delivery, covering the portfolio as below:

- DC motors up to 5,000kW
- Low, medium & high voltage AC squirrel cage & slip ring motors up to 35,000kW
- Large synchronous motors up to 110MW
- Hazardous area motors, energy-efficient (high, premium and super-premium efficiency) motors, definite-purpose and custom motors

We are also a product & solution provider and system integrator in the following fields:

- Drive, Transmission & Power: Soft starter, inverter, reducer, gearbox, turbine, engine, generator
- Steel plants equipment and solutions for smelting, casting and rolling
- Renewable energy and environmental protection equipment and solutions
- Equipment and solutions for agricultural and aquatic products processing

We take pride in serving numerous prestigious clients around the globe, meeting their specific demands and exceeding their expectations with exceptional products, solutions and services, and dedication to working jointly with our partners to achieve mutual success, and energy-effective, environment-friendly and sustainable development.

Products



DC Motors



High Voltage Motors



Low Voltage Motors



Synchronous Motors



NEMA Motors



GOST Motors

DC Motors, Z Line

IEC Frame 100 to 1,000, 40 to 10,000kW

Class F/H Insulation

Rated Voltage 110Vdc to 1,000Vdc

Description

Z Line DC motors are designed with the application of modern technology resulting in compact machines featuring excellent dynamic properties, meeting the most severe application in areas that include automation and process control.

Application

Wide use on rolling mills, cutting machine tools, paper machines, excavators, cranes and hoists, and other industrial machinery highly demanding adjustable speed operation.

Standard Features

- ◆ Wide speed variation range
- ◆ High adaptability to diverse loads
- ◆ Optimized armature diameter, optimal match of electric and magnetic loads, low moment of inertia/torque ratio, excellently suitable for use on loads with high impact and fast changed speed
- ◆ High commutating performance by adopting specially designed types of armature windings and optimized commutator and brush stand
- ◆ Compact size and less weight by using polygonal thin steel laminations structure
- ◆ Rigid integrity of stator parts and frame, high mechanical strength
- ◆ Spacious terminal box, easily opened door and easily turned integral brush stand, easy installation & maintenance
- ◆ TIG welding used for connection of the commutator and coils
- ◆ Well fastened lifting device of commutator by using special workmanship to prevent effectively

Optional Features

- ◆ SPM, vibration detector, space heater
- ◆ Encoder/tacho
- ◆ Sleeve bearings
- ◆ Other specific requirements

from breaking and welding failure, integrally constructed lifting device made specially for the motors to drive reversible rolling mill requiring frequent start and brake.

- ◆ Compensating windings to meet the requirements of frequent changing loads with great impact
- ◆ High reliability and overload/overcurrent capacity
- ◆ Protection degree: IP21S, IP23, IP44, IP54, IP55
- ◆ Class F/H insulation system with VPI,
- ◆ Cooling method: IC06, IC17, IC37, IC81W, IC86W
- ◆ Premium quality grease lubricated cover type anti-friction ball/roller bearings
- ◆ Separate excitation, forced excitation allowed with voltage less than 500V
- ◆ Thermal protection



HIGH VOLTAGE MOTORS

Royals Electric offers a full range of high voltage asynchronous induction motors, including rib cooled squirrel cage motors, and modular slip-ring and squirrel cage welded steel frame motors with different cooling options. These motors are optimally designed, engineered and built for the toughest and most demanding industrial applications, using the state-of-the-art techniques and premium grade materials and components, featuring extra safety, reliability, durability, efficiency and productivity.



Slip-ring modular motors

These motors are used in applications requiring high starting torque or low starting current. They are especially suitable for heavy load inertia applications like mill drives or situations where network conditions are weak.

Slip-ring motors are built using proven standardized motor design, high-quality materials and advanced ventilation technology. This, combined with the fully-braced and vacuum pressure impregnated (VPI) windings, ensure they are extremely efficient and reliable.

Squirrel-cage modular motors

Built on the most successful modular motor platform, they comply with all relevant international standards, are optimized for variable speed control and undergo rigorous testing at every stage of production.

Rib-cooled squirrel cage motors

These multi-purpose motors provide a unique combination of small size, high power density, high reliability, low losses and easy maintenance. Versions specifically designed for use with variable speed drives are also available. VSD control generally means even higher efficiency and precise process control in both quadratic and constant torque applications.

