YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor

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企业简介 About Us▶



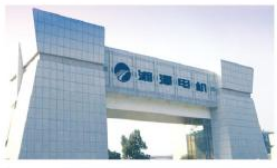
Xiangtan Electric Manufacturing Co., Ltd.(XEMC) was jointly founded by Xiangtan Electric Manufacturing Group Co., Ltd. and other six enterprises such as Beijing Subway in 1999 and has been successfully listed in Shanghai Stock Exchange (SSE) since July 2007. Relying on profound cultural deposits, strong technical strength and good modern enterprise operation mechanism and continuous innovation and development for more than seventy years, XEMC has now become a large-scale key enterprise in the Chinese electric industry and a national research and production base for the localization of key technical equipment determined by the State Council. XEMC has developed more than 1100 new products, among which over 100 new products have filled the gaps in domestic market, and has made outstanding contributions to key equipment localization of China.

During the “Eleventh Five-Year” plan, XEMC Motor Division will seek development by improvement and innovation according to the strategical objective of “creating a preferred brand in the industry” and constantly speed up the development of new technologies and new products with a brand- new posture and a perspective of international operation. Based on existing core technologies, Motor Division will work hard to develop new technologies and create emerging industries such as high-efficiency energy-saving motors, high-power wind turbine generator sets, waste heat power generation, biomass power generation to realize industry scale of 6 billion RMB in 2012 and 10 billion RMB in 2015, promote scientific leapfrog progress and repay society with high-quality products and excellent service.

Motor Division, founded in 2004, is the largest finished product division owned by XEMC, integrating research, development, production and sales of AC motors, permanent-magnetic direct-driven wind turbine generators etc.. At present, XEMC has formed AC motor manufacturing technology with manufacturing technologies of auxiliary motors for thermal power stations and nuclear power stations, variable frequency motors for steel works, explosion- proof motors for petrochemical works and mining and permanent-magnetic wind turbine generators acted as the core. The products are widely used for metallurgy, power station, nuclear power, building material, petrochemicals, paper-making, cement, water conservancy etc. and are sold all over the country and to more than thirty countries and regions, which are highly praised by users.



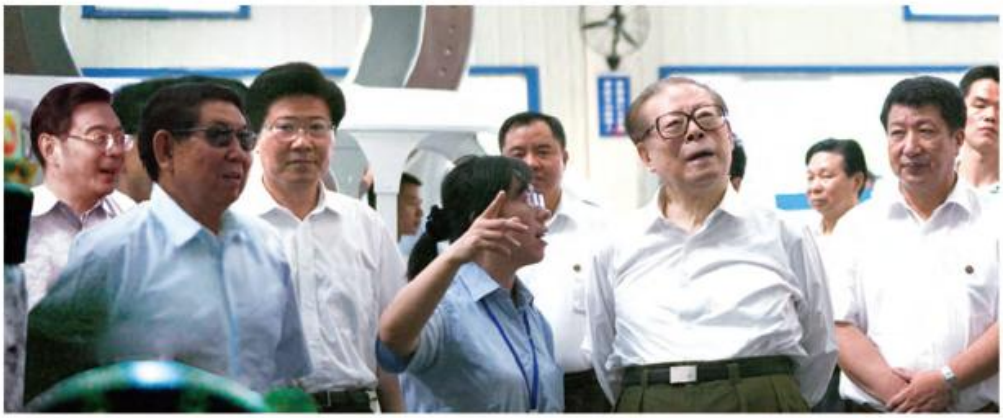




Leaders'care ▶





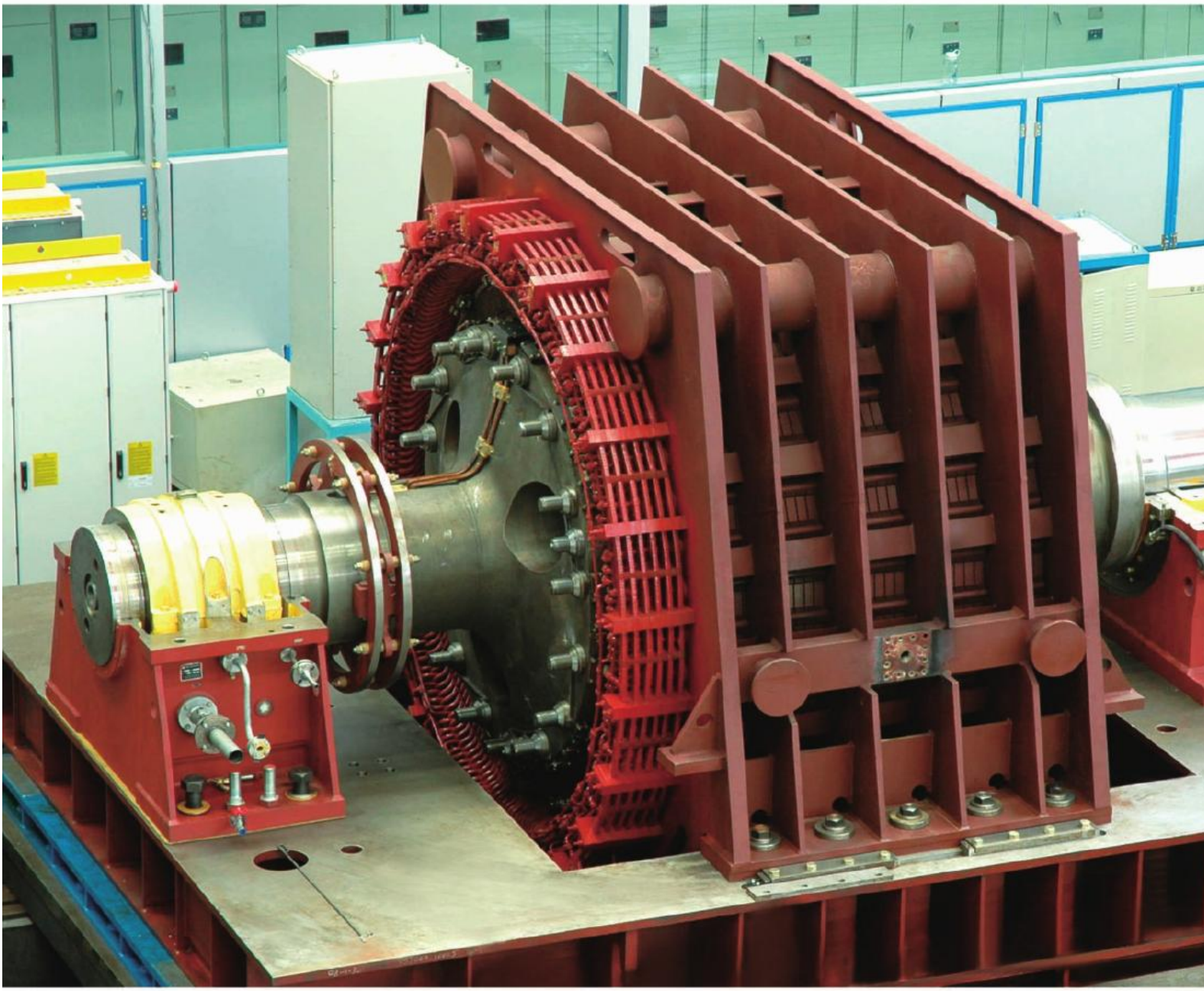






















State-of-the-art Manufacturing Capability

XEMC Motor Division has six workshops, among which the wind turbine generator set workshop is the world' s largest production base for permanent-magnetic direct-driven wind turbine generator set. With production and operation area of 133,737 square meters, its annual outputs of AC motors and permanent-magnetic wind turbine generator sets are 1.2 million kW and 2000 sets respectively. The high-quality electric machines developed and produced have reached leading level in the industry.



