Асинхронные электродвигатели переменного тока с фазным ротором, компактные YRKK, Y3, Y2, YX2, YKS, YKS 6600 B, YLKK, YRKK, YPKK 4160v

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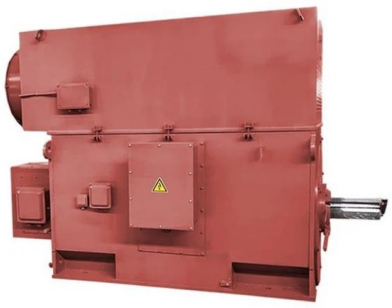
Россия +7(495)268-04-70 **Казахстан** +7(727)345-47-04 **Беларусь** +(375)257-127-884 **Узбекистан** +998(71)205-18-59 **Киргизия** +996(312)96-26-47

эл.почта: uoa@nt-rt.ru || сайт: http://luanmotor.nt-rt.ru/



YRKK Series Ac Slip Ring Induction Motor

YRKK series ac slip ring induction motor, also known as three-phase wound rotor AC asynchronous motor, must be connected in series with resistors or reactors in the motor rotor circuit in order to reduce the starting current, increase the starting torque, improve the power factor, and effectively improve the motor starting performance. Therefore, in mechanical equipment with large capacity and high requirements for rotational torque, this type of electric motor is usually used for dragging.

LUAN JIANGHUAI MOTOR CO.,LTD

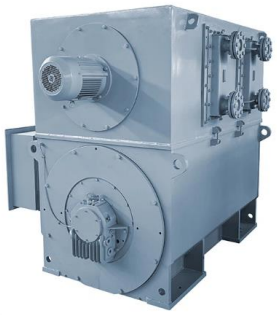
LUAN JIANGHUAI MOTOR CO.,LTD.(formal known as Luan Motor Factory),was founded in 1969. Over 55 years of manufacturing experience in all kinds of AC & DC Motors,formed a complete series of high voltage and low voltage of large, medium, and small power motor systems, LUAN motor always guided by customer demand for development, guided by market demand for technology research, and adhering to the strategic policy of prioritizing product quality, customer service, and low-carbon environmental protection for a long time.

Y3 Series Compact Ac Motor

Y3 series compact ac motor is one of our high efficiency and energy saving high voltage squirrel cage ac motors, which are classified as Y2 series and Y3 series according to their efficiency class.

Y2 Series High Power Ac Motor

Y2 series high power ac motor is one series of high-voltage three-phase asynchronous motor (center height 355-560), which is a compact enclosed cage rotor three-phase asynchronous motor.



YKS Series High Hp Electric Motor

YKS series high hp electric motor is mainly concentrated in fields that require efficient cooling and high-power operation, such as heavy industries like steel, paper, metallurgy, and pharmaceuticals.

YKS Series 6600v Motor

YKS series 6600v motor plays an important role in various industrial fields, especially in the pharmaceutical, electrical, energy and other industries, due to their unique advantages.

YLKK Series High Output Motor

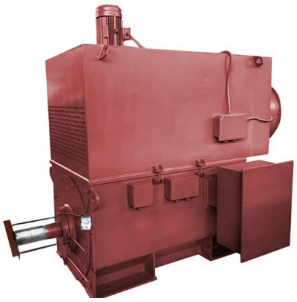
The production process of plastic molding is continuous. The production efficiency of the low-speed high torque AC motor, as we know YLKK series high output motor is high with a wide range of applications.

YLKK Series Square Cage Motor

If motor will be used outdoor, one rainproof cover is needed at the top of NDE side.If there is canopy above the motor, usually, there is no need to assemble the rainproof cover, which will be not useful for heat dissipation for the long run.

YRKK Series Copper Rotor Motor

The biggest advantage of three-phase asynchronous YRKK series copper rotor motor is that the starting current can be controlled within a certain range, and the starting torque will not decrease with the decrease of current like ordinary cage rotor motors.



YRKK Series Ac Slip Ring Induction Motor

YRKK series ac slip ring induction motor, also known as three-phase wound rotor AC asynchronous motor, must be connected in series with resistors or reactors in the motor rotor circuit in order to reduce the starting current, increase the starting torque, improve the power factor, and effectively improve the motor starting performance.

YPKK Series 4160v Motor

YPKK series 4160v motor, Y means asynchronous motor, P means variable frequency speed regulation, KK means air as the cooling medium, and the cooling method is air circulation.

What is YRKK Series Ac Slip Ring Induction Motor

YRKK series AC slip ring induction motor, also known as three-phase wound rotor AC asynchronous motor, must be connected in series with resistors or reactors in the motor rotor circuit in order to reduce the starting current, increase the starting torque, improve the power factor, and effectively improve the motor starting performance. Therefore, in mechanical equipment with large capacity and high requirements for rotational torque, this type of electric motor is usually used for dragging.

Benefits of YRKK Series Ac Slip Ring Induction Motor

High Starting Torque

AC slip ring induction motors are capable of generating high starting torque at a low starting current. This ability is of immense benefit for heavy load applications where a significant amount of torque is required at startup. The capability to deliver this high torque stems from the unique feature of being able to add an external resistance in the rotor circuit during startup.

Speed Control

Another significant advantage of AC slip ring induction motors is the ease of speed control. By adapting the external resistance connected to the rotor circuit, we can effectively control the speed of the motor. This extra level of control is particularly beneficial in situations where variable speed operation is a necessity.

Improved Power Factor

AC slip ring induction motors generally operate at a high power factor. As more resistance is added to the rotor circuit, the power factor increases, making these motors highly efficient. This is a major advantage in large industrial applications where energy efficiency is paramount.

Enhanced Durability

These motors exhibit higher immunity to electrical and mechanical stresses due to their robust construction. This improved ruggedness, combined with the inherent flexibility of speed control, results in a motor that can withstand demanding industrial environments.

Adaptable to Load Conditions

The speed-torque characteristics of AC slip ring induction motors are adaptable according to the load requirements. This adds another layer of operational versatility, making them convenient for processes that demand different speed and torque levels.

Working of YRKK Series Ac Slip Ring Induction Motor

This motor runs on the principle of Faraday's law of electromagnetic induction. When a stator winding is excited with an AC supply, the stator winding produces magnetic flux. Based on faraday's law of electromagnetic induction, the rotor winding gets induced and generates a current of magnetic flux. This induced EMF develops torque that enables the rotor to rotate.

However, the phase difference between the voltage and current do not meet the requirements to generate high starting torque as torque developed is not unidirectional. The external resistance of high value is connected with the circuit to improve the phase difference of a motor. As a result, inductive reactance and phase difference between I and V is reduced. Consequently, this reduction helps the motor to generate high stating torque.

Differences between AC Slip Ring Induction Motor and Squirrel Cage Induction Motor

The main differences between a squirrel cage induction motor and a AC slip ring induction motor are that the construction is very different, squirrel cage induction motors are basic to manufacture and require little in depth expertise whereas AC slip ring induction motors are very complex and much more difficult to construct with a lot of extra care needed to be taken. With a AC slip ring induction motor the speed can easily be controlled too by adding external resistance to the rotor, this cannot be done with a squirrel cage induction motor. Also, it is worth noting that a much higher starting torque can be seen with a AC slip ring induction motor too when comparing the two.

With a AC slip ring induction motor the cost originally is very high and so is maintenance costs when compared to a squirrel cage induction motor, this is due to the complexity of the motor and its parts, the winding on both the rotor and stator increases the price. A squirrel cage motor has a significantly lower maintenance cost. A AC slip ring induction motor is used in applications which need a high starting torque such as a lift or a hoist whereas squirrel cage induction motors are used for low torque applications such as a drill or a fan.

With a AC slip ring induction motor brushes are present and they are responsible for making the contact between the stationary and rotating structures, with a squirrel cage induction motor this is not the case as there are no brushes present. AC slip ring induction motors are not used all across the industry, in fact only around <10% of the industry uses this type of motor as opposed to a squirrel cage induction motor.

AC Slip Ring Induction Motors VS. Brushless DC Motor

AC Slip ring induction motors, also known as wound rotor induction motors, are AC motors characterized by their robustness, high starting torque capabilities, and adaptable speed controls. These motors have a wound rotor connected to an external circuit via slip rings and brushes, facilitating adjustable performance

according to demands. This feature makes slip ring motors ideal for heavy-duty applications and processes requiring varied speed controls such as crushers, elevators, and industrial machining.

Brushless DC motors, on the other hand, are essentially DC motors without brushes, designed to mitigate certain drawbacks of traditional brushed motors such as mechanical wear and electric sparking. These motors use an electronic commutation system powered by a DC electric source. Distinct advantages offered by brushless DC motors include high efficiency, extensive operational life due to the absence of brushes, lower maintenance requirements, and precise control of torque and speed. These features make them suitable for applications where durability, efficiency, and a degree of precision control are required. Examples include computer hard drives, electric vehicles, and drones.

