MECWIN®

EMPOWERING FUTURE

High Voltage Squirrel-Cage Induction Motors



COMPANY OVERVIEW

About Us

Mecwin Group is a Bengaluru-based engineering and manufacturing company specializing in **motors, controllers, powertrains, wiring harnesses, SCADA automation and IoT solutions.** We develop customized solutions for **electric mobility, industrial automation, agriculture, renewable energy, Oil & Gas, aerospace, defence** and other demanding applications.

Our 50,000 sq. ft. manufacturing facility is equipped with modern machinery, engineering laboratories and advanced testing facilities. With strong in-house engineering capabilities, we manage the complete product journey from design and prototyping to testing, validation and production. We work closely with OEMs to provide high-performance, reliable and application-specific solutions.

Our growth is driven by innovation, engineering excellence, quality, integrity and long-term partnerships with our customers, suppliers and employees.

Vision

To become the preferred global technology partner for high-efficiency motors, controllers and powertrains—from agriculture to aviation—by delivering innovation, quality, reliability, on-time service and environmentally responsible manufacturing.

Mission

To become the preferred global technology partner for high-efficiency motors, controllers and powertrains—from agriculture to aviation—by delivering innovation, quality, reliability, on-time service and environmentally responsible manufacturing.

Core Values

Customer Success | Innovation | Excellence | Integrity | People & Partnerships | Environmental Responsibility.

Product Overview

This series of products is optimized and designed based on the YKK series high-voltage three-phase asynchronous motor, reducing the total loss of the motor by about 20%. The efficiency value meets the efficiency requirements of the national benefit project, while increasing the power range. This series of products has the advantages of compact structure, light weight, high efficiency, energy-saving, low noise, low vibration, high reliability, long service life, and convenient installation and maintenance.

The basic installation type of the motor is horizontal with feet (IMB3), and under normal working conditions, the working system of the motor is continuous working system (S1); Environmental air temperature: -15℃~40℃; Altitude:not exceeding 1000m.

The basic data of the motors covered by this sample are as follows:

Base number: 355mm-630mm;

Synchronous speed: 3000r/min, 1500r/min, 1000r/min, 750r/min, 600r/min, 500r/min;

Rated voltage: 6kV,10kV (other voltage motors can also be manufactured according to order requirements);

Rated frequency: 50Hz (60Hz motors can also be manufactured according to order requirements excluding 2-pole motors);

Power range: 185kW-3150kW; This series of products is mainly suitable for general mechanical equipmentsuch as fans, water pumps, compressors, crushers, chip cutting machines, transportation machinery, or other similar mechanical equipment in industries such as petroleum, chemical, coal, power plants, metallurgy, transportation, textile, pharmaceutical,and grain processing.

Structural Characteristics

The motor adopts a box structure, and the base is welded from steel plates into a box shape, with light weight and good stiffness. The top of the motor is equipped with an air to air cooler and an inlet and outlet air temperature gauge.

The stator adopts an external pressure structure, and the stator winding is made of 155(F)grade insulation material. The 10kV motor adopts reliable anti corona measures, and the winding ends are reliably fixed and bound. The vacuum pressure impregnation solvent-free paint process (VPl) is used for treatment. Therefore, the motor has good insulation performance, high mechanical strength, strong moisture resistance, and long service life.

The squirrel cage rotor is of cast aluminum rotor structure, manufactured by advanced and reliable cast aluminum process, and has passed dynamic balance verification, so the motor operates stably and reliably.

The bearings adopt two forms: rolling bearings and sliding bearings, which are determined by the power and speed of the motor. The protection level is IP54 or IP55, and the rolling bearings are equipped with non-stop oil injection and drainage devices.

The main junction box is located on the right side of the motor (viewed from the shaft extension end) or on the left side according to user requirements. There are separate grounding terminals inside and outside the junction box.When the power is ≥2000kW, the motor is equipped with a neutral point junction box.

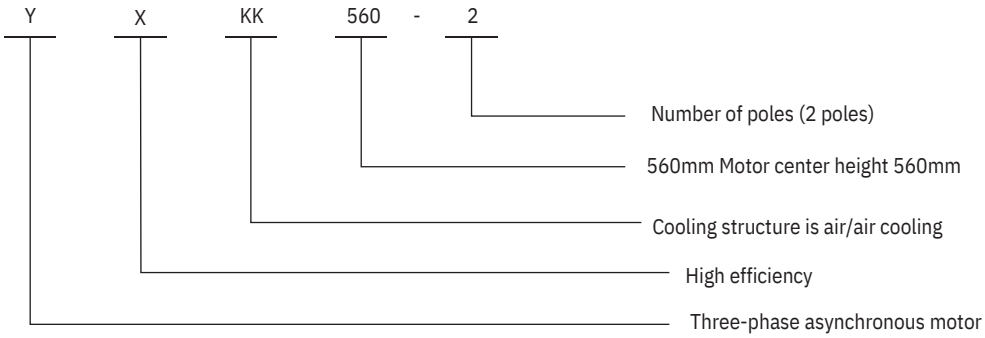
Install temperature measuring devices in important parts such as stator windings and bearings to facilitate remote monitoring and ensure safe and reliable operation of the motor.

Standards Adopted

GB 755	Rotating Electrical Machines-Rating and Performance	(neq IEC60034-1: 1993)
GB/T 997	Classification of Structural Types, Installation Types, and Terminal Box Locations for Rotating Electrical Machines	(eqv IEC 60034-7: 2001)
GB/T 1993	Cooling Methods for Rotating Electrical Machines	(eqv IEC60034-6: 1991)
GB/T 4772.2	Dimensions and Output Power Levels of Rotating Electrical Machines-Part 2: Frame Numbers 355-1000 and Flange Numbers 1180-2360	(idt IEC60072-2)
GB/T 4942.1	Degrees of Protection for Integral Structures of Rotating Electrical Machines (IP Code)	(idt IEC 60034-5)
GB 10068	Measurement, Evaluation, and Limits of Mechanical Vibration of Electric Machines with a Shaft Center Height of 56mm and Above	(idt IEC60034-14)
GB 10069.3	Measurement Methods and Limits of Noise from Rotating Elec-trical Machines-Part 3: Noise Limits	(neq IEC60034-9)

