YL, YLST, YKKL, and YKSL Series Medium 3-phase Vertical Asynchronous Motors

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Ordering Instructions

Dear Customers,

When placing an order, please note the following in addition to providing the basic parameters of your selected motor.

Please carefully read the following items to make sure that your demands are responded most satisfactorily and quickly. If no special requirements are mentioned, production will be made in accordance with national standards and our enterprise standards.

1 Please specify your special requirement on noise (if any). (See national standard for noise on P62)

2. Please specify your special requirement on vibration (if any). (Standard: amplitude 0.037mm, velocity 2.3mm/s; see national standard for vibration in page 61)

3. Please specify your special requirement on number of starts (if any). (Standard: twice at cold state; once at hot state.)

4. Please specify your special requirement on direction of rotation (if any). (Standard: clockwise, viewed from motor shaft extension end; direction of rotation must be indicated for high efficiency energy-saving motor)

5. Please specify types of driven equipment of motors. (e.g. water pump, mill, crushing machine, compressor, rolling mill, disc mill.)

6. Please specify your special requirement on moment of inertia of the load (if any).

7 Please specify types of drive (e.g. with fluid coupling or gearbox or direct-connected)

8 Please specify types of coupling. (e.g. coupling and belt pulley; belt tension must be indicated)

9. Please specify whether installation location for encoder should be reserved on motor.

10 Please specify whether the motor is used in plateau. (Motors with installation altitude over 1000m are subject to special design)

11. Please specify the ambient temperature of the motor.

12. Please specify whether the motor is used in humid tropical zone.

13. Please specify whether the motor is used outdoor.

14. Please specify whether the motor is used near the sea.

15. Please specify requirements for corrosion prevention. (e.g. F1 for low corrosivity, F2 for medium corrosivity, F3 for high corrosivity.)

16 Please specify types of bearings. (e.g. rolling or sliding bearing). Please specify whether imported bearings are needed. (□SKF □FAG □NSK □Domestic)

15. Please specify whether bearings bear thrust.

18. Please specify insulation requirements for bearings.
19. Please specify whether lubrication device needs to be provided by us.
20 If required, please specify special requirements for the lubrication device (if any). (Home-made device will be used if there are no requirements.)
21 Is the required motor standby motor? If yes, please indicate the serial number of the original motor.
22. Please specify whether the neutral points need to be led out.
23. Please specify whether CTs are needed. If yes, please indicate their installation position, for example, in the main terminal box or in the neutral point terminal box.
24. If CTs are needed, please specify the quantity.
25. Please specify whether a space heater is needed.
26. Please specify whether vibration sensors are needed.
27. Please specify special requirement for temperature detectors (if any).
28 Please specify special requirement for material of squirrel-cage rotor (if any) (e.g. cast aluminum, copper bar and trapezoid copper bar)
29 Does paint color need to be specified? (Our standard: “jade green” for indoor, "light gray" for outdoor; for others, please refer to the attached "Paint Colors P63-64")
30. Is double-shaft extension necessary for the motor?
31. Please specify the location of terminal boxes. (Standard: on the right side, viewed from shaft extension end.)
32. Please specify special requirement for ratio of max. torque to rated torque of the motor (if any).
33. Please specify special requirement for ratio of starting torque to rated torque of the motor (if any).
34. Please specify special requirement for ratio of starting current to rated current of the motor (if any).
35. Although high-efficiency motors with power less than or equal to 355kW are not covered by allowance issued by China's Ministry of Finance, it is recommended that high-efficiency motors should still be selected.
36 Magnetic slot wedge should be used for all high-efficiency motors with the central height ≤H710

YL, YLST, YKKL, and YKSL Series Medium 3-phase Vertical Asynchronous Motors



I. Overview

YL, YLST, YKL, and YKSL series medium-sized 3-phase vertical asynchronous motors (frame number: 355-630mm) are new-generation products we developed in the 1990s to replace JSL11-15 series of 3-phase vertical asynchronous motors by introducing and absorbing foreign advanced motor manufacturing technologies and combining our long-term experience in designing and manufacturing 3-phase asynchronous motors for more than 50 years. The technical and economic indicators of these new series of motors have reached the domestic leading level through the summary of industrial operation experience for more than 10 years after they were launched on the market and our continuous improvement and perfection in the design and process manufacturing level. The products have been mass-produced and exported to more than 20 countries and regions all over the country, such as Europe, the United States, Africa, Southeast Asia, Hong Kong, and Macao, where they have been well received by users.

The new series motors are advanced in design, reasonable in structure, exquisite in materials and excellent in production, and feature high efficiency, energy saving, low noise, low vibration, reliable operation, and convenient installation, operation, and maintenance.

The design of the new series of motors conforms to the national standard GB/T755 *Rotating Electrical Machines - Rating and Performance* and IEC60034-1 *Rotating Electrical Machines - Part 1: Rating and Performance*.

The protection degrees of the new series of motors conform to GB/T4942.1 and IEC60034-5 *Classification of Degrees of Protection Provided by Enclosures of Rotating Electrical Machines*. According to the above standards, the protection degrees of YL and YLST series is IP23; those of YKL and YKSL series are: IP44, IP54 and IP55. Other protection degrees, if required, may be supplied according to separate agreements.

The cooling methods of the new series motors conform to GB/T1993 and IEC60034-6 *Rotating Electrical Machines: Methods of Cooling*; the cooling methods of YL and YLST series conform to IC01; the cooling methods of YKKL series conform to IC611; the cooling method of YKSL series conform to IC81W. If motors with other cooling methods are required, separate agreements may be reached for the supply.

The structure and installation type of the new series motors are IMV1 (vertical, flanged), which conforms to GB997 and IEC60034-7 *Rotating Electrical Machines: Classification of Types of Construction, Mounting Arrangements and Terminal Box Position*.

II. Application scope

The new series of motors can be used to drive vertically installed pumps and other equipment. The basic conditions for normal operation of motors are as follows:

a. Altitude: ≤1000 m.
b. the maximum ambient temperature shall not exceed 40℃; Minimum ambient air temperature: -15℃ for motors with rolling bearings; 5℃ for motors with sliding bearings; 5℃ for YKSL series motors;
C. For YKSL series motors, the cooling water temperature at the inlet of air cooler shall not exceed 33℃, and the minimum temperature shall be 5℃;
d. The monthly average maximum relative humidity in the wettest month shall be 90%, and the monthly average minimum temperature in this month shall be not higher than 25℃;
e. the power frequency shall be 50Hz±1%;
f. The working voltage range shall be no more than ±5% of the rated voltage;
g. The rated motor working system shall be continuous working system S1.



III. Explanation of models

The model number of the motor consists of the product code and the specification code in order according to GB4831.

The product code is represented by the motor series code, with the following meanings:

YL - Squirrel-cage rotor 3-phase vertical asynchronous motor not subject to axial thrust

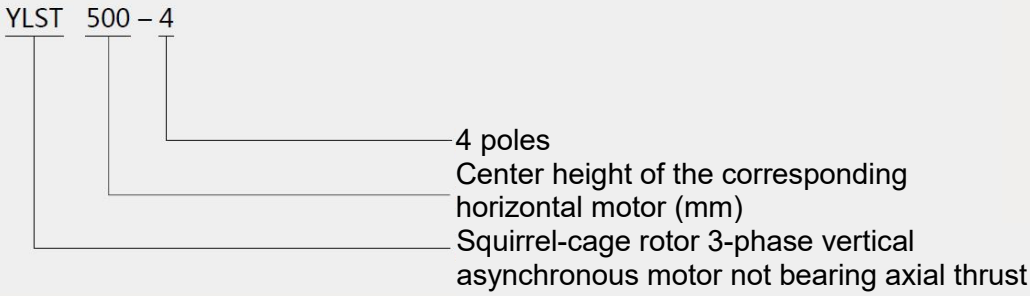
YLST - Squirrel-cage rotor 3-phase vertical asynchronous motor subject to axial thrust

YKKL - Closed squirrel-cage rotor 3-phase vertical asynchronous motor with air-air cooler

YKSL - Closed squirrel-cage rotor 3-phase vertical asynchronous motors with air-water cooler

The specification code consists of the center height and the number of poles of the corresponding horizontal motor.

For example:







IV. Structure Description

The motors adopt the box structure prevailing in the world, with the square frame made of welded steel plates. The motors feature good rigidity and light weight. By changing the covers on both sides of the frame or air-air (water) coolers, different series of motors, such as YL, YLST or YKKL (YKSL), can be formed.

The stator adopts the external press-fitting structure, and the stator winding adopts F-class edge material and anti-corona material, with the winding end fixed with special binding technology, which is firm and reliable. The whole stator is treated by vacuum pressure impregnation of F-class solvent-free paint (VPI), which has excellent and reliable insulation performance, moisture resistance and impact resistance.

The rotor adopts cast aluminum rotor or copper bar rotor structure. No matter which structure is adopted, its structure and manufacturing process can ensure the reliable operation of the motor. According to the presence or the strength of the axial thrust borne by the motor, there are two types of the upper bearing structure of the motor: rolling bearing or sliding bearing, and the lower bearing

Adopts rolling bearing. Motors with rolling bearing structure are all equipped with non-stop grease adding and discharging devices. The main outlet box is of sealed structure. The protection level is IP54, the inlet hole of the outlet box can be switched up, down, left and right, and there is a separate grounding terminal in the box.

V. Motor Starting

1. The user's power grid shall ensure that the terminal voltage of the motor is not less than 85% of the rated voltage during the starting process;

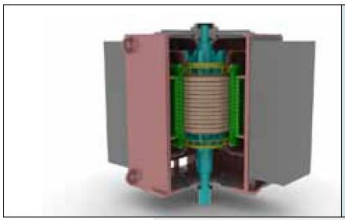
2. The resistance moment characteristic of the driven machinery is that of water pumps.

Under the above conditions, the motor is allowed to start for two consecutive times in the actual cold state, and it shall stop naturally between the two times of starting; Or it can start once in the hot state; The motor that exceeds the above limit shall be restarted after stopping for 1 hour.

If the motor-driven machinery is non-water pump vertical machinery, please contact us in advance to make special design according to your requirements, so as to ensure the reliable starting of the motor.







VI. Ordering Notes

Please indicate the following parameters when ordering:

(1) Motor model: (YL500-4)

(2) Rated power: (1000 KW)

(3) Rated voltage: (6 KV)

(4) Rated frequency: (50Hz)

(5) No. of poles: (4)

(6) Insulating grade: (F)

(7) Rotating direction: Anti-clockwise (facing the extended end of the motor shaft)

(8) Protection level: (IP23)

(9) Cooling mode: (IC01)

(10) Installation mode: (IMV1)

Matters needing attention:

a. Before signing contracts for YKL and YKSL series motors, please specify whether the motors bear the axial thrust caused by the loads. If they need to bear the axial thrust, please specify the specific values and sign another technical agreement before signing the order contract.

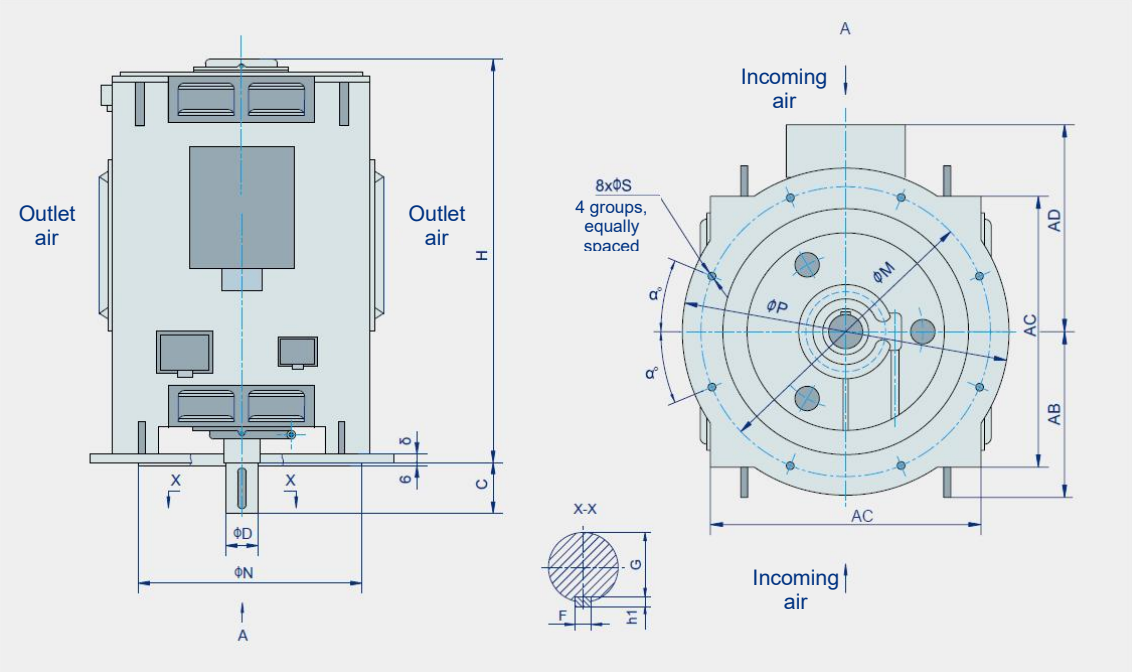
B. Please follow the handling specified in Article a in case of any change in working conditions or other special requirements.

c. With the progress of technology and the revision of relevant domestic and international standards, the technical parameters in the sample may be changed without prior notice.

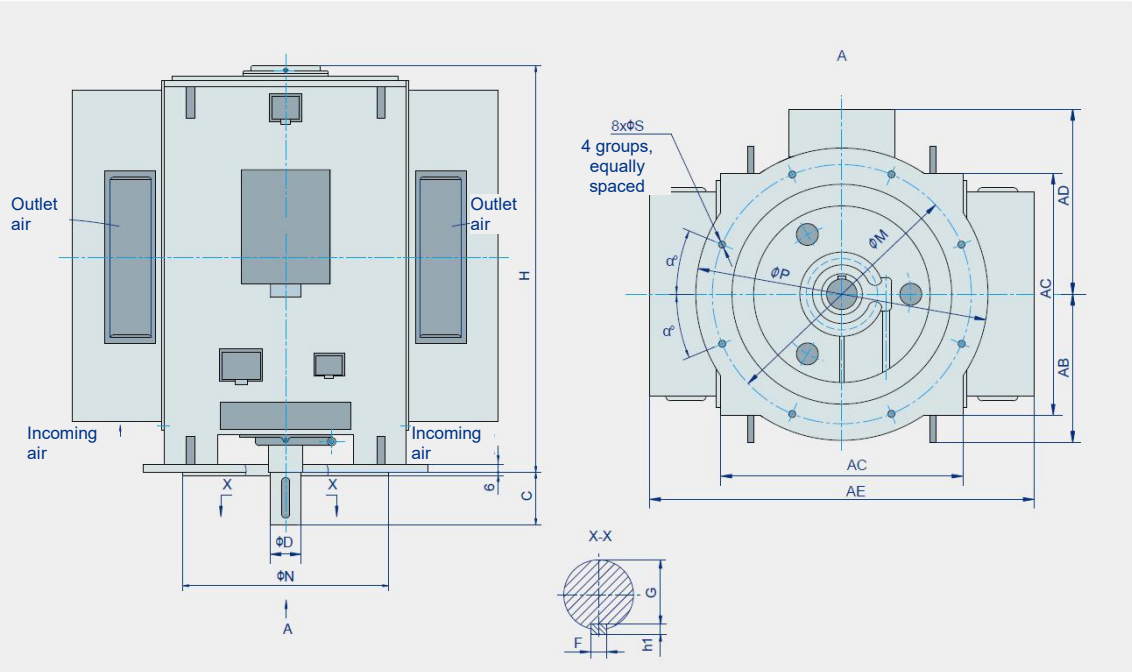
d. For motors whose specifications are not listed in the sample, please ask us for the formal outline drawing after ordering.

e. We can also design and manufacture YRL, YRKKL and YRKSL series medium-sized three-phase asynchronous motors with wound rotors according to users' requirements.

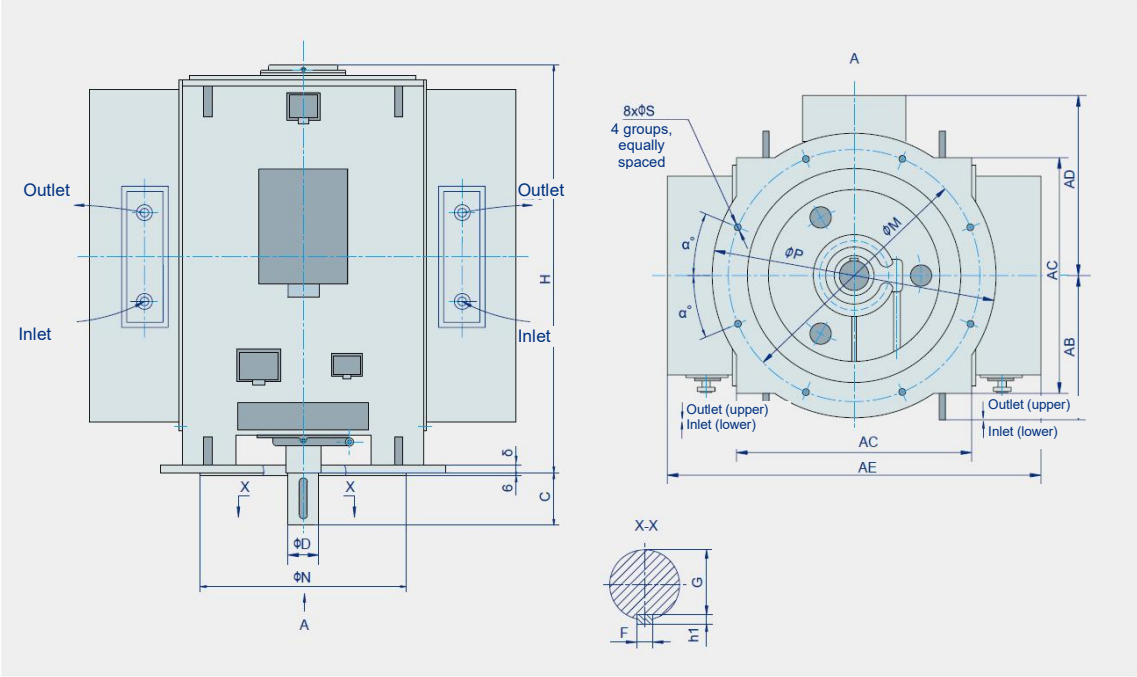
■ Overall and Installation Dimensions of YL Series Medium 3-phase Vertical Asynchronous Motors (Figure 1)



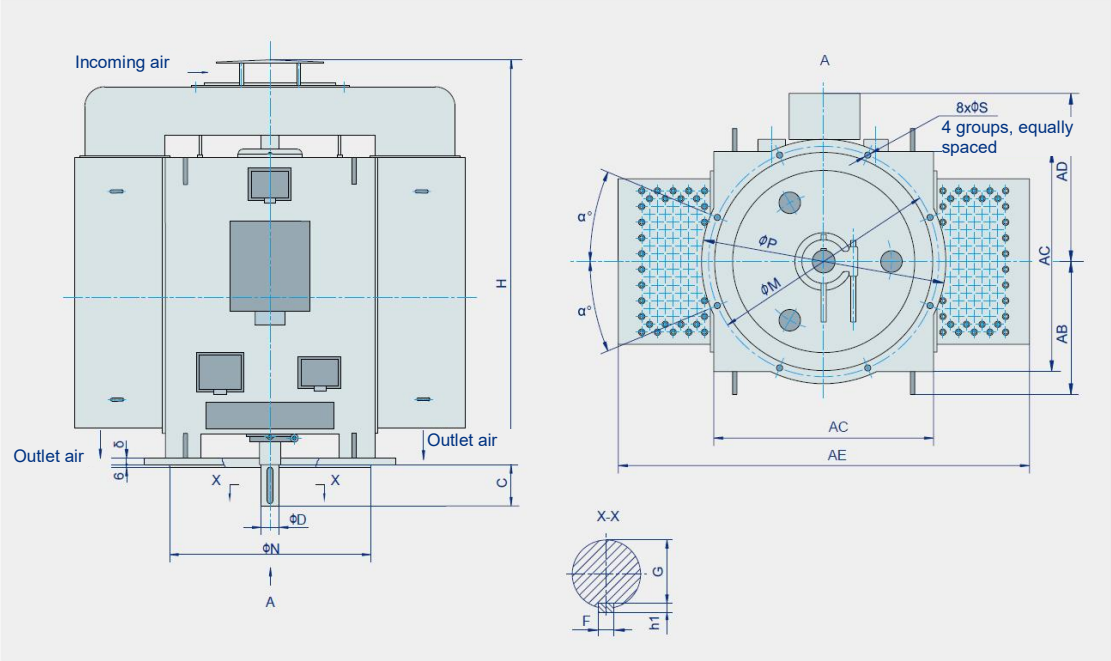
■ Overall and Installation Dimensions of YL Series Medium 3-phase Vertical Asynchronous Motors (Figure 2)