Application of YRKK Series Ac Slip Ring Induction Motor

Pump Systems

Pumping systems, including those in the water treatment, oil, and gas industries, frequently employ AC slip ring induction motors, wherein the motor's adjustable speed capability can synchronize with the variable demand in the system.

Conveyor Systems

Used extensively in mining operations and other material handling scenarios, conveyor systems benefit greatly from the AC slip ring induction motor's adjustable torque to accommodate heavy loads and different conveyor speeds, ensuring safe, efficient material transport.

Compressors

In industrial settings, compressors often deal with varying load conditions. As such, using AC slip ring induction motors can effectively match the compressor's speed, optimizing energy consumption and operational efficiency.

Maritime Shipping

Electric propulsion systems aboard ships often use AC slip ring induction motors due to their ability to start under heavy load, and the speed control capability essential for tasks like docking and maneuvering.

Electric Trains and Trams

The high starting torque and variable speed characteristics of AC slip ring induction motors serve electrically powered locomotives very well. Motor speed control is indispensable for varying track conditions, gradients, and loads, ensuring a smooth and efficient ride.

Metal Industry

Metal rolling mills rely heavily on slip ring motors due to their ability to handle massive mechanical loads and finely adjust the speed of rolling tables, thereby achieving the desired metal thickness with excellent precision.

Choosing the Right YRKK Series Ac Slip Ring Induction Motor

Reliability

A reliable motor should have a long lifespan and require minimal maintenance. Look for high-quality materials, insulation, and protection systems that guard the motor from overheating, overloading, and other potential issues.

01

Performance

The motor you choose should not only meet your application's torque and speed requirements but also provide smooth speed control, exceptional starting torque, and efficient operation under diverse load conditions.

02

Cost-Efficiency

While the upfront cost is a significant consideration, it should not be the only factor. Consider the motor's energy efficiency, as a more efficient motor can lead to considerable electricity savings over time. Factor in maintenance costs, lifespan, and potential downtime due to motor faults.

03

Customization Options

Sometimes, off-the-shelf products may not meet all your requirements. A manufacturer that offers customization options can design and build motors that precisely fit your application's unique specifications.

04

Components of YRKK Series Ac Slip Ring Induction Motor

Stator: Like other induction motors, a AC slip ring induction motor has a stationary stator consisting of a laminated core with evenly spaced slots. The stator winding is typically connected directly to the power supply.
Rotor: Unlike squirrel cage induction motors, the rotor of a AC slip ring induction motor has a winding with three-phase insulated conductors wound around a laminated core. The rotor winding is connected to slip rings mounted on the rotor shaft.
Slip Rings: These are metal rings mounted on the rotor shaft and insulated from each other. They provide electrical connections to the rotor winding.
Brushes: Carbon brushes are used to make electrical contact with the slip rings, allowing external connections to the rotor winding.
External Resistors: External resistors can be connected to the slip rings to control the speed-torque characteristics of the motor.

How to Maintain YRKK Series Ac Slip Ring Induction Motor

Cleaning and Lubrication Techniques

Regular cleaning of slip rings and brushes is crucial to remove accumulated dirt, debris, and contamination. Use a soft brush or compressed air to gently clean the surfaces, being cautious not to damage the brushes or slip rings. After cleaning, applying a thin layer of appropriate electrical-grade lubricant to the slip rings can help minimize friction and ensure smooth rotation.

Inspection and Testing Procedures

Regular visual inspections of AC slip ring induction motors are necessary to identify any signs of wear, damage, or abnormal conditions. Inspect the brushes for wear, ensuring they are making proper contact with the slip rings. Check for signs of arcing, such as discoloration or pitting, which indicate poor electrical contact. In addition to visual inspections, performing electrical tests, such as measuring voltage, current, and resistance, can help identify potential issues and ensure proper motor operation.

Proper Handling and Storage Techniques

When handling AC slip ring induction motors, exercise caution to prevent damage to the motor or injury. Lift and transport the motor using appropriate lifting equipment and techniques. Avoid placing excessive force or pressure on the slip rings, brushes, or other sensitive components. During storage, protect the motor from moisture, extreme temperatures, and other adverse conditions that may lead to corrosion or damage.

Y3 Series Compact Ac Motor

Y3 series compact ac motor is one of our high efficiency and energy saving high voltage squirrel cage ac motors, which are classified as Y2 series and Y3 series according to their efficiency class. Based on the internationally popular new technology for designing high-voltage three-phase asynchronous motors, combined with our company's long-term stable experience in motor design and manufacturing, its performance is close to or reaches advanced foreign standards, with a protection level of IP54 or IP55.

Brief Introduction

The performance and installation dimensions of Y3 series compact ac motor comply with IEC standards, GB755 standards, and relevant professional technical standards. And our company has passed ISO9001 international quality system certification multiple times, controlling the entire process from ordering, development, manufacturing, inspection, sales, to service in accordance with the requirements of ISO9001 quality system.




This series compact ac motors uses high permeability and low loss cold-rolled non oriented silicon steel sheets, resulting in low losses and high efficiency. The electric motor adopts a reliable F-class insulation structure and vacuum pressure (VPI) immersion paint. The temperature rise is designed according to B-class assessment, which extends the insulation aging life. The basic ventilation method for this series of motors is IC411, and the cooling and heat dissipation conditions are relatively mature. This series of electric motors has the characteristics of high efficiency, energy saving, low vibration, low noise, reliable performance, and easy safety and maintenance.

Electric motors are allowed to start directly and with reduced voltage at rated voltage and frequency.

The Y3 series compact ac motor adopts a new generation of advanced high-strength cast iron structure internationally, and the motor frame and end cover adopt high-strength cast iron structure. The exterior of the machine base is equipped with orthogonal distribution - vertically and horizontally distributed heat dissipation ribs, which have good heat dissipation performance, overall rigidity, and durability.

Here is one comparison of compact-type high voltage motor and box-type high voltage motor.

No.	Series	Y3	YKK
1	Squirrel cage motor	yes	yes
2	Structure	compact-type, steel plates welded	Box-type, steel plates welded
3	Cooling method	IC411	IC611
4	Cooling medium	Air	Air
5	Cooling feature	Totally enclosed fan cooled	With top mounted air-air cooler
6	Protection class	IP54/IP55	IP54/IP55
7	Insulation	F/H	F/H
8	Mounting	IMB3/IMB35/IMV1	IMB3/IMB35/IMV1
9	Voltage	3kV,3.3kV,6kV,6.6kV,10kV,11kV,etc.	3kV,3.3kV,6kV,6.6kV,10kV,11kV,etc.
10	Connection	Y	Y
11	Frequency	Fixed 50Hz/60Hz	Fixed 50Hz/60Hz
12	Volume	small	big
13	Weight	light	heavy

Although compact ac motors differ greatly from ordinary high-voltage motors in terms of structure, power, application scenarios, and advantages and disadvantages, they each have unique advantages and values. In practical applications, it is necessary to choose according to specific situations to achieve the best usage effect and cost-effectiveness.

Technical data

Application	pump,fan,compressor,mixer,machine tool,crusher,etc.
Series	Y2/YX2/Y3
HS code	8501530090 (P＞75kW)
Frame size	H355~H560
Standard	IEC60034
Output range(KW)	185~1700
Frequency(Hz)	50/60
Voltage(V)	380/3300/4160/5500/6000/6600/10000/11000
Speed	3000rpm/1500rpm/1000rpm/750rpm/600rpm/500rpm
Enclosure	IP55/IP54
Cooling	IC411/TEFC
Working duty	S1
Mounting	foot-IMB3/IM1001;flange-foot:IMB35/IM2001;vertical:IMV1/IM3011

Y2 Series High Power Ac Motor

Y2 series high power ac motor is one series of high-voltage three-phase asynchronous motor (center height 355-560), which is a compact enclosed cage rotor three-phase asynchronous motor. This series motors can be used to drive various types of machinery, such as ventilation fans, compressors, water pumps, crushers, cutting machines, and other equipment, and can be used as prime movers in coal mines, machinery industries, power plants, and various industrial and mining enterprises.

Brief Introduction

Based on the needs of domestic and international markets, our company has developed the Y2 series high power ac motor. Y2 series compact high-voltage three-phase asynchronous motor is the motor of having a wider range of applications, higher efficiency indicators, and larger size for high and low voltage motors . This series motor has combined our company's advanced technology and decades of production experience in producing motors since 1969 .
By adopting new technological methods and materials, the performance indicators of the motor have reached the advanced level abroad. Y2 series high power ac motor has a small volume, heavy weight, compact structure, and occupies small land area, easy installation and maintenance, high protection level, good reliability, high efficiency, saving user costs, low noise, meeting customers' energy-saving and environmental protection requirements.