World-Class Electric Machine Manufacturing Equipment▶



Motor flexible production line



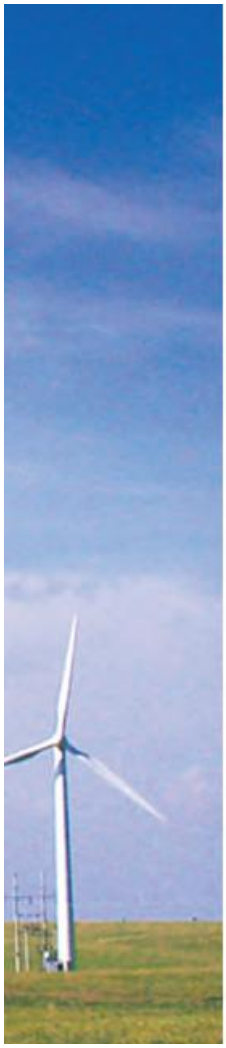
Aerial view of CNC package carrier



Automatic coil expansion machine introduced from France

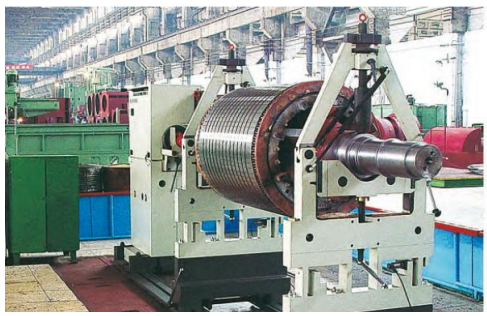


Automatic taping machine introduced from Swiss





XHZ2925-10 fixed-beam and moving-column gantry machining center CNC



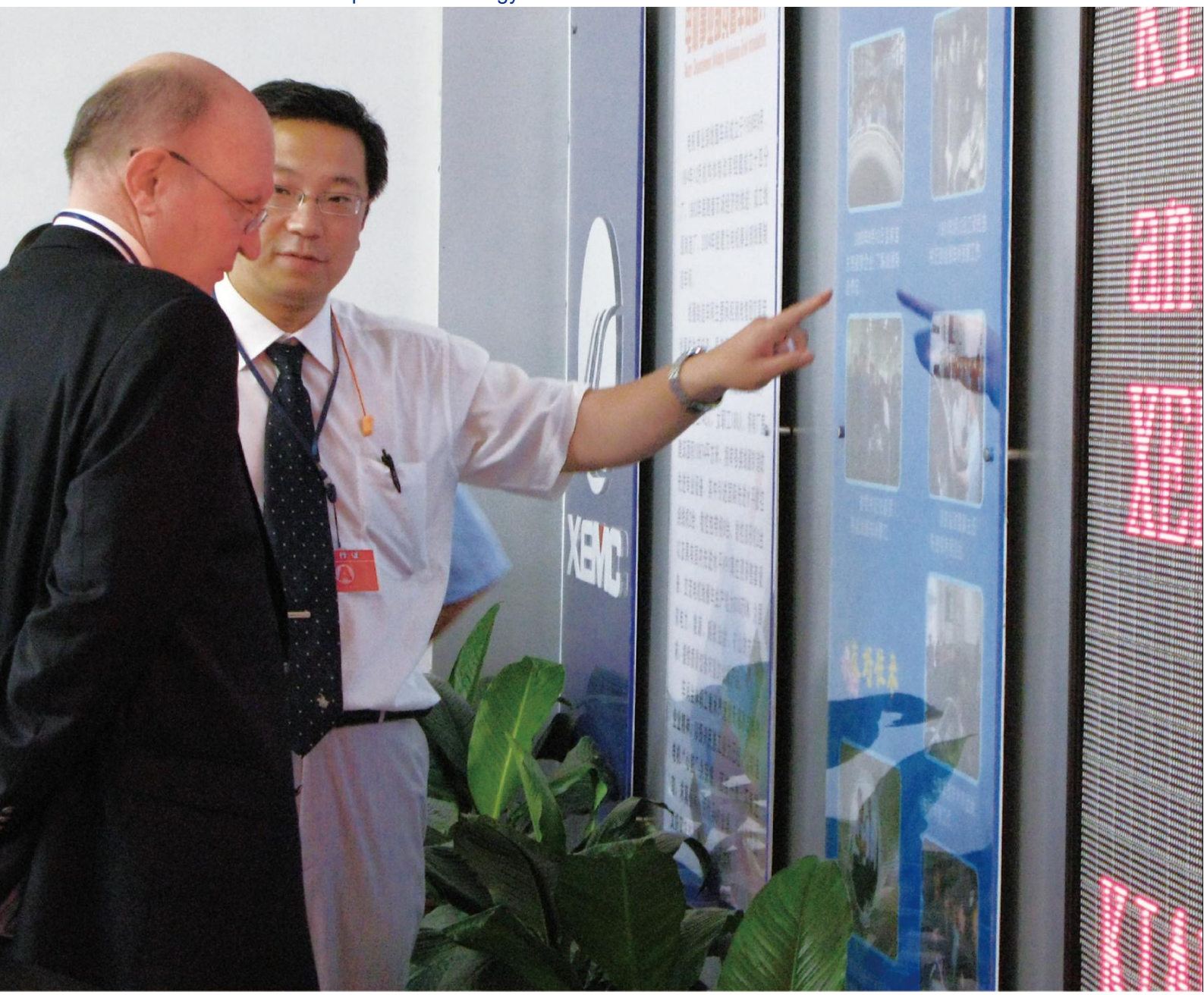
HM 60U horizontal hard bearing balancing machine

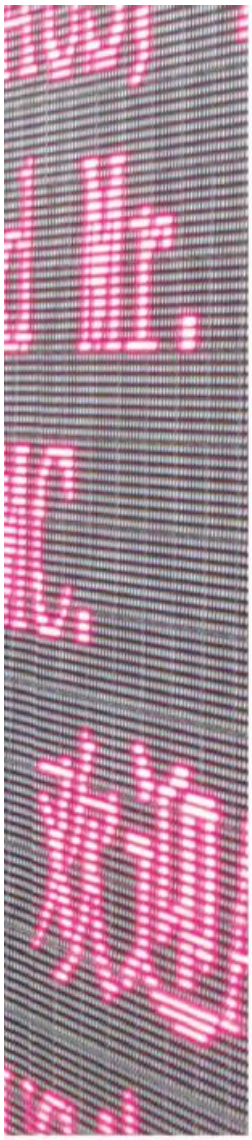


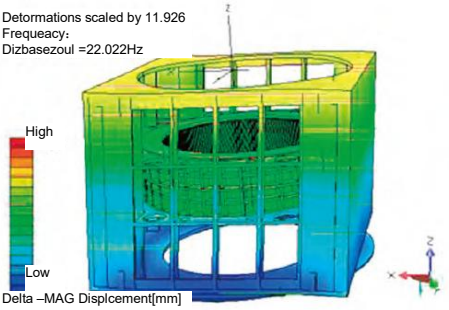
Automatic production line for 4000kN dual-point closed punching machine (Germany)

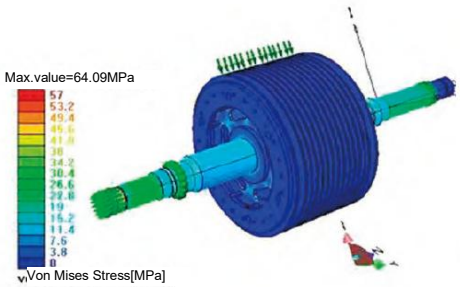


Φ6000 Vacuum pressure impregnation (VPI) equipment

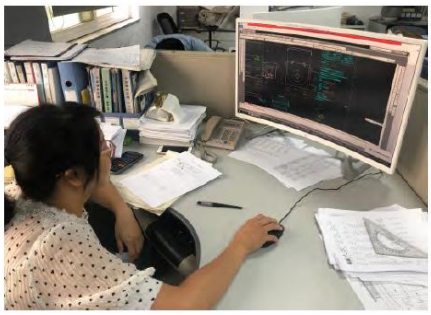

XEMC











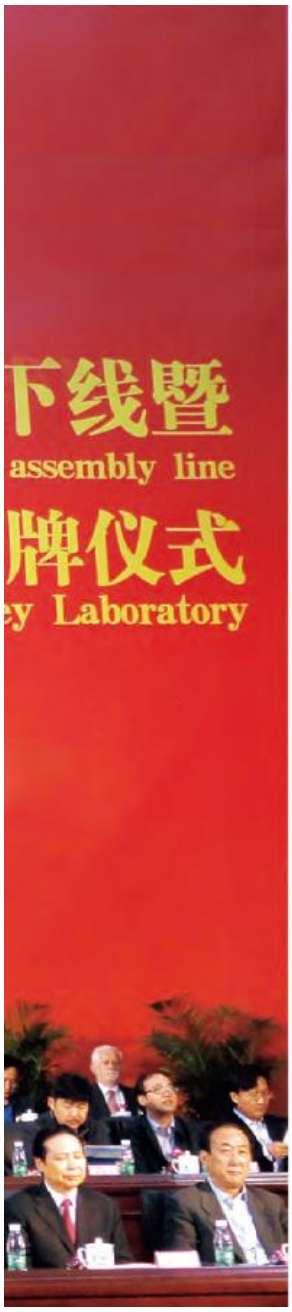
Motor Division has introduced and absorbed advanced technologies from Westinghouse, GE, ABB, Siemens, Hitachi etc. and has been basically synchronized with world-famous companies in terms of new products, technology and process through re-innovation. It has been determined as national enterprise technology center and national high-tech industrial base. Motor Division has 422 engineering technicians, among which 35 are senior engineers,20 senior technicians,2 state-level experts,5 experts enjoying special government allowance for technology and 2 state-level skill masters. It has advanced informatization R&D platforms (CAD, PDM, CRM, ERP, MES etc.) and best- in-class analysis and design software (AnSoft, An- sys, Starcd etc.), and has successfully developed 1000MW large-sized auxiliary motor for power station, variable-frequency and variable-speed motor, large-sized low-speed permanent magnet synchronous motor, large-sized compact motor, high-efficiency energy-saving motor, explosion-proof motor, tubular pump motor, wind turbine generator set, nuclear main pump motor, industrial electric generator etc..