Selection Guide

Meaning of model



Meaning of model

Technical data of YXKK new series high-voltage high-e ciency three-phase asynchronous motor (6kV). (see Table 1)

Technical data of YXKK new series high-voltage and high-e ciency three-phase asynchronous motor (10kV). (see Table 2)

Table 1 Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (6kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK355-2	185	22.5	2971	93.1	0.85	1.8	0.6	7.0	1460
YXKK355-2	200	24.3	2969	93.1	0.85	1.8	0.6	7.0	1480
YXKK355-2	220	26.8	2970	93.1	0.85	1.8	0.6	7.0	1510
YXKK355-2	250	30.4	2970	93.2	0.85	1.8	0.6	7.0	1560
YXKK355-2	280	33.9	2967	93.4	0.85	1.8	0.6	7.0	1630
YXKK355-2	315	38.1	2965	93.7	0.85	1.8	0.6	7.0	1720
YXKK355-2	355	42.3	2966	93.9	0.86	1.8	0.6	7.0	1790
YXKK355-2	400	47.5	2967	94.2	0.86	1.8	0.6	7.0	1920
YXKK355-2	450	53.3	2970	94.4	0.86	1.8	0.6	7.0	2000
YXKK400-2	355	42.3	2977	93.9	0.86	1.8	0.6	7.0	2310
YXKK400-2	400	47.5	2976	94.2	0.86	1.8	0.6	7.0	2390
YXKK400-2	450	53.3	2976	94.4	0.86	1.8	0.6	7.0	2510
YXKK400-2	500	59.1	2976	94.7	0.86	1.8	0.6	7.0	2660
YXKK400-2	560	66.0	2976	94.9	0.86	1.8	0.6	7.0	2770
YXKK400-2	630	73.3	2977	95.0	0.87	1.8	0.6	7.0	2910
YXKK400-2	710	82.6	2977	95.1	0.87	1.8	0.6	7.0	3050
YXKK450-2	710	82.6	2976	95.1	0.87	1.8	0.6	7.0	4300
YXKK450-2	800	92.8	2977	95.3	0.87	1.8	0.6	7.0	4500
YXKK450-2	900	104.2	2978	95.5	0.87	1.8	0.6	7.0	4700
YXKK450-2	1000	115.8	2980	95.5	0.87	1.8	0.6	7.0	4950

Table 1 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (6kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK500-2	1000	115.8	2980	95.5	0.87	1.8	0.6	7.0	5200
YXKK500-2	1120	129.6	2980	95.6	0.87	1.8	0.6	7.0	5450
YXKK500-2	1250	144.6	2980	95.8	0.87	1.8	0.6	7.0	5780
YXKK500-2	1400	159.6	2980	95.9	0.88	1.8	0.6	7.0	6200
YXKK500-2	1600	182.2	2980	96.0	0.88	1.8	0.6	7.0	6400
YXKK560-2	1600	182.2	2980	96.0	0.88	1.8	0.6	7.0	6900
YXKK560-2	1800	205.0	2980	96.0	0.88	1.8	0.6	7.0	7100
YXKK560-2	2000	227.3	2980	96.2	0.88	1.8	0.6	7.0	7300
YXKK560-2	2240	254.6	2980	96.2	0.88	1.8	0.6	7.0	7600
YXKK560-2	2500	283.6	2980	96.4	0.88	1.8	0.6	7.0	7900
YXKK630-2	2240	254.6	2980	96.2	0.88	1.8	0.6	7.0	9800
YXKK630-2	2500	283.6	2980	96.4	0.88	1.8	0.6	7.0	10250
YXKK630-2	2800	317.6	2980	96.4	0.88	1.8	0.6	7.0	11200
YXKK630-2	3150	356.9	2980	96.5	0.88	1.8	0.6	7.0	11600
YXKK355-4	185	22.4	1480	93.3	0.85	1.8	0.7	6.5	1680
YXKK355-4	200	24.2	1480	93.4	0.85	1.8	0.7	6.5	1700
YXKK355-4	220	26.6	1480	93.5	0.85	1.8	0.7	6.5	1720
YXKK355-4	250	30.2	1480	93.6	0.85	1.8	0.7	6.5	1800
YXKK355-4	280	33.4	1480	93.7	0.86	1.8	0.7	6.5	1880
YXKK355-4	315	37.6	1480	93.8	0.86	1.8	0.7	6.5	2020
YXKK355-4	355	42.3	1479	94.0	0.86	1.8	0.7	6.5	2110
YXKK355-4	400	47.5	1478	94.2	0.86	1.8	0.7	6.5	2200
YXKK355-4	450	53.3	1478	94.4	0.86	1.8	0.7	6.5	2270
YXKK400-4	355	42.3	1484	94.0	0.86	1.8	0.7	6.5	2390
YXKK400-4	400	47.5	1483	94.2	0.86	1.8	0.7	6.5	2510
YXKK400-4	450	53.3	1482	94.4	0.86	1.8	0.7	6.5	2660
YXKK400-4	500	59.2	1482	94.5	0.86	1.8	0.7	6.5	2770
YXKK400-4	560	66.2	1482	94.7	0.86	1.8	0.7	6.5	2910
YXKK400-4	630	74.3	1483	94.9	0.86	1.8	0.7	6.5	3050
YXKK400-4	710	83.6	1483	95.0	0.86	1.8	0.7	6.5	3270