The power supply for Y2 series high power ac motor is a three-phase 50Hz (or 60Hz as needed) power supply with a voltage level of 6kV. It can also be designed as 3kV, 3.3kV, 6.6kV, etc. according to customer needs. The installation method is generally IMB3, but it can also be designed as IMB35, IMV1 (including bearing appropriate axial forces) according to customer needs.

The performance and installation dimensions of this series of motors comply with IEC standards, GB755 standards, and relevant professional technical standards. And our company has passed ISO9001 international quality system certification multiple times, controlling the entire process from ordering, development, manufacturing, inspection, sales, to service in accordance with the requirements of ISO9001 quality system.

Order notice

1. Sliding bearing

The ambient air temperature of electric motors using sliding bearings should not be lower than 0 deg. C

2.Starting requirements

When starting the motor with a load, it is necessary to ensure that the terminal voltage during the motor starting process is not less than 85% of the rated voltage.

The motor is allowed to start continuously twice in actual cold state, or once in hot state. The motor should naturally stop between the two starts, and additional restarts should be carried out after the motor has completely cooled til same as room temperature.

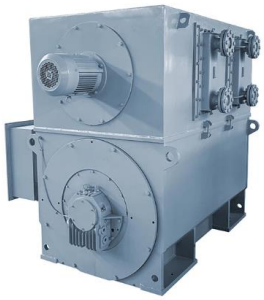
Note: if the load is a reciprocating compressor, ventilation fan with large inertia, or crusher, please indicate it before placing
order.

3.Load connection

Note: The high power ac motor and the driven load should be driven co-axialy through a coupling. lf the transmission method is belt,chain, gear, etc., please specify it before placing order.

Technical data

Application	pump,fan,compressor,mixer,machine tool,crusher,etc.
Series	Y2/YX2/Y3
HS code	8501530090 (P＞75kW)
Frame size	H355~H560
Standard	IEC60034
Output range(KW)	185~1700
Frequency(Hz)	50/60
Voltage(V)	380/3300/4160/5500/6000/6600/10000/11000
Speed	3000rpm/1500rpm/1000rpm/750rpm/600rpm/500rpm
Enclosure	IP55/IP54
Cooling	IC411/TEFC
Working duty	S1
Mounting	foot-IMB3/IM1001;flange-foot:IMB35/IM2001;vertical:IMV1/IM3011



YKS Series High Hp Electric Motor

YKS series high hp electric motor is mainly concentrated in fields that require efficient cooling and high-power operation, such as heavy industries like steel, paper, metallurgy, and pharmaceuticals. These fields usually require stable operation of equipment in harsh environments such as high temperature, high humidity, and high load. High voltage air-cooled motors, with their excellent heat dissipation performance and durability, can meet the needs of these special environments.

Brief Introduction

Electric motors are common power systems in mechanical equipment, and they have temperature limitations. When the temperature is too high, it can cause damage to the motor. Therefore, the motor must take some measures to reduce the temperature. The most efficient method is to lower the motor temperature through an air-water cooling system.
What are the advantages of air-water cooling high hp electric motors compared to traditional fully enclosed water-cooled or air-cooled motors?
1. Excellent heat dissipation performance
The air-water cooling system combines the advantages of air cooling and water cooling systems, which can quickly and effectively reduce the motor temperature during high load operation. The air cooling part can quickly dissipate a large amount of heat, while the water cooling system stably carries away the waste heat, ensuring the stability of the motor during long-term high load operation.

2. Energy saving and environmental protection
Compared to fully enclosed water-cooled systems, YKS series high hp electric motor can reduce energy consumption to a certain extent. Especially when the ambient temperature is low, good heat dissipation can be achieved by relying on air cooling, reducing dependence on cooling water or other cooling media, saving energy, and reducing operating costs.

3. High operational stability
The air-water cooling system is designed reasonably, which can effectively control the motor temperature, avoid performance degradation or damage caused by overheating, and ensure long-term stable operation of the motor.

4. Strong adaptability
YKS series high hp electric motor has a wide range of adaptability and can work under different environmental conditions, including high temperature, high humidity and other harsh environments, while still maintaining good heat dissipation and stable performance.

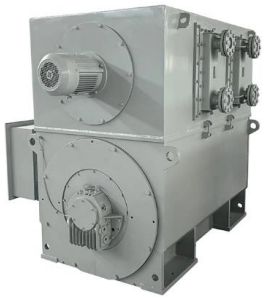
5. Easy maintenance

Compared to fully enclosed water cooling systems, air-water cooling systems are more convenient to maintain. The air cooling part usually does not require additional coolant maintenance, while the water circulation system of the water cooling part is relatively simple and easier to maintain.

By combining the advantages of air cooling and water cooling systems, air-water cooling high voltage motors not only improve heat dissipation efficiency and operational stability, but also are energy-saving, environmentally friendly, adaptable, and easy to maintain. Therefore, they have broad application prospects and advantages in industrial and commercial applications.

Technical data

Application	pump,fan,compressor,mixer,machine tool,crusher,etc.
Series	YKS
HS code	8501530090 (P＞75kW)
Frame size	H355~H630
Standard	IEC60034
Output range(KW)	250~4500
Frequency(Hz)	50/60
Voltage(V)	3300/4160/5500/6000/6600/10000/11000
Speed	3000rpm/1500rpm/1000rpm/750rpm/600rpm/500rpm
Enclosure	IP55/IP54
Cooling	IC81W
Working duty	S1
Mounting	foot-IMB3/IM1001;flange-foot:IMB35/IM2001



YKS Series 6600v Motor

With the increasing awareness of environmental protection and the pressure of energy consumption, high efficiency and energy conservation have become the mainstream trend in the high-voltage motor industry. YKS series 6600v motor plays an important role in various industrial fields, especially in the pharmaceutical, electrical, energy and other industries, due to their unique advantages.




Brief Introduction

Air-water cooled high voltage motors are suitable for various types of motors such as high-frequency and high-voltage power supplies, and are widely used in industries such as electrical, chemical, steel, and metallurgy.

YKS series 6600v motor is a type of high voltage motor that uses air and water for cooling, and its working principle is relatively simple. The air-water cooled high voltage motor adopts the cooling effect of gas and water, replacing traditional fans and radiators, and has significantly improved power and weight.

During use, the cooler of the air-water cooled 6600v motor sprays cooling water onto the surface of the motor, effectively reducing temperature and avoiding mechanical failures caused by prolonged high-temperature operation of the motor. Meanwhile, during the air circulation process, the heat inside the motor can be dissipated outward, achieving better heat dissipation effect.

Here is one comparison of air cooling motor and air-water cooling motor.

No.	Series	YKS	YKK
1	Squirrel cage motor	yes	yes
2	Structure	Box-type, steel plates welded	Box-type, steel plates welded
3	Cooling method	IC81W	IC611
4	Cooling medium	Air+water	Air
5	Cooling feature	With top mounted air-water cooler	With top mounted air-air cooler

6	Protection class	IP54/IP55	IP54/IP55
7	Insulation	F/H	F/H
8	Mounting	IM3011	IM1001
9	Voltage	3kV,3.3kV,6kV,6.6kV,10kV,11kV,etc.	3kV,3.3kV,6kV,6.6kV,10kV,11kV,etc.
10	Connection	Y	Y
11	Frequency	Fixed 50Hz/60Hz	Fixed 50Hz/60Hz

What is the temperature of water used as the cooling medium for YKS series 6600v motor?
The ambient air temperature of electric motors using air water coolers should not be lower than 0 deg. C.For motors with air-water coolers, the cooling water temperature at the inlet of the cooler should not exceed +25 deg.C (according to the natural environment in China, if the condition of Not Exceeding 25 deg.C cannot be met, the maximum cooling water temperature should not exceed +33 deg.C), nor should it be lower than+5 ℃.
If there are special requirements for environmental temperature and altitude, these need to be considered while designing motor and cooler.

Technical data

Application	pump,fan,compressor,mixer,machine tool,crusher,etc.
Series	YKS
HS code	8501530090 (P＞75kW)
Frame size	H355~H630
Standard	IEC60034
Output range(KW)	250~4500
Frequency(Hz)	50/60
Voltage(V)	3300/4160/5500/6000/6600/10000/11000
Speed	3000rpm/1500rpm/1000rpm/750rpm/600rpm/500rpm
Enclosure	IP55/IP54
Cooling	IC81W
Working duty	S1
Mounting	foot-IMB3/IM1001;flange-foot:IMB35/IM2001

YLKK Series High Output Motor

The production process of plastic molding is continuous. The production efficiency of the low-speed high torque AC motor, as we know YLKK series high output motor is high with a wide range of applications. It can drive equipment for the production of pipes, bars, plates, thin films, single wires, wires, cables, profiles, and hollow products; Low investment leads to quick returns. The production requirements and processes for extruded products are widely applicable to industrial sectors such as agriculture, construction, petrochemicals, machinery manufacturing, and national defense.

