Y, YKS, YKK, YR, YRKS, YRKK Series 6kV 10kV H710-1000 Large High-voltage Three-phase 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 P54)

2. Please specify your special requirement on vibration (if any). (Standard: amplitude 0.037mm, 2.3mm/s; see national standard for vibration in page 53))

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 anticorrosion (if any). (e.g. F1 for low corrosivity, F2 for medium corrosivity, F3 for high corrosivity.)

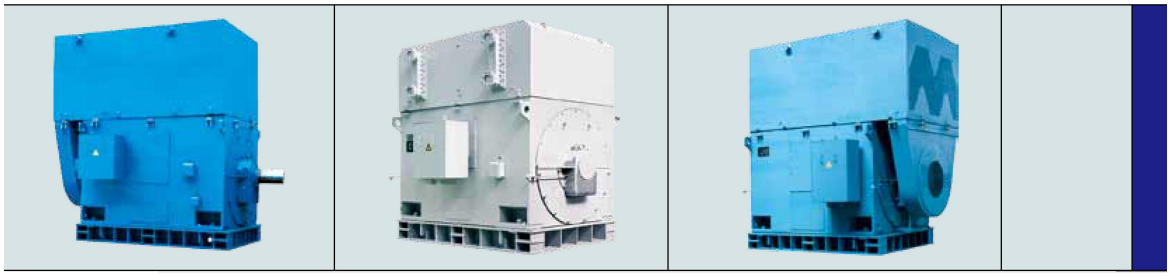
16. Please specify types of bearings. (e.g. rolling or sliding bearing). Please specify whether imported bearings are needed. (SKF ☐FAG ☐NSK ☐Domestic)

17. 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 is 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 55-56")
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

Y, YKS, YKK, YR, YRKS, YRKK Series

6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors



I. Overview

Y, YKS, YKK, YR, YRKS, and YRKK series 710—1000 6kV and 10kV large box-type Y-series asynchronous motors were developed by our company by introducing and absorbing the design and manufacturing technology of high-voltage motors from US-based Westinghouse, Switzerland-based ABB, as well as the design and manufacturing technology of German-based AEG, and the design and manufacturing technology of German-based RENK for top-cover self-aligning spherical bearings. In combination with our long-term experience in designing and manufacturing high-voltage three-phase asynchronous motors for more than 60 years, they were newly developed according to national and industry standards.

This series of motors are made with computer aided design (CAD), adopting new materials and new technology, and has such advantages as high efficiency, low noise, slight vibration, light weight, reliable performance and convenient installation and maintenance.

The power grade, installation dimensions and electrical performance of this series of motors meet the national standards GB/T755 *Rotating Electrical Machines - Rating and Performance*, GB/T13957 *Technical Requirements for the Fundamental Series of Three-phase Large Asynchronous Motors*, and IEC standards of the International Electrotechnical Commission.

According to GB/T4942.1 and IEC34-5 *Classification of Degrees of Protection Provided by Enclosures of Rotating Electrical Machines*, the enclosure protection degrees of this series of motors are IP23, IP44, and IP54. IP23 motors can be customized into IP 44 motors as required (pipeline ventilation)

According to GB/T1993 and IEC34-6 *Rotating Electrical Machines: Methods of Cooling*, the cooling methods of this series of motors are IC01, IC611, IC616 and IC81W respectively. Others methods, if required, may be supplied separately as required.

The basic installation type of this series of motors is horizontal, with casters - IMB3, which conforms to GB997 and IEC 34-7 *Rotating Electrical Machines: Classification of Types of Construction, Mounting Arrangements and Terminal Box Position*.

This series of motors can be used to drive all kinds of general machinery such as compressors, ventilators, water pumps, crushers, and other mechanical equipment, and are used as prime movers in various industrial and mining enterprises such as mines, machinery industries, petrochemical industries and power plants.

II. Structure Description

Y and YR are basic series, with protection grade of IP23 and cooling method of IC01; for YKS Series, the protection grade is IP 44, and the cooling method is IC81W. Motors with different protection levels (IP44, IP54, IP55) and cooling modes (ICll, IC21, IC31, IC611, IC616, IC81W) can be derived by replacing different top covers (or coolers or protective covers) on the top of the frame. The frames are made of steel plates in the box structure prevailing in the world, featuring good rigidity and light weight.