Losses have been minimized by the effective use of material and optimized fan designs. Reduced core and fan losses mean there is no sharp drop in the efficiency curve at partial load.

Typical applications include pumps, fans, blowers, compressors, conveyors, pulverizers, and even ship thrusters and AC generators. These motors are an excellent choice for driving pumps in power plants and process industries, as well as many other continuous duty applications.

Technical Scope

IEC sizes 315-1,250, up to 35,000kW

Voltage: 1,000-13,800V

Insulation Class F or H

Protection: IP23-IP55 and higher

Cooling: IC01, IC411, IC416, IC611, IC616, IC86W and else

Inverter and hazardous duty available

High and premium efficiency available

General and definite purpose

Modular and specifically engineered

SYNCHRONOUS MOTORS

Royals Electric's synchronous motors are optimally designed, engineered and manufactured to deliver superior reliability and efficiency for general & heavy industries, that help our customers cut operating, maintenance and energy costs while lowering environmental impact. Both slow and high speed motors are available and the proven design has delivered extremely good performance in different types of installations. The motors are connected direct-on-line or fed via variable speed drives.

Technical Scope

Power up to 110MW, 2-48 Poles

Voltage 600-13,800V

Insulation Class F or H

Protection: IP00-IP55 and higher

Cooling: IC01, IC86W, IC611, IC616 or else

Inverter and hazardous duty available

Applications

Metals: rolling mills, blowers, pumps, perforators

Oil & Gas: pumps, fans, centrifugal and reciprocal compressors

Pulp & Paper: refiners, wood grinders

Chemicals: extruders, compressors, expanders

Mining: mills, hoists, conveyors



DC Motors, Z Line

IEC Frame 100 to 1,000, 40 to 10,000kW

Class F/H Insulation

Rated Voltage 110Vdc to 1,000Vdc

Description

Z Line DC motors are designed with the application of modern technology resulting in compact machines featuring excellent dynamic properties, meeting the most severe application in areas that include automation and process control.

Application

Wide use on rolling mills, cutting machine tools, paper machines, excavators, cranes and hoists, and other industrial machinery highly demanding adjustable speed operation.

Standard Features

- ◆ Wide speed variation range
- ◆ High adaptability to diverse loads
- ◆ Optimized armature diameter, optimal match of electric and magnetic loads, low moment of inertia/torque ratio, excellently suitable for use on loads with high impact and fast changed speed
- ◆ High commutating performance by adopting specially designed types of armature windings and optimized commutator and brush stand
- ◆ Compact size and less weight by using polygonal thin steel laminations structure
- ◆ Rigid integrity of stator parts and frame, high mechanical strength
- ◆ Spacious terminal box, easily opened door and easily turned integral brush stand, easy installation & maintenance
- ◆ TIG welding used for connection of the commutator and coils
- ◆ Well fastened lifting device of commutator by using special workmanship to prevent effectively

Optional Features

- ◆ SPM, vibration detector, space heater
- ◆ Encoder/tacho
- ◆ Sleeve bearings
- ◆ Other specific requirements



from breaking and welding failure, integrally constructed lifting device made specially for the motors to drive reversible rolling mill requiring frequent start and brake.

- ◆ Compensating windings to meet the requirements of frequent changing loads with great impact
- ◆ High reliability and overload/overcurrent capacity
- ◆ Protection degree: IP21S, IP23, IP44, IP54, IP55
- ◆ Class F/H insulation system with VPI,
- ◆ Cooling method: IC06, IC17, IC37, IC81W, IC86W
- ◆ Premium quality grease lubricated cover type anti-friction ball/roller bearings
- ◆ Separate excitation, forced excitation allowed with voltage less than 500V
- ◆ Thermal protection



High Voltage Slip Ring Motors

HRDP/HRAW/HRAA

Welded Steel Plate

IEC Frame 355-1,120, 4 to 16 Poles
ODP/Totally Enclosed, Class F Insulation
Rated Voltage 1,000V to 13,800V

Description

This line motors are manufactured in different configurations in reference to cooling methods and degree of protection, allowing the machine to be designed as suitable as possible to meet operation and environment requirements.