Table 1 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (6kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK450-4	710	83.6	1486	95.0	0.87	1.8	0.7	6.5	4550
YXKK450-4	800	92.8	1487	95.3	0.87	1.8	0.7	6.5	4750
YXKK450-4	900	104.3	1486	95.4	0.87	1.8	0.7	6.5	4890
YXKK450-4	1000	115.8	1486	95.5	0.87	1.8	0.7	6.5	5150
YXKK500-4	1000	115.8	1486	95.5	0.87	1.8	0.7	6.5	5350
YXKK500-4	1120	129.7	1486	95.5	0.87	1.8	0.7	6.5	5600
YXKK500-4	1250	142.8	1487	95.7	0.88	1.8	0.7	6.5	5800
YXKK500-4	1400	159.8	1487	95.8	0.88	1.8	0.7	6.5	6030
YXKK500-4	1600	182.4	1487	95.9	0.88	1.8	0.7	6.5	6350
YXKK560-4	1600	182.4	1488	95.9	0.88	1.8	0.7	6.5	7800
YXKK560-4	1800	205.0	1488	96.0	0.88	1.8	0.7	6.5	8050
YXKK560-4	2000	227.6	1488	96.1	0.88	1.8	0.7	6.5	8300
YXKK560-4	2240	254.6	1488	96.2	0.88	1.8	0.7	6.5	8600
YXKK560-4	2500	283.9	1488	96.3	0.88	1.8	0.7	6.5	9200
YXKK630-4	2240	254.6	1488	96.2	0.88	1.8	0.7	6.5	10800
YXKK630-4	2500	283.9	1488	96.3	0.88	1.8	0.7	6.5	11200
YXKK630-4	2800	317.9	1488	96.3	0.88	1.8	0.7	6.5	11500
YXKK630-4	3150	356.9	1488	96.5	0.88	1.8	0.7	6.5	11800
YXKK355-6	185	23.3	988	93.0	0.82	1.8	0.7	6.0	1890
YXKK355-6	200	25.2	988	93.1	0.82	1.8	0.7	6.0	1975
YXKK355-6	220	27.7	988	93.3	0.82	1.8	0.7	6.0	2065
YXKK355-6	250	31.4	988	93.5	0.82	1.8	0.7	6.0	2180
YXKK355-6	280	35.0	988	93.8	0.82	1.8	0.7	6.0	2290
YXKK355-6	315	39.3	988	94.0	0.82	1.8	0.7	6.0	2370
YXKK355-6	355	43.7	988	94.2	0.83	1.8	0.7	6.0	2515
YXKK400-6	280	35.0	988	93.8	0.82	1.8	0.7	6.0	2500
YXKK400-6	315	39.3	988	94.0	0.82	1.8	0.7	6.0	2650
YXKK400-6	355	43.7	988	94.2	0.82	1.8	0.7	6.0	2770
YXKK400-6	400	49.2	988	94.3	0.83	1.8	0.7	6.0	2910
YXKK400-6	450	55.2	988	94.5	0.83	1.8	0.7	6.0	3050
YXKK400-6	500	61.1	989	94.8	0.83	1.8	0.7	6.0	3270
YXKK400-6	560	67.6	990	94.9	0.84	1.8	0.7	6.0	3350

Table 1 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (6kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK450-6	560	67.6	990	94.9	0.84	1.8	0.7	6.0	4350
YXKK450-6	630	76.0	990	95.0	0.84	1.8	0.7	6.0	4550
YXKK450-6	710	85.4	990	95.2	0.84	1.8	0.7	6.0	4800
YXKK450-6	800	96.1	990	95.4	0.84	1.8	0.7	6.0	5200
YXKK500-6	800	96.1	990	95.4	0.84	1.8	0.7	6.0	5450
YXKK500-6	900	108.1	991	95.5	0.85	1.8	0.7	6.0	5600
YXKK500-6	1000	118.5	991	95.5	0.85	1.8	0.7	6.0	5800
YXKK500-6	1120	132.6	991	95.6	0.85	1.8	0.7	6.0	6100
YXKK560-6	1120	132.6	991	95.6	0.85	1.8	0.7	6.5	7500
YXKK560-6	1250	146.0	991	95.8	0.86	1.8	0.7	6.5	7850
YXKK560-6	1400	163.3	991	95.9	0.86	1.8	0.7	6.5	8100
YXKK560-6	1600	186.5	991	96.0	0.86	1.8	0.7	6.5	8300
YXKK630-6	1600	186.5	992	96.0	0.86	1.8	0.7	6.5	8900
YXKK630-6	1800	209.8	992	96.0	0.86	1.8	0.7	6.5	9350
YXKK630-6	2000	232.6	992	96.2	0.86	1.8	0.7	6.5	9680
YXKK630-6	2240	260.5	992	96.2	0.86	1.8	0.7	6.5	10000
YXKK630-6	2500	290.8	992	96.2	0.86	1.8	0.7	6.5	10640
YXKK400-8	250	32.6	741	93.5	0.79	1.8	0.7	5.5	2650
YXKK400-8	280	36.4	741	93.7	0.79	1.8	0.7	5.5	2770
YXKK400-8	315	40.9	741	93.9	0.79	1.8	0.7	5.5	2910
YXKK400-8	355	46.0	742	94.0	0.79	1.8	0.7	5.5	3050
YXKK400-8	400	51.1	742	94.2	0.8	1.8	0.7	5.5	3270
YXKK450-8	400	51.1	742	94.2	0.8	1.8	0.7	5.5	3900
YXKK450-8	450	57.4	743	94.3	0.8	1.8	0.7	5.5	4200
YXKK450-8	500	63.5	743	94.7	0.8	1.8	0.7	5.5	4480
YXKK450-8	560	71.0	743	94.9	0.8	1.8	0.7	5.5	4950
YXKK500-8	500	63.5	743	94.7	0.8	1.8	0.7	5.5	4850
YXKK500-8	560	71.0	743	94.9	0.8	1.8	0.7	5.5	5150
YXKK500-8	630	77.8	743	95.0	0.82	1.8	0.7	5.5	5430
YXKK500-8	710	87.7	743	95.0	0.82	1.8	0.7	5.5	5650
YXKK500-8	800	98.6	743	95.2	0.82	1.8	0.7	5.5	5900