Brief Introduction

1. The YLKK series high output motor can be medium voltage or high voltage three-phase asynchronous motor.It is mainly used to drive various high torque and high output mechanical equipment, such as metal cutting machines, crushers, ball mills, compressors, sugar squeezing machines, winches, conveyor belts, etc.

2. This series of motors adopts a box structure. Due to the characteristics of vertical installation, the end cover of the motor shaft extension end is made of steel plate material with strong rigidity. The non shaft end of the motor is equipped with a rain cover, which is suitable for outdoor installation and use. Install an air cooler on the side of the motor for easy disassembly and repair.

3. The stator adopts a press fit structure, and the stator winding adopts F-class insulation material. If the ambient temperature exceeds 50 degrees Celsius and the humidity is high, the stator winding can be designed with H insulation.
The stator end is reliably fixed and tied, and has undergone multiple inter turn pulse voltage tests during the manufacturing process. For vertical motors, we have introduced and adopted advanced vacuum pressure impregnation solvent-free paint process (VPI) from abroad, and the vertical fixed lower immersion paint tank is used for treatment. To ensure the insulation, mechanical strength, and moisture resistance of the motor.

4. At present, there are several common starting methods for high-voltage high-power motors in various industrial projects.For YLKK series high output motor,the foreign end users use more full pressure direct start than other methods.

Full pressure direct start

The full pressure direct start method requires fewer equipment, is simple to start, and has low cost. The current required for direct starting of an electric motor is 4-7 times that of normal operation. In theory, as long as the circuit and transformer capacity that provides power to the motor are large enough and within the allowable range, it can be started directly. But there are also some shortcomings, such as high starting current, large starting torque impact, etc., and the ability to start directly at full voltage is also limited by many factors and conditions, especially for high-power high-voltage motors above 1500KW.

Traditional depressurization start-up

Series connection of resistors (or reactors) for step-down starting

During the starting process of an electric motor, a resistor (or reactor) is often connected in series in the three-phase stator circuit to reduce the voltage on the stator winding, so that the motor can start at the reduced voltage to limit the starting current. Once the motor speed approaches the rated value, the series resistor (or reactance) is cut off, allowing the motor to enter normal operation at full voltage.

Starting of Autotransformer

When using an autotransformer, the starting mechanical characteristics are also relatively hard, the starting current is small, the average starting electromagnetic torque is small, and continuous and frequent starting are not allowed.

Soft start

Liquid resistance voltage reduction soft start

Liquid resistance voltage reduction soft start has a constant current soft start characteristic. During the motor starting process, the current remains basically unchanged, with a value below 3 times the rated current, and has significant soft start characteristics.

High voltage solid-state soft start

High voltage solid-state soft start is achieved by serializing positive and negative parallel thyristors in the stator circuit of an electric motor, and changing the phase shift angle of the thyristors to reduce voltage and start the motor.

High voltage variable frequency startup

The high-voltage frequency converter adopts high-voltage power electronic devices and applies inverter technology to achieve variable voltage and frequency control of motor starting and braking.

5. The power level, installation dimensions, and electrical performance of this series of motors all comply with the national standard GB755-2000<>, the mechanical industry standard JB/T10315.2, and related IEC60034-1 standards. At the same time, the Russian GOST standard series and the American NEMA standard can be customized.



Technical Specifications

Mounting	vertical-IMV1/IM3011
Standard	IEC60034/GB755,design for Russian GOST and American NEMA
Application	Driving conveyors, fans, crushers, brakes,etc. for ships, drilling rigs, smelting furnaces, water pumps, steel, mines, cement and other industries
Voltage(V)	380/550/3300/4800/5500/6000/6600/10000/11000
Speed	1500rpm/1000rpm/750rpm/600rpm/500rpm
Pole	4/6/8/10/12
Frequency(Hz)	50/60Hz

Cooling	IC611-CACA
Working duty	S1
Enclosure	IP54/IP55
Application	Driving conveyors, fans, crushers, brakes,etc. for ships, drilling rigs, smelting furnaces, water pumps, steel, mines, cement and other industries

Production Overview

STATOR

The fixed structure of the motor stator core uses steel pins and a colloid filled between the shell, pressure plate, and stator core to rigidly connect the stator core to the pressure plate. This structure makes the air gap between the stator and rotor of the motor more uniform, the motor torque output stable, and can effectively reduce noise.

INSULATOR

Porcelain insulators are electrical porcelain insulators. Ceramics are made of stones, pebbles, and clay. The surface of the porcelain part of the insulator is usually covered with enamel to improve mechanical strength, waterproof permeability, and surface smoothness. Among all types of insulators, porcelain insulators are commonly used,especially for YLKK series high output motor.

FOREIGN BEARING

For users exporting motors, especially European customers, imported bearings are more convenient for maintenance and replacement in the later stage compared to domestic bearings.The commonly used imported bearing brands for high-voltage motors are SKF, FAG and NSK.

VIBRATION SENSOR

A vibration sensor is a single free oscillation system composed of springs, dampers, and inertial mass blocks. It converts mechanical vibrations into electrical signals that are easy to transmit, transform, process, and store through its transducer components.

YLKK Series Square Cage Motor

High voltage motor,like YLKK series square cage motor,refers to an electric motor with a rated voltage above 1000V. The commonly used voltages are 6000V and 10000V, and due to differences in foreign power grids, there are also voltage levels of 3300V and 6600V.YLKK series square cage motor, its unique feature is vertical mounting method. If motor will be used outdoor, one rainproof cover is needed at the top of NDE side.If there is canopy above the motor, usually, there is no need to assemble the rainproof cover, which will be not useful for heat dissipation for the long run.

Brief Introduction

1. Square cage motors can be used to drive various types of machinery. Such as compressors, water pumps, crushers, cutting machines, transportation machinery and other equipment, used as prime movers in various industries such as mining, machinery industry, petrochemical industry, generators, etc.

2. The generation of high-voltage motors is due to the proportional relationship between motor power and the product of voltage and current. Therefore, when the power of low-voltage motors increases to a certain extent (such as 300KW/380V), the current is limited by the allowable bearing capacity of the wires, making it difficult to increase or the cost is too high. It is necessary to achieve high-power output by increasing the voltage. The advantages of YLKK series square cage motor are high power and strong impact resistance.The disadvantage is high inertia, making it difficult to start and brake.

3. For medium-high voltage AC motors of air cooling method,for vertical mounting motor, there is a new and special design is that motor will will be assembled with 2 coolers, one at each side.While, the prerequisite is that there is sufficient installation space on site for the electric motor.

4. The working principle of a cooler is based on the basic principles of heat conduction and heat transfer. It usually consists of a cooling medium, such as water or air, that comes into contact with the object to be cooled through pipes or fins. The cooling medium will absorb the heat released by the object, and then take away or discharge the heat through the circulation system, thereby reducing the temperature of the object.

What are the function of the cooler?

● **Extending equipment lifespan**

When the equipment is in operation, it generates a large amount of heat. If not cooled in a timely manner, it can cause the equipment temperature to be too high, accelerate the aging of internal components, and shorten the service life of the equipment. The function of a cooler is to promptly remove heat, reduce equipment temperature, and thus extend the lifespan of the equipment.

● **Improving work efficiency**

High temperature environments can affect the efficiency of equipment and even cause equipment malfunctions and shutdowns. The cooler can promptly remove heat from the equipment, reduce the temperature of the equipment, and keep it within the appropriate working temperature range, thereby improving the efficiency of the equipment.

● **Energy saving**

Using a cooler can effectively lower the temperature of the equipment and reduce energy consumption. By using a cooler, the cooling demand of equipment can be reduced, energy consumption and waste can be reduced, thereby achieving energy conservation and environmental protection.

In industrial production, many equipment and processes require cooling treatment, such as cooling towers, coolant circulation systems, etc. YLKK series square cage motor, its cooler can quickly remove the heat generated in the process, control the temperature, and ensure the normal operation of the process.

Technical Specifications

Mounting	vertical-IMV1/IM3011
Application	Driving conveyors, fans, crushers, brakes,etc. for ships, drilling rigs, smelting furnaces, water pumps, steel, mines, cement and other industries
Frame size	H315~H630
Output range(KW)	160 to 3000
Voltage(V)	380/550/3300/4800/5500/6000/6600/10000/11000
Speed	1500rpm/1000rpm/750rpm/600rpm/500rpm
Pole	4/6/8/10/12
Frequency(Hz)	50/60Hz
Cooling	IC611-CACA
Working duty	S1
Enclosure	IP54/IP55
Standard	IEC60034/GB755

Production Overview

STATOR

During the operation of the motor, the magnetic field acting on the motor rotor through the current can generate an interaction force between the rotor and stator, allowing the stator to rotate around the rotor.