The stator adopts the F-class insulating materials and the external press-fitting structure. The whole stator is treated by vacuum pressure impregnation of F-class solvent-free paint (VPI), which has excellent and reliable electrical performance and moisture resistance. the squirrel-cage rotors bars are made of copper bars with reliable welding process. This winding rotors are made of F-class insulating materials, which are treated by vacuum pressure impregnation with F-class solvent-free paint (VPI). The rotating shaft is generally made into uniaxial extension, and can also be made into biaxial extension as required.

The bearing adopts end cover spherical sliding structure, which has the advantages of strong load capacity and convenient maintenance.

The main outlet box is designed according to German DIN standard, and the protection level is IP54. It is generally installed on the right side of the motor (facing the extended end of the motor shaft) or on the left side as required. When the motor power is 2000kW or above, there is also an auxiliary outlet box on the other side of the motor opposite to the main outlet box for leading out the neutral point of the stator three-phase winding.

All motor stator windings and bearings are equipped with resistance temperature measuring elements for monitoring the motor temperature.

III. Explanation of models

The model number of the motor consists of the code and the specification code in order according to GB4831,which is defined as follows:

Y-Squirrel-cage rotor 3-phase asynchronous motors



YR——Wound-rotor 3-phase asynchronous motors

YKS——Closed squirrel-cage rotor 3-phase asynchronous motors with air-water coolers

YKK——Closed squirrel-cage rotor 3-phase vertical asynchronous motor with air-air coolers

YRKS——Closed wound-rotor 3-phase asynchronous motors with air-water coolers

YRKK——Closed wound-rotor 3-phase asynchronous motors with air-air coolers

The specification code consists of the center height and the number of poles

Example: Y (YKS) 710 - 4

- Poles
- Shaft center height [mm]
- Closed squirrel-cage rotor asynchronous motors with air-water coolers
- Squirrel-cage rotor asynchronous motor

IV. Basic conditions for normal operation of the motors

a. Altitude: ≤1000 m.

b. the maximum ambient temperature shall not exceed 40°C; Minimum ambient air temperature: -15°C for motors with rolling bearings; no lower than 0°C for motors with sliding bearings; no lower than 0°C for YKS、YRKS series motors;

c. For YKS and YRKS series motors, the cooling water temperature at the inlet of air cooler shall not exceed 33°C, and the minimum temperature shall be 5°C;

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°C;

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.

V. Ordering Notes

If you have other special conditions or requirements, such as non-standard power, or power, voltage, frequency, installation size, overall size, pipeline ventilation, high altitude, special ambient temperature, surrounding environment and corrosive gas, large moment of inertia, high locked-rotor torque, large overload capacity, frequent starting, short-time rating, and periodic duty rating, and require the installation of space heaters and YKK series closed motor with air-to-air cooler (protection grade IP44 or IP54), the orders can be accepted upon separate agreements.