Table 1 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (6kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK560-8	800	98.6	743	95.2	0.82	1.8	0.7	6.0	6350
YXKK560-8	900	108.2	744	95.3	0.84	1.8	0.7	6.0	6550
YXKK560-8	1000	120.1	744	95.4	0.84	1.8	0.7	6.0	6900
YXKK560-8	1120	134.3	744	95.5	0.84	1.8	0.7	6.0	7400
YXKK630-8	1250	149.8	744	95.6	0.84	1.8	0.7	6.0	8600
YXKK630-8	1400	167.6	744	95.7	0.84	1.8	0.7	6.0	8900
YXKK630-8	1600	191.3	744	95.8	0.84	1.8	0.7	6.0	9380
YXKK630-8	1800	215.2	744	95.8	0.84	1.8	0.7	6.0	9960
YXKK450-10	200	27.7	591	92.6	0.75	1.8	0.7	5.5	4300
YXKK450-10	220	30.4	591	92.7	0.75	1.8	0.7	5.5	4450
YXKK450-10	250	34.5	591	92.9	0.75	1.8	0.7	5.5	4560
YXKK450-10	280	38.6	591	93.1	0.75	1.8	0.7	5.5	4660
YXKK450-10	315	42.7	591	93.4	0.76	1.8	0.7	5.5	4780
YXKK450-10	355	48.0	591	93.6	0.76	1.8	0.7	5.5	4950
YXKK500-10	355	48.0	592	93.6	0.76	1.8	0.7	5.5	5150
YXKK500-10	400	54.0	592	93.8	0.76	1.8	0.7	5.5	5270
YXKK500-10	450	60.7	592	93.9	0.76	1.8	0.7	5.5	5380
YXKK500-10	500	65.5	592	94.2	0.78	1.8	0.7	5.5	5535
YXKK500-10	560	73.3	592	94.3	0.78	1.8	0.7	5.5	5750
YXKK500-10	630	82.3	594	94.4	0.78	1.8	0.7	6.0	6300
YXKK560-10	630	82.3	594	94.4	0.78	1.8	0.7	6.0	6950
YXKK560-10	710	92.7	594	94.5	0.78	1.8	0.7	6.0	7200
YXKK560-10	800	101.5	594	94.8	0.80	1.8	0.7	6.0	7680
YXKK560-10	900	114.1	594	94.9	0.80	1.8	0.7	6.0	8250
YXKK560-10	1000	126.6	594	95.0	0.80	1.8	0.7	6.0	8500
YXKK630-10	1000	126.6	594	95.0	0.80	1.8	0.7	6.0	8900
YXKK630-10	1120	141.7	594	95.1	0.80	1.8	0.7	6.0	9400
YXKK630-10	1250	157.6	594	95.4	0.80	1.8	0.7	6.0	9680
YXKK630-10	1400	176.3	594	95.5	0.80	1.8	0.7	6.0	10110

Table 1 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (6kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK450-12	185	27.5	491	92.5	0.70	1.8	0.7	5.5	4560
YXKK450-12	200	29.7	491	92.6	0.70	1.8	0.7	5.5	4700
YXKK450-12	220	31.7	491	92.8	0.72	1.8	0.7	5.5	4850
YXKK450-12	250	35.9	491	93.1	0.72	1.8	0.7	5.5	4980
YXKK500-12	250	35.9	491	93.1	0.72	1.8	0.7	5.5	5150
YXKK500-12	280	40.1	492	93.3	0.72	1.8	0.7	5.5	5230
YXKK500-12	315	45.1	492	93.4	0.72	1.8	0.7	5.5	5380
YXKK500-12	355	49.3	492	93.6	0.74	1.8	0.7	5.5	5500
YXKK500-12	400	55.5	492	93.8	0.74	1.8	0.7	5.5	5650
YXKK500-12	450	62.3	492	93.9	0.74	1.8	0.7	5.5	5780
YXKK560-12	450	62.3	493	93.9	0.74	1.8	0.7	6.0	6310
YXKK560-12	500	69.0	493	94.2	0.74	1.8	0.7	6.0	6580
YXKK560-12	560	75.2	493	94.3	0.76	1.8	0.7	6.0	6900
YXKK560-12	630	84.5	492	94.4	0.76	1.8	0.7	6.0	7350
YXKK560-12	710	95.1	495	94.5	0.76	1.8	0.7	6.0	8100
YXKK630-12	710	95.1	495	94.5	0.76	1.8	0.7	6.0	8900
YXKK630-12	800	106.8	495	94.8	0.76	1.8	0.7	6.0	9250
YXKK630-12	900	120.1	495	94.9	0.76	1.8	0.7	6.0	9650
YXKK630-12	1000	133.3	495	95.0	0.76	1.8	0.7	6.0	10200
YXKK630-12	1120	149.3	495	95.0	0.76	1.8	0.7	6.0	10900

Table 2 Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (10kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK355-2	220	16.1	2976	93.0	0.85	1.8	0.6	7.0	1600
YXKK355-2	250	18.2	2978	93.2	0.85	1.8	0.6	7.0	1700
YXKK355-2	280	20.3	2977	93.5	0.85	1.8	0.6	7.0	1780
YXKK355-2	315	22.8	2976	93.7	0.85	1.8	0.6	7.0	1900
YXKK355-2	355	25.4	2975	94.0	0.86	1.8	0.6	7.0	2000
YXKK400-2	280	20.3	2978	93.5	0.85	1.8	0.6	7.0	2310
YXKK400-2	315	22.8	2977	93.7	0.85	1.8	0.6	7.0	2390
YXKK400-2	355	25.4	2977	94.0	0.86	1.8	0.6	7.0	2510
YXKK400-2	400	28.5	2977	94.2	0.86	1.8	0.6	7.0	2660
YXKK400-2	450	32.0	2978	94.4	0.86	1.8	0.6	7.0	2770
YXKK400-2	500	35.5	2978	94.5	0.86	1.8	0.6	7.0	2910
YXKK400-2	560	39.7	2979	94.7	0.86	1.8	0.6	7.0	3050
YXKK450-2	560	39.7	2983	94.7	0.86	1.8	0.6	7.0	4300
YXKK450-2	630	44.1	2982	94.7	0.87	1.8	0.6	7.0	4500
YXKK450-2	710	49.7	2981	94.8	0.87	1.8	0.6	7.0	4700
YXKK450-2	800	55.9	2980	95.0	0.87	1.8	0.6	7.0	4950
YXKK500-2	800	55.9	2980	95.0	0.87	1.8	0.6	7.0	5200
YXKK500-2	900	62.8	2980	95.1	0.87	1.8	0.6	7.0	5450
YXKK500-2	1000	69.7	2980	95.2	0.87	1.8	0.6	7.0	5780
YXKK500-2	1120	78.0	2980	95.3	0.87	1.8	0.6	7.0	6200
YXKK560-2	1250	86.9	2980	95.5	0.87	1.8	0.6	7.0	6900
YXKK560-2	1400	97.1	2980	95.7	0.87	1.8	0.6	7.0	7100
YXKK560-2	1600	109.7	2980	95.7	0.88	1.8	0.6	7.0	7300
YXKK560-2	1800	123.3	2982	95.8	0.88	1.8	0.6	7.0	7600
YXKK560-2	2000	136.7	2982	96.0	0.88	1.8	0.6	7.0	7900
YXKK630-2	2000	136.7	2982	96.0	0.88	1.8	0.6	7.0	9800
YXKK630-2	2240	152.8	2984	96.2	0.88	1.8	0.6	7.0	10250
YXKK630-2	2500	170.5	2984	96.2	0.88	1.8	0.6	7.0	11200
YXKK630-2	2800	191.0	2984	96.2	0.88	1.8	0.6	7.0	11600