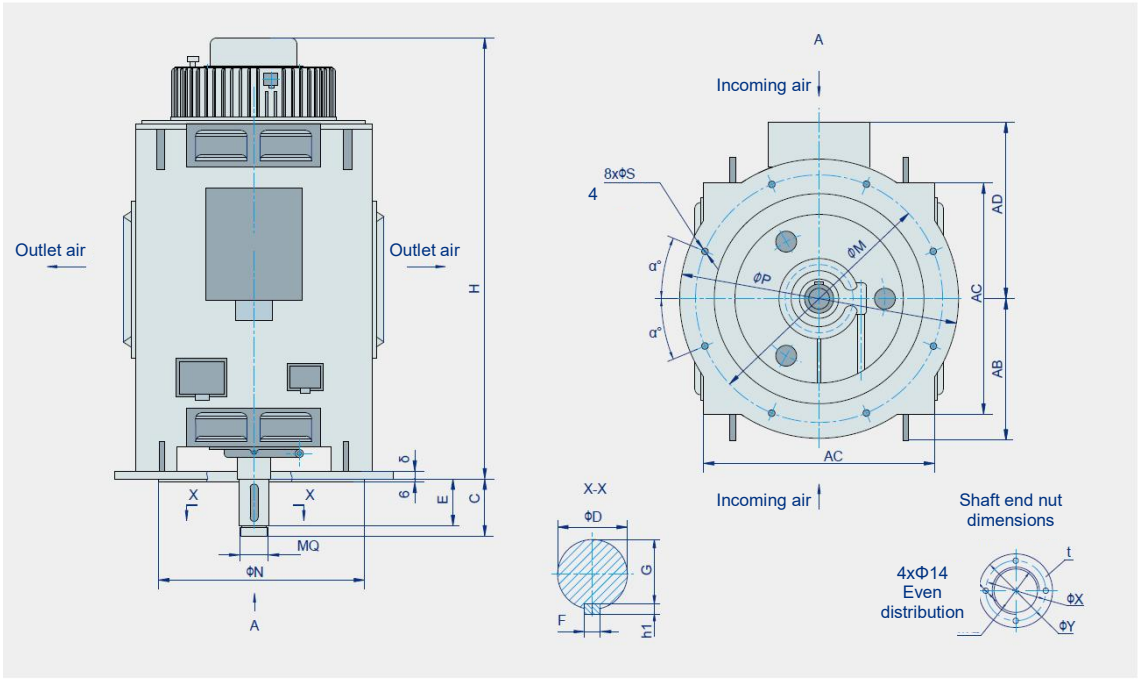
► ■ Overall and Installation Dimensions of YKSL Series Medium 3-phase Vertical Asynchronous Motors (Figure 3)



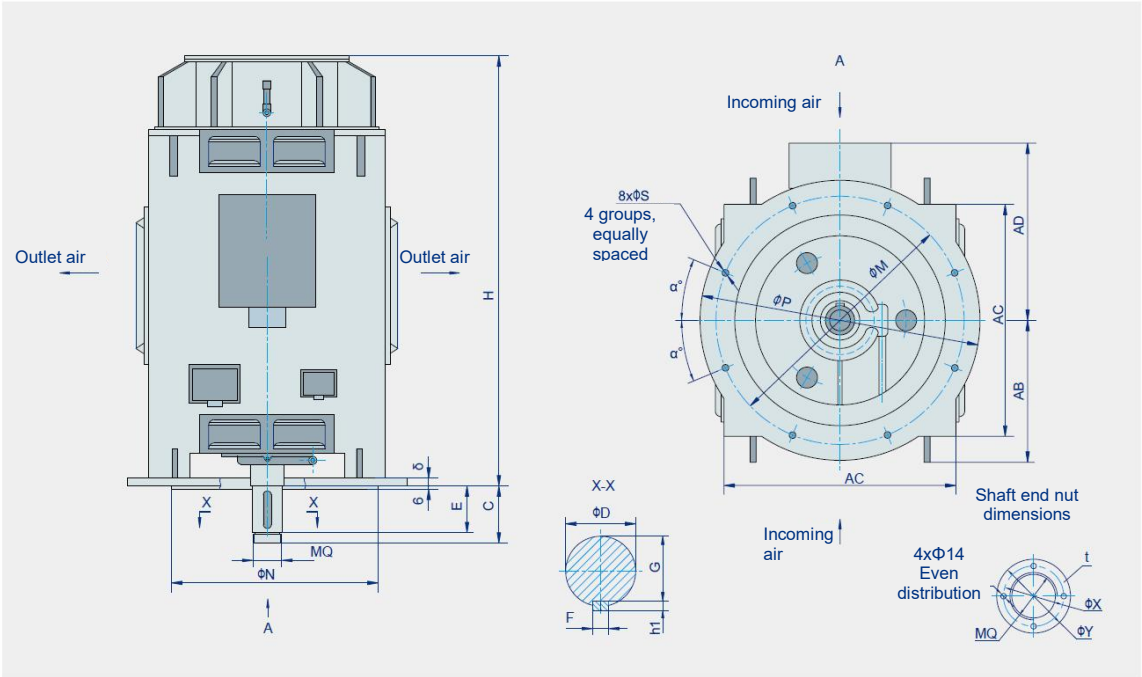
► ■ Overall and Installation Dimensions of YKKL Series Medium 3-phase Vertical Asynchronous Motors (Figure 4)



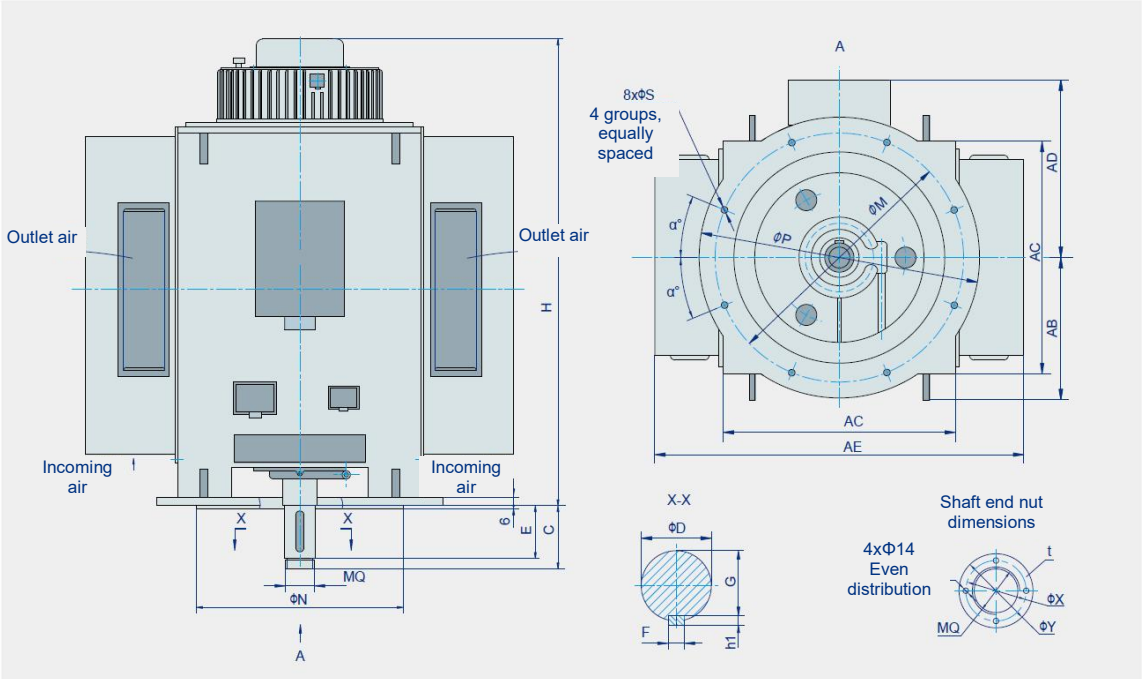
► ■ Overall and Installation Dimensions of YLST Series Medium 3-phase Vertical Asynchronous Motors (Figure 5)



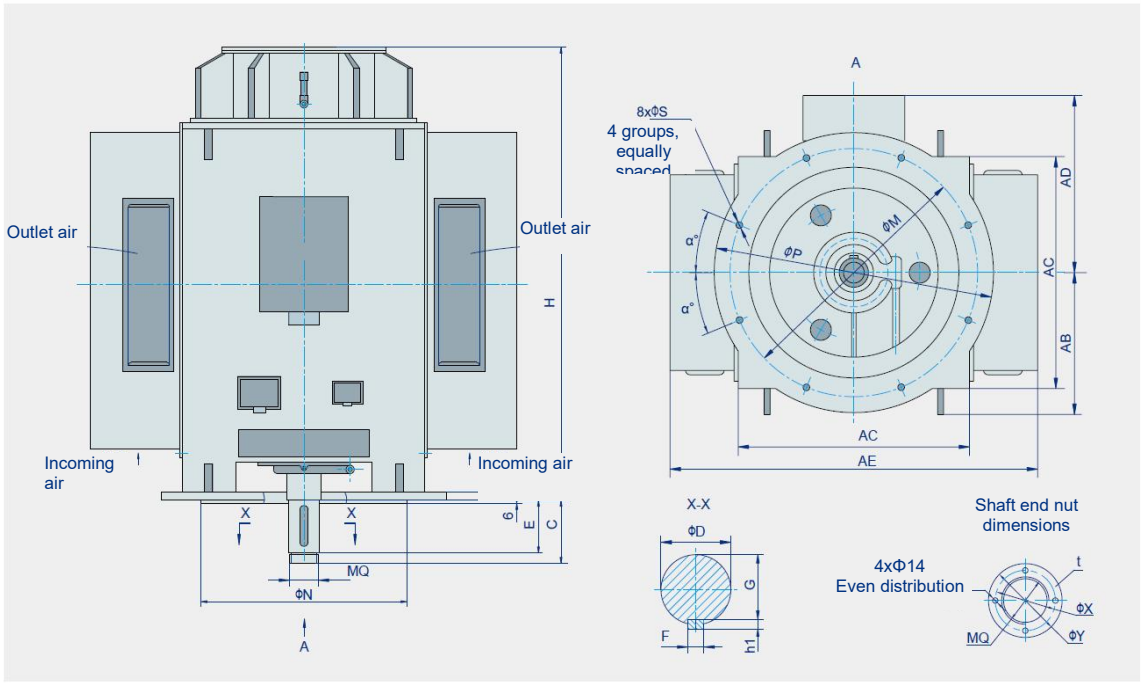
► ■ Overall and Installation Dimensions of YLST Series Medium 3-phase Vertical Asynchronous Motors (Figure 6)



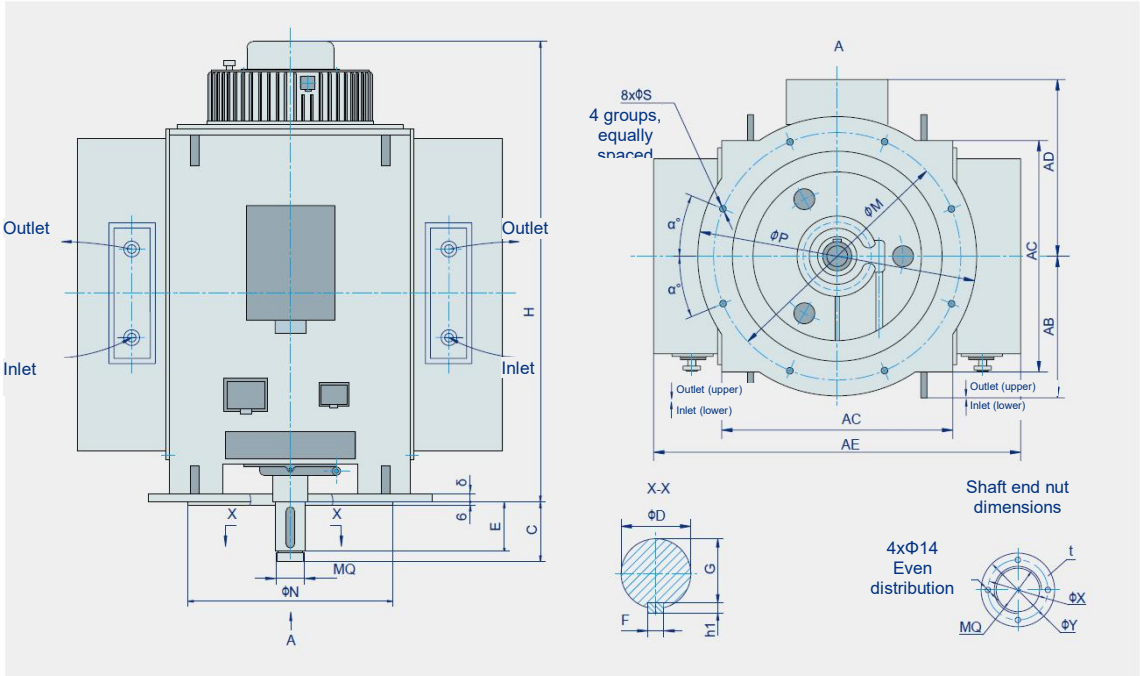
► ■ Overall and Installation Dimensions of YLST Series Medium 3-phase Vertical Asynchronous Motors (Figure 7)



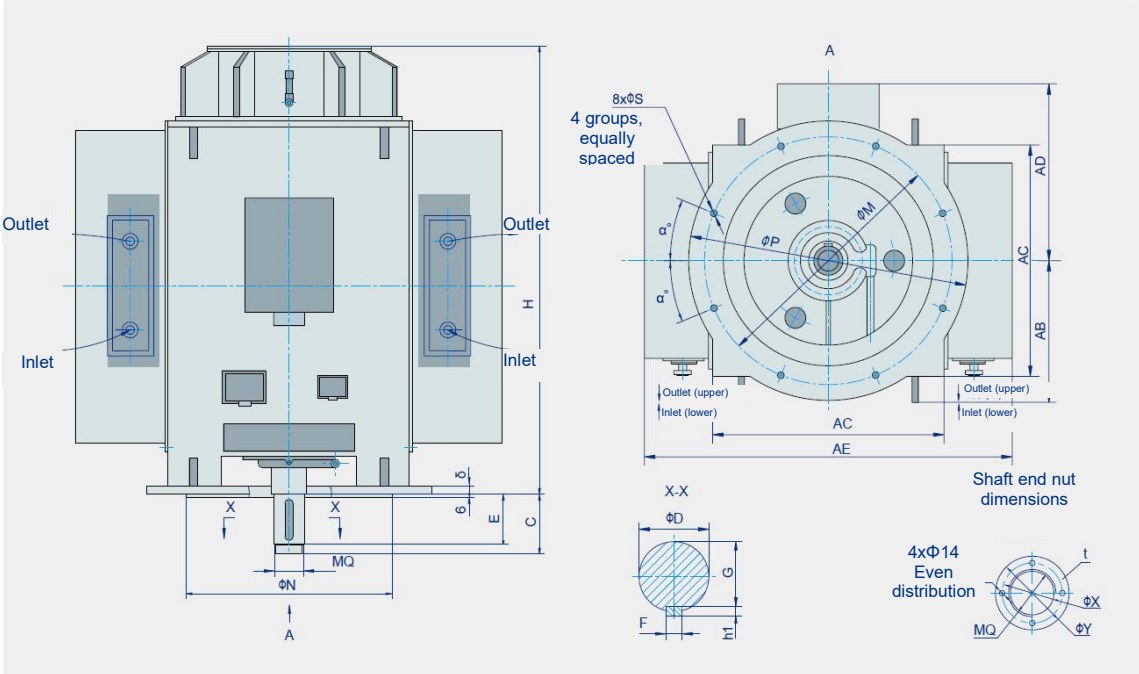
► ■ Overall and Installation Dimensions of YLST Series Medium 3-phase Vertical Asynchronous Motors (Figure 8)



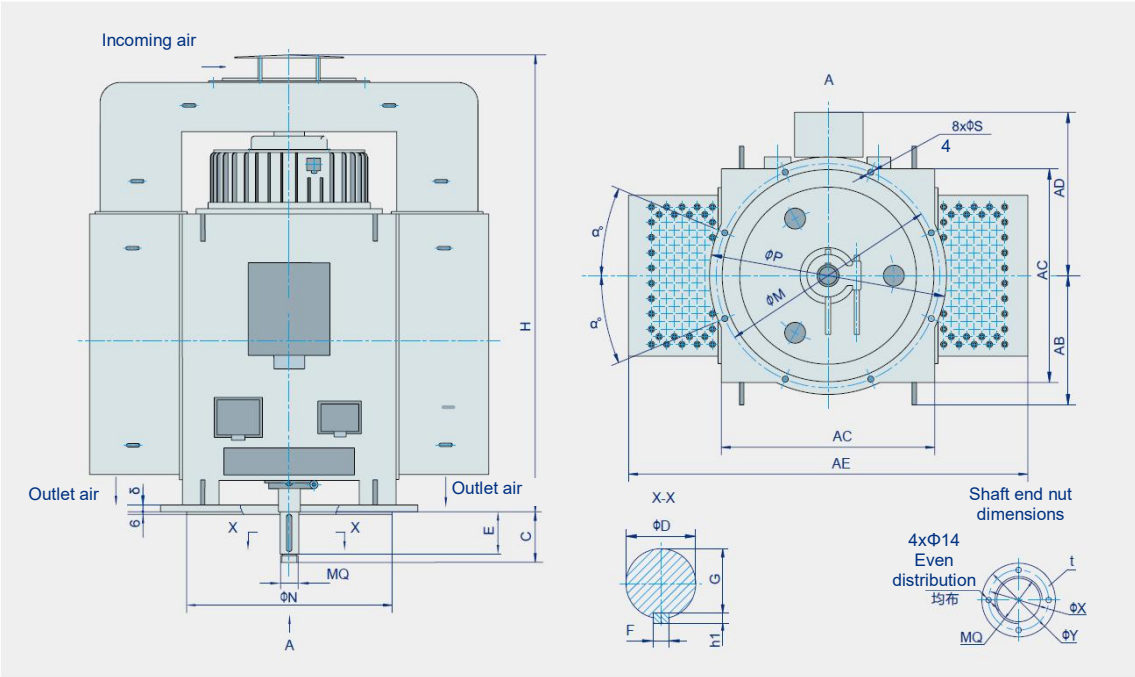
■ Overall and Installation Dimensions of YKSL Series Medium 3-phase Vertical Asynchronous Motors (Figure 9)



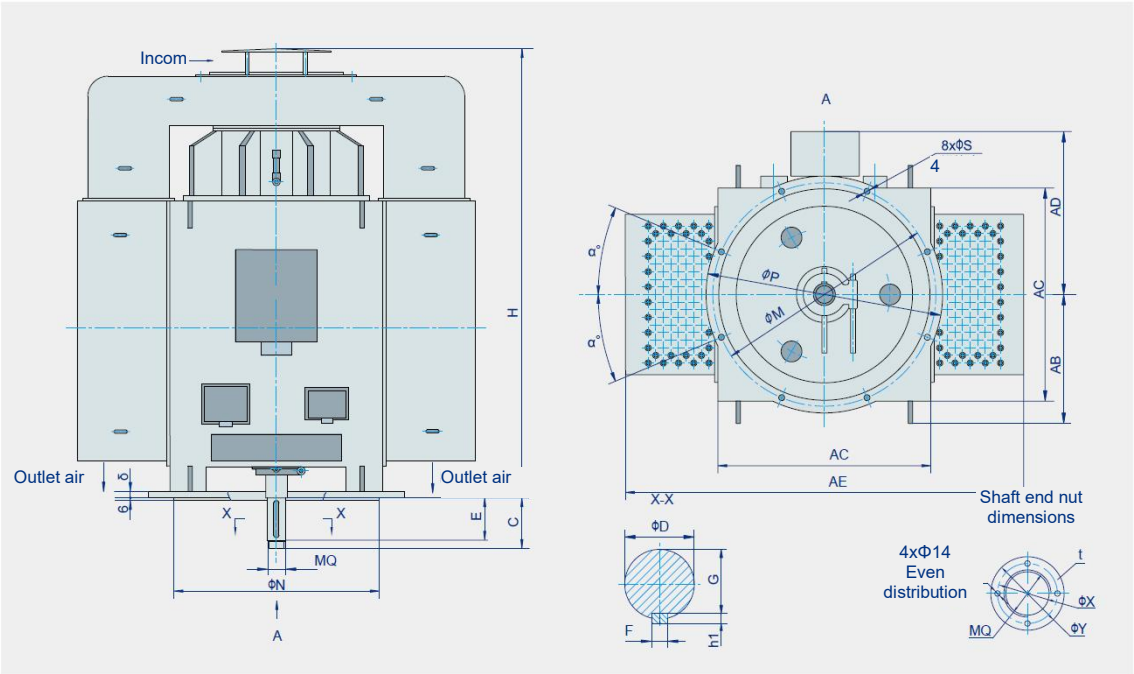
■ Overall and Installation Dimensions of YKSL Series Medium 3-phase Vertical Asynchronous Motors (Figure 10)



■ Overall and Installation Dimensions of YKKL Series Medium 3-phase Vertical Asynchronous Motors (Figure 11)



■ Overall and Installation Dimensions of YKKL Series Medium 3-phase Vertical Asynchronous Motors (Figure 12)



YL, YLST, YKKL, and YKSL Series Medium 3-phase Vertical Asynchronous Motors

► Overall and Installation Dimensions of YL355~630 Series Medium 3-phase Vertical Asynchronous Motors (Not Bearing Load Thrust) (3kV~11kV)

Table 1

Frame No.	No. of poles	Voltage	Mounting dimensions											Overall dimensions					
			N	P	M	δ	a	S	D	F	G	h1	C	AB	AC	AD	AE max	H max	Attached drawing
355	4-6	6KV	$700^{0}_{-0.08}$	900	760	30	30°	28	$100^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$90^{0}_{-0.2}$	16	210	528	800	843		1600	1
400	4-8	6KV	$800^{0}_{-0.08}$	1000	860	30	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	210	542	880	883		1650	1
450	4	6KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$120^{+0.035}_{+0.013}$	$32^{0}_{-0.062}$	$109^{0}_{-0.2}$	18	210	674	1080	983	1730	1850	2
	6-12	6KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	674	1080	983	1730	1850	2
	4-6	10KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.062}$	$100^{0}_{-0.2}$	16	210	674	1080	1248	1730	1850	2
500	4	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	722	1180	1033	1830	2050	2
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	250	722	1180	1033	1830	2050	2
	4	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	722	1180	1298	1830	2050	2
	6-10	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	250	722	1180	1298	1830	2050	2
560	4	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	250	844	1340	1216	2170	2422	2
	6-12	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	300	844	1340	1216	2208	2422	2
	4	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	250	844	1340	1378	2170	2422	2
	6-12	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	300	844	1340	1378	2208	2422	2
630	4	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	300	844	1340	1216	2260	2459	2
	6-12	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	300	844	1340	1216	2260	2459	2
	4	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	300	864	1440	1428	2360	2459	2
	6-12	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	300	864	1440	1428	2360	2459	2

► Overall and Installation Dimensions of YKSL355~630 Series Medium 3-phase Vertical Asynchronous Motors (Not Bearing Load Thrust) (3kV~11kV)