Application

General purpose use on pumps, fans, blowers, compressors, conveyors, rolling mills, ball mills, crushers, grinders and other machinery in diverse environments.

Standard Features

- ◆ Cooling methods used:
 - Open self-ventilated;
 - Self-ventilated by ducts, air inlet and outlet;
 - Forced ventilated, air inlet and outlet by ducts;
 - Forced ventilation, cooling on top of motor;
 - Self-ventilated with air-to-air heat exchanger, heat exchanger on top of motor;
 - Self-ventilated with air-to-air heat exchanger, heat exchanger around the stator;
 - Forced ventilation in the air internal and external circuit, air-to-air heat exchanger;
 - Air-to-water heat exchanger;
 - Air-to-water heat exchanger, forced ventilation in the air internal circuit.
- ◆ Protection degree: IP23 to IP55
- ◆ S1 continuous duty, IMB3
- ◆ High reliability of Class F insulation system with VPI

Optional Features

- ◆ Class H insulation
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater

- ◆ Class B temp rise 80°C
- ◆ Low vibration and noise
- ◆ Premium quality antifriction grease lubricated ball or roller bearings
- ◆ Two accessory terminal boxes, one for signal accessories and the other for those accessories requiring power supply (space heaters)
- ◆ Rotor terminal box separated from stator terminal box
- ◆ Compartment of slip rings and brushes separated from stator and rotor, behind the non-drive end bearing
- ◆ Automatic / manual brush lifting system
- ◆ Copper/Stainless steel slip ring
- ◆ Thermal protection(RTDs on stator windings and bearings)
- ◆ Grounding lug on frame and terminal box
- ◆ Stainless steel nameplate

- ◆ VSD/VFD
- ◆ Sleeve bearings
- ◆ Severe duty or classified area application
- ◆ Other specific requirements



High Voltage Cast Iron Motors, HXR

IEC Frame 355–560, Up to 2,250kW
Squirrel Cage, Totally Enclosed Fan Cooled
Class F Insulation, IP55

Application

General purpose use on pumps, fans, compressors, blowers, conveyors, and other machinery in dirty and dusty environments.



Standard Features

- ◆ 160 to 2,250kW at 50Hz
- ◆ Voltage from 1,000V to 13,800V
- ◆ TEFC, IC411, efficient cooling with optimized rib design
- ◆ High reliability of Class F insulation system with VPI
- ◆ Class B temp rise 80° C
- ◆ Robust cage rotor made of copper, copper alloy or very conductive aluminum alloy
- ◆ Accurate dynamic balancing made for each rotor
- ◆ Low vibration and noise
- ◆ Premium quality antifriction ball or roller bearings
- ◆ Oversized adaptable T-box
- ◆ Thermal protection(RTDs on stator windings and bearings)
- ◆ Grease nipples on both antifriction bearings
- ◆ Grounding lug on frame and terminal box
- ◆ Stainless steel nameplate

Optional Features

- ◆ Class H insulation, IP56, IC416
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater
- ◆ VSD/VFD
- ◆ Sleeve bearings
- ◆ Severe duty or classified area application
- ◆ Other specific requirements