Table 2 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (10kV)

Model	Rated Power (kW)	Rated Current (A)	R ate d Speed (r/min)	Efficiency (%)	P owe r Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK355-4	185	13.9	1485	92.8	0.83	1.8	0.7	7.0	1720
YXKK355-4	200	15.0	1483	92.8	0.83	1.8	0.7	7.0	1800
YXKK355-4	220	16.5	1485	92.8	0.83	1.8	0.7	7.0	1880
YXKK355-4	250	18.7	1483	93.0	0.83	1.8	0.7	7.0	2020
YXKK355-4	280	20.9	1483	93.2	0.83	1.8	0.7	7.0	2110
YXKK355-4	315	23.4	1482	93.5	0.83	1.8	0.7	7.0	2200
YXKK355-4	355	26.1	1482	93.6	0.84	1.8	0.7	7.0	2280
YXKK400-4	315	23.4	1486	93.5	0.83	1.8	0.7	7.0	2510
YXKK400-4	355	25.5	1486	93.6	0.86	1.8	0.7	7.0	2660
YXKK400-4	400	28.7	1486	93.7	0.86	1.8	0.7	7.0	2770
YXKK400-4	450	32.1	1486	94.1	0.86	1.8	0.7	7.0	2910
YXKK400-4	500	35.7	1486	94.1	0.86	1.8	0.7	7.0	3050
YXKK400-4	560	39.8	1486	94.4	0.86	1.8	0.7	7.0	3270
YXKK450-4	560	39.8	1487	94.4	0.86	1.8	0.7	7.0	4550
YXKK450-4	630	44.7	1487	94.6	0.86	1.8	0.7	7.0	4750
YXKK450-4	710	50.1	1486	95.1	0.86	1.8	0.7	7.0	4890
YXKK450-4	800	55.8	1486	95.2	0.87	1.8	0.7	7.0	5150
YXKK500-4	800	55.8	1492	95.2	0.87	1.8	0.7	7.0	5350
YXKK500-4	900	62.7	1492	95.3	0.87	1.8	0.7	7.0	5600
YXKK500-4	1000	69.6	1492	95.4	0.87	1.8	0.7	7.0	5800
YXKK500-4	1120	77.8	1492	95.5	0.87	1.8	0.7	7.0	6030
YXKK500-4	1250	85.8	1492	95.6	0.88	1.8	0.7	7.0	6350
YXKK560-4	1400	95.9	1490	95.8	0.88	1.8	0.7	7.0	7800
YXKK560-4	1600	109.5	1490	95.9	0.88	1.8	0.7	7.0	8050
YXKK560-4	1800	123.0	1490	96.0	0.88	1.8	0.7	7.0	8300
YXKK560-4	2000	136.4	1490	96.2	0.88	1.8	0.7	7.0	8600
YXKK630-4	2000	136.4	1490	96.2	0.88	1.8	0.6	7.0	9200
YXKK630-4	2240	152.6	1490	96.3	0.88	1.8	0.6	7.0	10800
YXKK630-4	2500	170.3	1490	96.3	0.88	1.8	0.6	7.0	11200
YXKK630-4	2800	190.8	1490	96.3	0.88	1.8	0.6	7.0	11500

Table 2 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (10kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK355-6	200	15.6	988	92.7	0.80	1.8	0.7	6.0	2210
YXKK355-6	220	17.1	988	92.7	0.80	1.8	0.7	6.0	2300
YXKK355-6	250	19.4	988	92.9	0.80	1.8	0.7	6.0	2385
YXKK355-6	280	21.7	988	93.1	0.80	1.8	0.7	6.0	2500
YXKK400-6	220	17.1	988	92.7	0.80	1.8	0.7	6.0	2500
YXKK400-6	250	19.4	988	92.9	0.80	1.8	0.7	6.0	2650
YXKK400-6	280	21.7	988	93.1	0.80	1.8	0.7	6.0	2770
YXKK400-6	315	23.7	988	93.4	0.82	1.8	0.7	6.0	2910
YXKK400-6	355	26.4	988	93.5	0.83	1.8	0.7	6.0	3050
YXKK400-6	400	29.7	988	93.7	0.83	1.8	0.7	6.0	3270
YXKK400-6	450	33.4	988	93.8	0.83	1.8	0.7	6.0	3300
YXKK450-6	450	33.4	988	93.8	0.83	1.8	0.7	6.0	4350
YXKK450-6	500	37.0	988	94.2	0.83	1.8	0.7	6.0	4550
YXKK450-6	560	40.8	988	94.4	0.84	1.8	0.7	6.0	4800
YXKK450-6	630	45.7	988	94.7	0.84	1.8	0.7	6.0	5200
YXKK500-6	630	45.7	990	94.7	0.84	1.8	0.7	6.0	5450
YXKK500-6	710	51.5	990	94.8	0.84	1.8	0.7	6.0	5600
YXKK500-6	800	57.9	990	95.0	0.84	1.8	0.7	6.0	5800
YXKK500-6	900	64.2	990	95.2	0.85	1.8	0.7	6.0	6100
YXKK560-6	1000	71.3	990	95.3	0.85	1.8	0.7	6.0	7500
YXKK560-6	1120	79.7	990	95.5	0.85	1.8	0.7	6.0	7850
YXKK560-6	1250	87.8	990	95.6	0.86	1.8	0.7	6.0	8100
YXKK630-6	1400	98.0	991	95.9	0.86	1.8	0.6	6.0	9350
YXKK630-6	1600	111.9	991	96.0	0.86	1.8	0.6	6.0	9680
YXKK630-6	1800	125.9	991	96.0	0.86	1.8	0.6	6.0	10000
YXKK630-6	2000	139.7	991	96.1	0.86	1.8	0.6	6.0	10640
YXKK400-8	250	20.7	740	92.8	0.75	1.8	0.7	6.0	2910
YXKK400-8	280	22.9	740	93.0	0.76	1.8	0.7	6.0	3050
YXKK400-8	315	25.3	740	93.4	0.77	1.8	0.7	6.0	3270
YXKK400-8	355	28.4	740	93.7	0.77	1.8	0.7	6.0	3350