Table 2

Frame No.	No. of poles	Voltage	Mounting dimensions and tolerance											Overall dimensions					
			N	P	M	δ	a	S	D	F	G	h1	C	AB	AC	AD	AE max	H max	Attached drawing
355	4-6	6KV	$700^{0}_{-0.08}$	900	760	30	30°	28	$100^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$90^{0}_{-0.2}$	16	210	528	800	843	1620	1600	3
400	4-8	6KV	$800^{0}_{-0.08}$	1000	860	30	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	210	542	880	883	1770	1650	3
450	4	6KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$120^{+0.035}_{+0.013}$	$32^{0}_{-0.062}$	$109^{0}_{-0.2}$	18	210	674	1080	983	2030	1850	3
	6-12	6KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	674	1080	983	2030	1850	3
	4-6	10KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.062}$	$100^{0}_{-0.2}$	16	210	674	1080	1248	2030	1850	3
500	4	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	722	1180	1033	2210	2050	3
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	250	722	1180	1033	2210	2050	3
	4	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	722	1180	1298	2210	2050	3
	6-10	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	250	722	1180	1298	2210	2050	3
560	4	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	250	844	1340	1216	2408	2422	3
	6-12	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	300	844	1340	1216	2408	2422	3
	4	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	250	844	1340	1378	2408	2422	3
	6-12	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	300	844	1340	1378	2408	2422	3
630	4	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	300	844	1340	1216	2450	2459	3
	6-12	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	300	844	1340	1216	2450	2459	3
	4	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	300	864	1440	1428	2550	2459	3

	6-12	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	300	864	1440	1428	2550	2459	3

► Overall and Installation Dimensions of YKKL355~630 Series Medium 3-phase Vertical Asynchronous Motors (Not Bearing Load Thrust) (3kV~11kV)

Table 3

Frame No.	No. of poles	Voltage	Mounting dimensions and tolerance											Overall dimensions					
			N	P	M	δ	a	S	D	F	G	h1	C	AB	AC	AD	AE max	H max	Attached drawing
355	4-6	6KV	$700^{0}_{-0.08}$	900	760	30	30°	28	$100^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$90^{0}_{-0.2}$	16	210	528	800	843	1360	1870	4
400	4-8	6KV	$800^{0}_{-0.08}$	1000	860	30	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	210	542	880	883	1550	2060	4
450	4	6KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$120^{+0.035}_{+0.013}$	$32^{0}_{-0.062}$	$109^{0}_{-0.2}$	18	210	674	1080	983	2120	2315	4
	6-12	6KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	674	1080	983	2120	2315	4
	4-6	10KV	$1000^{0}_{-0.09}$	1250	1080	35	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	210	674	1080	983	2120	2315	4
500	4	6KV	$1250^{0}_{-0.105}$	1400	1320	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	722	1180	1033	2230	2555	4
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	250	722	1180	1033	2230	2555	4
	4	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	250	722	1180	1298	2230	2555	4
	6-10	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	250	722	1180	1298	2230	2555	4
560	4	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	250	844	1340	1216	2840	2916	4
	6-12	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	300	844	1340	1216	2560	2916	4
	4	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	250	844	1340	1378	2640	2916	4
	6-12	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	300	844	1340	1378	2390	2916	4
630	4	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	300	844	1340	1216	2930	2916	4
	6-12	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	300	844	1340	1216	2660	2916	4
	4	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	300	864	1440	1428	2940	2981	4
	6-12	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	300	864	1440	1428	2650	2981	4

► Overall and Installation Dimensions of YKSL355~630 Series Medium 3-phase Vertical Asynchronous Motors (Bearing Load Thrust) (3kV~11kV)

Table 4

Frame No.	No. of poles	Voltage	Mounting dimensions and tolerance													Overall dimensions					Shaft end nut dimensions			
			N	P	M	δ	a	S	D	F	G	h1	C	E	MQ	AB	AC	AD	AE max	H max	t	X	Y	Attached drawing
355	4-6	6KV	$700^{0}_{-0.08}$	900	760	30	30°	28	$100^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$90^{0}_{-0.2}$	16	250	210	M80×4	528	800	843		1800	36	120	150	5 or 6
400	4-8	6KV	$800^{0}_{-0.08}$	1000	860	30	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	250	210	M90×4	542	880	883		1850	40	130	160	5 or 6
450	4	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	28	$120^{+0.035}_{+0.013}$	$32^{0}_{-0.062}$	$109^{0}_{-0.2}$	18	250	210	M100×4	722	1180	1033	1830	2600	40	135	160	7 or 8
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	722	1180	1033	1830	2600	40	160	185	7 or 8
	4-6	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	250	210	M100×4	722	1180	1298	1830	2600	40	135	160	7 or 8
500	4	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	764	1260	1073	1910	2720	40	160	185	7 or 8
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	290	250	M130×3	722	1180	1033	1830	2720	40	160	185	7 or 8
	4	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	32	$119^{0}_{-0.2}$	18	290	250	M120×3	764	1260	1338	1910	2720	40	160	185	7 or 8

YL, YLST, YKKL, and YKSL Series Medium 3-phase Vertical Asynchronous Motors

	6-10	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	290	250	M130×3	722	1180	1298	1830	2720	40	160	185	7 or 8
560	4	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	300	250	M140×3	844	1340	1216	2170	3170	45	195	225	7 or 8
	6-12	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	350	300	M140×3	844	1340	1216	2208	3170	45	195	225	7 or 8
	4	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	300	250	M140×3	844	1340	1378	2170	3170	45	195	225	7 or 8
	6-12	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	350	300	M140×3	844	1340	1378	2208	3170	45	195	225	7 or 8
630	4	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	360	300	M150×3	844	1340	1216	2260	3170	55	200	230	7 or 8
	6-12	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	360	300	M160×3	844	1340	1216	2260	3170	55	200	230	7 or 8
	4	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	360	300	M150×3	864	1440	1428	2360	3170	55	200	230	7 or 8
	6-12	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	360	300	M160×3	864	1440	1428	2360	3170	55	200	230	7 or 8

► Overall and Installation Dimensions of YKSL355~630 Series Medium 3-phase Vertical Asynchronous Motors (Bearing Load Thrust) (3kV~11kV)

Table 5

Frame No.	No. of poles	Voltage	Mounting dimensions and tolerance													Overall dimensions					Shaft end nut dimensions			
			N	P	M	δ	a	S	D	F	G	h1	C	E	MQ	AB	AC	AD	AE max	H max	t	X	Y	Attached drawing
355	4-6	6KV	$700^{0}_{-0.08}$	900	760	30	30°	28	$100^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$90^{0}_{-0.2}$	16	250	210	M80×4	528	800	843	1620	1800	36	120	150	9 or 10
400	4-8	6KV	$800^{0}_{-0.08}$	1000	860	30	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	250	210	M90×4	542	880	883	1770	1850	40	130	160	9 or 10
450	4	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	28	$120^{+0.035}_{+0.013}$	$32^{0}_{-0.062}$	$109^{0}_{-0.2}$	18	250	210	M100×4	722	1180	1033	2210	2600	40	135	160	9 or 10
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	722	1180	1033	2210	2600	40	160	185	9 or 10
	4-6	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	250	210	M100×4	722	1180	1298	2210	2600	40	135	160	9 or 10
500	4	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	764	1260	1073	2290	2720	40	160	185	9 or 10
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	1280	20	290	250	M130×3	722	1180	1033	2210	2720	40	160	185	9 or 10
	4	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	765	1260	1338	2290	2720	40	160	185	9 or 10
	6-10	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	290	250	M130×3	722	1180	1298	2210	2720	40	160	185	9 or 10
560	4	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	300	250	M140×3	844	1340	1216	2408	3170	45	195	225	9 or 10
	6-12	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	350	300	M140×3	844	1340	1216	2408	3170	45	195	225	9 or 10
	4	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	300	250	M140×3	844	1340	1378	2408	3170	45	195	225	9 or 10
	6-12	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	350	300	M140×3	844	1340	1378	2408	3170	45	195	225	9 or 10
630	4	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	360	300	M150×3	844	1340	1216	2450	3170	55	200	230	9 or 10
	6-12	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	360	300	M160×3	844	1340	1216	2450	3170	55	200	230	9 or 10
	4	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	360	300	M150×3	864	1440	1428	2550	3170	55	200	230	9 or 10
	6-12	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	360	300	M160×3	864	1440	1428	2550	3170	55	200	230	9 or 10

► Overall and Installation Dimensions of YKSL355~630 Series Medium 3-phase Vertical Asynchronous Motors (Bearing Load Thrust) (3kV~11kV)

Table 6

Frame No.	No. of poles	Voltage	Mounting dimensions and tolerance													Overall dimensions					Shaft end nut dimensions			
			N	P	M	δ	a	S	D	F	G	h1	C	E	MQ	AB	AC	AD	AE max	H max	t	X	Y	Attached drawing
355	4-6	6KV	$700^{0}_{-0.08}$	900	760	30	30°	28	$100^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$90^{0}_{-0.2}$	16	250	210	M80×4	528	800	843	1360	2200	36	120	150	11 or 12
400	4-8	6KV	$800^{0}_{-0.08}$	1000	860	30	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	250	210	M90×4	542	880	883	1550	2500	40	130	160	11 or 12
450	4	6KV	$1000^{0}_{-0.09}$	1420	1180	35	22°30′	28	$120^{+0.035}_{+0.013}$	$32^{0}_{-0.062}$	$109^{0}_{-0.2}$	18	250	210	M100×4	722	1180	1033	2230	2700	40	135	160	11 or 12
	6-12	6KV	$1000^{0}_{-0.09}$	1420	1180	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	722	1180	1033	2230	2700	40	160	185	11 or 12

YL, YLST, YKKL, and YKSL Series Medium 3-phase Vertical Asynchronous Motors

	4-6	10KV	$1000^{0}_{-1.09}$	1420	1180	35	22°30′	28	$110^{+0.035}_{+0.013}$	$28^{0}_{-0.052}$	$100^{0}_{-0.2}$	16	250	210	M100×4	722	1180	1298	2230	2700	40	135	160	11 or 12
500	4	6KV	$1250^{0}_{-0.105}$	1400	1320	35	22°30′	28	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	764	1260	1073	2310	2800	40	160	185	11 or 12
	6-12	6KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	290	250	M130×3	722	1180	1033	2230	2800	40	160	185	11 or 12
	4	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$130^{+0.040}_{+0.015}$	$32^{0}_{-0.062}$	$119^{0}_{-0.2}$	18	290	250	M120×3	764	1260	1338	2310	2800	40	160	185	11 or 12
	6-10	10KV	$1120^{0}_{-0.105}$	1420	1180	35	22°30′	35	$140^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$128^{0}_{-0.2}$	20	290	250	M130×3	722	1180	1298	2230	2800	40	160	185	11 or 12
560	4	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	300	250	M140×3	844	1340	1216	2840	3500	45	195	225	11 or 12
	6-12	6KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	350	300	M140×3	844	1340	1216	2560	3500	45	195	225	11 or 12
	4	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$150^{+0.040}_{+0.015}$	$36^{0}_{-0.062}$	$138^{0}_{-0.2}$	20	300	250	M140×3	844	1340	1378	2640	3500	45	195	225	11 or 12
	6-12	10KV	$1180^{0}_{-0.105}$	1560	1320	40	22°30′	35	$160^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$147^{0}_{-0.2}$	22	350	300	M140×3	844	1340	1378	2390	3500	45	195	225	11 or 12
630	4	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	360	300	M150×3	844	1340	1216	2930	3500	55	200	230	11 or 12
	6-12	6KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	360	300	M160×3	844	1340	1216	2660	3500	55	200	230	11 or 12
	4	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$170^{+0.040}_{+0.015}$	$40^{0}_{-0.062}$	$157^{0}_{-0.2}$	22	360	300	M150×3	864	1440	1428	2940	3500	55	200	230	11 or 12
	6-12	10KV	$1180^{0}_{-0.105}$	1600	1400	40	22°30′	35	$180^{+0.040}_{+0.015}$	$45^{0}_{-0.062}$	$165^{0}_{-0.2}$	25	360	300	M160×3	864	1440	1428	2650	3500	55	200	230	11 or 12

► Technical Data of YL and YKSL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 7

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm(kg.m^2)	Weight (kg)	
											YL	YKSL
YL(YKSL)355-4	IP23/IP54	185	22.7	1482	93.23	0.8416	2.25	1.04	5.4	3.1	1680	1880
YL(YKSL)355-4	IP23/IP54	200	24.4	1483	93.32	0.8412	2.33	1.12	5.67	3.3	1800	2000
YL(YKSL)355-4	IP23/IP54	220	26.8	1481	93.45	0.8451	2.11	1.02	5.17	3.3	1800	2000
YL(YKSL)355-4	IP23/IP54	250	30	1479	93.64	0.8565	2.04	1.03	5.11	3.7	1920	2120
YL(YKSL)355-4	IP23/IP54	280	33.2	1480	93.90	0.8632	2.04	1.08	5.23	4.1	2060	2260
YL(YKSL)355-4	IP23/IP54	315	37.4	1480	94.01	0.8614	2.08	1.16	5.42	4.4	2180	2380
YL(YKSL)400-4	IP23/IP54	355	41.3	1480	94.06	0.879	1.97	0.95	4.86	6.2	2440	2640
YL(YKSL)400-4	IP23/IP54	400	46.3	1480	94.2	0.8821	1.99	1.01	4.98	6.9	2580	2780
YL(YKSL)400-4	IP23/IP54	450	51.8	1482	94.58	0.8832	2.14	1.14	5.49	7.7	2760	2960
YL(YKSL)400-4	IP23/IP54	500	57.4	1481	94.72	0.8847	2.10	1.15	5.44	8.3	2930	3130
YL(YKSL)400-4	IP23/IP54	560	64.2	1482	94.93	0.8842	2.08	1.17	5.44	8.8	3100	3300
YL(YKSL)450-4	IP23/IP54	630	72.3	1484	95.21	0.8809	2.27	1.14	5.36	12.1	3730	3980
YL(YKSL)450-4	IP23/IP54	710	81.2	1484	95.35	0.8819	2.30	1.21	5.49	13.1	3900	4150
YL(YKSL)450-4	IP23/IP54	800	91.2	1484	95.47	0.8841	2.25	1.21	5.43	14.5	4100	4350
YL(YKSL)450-4	IP23/IP54	900	102.0	1484	95.57	0.8881	2.31	1.31	5.69	16.7	4600	4850
YL(YKSL)500-4	IP23/IP54	1000	113.7	1488	95.81	0.8834	2.39	0.83	5.7	21.9	4720	4970
YL(YKSL)500-4	IP23/IP54	1120	126	1487	95.92	0.892	2.28	0.82	5.54	23.9	4840	5090
YL(YKSL)500-4	IP23/IP54	1250	139.9	1487	96.04	0.8955	2.22	0.83	5.46	25.9	4960	5210
YL(YKSL)500-4	IP23/IP54	1400	155.9	1486	96.07	0.8994	2.14	0.83	5.32	28.5	5080	5330
YL(YKSL)560-4	IP23/IP54	1600	176.3	1488	96.02	0.9094	1.94	1.11	4.97	65.0	7600	7900
YL(YKSL)560-4	IP23/IP54	1800	198.1	1487	96.06	0.910	1.88	1.15	4.92	71.8	8100	8400
YL(YKSL)630-4	IP23/IP54	2000	221.5	1489	96.37	0.9016	1.97	0.88	4.78	74.2	8350	8650
YL(YKSL)630-4	IP23/IP54	2240	247.4	1489	96.45	0.9032	1.99	0.95	4.92	80.8	8500	8800
YL(YKSL)630-4	IP23/IP54	2500	275.3	1489	96.53	0.9053	2.04	1.03	5.14	89.5	8850	9150
YL(YKSL)355-6	IP23/IP54	185	23.3	987	93.06	0.8226	1.91	0.99	4.58	5.0	1810	2010
YL(YKSL)355-6	IP23/IP54	200	25.1	987	93.17	0.8237	1.94	1.03	4.68	5.4	1850	2050
YL(YKSL)355-6	IP23/IP54	220	27.4	987	93.50	0.8275	1.96	1.06	4.81	6.0	2000	2700
YL(YKSL)355-6	IP23/IP54	250	31.2	988	93.58	0.8234	1.99	1.12	4.92	6.4	2150	2350
YL(YKSL)400-6	IP23/IP54	280	34.8	987	93.60	0.8273	1.86	0.95	4.55	10.2	2320	2520
YL(YKSL)400-6	IP23/IP54	315	38.9	988	93.83	0.8295	1.89	1.0	4.7	11.0	2520	2720
YL(YKSL)400-6	IP23/IP54	355	43.7	988	94.10	0.8307	1.90	1.05	4.79	12.6	2820	3020
YL(YKSL)400-6	IP23/IP54	400	49.4	988	94.29	0.8271	1.99	1.14	5.08	14.2	3120	3320
YL(YKSL)450-6	IP23/IP54	450	54.3	989	94.57	0.8432	2.28	1.20	5.29	16.5	3650	3900

► Technical Data of YL and YKSL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 7 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YL	YKSL
YL(YKSL)450-6	IP23/IP54	500	59.9	989	94.77	0.8469	2.28	1.23	5.35	18.2	3810	4060
YL(YKSL)450-6	IP23/IP54	560	67.2	989	94.90	0.8444	2.31	1.29	5.47	19.9	3990	4240
YL(YKSL)450-6	IP23/IP54	630	74.7	989	94.94	0.8549	2.26	1.31	5.44	23.0	4170	4420
YL(YKSL)500-6	IP23/IP54	710	82.8	991	95.56	0.8640	2.03	0.93	4.99	29.2	4370	4620
YL(YKSL)500-6	IP23/IP54	800	93.5	991	95.68	0.8603	2.11	1.0	5.22	32.0	4600	4850
YL(YKSL)500-6	IP23/IP54	900	104.4	991	95.75	0.8660	1.98	0.96	4.95	34.7	4910	5160
YL(YKSL)500-6	IP23/IP54	1000	115.5	990	95.77	0.8698	1.87	0.92	4.69	38.1	5210	5460
YL(YKSL)560-6	IP23/IP54	1120	128.3	991	95.82	0.8766	2.05	1.17	5.47	76.5	7580	7880
YL(YKSL)560-6	IP23/IP54	1250	142.3	991	95.90	0.8812	1.97	1.16	5.33	84.7	7950	8250
YL(YKSL)560-6	IP23/IP54	1400	159	990	95.95	0.8830	1.92	1.18	5.27	93.0	8250	8550
YL(YKSL)630-6	IP23/IP54	1600	179.5	993	96.33	0.8902	2.18	0.93	5.36	105.4	8600	8900
YL(YKSL)630-6	IP23/IP54	1800	201.3	993	96.41	0.8924	2.16	0.96	5.39	115.6	9100	9400
YL(YKSL)630-6	IP23/IP54	2000	224.7	990	96.51	0.8875	2.29	1.06	5.77	122.3	9600	9900
YL(YKSL)400-8	IP23/IP54	185	23.4	740	92.87	0.8187	1.92	1.08	4.55	11.6	2040	2240
YL(YKSL)400-8	IP23/IP54	200	25.4	741	92.92	0.8144	2.03	1.18	4.83	12.7	2330	2530
YL(YKSL)400-8	IP23/IP54	220	27.7	740	92.98	0.8215	1.84	1.07	4.42	12.7	2330	2530
YL(YKSL)400-8	IP23/IP54	250	31.3	740	93.26	0.8248	1.83	1.09	4.45	14.4	2620	2820
YL(YKSL)400-8	IP23/IP54	280	35.1	740	93.48	0.8221	1.92	1.19	4.72	16.2	2920	3120
YL(YKSL)450-8	IP23/IP54	315	39.3	742	94.05	0.8208	2.18	1.10	5.09	19.3	3250	3500
YL(YKSL)450-8	IP23/IP54	355	44.0	741	94.09	0.8256	2.07	1.06	4.85	20.8	3490	3740
YL(YKSL)450-8	IP23/IP54	400	49.1	740	94.22	0.8325	1.98	1.03	4.7	22.8	3700	3950
YL(YKSL)450-8	IP23/IP54	450	55.0	740	94.38	0.8342	1.94	1.03	4.64	24.8	3930	4180
YL(YKSL)500-8	IP23/IP54	500	61.5	742	94.64	0.8263	1.96	1.02	4.74	37.1	4030	4280
YL(YKSL)500-8	IP23/IP54	560	68.7	742	94.82	0.8273	1.95	1.04	4.75	40.6	4330	4580
YL(YKSL)500-8	IP23/IP54	630	77.4	742	94.93	0.8248	1.98	1.08	4.86	44.1	4630	4880
YL(YKSL)500-8	IP23/IP54	710	87.6	742	95.02	0.8211	2.01	1.14	4.98	48.5	4930	5180
YL(YKSL)560-8	IP23/IP54	800	93.1	742	95.32	0.8672	1.97	1.04	4.82	89.0	7140	7440
YL(YKSL)560-8	IP23/IP54	900	104.5	742	95.44	0.8686	2.01	1.1	5.0	99.0	7650	7950
YL(YKSL)560-8	IP23/IP54	1000	115.8	742	95.5	0.8698	1.96	1.1	4.93	108	7900	8200
YL(YKSL)630-8	IP23/IP54	1120	129.4	744	95.94	0.8684	1.98	0.97	5.26	123	8300	8600
YL(YKSL)630-8	IP23/IP54	1250	143.4	744	96.03	0.8736	1.88	0.95	5.08	135	8850	9150
YL(YKSL)630-8	IP23/IP54	1400	160.1	744	96.12	0.8757	1.83	0.94	4.99	147	9300	9600
YL(YKSL)630-8	IP23/IP54	1600	183.5	744	96.19	0.872	1.94	1.05	5.37	159	9750	10050