The R&D and production capabilities for series of direct-driven wind power products such as 2MW, 2.5MW, 3MW, 3.6MW, 5MW has been obtained and significant breakthroughs have been made in the research and development of industrial electric generator, environment-friendly low-noise motor, high-power density motor, largesized high speed motor etc..



Reliable Quality Assurance System ►

XEMC complies with ISO9001 Quality System, ISO14001 Environmental Management System and OHSAS18001 Occupational Health and Safety Management System and has well-established, professional test and inspection platforms, which can simulate on-site operation at full load. XEMC has been determined as “Hunan Quality Supervision and Test Center for large and Medium-sized motors and Electric Control Products”， “State Key Laboratory of Wind Power Technology” ,“National Energy Wind-driven Generator R&D (Experiment) Center” , Unique “Offshore Wind Power Generation Technology and Testing National Key Laboratory” and state-approved “National Wind Power Equipment Quality Supervision and Inspection Center” under preparation. Permanent Magnet Synchronous Wind Power Generator sets of XE72, XE82, XE93, 2MW, 2.5MW and 5MW have achieved Europe CE certification. And we are qualified supplier for Siemens, Hitachi, ABB, Alstom, Ebara Boshan Pumps, Con- verteam, Danieli, KSB, Flowsever etc..





ISO9001：2015



ISO14001：2015



GB/T 28001-2011



Qualified supplier certificate of ABB



Qualified supplier certificate of Hitachi



Qualified supplier certificate of Siemens







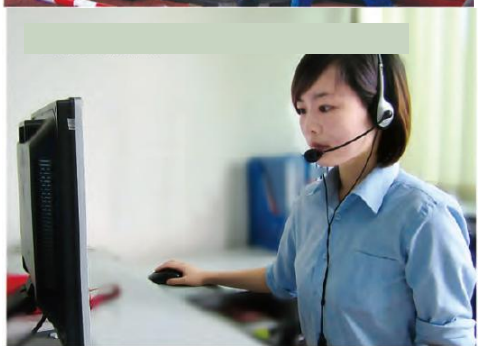






All-round Customer Service ►





With a rigorous scientific attitude and continuous improvement spirit, we enjoy trust from customers and strictly fulfill our commitments to customers. At present, Motor Division has set up 23 offices except Tibetan and Taiwan, with after-sales service network covering all over the country. After-sales engineers may reach the site within eight (8) hours upon customers' request.

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor



I. Overview

YBX3 series high-efficiency high-voltage explosion-proof three-phase asynchronous motor is a fully enclosed, squirrel-cage high-efficiency explosion-proof three-phase asynchronous motor developed and designed by our company.

1 The applicable standards of this series of motor mainly include:

GB 755-2008 *Rotating electrical machines - Rating and performance*

GB/T1032-2012 *Test procedures for three-phase induction motors*

GB3836.1-2010 *Explosive atmospheres - Part 1: Equipment - General requirements*

GB 3836.2-2010 *Explosive atmospheres - Part 2: Equipment protection by flameproof enclosures "d"*

JB/T12305.1-2015 *Specification of high-efficiency high-voltage flameproof three-phase asynchronous motors - Part 1: YBX3 series high-efficiency high-voltage flameproof three-phase asynchronous motors (frame number 355 to 630)*

JB/T12306.1-2015 *Specification of high-efficiency high-voltage flameproof three-phase asynchronous motors - Part 1: YBX3 series (10KV) high-efficiency high-voltage flameproof three-phase asynchronous motors (frame number 400 to 630)*

GB-30254-2013 *Minimum allowable values of energy efficiency and the energy efficiency grades for cage three-phase high voltage induction motor*

GB/T4942.1-2006 (IEC60034-5:2000) *Classification of degree of protection provided by enclosures of rotating electrical machines (IP code)*

GB10068-2008 (IEC60034-141996) *Mechanical vibration of certain machines with shaft height 56mm and higher - Measurement, evaluation and limits of vibration severity*

GB/T10069.1-2006 *Measurement of airborne noise emitted by rotating electrical machines and the noise limits - Part 1: Methods for the measurement of airborne noise emitted by rotating electrical machines* (neg ISO1680-1.1986)

GB100 69.3-2008 (IEC60034-9) *Measurement of airborne noise emitted by rotating electrical machines and the noise limits - Part 3: Noise limits*

GB/T1993 *Cooling methods for rotating electrical machines*

GB/T4772.1-1999 (IEC60072.1:1990) *Dimensions and output series for rotating electrical machines - Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080*

GB/T4772.2-1999 (IEC 60072.2: 1990) *Dimensions and output series for rotating electrical machines - Part 2: Frame numbers 355 to 1000 and flange numbers 1180 to 2360*

GB 1971-2006 (IEC60034-8: 2002, IDT) *Rotating electrical machines - Terminal marking and direction of rotation*

2 Explosion-proof principle

The "Exd" motor is a kind of explosion-proof motor. It is designed according to the principle of positioning the parts that may produce sparks, arcs or dangerous high temperatures during the normal operation of the equipment inside an explosion-proof enclosure which can withstand the internal pressure without causing harmful deformation, and can ensure that the flame gas inside is not enough to ignite the gas outside the enclosure when it spreads through the gap.

3 Electrical equipment classification

Class II electrical equipment refers to electrical equipment used in explosive atmospheres other than coal mines. Class II electrical equipment has three divisions:

Class IIA: The representative gas is methane.

Class IIB: The representative gas is ethylene.

Class IIC: The representative gases are hydrogen and acetylene.

4 Refer to Table 1 for the maximum surface temperatures of different temperature groups:

Table 1

Temperature group	T1	T2	T3	T4
Maximum allowable temperature of motor surface (℃)	450	300	200	135

II. Advantages and Features

1 High efficiency and energy saving

This series of motor meets the requirements of grade-I energy efficiency in GB-30254-2013 *Minimum allowable values of energy efficiency and the energy efficiency grades for cage three-phase high voltage induction motor*. It is a real high-efficiency motor, which can greatly improve the operation efficiency of customers.

Take a 1,000kW 4-pole 6kV motor (grade-II energy efficiency value 95.7%, grade-I energy efficiency value 96.4%, annual operation time 8,000h) as example:

Annual power consumption at grade-II energy efficiency:

P II =1,000/0.957*8,000=8,359,457kWh

Annual power consumption at grade-I energy efficiency:

PI=1,000/0.964*8,000=8,298,755kWh

Annual capacity of electricity saving: P = PII-PI = 60,702kWh

From the above calculation, it shows that YBX3 series 1,000kW motor can save power up to 60,702kWh annually, and has the most significant power consumption.

2 Optimized electromagnetic design

This series of motors use finite element method to analyze electromagnetic performance, heating, mechanical stress and deformation, and the motor performance has been maximized to the highest level through comprehensively optimizing in not only electromagnetic design, but also structure dimensions, air gap and slot combination and shape.

3 Insulation system

This series of motors adopt an insulation system with comprehensively improved performances, which has been proved to reach the world-class level through voltage characteristics, temperature characteristics, bending strength, breakdown voltage, heat and electrical aging tests. The motors are excellent in insulation performance, mechanical strength and moisture resistance, since high-quality mica tape and environment-friendly impregnating resin are adopted, every process of coil fabrication is completed in CNC coil winding machine, expanding machine and taping machine, and at last VPI treatment is done.

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor

4 High-strength frame structure

The motor frame and end cover are made of high-strength gray cast iron or nodular cast iron (optional) to adapt to more severe environment. Finite element analysis, advanced casting technology and strict quality management ensure that the frame has higher strength and stiffness, and meets the explosion-proof requirements of structure.

5 High power density

Through optimized electromagnetic design and advanced manufacturing process, this series of motors significantly improve the utilization rate of materials and have higher power density than conventional motors with the same frame number.

III. Scope of Application

This series of motors are high-efficiency and energy-saving high-voltage explosion-proof three-phase asynchronous motors manufactured in accordance with the relevant provisions of GB3836.1-2010 *Explosive atmospheres - Part 1: Equipment - General requirements* and GB 3836.2-2010 *Explosive atmospheres - Part 2: Equipment protection by flameproof enclosures "d".* The explosion-proof markings are ExdIIAT 4Gb and ExdIIBT 4Gb.

ExdIIAT4Gb is suitable for Class IIA electrical equipment in plant where explosive mixtures are present and the temperature groups of T1, T2, T3 and T4 are applicable.

ExdIIBT4Gb is suitable for Class IIB electrical equipment in plant where explosive mixtures are present and the temperature groups of T1, T2, T3 and T4 are applicable.