Table 2 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (10kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK450-8	315	25.3	741	93.4	0.77	1.8	0.7	6.0	3900
YXKK450-8	355	28.4	741	93.7	0.77	1.8	0.7	6.0	4200
YXKK450-8	400	31.6	741	93.8	0.78	1.8	0.7	6.0	4480
YXKK450-8	450	35.5	741	93.9	0.78	1.8	0.7	6.0	4950
YXKK500-8	450	35.0	742	93.9	0.79	1.8	0.7	6.0	4850
YXKK500-8	500	38.8	742	94.3	0.79	1.8	0.7	6.0	5150
YXKK500-8	560	41.7	742	94.5	0.82	1.8	0.7	6.0	5430
YXKK500-8	630	46.7	742	94.9	0.82	1.8	0.7	6.0	5650
YXKK560-8	630	46.7	742	94.9	0.82	1.8	0.7	6.0	6300
YXKK560-8	710	52.6	742	95.0	0.82	1.8	0.7	6.0	6850
YXKK560-8	800	59.2	742	95.2	0.82	1.8	0.7	6.0	6950
YXKK560-8	900	66.5	742	95.3	0.82	1.8	0.7	6.0	7200
YXKK630-8	1000	74.6	744	95.5	0.81	1.8	0.7	6.0	8900
YXKK630-8	1120	81.5	744	95.6	0.83	1.8	0.7	6.0	9200
YXKK630-8	1250	90.9	744	95.7	0.83	1.8	0.7	6.0	9880
YXKK630-8	1400	101.7	744	95.8	0.83	1.8	0.7	6.0	10500
YXKK450-10	220	19.1	593	92.5	0.72	1.8	0.7	5.5	4600
YXKK450-10	250	21.6	593	92.7	0.72	1.8	0.7	5.5	4780
YXKK450-10	280	23.5	593	93.0	0.74	1.8	0.7	5.5	4950
YXKK500-10	315	26.4	593	93.2	0.74	1.8	0.7	5.5	5270
YXKK500-10	355	29.3	593	93.4	0.75	1.8	0.7	5.5	5380
YXKK500-10	400	32.9	593	93.6	0.75	1.8	0.7	5.5	5535
YXKK500-10	450	36.4	593	93.8	0.76	1.8	0.7	5.5	5750
YXKK500-10	500	39.9	593	94.0	0.77	1.8	0.7	5.5	6300
YXKK560-10	560	44.1	594	94.1	0.78	1.8	0.7	6.0	7200
YXKK560-10	630	49.5	594	94.3	0.78	1.8	0.7	6.0	7680
YXKK560-10	710	55.6	594	94.5	0.78	1.8	0.7	6.0	8280
YXKK560-10	800	62.5	594	94.8	0.78	1.8	0.7	6.0	8500
YXKK630-10	900	68.4	594	95.0	0.80	1.8	0.7	6.0	8900
YXKK630-10	1000	75.9	594	95.1	0.80	1.8	07	6.0	9400
YXKK630-10	1120	84.9	594	95.2	0.80	1.8	0.7	6.0	9680
YXKK630-10	1250	94.7	594	95.3	0.80	1.8	0.7	6.0	10110

Table 2 (continuous) Technical Data of YXKK Series High Voltage and High Efficiency Three Phase Asynchronous Motor (10kV)

Model	Rated Power (kW)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor (cosφ)	Maximun/ Rated Torque	Stall/Rated Torque	Locked-Rotor/Rated Current	Weight (kg)
YXKK500-12	220	19.1	495	92.4	0.72	1.8	0.7	5.5	5230
YXKK500-12	250	21.6	495	92.6	0.72	1.8	0.7	5.5	5380
YXKK500-12	280	24.2	495	92.8	0.72	1.8	0.7	5.5	5500
YXKK500-12	315	27.2	495	93.0	0.72	1.8	0.7	5.5	5650
YXKK500-12	355	30.5	495	93.2	0.72	1.8	0.7	5.5	5780
YXKK560-12	400	33.9	495	93.4	0.73	1.8	0.7	6.0	6580
YXKK560-12	450	38.1	495	93.5	0.73	1.8	0.7	6.0	6900
YXKK560-12	500	42.2	495	93.8	0.73	1.8	0.7	6.0	7350
YXKK560-12	560	46.4	495	94.1	0.74	1.8	0.7	6.0	8100
YXKK630-12	630	52.1	495	94.3	0.74	1.8	0.7	6.0	9250
YXKK630-12	710	58.6	495	94.5	0.74	1.8	0.7	6.0	9650
YXKK630-12	800	65.8	495	94.8	0.74	1.8	0.7	6.0	10200
YXKK630-12	900	74.1	495	94.8	0.74	1.8	0.7	6.0	10900

Rated voltage and rated frequency

There are two types of rated voltages for motors: 6kV and 10kV, and the rated frequency of the power supply is 50Hz.

Thermal classification and temperature rise limit

The insulation level of the motor is 155 (F) level, and the temperature rise limit when evaluated according to 130 (B) level is 80K.

Bearing structure and temperature limits

The bearing structure is divided into two types: rolling bearing and sliding bearing. The specific structural form used is detailed in the data sheet of appearance and installation dimensions. The normal product of sliding bearing structure is forced lubrication, and it can also be made into self-lubricating according to needs.When forced lubrication is applied to sliding bearings,the alarm value of the bearing is 75℃ and the shutdown value is 80℃. When self lubrication is applied to rolling bearings and sliding bearings, the alarm value of the bearing is 90℃ and the shutdown value is 95℃ .

Protection level

The protection level of the motor can be made into IP54 or IP55.

Cooling method

The cooling method of the motor is IC611.