WOODEN PACKAGING

The wooden packaging used for outbound goods should be treated according to the prescribed quarantine and pest control methods, and special labels should be added. The methods of pest control, labeling requirements, and regulatory regulations shall be notified separately by the General Administration of Quality Supervision, Inspection, and Quarantine of China.

ROLLING BEARING

Rolling bearings are widely used for low voltage or high voltage electric motors.YLKK series square cage motor usually use rolling bearings.The rolling element of the rolling bearing is in line contact with the raceway of the ring, with high load capacity and impact resistance, but with high friction resistance and relatively high price.

CABLE JOINT

According to the material of the joint, it is divided into plastic cable joints and metal cable joints. Considering environmental temperature, humidity, temperature fluctuations, atmospheric pressure, and corrosive environments, metal cable joints will be better than plastic cable joints.

YRKK Series Copper Rotor Motor

The biggest advantage of three-phase asynchronous YRKK series copper rotor motor is that the starting current can be controlled within a certain range, and the starting torque will not decrease with the decrease of current like ordinary cage rotor motors. Therefore, it not only ensures the starting torque but also reduces the starting current without using large capacity equipment (including transformers, switches, and wires). So it is very suitable for users who require high starting torque and limited power capacity.

Brief Introduction

The YRKK series copper rotor motor is also a medium high-voltage wound rotor three-phase asynchronous motor mainly used to drive various heavy duty mechanical equipment, such as metal cutting machines, crushers, ball mills, compressors, sugar squeezing machines, winches, conveyor belts, etc.

The series copper rotor motor adopts a box structure, with a base and casing made of welded steel plates. It is lightweight and has strong rigidity. The top of the motor is equipped with a closed air cooler, which is easy to disassemble and lower in cost, making it easy to install and repair the motor.

The stator adopts a press fit structure, and the stator winding is made of F-class insulation material (or can be designed and produced according to customer requirements). The end is reliably fixed and tied.
During the manufacturing process, it undergoes multiple inter turn pulse voltage tests and ground withstand voltage tests, and is treated with advanced vacuum pressure impregnation paint solvent-free impregnation paint (VPI) technology imported from abroad. Therefore, the insulation performance of the motor is excellent and reliable, with good mechanical strength and strong moisture-proof performance.

The YRKK series medium high voltage asynchronous wound motor is a series of motor products produced by our factory for many years. The voltage range can be from 3300V to 11000V, the maximum frame size can be 1000mm, and the power range can reach 5000KW. This series of motors has a clever and rigorous structural design, advanced manufacturing technology, and for copper bar rotor series motors, the products have advantages such as high efficiency, energy saving, low noise and vibration, large starting torque, and stable performance.

The rotor casting cage bars of AC motors are mostly made of electrolytic aluminum material! This is because the melting point of aluminum is very low! The casting temperature is not enough to damage the inter layer insulation of the silicon steel sheet in the rotor core! At the same time, it is also cheaper than copper! And the rotor windings of high demand speed regulating motors and DC motors are made of copper wire winding!There is a significant difference in power between copper and aluminum rotors of the same specifications! The difference is about one-third.

Sliding rings are mechanical, electrical, fluid pressure, natural mechanical, or chemical energy that can complete energy conversion in the industrial industry, converting various types of energy into the required energy for application.

The power level, installation dimensions, and electrical performance of YRKK series copper rotor motor all comply with the national standard GB755-2000 <>, the mechanical industry standard JB/T10315.2, and related IEC60034-1 standards. At the same time, the Russian GOST standard series and the American NEMA standard can be customized.

Technical Specifications

Frame size	H355~1000
Output range(KW)	185 to 4500
Voltage(V)	3300/4800/5500/6000/6600/10000/11000
Speed	1500rpm/1000rpm/750rpm/600rpm/500rpm/428rpm/375rpm
Pole	4/6/8/10/12/14/16
Frequency(Hz)	50/60Hz
Cooling	IC611-CACA
Working duty	S1
Enclosure	IP54/IP55
Mounting	foot-IMB3/IM1001;vertical-IMV1/IM3011
Application	Driving conveyors, fans, crushers, brakes,etc. for ships, drilling rigs, smelting furnaces, water pumps, steel, mines, cement and other industries
Standard	IEC60034/GB755

Production Overview

STATOR CORE

The fixed structure of the stator core of the motor includes: stator bracket, stator core, and fasteners; Assembly and connection of interference fit between stator bracket and stator core; At least one end of the stator bracket is equipped with several fastener installation holes, and the fasteners are installed inside the fastener installation holes; At least one end of the stator core is partially blocked by fasteners in the axial direction of the stator core.

WOODEN CASE

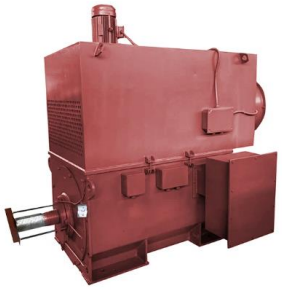
The national standard for wooden case packaging is GB/T 12464 for ordinary wooden box packaging.Before export, it is necessary to apply for fumigation and disinfection with an IPPC certified antivirus company. After being certified by the manufacturer for disinfection, the manufacturer will imprint the IPPC computer number on the relevant wooden pallets.

ROLLING BEARING

Deep groove ball bearings are the most representative rolling bearings. Compared with other types of bearings of the same size, this type of bearing has a smaller friction coefficient, higher limit speed, simpler structure, lower manufacturing cost, higher accuracy, no need for regular maintenance, and a wide range of dimensions and multiple forms, making it the most widely used type of bearing.

VIBRATION SENSOR

Vibration sensors are divided into two types: magneto electric and piezoelectric. The magneto electric type has a simple structure and low price, but its accuracy is poor. The commonly used sensor now is the piezoelectric type, which has high measurement accuracy.



YRKK Series Ac Slip Ring Induction Motor

YRKK series ac slip ring induction motor, also known as three-phase wound rotor AC asynchronous motor, must be connected in series with resistors or reactors in the motor rotor circuit in order to reduce the starting current, increase the starting torque, improve the power factor, and effectively improve the motor starting performance. Therefore, in mechanical equipment with large capacity and high requirements for rotational torque, this type of electric motor is usually used for dragging.

Brief Introduction

1. The ac slip ring induction motor, also called sliding ring motor,is composed of conductive rings, tail brushes, brush holders, conductive rods, collector rings, and slip ring covers. The winding of a wound rotor is similar to the stator winding, with the three-phase winding connected in a star shape. The starting end of each phase winding is connected to three copper slip rings, which are fixed on the shaft. The ring and ring, as well as the ring and shaft, are insulated from each other and connected to the external circuit through a set of carbon brushes pressed by springs.

2. In the case of a squirrel cage induction motor, the rotor resistance is very low, resulting in a high current in the rotor, which leads to a decrease in its starting torque. However, if an external resistance is added to a slip ring motor, the rotor resistance will be high during startup, resulting in low rotor current and maximum starting torque.

In addition, the slip required to generate maximum torque is directly proportional to the rotor resistance. In a slip ring motor, the rotor resistance is increased by increasing the external resistance, resulting in an increase in slip.

Due to the high rotor resistance and larger slip, the "pull-out" torque can be achieved even at low speeds. When the motor reaches its basic speed (full rated speed), it operates in the same way as a squirrel cage induction motor under normal operating conditions with external resistance removed.Therefore, YRKK series ac slip ring induction motors are greatly suitable for very high inertia loads, which require almost zero pulling torque and acceleration to full speed, while also absorbing the minimum current in a very short time.

3. Due to its unique structural design, the slip ring motor,like YRKK series ac slip ring induction motor, has significant performance advantages over ordinary motors.

● **High efficiency and stability**

Compared with traditional motors, slip ring motors have higher efficiency and stability, producing greater power and less energy consumption.

● **Wide speed range**

The speed range of the sliding ring motor is wider than that of ordinary motors, and its speed can be adjusted according to actual needs.

Strong load bearing capacity

The load bearing capacity of slip ring motors is also better than traditional motors, as they can withstand larger loads and operate more stably.

● **Energy and signal transmission**

Because the slip ring motor is equipped with special structures such as slip rings and brushes, it can transmit energy and signals while continuously rotating.

4. Sliding rings are mechanical, electrical, fluid pressure, natural mechanical, or chemical energy that can complete energy conversion in the industrial industry, converting various types of energy into the required energy for application.