ExdII CT4Gb can also be made as required. Sliding bearings are not allowed for Class IIC electrical equipment. For motors with other markings, please consult separately.

This series of motors are widely used in hazardous places with explosive mixtures in industries such as petroleum, chemical and steel, to drive various mechanical equipment such as ventilators, compressors, water pumps, crushers and belt conveyors. For motors used to drive high inertia fans, coal mills, rolling mills, winches, crushers, and belt conveyors, a technical agreement shall be signed when placing an order, and relevant technical parameters shall be provided as the basis for special design of motors to ensure safe and reliable operation of motors.

Basic conditions for normal operation of motor:

Altitude: ≤1000m.

Maximum ambient temperature: Varies with the season, but not exceeding 40℃; Minimum ambient temperature:15℃ for motors with rolling bearings; 5℃ for those with sliding bearings.

In the most humid month, maximum average relative humidity: ≤90%.

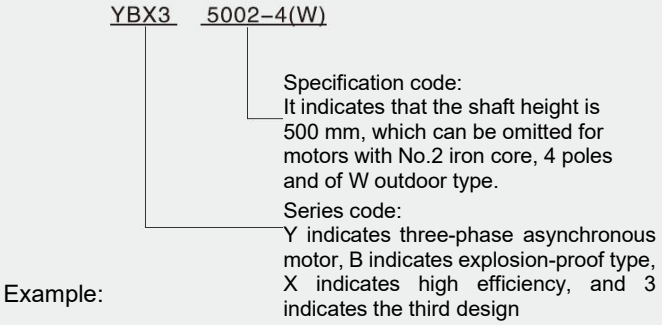
Operating voltage: ≤±5% of the rated voltage.

Power supply frequency: within 50(1±1%) Hz.

Performance rating of motor: continuous duty S1

IV. Designation

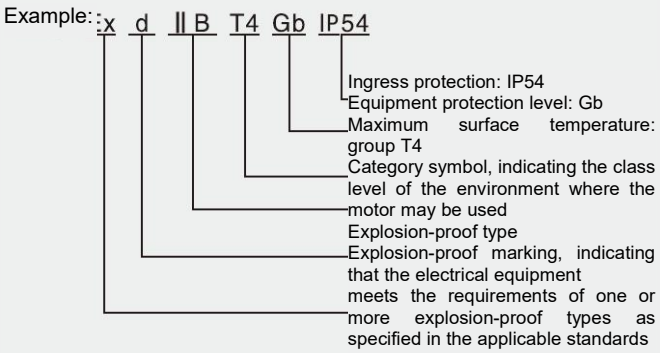
Designation consists of product code and specification code.



Example:

V. Explosion-proof Markings

According to GB/T3836.1-2010 *Explosive atmospheres - Part 1: Equipment - General requirements*, the explosion-proof marking consists of the symbol Ex, explosion-proof type, category symbol, maximum surface temperature, equipment protection level and ingress protection.



VI. Structure

YBX3 series motor adopts a new type of full radiator structure without additional air-air cooler, which is characterized by good sealing performance, compact structure, high efficiency, energy saving and environmental protection, low vibration and noise, and convenient installation and maintenance.

In respect of type of construction and mounting arrangement, this series of motors are of IMB3 (horizontal, with footing), which complies with requirements in GB997 *Classification of types of construction, mounting arrangements and terminal box position (IM Code) for rotating electrical machines* and IEC60034-7 *Rotating electrical machines - Part 7: Classification of types of construction, mounting arrangements and terminal box position (IM Code).* Motors with other mounting arrangements can be supplied by separate agreement if requested by users.

The squirrel-cage rotor structure used for this series of motor is mainly copper rotor.

The frame of this series of motor is made of high-grade cast iron, which has very high rigidity and strength. There are many parallel heat dissipation ribs on the outer surface of the frame, and four inner ventilation channels are evenly distributed at an angle of 45°. The motor has an external cooling air circuit and an internal cooling air circuit that are independent of each other, therefore no external air-air cooler is required. The external air is blown through the radiating ribs under the action of the external fan, and the cooling air flows from the non-driving end to the driving end along the radiating ribs; In order to increase the heat dissipation area, the inner side of the frame at the end of the winding is also arranged

with heat dissipation ribs, so that the internal air is stirred by the internal fan and flows along the heat dissipation ribs on the inner sides of the frame and the end cover to be cooled, and the cooled air then returns to the driving end along the four air ducts in the same direction as the external cooling air.

The reasonable design of the frame and the end cover enables the motor to obtain higher heat dissipation efficiency and has the characteristics of high efficiency, good cooling effect, low noise and reasonable explosion-proof structure.

The stator is of externally fit-pressed structure. The stator winding is made of Class F insulating material and anti-corona material, of which the main insulation material is the most advanced rubber-less mica tape that is successfully developed by our company through more than ten years' test. This kind of mica tape reduces the resin content, but under the same insulation thickness, the mica content is greatly increased, significantly improving the insulation performance of the winding. The winding overhang, fixed with special binding process, is reliable and secure. The entire stator is vacuum pressure impregnated (VPI) with Class F non-solvent varnish. Therefore, the motor is excellent in insulation performance, moisture resistance and antiimpact ability.

The copper bar rotor is used, which adopts advanced and reliable welding process and is fastened in the groove, effectively solving the problem of breakage.

There are two types of bearings: rolling bearings and sliding bearings. Rolling bearings are used for all motors except the motors with shaft height of H500-2 and H560-2, which adopt sliding bearings. Motors with rolling bearing structure are equipped with non-stop refueling and oil drainage devices, and special refueling tools. The ingress protection of the bearing is IP54. If the motor has a higher IP grade, the IP grade of the bearing shall be increased accordingly.

The main terminal box is of sealed structure, with ingress protection of IP54. It is designed to be a cast iron structure with large wiring space for connecting copper, aluminum rubber sheathed cables and armored cables. The insulator for fixing the terminal bolt is made of DMC material, which can bear high anti-explosion and stamping capacity. Generally, it is mounted on the right side of motor (viewing from shaft extension end), but it can also be mounted on the left side according to users requirement.

The stator winding and bearing of the motor are equipped with Pt100 temperature measuring elements. There are 2 for each phase of the stator winding, 6 in total, with 3 in service and 3 for standby; There is 1 at each end of the bearing, 2 in total.

The motor is equipped with a moisture-proof heater. The heater voltage is typically 220V.

VII. Instructions for Order Placement

Please specify the following when placing an order:

1 Motor type: (YBX35002-4)
2 Rated power: 1,120kW
3 Rated output voltage: DC 6kV
4 Rated frequency: (50Hz)
5 Ingress protection: IP67
6 Method of cooling: (IC 411 or IC416)
7 Explosion-proof marking: (ExdIIBT4Gb)
8 Mounting arrangement: (IMB3)
9 Thermal classification: (155 ℃ (F))
10 Temperature rise grade: (130 ℃ (B), 155 ℃ (F))
11 Direction of rotation: clockwise (viewed from the shaft extension end)
12 Position of terminal box: on the right side of the motor (viewed from the shaft extension end)
13. Precautions:

● Operating environment of the motor, such as altitude, ambient temperature, indoor, outdoor, etc.
● Mechanical characteristics and moment of inertia of driven equipment.
● Connection mode of motor and driven equipment.
● Motor starting mode, starting frequency, etc.
● The technical performance data listed in tables in the catalog are guaranteed values, which meet the requirements of JB/T12305.1-2015 and JB/T/112306.1-2015.
● 60Hz or other voltage levels (3 kV, 6.6 kV, 10.5k V, 11 kV) can also be made as required.
● With technical improvement and amendment to and/or revision of related national and international standards, the technical data and dimensions in the catalog will be subject to change without prior notice. please request formal outline drawing from us after placing an order.

The technical data and installation dimensions of YBX3 series 6 KV motors of various specifications are listed in Table 2 in the catalog, and motors of various specifications of 3kV and 6.6KV can be derived.

The technical data and installation dimensions of YBX3 series 10KV motors of various specifications are listed in Table 3 in the catalog, and motors of various specifications of 10.5kV and 11KV can be derived.