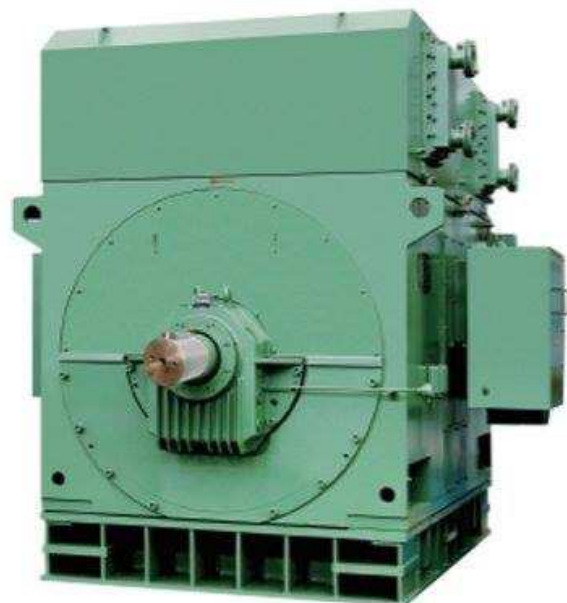


Standard Features

- ◆ Cooling methods used:
 - Open self-ventilated;
 - Self-ventilated by ducts, air inlet and outlet;
 - Forced ventilated, air inlet and outlet by ducts;
 - Forced ventilation, cooling on top of motor;
 - Self-ventilated with air-to-air heat exchanger, heat exchanger on top of motor;
 - Self-ventilated with air-to-air heat exchanger, heat exchanger around the stator;
 - Forced ventilation in the air internal and external circuit, air-to-air heat exchanger;
 - Air-to-water heat exchanger;
 - Air-to-water heat exchanger, forced ventilation in the air internal circuit.
- ◆ Protection degree: IP23 to IP55
- ◆ S1 continuous duty, IMB3
- ◆ High reliability of Class F insulation system with VPI
- ◆ Class B temp rise 80° C
- ◆ Low vibration and noise
- ◆ SKF/FAG premium quality antifriction grease lubricated ball or roller bearings, insulated structure for 450 frame and 4-pole motors
- ◆ Two accessory terminal boxes, one for signal accessories and the other for those accessories requiring power supply (space heaters)
- ◆ Thermal protection (RTDs on stator windings and bearings)
- ◆ Space heater
- ◆ Grounding lug on frame and terminal box
- ◆ Stainless steel nameplate

Optional Features

- ◆ Class H insulation
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ VSD/VFD
- ◆ Sleeve bearings
- ◆ Classified area applications
- ◆ Other specific requirement



High Voltage Motors, HDP/HAW/HAA Welded Steel Plate

IEC Frame 355–1,120, 4 to 16 Poles
Squirrel Cage, ODP/Totally Enclosed, Class F Insulation
IC01/IC86W/IC611/IC616
Rated Voltage 1,000V to 13,800V

Description

This line motors are manufactured in different configurations in reference to cooling methods and degree of protection, allowing the machine to be designed as suitable as possible to meet operation and environment requirements.



Application

General purpose use on pumps, fans, blowers, compressors, conveyors, rolling mills, ball mills, crushers, grinders and other machinery in diverse environments.



High Voltage Squirrel Cage

General Purpose Single Phase Aluminum Motors

Size 56–112, 0.09–3.7kW, totally enclosed

Description and application

In many respects single phase motors have the same properties as three phase motors, and mechanically they meet the same standards. There are several types of single phase motors (capacitor starting, capacitor run, and capacitor starting and run). Each type has its benefits and limitations, as described in the section below. Single phase motors are used in many industries and for many purposes.



Capacitor Starting and Run

Our ML single phase motors with starting and run capacitors feature high starting torque and overload capability, which are required by the applications, such as, air compressors, water pumps, fans, etc. The starting torque is 180%–250% of rated torque.

Capacitor Starting

Our MC single-phase motors with starting capacitor features high starting torque and small starting current, which are required by the applications, such as, air compressors, water pumps, refrigerators, etc. The starting torque can be more than 250% of rated torque.

Capacitor Run

Our MY single-phase motors are with run capacitor. The starting torque is 30% – 70% of rated torque, which makes this motor particularly suitable for applications with low starting torque requirements, such as fans, circular saws, polishing machines and centrifugal pumps where the shaft seal does not require a high breakaway torque.

Low Voltage Single Phase

Low Voltage Cast Iron Motors, LXR

IEC Frame 315–560, Up to 1,600kW
Squirrel Cage, Totally Enclosed Fan Cooled
Class F Insulation, IP55

Application

General purpose use on pumps, fans, compressors, blowers, conveyors, and other machinery in dirty and dusty environments.