5. Sliding ring motor is a multifunctional and high-performance motor suitable for various industrial and civil occasions, such as forestry, animal husbandry, agriculture, and fisheries. The use of sliding rings is also highly valued. With the continuous progress of technology and the expansion of applications, ac slip ring induction motors will continue to leverage their advantages and create more value for humanity.

Technical Specifications

Application	Driving conveyors, fans, crushers, brakes,etc. for ships, drilling rigs, smelting furnaces, water pumps, steel, mines, cement and other industries
Frame size	H355~1000
Output range(KW)	185 to 4500
Voltage(V)	3300/4800/5500/6000/6600/10000/11000
Speed	1500rpm/1000rpm/750rpm/600rpm/500rpm/428rpm/375rpm
Pole	4/6/8/10/12/14/16
Frequency(Hz)	50/60Hz
Cooling	IC611-CACA
Working duty	S1
Standard	IEC60034/GB755
Enclosure	IP54/IP55
Mounting	foot-IMB3/IM1001;vertical-IMV1/IM3011

Production Overview

TERMINAL BOX

The junction box of a high-voltage motor mainly includes the junction box body and the junction box cover. The junction box body includes sealing, wiring terminals, pillars, copper noses, installation holes, threaded sleeves, etc.

FRAME STATOR

The fixed structure of the motor stator core uses steel pins and a colloid filled between the frame, pressure plate, and stator core to rigidly connect the stator core and pressure plate, and the pressure plate itself is also rigidly connected to the frame, thereby achieving the fixation of the stator core.

WOODEN BOX

Glued wooden box packaging refers to a material synthesized through processing and compression, which is only used for equipment weighing less than 5 tons.Solid wood box refers to a wooden box made of logs and wooden boards, usually used for equipment weighing over 5 tons. However, wooden boxes made of logs require fumigation treatment before export

ANTI-FRICTION BEARING

YRKK series ac slip ring induction motor will also choose anti-friction bearings for power less than 2000KW. Bearings can be divided into two categories: ball bearings and roller bearings,also called anti-friction bearing.The rolling element and ring raceway of ball bearings are in point contact, with low load capacity and poor impact resistance, but low friction resistance, high limit speed, and low price. The rolling element of the roller bearing is in line contact with the raceway of the ring, with high load capacity and impact resistance, but with high friction resistance and relatively high price.

CABLE GLAND

Cable gland is also called cable waterproof joint or cable gland or cable fixed head.The cable gland is used to fix and lock the cable line. One end of the gland has a threaded end and is fixed on the box or equipment. The middle is a through hole for threading the cable line, which has the function of waterproofing, dust-proof, and shockproof.

YPKK Series 4160v Motor

YPKK series 4160v motor, Y means asynchronous motor, P means variable frequency speed regulation, KK means air as the cooling medium, and the cooling method is air circulation. Compared to YKK series motors, YPKK series motors have absolute advantages in performance and cost control. At present, it has been widely recognized and trusted in the chemical industry, mining industry, metallurgical industry, water conservancy, cement industry and other industrial sectors.

Brief Introduction

With the massive expansion of thermal power plants today, how to improve enterprise efficiency through energy conservation and consumption reduction is of utmost concern to various industries.
Gradually developing motor speed regulation and energy-saving technology, improving energy utilization, and promoting variable frequency speed regulation technology for high-voltage and high-power motors are important measures for energy conservation.YPKK series 4160v motor is one motor series developed under these consideration.
Variable frequency speed regulation is the most advanced, reliable, and efficient speed regulation technology in contemporary times. The constant speed water supply pump water supply regulation system has a large throttling loss, high unit consumption of water supply pumps, and high cost, which has led to a continuous decline in enterprise benefits.

Here, we take variable frequency drive feed water pump as one sample.

The use of high-voltage variable frequency regulation technology to regulate the feedwater pump of steam turbine units can not only achieve initial investment savings, but also have a simple system structure, economical operation and maintenance, and achieve good energy-saving effects.
Variable frequency speed regulation,like YPKK series 4160v motor,can maintain high power factor operation over a wide range of speeds (for example, when the speed is above 20%, the power factor is greater than 0.95%).

When using variable frequency speed regulation, if the motor starts at the rated torque, the input starting current of the power grid is less than 10% of the rated current of the motor. For loads such as fans and pumps, the starting current is smaller. Moreover, the entire starting process is controllable, and the starting point and climbing time can be set. According to statistics, about 15% of motor failures are caused by direct starting. For the power grid, direct starting causes a short-term voltage drop and interferes with the operation of other equipment.

Comparison of variable frequency HV AC motor and fixed frequency HV AC motor

No.	Series	YPKK	YLKK	YKK
1	Squirrel cage motor	yes	yes	yes
2	Structure	Box-type, steel plates welded	Box-type, steel plates welded	Box-type, steel plates welded
3	Cooling method	IC616/IC666	IC611	IC611
4	Cooling feature	With top mounted air-air cooler and extra forced ventilation motor	With side mounted air-air cooler	With top mounted air-air cooler
5	Protection class	IP54/IP55	IP54/IP55	IP54/IP55
6	Insulation	F	F	F
7	Mounting	IM1001	IM3011	IM1001
8	Voltage	3kV,3.3kV,6kV,6.6kV,10kV,11kV ,etc.	3kV,3.3kV,6kV,6.6kV,10kV,11kV, etc.	3kV,3.3kV,6kV,6.6kV,10kV,11kV, etc.
9	Connection	Y	Y	Y
10	Frequency	A range 15~75Hz(Fixed 50Hz/60Hz)	Fixed 50Hz/60Hz	Fixed 50Hz/60Hz

Technical Specifications

Type:YPKK
· Three-phase,
Rated frequency:50/60 Hz
Frequency range:15~75Hz
· Voltage: 380V,3300V,4160V~11000 V
· Rated output: up to 12500 kW
· Number of poles: 2,4,6,8,10,12
· Frame size: 350~1000mm
· Cast aluminium squirrel cage for rotor
· Degree of protection:IP54/IP55(Totally enclosed)
· Continuous Duty: S1
· Cooling:IC616;IC666
· Continuous Duty: S1
· Insulation: F with class (120ºC) temperature rise
· Continuous Duty: S1
· With thermal protection PT100(3-wire)
· Roller bearings for maximum load capacity
· Other optional features under requests from customers

YXKK Series Bidirectional Electric Motor

Bidirectional electric motor means motor can rotate both clockwise and anti-clockwise. In all kinds of industries, like rolling mills, pump factories,aluminum plants,etc., especially pump, for high voltage AC motors, engineers like to choose motors rotating both CW and CCW, which can change the direction of water flow, thereby more effectively utilizing the pressure and flow of water.

Brief Introduction

1. YXKK series bidirectional electric motor are very high efficiency motor series, which can reach over 95% efficiency data. This series motors are following the Chinese standard GB 755 and the international standard IEC 60034.

2. Why are so many buyers choosing bidirectional-rotation electric motors ? There are some reasons as below.

● **Changing the output direction**

The forward and reverse rotation of the electric motor can change the output direction, causing the working object to move in the opposite direction, thereby achieving work in different directions.

● **Reducing mechanical wear**

In certain situations, CW and CCW rotation can reduce mechanical wear, thereby extending the lifespan of electric motors and other mechanical equipment.

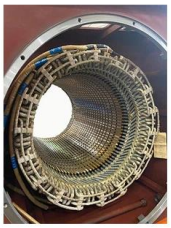
● **Improving efficiency**

The clockwise and anti-clockwise rotation of the electric motor can also improve efficiency. For example, in a water pump, the clockwise and anti-clockwise rotation can change the direction of the water flow, which can make more effectively utilizing the pressure and flow of water.

3. Bidirectional electric motor, it's like normal CW rotation motors with easy maintenance,strong stability, low noise and big torque, which is more popular these days because of high efficiency characteristic. What's more, it is not only suitable for 6KV, 10KV, but also can still it be designed in low voltage, like 380, 500V,660V.

4. With the intensification of global climate change and the joint call of governments around the world, low-carbon environmental protection is an important principle to be followed in industrial production and development. Electric motors with high energy efficiency and low carbon emissions are undoubtedly the best choice for various industries and mining enterprises.

Technical Specifications


Frame size	H315~1000
Output range(KW)	160 to 10000
Voltage(V)	380/550/3300/4800/5500/6000/6600/10000/11000
Speed	3000rpm/1500rpm/1000rpm/750rpm/600rpm/500rpm
Pole	2/4/6/8/10/12
Frequency(Hz)	50/60,5~50Hz
Application	various general mechanical equipment such as ventilators, water pumps, compressors,crushers, transportation machinery, and other industries such as mining, steel, petroleum, chemical, power plants,etc.
Standard	IEC60034/GB755
Enclosure	IP54/IP55
Cooling	IC611/CACA
Working duty	S1,S3
Mounting	foot-IMB3/IM1001;vertical-IMV1/IM3011

Production Overview

VIBRATION SENSOR

Vibration sensors are sensors used to detect impact force or acceleration. Usually, motors will be assembled 2 pcs,each one for each side of DE or NDE. Both Chinese brands and foreign brands can be ordered.