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

► Design Data Table of Y and YKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)	
									Motor Jm ($kg.m^2$)	Load J ($kg.m^2$)	Y	YKS
710-4	3150	354	1490	96.21	0.8989	1.81	0.67	4.27	159	680	12000	12300
	3550	398	1490	96.32	0.9009	1.86	0.74	4.48	173	730	12500	12800
	4000	449	1490	96.47	0.9018	1.96	0.84	4.84	187	790	13000	13300
	4500	505	1490	96.56	0.9042	1.92	0.87	4.84	206	840	13500	13800
800-4	5000	567	1492	96.7	0.888	1.83	1.09	4.73	282	886	15100	16500
	5600	635	1492	96.68	0.891	1.9	1.09	4.73	310	932	16500	17300
	6300	710	1492	96.78	0.8966	1.94	0.89	4.97	344	975	17300	18100
900-4	7100	785	1494	96.7	0.9	1.94	0.5	4.53	473	1009	21500	22400
	8000	888	1493	96.84	0.8949	1.92	0.57	4.26	514	1033	22600	23500
	9000	993	1492	96.94	0.9	2.02	0.57	4.86	564	1089	23700	24600
1000-4	10000	1102	1492	97.2	0.9007	1.83	0.55	4.33	712	1027	30700	31500
	11200	1235	1492	97.22	0.9013	1.8	0.57	4.03	981	1097	32200	33000
	12500	1376	1494	97.32	0.9023	1.81	0.62	3.92	1061	1150	33700	34500
710-6	2240	261	992	96.22	0.9004	1.96	0.76	4.73	193	1560	11800	12500
	2500	291	992	96.33	0.9028	2.03	0.82	4.99	210	1700	12300	13000
	2800	326	992	96.37	0.9026	1.95	0.82	4.84	231	1850	12800	13500
	3150	352	992	96.43	0.9019	1.92	0.82	4.83	259	2020	13300	14000
800-6	3550	399	993	96.24	0.8895	1.81	0.61	4.66	374	2206	15300	16000
	4000	447	994	96.39	0.8937	1.82	0.64	4.79	422	2398	16000	16700
	4500	501	993	96.45	0.8958	1.86	0.63	5.12	463	2597	16800	17500
	5000	554	994	96.56	0.8997	1.93	0.66	5.2	540	2782	17800	18600
900-6	5600	622	995	96.65	0.8968	1.89	0.63	4.43	628	2984	23000	23900
	6300	697	995	96.78	0.8987	1.85	0.7	4.59	701	3197	24000	24900
	7100	787	995	96.84	0.8959	1.83	0.74	4.46	774	3411	25000	25900

► Design Data Table of Y and YKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)	
									Motor Jm ($kg.m^2$)	Load J ($kg.m^2$)	Y	YKS
1000-6	800	882	995	96.9	0.9007	2.07	0.67	5.38	1086	3616	25200	26000
	9000	989	995	96.94	0.9032	2.05	0.7	5.44	1200	3804	26700	27500
	10000	1096	995	96.99	0.9052	2.12	0.76	5.75	1303	3952	28200	29000
710-8	1600	190	744	95.58	0.8798	1.86	0.87	4.73	218	2470	10200	10500
	1800	214	744	95.69	0.8803	1.85	0.89	4.78	232	2730	10700	11000
	2000	237	744	95.77	0.881	1.81	0.9	4.71	242	2980	11200	11500
	2240	266	744	95.84	0.8851	1.81	0.93	4.76	267	3260	11700	12000
800-8	2500	292	745	95.91	0.9007	2.24	0.89	5.44	393	3568	15200	15900
	2800	327	745	96.01	0.9025	2.21	0.91	5.41	429	3906	15900	16600
	3150	368	745	96.09	0.9044	2.19	0.93	5.44	472	4285	16500	17300
	3550	414	744	96.17	0.906	2.07	0.9	5.18	520	4699	17000	18000
900-8	4000	466	745	96.26	0.8969	2.01	0.7	4.7	727	5142	21200	22100
	4500	524	745	96.23	0.8964	2.05	0.74	4.85	798	5608	22000	22900
	5000	582	745	96.3	0.8987	2.04	0.76	4.88	879	6049	22900	23800
	5600	651	745	96.36	0.8993	2.06	0.8	5	960	6546	23900	24700
1000-8	6300	723	745	96.45	0.8872	1.81	0.62	4.58	1163	7085	24700	25260
	7100	814	745	96.55	0.8879	1.96	0.6	5.09	1282	7651	25860	26660
	8000	917	745	96.64	0.8914	1.88	0.6	4.96	1413	8227	27260	28060
	9000	1030	745	96.66	0.8918	1.85	0.61	4.94	1532	8798	28660	29460
710-10	1400	171	594	95.68	0.8667	2.12	1.07	5.11	263	3850	10900	11200
	1600	195	594	95.77	0.869	2.07	1.08	5.07	287	4320	11400	11700
	1800	219	594	95.89	0.8702	2.08	1.12	5.15	316	4780	11900	12200
	2000	240	594	95.99	0.8705	2.16	1.2	5.42	350	5220	12400	12700
800-10	2240	269	595	95.74	0.8652	1.94	0.85	4.67	424	5747	15900	16700
	2500	300	595	95.79	0.8692	1.93	0.89	4.71	476	6296	16600	17400
	2800	332	595	96.24	0.8689	1.94	0.92	4.79	525	6911	17300	18100
900-10	3150	374	595	96.09	0.8723	1.8	0.71	4.38	624	7605	21500	22100
	3550	420	595	96.08	0.8716	1.81	0.68	4.14	803	8368	22100	22800
	4000	473	595	96.15	0.8755	1.82	0.74	4.31	884	9192	23000	23700
	4500	532	595	96.22	0.8762	1.81	0.73	4.22	974	10068	23800	24600