Standard Features

- ◆ 132 to 1,600kW at 50Hz
- ◆ Voltage from 380V to 1,000V
- ◆ TEFC, IC411, efficient cooling with optimized rib design
- ◆ High reliability of Class F insulation system with VPI
- ◆ Class B temp rise 80°C
- ◆ Robust cage rotor made of copper, copper alloy or very conductive aluminum alloy
- ◆ Accurate dynamic balancing made for each rotor
- ◆ Low vibration and noise
- ◆ Premium quality antifriction ball or roller bearings
- ◆ Oversized adaptable T-box
- ◆ Thermal protection (RTDs on stator windings and bearings)
- ◆ Grease nipples on both antifriction bearings
- ◆ Grounding lug on frame and terminal box
- ◆ Stainless steel nameplate

Optional Features

- ◆ Class H insulation, IP56, IC416
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater
- ◆ VSD/VFD
- ◆ Sleeve bearings
- ◆ Severe duty or classified area application
- ◆ Other specific requirements



Low Voltage Three Phase

Three Phase Metallurgical & Crane Duty Motors

Totally Enclosed Fan Cooled(TEFC)
Squirrel Cage or Wound Rotor
F/H Insulation, IP44/IP54/IP55
Short-time or Intermittent periodic duty
IEC Frame 112 to 400



Application

Specific purpose uses on cranes and other machinery in metallurgical applications featuring short-time or intermittent periodic duty, frequent starting, braking, occasionally overloading and serious vibration and shock.

Standard Features

- ◆ Class F insulation, ambient -15 to +40 deg C for crane application; Class H insulation, ambient -15 to +60 deg C for metallurgical applications, Short-time or Intermittent periodic duty, Cooling to IC0141, CE conformity, altitude not exceeding 1000m(3300ft), SKF C3 bearings
- ◆ Up to 3kW, 220-240V delta/380-415V star; 4kW and Above, 380-415V delta/660-720V star; 50/60HZ
- ◆ V-Ring On Both End-Shields, or Oil-Seal Ring On Both End-Shields
- ◆ Greasing fittings from frame 160 and larger
- ◆ Anti-Condensation Drain Holes
- ◆ Metric Thread Cable Entries In Terminal Box
- ◆ T-Box with multi positions on top, left and right
- ◆ One PTC thermistor per phase from frame 160 and larger

Optional Features

- ◆ IP56
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater
- ◆ Sleeve bearings, other brands bearings
- ◆ Classified area applications
- ◆ Other specific requirements

General Purpose Brake Motors

Size 63–160 Aluminum 0.09–18.5kW

Size 80–225 Cast iron 0.55–45kW



Mechanical design

Degrees of protection

The degrees of protection, as per IEC standards 60034–5, are: terminal box and electrical components of the brake –IP 55; other motor parts –IP 55.

Mechanical components of the brake –IP 23 S.

Mechanical parts of the brake, protected with a rubber ring and V-ring –IP 55 (optional).

Mounting arrangements of brake motors

The design of the brake motor enables it to operate in any mounting position. Nevertheless, the position of the drain holes should be taken into account. Vertically mounted motors with the shaft end downwards, intended for outdoor operation, should be provided with a protective roof to avoid water ingress and the possibility of ice forming on the brake.

Operation

The brake motor is a standard motor modified for braking duties, i.e. a three phase induction motor with standard dimensions and output rating. The electro-magnetic disc brake is powered, by either DC current through a rectifier located in terminal box or three phase AC current. When the brake coil is de-energised, the brake is actuated by spring pressure. The axial movement of the brake disc performs a dual braking action against the moving electromagnet and the motor shield, without pressure or impact being transmitted to the bearings. The brake linings withstand high temperatures, have great wear resistance and give long life.

General Purpose Inverter Duty Motors

Totally Enclosed Three Phase

Size 80–400, 0.55–500kW

Frequency range (3)5–100Hz

Designed for V/f control SPWM inverter

Constant torque (3)5–50Hz, Constant output 50–100Hz



Applications

Designed for direct replacement of PMDC where variable speed is required. Typical uses include: machine tools, conveyors, packaging machines, batching machines, and printing equipment, etc.

Features

- ◆ Excellent speed–changing performance, great energy–saving advantage
- ◆ High starting torque, low starting current, little vibration, low noise
- ◆ High–quality insulation material and most advanced CAD design and process technology applied to withstand high frequency pulse impact
- ◆ Separate fan for forced ventilation
- ◆ Class F insulation(Class H is optional), IP54/IP55(IP56 is optional)

Remark: The voltage should be compensated to increase the torque at low frequency when the motor is operated under V/f control with constant torque output. For dimensions, pls refer to general purpose three phase cast iron motors.