STATOR

The stator is an important component of YXKK series bidirectional electric motor. The stator serves as the power supply and electromagnetic shielding in the electric motor, and can also achieve the control function of the motor by changing the size and direction of the coil current.

WOODEN CASE

Wooden package is the most common packing method for motors exporting to other countries. Well, for motors over length or over width or over height, steel pallet or steel frame will be considered.

BEARINGS

The bearing manufacturing industry is a precision basic component manufacturing industry, with accuracy measured in 0.001mm, while the manufacturing tolerance of ordinary mechanical parts is generally only 0.01mm. The noise and vibration of the motor largely depend on the quality of the bearings.

METAL GLAND

Cable gland, also known as cable waterproof joint or cable fixed head, is widely used for fixing and protecting wires and cables in mechanical equipment electrical, ship electrical, and anti-corrosion equipment. There are plastic materials and metal materials in the market.

YKK Series Air Cooled Electric Motor

1250KW IC611 cooling motor, this series motor, mainly medium or high voltage AC motor, is a squirrel cage three phase alternating current motor with box type structure and cooler at top, like YKK series air cooled electric motor,which is highly used for lots of abroad and domestic industries, like rolling mills, pump factories,aluminum plants,etc.

This series motor, its efficiency indicators can meet level 3 energy efficiency, i.e. IE3, and also can meet level 4 energy efficiency, i.e. IE4, which are specified in Chinese standard GB 755 and in international standard IEC 60034.

YKK series air cooled electric motor with box type structure, it is highly promoted and popular for various industrial plants,especially pump industry. With the continuous progress of technology and the iteration of process level, this series motor can provide bigger power in same or smaller frame compared with old designs, like motor designs before 2020 year. The old series can still be produced, and the new series are ordered more and more by customers because of low purchasing cost and bigger torque and higher efficiency new series can give.

With easy maintenance,strong stability, low noise and energy saving, YKK series motors are already the best selling motors for electric manufacturers in high voltage and medium voltage, like 6KV, 10KV. Moreover, this series motor can still be designed under low voltage, like 380V.

Because of great heat dissipation characteristics, which is the good choice for ventilation system, it's ideal for pumps and blowers of steel plants and rolling mills. Moreover,this series motor, with its superior power range and wide speed range, it can meet all kinds of requirements for loading equipment,like gearbox,tractor,and so on.

Type:YKK/YXKK/YLKK

· Three-phase, 50/60 Hz

· Voltage: 380~11000 V
· Rated output: up to 12500 kW
· Number of poles: 2,4,6,8,10,12
· Frame size: 350~1000mm
· Cast aluminium squirrel cage for rotor
· Degree of protection:IP54/IP55(Totally enclosed)
· Continuous Duty: S1
· Cooling:IC611/CACA
· Continuous Duty: S1
· Insulation: F with class (120ºC) temperature rise
· Continuous Duty: S1
· With thermal protection PT100(3-wire)
· Roller bearings for maximum load capacity
· Other optional features under requests from customers

1.Sliding bearing

The ambient air temperature of electric motors using sliding bearings should not be lower than 0 deg.

2.Air-water cooler

The ambient air temperature of electric motors using air water coolers should not be lower than 0 deg. C.For motors with air-water coolers, the cooling water temperature at the inlet of the cooler should not exceed +25 deg.C (according to the natural environment in China, if the condition of Not Exceeding 25 deg.C cannot be met, the maximum cooling water temperature should not exceed +33 deg.C), nor should it be lower than+5 ℃.
Note: if there are special requirements for environmental temperature and altitude, please indicate them before placing order.

3.Starting requirements

When starting the motor with a load, it is necessary to ensure that the terminal voltage during the motor starting process is not less than 85% of the rated voltage.
The motor is allowed to start continuously twice in actual cold state, or once in hot state. The motor should naturally stop between the two starts, and additional restarts should be carried out after the motor has completely cooled til same as room temperature.
Note: if the load is a reciprocating compressor, ventilation fan with large inertia, or crusher, please indicate it before placing
order.

4.Load connection

Note: The electric motor and the driven load should be driven co-axialy through a coupling. If the transmission method is belt,chain, gear, etc., please specify it before placing order.
Hot Tags: ykk series air cooled electric motor, China ykk series air cooled electric motor manufacturers, suppliers, factory, squirrel cage fan motor, cast iron motor, industrial three phase motors, high horsepower electric motor, 380v ac motor, high torque slow speed motor

IE4 Series High Hp Motor

IE4 series high hp motor is a box-type three phase high voltage asynchronous motor.Its power range can be 160KW~10000KW and its speed can be 3600rpm~500rpm, which is highly popular for many industries, like cement plants, pump factories,aluminum plants,steel plants, mining,etc.

Description

Technical Parameters

Brief Introduction

01/

IE4 series high hp motor with the structure of box type and cooler at top, like YKK models,YPKK models, it is highly promoted and popular for almost all kinds of industrial plants. Because of great heat dissipation characteristics, which is the good choice for ventilation system, it's the best for pumps and blowers of steel plants,rolling mills,cooling towers,etc.

02/

Responding to the global call for reducing carbon emissions and protecting environment ,this series motor ensures stable performance and long lasting work experience for end users.What's more,IE4 series high hp motor, with its great power range and good speed range, it can meet all kinds of requirements for loading equipment,like gearbox,tractor and so on.

03/

This IE4 series motor, its energy efficiency can reach over 95~96%, which can greatly improve productivity, reducing production costs for enterprises, and achieving the ultimate goal of saving electricity and energy, increasing production, and protecting environment.

04/

With the improvement of technology and updating design of motor frame, this series motor can have one or two grades smaller than previous old series. The old series YKK model, YPKK model,YLKK model, they can still be produced, while the new series are ordered more and more by customers once listed.

05/

With the features of easy maintenance,strong stability and low noise, IE4 series high hp motor is already the best selling series motors for electric manufacturers in high voltage and medium voltage, like 3.3KV,6KV, 10KV,11KV,etc.

06/

This series motor efficiency indicators can meet level 4 energy efficiency, i.e. IE4 series YXKK model, YXKS model,which are specified in Chinese standard GB755 and in international standard IEC60034.

Standard feature

Type:YKK/YXKK/YPKK

- Three-phase, 50/60 Hz
- Voltage: 380~11000 V
- Rated output: up to 12500 kW
- Number of poles: 2 ,4,6,8,10,12
- Frame size: 350~1000mm
- Cast aluminium squirrel cage for rotor
- Degree of protection:IP54/IP55(Totally enclosed)
- Continuous Duty: S1
- Cooling:IC611/CACA;IC616;IC666
- Continuous Duty: S1
- Insulation: F with class (120ºC) temperature rise
- Continuous Duty: S1
- With thermal protection PT100(3-wire)
- Roller bearings for maximum load capacity
- Other optional features under requests from customers

IE3 Series Ic611 Motor

6KV and 10KV High voltage AC motor, like YKK model IE3 series ic611 motor, is a box type structure and cooler at top motor. As the best -selling motor series, squirrel cage three phase alternating current motor is highly popular for many industries, like cement plants, pump factories,aluminum plants,etc.

Brief Introduction

01/

This series motor with box type structure, it is highly promoted and popular for various industrial plants. Responding to the global call for low carbon and environmental protection,IE3 series ic611 motor ensures stable performance and long lasting work experience for end users.

02/

This series motor efficiency indicators can meet level 3 energy efficiency, i.e. IE3, and also can meet level 4 energy efficiency, i.e. IE4, which are specified in Chinese standard GB30254 and in international standard IEC60034.

03/

Because of great heat dissipation characteristics, which is the good choice for ventilation system, it's ideal for pumps and blowers of steel plants and rolling mills. Moreover,this series motor, with its superior power range and wide speed range, it can meet all kinds of requirements for loading equipment,like gearbox,tractor,and so on.

04/

With easy maintenance,strong stability, low noise and energy saving, ic611 motors are already the best selling series motors for electric manufacturers in high voltage and medium voltage, like 6KV, 10KV.

05/

Furthermore, ic611 motor is perfect for lathe machines, not only providing great torque, but also low noise for cutting,shaping and drilling processing. Its lasting and reliable performance ensures good productivity, which makes it an integral part in any lathe setup of all factories.

06/

With the innovation of technology and out shell design, this series motor frame is one or two grades smaller after one big adjustment 2 years ago. The old series can still be produced, and the new series are ordered more and more by customers.