► Technical Data of YL and YKSL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 7 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YL	YKSL
YL(YKSL)450-10	IP23/IP54	220	29.0	593	93.08	0.7847	2.18	1.14	4.72	21.4	3200	3450
YL(YKSL)450-10	IP23/IP54	250	33.2	593	93.20	0.7778	2.23	1.20	4.81	23.6	3400	3650
YL(YKSL)450-10	IP23/IP54	280	36.7	593	93.36	0.7866	2.14	1.17	4.69	25.8	3680	3930
YL(YKSL)450-10	IP23/IP54	315	41.1	592	93.50	0.789	2.1	1.16	4.62	28	3870	4120
YL(YKSL)450-10	IP23/IP54	355	45.6	591	93.63	0.7994	1.92	1.08	4.29	29.7	4070	4320
YL(YKSL)500-10	IP23/IP54	400	51.1	592	93.96	0.8022	1.89	0.9	3.96	38.6	4180	4430
YL(YKSL)500-10	IP23/IP54	450	56.8	592	94.13	0.8095	1.82	0.88	3.86	42.7	4460	4710
YL(YKSL)500-10	IP23/IP54	500	63.0	592	94.27	0.8103	1.82	0.9	3.88	46.8	4750	5000
YL(YKSL)500-10	IP23/IP54	560	70.8	592	94.41	0.8063	1.86	0.94	3.97	50.9	5030	5280
YL(YKSL)500-10	IP23/IP54	630	79.5	592	94.57	0.8067	1.89	0.97	4.06	57.0	5310	5560
YL(YKSL)560-10	IP23/IP54	710	84.8	593	94.76	0.8506	2.18	1.22	5.02	106	4970	7270
YL(YKSL)560-10	IP23/IP54	800	94.6	593	94.71	0.859	1.95	1.07	4.46	116	7260	7560
YL(YKSL)560-10	IP23/IP54	900	108	593	94.98	0.845	2.22	1.28	5.2	140	7570	7870
YL(YKSL)630-10	IP23/IP54	1000	125.2	594	95.13	0.81	2.02	0.99	4.39	116	7290	7590
YL(YKSL)630-10	IP23/IP54	1120	136.6	594	95.2	0.829	1.92	0.95	4.39	129	7750	8050
YL(YKSL)630-10	IP23/IP54	1250	151	594	95.27	0.8324	1.88	0.95	4.24	140	8680	8980
YL(YKSL)450-12	IP23/IP54	185	26.1	493	92.24	0.740	1.94	0.95	3.87	23.2	3470	3720
YL(YKSL)450-12	IP23/IP54	200	27.8	493	92.48	0.7476	1.89	0.93	3.79	25.4	3670	3920
YL(YKSL)450-12	IP23/IP54	220	30.3	493	92.67	0.7528	1.83	0.9	3.71	27.6	3860	4110
YL(YKSL)450-12	IP23/IP54	250	34.9	493	92.82	0.7418	1.93	0.98	3.89	29.8	4060	4310
YL(YKSL)500-12	IP23/IP54	280	38.0	495	93.25	0.7604	2.07	1.12	4.51	45.8	4160	4430
YL(YKSL)500-12	IP23/IP54	315	42.5	494	93.42	0.7641	2.01	1.11	4.42	49.4	4379	4620
YL(YKSL)500-12	IP23/IP54	355	47.4	494	93.57	0.7703	1.95	1.09	4.32	54.1	4730	4980
YL(YKSL)500-12	IP23/IP54	400	53.3	494	93.72	0.7701	1.93	1.10	4.31	58.9	5000	5250
YL(YKSL)500-12	IP23/IP54	450	59.5	494	93.94	0.775	1.91	1.10	4.30	66.0	5300	5550
YL(YKSL)560-12	IP23/IP54	500	63.8	494	94.36	0.7988	2.0	1.12	4.42	95	6850	7150
YL(YKSL)560-12	IP23/IP54	560	71.3	494	94.49	0.7977	2.05	1.16	4.54	106	7250	7550
YL(YKSL)560-12	IP23/IP54	630	80.2	494	94.59	0.7991	2.11	1.23	4.72	120	7520	7820
YL(YKSL)630-12	IP23/IP54	710	90.7	494	94.74	0.7951	1.84	0.87	3.89	132	7930	8230
YL(YKSL)630-12	IP23/IP54	800	103	494	94.89	0.7885	1.94	0.96	4.14	145	8430	8730
YL(YKSL)630-12	IP23/IP54	900	115.4	494	95.04	0.79	1.9	0.95	4.09	154	8800	9100

► Technical Data of YLST and YKSL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 8

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
												YKSL
	IP23/IP54	185	23.2	1482	91.23	0.8416	2.25	1.04	5.4	3.1	2000	2200
YLST(YKSL)355-4	IP23/IP54	200	25.1	1483	91.32	0.8412	2.33	1.12	5.67	3.3	2150	2350
YLST(YKSL)355-4	IP23/IP54	220	27.4	1481	91.50	0.8451	2.11	1.02	5.17	3.3	2150	2350
YLST(YKSL)355-4	IP23/IP54	250	30.6	1479	91.64	0.8560	2.04	1.03	5.11	3.7	2300	2500
YLST(YKSL)355-4	IP23/IP54	280	34.0	1480	91.90	0.8632	2.04	1.08	5.23	4.1	2550	2750
YLST(YKSL)400-4	IP23/IP54	315	38.0	1480	92.51	0.8614	2.08	1.16	5.42	4.4	2580	2780
YLST(YKSL)400-4	IP23/IP54	355	42.0	1480	92.56	0.879	1.97	0.95	4.86	6.2	2840	3040
YLST(YKSL)400-4	IP23/IP54	400	47.0	1482	92.7	0.8821	1.99	1.01	4.98	6.9	2980	3180
YLST(YKSL)400-4	IP23/IP54	450	52.7	1481	93.08	0.8832	2.14	1.14	5.49	7.7	3160	3360
YLST(YKSL)400-4	IP23/IP54	500	58.3	1482	93.22	0.8847	2.10	1.15	5.44	8.3	3330	3530
YLST(YKSL)450-4	IP23/IP54	560	65.2	1484	93.43	0.8842	2.08	1.17	5.44	8.8	3450	3700
YLST(YKSL)450-4	IP23/IP54	630	73.4	1484	93.71	0.8809	2.27	1.14	5.36	12.1	4130	4380
YLST(YKSL)450-4	IP23/IP54	710	82.5	1484	93.85	0.8819	2.30	1.21	5.49	13.3	4300	4550
YLST(YKSL)450-4	IP23/IP54	800	92.7	1484	93.97	0.8841	2.25	1.21	5.43	14.5	4580	4830
YLST(YKSL)500-4	IP23/IP54	900	103.7	1482	94.07	0.8881	2.31	1.31	5.69	16.7	5350	5600
YLST(YKSL)500-4	IP23/IP54	1000	115.5	1488	94.31	0.8834	2.39	0.83	5.7	21.9	5470	5720
YLST(YKSL)500-4	IP23/IP54	1120	128.0	1487	94.42	0.892	2.28	0.82	5.54	23.9	5590	5840
YLST(YKSL)500-4	IP23/IP54	1250	142.1	1487	94.54	0.8955	2.22	0.83	5.46	25.9	5660	5960
YLST(YKSL)560-4	IP23/IP54	1400	158.4	1486	94.57	0.8994	2.14	0.83	5.32	28.5	5780	6080
YLST(YKSL)560-4	IP23/IP54	1600	179.1	1488	94.52	0.9094	1.94	1.11	4.97	65.0	8500	8800
YLST(YKSL)560-4	IP23/IP54	1800	201.3	1487	94.56	0.910	1.88	1.15	4.92	71.8	9000	9300
YLST(YKSL)630-4	IP23/IP54	2000	225	1489	94.87	0.9016	1.97	0.88	4.78	74.2	9400	9700
YLST(YKSL)630-4	IP23/IP54	2240	251.3	1489	94.95	0.9032	1.99	0.95	4.92	80.8	9650	9950
YLST(YKSL)630-4	IP23/IP54	2500	279.6	1489	95.03	0.9053	2.04	1.03	5.14	89.5	9720	10200
YLST(YKSL)355-6	IP23/IP54	185	23.8	987	91.06	0.8226	1.91	0.99	4.58	5.0	2060	2260
YLST(YKSL)355-6	IP23/IP54	200	25.6	987	91.17	0.8237	1.94	1.03	4.68	5.4	2110	2310
YLST(YKSL)355-6	IP23/IP54	220	28.0	987	91.50	0.8275	1.96	1.06	4.91	6.0	2140	2340
YLST(YKSL)400-6	IP23/IP54	250	31.9	988	91.58	0.8234	1.99	1.12	4.92	6.4	2190	2390
YLST(YKSL)400-6	IP23/IP54	280	35.4	987	92.10	0.8273	1.86	0.95	4.55	10.2	2550	2750
YLST(YKSL)400-6	IP23/IP54	315	39.6	988	92.33	0.8295	1.89	1.0	4.7	11.0	2750	2950
YLST(YKSL)400-6	IP23/IP54	355	44.4	988	92.60	0.8307	1.9	1.05	4.79	12.6	3050	3250
YLST(YKSL)450-6	IP23/IP54	400	50.2	988	92.79	0.8271	1.99	1.14	5.08	14.2	3590	3840
YLST(YKSL)450-6	IP23/IP54	450	55.2	989	93.07	0.8432	2.28	1.20	5.29	16.5	3890	4140

► Technical Data of YLST and YKSL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 8 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YLST	YKSL
YLST(YKSL)450-6	IP23/IP54	500	60.9	989	93.27	0.8469	2.28	1.23	5.35	18.2	4190	4440
YLST(YKSL)450-6	IP23/IP54	560	68.3	989	93.4	0.8444	2.31	1.29	5.47	19.9	4509	4750
YLST(YKSL)500-6	IP23/IP54	630	75.9	989	93.44	0.8549	2.24	1.31	5.44	23	4870	5120
YLST(YKSL)500-6	IP23/IP54	710	84.1	991	94.06	0.864	2.03	0.93	4.99	29.2	5120	5370
YLST(YKSL)500-6	IP23/IP54	800	95.0	991	94.18	0.8603	2.11	1.0	5.22	32	5359	5600
YLST(YKSL)500-6	IP23/IP54	900	106.1	991	94.25	0.866	1.98	0.96	4.95	34.7	5660	5910
YLST(YKSL)560-6	IP23/IP54	1000	116.6	990	94.27	0.8753	2.09	1.14	5.41	72.3	5910	8210
YLST(YKSL)560-6	IP23/IP54	1120	103.3	991	94.32	0.8766	2.05	1.17	5.47	76.5	8470	8720
YLST(YKSL)560-6	IP23/IP54	1250	144.6	991	94.4	0.8812	1.97	1.16	5.33	84.7	8950	9250
YLST(YKSL)630-6	IP23/IP54	1400	161.5	990	94.45	0.883	1.92	1.18	5.27	93	9250	9550
YLST(YKSL)630-6	IP23/IP54	1600	182.4	993	94.83	0.8902	2.18	0.93	5.36	105.4	9750	10050
YLST(YKSL)630-6	IP23/IP54	1800	204.5	993	94.91	0.8924	2.16	0.96	5.39	115.6	10200	10500
YLST(YKSL)400-8	IP23/IP54	185	23.9	740	90.87	0.8187	1.92	1.08	4.55	11.6	2430	2630
YLST(YKSL)400-8	IP23/IP54	200	26.0	741	90.92	0.8144	2.03	1.18	4.83	12.7	2730	2930
YLST(YKSL)400-8	IP23/IP54	220	28.3	740	90.98	0.8215	1.84	1.07	4.42	12.7	2730	2930
YLST(YKSL)400-8	IP23/IP54	250	31.8	740	91.66	0.8248	1.83	1.09	4.45	14.4	3020	3220
YLST(YKSL)400-8	IP23/IP54	280	35.7	740	91.88	0.8221	1.92	1.19	4.72	16.2	3320	3520
YLST(YKSL)450-8	IP23/IP54	315	39.9	742	92.45	0.8208	2.18	1.10	5.09	19.3	3650	3900
YLST(YKSL)450-8	IP23/IP54	355	44.7	741	92.59	0.8256	2.07	1.06	4.85	20.8	3830	4080
YLST(YKSL)450-8	IP23/IP54	400	49.9	740	92.72	0.8325	1.98	1.03	4.7	22.8	4130	4380
YLST(YKSL)450-8	IP23/IP54	450	55.9	740	92.88	0.8342	1.94	1.03	4.64	24.8	4430	4680
YLST(YKSL)500-8	IP23/IP54	500	62.5	742	93.14	0.8263	1.96	1.02	4.74	37.1	4880	5130
YLST(YKSL)500-8	IP23/IP54	560	69.8	742	93.32	0.8273	1.95	1.04	4.75	40.6	5180	5430
YLST(YKSL)500-8	IP23/IP54	630	78.7	742	93.43	0.8248	1.98	1.08	4.86	44.1	5480	5730
YLST(YKSL)500-8	IP23/IP54	710	89.0	742	93.52	0.8211	2.01	1.14	4.98	48.5	5780	6030
YLST(YKSL)560-8	IP23/IP54	800	94.6	742	93.82	0.8672	1.97	1.04	4.82	89.0	8110	7410
YLST(YKSL)560-8	IP23/IP54	900	106.1	742	93.94	0.8686	2.01	1.1	5.0	99.0	8650	8950
YLST(YKSL)560-8	IP23/IP54	1000	117.7	742	94.0	0.8698	1.96	1.1	4.93	108	9000	9300
YLST(YKSL)630-8	IP23/IP54	1120	131.4	744	94.44	0.8684	1.98	0.97	5.26	123	9450	9750
YLST(YKSL)630-8	IP23/IP54	1250	145.7	744	94.53	0.8736	1.88	0.95	5.08	135	9900	10200
YLST(YKSL)630-8	IP23/IP54	1400	162.6	744	94.62	0.8757	1.83	0.94	4.99	147	10400	10700
YLST(YKSL)630-8	IP23/IP54	1600	186.5	744	94.69	0.872	1.94	1.05	5.37	159	10900	11200
YLST(YKSL)450-10	IP23/IP54	220	29.6	593	91.08	0.7847	2.18	1.14	4.72	21.4	3630	3880

► Technical Data of YLST and YKSL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 8 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YLST	YKSL
YLST(YKSL)450-10	IP23/IP54	250	33.9	593	91.2	0.7778	2.23	1.2	4.81	23.6	3830	4080
YLST(YKSL)450-10	IP23/IP54	280	37.5	593	91.36	0.7866	2.14	1.17	4.69	25.8	4110	4360
YLST(YKSL)450-10	IP23/IP54	315	41.8	592	92.0	0.789	2.1	1.16	4.62	28	4300	4550
YLST(YKSL)500-10	IP23/IP54	355	46.4	591	92.13	0.7994	1.92	1.08	4.29	29.7	4600	4850
YLST(YKSL)500-10	IP23/IP54	400	51.9	592	92.46	0.8022	1.89	0.9	3.96	38.6	4930	5180
YLST(YKSL)500-10	IP23/IP54	450	57.7	592	92.63	0.8095	1.82	0.88	3.86	42.7	5210	5460
YLST(YKSL)500-10	IP23/IP54	500	64.0	592	92.77	0.8103	1.82	0.9	3.88	46.8	5500	5750
YLST(YKSL)500-10	IP23/IP54	560	71.9	592	92.91	0.8063	1.86	0.94	3.97	50.9	5780	6030
YLST(YKSL)500-10	IP23/IP54	630	80.7	592	93.07	0.8067	1.89	0.97	4.06	57	6070	6320
YLST(YKSL)560-10	IP23/IP54	710	86.1	593	93.26	0.8506	2.18	1.22	5.02	106	7970	8270
YLST(YKSL)560-10	IP23/IP54	800	96.1	593	93.21	0.859	1.95	1.07	4.46	116	8150	8450
YLST(YKSL)560-10	IP23/IP54	900	109.6	593	93.48	0.845	2.22	1.28	5.12	140	8330	8630
YLST(YKSL)630-10	IP23/IP54	1000	126.9	594	93.63	0.81	2.02	0.99	4.39	116	8700	9000
YLST(YKSL)630-10	IP23/IP54	1120	138.7	594	93.7	0.829	1.92	0.95	4.24	129	9200	9500
YLST(YKSL)630-10	IP23/IP54	1250	154.1	594	93.77	0.8324	1.88	0.95	4.24	140	9730	10030
YLST(YKSL)450-12	IP23/IP54	180	26.7	493	90.24	0.740	1.94	0.95	3.87	23.2	3970	4220
YLST(YKSL)450-12	IP23/IP54	200	28.5	493	90.48	0.7476	1.89	0.93	3.79	25.4	4170	4420
YLST(YKSL)450-12	IP23/IP54	220	31.0	493	90.67	0.7525	1.83	0.9	3.71	27.6	4360	4610
YLST(YKSL)450-12	IP23/IP54	250	35.7	493	90.82	0.7418	1.93	0.98	3.89	29.8	4510	4760
YLST(YKSL)500-12	IP23/IP54	280	38.8	495	91.25	0.7604	2.07	1.12	4.51	45.8	4930	5180
YLST(YKSL)500-12	IP23/IP54	315	43.2	494	91.82	0.7641	2.01	1.11	4.42	49.4	5120	5370
YLST(YKSL)500-12	IP23/IP54	355	48.2	494	91.97	0.7703	1.95	1.09	4.32	54.1	5480	5730
YLST(YKSL)500-12	IP23/IP54	400	54.2	494	92.22	0.7701	1.93	1.10	4.31	58.9	5750	6000
YLST(YKSL)500-12	IP23/IP54	450	60.4	494	92.44	0.775	1.91	1.10	4.30	66	6030	6280
YLST(YKSL)560-12	IP23/IP54	500	64.9	494	92.86	0.7988	2.0	1.12	4.42	95	7480	7780
YLST(YKSL)560-12	IP23/IP54	560	72.5	494	92.99	0.7977	2.05	1.16	4.54	106	7850	8150
YLST(YKSL)560-12	IP23/IP54	630	81.5	494	93.09	0.7991	2.11	1.23	4.72	120	8470	8770
YLST(YKSL)630-12	IP23/IP54	710	92.2	494	93.24	0.7951	1.84	0.87	3.89	132	8980	9280
YLST(YKSL)630-12	IP23/IP54	800	104.5	494	93.39	0.7885	1.94	0.96	4.14	145	9480	9780
YLST(YKSL)630-12	IP23/IP54	900	117.2	494	93.54	0.79	1.9	0.95	4.09	154	9850	10150

► Technical Data of YKKL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 9

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)
YKKL355-4	IP44/IP54	185	22.9	1484	92.72	0.8373	2.52	1.21	6.04	3.3	2100
YKKL355-4	IP44/IP54	200	24.5	1482	92.73	0.8457	2.33	1.12	5.65	3.3	2100
YKKL355-4	IP44/IP54	220	26.8	1482	92.98	0.8511	2.32	1.17	5.73	3.7	2240
YKKL355-4	IP44/IP54	250	30.2	1482	93.03	0.8556	2.28	1.21	5.77	4.1	2380
YKKL400-4	IP44/IP54	280	32.9	1482	93.08	0.8788	2.2	1.01	5.29	5.6	2580
YKKL400-4	IP44/IP54	315	36.9	1482	93.39	0.8789	2.23	1.08	5.44	6.2	2760
YKKL400-4	IP44/IP54	355	41.4	1482	93.51	0.8822	2.24	1.14	5.57	6.9	2900
YKKL400-4	IP44/IP54	400	46.7	1484	93.92	0.8773	2.41	1.29	6.09	7.7	3080
YKKL400-4	IP44/IP54	450	52.3	1483	94.11	0.8803	2.34	1.28	5.98	8.3	3250
YKKL450-4	IP44/IP54	500	59.1	1485	94.25	0.864	2.55	1.24	5.78	10.9	3960
YKKL450-4	IP44/IP54	560	65	1486	94.58	0.8758	2.56	1.29	5.95	12.1	4100
YKKL450-4	IP44/IP54	630	72.9	1486	94.77	0.877	2.59	1.36	6.12	13.3	4280
YKKL450-4	IP44/IP54	710	81.8	1486	94.93	0.8797	2.53	1.37	6.06	14.5	4460
YKKL500-4	IP44/IP54	800	93.6	1490	95.03	0.8651	2.79	0.94	6.41	20.3	4750
YKKL500-4	IP44/IP54	900	104	1489	95.18	0.8749	2.66	0.93	6.23	21.9	4970
YKKL500-4	IP44/IP54	1000	113.6	1489	95.35	0.8886	2.56	0.92	6.14	23.6	5200
YKKL560-4	IP44/IP54	1120	126.3	1487	95.51	0.8932	2.48	0.93	6.04	25.9	5510
YKKL560-4	IP44/IP54	1250	138.8	1490	95.07	0.9117	2.26	1.23	5.67	59.4	7980
YKKL560-4	IP44/IP54	1400	154.8	1489	95.26	0.9135	2.21	1.27	5.66	65.0	8410
YKKL560-4	IP44/IP54	1600	176.4	1489	95.35	0.9153	2.12	1.30	5.53	71.8	8950
YKKL630-4	IP44/IP54	1800	200.7	1490	95.70	0.9107	2.20	0.98	5.28	74.2	9020
YKKL630-4	IP44/IP54	2000	222.4	1490	95.78	0.9033	2.23	1.06	5.47	80.8	9520
YKKL630-4	IP44/IP54	2240	247.0	1490	95.89	0.9100	2.28	1.15	5.73	89.5	10020
YKKL400-6	IP44/IP54	185	23.3	989	92.5	0.826	2.21	1.04	5.22	8.9	2380
YKKL400-6	IP44/IP54	200	25	988	92.47	0.8338	2.04	0.96	4.87	8.9	2380
YKKL400-6	IP44/IP54	220	27.8	989	92.71	0.8227	2.13	1.05	5.08	9.2	2450
YKKL400-6	IP44/IP54	250	31.3	988	93.09	0.8255	2.09	1.07	5.06	10.2	2650
YKKL400-6	IP44/IP54	280	35	989	93.33	0.8238	2.13	1.13	5.22	11.1	2850
YKKL400-6	IP44/IP54	315	39.1	989	93.65	0.8283	2.15	1.18	5.36	12.6	3150
YKKL450-6	IP44/IP54	355	43.5	990	93.88	0.8357	2.58	1.32	5.84	15.3	3860
YKKL450-6	IP44/IP54	400	48.8	990	94.18	0.8378	2.56	1.35	5.89	16.6	4020
YKKL450-6	IP44/IP54	450	54.8	990	94.36	0.8373	2.53	1.37	5.85	18.3	4180
YKKL450-6	IP44/IP54	500	61.2	990	94.50	0.8322	2.59	1.45	6.02	20.0	4360