General Purpose Three Phase Cast Iron Motors

Totally Enclosed Fan Cooled(TEFC)
Squirrel Cage, IP44/IP54/IP55
IEC Frame 80 to 355



Application

General purpose use on pumps, fans, blowers, compressors, conveyors, and other machinery in dirty and dusty environments.

Standard Features

- ◆ Class F insulation, S1 continuous duty, Cooling to IC0141, CE conformity, ambient -15 to +40 deg C, altitude not exceeding 1000m(3300ft), SKF C3 bearings
- ◆ Up to 3kW, 220-240V delta/380-415V star; 4kW and Above, 380-415V delta/660-720V star; 50/60HZ
- ◆ V-Ring On Both End-Shields, or Oil-Seal Ring On Both End-Shields
- ◆ Greasing fittings from frame 160 and larger
- ◆ Anti-Condensation Drain Holes
- ◆ Metric Thread Cable Entries In Terminal Box
- ◆ T-Box with multi positions on top, left and right
- ◆ One PTC thermistor per phase from frame 160 and larger

Optional Features

- ◆ Class H insulation, IP56
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater
- ◆ VSD/VFD
- ◆ Sleeve bearings, other brands bearings
- ◆ Classified area applications
- ◆ Other specific requirements

Low Voltage Three Phase

General Purpose Three Phase Cast Iron Motors

Totally Enclosed Fan Cooled(TEFC)
Squirrel Cage, IE1/IE2/IE3
IEC Frame 80 to 355



Application

General purpose use on pumps, fans, blowers, compressors, conveyors, and other machinery in dirty and dusty environments.

Standard Features

- ◆ IE1/IE2/IE3, Protection to IP55, Class F insulation, S1 continuous duty, Cooling to IC0141, CE conformity, ambient -15 to +40 deg C, altitude not exceeding 1000m(3300ft), SKF C3 bearings
- ◆ Up to 3kW, 220-240V delta/380-415V star; 4kW and Above, 380-415V delta/660-720V star; 50/60HZ
- ◆ V-Ring On Both End-Shields, or Oil-Seal Ring On Both End-Shields
- ◆ Greasing fittings from frame 160 and larger
- ◆ Anti-Condensation Drain Holes
- ◆ Metric Thread Cable Entries In Terminal Box
- ◆ Rotatable T-Box with multi positions on top, left and right
- ◆ One PTC thermistor per phase from frame 160 and larger

Optional Features

- ◆ 1 normally closed contact PTO on size 80-132
- ◆ Class H insulation, IP56
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater
- ◆ VSD/VFD
- ◆ Sleeve bearings, other brands bearings
- ◆ Classified area applications
- ◆ Other specific requirements

General Purpose Three-phase Aluminum Motors

Totally Enclosed Fan Cooling (TEFC)
Size 56–200, 0.06–37kW, IE1/IE2/IE3



Application

General purpose use on pumps, fans, blowers, compressors, conveyors, and other machinery in dirty and dusty environments.