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (6kV) Frame Number (355-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX33551-2	185	22.2	2986	94.2	0.85	2.0	0.7	7.0	3.8	3450
YBX33552-2	200	24.0	2986	94.3	0.85	2.0	0.7	7.0	3.8	3470
YBX33553-2	220	26.4	2986	94.4	0.85	2.0	0.7	7.0	4.1	3550
YBX33554-2	250	29.9	2984	94.5	0.85	2.0	0.7	7.0	4.4	3650
YBX33555-2	280	32.7	2986	94.7	0.87	2.0	0.7	7.0	4.7	3750
YBX33556-2	315	36.7	2985	94.9	0.87	2.0	0.7	7.0	5.1	3850
YBX33557-2	355	41.3	2984	95.1	0.87	2.0	0.7	7.0	5.4	3950
YBX33558-2	400	46.4	2983	95.4	0.87	2.0	0.7	7.0	5.8	4050
YBX34001-2	450	52.1	2989	95.6	0.87	2.0	0.7	7.0	8.8	4900
YBX34002-2	500	57.1	2989	95.8	0.88	2.0	0.7	7.0	9.6	5100
YBX34003-2	560	63.9	2989	95.9	0.88	2.0	0.7	7.0	10.5	5300
YBX34501-2	630	71.8	2986	96.0	0.88	2.0	0.7	7.0	11.7	6000
YBX34502-2	710	80.8	2987	96.1	0.88	2.0	0.7	7.0	12.9	6250
YBX34503-2	800	89.8	2987	96.3	0.89	2.0	0.7	7.0	14.3	6500
YBX35001-2	900	100.9	2989	96.4	0.89	2.0	0.7	7.0	23.3	7700
YBX35002-2	1000	112.0	2989	96.5	0.89	2.0	0.7	7.0	24.7	8000
YBX35003-2	1120	125.4	2989	96.6	0.89	2.0	0.7	7.0	26.1	8300
YBX35004-2	1250	138.2	2989	96.7	0.90	2.0	0.7	7.0	27.9	8600
YBX35005-2	1400	154.6	2989	96.8	0.90	2.0	0.7	7.0	29.6	8750
YBX35601-2	1600	176.5	2991	96.9	0.90	2.0	0.7	7.0	54.7	10700
YBX35602-2	1800	198.4	2991	97.0	0.90	2.0	0.7	7.0	61.6	11300
YBX35603-2	2000	217.8	2991	97.1	0.91	2.0	0.7	7.0	68.2	11500

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (6kV) Frame Number (355-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX33551-4	185	22.2	1490	94.5	0.85	2.0	0.8	6.5	7.0	3400
YBX33552-4	200	23.9	1490	94.6	0.85	2.0	0.8	6.5	7.0	3430
YBX33553-4	220	26.3	1490	94.7	0.85	2.0	0.8	6.5	7.5	3500
YBX33554-4	250	29.9	1489	94.8	0.85	2.0	0.8	6.5	8.1	3600
YBX33555-4	280	33.4	1489	94.9	0.85	2.0	0.8	6.5	8.1	3630
YBX33556-4	315	37.1	1490	95.0	0.86	2.0	0.8	6.5	8.7	3700
YBX33557-4	355	41.7	1489	95.2	0.86	2.0	0.8	6.5	9.3	3800
YBX33558-4	400	47.0	1489	95.3	0.86	2.0	0.8	6.5	10.0	3900
YBX34001-4	450	52.7	1490	95.5	0.86	2.0	0.8	6.5	14.8	5000
YBX34002-4	500	57.8	1490	95.6	0.87	2.0	0.8	6.5	16.3	5200
YBX34003-4	560	64.7	1490	95.8	0.87	2.0	0.8	6.5	17.7	5400
YBX34501-4	630	72.6	1492	96.0	0.87	2.0	0.8	6.5	25.2	6180
YBX34502-4	710	81.6	1492	96.2	0.87	2.0	0.8	6.5	27.5	6530
YBX34503-4	800	92.0	1492	96.2	0.87	2.0	0.8	6.5	29.7	6830
YBX34504-4	900	103.4	1493	96.3	0.87	2.0	0.8	6.5	31.6	7080
YBX35001-4	1000	114.7	1493	96.4	0.87	2.0	0.8	6.5	43.7	8200
YBX35002-4	1120	128.4	1493	96.5	0.87	2.0	0.8	6.5	47.4	8600
YBX35003-4	1250	141.5	1493	96.6	0.88	2.0	0.8	6.5	51.2	9000
YBX35004-4	1400	158.3	1493	96.7	0.88	2.0	0.8	6.5	55.5	9150
YBX35601-4	1600	180.7	1494	96.8	0.88	2.0	0.7	6.5	97.6	10500
YBX35602-4	1800	203.1	1494	96.9	0.88	2.0	0.7	6.5	106.7	11000
YBX35603-4	2000	218.0	1494	97.0	0.91	2.0	0.7	6.5	117.1	11500
YBX35604-4	2240	243.9	1494	97.1	0.91	2.0	0.7	6.5	126.3	11600

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (6kV) Frame Number (355-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX33553-6	185	23.3	990	94.4	0.81	2.0	0.8	6.0	10.0	3300
YBX33554-6	200	25.1	991	94.5	0.81	2.0	0.8	6.0	10.0	3350
YBX33555-6	220	27.0	991	94.6	0.83	2.0	0.8	6.0	11.1	3450
YBX33556-6	250	30.6	991	94.8	0.83	2.0	0.8	6.0	12.3	3550
YBX33557-6	280	34.2	991	94.9	0.83	2.0	0.8	6.0	13.2	3650
YBX33558-6	315	38.4	990	95.1	0.83	2.0	0.8	6.0	14.3	3750
YBX34001-6	355	42.7	992	95.3	0.84	2.0	0.8	6.0	17.2	4800
YBX34002-6	400	48.1	992	95.3	0.84	2.0	0.8	6.0	19.3	4900
YBX34003-6	450	53.9	992	95.6	0.84	2.0	0.8	6.0	20.8	5100
YBX34004-6	500	59.8	992	95.8	0.84	2.0	0.8	6.0	23.0	5300
YBX34501-6	560	66.9	994	95.9	0.84	2.0	0.8	6.0	29.6	6200
YBX34502-6	630	75.2	994	96.0	0.84	2.0	0.8	6.0	33.1	6500
YBX34503-6	710	84.5	994	96.2	0.84	2.0	0.8	6.0	35.8	6800
YBX35001-6	800	95.3	994	96.2	0.84	2.0	0.8	6.0	64.6	8300
YBX35002-6	900	105.8	994	96.3	0.85	2.0	0.8	6.0	69.9	8650
YBX35003-6	1000	117.4	994	96.4	0.85	2.0	0.8	6.0	76.1	8900
YBX35004-6	1120	131.4	994	96.5	0.85	2.0	0.8	6.0	82.4	9000
YBX35601-6	1250	146.5	995	96.6	0.85	2.0	0.7	6.0	137.6	10800
YBX35602-6	1400	160.1	995	96.7	0.87	2.0	0.7	6.0	149.7	11300
YBX35603-6	1600	182.8	995	96.8	0.87	2.0	0.7	6.0	161.8	11700
YBX35604-6	1800	205.5	995	96.9	0.87	2.0	0.7	6.0	175.7	11800

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (6kV) Frame Number (355-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX33555-8	185	24.5	743	94.3	0.77	2.0	0.8	5.5	12.4	3550
YBX33556-8	200	26.1	743	94.4	0.78	2.0	0.8	5.5	13.1	3620
YBX33557-8	220	28.7	743	94.5	0.78	2.0	0.8	5.5	14.3	3700
YBX33558-8	250	32.2	743	94.6	0.79	2.0	0.8	5.5	15.0	3750
YBX34001-8	280	36.0	743	94.8	0.79	2.0	0.8	5.5	24.6	4900
YBX34002-8	315	40.4	743	94.9	0.79	2.0	0.8	5.5	26.5	5050
YBX34003-8	355	45.5	743	95.0	0.79	2.0	0.8	5.5	28.7	5200
YBX34004-8	400	50.5	744	95.2	0.80	2.0	0.8	5.5	30.4	5400
YBX34501-8	450	56.8	744	95.3	0.80	2.0	0.8	5.5	37.2	6300
YBX34502-8	500	62.1	744	95.6	0.81	2.0	0.8	5.5	41.0	6600
YBX34503-8	560	69.5	744	95.7	0.81	2.0	0.8	5.5	44.8	6900
YBX35001-8	630	77.2	745	95.8	0.82	2.0	0.8	5.5	68.3	8850
YBX35002-8	710	86.9	745	95.9	0.82	2.0	0.8	5.5	74.5	9150
YBX35003-8	800	97.8	745	96.0	0.82	2.0	0.8	5.5	80.7	9450
YBX35601-8	900	109.9	746	96.1	0.82	2.0	0.7	5.5	116.6	10000
YBX35602-8	1000	120.5	746	96.2	0.83	2.0	0.7	5.5	127.0	10500
YBX35603-8	1120	134.8	746	96.3	0.83	2.0	0.7	5.5	139.2	11000
YBX35604-8	1250	150.5	746	96.3	0.83	2.0	0.7	5.5	151.3	11500
YBX35605-8	1400	168.4	746	96.4	0.83	2.0	0.7	5.5	164.5	11600