► Technical Data of YKKL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 9 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)
YKKL500-6	IP44/IP54	560	65.7	992	94.95	0.8636	2.24	0.98	5.38	27.2	4700
YKKL500-6	IP44/IP54	630	74.2	992	95.11	0.8594	2.30	1.05	5.56	29.2	4920
YKKL500-6	IP44/IP54	710	84	992	95.25	0.8537	2.38	1.13	5.81	32.0	5150
YKKL500-6	IP44/IP54	800	93.6	992	95.37	0.8624	2.23	1.08	5.52	34.7	5460
YKKL560-6	IP44/IP54	900	104.8	992	95.06	0.8693	2.22	1.16	5.68	69.6	7900
YKKL560-6	IP44/IP54	1000	115.8	992	95.26	0.8726	2.31	1.30	6.07	76.3	8320
YKKL560-6	IP44/IP54	1120	128.5	992	95.36	0.8796	2.21	1.29	5.91	85.0	8850
YKKL630-6	IP44/IP54	1250	142.2	993	95.72	0.8838	2.37	0.93	5.63	95.2	8900
YKKL630-6	IP44/IP54	1400	158.5	993	95.82	0.8872	2.49	1.06	6.07	105.4	9400
YKKL630-6	IP44/IP54	1600	180.3	993	95.62	0.8931	2.52	1.17	6.26	115.6	9900
YKKL400-8	IP44/IP54	185	23.8	742	92.55	0.8086	2.2	1.28	5.15	12.7	2830
YKKL400-8	IP44/IP54	200	25.4	741	92.60	0.8174	2.03	1.18	4.82	12.7	2830
YKKL400-8	IP44/IP54	220	27.8	741	92.96	0.8201	2.08	1.24	5.01	14.4	3120
YKKL450-8	IP44/IP54	250	32.6	742	93.39	0.7913	2.44	1.42	5.32	17.9	3660
YKKL450-8	IP44/IP54	280	35.8	742	93.58	0.8039	2.34	1.38	5.21	19.4	3800
YKKL450-8	IP44/IP54	315	39.9	741	93.63	0.8109	2.22	1.34	4.98	21	3980
YKKL450-8	IP44/IP54	355	44.5	741	93.82	0.8191	2.13	1.3	4.83	23	4250
YKKL500-8	IP44/IP54	400	49.9	743	94.08	0.8195	2.21	1.2	5.23	34.4	4460
YKKL500-8	IP44/IP54	450	56	743	94.25	0.82	2.18	1.13	5.2	37.1	4680
YKKL500-8	IP44/IP54	500	62.1	743	94.45	0.8196	2.19	1.16	5.25	40.6	4980
YKKL500-8	IP44/IP54	560	69.8	743	94.59	0.8168	2.23	1.22	5.4	44.1	5280
YKKL560-8	IP44/IP54	630	74.2	742	94.62	0.8635	1.99	0.99	4.72	81	7540
YKKL560-8	IP44/IP54	710	83.3	742	94.81	0.8648	2.01	1.04	4.84	89	7940
YKKL560-8	IP44/IP54	800	94.0	743	95.0	0.862	2.26	1.24	5.55	99	8450
YKKL630-8	IP44/IP54	900	104.2	745	95.38	0.8712	2.02	1.01	5.52	110.5	8700
YKKL630-8	IP44/IP54	1000	116.9	745	95.46	0.8626	2.12	1.13	5.98	122	9100
YKKL630-8	IP44/IP54	1120	129.3	745	95.58	0.8721	2.09	1.08	5.69	135	9650
YKKL630-8	IP44/IP54	1250	144	745	95.71	0.8723	1.96	1.10	5.68	146	10100
YKKL450-10	IP44/IP54	185	25.4	594	92.65	0.7573	2.59	1.36	5.39	21.4	3750
YKKL450-10	IP44/IP54	200	26.9	594	92.67	0.7709	2.4	1.25	5.07	21.4	3760
YKKL450-10	IP44/IP54	220	30.1	594	92.81	0.757	2.53	1.36	5.3	23.6	3950
YKKL450-10	IP44/IP54	250	33.5	594	93.02	0.7713	2.4	1.31	5.13	25.8	4230
YKKL450-10	IP44/IP54	280	37.3	593	93.2	0.7742	2.36	1.31	5.08	28	4420

► Technical Data of YKKL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 9 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)
YKKL500-10	IP44/IP54	315	41.7	594	93.71	0.7754	2.41	1.15	4.85	38.6	4730
YKKL500-10	IP44/IP54	355	46.1	594	93.96	0.7881	2.32	1.12	4.76	42.7	5010
YKKL500-10	IP44/IP54	400	51.7	594	94.11	0.7911	2.29	1.13	4.73	46.8	5300
YKKL500-10	IP44/IP54	450	58.5	594	94.24	0.7848	2.32	1.17	4.8	50.9	5580
YKKL560-10	IP44/IP54	500	60.3	593	94.05	0.8481	2.26	1.17	5.0	87	7010
YKKL560-10	IP44/IP54	560	67.5	593	94.25	0.847	2.35	1.26	5.26	96	7300
YKKL560-10	IP44/IP54	630	76.3	593	94.34	0.8423	2.46	1.37	5.57	106	7670
YKKL560-10	IP44/IP54	710	84.8	593	94.37	0.8550	2.18	1.18	4.91	117	7960
YKKL630-10	IP44/IP54	800	96.8	594	94.6	0.841	2.21	1.12	5.06	113	7990
YKKL630-10	IP44/IP54	900	111.3	594	94.96	0.82	2.46	1.3	5.59	125	8450
YKKL630-10	IP44/IP54	1000	121	594	95.05	0.836	2.37	1.27	5.51	140	9080
YKKL630-10	IP44/IP54	1120	135	594	95.14	0.8428	2.33	1.27	5.49	154	9680
YKKL450-12	IP44/IP54	185	26.2	494	92.14	0.7376	2.04	1.0	4.03	25.4	4220
YKKL450-12	IP44/IP54	200	28.1	494	92.37	0.7418	2.02	1.0	4.01	27.6	4410
YKKL500-12	IP44/IP54	220	31.8	496	92.78	0.7181	2.65	1.43	5.4	45.8	4730
YKKL500-12	IP44/IP54	250	35.6	496	93.03	0.7264	2.54	1.4	5.27	49.4	4920
YKKL500-12	IP44/IP54	280	39.3	496	93.25	0.7354	2.48	1.38	5.21	54.1	5280
YKKL500-12	IP44/IP54	315	44.1	496	93.44	0.7349	2.46	1.4	5.21	58.9	5550
YKKL560-12	IP44/IP54	355	46.7	495	93.66	0.7818	2.29	1.23	4.81	78	6650
YKKL560-12	IP44/IP54	400	52.1	495	96.83	0.7880	2.21	1.21	4.76	87	7010
YKKL560-12	IP44/IP54	450	58.3	495	94.01	0.7898	2.22	1.24	4.84	95	7280
YKKL560-12	IP44/IP54	500	64.9	495	94.13	0.7879	2.28	1.31	5.0	106	7650
YKKL630-12	IP44/IP54	560	72.6	495	94.38	0.7865	2.04	0.94	4.21	119	8120
YKKL630-12	IP44/IP54	630	81.6	495	94.47	0.7861	2.07	0.98	4.32	132	8630
YKKL630-12	IP44/IP54	710	93.0	495	94.60	0.7767	2.19	1.08	4.58	145	9130
YKKL630-12	IP44/IP54	800	104.4	495	94.78	0.7780	2.14	1.07	4.52	154	9500

► Technical Data of YKKL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 10

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)
YKKL355-4	IP44/IP54	185	23.4	1484	90.72	0.8373	2.52	1.21	6.04	3.3	2450
YKKL355-4	IP44/IP54	200	25.1	1482	90.73	0.8457	2.33	1.12	5.65	3.3	2450
YKKL355-4	IP44/IP54	220	27.3	1482	90.98	0.8511	2.32	1.17	5.73	3.7	2590
YKKL355-4	IP44/IP54	250	30.9	1482	91.03	0.8556	2.28	1.21	5.77	4.1	2730
YKKL400-4	IP44/IP54	280	33.7	1482	91.08	0.8788	2.2	1.01	5.29	5.6	2980
YKKL400-4	IP44/IP54	315	37.7	1482	91.39	0.8789	2.23	1.08	5.44	6.2	3160
YKKL400-4	IP44/IP54	350	42.1	1482	92.01	0.8822	2.24	1.14	5.57	6.9	3300
YKKL400-4	IP44/IP54	400	47.5	1484	92.42	0.8773	2.41	1.29	6.09	7.7	3480
YKKL400-4	IP44/IP54	450	53.1	1483	92.61	0.8803	2.34	1.28	5.98	8.3	3650
YKKL450-4	IP44/IP54	500	60.0	1485	92.75	0.864	2.55	1.24	5.78	10.9	4360
YKKL450-4	IP44/IP54	560	66.1	1486	93.08	0.8758	2.56	1.29	5.95	12.1	4500
YKKL450-4	IP44/IP54	630	74.1	1486	93.27	0.877	2.59	1.36	6.12	13.3	4680
YKKL450-4	IP44/IP54	710	83.1	1486	93.43	0.8797	2.53	1.37	6.06	14.5	4860
YKKL500-4	IP44/IP54	800	95.1	1490	93.53	0.8651	2.79	0.94	6.41	20.3	5500
YKKL500-4	IP44/IP54	900	105.7	1489	93.68	0.8749	2.66	0.93	6.23	21.9	5720
YKKL500-4	IP44/IP54	1000	115.4	1489	93.85	0.8886	2.56	0.92	6.14	23.6	5950
YKKL500-4	IP44/IP54	1120	128.4	1487	94.01	0.8932	2.48	0.93	6.04	25.9	6260
YKKL560-4	IP44/IP54	1250	141.1	1490	93.57	0.9117	2.26	1.23	5.67	59.4	8890
YKKL560-4	IP44/IP54	1400	157.3	1489	93.76	0.9135	2.21	1.27	5.66	65.0	9310
YKKL560-4	IP44/IP54	1600	179.6	1489	93.85	0.9153	2.12	1.30	5.53	71.8	9850
YKKL630-4	IP44/IP54	1800	201.9	1490	94.20	0.9107	2.20	0.98	5.28	74.2	10070
YKKL630-4	IP44/IP54	2000	226.0	1490	94.28	0.9033	2.23	1.06	5.47	80.8	10570
YKKL630-4	IP44/IP54	2240	250.9	1490	94.39	0.9100	2.28	1.15	5.73	89.5	11070
YKKL400-6	IP44/IP54	185	23.7	989	91.0	0.826	2.21	1.04	5.22	8.9	2780
YKKL400-6	IP44/IP54	200	25.4	988	90.97	0.8338	2.04	0.96	4.87	8.9	2780
YKKL400-6	IP44/IP54	220	28.2	989	91.21	0.8227	2.13	1.05	5.08	9.2	2850
YKKL400-6	IP44/IP54	250	31.8	988	91.59	0.8255	2.09	1.07	5.06	10.2	3050
YKKL400-6	IP44/IP54	280	35.6	989	91.83	0.8238	2.13	1.13	5.22	11.1	3250
YKKL400-6	IP44/IP54	315	39.7	989	92.15	0.8283	2.15	1.18	5.36	12.6	3550
YKKL450-6	IP44/IP54	355	44.2	990	92.38	0.8357	2.58	1.32	5.84	15.3	4380
YKKL450-6	IP44/IP54	400	49.6	990	92.68	0.8378	2.56	1.35	5.89	16.6	4440
YKKL450-6	IP44/IP54	450	55.7	990	92.86	0.8373	2.53	1.37	5.85	18.3	4610
YKKL450-6	IP44/IP54	500	62.2	990	93.0	0.8322	2.59	1.45	6.02	20.0	4780

► Technical Data of YKKL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 10 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)
YKKL500-6	IP44/IP54	560	66.8	992	93.45	0.8636	2.24	0.98	5.38	27.2	5450
YKKL500-6	IP44/IP54	630	75.4	992	93.61	0.8594	2.30	1.05	5.56	29.2	5670
YKKL500-6	IP44/IP54	710	85.4	992	93.75	0.8537	2.38	1.13	5.81	32.0	5900
YKKL500-6	IP44/IP54	800	95.1	992	93.87	0.8624	2.23	1.08	5.52	34.7	6210
YKKL560-6	IP44/IP54	900	106.5	992	93.56	0.8693	2.22	1.16	5.68	69.6	8800
YKKL560-6	IP44/IP54	1000	117.6	992	93.76	0.8726	2.31	1.30	6.07	76.3	9120
YKKL560-6	IP44/IP54	1120	130.5	992	93.86	0.8796	2.21	1.29	5.91	85.0	9650
YKKL630-6	IP44/IP54	1250	144.4	993	94.22	0.8838	2.37	0.93	5.63	95.2	9950
YKKL630-6	IP44/IP54	1400	161.0	993	94.32	0.8872	2.49	1.06	6.07	105.4	10450
YKKL630-6	IP44/IP54	1600	183.2	993	94.12	0.8931	2.52	1.17	6.26	115.6	10950
YKKL400-8	IP44/IP54	185	24.3	742	90.55	0.8086	2.2	1.28	5.15	12.7	3230
YKKL400-8	IP44/IP54	200	26.0	741	90.60	0.8174	2.03	1.18	4.82	12.7	3230
YKKL400-8	IP44/IP54	220	28.4	741	90.96	0.8201	2.08	1.24	5.01	14.4	3520
YKKL450-8	IP44/IP54	250	33.1	742	91.79	0.7913	2.44	1.42	5.32	17.9	4060
YKKL450-8	IP44/IP54	280	36.4	742	91.98	0.8039	2.34	1.38	5.21	19.4	4200
YKKL450-8	IP44/IP54	315	40.6	741	92.03	0.8109	2.22	1.34	4.98	21	4380
YKKL450-8	IP44/IP54	355	45.2	741	92.32	0.8191	2.13	1.3	4.83	23	4680
YKKL500-8	IP44/IP54	400	50.7	743	92.58	0.8195	2.21	1.2	5.23	34.4	5210
YKKL500-8	IP44/IP54	450	56.9	743	92.75	0.82	2.18	1.13	5.2	37.1	5430
YKKL500-8	IP44/IP54	500	63.2	743	92.95	0.8196	2.19	1.16	5.25	40.6	5730
YKKL500-8	IP44/IP54	560	70.9	743	93.09	0.8168	2.23	1.22	5.4	44.1	6060
YKKL560-8	IP44/IP54	630	75.4	742	93.12	0.8635	1.99	0.99	4.72	81	8440
YKKL560-8	IP44/IP54	710	86.7	742	93.31	0.8648	2.01	1.04	4.84	89	8840
YKKL560-8	IP44/IP54	800	95.5	743	93.50	0.862	2.26	1.24	5.55	99	9350
YKKL630-8	IP44/IP54	900	105.9	745	93.88	0.8712	2.02	1.01	5.52	110.5	9750
YKKL630-8	IP44/IP54	1000	118.7	745	93.96	0.8626	2.12	1.13	5.98	122	10150
YKKL630-8	IP44/IP54	1120	131.4	745	94.08	0.8721	2.09	1.08	5.69	135	10700
YKKL630-8	IP44/IP54	1250	146.4	745	94.21	0.8723	1.96	1.10	5.68	146	11150
YKKL450-10	IP44/IP54	185	25.9	594	90.65	0.7573	2.59	1.36	5.39	21.4	4180
YKKL450-10	IP44/IP54	200	27.5	594	90.67	0.7709	2.4	1.25	5.07	21.4	4180
YKKL450-10	IP44/IP54	220	30.8	594	90.81	0.757	2.53	1.36	5.3	23.6	4380
YKKL450-10	IP44/IP54	250	34.3	594	91.02	0.7713	2.4	1.31	5.13	25.8	4660
YKKL450-10	IP44/IP54	280	38.2	593	91.2	0.7742	2.36	1.31	5.08	28	4850

► Technical Data of YKKL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (6KV) (design value)

Table 10 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cos ϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)
YKKL500-10	IP44/IP54	315	42.6	594	91.71	0.7754	2.41	1.15	4.85	38.6	5480
YKKL500-10	IP44/IP54	355	46.9	594	92.46	0.7881	2.32	1.12	4.76	42.7	5760
YKKL500-10	IP44/IP54	400	52.5	594	92.61	0.7911	2.29	1.13	4.73	46.8	6050
YKKL500-10	IP44/IP54	450	59.5	594	92.74	0.7848	2.32	1.17	4.8	50.9	6330
YKKL560-10	IP44/IP54	500	61.3	593	92.55	0.8481	2.26	1.17	5.0	87	7910
YKKL560-10	IP44/IP54	560	68.6	593	92.75	0.847	2.35	1.26	5.26	96	8200
YKKL560-10	IP44/IP54	630	77.5	593	92.84	0.8423	2.46	1.37	5.57	106	8570
YKKL560-10	IP44/IP54	710	86.0	593	92.87	0.8550	2.18	1.18	4.91	117	8860
YKKL630-10	IP44/IP54	800	98.3	594	93.11	0.841	2.21	1.12	5.06	113	9040
YKKL630-10	IP44/IP54	900	113.0	594	93.46	0.82	2.46	1.3	5.59	125	9500
YKKL630-10	IP44/IP54	1000	123.0	594	93.55	0.836	2.37	1.27	5.51	140	10130
YKKL630-10	IP44/IP54	1120	136.6	594	93.64	0.8428	2.33	1.27	5.49	154	10730
YKKL450-12	IP44/IP54	185	26.8	494	90.14	0.7376	2.04	1.0	4.03	25.4	4720
YKKL450-12	IP44/IP54	200	28.7	494	90.37	0.7418	2.02	1.0	4.01	27.6	4910
YKKL500-12	IP44/IP54	220	32.5	496	90.78	0.7181	2.65	1.43	5.4	45.8	5480
YKKL500-12	IP44/IP54	250	36.4	496	91.03	0.7264	2.54	1.4	5.27	49.4	5670
YKKL500-12	IP44/IP54	280	40.2	496	91.25	0.7354	2.48	1.38	5.21	54.1	6030
YKKL500-12	IP44/IP54	315	45.1	496	91.44	0.7349	2.46	1.4	5.21	58.9	6300
YKKL560-12	IP44/IP54	355	47.4	495	92.16	0.7818	2.29	1.23	4.81	78	7550
YKKL560-12	IP44/IP54	400	52.9	495	92.33	0.7880	2.21	1.21	4.76	87	7910
YKKL560-12	IP44/IP54	450	59.3	495	92.51	0.7898	2.22	1.24	4.84	95	8180
YKKL560-12	IP44/IP54	500	65.9	495	92.63	0.7879	2.28	1.31	5.0	106	8550
YKKL630-12	IP44/IP54	560	73.8	495	92.88	0.7865	2.04	0.94	4.21	119	9170
YKKL630-12	IP44/IP54	630	83.0	495	92.97	0.7861	2.07	0.98	4.32	132	9680
YKKL630-12	IP44/IP54	710	94.5	495	93.10	0.7767	2.19	1.08	4.58	145	10180
YKKL630-12	IP44/IP54	800	106.1	495	93.28	0.7780	2.14	1.07	4.52	154	10550

► Guaranteed Efficiency and Power Factor Values of YL and YKSL (Not Subject to Axial Thrust) 6KV Medium 3-phase Vertical asynchronous motors (Frame No. 355-630)

Table 11

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cos Φ				
185	93.1	92.6	92.6	91.7	90.9	0.84	0.81	0.77	0.75	0.72
200	93.2	92.8	92.8	91.9	91.1	0.84	0.81	0.78	0.76	0.72
220	93.3	93.0	92.9	92.1	91.4	0.85	0.82	0.78	0.77	0.73
250	93.4	93.3	93.0	92.3	91.7	0.85	0.82	0.79	0.78	0.73
280	93.5	93.5	93.2	92.5	92.7	0.86	0.83	0.79	0.78	0.74
315	93.6	93.7	93.4	92.6	92.8	0.86	0.83	0.80	0.79	0.75
355	93.8	93.9	93.5	92.8	93.0	0.86	0.83	0.80	0.79	0.75
400	94.0	94.0	93.7	93.3	93.3	0.86	0.83	0.80	0.80	0.75
450	94.2	94.3	93.8	93.4	93.4	0.86	0.84	0.81	0.80	0.75
500	94.3	94.5	94.3	93.6	93.7	0.87	0.85	0.81	0.80	0.79
560	94.5	94.7	94.4	93.7	93.8	0.87	0.85	0.82	0.80	0.79
630	94.8	94.8	94.5	93.8	93.9	0.87	0.85	0.82	0.80	0.79
710	95.0	95.0	94.6	94.0	94.0	0.87	0.85	0.82	0.82	0.79
800	95.1	95.1	94.7	94.2	94.2	0.87	0.85	0.84	0.82	0.79
900	95.2	95.2	94.8	94.3	94.3	0.87	0.85	0.84	0.82	0.79
1000	95.3	95.3	94.9	94.4		0.87	0.85	0.84	0.82	
1120	95.4	95.4	95.0	94.6		0.88	0.86	0.84	0.82	
1250	95.5	95.5	95.1	94.8		0.88	0.86	0.84	0.82	
1400	95.6	95.6	95.2			0.88	0.86	0.84		
1600	95.7	95.7	95.3			0.89	0.86	0.84		
1800	95.8	95.8				0.89	0.86			
2000	95.9	95.9				0.89	0.86			
2240	96.0					0.89				
2500	96.1					0.89				

► Guaranteed Efficiency and Power Factor Values of YLST and YKSL (Subject to Axial Thrust) 6KV Medium 3-phase Vertical asynchronous motors (Frame No. 355-630)