Types of climate protection and environmental conditions for use

Damp heat type, with climate protected areas (TH); Damp and hot, non climate protected areas (THW); Dry heat type, with climate protected areas (TA); Dry hot, non climate protected areas (TAW);
Tropical type, with climate protected areas (T); Tropical type, non climate pro-tected areas (TW); Outdoor light corrosion prevention type (W);
Outdoor medium corrosion resistant (WF1);
Outdoor anti strong corrosion type (WF2);
Indoor medium corrosion protection (F1);
Indoor strong anti-corrosion type (F2);
The above protection types are marked at the end of the motor model, such as YXKK560-4WF1.

Wiring method

Y-shaped connection method.

Cable entry device

Under normal circumstances, the motor is equipped with rubber sheathed cable devices, and steel pipe wiring devices or armored cable devices can be provided according to user needs.

Working system

The working system is all S1 continuous working system.

Performance indicator tolerance

Efficiency n: -10% (1-n);
Power factor cos φ: -(1-cosφ) /6;
The minimum absolute value is 0.02;
Maximum absolute value 0.07;
Locked rotor current: +20% of the guaranteed current value;
Locked rotor torque: -15% of the guaranteed torque value;
Minimum torque: -15% of the guaranteed torque value;
Maximum torque: -10% of the guaranteed torque value.

On site operating conditions

The altitude shall not exceed 1000m.

The maximum ambient air temperature shall not exceed 40℃ .

The minimum ambient air temperature should not be lower than -15℃, and the minimum ambient temperature for motors with sliding bearings or air water cooling should not be lower than 0℃ .

Tolerance values for voltage and frequency;

Electric motors can operate continuously within ±5% of rated voltage and ± 2% of rated frequency, and achieve their basic functions. However, their performance may di er from that at rated voltage and frequency, and the temperature rise may be higher than that at rated voltage and frequency.

Electric motors can operate within ±10% of rated voltage and +3% to -5% of rated frequency, and achieve their basic functions. However, their performance may di er from that at rated voltage and frequency, and the temperature rise may be higher than that at rated voltage and frequency.

The remaining electrical operating conditions of the motor shall comply with GB755.

Starting requirements

When the driven machinery is a water pump or fan type equipment, the user's power grid must ensure that the motor terminal voltage during the startingpower grid must ensure that the motor terminal voltage during the starting process is not less than 85%of the rated voltage.

Under the above conditions, the motor is allowed to start continuously twice in the actual cold state, or start once in the hot state of the motor. The motor should naturally stop between the two starts, and the additional restart of the motor should be after 1 hour of shutdown.

Load connection

Usually,the electric motor is elastically connected to the driven load.

Measurement and protection

The motor is equipped with measuring devices such as bearing temperature measurement and stator temperature measurement. The temperature measuring element is a platinum thermistor Pt100, and the output signals are all resistance signals. The wiring diagram for stator and bearing temperature measurement is shown in Figure 1.

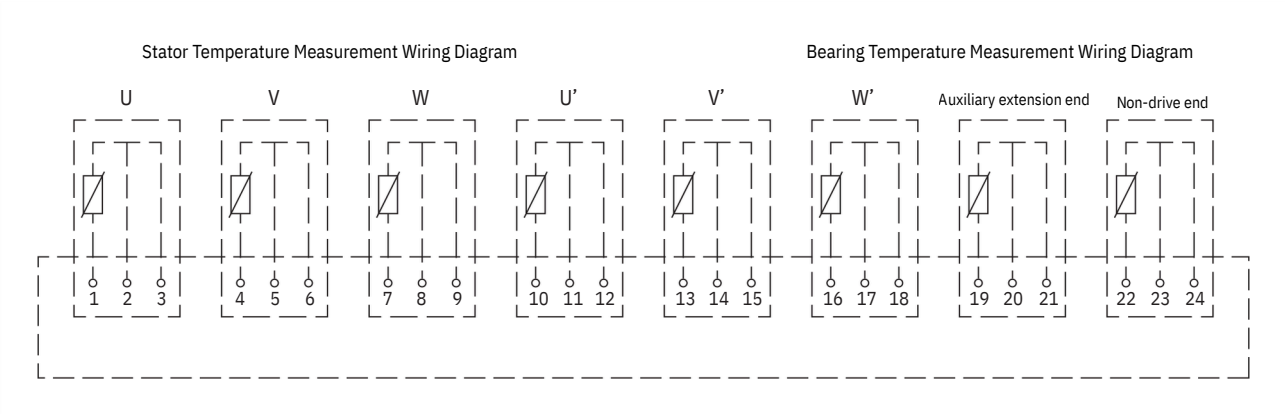


Figure 1 Stator Bearing Temperature Measurement Wiring Diagram

The motor is equipped with an anti-condensation space heater, with a power supply voltage of 220V AC.

The heater wiring diagram is shown in Figure 2.

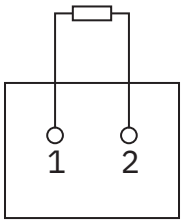


Figure 2 Heater Wiring Diagram

When the motor power is ≥2000kW, in order to facilitate di erential protection for users, the motor is equipped with a neutral point junction box.

Ordering instructions

Factors to consider when selecting three-phase asynchronous motors:

Usage environment: environmental temperature, altitude, etc;
The mechanical characteristics and rotational inertia of the driven equipment;
Starting method, starting frequency, and starting voltage drop;
Temperature rise assessment;
The direction of rotation of the electric motor;
The mechanical connection method and requirements between the motor and the dragged load;
Location of junction box;
Working hours and other special requirements.

Normal ordering

Orders without special requirements are considered normal orders. When ordering normally, the following parameters of the motor must be specified (example)