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (6kV) Frame Number (355-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34001-10	185	24.7	595	93.7	0.77	1.8	0.7	5.5	21.2	4600
YBX34002-10	200	26.3	595	93.9	0.78	1.8	0.7	5.5	23.0	4750
YBX34003-10	220	28.9	595	94.0	0.78	1.8	0.7	5.5	25.1	4900
YBX34004-10	250	32.8	595	94.1	0.78	1.8	0.7	5.5	27.2	5150
YBX34005-10	280	36.6	595	94.3	0.78	1.8	0.7	5.5	29.1	5300
YBX34501-10	315	40.6	595	94.4	0.79	1.8	0.7	5.5	31.9	6200
YBX34502-10	355	45.7	595	94.6	0.79	1.8	0.7	5.5	34.7	6400
YBX34503-10	400	51.3	595	94.9	0.79	1.8	0.7	5.5	37.9	6600
YBX34504-10	450	57.7	596	95.0	0.79	1.8	0.7	5.5	48.4	6800
YBX35001-10	500	62.5	596	95.1	0.81	1.8	0.7	5.5	77.4	8250
YBX35002-10	560	69.9	596	95.2	0.81	1.8	0.7	5.5	83.6	8500
YBX35003-10	630	78.5	595	95.4	0.81	1.8	0.7	5.5	90.9	8750
YBX35601-10	710	88.3	595	95.5	0.81	1.8	0.7	5.5	139.9	9800
YBX35602-10	800	98.1	595	95.7	0.82	1.8	0.7	5.5	152.4	10200
YBX35603-10	900	110.2	595	95.8	0.82	1.8	0.7	5.5	164.9	10600
YBX35604-10	1000	122.4	595	95.9	0.82	1.8	0.7	5.5	179.5	11000
YBX35605-10	1120	136.9	595	96.0	0.82	1.8	0.7	5.5	195.9	11200

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (6kV) Frame Number (355-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34501-12	220	30.2	496	93.5	0.75	1.8	0.7	5.5	34.3	6000
YBX34502-12	250	34.2	495	93.7	0.75	1.8	0.7	5.5	37.6	6200
YBX34503-12	280	38.1	495	94.4	0.75	1.8	0.7	5.5	41.4	6350
YBX34504-12	315	42.7	495	94.6	0.75	1.8	0.7	5.5	45.2	6500
YBX35001-12	355	48.1	495	94.7	0.75	1.8	0.7	5.5	68.4	8000
YBX35002-12	400	51.3	495	94.9	0.79	1.8	0.7	5.5	74.6	8250
YBX35003-12	450	57.7	495	95.0	0.79	1.8	0.7	5.5	78.7	8500
YBX35004-12	500	64.0	496	95.2	0.79	1.8	0.7	5.5	85.9	8600
YBX35601-12	560	71.6	496	95.3	0.79	1.8	0.7	5.5	120.5	9400
YBX35602-12	630	79.4	496	95.4	0.80	1.8	0.7	5.5	132.3	9750
YBX35603-12	710	89.4	496	95.5	0.80	1.8	0.7	5.5	142.4	10100
YBX35604-12	800	100.5	496	95.7	0.80	1.8	0.7	5.5	153.9	10500
YBX35605-12	900	113.0	496	95.8	0.80	1.8	0.7	5.5	166.0	10650

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (10kV) Frame Number (400-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34001-2	185	13.5	2989	94.2	0.84	2.0	0.7	7.0	6.1	4500
YBX34002-2	200	14.4	2988	94.3	0.85	2.0	0.7	7.0	6.6	4570
YBX34003-2	220	15.8	2987	94.4	0.85	2.0	0.7	7.0	6.6	4600
YBX34004-2	250	18.0	2985	94.5	0.85	2.0	0.7	7.0	6.6	4630
YBX34005-2	280	20.1	2985	94.7	0.85	2.0	0.7	7.0	7.2	4700
YBX34006-2	315	22.5	2985	94.9	0.85	2.0	0.7	7.0	7.7	4800
YBX34007-2	355	25.0	2985	95.2	0.86	2.0	0.7	7.0	8.2	4900
YBX34008-2	400	28.1	2985	95.4	0.86	2.0	0.7	7.0	8.8	5000
YBX34009-2	450	31.6	2986	95.6	0.86	2.0	0.7	7.0	9.3	5100
YBX34501-2	500	35.1	2986	95.7	0.86	2.0	0.7	7.0	13.9	5900
YBX34502-2	560	38.8	2986	95.8	0.87	2.0	0.7	7.0	15.0	6150
YBX34503-2	630	43.6	2985	95.8	0.87	2.0	0.7	7.0	16.1	6400
YBX34504-2	710	49.1	2985	96.0	0.87	2.0	0.7	7.0	17.2	6500
YBX35001-2	800	54.6	2990	96.1	0.88	2.0	0.7	7.0	22.6	8450
YBX35002-2	900	61.4	2990	96.2	0.88	2.0	0.7	7.0	24.4	8800
YBX35003-2	1000	67.4	2990	96.3	0.89	2.0	0.7	7.0	26.1	9150
YBX35004-2	1120	75.4	2990	96.4	0.89	2.0	0.7	7.0	27.9	9250
YBX35601-2	1250	83.9	2990	96.6	0.89	2.0	0.7	7.0	52.0	11000
YBX35602-2	1400	93.9	2991	96.7	0.89	2.0	0.7	7.0	56.1	11400
YBX35603-2	1600	105.0	2991	96.7	0.91	2.0	0.7	7.0	60.2	11800
YBX35604-2	1800	118.0	2991	96.8	0.91	2.0	0.7	7.0	95.0	11900

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (10kV) Frame Number (400-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34001-4	185	13.7	1493	94.2	0.83	2.0	0.8	6.5	13.1	4550
YBX34002-4	200	14.6	1493	94.3	0.84	2.0	0.8	6.5	13.7	4600
YBX34003-4	220	16.0	1492	94.4	0.84	2.0	0.8	6.5	13.7	4650
YBX34004-4	250	18.2	1492	94.5	0.84	2.0	0.8	6.5	14.9	4700
YBX34005-4	280	20.3	1492	94.6	0.84	2.0	0.8	6.5	14.9	4750
YBX34006-4	315	22.8	1491	94.8	0.84	2.0	0.8	6.5	16.0	4850
YBX34007-4	355	25.4	1491	94.9	0.85	2.0	0.8	6.5	16.0	4950
YBX34008-4	400	28.6	1490	95.0	0.85	2.0	0.8	6.5	17.0	5050
YBX34009-4	450	32.0	1491	95.4	0.85	2.0	0.8	6.5	17.0	5150
YBX340010-4	500	35.6	1490	95.4	0.85	2.0	0.8	6.5	18.4	5250
YBX34501-4	560	39.3	1493	95.6	0.86	2.0	0.8	6.5	24.8	6150
YBX34502-4	630	44.1	1494	95.8	0.86	2.0	0.8	6.5	27.1	6400
YBX34503-4	710	49.5	1493	96.2	0.86	2.0	0.8	6.5	29.0	6650
YBX34504-4	800	55.2	1493	96.2	0.87	2.0	0.8	6.5	31.6	6750
YBX35001-4	900	62.0	1494	96.3	0.87	2.0	0.8	6.5	43.7	8600
YBX35002-4	1000	68.1	1494	96.4	0.88	2.0	0.8	6.5	47.4	8900
YBX35003-4	1120	76.1	1493	96.5	0.88	2.0	0.8	6.5	51.2	9200
YBX35004-4	1250	84.9	1494	96.6	0.88	2.0	0.8	6.5	55.5	9300
YBX35601-4	1400	94.9	1494	96.8	0.88	2.0	0.7	6.5	88.0	10550
YBX35602-4	1600	105.9	1494	96.9	0.90	2.0	0.7	6.5	96.1	11000
YBX35603-4	1800	119.0	1495	97.0	0.90	2.0	0.7	6.5	105.4	11450
YBX35604-4	2000	132.1	1495	97.1	0.90	2.0	0.7	6.5	113.5	11600

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (10kV) Frame Number (400-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34003-6	185	13.9	994	93.9	0.82	2.0	0.8	6.0	19.0	4750
YBX34004-6	200	15.0	993	94.0	0.82	2.0	0.8	6.0	19.0	4800
YBX34005-6	220	16.5	993	94.1	0.82	2.0	0.8	6.0	19.0	4850
YBX34006-6	250	18.7	993	94.2	0.82	2.0	0.8	6.0	20.5	4900
YBX34007-6	280	20.6	993	94.4	0.83	2.0	0.8	6.0	20.5	4950
YBX34008-6	315	23.2	993	94.6	0.83	2.0	0.8	6.0	21.8	5000
YBX34009-6	355	26.1	993	94.7	0.83	2.0	0.8	6.0	21.8	5050
YBX340010-6	400	29.3	993	94.9	0.83	2.0	0.8	6.0	23.0	5100
YBX34501-6	450	32.9	993	95.0	0.83	2.0	0.8	6.0	27.7	6200
YBX34502-6	500	36.5	993	95.4	0.83	2.0	0.8	6.0	30.3	6400
YBX34503-6	560	40.8	993	95.5	0.83	2.0	0.8	6.0	32.9	6600
YBX34504-6	630	45.7	994	95.8	0.83	2.0	0.8	6.0	35.5	6700
YBX35001-6	710	51.5	994	95.9	0.83	2.0	0.8	6.0	66.4	8700
YBX35002-6	800	57.3	994	96.0	0.84	2.0	0.8	6.0	70.8	9000
YBX35003-6	900	64.3	994	96.2	0.84	2.0	0.8	6.0	77.0	9350
YBX35004-6	1000	71.4	994	96.3	0.84	2.0	0.8	6.0	82.4	9500
YBX35601-6	1120	79.8	995	96.5	0.84	2.0	0.7	6.0	119.9	10600
YBX35602-6	1250	87.9	995	96.6	0.85	2.0	0.7	6.0	131.5	11050
YBX35603-6	1400	98.2	995	96.8	0.85	2.0	0.7	6.0	141.7	11500
YBX35604-6	1600	112.2	995	96.9	0.85	2.0	0.7	6.0	150.5	11700