Design Data Table of Y and YKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

1000-10	5000	590	596	96.28	0.862	1.81	0.61	4.61	1288	10904	25500	26000
	5600	661	596	96.38	0.8639	1.83	0.61	4.67	1420	11858	26700	27400
	6300	742	596	96.44	0.864	1.82	0.65	4.88	1536	12910	28100	28800
	7100	837	596	96.5	0.8622	1.8	0.63	4.51	1671	14034	29500	30200
710-12	1000	128	495	94.71	0.8009	2.29	1.22	5.23	263	4500	10100	10400
	1120	143	495	94.84	0.8088	2.21	1.2	5.13	291	4980	10600	10900
	1250	159	495	94.92	0.8149	2.15	1.19	5.04	320	5490	11100	11400
	1400	178	495	95.01	0.8186	2.11	1.19	5	352	6060	11600	11900
800-12	1600	198	496	94.81	0.8359	2.1	1.06	5.07	442	6808	15200	15950
	1800	223	496	95.24	0.8436	2	1.03	4.93	483	7539	15800	16500
	2000	247	496	95.32	0.847	1.93	1.02	4.81	531	8255	16250	17050
	2240	277	495	95.4	0.8504	1.87	1.01	4.71	586	9093	16900	17700
900-12	2500	308	496	95.73	0.8431	1.9	0.87	4.57	692	9978	21400	22000
	2800	341	496	95.8	0.8455	1.87	0.88	4.56	762	10972	22100	22700
	3150	387	496	95.89	0.8472	1.91	0.91	4.61	841	12099	23000	23600
1000-12	3550	436	496	95.88	0.845	2.04	0.84	4.79	1144	13344	24500	25000
	4000	491	496	96	0.8498	1.95	0.82	4.65	1270	14695	25700	26300
	4500	552	496	96.1	0.8531	1.92	0.82	4.62	1409	16139	27000	27600
	5000	612	496	96.16	0.8528	1.96	0.87	4.79	1535	17527	28200	28900
710-16	630	88	372	93.7	0.7403	2.27	1.01	4.32	271	6010	10400	10700
	710	99	372	93.96	0.7401	2.3	1.05	4.42	300	6700	10900	11200
	800	111	372	93.9	0.7363	2.38	1.1	4.57	333	7470	11400	11700
	900	125	372	94.05	0.7433	2.32	1.08	4.52	370	8310	11900	12200
	1000	138	372	94.21	0.7443	2.41	1.16	4.8	400	9140	12400	12700
800-16	1120	155	372	94.61	0.7525	1.9	1.00	4.17	443	10115	15250	16000
	1250	173	372	94.74	0.7569	1.87	1.00	4.15	484	11159	15750	16500
	1400	193	371	94.79	0.7609	1.83	1.00	4.12	532	12345	16300	17100
900-16	1600	218	372	95.13	0.7561	1.83	0.84	3.91	694	13895	21400	22000
	1800	245	372	95.21	0.7563	1.85	0.87	3.98	763	15415	22100	22700
	2000	272	372	95.29	0.7603	1.82	0.86	3.94	842	16905	23000	23600

Design Data Table of Y and YKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