Technical Specifications

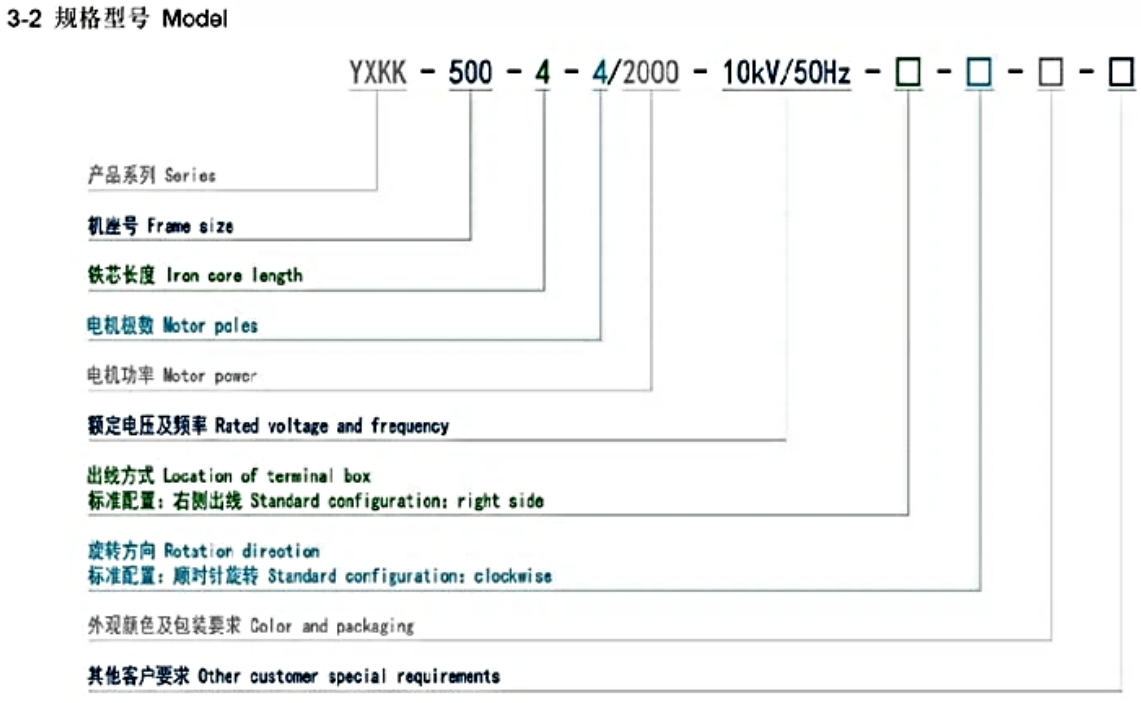
Type:YKK/YXKK/YLKK

- Three-phase, 50/60 Hz
- Voltage: 380~11000 V
- Rated output: up to 12500 kW
- Number of poles: 2 ,4,6,8,10,12
- Frame size: 350~1000mm
- Cast aluminium squirrel cage for rotor
- Degree of protection:IP54/IP55(Totally enclosed)
- Continuous Duty: S1
- Cooling:IC611/CACA
- Continuous Duty: S1
- Insulation: F with class (120ºC) temperature rise
- Continuous Duty: S1
- With thermal protection PT100(3-wire)
- Roller bearings for maximum load capacity
- Other optional features under requests from customers

Application: various general mechanical equipment such as ventilators, water pumps, compressors,crushers, transportation machinery, and other industries such as mining, steel, petroleum, chemical, power plants,etc.

Typical application

Measures and data



IP 5/① 5/②

表征字母	第一位数字	第二位数字
IP	5	5

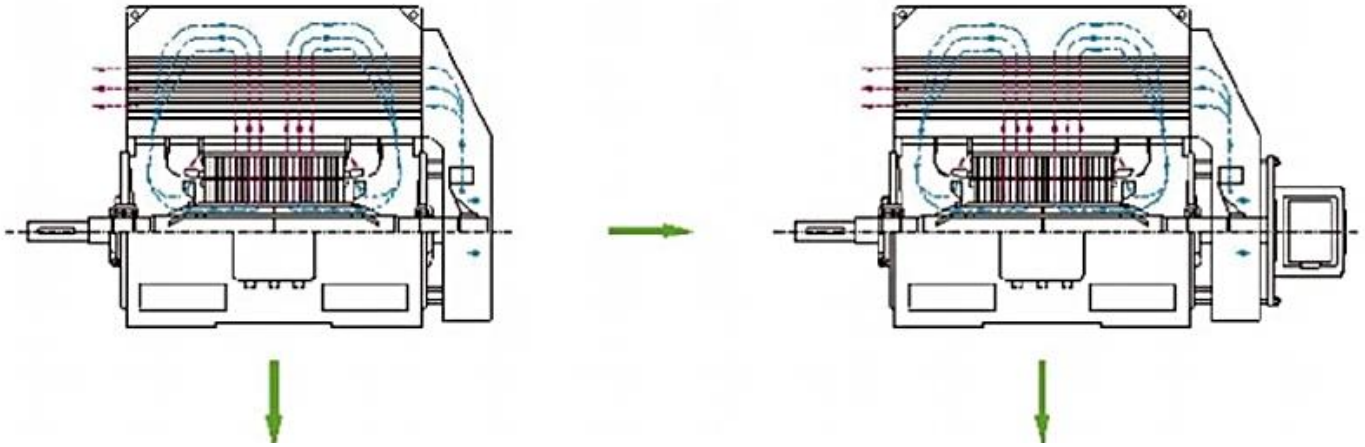
Characteristic letters	First number	Second number
IP	5	5

第一位数字	含义
2	防护>12mm 固体异物进入
4	防护>1mm 固体异物进入
5	防尘
6	尘密

1st number	Brief description
2	Against solid objects>12mm
4	Against solid objects>1mm
5	Dust-protected
6	Dust-tight

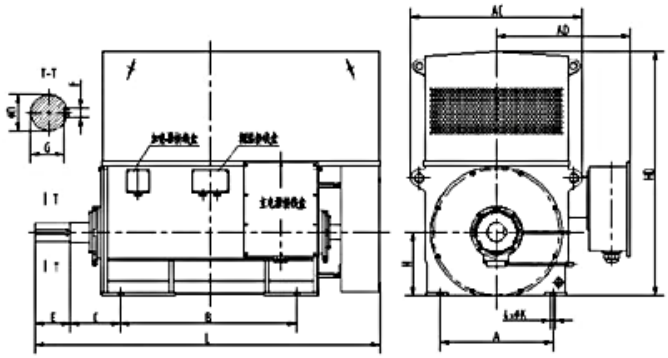
第二位数字	含义
3	防淋水电机
4	防溅水电机
5	防喷水电机
6	防海浪电机

2nd number	Brief description
3	Against spraying water
4	Against splashing water
5	Against water jets
6	Against heavy seas



电动机的温升限额 Temperature limit

绝缘等级 Insulation class	最高使用温度 Highest temperature	最大温升 Limit of temperature rise
B	130℃	80K
F	155℃	105K
H	180℃	125K



中心高	极数	安装尺寸（mm）									外形尺寸（mm）			
		A	B	C	D	E	F	G	H	K	AC	AD	HD	L
315	2	560	950	280	80	170	22	71	315	28	930	825	1255	1960
	4～6	560	950	280	90	170	25	81	315	28	930	825	1255	1990
355	2	630	1000	335	80	170	22	71	355	35	1035	900	1385	2080
	4～8	630	1000	335	100	210	28	90	355	35	1035	900	1385	2155
400	2	710	1120	355	90	170	25	81	400	35	1125	940	1560	2210
	4～10	710	1120	355	110	210	28	100	400	35	1125	940	1560	2290
450	2	800	1250	315	100	210	28	90	450	35	1215	945	1730	2370
	4～12	800	1250	355	130	250	32	119	450	35	1215	945	1730	2450
500	4～12	900	1400	375	140	250	36	128	500	42	1325	1000	1955	2670
560	4	1000	1600	400	160	300	40	147	560	48	1515	1085	2200	2905
	6～12	1000	1600	400	180	300	45	165	560	48	1515	1085	2200	2955
630	4～12	1120	1800	450	200	350	45	185	630	[illegible]	[illegible]65	1300	2500	3280

29 5

Hot Tags: ie3 series ic611 motor, China ie3 series ic611 motor manufacturers, suppliers, factory, iec explosion proof motors, 3000 rpm fan motor, ip23 motor, industrial blower motor, 25hp 3 phase motor, ie3 ie4 motor

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Россия +7(495)268-04-70
Казахстан +7(727)345-47-04
Беларусь +(375)257-127-884
Узбекистан +998(71)205-18-59
Киргизия +996(312)96-26-47

эл.почта: uoa@nt-rt.ru || сайт: http://luanmotor.nt-rt.ru/