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (10kV) Frame Number (400-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34006-8	185	14.8	745	93.6	0.77	2.0	0.8	5.5	20.8	4950
YBX34007-8	200	15.8	745	93.7	0.78	2.0	0.8	5.5	20.8	4980
YBX34008-8	220	17.4	745	93.8	0.78	2.0	0.8	5.5	21.7	5020
YBX34009-8	250	19.7	745	94.0	0.78	2.0	0.8	5.5	23.3	5050
YBX340010-8	280	22.0	744	94.2	0.78	2.0	0.8	5.5	25.1	5150
YBX340011-8	315	24.3	744	94.6	0.79	2.0	0.8	5.5	25.1	5200
YBX34501-8	355	27.4	745	94.7	0.79	2.0	0.8	5.5	35.7	6100
YBX34502-8	400	30.4	745	94.9	0.80	2.0	0.8	5.5	38.4	6300
YBX34503-8	450	34.2	745	95.0	0.80	2.0	0.8	5.5	41.0	6500
YBX34504-8	500	37.9	745	95.3	0.80	2.0	0.8	5.5	44.4	6600
YBX35001-8	560	41.8	746	95.4	0.81	2.0	0.8	5.5	65.2	8800
YBX35002-8	630	46.9	745	95.8	0.81	2.0	0.8	5.5	69.6	9100
YBX35003-8	710	52.8	745	95.9	0.81	2.0	0.8	5.5	75.8	9400
YBX35004-8	800	59.4	745	96.0	0.81	2.0	0.8	5.5	81.2	9500
YBX35601-8	900	66.8	746	96.1	0.81	2.0	0.7	5.5	115.7	10400
YBX35602-8	1000	74.0	746	96.3	0.81	2.0	0.7	5.5	124.5	10800
YBX35603-8	1120	82.8	746	96.4	0.81	2.0	0.7	5.5	134.9	11200
YBX35604-8	1250	92.3	746	96.5	0.81	2.0	0.7	5.5	146.8	11400

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor (10kV) Frame Number (400-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34008-10	185	15.4	596	93.5	0.74	2.0	0.7	5.5	24.3	4850
YBX34009-10	200	16.7	596	93.6	0.74	2.0	0.7	5.5	26.0	4950
YBX340010-10	220	18.3	596	93.7	0.74	2.0	0.7	5.5	27.8	5050
YBX340011-10	250	20.5	596	93.9	0.75	2.0	0.7	5.5	29.9	5150
YBX34501-10	280	22.9	596	94.3	0.75	2.0	0.7	5.5	36.7	5800
YBX34502-10	315	25.3	596	94.5	0.76	2.0	0.7	5.5	39.5	6000
YBX34503-10	355	28.5	596	94.6	0.76	2.0	0.7	5.5	41.8	6200
YBX34504-10	400	32.1	596	94.7	0.76	2.0	0.7	5.5	44.5	6300
YBX35001-10	450	35.1	596	94.9	0.78	2.0	0.7	5.5	75.0	8300
YBX35002-10	500	39.0	596	95.0	0.78	2.0	0.7	5.5	81.2	8600
YBX35003-10	560	43.6	596	95.1	0.78	2.0	0.7	5.5	86.3	8900
YBX35004-10	630	48.9	596	95.3	0.78	2.0	0.7	5.5	92.5	9000
YBX35601-10	710	53.7	595	95.5	0.80	2.0	0.7	5.5	140.2	10300
YBX35602-10	800	60.3	595	95.7	0.80	2.0	0.7	5.5	151.3	10700
YBX35603-10	900	67.7	595	95.9	0.80	2.0	0.7	5.5	162.4	11100
YBX35604-10	1000	75.3	595	95.9	0.80	2.0	0.7	5.5	175.1	11200

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor Frame Size (10 kV) Frame Number (400-560)

Type	Rated Power (kW)	Stator Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosΦ)	Maximum Torque / Rated Torque $\frac{T_M}{T_N}$	Locked-rotor Torque / Rated Torque $\frac{T_{st}}{T_N}$	Locked –rotor Current / Rated Current $\frac{I_{st}}{I_N}$	Jm (kg.m2)	Weight (Kg)
YBX34501-12	200	17.2	496	93.5	0.72	2.0	0.7	5.5	33.6	6000
YBX34502-12	220	18.6	495	93.7	0.73	2.0	0.7	5.5	36.1	6200
YBX34503-12	250	21.1	495	93.8	0.73	2.0	0.7	5.5	38.2	6400
YBX34504-12	280	23.6	495	94.0	0.73	2.0	0.7	5.5	40.9	6500
YBX35001-12	315	26.4	496	94.2	0.73	2.0	0.7	5.5	68.9	8200
YBX35002-12	355	29.4	496	94.3	0.74	2.0	0.7	5.5	75.1	8500
YBX35003-12	400	33.0	496	94.5	0.74	2.0	0.7	5.5	81.3	8800
YBX35004-12	450	37.1	496	94.6	0.74	2.0	0.7	5.5	88.5	8900
YBX35601-12	500	41.1	496	94.9	0.74	2.0	0.7	5.5	107.5	9800
YBX35602-12	560	45.3	496	95.1	0.75	2.0	0.7	5.5	116.1	10100
YBX35603-12	630	50.9	496	95.3	0.75	2.0	0.7	5.5	124.8	10500
YBX35604-12	710	57.2	496	95.5	0.75	2.0	0.7	5.5	133.4	10900
YBX35605-12	800	64.4	496	95.7	0.75	2.0	0.7	5.5	142.1	11000

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor

YBX3 Series High-efficiency High-voltage Explosion-proof Three-phase Asynchronous Motor Frame Number (355-560)

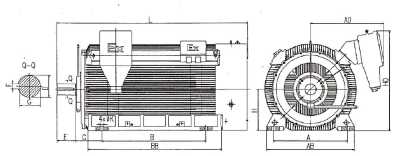
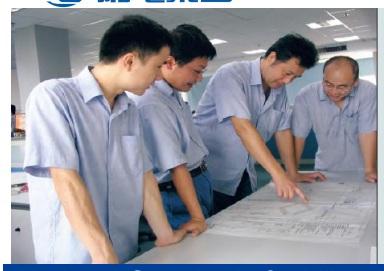


Table 4 Dimensions and Tolerances for Installation in Millimeter

Frame number	Number of poles	Installation dimensions and tolerances																Outline dimensions				
		A		B		C*		D		E		F		G		H		K						
		Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	Basic dimensions	Limit deviation	AB	AD	BB	HD	L
355	2	630	±1.40	900	±1.75	254	±4.0	75	+0.035 +0.013	140	±0.50	20	0 -0.052	67.5	0 -0.20	355	0 -1.0	28	+0.52 0	800	810	1300	970	2245
	4~8							100		210	±0.57	28		90						900				2345
400	2	710	±1.75	1000		280		85		170	±0.50	22		76		400		35	+0.62 0	900	840	1400	1070	2360
	4							110		210	±0.57	28		100										2250
	6~10																							2500
450	2	800		1120				95		170	±0.50	25		86		450				1000	870	1580	1160	2600
	4							120		210	±0.57	32	0 -0.062	109										2575
	6~12							130	+0.040 +0.015	250				119										2660
500	2	900	±2.10	1250	±2.10	425*		110	+0.035 +0.013	210		28	0 -0.052	100		500		42		1120	915	1780	1250	2890
	4					315		130	+0.040 +0.015	250		32	0 -0.062	119										2765
	6~12							140				36		128	0 -0.30									2890
560	2	1000		1400		530*		130				32		119	0 -0.20	560				1250	960	1980	1360	3250
	4					355		150				36		138	0									3075
	6~12							160		300	±0.65	40		147	-0.30									3110

a For the motor with sliding bearing in the dimension C, the axial movement shall be determined by the manufacturer and the user, and the limit deviation shall not include the axial movement.