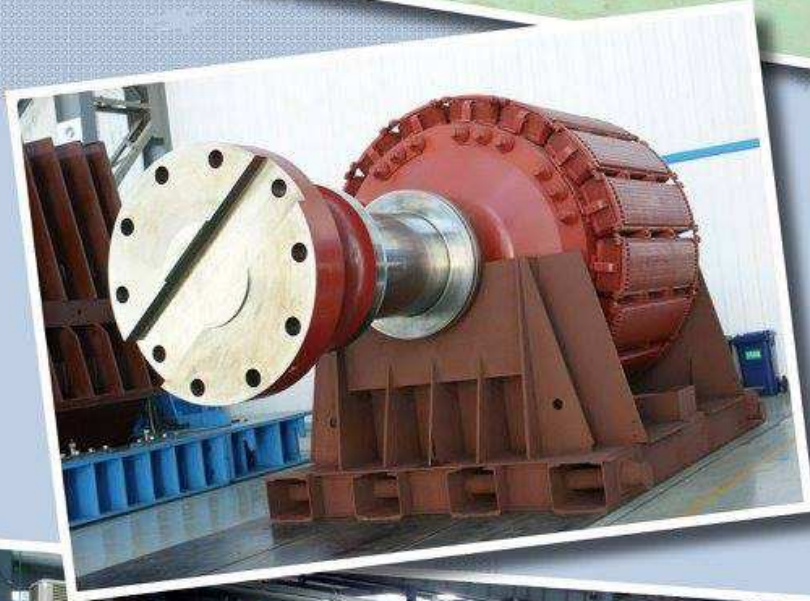
Standard Features

- ◆ Meet or Exceed IEC Efficiency Levels IE1/IE2/IE3, Protection to IP55, Class F insulation, S1 continuous duty, Cooling to IC411, CE conformity, ambient -15 to +40 deg C, altitude not exceeding 1000m(3300ft)
- ◆ Up to 3kW, 220–240V delta/380–415V star; 4kW and Above, 380–415V delta/660–720V star; 50/60HZ
- ◆ Detachable feet
- ◆ Greasing fittings for frame 160 and above
- ◆ Anti-Condensation Drain Holes
- ◆ Metric Thread Cable Entries In Terminal Box
- ◆ Rotatable T-Box
- ◆ One PTC thermistor per phase for frame 160 and above

Optional Features

- ◆ 1 normally closed contact PTO on size 56–132
- ◆ Class H insulation, IP56
- ◆ SPM, vibration detector, encoder
- ◆ Special shaft
- ◆ Space/Anti-condensation heater

Low Voltage Three Phase





Rotate The World



FGD

DSC-M Dry Ultra-low Emission Control Technology and Equipment

DSC-M dry ultra-low emission control technology and equipment (DSC-M System) is based on LJD dry CFB-FGD system. It's a simple yet reliable and cost-effective system with high operational flexibility, and NO_x removal can be realized by combination of SNCR/SCR/COA depending on different flue gas sources. It can realize the flue gas emission of NO_x≤50mg/Nm³, SO₂≤35mg/Nm³, PM≤5mg/Nm³, SO₃≤5mg/Nm³, Hg≤3μg/Nm³, as well as zero Liquid Discharge from Stacks, meeting the ultra-low emission standard of "50355+530". The DSC-M system has been applied in different areas including coal-fired power plants, sintering plants, pelletizing plants, FCC, coking system, carbon black plants, electrolytic aluminum industry, glass furnace, and other industries.



Hangzhou Hanglian ultra-low emission control project – Air protection project of G20 Summit



Guojin 2x350MW ultra-low emission control project



Guofeng 2x300MW ultra-low emission control project



World's largest sintering machine dry FGD system for Baosteel

SCR Denitration Technology

The SCR flue gas denitration technology of Longking has combined the disc swirl flow technology with AIG ammonia injection technology, which can ensure ammonia/flue gas mixed more evenly. The special pneumatic regulating valve group was used to control ammonia flow, which has many advantages such as good linear regulatory, fast response, stable adjustment and good sealed performance. The advantages can ensure higher denitration efficiency and lower ammonia escape efficiency. This technology can achieve the following requirements: denitration efficiency is over 90%; ammonia escape efficiency below 2.5ppm, SO₂/SO₃ conversion rate below 1%.



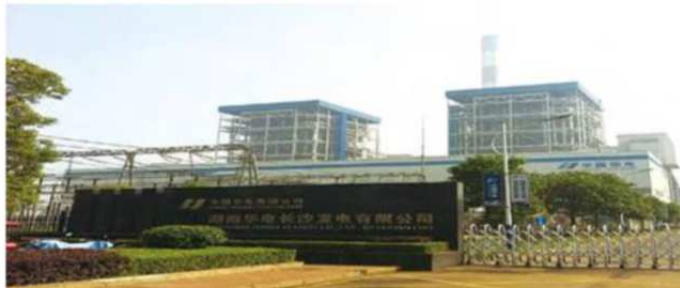
Flue Gas Denitration Device of 2×1000MW Unit in Hongshan Coal Power Plant

DeNOx Catalyst Regeneration Technology

Longking and the U.S.A Coalogix has cooperated and established the internationally leading DeNOx catalyst testing center with advanced imported equipment, as well as the largest catalyst regeneration plant with highest processing modern equipment in China. It's the first company obtaining business license for waste flue gas DeNOx catalyst hazardous waste handling in China, and the company can provide all-round solutions of DeNOx catalyst regeneration, performance testing, catalyst life management, low temperature catalyst preparation, waste catalyst recovery and DeNOx system.