Table 12

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
185	91.1	90.8	90.6		90.0	0.84	0.81	0.77		0.72
200	91.2	91.0	90.7		90.2	0.84	0.81	0.78		0.72
220	91.3	91.2	90.8	90.9	90.4	0.85	0.82	0.78	0.77	0.73
250	91.4	91.4	91.4	91.0	90.6	0.85	0.82	0.79	0.78	0.73
280	91.6	91.9	91.6	91.2	91.0	0.86	0.83	0.79	0.78	0.74
315	92.2	92.1	92.2	91.8	91.6	0.86	0.83	0.80	0.79	0.75
355	92.3	92.4	92.4	91.9	91.8	0.86	0.83	0.80	0.79	0.75
400	92.4	92.6	92.5	92.2	92.0	0.86	0.83	0.80	0.80	0.75
450	92.8	92.8	92.7	92.4	92.2	0.86	0.84	0.81	0.80	0.75
500	93.0	93.0	92.9	92.6	92.6	0.87	0.85	0.81	0.80	0.79
560	93.2	93.2	93.1	92.7	92.8	0.87	0.85	0.82	0.80	0.79
630	93.4	93.3	93.2	92.8	92.9	0.87	0.85	0.82	0.80	0.79
710	93.6	93.8	93.4	93.0	93.0	0.87	0.85	0.82	0.82	0.79
800	93.8	93.9	93.6	93.0	93.2	0.87	0.85	0.84	0.82	0.79
900	93.9	94.0	93.7	93.3	93.3	0.87	0.85	0.84	0.82	0.79
1000	94.1	94.1	93.8	93.4		0.87	0.85	0.84	0.82	
1120	94.2	94.2	94.2	93.5		0.88	0.86	0.84	0.82	
1250	94.3	94.2	94.3	93.6		0.88	0.86	0.84	0.82	
1400	94.4	94.3	94.4			0.88	0.86	0.84		
1600	94.4	94.6	94.5			0.89	0.86	0.84		
1800	94.5	94.7				0.89	0.86			
2000	94.7					0.89	0.86			
2240	94.8					0.89				
2500	94.8					0.89				

► Guaranteed Efficiency and Power Factor Values of YKKL (Not Subject to Axial Thrust) 6KV Medium 3-phase Vertical asynchronous motors (Frame No. 355-630)

Table 13

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
185	92.8	92.4	92.5	91.7	91.8	0.85	0.82	0.78	0.75	0.70
200	92.9	92.6	92.7	91.9	92.0	0.85	0.82	0.78	0.75	0.70
220	93.0	92.8	92.9	92.1	92.2	0.85	0.82	0.78	0.75	0.72
250	93.1	93.0	93.0	92.3	92.5	0.85	0.82	0.79	0.75	0.72
280	93.2	93.3	93.2	92.5	92.7	0.86	0.82	0.79	0.75	0.72
315	93.3	93.5	93.4	92.8	92.8	0.86	0.82	0.79	0.76	0.72
355	93.5	93.7	93.5	93.0	93.0	0.86	0.83	0.79	0.76	0.74
400	93.7	93.8	93.7	93.3	93.3	0.86	0.83	0.80	0.76	0.74
450	93.9	94.1	93.8	93.4	93.4	0.86	0.83	0.80	0.76	0.74
500	94.0	94.3	94.2	93.6	93.7	0.86	0.83	0.80	0.78	0.74
560	94.2	94.4	94.4	93.7	93.8	0.86	0.84	0.80	0.78	0.76
630	94.4	94.5	94.5	93.8	93.9	0.86	0.84	0.82	0.78	0.76
710	94.6	94.8	94.6	94.0	94.0	0.86	0.84	0.82	0.78	0.76
800	94.8	94.9	94.7	94.2	94.2	0.87	0.84	0.82	0.80	0.76
900	94.9	95.0	94.8	94.3		0.87	0.85	0.84	0.80	
1000	95.0	95.1	94.9	94.4		0.87	0.85	0.84	0.80	
1120	95.1	95.2	95.0	94.6		0.87	0.85	0.84	0.80	
1250	95.2	95.3	95.1			0.88	0.86	0.84		
1400	95.3	95.4				0.88	0.86			
1600	95.4	95.5				0.88	0.86			
1800	95.5					0.88				
2000	95.6					0.88				
2240	95.7					0.88				

► Guaranteed Efficiency and Power Factor Values of YKKL (Subject to Axial Thrust) 6KV Medium 3-phase Vertical asynchronous motors (Frame No. 355-630)

Table 14

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
185	90.5	90.8	90.3	90.4	90.0	0.85	0.82	0.78	0.75	0.70
200	90.6	90.8	90.4	90.5	90.2	0.85	0.82	0.78	0.75	0.70
220	90.8	91.0	90.7	90.6	90.5	0.85	0.82	0.78	0.75	0.72
250	90.9	91.4	91.6	90.8	90.8	0.85	0.82	0.79	0.75	0.72
280	91.0	91.6	91.8	91.0	91.0	0.86	0.82	0.79	0.75	0.72
315	91.2	91.9	91.9	91.5	91.3	0.86	0.82	0.79	0.76	0.72
355	91.8	92.1	92.1	92.2	92.0	0.86	0.83	0.79	0.76	0.74
400	92.2	92.4	92.3	92.4	92.1	0.86	0.83	0.80	0.76	0.74
450	92.4	92.6	92.5	92.5	92.3	0.86	0.83	0.80	0.76	0.74
500	92.6	92.8	92.7	92.5	92.4	0.86	0.83	0.80	0.78	0.74
560	92.8	93.2	92.9	92.6	92.7	0.86	0.84	0.80	0.78	0.76
630	93.0	93.4	93.0	92.6	92.8	0.86	0.84	0.82	0.78	0.76
710	93.2	93.6	93.1	92.7	92.9	0.86	0.84	0.82	0.78	0.76
800	93.3	93.7	93.3	92.9	93.1	0.87	0.84	0.82	0.80	0.76
900	93.5	93.5	93.6	93.2		0.87	0.85	0.84	0.80	
1000	93.6	93.7	93.8	93.3		0.87	0.85	0.84	0.80	
1120	93.8	93.8	93.9	93.4		0.87	0.85	0.84	0.80	
1250	93.5	94.0	94.0			0.88	0.86	0.84		
1400	93.6	94.1				0.88	0.86			
1600	93.7	94.1				0.88	0.86			
1800	94.0					0.88				
2000	94.1					0.88				
2240	94.2					0.88				

► Technical Data of YL and YKSL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 15

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)	
											YL	YKSL
YL(YKSL)450-4	IP23/IP54	220	15.8	1491	93.94	0.8584	2.33	1.13	6.88	7.6	3290	3540
YL(YKSL)450-4	IP23/IP54	250	17.6	1490	94.06	0.8717	2.98	1.03	6.28	7.6	3290	3540
YL(YKSL)450-4	IP23/IP54	280	19.7	1489	94.09	0.8731	2.88	1.04	6.13	7.6	3290	3540
YL(YKSL)450-4	IP23/IP54	315	21.6	1488	94.34	0.8926	2.72	1.02	5.91	8.6	3390	3640
YL(YKSL)450-4	IP23/IP54	355	24.2	1488	94.52	0.8975	2.64	1.03	5.79	9.3	3510	3760
YL(YKSL)450-4	IP23/IP54	400	27.1	1487	94.77	0.90	2.62	1.05	5.83	10.0	3610	3860
YL(YKSL)450-4	IP23/IP54	450	30.4	1487	94.91	0.9015	2.43	0.98	5.42	10.7	3770	4020
YL(YKSL)500-4	IP23/IP54	500	35.1	1490	94.87	0.8658	3.0	0.97	6.6	16.6	4520	4770
YL(YKSL)500-4	IP23/IP54	560	38.9	1489	94.9	0.8757	2.69	0.87	6.02	16.6	4520	4770
YL(YKSL)500-4	IP23/IP54	630	43.8	1488	94.97	0.8742	2.54	0.82	5.6	17.5	4640	4890
YL(YKSL)500-4	IP23/IP54	710	48.9	1488	95.17	0.8802	2.52	0.86	5.71	18.8	4760	5010
YL(YKSL)500-4	IP23/IP54	800	54.4	1488	95.42	0.8876	2.46	0.87	5.67	20.4	4880	5130
YL(YKSL)500-4	IP23/IP54	900	61.1	1487	95.54	0.8904	2.41	0.88	5.63	22.1	5000	5250
YL(YKSL)560-4	IP23/IP54	1000	67.5	1487	95.4	0.896	2.44	0.91	5.24	33.1	7050	7350
YL(YKSL)560-4	IP23/IP54	1120	75.6	1487	95.56	0.8949	2.53	0.99	5.52	36	7290	7590
YL(YKSL)560-4	IP23/IP54	1250	84.2	1488	95.73	0.8952	2.66	1.1	5.87	40.2	7710	8010
YL(YKSL)560-4	IP23/IP54	1400	93.7	1488	95.86	0.8998	2.57	1.09	5.73	43.1	7970	8270
YL(YKSL)560-4	IP23/IP54	1600	106.7	1487	95.96	0.902	2.46	1.07	5.54	45.9	8225	8525
YL(YKSL)630-4	IP23/IP54	1800	121.7	1489	96.02	0.8894	2.09	0.81	4.64	80.6	9500	9800
YL(YKSL)630-4	IP23/IP54	2000	134.7	1488	96.07	0.8923	2.04	0.81	4.56	86.4	9900	10200
YL(YKSL)630-4	IP23/IP54	2240	150.7	1488	96.22	0.8917	2.05	0.9	4.77	92.1	10300	10600
YL(YKSL)450-6	IP23/IP54	220	16.8	992	93.77	0.8082	3.15	1.34	7.08	13.6	3370	3620
YL(YKSL)450-6	IP23/IP54	250	18.6	991	93.78	0.8265	2.77	1.18	6.37	13.6	3370	3620
YL(YKSL)450-6	IP23/IP54	280	20.6	990	93.7	0.839	2.47	1.05	5.77	13.6	3370	3620
YL(YKSL)450-6	IP23/IP54	315	23	990	93.9	0.8438	2.4	1.05	5.68	14.7	3490	3740
YL(YKSL)450-6	IP23/IP54	355	25.7	990	94.25	0.8446	2.36	1.03	5.57	15.7	3620	3870
YL(YKSL)450-6	IP23/IP54	400	28.8	989	94.46	0.8475	2.33	1.05	5.56	17.1	3810	4060
YL(YKSL)500-6	IP23/IP54	450	32.9	993	94.63	0.8343	2.37	0.89	5.22	23	4000	4250
YL(YKSL)500-6	IP23/IP54	500	36.1	992	94.8	0.8433	2.28	0.87	5.08	24.7	4130	4380
YL(YKSL)500-6	IP23/IP54	560	39.9	992	95.01	0.8523	2.18	0.85	4.93	26.9	4400	4650
YL(YKSL)500-6	IP23/IP54	630	45.2	992	95.19	0.8454	2.25	0.9	5.11	29.1	4600	4850
YL(YKSL)500-6	IP23/IP54	710	50.7	992	95.3	0.8488	2.17	0.89	4.98	31.3	4900	5150
YL(YKSL)560-6	IP23/IP54	800	55.4	990	95.31	0.8742	2.26	0.84	4.88	42.6	7120	7420

► Technical Data of YL and YKSL (Not Subject to Axial Thrust) Medium 3-phase Vertical asynchronous motors (10KV) (design value)

Table 15 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosϕ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)	
											YL	YKSL
YL(YKSL)560-6	IP23/IP54	900	62.1	990	95.42	0.8766	2.21	0.84	4.8	46.2	7480	7780
YL(YKSL)560-6	IP23/IP54	1000	68.9	990	95.52	0.8768	2.22	0.87	4.87	49.7	7840	8140
YL(YKSL)560-6	IP23/IP54	1120	77.3	990	95.65	0.8749	2.27	0.91	5.0	53.2	8200	8500
YL(YKSL)630-6	IP23/IP54	1250	87.2	992	95.72	0.8645	1.88	0.91	5.07	121.1	9430	9730
YL(YKSL)630-6	IP23/IP54	1400	97.7	992	95.81	0.8633	1.81	0.91	4.95	125.1	9850	10150
YL(YKSL)630-6	IP23/IP54	1600	111.3	992	95.94	0.8653	1.80	0.93	4.99	141.4	10450	10750
YL(YKSL)630-6	IP23/IP54	1800	124.9	992	96.07	0.8659	1.91	1.04	5.41	155.8	11150	11450
YL(YKSL)500-8	IP23/IP54	315	24.1	743	94.02	0.8027	1.99	0.88	4.49	23.8	4400	4680
YL(YKSL)500-8	IP23/IP54	355	27.1	743	94.18	0.8045	1.95	0.89	4.44	25.8	4700	4950
YL(YKSL)500-8	IP23/IP54	400	30.5	743	94.42	0.8007	1.97	0.92	4.54	27.8	5000	5250
YL(YKSL)500-8	IP23/IP54	450	34.3	744	94.5	0.8015	2.05	0.95	4.74	32.4	5300	5550
YL(YKSL)500-8	IP23/IP54	500	37.6	744	94.75	0.8113	2.05	0.98	4.84	37.7	5600	5850
YL(YKSL)500-8	IP23/IP54	560	41.8	743	94.91	0.8145	1.96	0.96	4.69	40.4	5900	6150
YL(YKSL)560-8	IP23/IP54	630	45.6	742	95.02	0.8388	2.14	0.91	4.62	52.0	6150	6450
YL(YKSL)560-8	IP23/IP54	710	51.3	742	95.11	0.8409	2.07	0.89	4.49	55.7	6430	6730
YL(YKSL)560-8	IP23/IP54	800	57.7	742	95.21	0.8411	2.03	0.89	4.44	59.4	6800	7100
YL(YKSL)630-8	IP23/IP54	900	65.2	743	95.01	0.8391	1.84	0.8	4.6	127.9	7300	7600
YL(YKSL)630-8	IP23/IP54	1000	72.3	743	95.11	0.8394	1.82	0.82	4.62	136.9	7760	8060
YL(YKSL)630-8	IP23/IP54	1120	80.8	743	95.3	0.8395	1.83	0.85	4.69	145.9	8220	9520
YL(YKSL)630-8	IP23/IP54	1250	89.9	743	95.4	0.8416	1.83	0.88	4.77	159.3	8720	9020
YL(YKSL)500-10	IP23/IP54	220	18.5	594	92.59	0.7406	2.57	1.3	5.0	30.9	5660	5910
YL(YKSL)500-10	IP23/IP54	250	20.5	594	92.75	0.7603	2.35	1.20	4.7	33.4	5960	6210
YL(YKSL)500-10	IP23/IP54	280	22.5	593	92.99	0.7718	2.22	1.14	4.51	36.0	6260	6510
YL(YKSL)500-10	IP23/IP54	315	25.1	593	93.07	0.7794	2.11	1.10	4.33	38.6	6550	6800
YL(YKSL)560-10	IP23/IP54	355	27.6	595	93.54	0.7932	2.38	1.04	5.26	54.2	6680	6980
YL(YKSL)560-10	IP23/IP54	400	30.6	595	94.0	0.8032	2.26	1.0	5.07	58.9	7180	7480
YL(YKSL)560-10	IP23/IP54	450	34.0	595	93.99	0.8123	2.13	0.96	4.86	63.8	7680	8980
YL(YKSL)560-10	IP23/IP54	500	37.6	595	94.19	0.8155	2.09	0.95	4.78	68.7	8180	8480
YL(YKSL)560-10	IP23/IP54	560	42	594	94.33	0.8157	2.05	0.95	4.73	73.5	8680	8980
YL(YKSL)560-10	IP23/IP54	630	47.4	594	94.46	0.8122	2.04	0.97	4.73	78.4	9180	9480
YL(YKSL)630-10	IP23/IP54	710	52.1	593	94.74	0.8297	1.99	0.82	4.66	157.4	8030	8330
YL(YKSL)630-10	IP23/IP54	800	58.5	593	94.89	0.8326	1.93	0.81	4.62	170.3	8450	8750
YL(YKSL)630-10	IP23/IP54	900	65.7	593	94.97	0.8328	1.92	0.84	4.62	181.4	9150	9450

► Technical Data of YL and YKSL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 15 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)	
											YL	YKSL
YL(YKSL)630-10	IP23/IP54	1000	72.6	593	95.10	0.8358	1.92	0.86	4.68	199.2	9450	9750
YL(YKSL)630-10	IP23/IP54	1120	81.3	593	95.18	0.8352	1.94	0.90	4.79	217.3	10100	10400
YL(YKSL)560-12	IP23/IP54	250	22.3	497	92.8	0.6986	2.77	1.21	5.32	63.8	7730	8030
YL(YKSL)560-12	IP23/IP54	280	24.1	496	92.98	0.7223	2.47	1.08	4.92	63.8	7730	8030
YL(YKSL)560-12	IP23/IP54	315	26.5	496	93.24	0.7373	2.32	1.02	4.70	68.1	8180	8480
YL(YKSL)560-12	IP23/IP54	355	29.3	496	93.46	0.7473	2.19	0.97	4.52	73.0	8680	8980
YL(YKSL)560-12	IP23/IP54	400	32.7	496	93.7	0.7527	2.10	0.94	4.38	77.9	9180	9480
YL(YKSL)560-12	IP23/IP54	450	36.7	495	93.84	0.7548	2.05	0.93	4.30	82.7	9680	9980
YL(YKSL)560-12	IP23/IP54	500	40.9	495	93.99	0.7514	2.05	0.94	4.32	87.6	10189	10480
YL(YKSL)630-12	IP23/IP54	560	45.4	496	94.44	0.7544	1.93	0.89	4.47	183.9	11000	11300
YL(YKSL)630-12	IP23/IP54	630	51.0	496	94.61	0.7539	1.90	0.90	4.43	193.1	11450	11750
YL(YKSL)630-12	IP23/IP54	710	57.6	496	94.77	0.7507	1.9	0.93	4.49	201.9	11900	12200
YL(YKSL)630-12	IP23/IP54	800	64.4	495	94.85	0.7559	1.83	0.91	4.39	220.4	12350	12650

► Technical Data of YLST and YKSL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 16

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YLST	YKSL
YLST(YKSL)450-4	IP23/IP54	220	16.1	1491	91.94	0.8584	3.33	1.13	6.88	7.6	3790	4040
YLST(YKSL)450-4	IP23/IP54	250	18.0	1490	92.06	0.8717	2.98	1.03	6.28	7.6	3790	4040
YLST(YKSL)450-4	IP23/IP54	280	20.1	1489	92.09	0.8731	2.88	1.04	6.13	7.6	3790	4040
YLST(YKSL)450-4	IP23/IP54	315	22.0	1488	92.74	0.8926	2.72	1.02	5.91	8.6	3930	4180
YLST(YKSL)450-4	IP23/IP54	355	24.6	1488	93.02	0.8975	2.64	1.03	5.79	9.3	4110	4360
YLST(YKSL)500-4	IP23/IP54	400	29.3	1491	93.07	0.8464	3.25	0.99	6.87	15.4	4270	4360
YLST(YKSL)500-4	IP23/IP54	450	32.4	1490	93.15	0.8603	2.89	0.88	6.21	15.4	4270	4520
YLST(YKSL)500-4	IP23/IP54	500	35.7	1490	93.37	0.8658	3.0	0.97	6.6	16.6	5020	5270
YLST(YKSL)500-4	IP23/IP54	560	39.5	1489	93.4	0.8757	2.69	0.87	6.02	16.6	5020	5270
YLST(YKSL)500-4	IP23/IP54	630	44.5	1488	93.47	0.8742	2.54	0.82	5.6	17.5	5140	5390
YLST(YKSL)500-4	IP23/IP54	710	49.0	1488	93.67	0.8802	2.52	0.86	5.71	18.8	5260	5510
YLST(YKSL)560-4	IP23/IP54	800	56.0	1488	93.77	0.8927	2.64	0.94	5.59	30.9	7280	7580
YLST(YKSL)560-4	IP23/IP54	900	62.2	1488	93.87	0.8901	2.71	1.01	5.70	33.1	7550	7850
YLST(YKSL)560-4	IP23/IP54	1000	68.6	1487	93.9	0.896	2.44	0.91	5.24	33.1	7550	7850
YLST(YKSL)560-4	IP23/IP54	1120	76.8	1487	94.06	0.8949	2.53	0.99	5.52	36	7790	8090
YLST(YKSL)560-4	IP23/IP54	1250	85.6	1488	94.23	0.8952	2.66	1.1	5.87	40.2	8210	8510
YLST(YKSL)630-4	IP23/IP54	1400	97.2	1491	94.39	0.8812	2.17	0.64	4.58	67.0	9675	9975
YLST(YKSL)630-4	IP23/IP54	1600	110.7	1491	94.56	0.8826	2.24	0.72	4.86	74	9925	10225
YLST(YKSL)630-4	IP23/IP54	1800	123.6	1489	94.52	0.8894	2.09	0.81	4.64	80.6	10209	10500
YLST(YKSL)450-6	IP23/IP54	220	17.1	992	91.77	0.8082	3.15	1.34	7.08	13.6	3870	4120
YLST(YKSL)450-6	IP23/IP54	250	19.0	991	91.78	0.8265	2.77	1.18	6.37	13.6	3870	4120
YLST(YKSL)450-6	IP23/IP54	280	21.0	990	91.8	0.839	2.47	1.05	5.77	13.6	3870	4120
YLST(YKSL)450-6	IP23/IP54	315	23.4	990	92.1	0.8438	2.4	1.05	5.68	14.7	3990	4240
YLST(YKSL)450-6	IP23/IP54	355	26.2	990	92.65	0.8446	2.36	1.03	5.57	15.7	4120	4370
YLST(YKSL)500-6	IP23/IP54	400	29.8	993	93.2	0.8303	2.51	0.91	5.45	21.9	4170	4420
YLST(YKSL)500-6	IP23/IP54	450	33.4	993	93.13	0.8343	2.37	0.89	5.22	23	4509	4850
YLST(YKSL)500-6	IP23/IP54	500	36.7	992	93.3	0.8433	2.28	0.87	5.08	24.7	4630	4880
YLST(YKSL)500-6	IP23/IP54	560	40.6	992	93.51	0.8523	2.18	0.85	4.93	26.9	4909	5150
YLST(YKSL)500-6	IP23/IP54	630	45.9	992	93.69	0.8454	2.25	0.90	5.11	29.1	5100	5450
YLST(YKSL)560-6	IP23/IP54	710	50.3	990	93.57	0.8707	2.24	0.8	4.76	38.3	7420	7720
YLST(YKSL)560-6	IP23/IP54	800	56.3	990	93.81	0.8742	2.26	0.84	4.88	42.6	7720	8020
YLST(YKSL)560-6	IP23/IP54	900	63.1	990	93.92	0.8766	2.21	0.84	4.80	46.2	8080	8380
YLST(YKSL)560-6	IP23/IP54	1000	70	990	94.02	0.8768	2.22	0.87	4.87	49.7	8440	8740