National Standards for Vibration of Electric Machines

According to requirements for vibration of electric machines stipulated In P.R.C national standard] Mechanical vibration of certain machines with shaft heights 56mm and higher- Measurement, evaluation and limits of vibration severity (GB10068-2008), the limits of vibration severity in displacement and velocity measured in factory vibration test under no-load operation are 3.7 um and 2.3um respectively.

Extract from national standard is as follows:

· Limits of vibration severity

The limits apply to the measured broadband r.m.s. of vibration velocity, displacement and acceleration in the frequency range specified in Clause 5. Decisive for the evaluation of vibration magnitude is the highest value of these throe measurement quantities.

The vibration magnitude for d.c. and three-phase a.c. machines with shaft height 56mm and higher, for one of either of the two mounting conditions according to Clause 6, shall not exceed the limits specified In Table 1. Limits are given for two vibration grades. When no grade Is specified，machines complying with this standard shall be grade “A”.

For routine tests of standard machines with speeds betweerip and including,600 min-1 and 3600 min-1, it is sufficient to measure only vibration velocity. All three vibration magnitudes shall be verified during type testing.

Note: when routine test is made with free-suspension mounting condition, the type test should also include testing with rigid mounting. This note Is valid for the whole speed range of this standard.

Table 1-limits of vibration magnitude in displacement, velocity and acceleration (r.m.s.) for shaft height H(mm)

Vibration grade	Shaft center height/ mm	56≤H≤132			132<H≤280			H>280		
	Installation mode	Displacement/μm	Speed/(mm/s)	Acceleration (m/s^2)	Displacement/μm	Speed/(mm/s)	Acceleration (m/s^2)	Displacement/μm	Speed/(mm/s)	Acceleration (m/s^2)
A	Free suspension	25	1.6	2.5	35	2.2	3.5	45	2.8	4.4
	Rigid installation	21	1.3	2.0	29	1.8	2.8	37	2.3	3.6
B	Free suspension	11	0.7	1.1	18	1.1	1.7	29	1.8	2.8
	Rigid installation	-	-	-	14	0.9	1.4	24	1.5	2.4
Note 1: Grade "A" applies to machines with no special vibration requirements. Note 2: Grade "B" applies to machines with special vibration requirement. Rigid mounting is not considered acceptable for machines with 2. shaft heights less than 132mm. Note 3: The interface frequencies for displacement/velocity and velocity/acceleration are 10Hz and 250Hz respectively.										

Note 1: Manufacturers and users should consider that measuring instruments may have a measuring tolerance of ±10%.

Note 2 The shaft height of a machine without fee, or a machine with raised feet, or any vertical machine is to be taken as the shaft height of a machine in the same basic frame, but of the horizontal shaft foot-mounting type.

Note 3 A machine which is well-balanced in itself and of a grade conforming with Table 1a may exhibit large vibrations when installed in-situ arising from various causes, such as unsuitable foundations, reaction of the driven machine, current ripple from the power supply etc. Vibration may also be caused by driving elements with a natural oscillation frequency very close to the excitation due to the small residual unbalance of the rotating masses of the machine. In such cases, checks should be carried out not only on the machine, but also on each element of the installation,(see ISO 10816-3).

National Standards for Noise of Electric Machines

The description and requirements for motor noise in the P.R.C national standard, Measurement of airborne noise emitted by rotating electric machine and the noise limits-Part 3: noise limits, is as follows:

Noise can be expressed by sound power level and sound pressure level, both in dB. Motor noise generally is evaluated with sound power level; the values of sound power level and sound pressure level are highly varied with different motor sizes (the area of the surface enveloping the machine). In general, the value of sound power level is 15 to 18 dB biggerthan that of sound power level.

- The sound pressure level Lw (dB) measured with different speeds, methods of cooling and rated outputs as the motor operating at no-load do not exceed the values specified in the table below, as shown in page 6.

Rated speed nN/(r/min)	nN≤960			960<nN≤1320			1320<nN≤1900			1900<nN≤2360			2360<nN≤3150			3150<nN≤3750		
Cooling mode (Simple code)	IC01 IC11 IC21 Note 1	IC411 IC511 IC611 Note 2	IC31 IC71W IC81W IC8A1W7 Note 2	IC01 IC11 IC21 Note 1	IC411 IC511 IC611 Note 2	IC31 IC71W IC81W IC8A1W7 Note 2	IC01 IC11 IC21 Note 1	IC411 IC511 IC611 Note 2	IC31 IC71W IC81W IC8A1W7 Note 2	IC01 IC11 IC21 Note 1	IC411 IC511 IC611 Note 2	IC31 IC71W IC81W IC8A1W7 Note 2	IC01 IC11 IC21 Note 1	IC411 IC511 IC611 Note 2	IC31 IC71W IC81W IC8A1W7 Note 2	IC01 IC11 IC21 Note 1	IC411 IC511 IC611 Note 2	IC31 IC71W IC81W IC8A1W7 Note 2
Rated output P_N/kW (or kVA)																		
1≤P_N ≤1.1	73	73	-	76	76	-	77	78	-	79	81	-	81	84	-	82	88	-
1.1<P_N≤2.2	74	74	—	78	78	-	81	82	-	83	85	-	85	88	-	86	91	-
2.2< P_N≤5.5	77	78	—	81	82	-	85	86	-	86	90	-	89	93	-	93	95	-
5.5< P_N≤1.1	81	82	-	85	85	-	88	90	-	90	93	-	93	97	-	97	98	-
5.5<PN<22	84	86	—	88	88	-	91	94	-	93	97	-	96	100	-	97	100	-
22< P_N≤37	87	87	-	91	91	-	94	98	-	96	100	-	99	102	-	101	102	-
37< P_N≤55	90	93	—	94	94	-	97	100	-	98	102	-	101	104	-	103	104	-
55< P_N≤110	93	96	—	97	98	-	100	103	-	101	104	-	103	106	-	105	106	-
110< P_N≤220	97	99	—	100	102	-	103	106	-	103	107	-	105	109	—	107	110	—
220< P_N≤550	99	102	98	103	105	100	106	108	102	106	109	102	107	111	102	110	113	105
550<P_N≤1100	101	105	100	106	108	103	108	111	104	108	111	104	109	112	104	111	116	106
1000<P_N≤2200	103	107	102	108	110	105	109	113	105	109	113	105	110	113	105	112	118	107
2200<P_N≤5500	105	109	104	110	112	106	110	115	106	111	115	107	112	115	107	114	120	109

Note 1: typical enclosure classification IP22 or IP23.
Note 2: typical enclosure classification IP44 or IP45.

- Sound power pressure levels are not required as part of this standard. If requested, a sound pressure level may be determined directly from the sound power level as follows:

(Equation 1)

$$LP=Lw-10\lg(\frac{S}{S_0})$$

Where：

Lp is the sound pressure level in a free-field over a reflecting plane at 1 m distance from the machine:

Lw is the sound power level determined according to this standard:

S0 is 1,0m^2;

S is the area of the surface enveloping the machine at a distance from the machineof 1 m;

Paint Color of Electric Machine

According to statistical analysis of the paint colors of motors selected by our customers for years and combined with several advantages and disadvantages, it is recommended to select the following commonly used colors when placing an order.

Recommended colors preferred

If the color of finishing coat is not specified by customer, our hammer finish paint would be used, with dark pea green (GSB05-1426) for electric machines indoor and light grey (B03) (GSB05-1426) for those outdoor.

Advantages: Both colors are polyurethane hammer finish paints, with beautiful clear patterns, bright full paint film, good resistance to weather, oil, and chemical corrosion, good hardness and wear resistance. The paint film may get dry fast and easily prepared. They are widely used for various metallic structures, indoor and outdoor.

For example



Light grey



Bottle pea green

Recommended colors of finishing coat for our AC motor

1. Recommended color standards; national GSB05-1426 Standard Sample Color Cards and international RAL classic colors;

2. The recommended colors for our AC motors are as follows:

2.1Commonly used colors in national standard color cards GSB05-1426, total 20 colors:

Light (iron) blue（PB07）	Light grey (B03)	Silver grey（B04）	Ocean grey (B05)
Cold grey (GY09)	Pastel green (G01)	Peacock blue（PB11）	Sky(phthalocyanine)blue（PBO9）
Aircraft grey（G10）	bottle green (G05)	Pale green（G02）	Lake green (BG02)
Jade grey (GY11)	Milky white (Y11)	Bluish grey (PB08)	Bottle pea green（G09）
Granite grey (BG01)	Sea blue (PB05)	Camel grey (Y01)	Ivory（Y04）

2.2 Commonly used colors in international universal color cards RAL, total 5 colors:

Light grey (RAL 7035)	Pale blue（RAL5012）	Sky blue（RAL5015）	White aluminium（RAL9006)	Light blue (RAL 6021)

Note:1. the electronic edition of paint color is for reference only.

Painting and quality inspection are subject to physical standard color cards.

2. Please indicate paint code in the contract when placing an order.

XIANGTAN ELECTRIC MFG. GROUP CORPORATION LTD.

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