Zhenjiang Power Plant 2×630MW unit catalyst regeneration project



Changsha Power Plant 2×650MW unit catalyst regeneration project

Low-low temperature Electrostatic-fabric Precipitator

The low-low temperature ESP can realize the multi-pollutant coordination treatment such as particulate matter, SO₃, PM_{2.5}, Hg and other pollutants, the collecting efficiency can reach over 98% and save the coal consumption for more than 1.5 g/kWh, and it has been utilized in more than 150 projects with an installed capacity of more than 80 GW.



Low-low temperature ESP matching with LGGH for 2×660MW units in the Dapu Power Plant



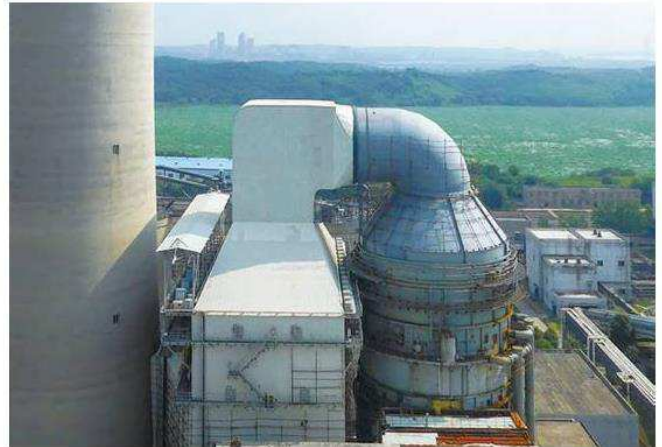
The Coal Saving type of Low-low temperature ESP for 1000MW unit in the Qinbei Power Plant

Wet Type Electrostatic-fabric Precipitator

Wet electrostatic precipitators have been utilized in largescale coal-fired units with the capacities of 300MW, 600MW and 1000MW. Test results showed the WEB type Wet ESP with metal plate and WE type Wet ESP (demister) with electro-conductive FRP plate can realize ultra-low emission of dust below than 5mg/Nm³, and at the meantime an efficient coordinated treatment of PM_{2.5} and SO₃, Liquid Discharge from Stacks (LDS), heavy metal Including mercury and other pollutants.



Wet ESP for 2×1000MW units of Qinzhou Power Plant



Wet ESP for 1000MW unit of Tongling Power Plant

more evenly. The special pneumatic regulating valve group was used to control ammonia flow, which has many advantages such as good linear regulatory, fast response, stable adjustment and good sealed performance. The advantages can ensure higher denitration efficiency and lower ammonia escape efficiency. This technology can achieve the following requirements: denitration efficiency is over 90%; ammonia escape efficiency below 2.5ppm, SO₂/SO₃ conversion rate below 1%.



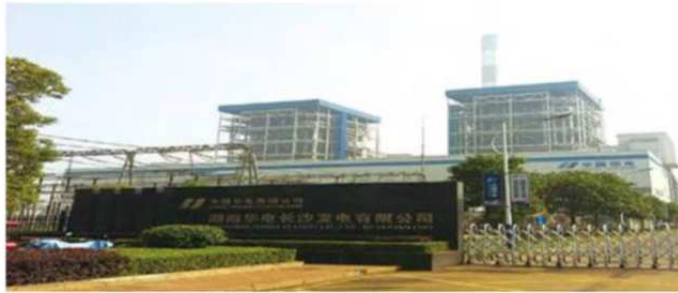
Flue Gas Denitration Device of 2x1000MW Unit in Hongshan Coal Power Plant

DeNOx Catalyst Regeneration Technology

Longking and the U.S.A Coalogix has cooperated and established the internationally leading DeNOx catalyst testing center with advanced imported equipment, as well as the largest catalyst regeneration plant with highest processing modern equipment in China. It's the first company obtaining business license for waste flue gas DeNOx catalyst hazardous waste handling in China, and the company can provide all-round solutions of DeNOx catalyst regeneration, performance testing, catalyst life management, low temperature catalyst preparation, waste catalyst recovery and DeNOx system.



Zhenjiang Power Plant 2x630MW unit catalyst regeneration project



Changsha Power Plant 2x650MW unit catalyst regeneration project



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