► Technical Data of YLST and YKSL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 16 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YLST	YKSL
YLST(YKSL)560-6	IP23/IP54	1120	78.5	990	94.15	0.8749	2.27	0.91	5.0	53.2	8800	9100
YLST(YKSL)630-6	IP23/IP54	1250	88.6	992	94.22	0.8645	1.88	0.91	5.07	121.1	10330	10630
YLST(YKSL)630-6	IP23/IP54	1400	99.3	992	94.31	0.8633	1.81	0.91	4.95	125.1	10500	10800
YLST(YKSL)630-6	IP23/IP54	1600	113	992	94.44	0.8653	1.80	0.93	4.99	141.4	11209	11500
YLST(YKSL)500-8	IP23/IP54	315	24.5	743	92.52	0.8027	1.99	0.88	4.49	23.8	4900	5150
YLST(YKSL)500-8	IP23/IP54	355	27.5	743	92.68	0.8045	1.95	0.89	4.44	25.8	5200	5450
YLST(YKSL)500-8	IP23/IP54	400	31.0	743	92.92	0.8007	1.97	0.92	4.54	27.8	5500	5750
YLST(YKSL)500-8	IP23/IP54	450	34.9	744	93.0	0.8015	2.05	0.95	4.74	32.4	5800	6050
YLST(YKSL)500-8	IP23/IP54	500	38.2	744	93.25	0.8113	2.05	0.98	4.84	37.7	6100	6350
YLST(YKSL)500-8	IP23/IP54	560	42.5	743	93.41	0.8146	1.96	0.96	4.69	40.4	6400	6650
YLST(YKSL)560-8	IP23/IP54	630	46.4	742	93.52	0.8388	2.14	0.91	4.62	52.0	6650	6950
YLST(YKSL)560-8	IP23/IP54	710	52.1	742	93.61	0.8409	2.07	0.89	4.49	55.7	6930	7230
YLST(YKSL)560-8	IP23/IP54	800	58.6	742	93.71	0.8411	2.03	0.89	4.44	59.4	7409	7700
YLST(YKSL)630-8	IP23/IP54	900	66.2	743	93.51	0.8391	1.84	0.8	4.6	127.9	7900	8200
YLST(YKSL)630-8	IP23/IP54	1000	73.5	743	93.61	0.8394	1.82	0.82	4.62	136.9	8460	8760
YLST(YKSL)630-8	IP23/IP54	1120	82.1	743	93.8	0.8395	1.83	0.85	4.69	145.9	8970	9270
YLST(YKSL)630-8	IP23/IP54	1250	91.3	743	93.9	0.8416	1.83	0.88	4.77	159.3	9470	9770
YLST(YKSL)500-10	IP23/IP54	220	18.9	594	90.59	0.7406	2.57	1.3	5.0	30.9	6160	6410
YLST(YKSL)500-10	IP23/IP54	250	20.9	594	90.75	0.7603	2.35	1.20	4.7	33.4	6460	6710
YLST(YKSL)500-10	IP23/IP54	280	23	593	90.99	0.7718	2.22	1.14	4.51	36.0	6760	7010
YLST(YKSL)500-10	IP23/IP54	315	25.5	593	91.47	0.7794	2.11	1.20	4.33	38.6	7050	7300
YLST(YKSL)560-10	IP23/IP54	355	28.1	595	92.04	0.7932	2.38	1.04	5.26	54.2	7300	7600
YLST(YKSL)560-10	IP23/IP54	400	31.1	595	92.5	0.8032	2.26	1.0	5.07	58.9	7800	8100
YLST(YKSL)560-10	IP23/IP54	450	34.6	595	92.49	0.8128	2.13	0.96	4.86	63.8	8300	8600
YLST(YKSL)560-10	IP23/IP54	500	38.2	595	92.69	0.8155	2.09	0.95	4.78	68.7	8800	9100
YLST(YKSL)560-10	IP23/IP54	560	42.7	594	92.83	0.8157	2.05	0.95	4.73	73.5	9300	9600
YLST(YKSL)560-10	IP23/IP54	630	48.2	594	92.96	0.8122	2.04	0.97	4.73	78.4	9800	10100
YLST(YKSL)630-10	IP23/IP54	710	53.0	593	93.24	0.8297	1.99	0.82	4.66	157.4	10425	10725
YLST(YKSL)630-10	IP23/IP54	800	59.4	593	93.39	0.8326	1.93	0.81	4.62	170.3	11109	11350
YLST(YKSL)630-10	IP23/IP54	900	66.8	593	93.47	0.8328	1.92	0.84	4.62	181.4	11675	11975
YLST(YKSL)630-10	IP23/IP54	1000	73.8	593	93.6	0.8358	1.92	0.86	4.68	199.2	12300	12600
YLST(YKSL)630-10	IP23/IP54	1120	82.6	593	93.68	0.8352	1.94	0.9	4.79	217.3	12925	13225
YLST(YKSL)560-12	IP23/IP54	250	22.8	497	90.8	0.6986	2.77	1.21	5.32	63.8	8359	8650

► Technical Data of YLST and YKSL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 16 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)	
											YLST	YKSL
YLST(YKSL)560-12	IP23/IP54	280	24.6	496	90.98	0.7223	2.47	1.08	4.92	63.8	8350	8650
YLST(YKSL)560-12	IP23/IP54	315	27.0	496	91.24	0.7273	2.32	1.02	4.70	68.1	8800	9100
YLST(YKSL)560-12	IP23/IP54	355	29.8	496	91.96	0.7473	2.19	0.97	4.52	73.0	9300	9600
YLST(YKSL)560-12	IP23/IP54	400	33.3	496	92.2	0.7527	2.10	0.94	4.38	77.9	9750	10050
YLST(YKSL)560-12	IP23/IP54	450	37.3	495	92.34	0.7548	2.05	0.93	4.3	82.7	10250	10550
YLST(YKSL)560-12	IP23/IP54	500	41.5	495	92.49	0.7514	2.05	0.94	4.32	87.6	10750	11050
YLST(YKSL)630-12	IP23/IP54	560	46.1	496	92.94	0.7544	1.93	0.89	4.47	183.9	11750	12050
YLST(YKSL)630-12	IP23/IP54	630	51.8	496	93.11	0.7539	1.90	0.90	4.43	193.1	12200	12500
YLST(YKSL)630-12	IP23/IP54	710	58.5	496	93.27	0.7507	1.9	0.93	4.49	201.9	12650	12950
YLST(YKSL)630-12	IP23/IP54	800	65.5	495	93.35	0.7559	1.83	0.91	4.39	220.4	13100	13400

► Technical Data of YKKL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 17

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)
YKKL450-4	IP44/IP54	220	15.9	1491	92.63	0.8612	3.33	1.13	6.81	7.6	3840
YKKL450-4	IP44/IP54	250	17.8	1490	92.84	0.8739	2.93	0.99	6.09	7.6	3840
YKKL450-4	IP44/IP54	280	19.6	1489	93.2	0.8863	3.01	1.11	6.41	8.6	4020
YKKL450-4	IP44/IP54	315	21.8	1489	93.45	0.8919	2.93	1.12	6.31	9.3	4160
YKKL450-4	IP44/IP54	355	24.4	1489	93.83	0.8949	2.92	1.15	6.36	10.0	4320
YKKL500-4	IP44/IP54	400	29.4	1491	93.01	0.8438	3.41	1.10	7.16	15.4	4960
YKKL500-4	IP44/IP54	450	32.4	1490	93.26	0.8587	3.03	0.98	6.49	15.4	4960
YKKL500-4	IP44/IP54	500	35.2	1489	93.69	0.8758	2.90	0.96	4.39	17.1	5180
YKKL500-4	IP44/IP54	560	39.8	1491	94.18	0.8622	3.22	1.12	7.10	18.8	5360
YKKL500-4	IP44/IP54	630	44.1	1490	94.55	0.8719	3.15	1.12	7.08	20.4	5600
YKKL500-4	IP44/IP54	710	49.4	1490	94.73	0.8765	3.06	1.12	6.97	22.1	5850
YKKL560-4	IP44/IP54	800	55.7	1488	94.18	0.8812	2.72	0.97	5.64	28.9	7300
YKKL560-4	IP44/IP54	900	61.7	1488	94.53	0.8907	2.71	1.01	5.74	33.1	7700
YKKL560-4	IP44/IP54	1000	68.0	1489	94.73	0.8969	2.77	1.09	5.98	37.4	8150
YKKL560-4	IP44/IP54	1120	76.6	1489	94.93	0.8893	2.97	1.22	6.45	40.2	8500
YKKL560-4	IP44/IP54	1250	84.7	1489	95.12	0.8961	2.88	1.22	6.34	43.1	8850
YKKL560-4	IP44/IP54	1400	94.7	1489	95.28	0.8961	2.81	1.23	6.24	45.9	9200
YKKL630-4	IP44/IP54	1600	109.2	1492	95.36	0.8870	2.38	0.80	5.18	81.0	10050
YKKL630-4	IP44/IP54	1800	122.2	1492	95.52	0.8905	2.30	0.79	5.04	86.6	10380
YKKL630-4	IP44/IP54	2000	135.6	1492	95.68	0.8899	2.34	0.88	5.33	92.3	10900
YKKL450-6	IP44/IP54	200	16.9	992	92.89	0.8096	3.15	1.34	7.03	13.6	3920
YKKL450-6	IP44/IP54	250	18.9	992	93.18	0.8184	3.03	1.33	6.89	14.7	4040
YKKL450-6	IP44/IP54	280	21.1	992	93.52	0.8193	3.00	1.31	6.79	15.7	4170
YKKL500-6	IP44/IP54	315	23.8	994	93.43	0.8186	2.86	1.03	6.02	21.4	4360
YKKL500-6	IP44/IP54	355	26.3	994	93.83	0.8321	2.8	1.04	6.04	23.6	4550
YKKL500-6	IP44/IP54	400	30.0	994	94.02	0.8200	2.85	1.09	6.12	24.7	4680
YKKL500-6	IP44/IP54	450	33.0	994	94.35	0.8354	2.71	1.06	5.97	26.9	4950
YKKL500-6	IP44/IP54	500	37.2	994	94.52	0.8202	2.84	1.14	6.20	29.1	5250
YKKL500-6	IP44/IP54	560	41.3	994	94.70	0.8260	2.76	1.13	6.10	31.3	5550
YKKL560-6	IP44/IP54	630	45.3	992	93.48	0.8596	2.88	1.09	5.98	42.6	7720
YKKL560-6	IP44/IP54	710	50.0	992	94.83	0.8647	2.81	1.07	5.97	46.2	8080
YKKL560-6	IP44/IP54	800	56.2	992	94.98	0.8660	2.79	1.07	5.98	49.7	8440
YKKL560-6	IP44/IP54	900	63.4	992	95.13	0.8622	2.83	1.14	6.09	53.2	8800

► Technical Data of YKKL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 17 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)
YKKL560-6	IP44/IP54	1000	70.4	992	95.27	0.8603	2.75	1.10	5.94	56.7	9160
YKKL630-6	IP44/IP54	1120	78.5	992	95.02	0.8671	1.89	0.89	5.03	121.1	10030
YKKL630-6	IP44/IP54	1250	88.0	994	95.30	0.8603	2.22	1.12	6.03	129.3	10450
YKKL630-6	IP44/IP54	1400	97.7	993	95.39	0.8672	2.06	1.07	5.69	141.4	11050
YKKL630-6	IP44/IP54	1600	111.7	993	95.51	0.8660	2.15	1.17	6.05	155.8	11750
YKKL500-8	IP44/IP54	280	22.2	745	93.54	0.7775	2.47	1.13	5.41	25.8	4480
YKKL500-8	IP44/IP54	315	25.1	745	93.84	0.7733	2.51	1.18	5.54	27.8	4680
YKKL500-8	IP44/IP54	355	28.4	745	93.88	0.7699	2.60	1.21	5.74	32.4	5020
YKKL500-8	IP44/IP54	400	31.2	745	94.13	0.7866	2.57	1.23	5.82	37.7	5450
YKKL500-8	IP44/IP54	450	34.7	745	94.36	0.7934	2.47	1.20	5.65	40.4	5680
YKKL560-8	IP44/IP54	500	37.3	744	94.43	0.8196	2.71	1.14	5.65	52.0	6750
YKKL560-8	IP44/IP54	560	41.5	744	94.58	0.8233	2.63	1.13	5.55	55.7	7030
YKKL560-8	IP44/IP54	630	46.6	744	94.74	0.8245	2.59	1.13	5.50	59.4	7400
YKKL560-8	IP44/IP54	710	52.6	744	94.86	0.8223	2.58	1.16	5.52	63.0	7760
YKKL630-8	IP44/IP54	800	58.6	744	94.45	0.8341	2.07	0.90	5.11	127.9	7900
YKKL630-8	IP44/IP54	900	65.6	744	94.60	0.8368	2.03	0.91	5.09	136.9	8360
YKKL630-8	IP44/IP54	1000	72.9	744	94.81	0.8354	2.05	0.95	5.20	145.9	8820
YKKL500-10	IP44/IP54	220	18.6	594	92.08	0.7398	2.68	1.37	5.16	33.4	5800
YKKL500-10	IP44/IP54	250	20.7	594	92.40	0.7559	2.49	1.28	4.91	36.0	6050
YKKL500-10	IP44/IP54	280	22.8	594	92.56	0.7650	2.37	1.24	4.75	38.6	6300
YKKL560-10	IP44/IP54	315	25.3	595	92.76	0.7760	2.46	1.02	5.12	50.5	6350
YKKL560-10	IP44/IP54	355	27.5	594	93.05	0.8014	2.23	0.93	4.81	56.6	6650
YKKL560-10	IP44/IP54	400	30.9	595	93.43	0.8011	2.40	1.08	5.36	63.8	7050
YKKL560-10	IP44/IP54	450	34.4	595	93.69	0.8063	2.32	1.05	5.22	68.7	7400
YKKL560-10	IP44/IP54	500	38.2	595	93.86	0.8059	2.30	1.07	5.21	73.5	7730
YKKL560-10	IP44/IP54	560	42.9	595	94.02	0.8018	2.30	1.09	5.23	78.4	8050
YKKL630-10	IP44/IP54	630	47.0	594	94.17	0.8224	2.24	0.94	5.17	152.1	8630
YKKL630-10	IP44/IP54	710	52.6	594	94.33	0.8265	2.18	0.94	5.11	164.1	9050
YKKL630-10	IP44/IP54	800	58.9	593	94.38	0.8310	2.06	0.90	4.87	185.2	9750
YKKL630-10	IP44/IP54	900	66.3	594	94.64	0.8275	2.12	0.96	5.11	193.9	10050
YKKL630-10	IP44/IP54	1000	73.7	594	94.74	0.8271	2.16	1.02	5.27	212.0	10700
YKKL560-12	IP44/IP54	250	22.3	497	92.24	0.7010	2.79	1.21	5.32	64.2	7100
YKKL560-12	IP44/IP54	280	24.3	497	92.56	0.7178	2.62	1.14	5.13	69.1	7400

► Technical Data of YKKL (Not Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 17 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)
YKKL560-12	IP44/IP54	315	26.9	496	92.86	0.7293	2.49	1.09	4.95	73.9	7700
YKKL560-12	IP44/IP54	355	29.9	496	93.15	0.7364	2.39	1.05	4.82	78.8	8020
YKKL560-12	IP44/IP54	400	33.5	496	93.35	0.7395	2.32	1.04	4.73	83.7	8380
YKKL560-12	IP44/IP54	450	37.7	496	93.54	0.7376	2.29	1.05	4.70	88.5	8700
YKKL630-12	IP44/IP54	500	41.5	496	93.86	0.7404	2.16	1.00	4.88	183.9	10370
YKKL630-12	IP44/IP54	560	46.4	496	94.07	0.7403	2.13	1.01	4.87	193.1	10700
YKKL630-12	IP44/IP54	630	52.4	496	94.29	0.7361	2.14	1.05	4.94	201.9	11050
YKKL630-12	IP44/IP54	710	58.4	496	94.41	0.7434	2.07	1.03	4.84	220.4	11680

► Technical Data of YKKL (Subject to Axial Thrust) Medium 3-phase Vertical asynchronous motors

Table 18

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm ($kg.m^2$)	Weight (kg)
YKKL450-4	IP44/IP54	220	16.3	1491	90.63	0.8612	3.33	1.13	6.81	7.6	4340
YKKL450-4	IP44/IP54	250	18.2	1490	90.84	0.8739	2.93	0.99	6.09	7.6	4340
YKKL450-4	IP44/IP54	280	20.0	1489	91.2	0.8863	3.01	1.11	6.41	8.6	4520
YKKL500-4	IP44/IP54	315	23.4	1491	90.34	0.8621	3.42	1.03	7.07	15.4	5710
YKKL500-4	IP44/IP54	355	26.1	1491	91.31	0.8595	3.37	1.03	7.05	15.4	5710
YKKL500-4	IP44/IP54	400	29.9	1491	91.51	0.8438	3.41	1.10	7.16	15.4	5710
YKKL500-4	IP44/IP54	450	33.0	1490	91.76	0.8587	3.03	0.98	6.49	15.4	5710
YKKL500-4	IP44/IP54	500	35.8	1489	92.19	0.8758	2.90	0.96	6.39	17.1	5930
YKKL500-4	IP44/IP54	560	40.5	1491	92.68	0.8622	3.22	1.12	7.10	18.8	6110
YKKL560-4	IP44/IP54	630	45.4	1490	92.25	0.8694	3.07	1.04	6.18	26.7	7850
YKKL560-4	IP44/IP54	710	50.7	1488	92.41	0.8758	2.72	0.93	5.54	26.7	7850
YKKL560-4	IP44/IP54	800	56.6	1488	92.68	0.8812	2.72	0.97	5.64	28.9	8100
YKKL560-4	IP44/IP54	900	62.7	1488	93.03	0.8907	2.71	1.01	5.74	33.1	8600
YKKL560-4	IP44/IP54	1000	69.0	1489	93.23	0.8969	2.77	1.09	5.98	37.4	9050
YKKL630-4	IP44/IP54	1120	78.5	1492	93.12	0.8846	2.37	0.72	5.00	68.6	10250
YKKL630-4	IP44/IP54	1250	87.6	1491	93.28	0.8833	2.25	0.69	4.75	68.6	10250
YKKL630-4	IP44/IP54	1400	97.4	1491	93.59	0.8871	2.27	0.71	4.81	74.0	10650
YKKL630-4	IP44/IP54	1600	111.0	1492	93.86	0.8870	2.38	0.80	5.18	81.0	11100
YKKL450-6	IP44/IP54	220	17.3	992	90.89	0.8096	3.15	1.34	7.03	13.6	4420
YKKL450-6	IP44/IP54	250	19.3	992	91.18	0.8184	3.03	1.33	6.89	14.7	4540
YKKL450-6	IP44/IP54	280	21.6	992	91.52	0.8193	3.00	1.31	6.79	15.7	4670
YKKL500-6	IP44/IP54	315	24.7	994	91.93	0.8186	2.86	1.03	6.02	21.4	5110
YKKL500-6	IP44/IP54	355	26.7	994	92.33	0.8321	2.8	1.04	6.04	23.6	5300
YKKL500-6	IP44/IP54	400	30.4	994	92.52	0.8200	2.85	1.09	6.12	24.7	5430
YKKL500-6	IP44/IP54	450	33.5	994	92.85	0.8354	2.71	1.06	5.97	26.9	5700
YKKL500-6	IP44/IP54	500	37.8	994	93.02	0.8202	2.84	1.14	6.20	29.1	6020
YKKL560-6	IP44/IP54	560	40.6	992	92.91	0.8567	2.84	1.01	5.90	38.3	8270
YKKL560-6	IP44/IP54	630	45.4	992	93.29	0.8596	2.88	1.07	5.98	42.6	8620
YKKL560-6	IP44/IP54	710	50.8	992	93.33	0.8647	2.81	1.07	5.97	46.2	8980
YKKL560-6	IP44/IP54	800	57.1	992	93.48	0.8660	2.79	1.09	5.98	49.7	9340
YKKL560-6	IP44/IP54	900	64.4	992	93.63	0.8622	2.83	1.14	6.09	53.2	9700
YKKL630-6	IP44/IP54	1000	71.7	992	93.26	0.8630	1.86	0.84	4.84	113.0	10680
YKKL630-6	IP44/IP54	1120	79.7	992	93.52	0.8671	1.89	0.89	5.03	121.1	11080
YKKL630-6	IP44/IP54	1250	89.4	994	93.80	0.8603	2.22	1.12	6.03	129.3	11500
YKKL630-6	IP44/IP54	1400	99.3	993	93.89	0.8672	2.06	1.07	5.69	141.4	12100

► Technical Data of YKKL (Subject to Axial Thrust) Medium 3-phase Vertical Asynchronous Motors (10KV) (design value)

Table 18 (Continued)