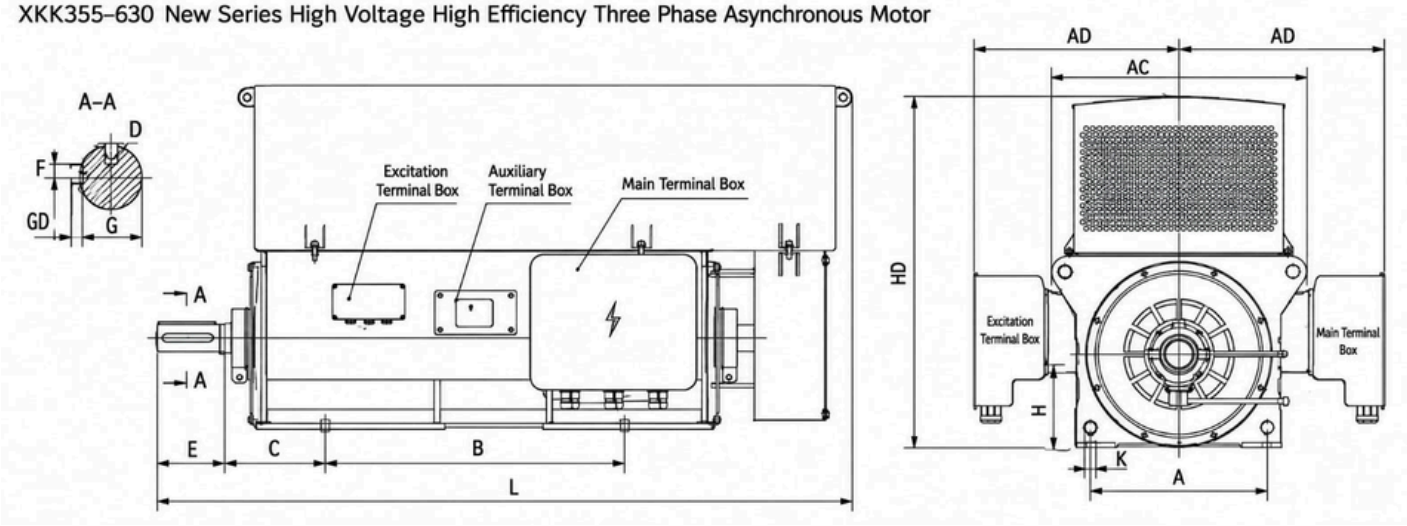
Model : YXKK560-2
power : 1800kW
Rated voltage : 6kV
Rated frequency : 50Hz
Number of poles : 2
Installation type : B3
Working system : S1
Cooling method : IC611
Protection level : IP54
Thermal classification : 155
Rotation direction : clockwise
Usage environment : indoor
Incoming method : rubber sleeve
Altitude : ≤1000m
Environmental temperature : -15℃~40℃

Orders with additional requirements

lf there is a requirement for one or more of the following items, it must be stated at the time of ordering:
- The voltage is not 6kV or 10kV, such as 3.3kV or 6.3kV;
- The frequency is not 50Hz, such as 60Hz;
- Power is not a standard value in the data; Or the corresponding relation-ship between power and installation size is di erent from the data sheet; - Altitude above 1000m;
- Environmental temperature: above 40℃; Or the minimum temperature is below -15℃;
- Low noise: The noise is lower than the provisions of GB 10069.3;
- Non standard installation dimensions: The correspondence between the base number and installation dimensions does not match the data sheet; - Special environments that need to be declared: such as humid tropics, outdoors, corrosion, salt mist, mold, dust, sand, etc. Among them,corrosive sub-stances should be listed so that corresponding measures can betaken according to the strength and nature of corrosion during design;
- Special requirements for electrical performance, such as high locked rotor torque, high slip, high rotational inertia, low locked rotor current, etc; - When the motor requires dual rotation, please provide special instructions;
- Other special requirements, such as the required relay protection devices (temperature monitoring devices for windings and bearings, di erential protection), special bearings, special packaging, and the need for spare parts other than those specified, etc;
- When the motor drives a reciprocating compressor, please specify when ordering;
- If there are any special requirements or other requirements beyond the above, please negotiate or sign a technical agreement with our company's tech- nical department;
- With the advancement of technology and the modification of relevant domestic standards, the dimensions and technical parameters in the samples may change without prior notice. After placing an order, please request formal outline and installation dimension drawings.

Appearance and installation dimensions

XKK355–630 New Series High Voltage High Efficiency Three Phase Asynchronous Motor



Product range

Center Height	Number of Poles	Installation Dimensions and Tolerances/mm																		Overall dimensions/mm			
		A		B		C		D		E		F		G		H		K		AC	AD	HD*	L*
		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				
355	2	630	±14	900	±14	315	±40	φ80	+0.030 +0.011	170	±0.57	22	0 -0.052	71	0 -0.2	355	0 -10	φ28	+0.62 0	945	780	1480	250
	4																						
	6-8					315		φ100		210		28		90									
400	2	710	±175	100	±210	375		φ90	+0.035 +0.013	170		25		81		400		φ35		1035	840	1680	2300
	4																						
	6-10					335		φ110		210		28		100									
450	2	800		1120		400		φ100	+0.040 +0.015	210	±0.65	28	0 -0.062	90		450				1165	1050	1850	2500
	4							φ120		250		32		109									
	6-12					355		φ130						119									
500	2	900	±21	1250		560°		φ110	+0.035 +0.013	210	±0.57	28	0 -0.062	100	0 -0.3	500		φ42		1350	890	2100	2850
	4																						
	6-12					475		φ130		250		32		119									
560	2	1000		1400		560°		φ130	+0.040 +0.015	250	±0.65	32	0 -0.062	119		560				1430	980	2250	3150
	4							φ150				32		138									
	6-12					500		φ160		300		36		147									
630	2	1120		1600		560°		φ140	+0.046 +0.007	300		36		128		630		φ48		1600	1150	2450	3350
	4							φ170				40		157									
	6-12					530		φ180				45		165									

Note: Motors with a power of 2000 kW and above are equipped with a neutral junction box on the side.

° To adapt the C-size of a sliding bearing motor, the limit deviation does not include axial displacement, which is agreed upon by the manufacturer and the user.

* When using cooling methods of IC616 and IC666, dimensions HD and L shall be in accordance with the technical agreement between both parties.

MECWIN Global Customers



International Compliance Support

- Products can be designed and validated for applicable:
- IEC and EN standards
- CE conformity requirements
- UL and CSA requirements
- RoHS and REACH compliance
- ATEX requirements for hazardous-area applications
- MIL-STD environmental testing requirements
- Customer-specific testing and qualification standards

Certifications and third-party testing can be undertaken based on product application, destination country and customer requirements.

Partner with Mecwin

From Agriculture to Aviation, Mecwin delivers engineered motor solutions for global applications. Design in India. Manufacture in Bengaluru. Supply to the World.

CONTACT US

Our Service & Support team are directly accessible in 18+ states in India.
MECWIN's trained service engineers can help with site survey, system sizing, installation, commissioning and on time service support.





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