Model	Protection level	Rated power (KW)	Rated current (A)	Rated speed (r/min)	Efficiency (%)	Power factor cosφ	Max. torque Rated torque T_M/T_N	Locked-rotor torque Rated torque T_{st}/T_N	Locked-rotor current Rated current I_{st}/I_N	Rotation inertia of motor Jm (kg.m^2)	Weight (kg)
YKKL500-8	IP44/IP54	315	25.5	745	92.34	0.7733	2.51	1.18	5.54	27.8	5430
YKKL500-8	IP44/IP54	355	28.8	745	92.38	0.7699	2.60	1.21	5.74	32.4	5770
YKKL500-8	IP44/IP54	400	31.7	745	92.63	0.7866	2.57	1.23	5.82	37.7	6200
YKKL500-8	IP44/IP54	450	35.3	745	92.86	0.7934	2.47	1.20	5.65	40.4	6430
YKKL560-8	IP44/IP54	500	37.9	744	92.93	0.8196	2.71	1.14	5.65	52.0	7650
YKKL560-8	IP44/IP54	560	42.2	744	93.08	0.8233	2.63	1.13	5.55	55.7	7930
YKKL560-8	IP44/IP54	630	47.3	744	93.24	0.8245	2.59	1.13	5.50	59.4	8300
YKKL560-8	IP44/IP54	710	53.4	744	93.36	0.8223	2.58	1.16	5.52	63.0	8660
YKKL630-8	IP44/IP54	800	59.6	744	92.95	0.8341	2.07	0.90	5.11	127.9	8950
YKKL630-8	IP44/IP54	900	66.7	744	93.10	0.8368	2.03	0.91	5.09	136.9	9410
YKKL630-8	IP44/IP54	1000	70.1	744	93.30	0.8354	2.05	0.95	5.20	145.9	9870
YKKL500-10	IP44/IP54	220	19.1	594	90.08	0.7398	2.68	1.37	5.16	33.4	6550
YKKL500-10	IP44/IP54	250	21.1	594	90.40	0.7559	2.49	1.28	4.91	36.0	6800
YKKL500-10	IP44/IP54	280	23.3	594	90.56	0.7650	2.37	1.24	4.75	38.6	7050
YKKL560-10	IP44/IP54	315	25.7	594	91.26	0.7760	2.46	1.02	5.12	50.5	7250
YKKL560-10	IP44/IP54	355	27.9	594	90.55	0.8014	2.23	0.93	4.81	56.6	7550
YKKL560-10	IP44/IP54	400	31.4	595	91.93	0.8011	2.40	1.08	5.36	63.8	7950
YKKL560-10	IP44/IP54	450	35.0	595	92.19	0.8063	2.32	1.05	5.22	68.7	8300
YKKL560-10	IP44/IP54	500	38.8	595	92.36	0.8059	2.30	1.07	5.21	73.5	8630
YKKL560-10	IP44/IP54	560	43.6	595	92.52	0.8018	2.30	1.09	5.23	78.4	8950
YKKL630-10	IP44/IP54	630	47.7	594	92.67	0.8224	2.24	0.94	5.17	152.1	9680
YKKL630-10	IP44/IP54	710	53.4	594	92.83	0.8265	2.18	0.94	5.11	164.1	10100
YKKL630-10	IP44/IP54	800	59.8	593	92.88	0.8310	2.06	0.90	4.87	185.2	10800
YKKL630-10	IP44/IP54	900	67.4	594	93.14	0.8275	2.12	0.96	5.11	193.9	11100
YKKL630-10	IP44/IP54	1000	74.9	594	93.24	0.8271	2.16	1.02	5.27	212.0	11750
YKKL560-12	IP44/IP54	250	22.8	497	90.24	0.7010	2.79	1.21	5.32	64.2	8020
YKKL560-12	IP44/IP54	280	24.9	497	90.56	0.7178	2.62	1.14	5.13	69.1	8300
YKKL560-12	IP44/IP54	315	27.3	496	91.36	0.7293	2.49	1.09	4.95	73.9	8600
YKKL560-12	IP44/IP54	355	30.4	496	91.65	0.7364	2.39	1.05	4.82	78.8	8920
YKKL560-12	IP44/IP54	400	34.0	496	91.85	0.7395	2.32	1.04	4.73	83.7	9280
YKKL560-12	IP44/IP54	450	38.3	496	92.04	0.7376	2.29	1.05	4.70	88.5	9600
YKKL630-12	IP44/IP54	500	42.2	496	92.36	0.7404	2.16	1.00	4.88	183.9	11420
YKKL630-12	IP44/IP54	560	47.2	496	92.57	0.7403	2.13	1.01	4.87	193.1	11750
YKKL630-12	IP44/IP54	630	53.3	496	92.79	0.7361	2.14	1.05	4.94	201.9	12100
YKKL630-12	IP44/IP54	710	59.4	496	92.91	0.7434	2.07	1.03	4.84	220.4	12730

► Guaranteed Efficiency and Power Factor Values of YL and YKSL (Not Subject to Axial Thrust) 10KV Medium 3-phase Vertical asynchronous motors (Frame No. 450-630)

Table 19

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
220	92.9	92.5		92.1		0.85	0.79		0.72	
250	93	92.6		92.2	92.1	0.85	0.81		0.72	0.68
280	93.1	92.7		92.4	92.2	0.85	0.82		0.74	0.7
315	93.2	92.8	92.8	92.6	92.3	0.86	0.82	0.77	0.74	0.73
355	93.3	93.1	93.1	92.8	92.5	0.86	0.83	0.77	0.75	0.73
400	93.5	93.3	93.2	93	92.7	0.86	0.83	0.78	0.75	0.73
450	93.9	93.5	93.4	93.2	92.9	0.86	0.83	0.78	0.77	0.73
500	94	93.9	93.8	93.4	93.2	0.86	0.83	0.79	0.77	0.73
560	94.2	94.1	93.9	93.5	93.5	0.86	0.84	0.79	0.78	0.74
630	94.4	94.4	94.4	93.7	93.7	0.86	0.84	0.82	0.78	0.74
710	95	94.6	94.6	93.9	93.9	0.87	0.84	0.82	0.78	0.74
800	95.1	94.7	94.7	94.3	94.3	0.87	0.84	0.82	0.8	0.74
900	95.2	94.9	94.8	94.5		0.88	0.85	0.82	0.8	
1000	95.3	95.1	95	94.6		0.88	0.85	0.83	0.8	
1120	95.4	95.3	95.2	94.7		0.88	0.85	0.83		
1250	95.5	95.4	95.3			0.89	0.86	0.83		
1400	95.7	95.7				0.89	0.86			
1600	95.8	95.8				0.89	0.86			
1800	95.9	95.9				0.89	0.86			
2000	96					0.89				
2240	96.1					0.89				

► Guaranteed Efficiency and Power Factor Values of YLST and YKSL (Subject to Axial Thrust) 10KV Medium 3-phase Vertical asynchronous motors (Frame No. 450-630)

Table 20

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
220	91.7	91.5		90.4		0.85	0.79		0.72	
250	91.8	91.6		90.6	90.6	0.85	0.81		0.72	0.68
280	91.9	91.7		90.8	90.8	0.85	0.82		0.74	0.7
315	92.5	91.9	92.3	91.2	91.0	0.86	0.82	0.77	0.74	0.73
355	92.8	92.4	92.4	91.8	91.8	0.86	0.83	0.77	0.75	0.73
400	92.9	93.0	92.7	92.3	92.0	0.86	0.83	0.78	0.75	0.73
450	93.0	93.1	92.8	92.4	92.1	0.86	0.83	0.78	0.77	0.73
500	93.1	93.2	93.0	92.5	92.3	0.86	0.83	0.79	0.77	0.73
560	93.2	93.3	93.2	92.6	92.7	0.86	0.84	0.79	0.78	0.74
630	93.3	93.4	93.3	92.8	92.9	0.86	0.84	0.82	0.78	0.74
710	93.5	93.5	93.4	93.0	93.0	0.87	0.84	0.82	0.78	0.74
800	93.6	93.7	93.5	93.1	93.1	0.87	0.84	0.82	0.8	0.74
900	93.7	93.8	93.5	93.2		0.88	0.85	0.82	0.8	
1000	93.8	93.9	93.5	93.4		0.88	0.85	0.83	0.8	
1120	93.9	94.0	93.6	93.5		0.88	0.85	0.83	0.8	
1250	94.0	94.1	93.7			0.89	0.86	0.83		
1400	94.1	94.2				0.89	0.86			
1600	94.3	94.3				0.89	0.86			
1800	94.4					0.89				

► Guaranteed Efficiency and Power Factor Values of YKKL (Subject to Axial Thrust) 10KV Medium 3-phase Vertical asynchronous motors (Frame No. 450-630)

Table 21

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
220	90.4	91.7	91.5	91.3	90.4	0.84	0.82	0.74	0.72	0.65
250	90.8	92	91.7	91.7	90.6	0.85	0.82	0.76	0.72	0.68
280	91.3	92.4	92.1	92.1	91.1	0.85	0.82	0.76	0.74	0.7
315	91.7	92.7	92.4	92.3	91.5	0.86	0.82	0.76	0.76	0.71
355	92	93	92.8	92.6	92	0.86	0.82	0.76	0.76	0.72
400	92.4	93.1	93.2	92.7	92.3	0.86	0.82	0.77	0.76	0.72
450	92.8	93.4	93.4	92.8	92.6	0.86	0.82	0.77	0.76	0.72
500	93.2	93.6	93.6	93	93.2	0.86	0.82	0.79	0.76	0.72
560	93.6	94	93.8	93.1	93.4	0.86	0.83	0.79	0.76	0.72
630	93.7	94.3	94	93.5	93.6	0.86	0.83	0.79	0.78	0.72
710	93.8	94.5	94.2	93.7	93.8	0.87	0.85	0.8	0.78	0.72
800	94.0	94.6	94.3	94.1		0.87	0.85	0.82	0.78	
900	94.3	94.7	94.5	94.4		0.87	0.85	0.82	0.78	
1000	94.5	94.9	94.6			0.88	0.85	0.82		
1120	94.6	95	94.7			0.88	0.86	0.82		
1250	94.7	95.2				0.88	0.86			
1400	95	95.4				0.88	0.86			
1600	95.2	95.5				0.88	0.86			
1800	95.4					0.88				
2000	96					0.88				

► Guaranteed Efficiency and Power Factor Values of YKKL (Subject to Axial Thrust) 10KV Medium 3-phase Vertical asynchronous motors (Frame No. 450-630)

Table 22

Power KW	Synchronization speed/r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency %					Power factor cosφ				
220	90.4	90.6		90.0		0.84	0.82		0.72	
250	90.7	91.0		90.2	90.1	0.85	0.82		0.72	0.68
280	91.0	91.4		90.3	90.4	0.85	0.82		0.74	0.7
315	90.2	91.7	92.1	91.1	91.2	0.86	0.82	0.76	0.76	0.71
355	91.2	92.1	92.2	91.4	91.5	0.86	0.82	0.76	0.76	0.72
400	91.4	92.4	92.4	91.8	91.7	0.86	0.82	0.77	0.76	0.72
450	91.6	92.6	92.6	92.0	91.9	0.86	0.82	0.77	0.76	0.72
500	92.0	92.8	92.8	92.2	92.2	0.86	0.82	0.79	0.76	0.72
560	92.4	92.8	92.9	92.4	92.4	0.86	0.83	0.79	0.76	0.72
630	92.1	92.9	93.1	92.5	92.6	0.86	0.83	0.79	0.78	0.72
710	92.3	93.1	93.2	92.7	92.8	0.87	0.85	0.8	0.78	0.72
800	92.5	93.3	92.9	92.8		0.87	0.85	0.82	0.78	
900	92.8	93.4	93.0	93.0		0.87	0.85	0.82	0.78	
1000	93.1	93.2	93.2	93.1		0.88	0.85	0.82	0.78	
1120	93.0	93.4				0.88	0.86	0.82		
1250	93.1	93.6				0.88	0.86			
1400	93.4	93.7				0.88	0.86			
1600	93.6					0.88				



National Standards for Vibration of Electric Machines National Standards for Noise of Electric Machines

According to the requirements in national standard GB10068-2008 of the People's Republic of China (PRC) *Mechanical Vibration of Certain Machines with Shaft Heights 56 mm and Higher - Measurement, Evaluation and Limits of Vibration Severity* for vibration of electric machines, during running at no load, our motors are subject to the following vibration intensity limits expressed by displacement and speed measured in the factory vibration test: 37μm and 2.3mm/s.

Excerpts from National Standards Are as Follows:

• Vibration intensity limits

The vibration limits are applicable to the broadband root mean square values of vibration speed, displacement and acceleration measured in the frequency range specified in Chapter 5.

The maximum values of these three measured values are used to evaluate the intensity of vibration.

Under the two installation conditions specified in Chapter 6, the vibration intensity of DC and 3-phase AC motors with the shaft center height of 56mm or above shall not exceed the limits in Table 1. Vibration levels are divided into two types. If the vibration level is not specified, the vibration limit of the motor shall meet the requirements of level "A".

For motors with the rotating speed of 600 r/min~3600 r/min, only the vibration speed needs to measure during the inspection test. During the type test, all three vibration values shall be measured.

Note: When the inspection test is carried out under free suspension installation, the type test must include the test under the condition of rigid installation. This article applies to all speed ranges in this standard.

Table 1 Limits of vibration intensity (root mean square value) expressed by displacement, velocity and acceleration for different shaft center heights 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" is suitable for motors with no special requirements for vibration.
Note 2: Grade "B" is suitable for motors with special requirements for vibration. Motors with the shaft center height lower than 132 mm is not considered for rigid installation.
Note 3: The interface frequency of displacement and speed and that of speed and acceleration are 10 Hz and 250 Hz respectively.

Note 1: Manufacturers and users should consider that measuring instruments may have a measuring tolerance of ±10%.
Note 2: Take the shaft center height of a horizontal motor with casters of the frame as that of a motor without casters of the frame or a motor with casters upward or a vertical motor.
Note 3: A motor with good self-balance and the vibration intensity level meeting the requirements in Table 1 will also show great vibration when installed in the field due to various factors, such as uneven foundation, reaction of load machinery and ripple current in the power supply. In addition, because the natural frequencies of the driven units are very close to the excitation frequencies of the tiny residual unbalance of the motor rotor, vibration will also occur. In these cases, not only the motor but also every unit in the device shall be tested, as shown in ISO10816-3.

National Standards for Vibration of Electric Machines

There are the following descriptions and requirements for motor noise in national standard GB10069.3-2008 of the People's Republic of China (PRC): *Measurement of Airborne Noise Emitted by Rotating Electrical Machines and Noise Limits-Part3: Noise Limits*.

Noise can be expressed by sound power level or sound pressure level, in decibels (dB). Motor noise is generally assessed by sound power level, and the values of sound power level and sound pressure level are quite different according to the size of the motor (envelope surface area). Generally, the sound power level is 15 ~ 18 dB larger than the sound pressure level.

- On page 6 of the national standard, it is stipulated that the sound power level Lw (dB) measured at different rotating speeds, cooling modes and rated output power shall not exceed the values in the following table.

Rated speed n_N/(r/min)	$n_N \leq 960$			$960 < n_N \leq 1320$			$1320 < n_N \leq 1900$			$1900 < n_N \leq 2360$			$2360 < n_N \leq 3150$			$3150 < n_N \leq 3750$		
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)																		
$1 < P_N \leq 1.1$	73	73	—	76	76	—	77	78	—	79	81	—	81	84	—	82	88	—
$1.1 < P_N \leq 2.2$	74	74	——	78	78	——	81	82	——	83	85	——	85	88	——	86	91	——
$2.2 < P_N \leq 5.5$	77	78	—	81	82	—	85	86	—	86	90	—	89	93	—	93	95	—
$5.5 < P_N \leq 1.1$	81	82	—	85	85	—	88	90	—	90	93	—	93	97	—	97	98	—
11<PN<22	84	86	——	88	88	——	91	94	——	93	97	——	96	100	——	97	100	——
$22 < P_N \leq 37$	87	87	—	91	91	—	94	98	—	96	100	—	99	102	—	101	102	—
$37 < P_N \leq 55$	90	93	—	94	94	—	97	100	—	98	102	—	101	104	—	103	104	—
$55 < P_N \leq 110$	93	96	—	97	98	—	100	103	—	101	104	—	103	106	—	105	106	—
$110 < P_N \leq 220$	97	99	—	100	102	—	103	106	—	103	107	—	105	109	—	107	110	—
$220 < P_N \leq 550$	99	102	98	103	105	100	106	108	102	106	109	102	107	111	102	110	113	105
$550 < P_N \leq 1100$	101	105	100	106	108	103	108	111	104	108	111	104	109	112	104	111	116	106
$1000 < P_N \leq 2200$	103	107	102	108	110	105	109	113	105	109	113	105	110	113	105	112	118	107
$2200 < P_N \leq 5500$	105	109	104	110	112	106	110	115	106	111	115	107	112	115	107	114	120	109
Note 1: The typical protection type is IP22 or IP23. Note 2: The typical protection type is IP44 or IP54.																		

- There is no specific requirement for sound pressure level in national standards. If there is a requirement, the sound pressure level can be directly converted from the sound power level of the following equation:

(Equation 1)

$$L_p = L_w - 10 \lg \left(\frac{S}{S_0} \right)$$

Where:

L_P - sound pressure level in free field on the reflecting surface 1m away from the motor.

L_w - sound power level determined according to the standards

S_0 - 1.0 m^2

S-motor measurement envelope surface area 1m away from the reference body

Paint colors for motor

According to the statistics of the colors used by customers for many years, combining some advantages and disadvantages, it is suggested that customers choose from the following common colors when ordering.

Preferred recommended colors:

When the customer doesn't specify the color of the top coat, the hammer paint of our factory is adopted by default, and the motor used indoors is "jade green" and the motor used outdoors is "light gray".

Advantages: The two colors are polyurethane hammer paint with beautiful and clear patterns, bright and plump paint film, good weather resistance, oil resistance, chemical corrosion resistance, and good hardness and wear resistance. The paint film dries quickly and is convenient for construction. It is widely used in indoor and outdoor metal structures.

Examples:



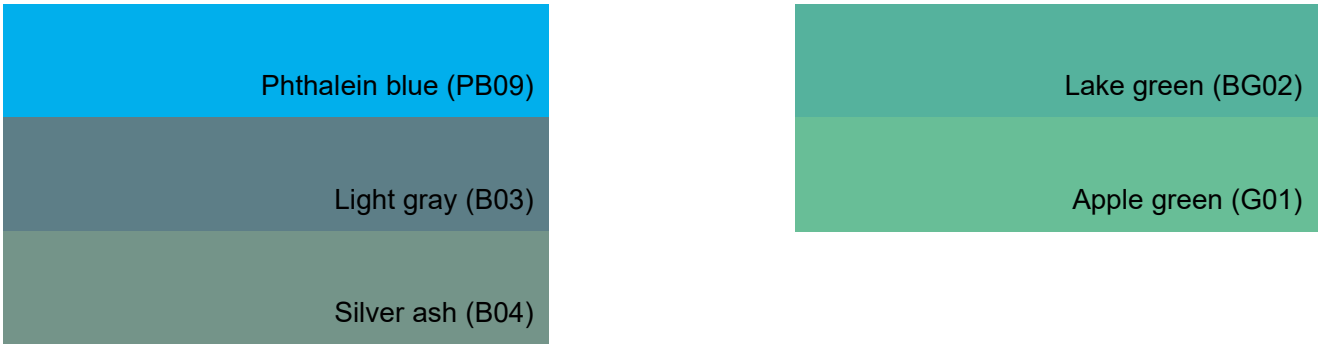
Light gray



Jade green

Other recommended colors:

Colors in commonly used national standard color card GSB 05-1426-2001



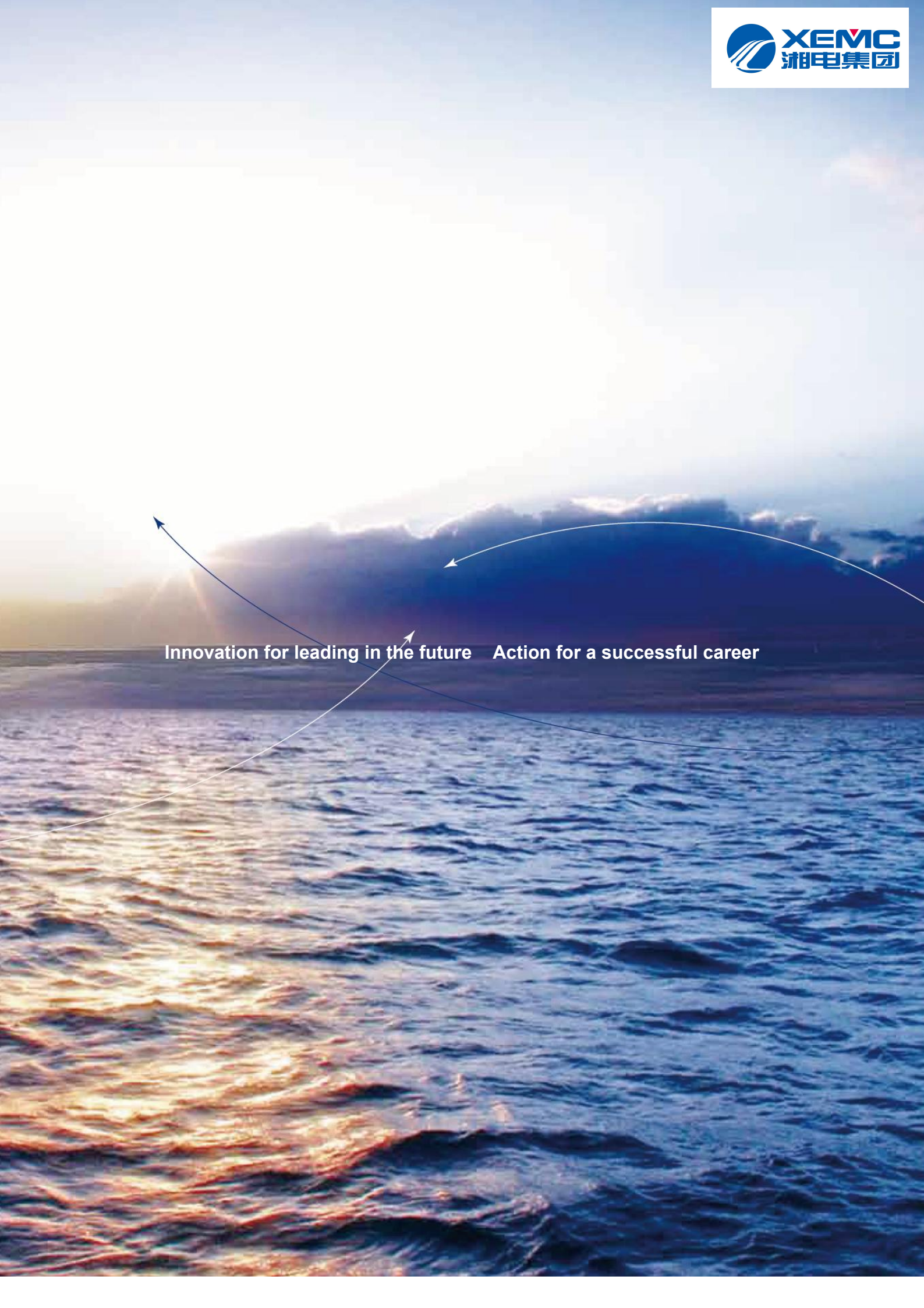
Colors in commonly used international color card RAL



Note: 1. The electronic version of paint colors is for reference only, and the construction and quality inspection are subject to the physical standard color cards.

2. Please indicate the paint label number in the contract documents when ordering.




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