710-4	2500	169	1492	95.84	0.8985	2.2	0.73	5.1	167	580	12100	12500
	2800	190	1492	95.99	0.8972	2.15	0.73	4.92	174	630	12600	13000
	3150	213	1492	96.13	0.8999	2.18	0.8	5.12	188	680	13100	13500
	3550	240	1492	96.33	0.9083	2.22	0.88	5.4	207	730	13600	14000
	4000	270	1492	96.43	0.9082	2.33	0.99	5.78	226	780	14100	14500
800-4	4500	307	1492	96.35	0.8921	1.82	0.62	4.15	298	841	16600	17400
	5000	341	1491	96.41	0.8922	1.8	0.66	4.19	313	886	17300	18300
	5600	381	1492	96.46	0.8987	1.91	0.79	4.74	343	932	18400	19200
900-4	6300	429	1494	96.5	0.8964	2.01	0.54	4.55	447	975	21400	22300
	7100	483	1494	96.6	0.9049	2.0	0.52	4.69	515	1010	22500	23400
	8000	543	1493	96.7	0.907	1.92	0.53	4.59	559	1033	23600	24500
1000-4	9000	638	1494	96.86	0.8929	1.82	0.5	4.12	682	1039	31000	31800
	10000	670	1494	96.89	0.9015	1.89	0.53	4.45	774	1060	32200	33000
	11200	750	1490	96.85	0.8915	1.82	0.53	3.78	980	1100	33700	34500
	12500	836	1490	96.93	0.8931	1.85	0.57	3.94	1053	1500	35200	36000
	15000	1003	1490	97.04	0.8914	1.8	0.58	3.89	1118	2200	36700	37500
710-6	1800	130	994	95.84	0.9042	2.39	0.72	5.76	191	1310	10100	10500
	2000	144	994	95.84	0.9036	2.33	0.72	5.78	214	1430	10600	11000
	2240	161	994	96.01	0.9054	2.27	0.72	5.67	231	1560	11100	11500
	2500	179	994	96.09	0.9079	2.22	0.73	5.55	254	1700	11600	12000
800-6	2800	194	994	95.84	0.8955	2.05	0.56	5.24	259	1853	14500	15300
	3150	218	994	95.96	0.8963	1.93	0.55	4.99	390	2023	15200	16050
	3550	245	994	96.09	0.8997	1.95	0.58	5.15	431	2206	16000	16800

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of Y and YKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

900-6	4000	276	996	96.2	0.8864	2.18	0.62	5.53	590	2398	21200	21900
	4500	311	995	96.33	0.8913	2.1	0.61	5.42	653	2597	22000	22800
	5000	345	995	96.4	0.8937	2.07	0.6	5.45	716	2782	23000	23800
	5600	385	995	96.5	0.8962	2.07	0.63	5.56	797	2984	24000	24800
1000-6	6300	429	996	96.49	0.9028	2.14	0.61	5.41	1086	3197	25200	26000
	7100	483	996	96.6	0.9052	2.17	0.65	5.61	1200	3411	26700	27500
	8000	544	996	96.58	0.91	2.41	0.67	6.48	1406	3616	29200	30500
710-8	1400	102	744	95.59	0.8788	2.01	0.75	5.09	209	2200	9800	10200
	1600	116	744	95.72	0.8804	2.01	0.77	5.17	228	2470	10300	10700
	1800	131	744	95.86	0.8836	2.26	0.92	5.93	263	2730	10800	11200
	2000	145	744	95.93	0.8808	2.22	0.93	5.88	277	2970	11300	11700
	2240	162	744	96.01	0.8846	2.11	0.9	5.64	305	3260	11800	12200
800-8	2500	176	744	95.55	0.8905	1.98	0.64	4.67	432	3568	15500	16300
	2800	197	744	95.59	0.8923	2.03	0.69	4.88	475	3906	16200	17000
	3150	221	745	95.63	0.8901	2.34	0.76	5.68	527	4285	17000	17800
900-8	3550	249	746	95.71	0.8962	2.4	0.64	5.54	847	4699	22600	23300
	4000	277	746	95.81	0.8987	2.43	0.67	5.68	928	5142	23500	24300
	4500	311	746	95.97	0.9012	2.34	0.66	5.53	1009	5608	24500	25300
1000-8	5000	346	746	96.11	0.878	2.15	0.68	5.28	1104	6049	23760	24560
	5600	387	746	96.18	0.8849	2.07	0.63	5.18	1223	6546	25160	25960
	6300	435	745	96.29	0.8885	2.01	0.64	5.14	1354	7085	26560	27360
	7100	489	745	96.38	0.8903	2.01	0.62	5.22	1473	7651	27960	28760
	8000	551	746	96.46	0.8895	2.06	0.66	5.42	1591	8227	29360	30160
710-10	1250	95	593	94.21	0.844	1.85	0.92	4.68	285	3490	10400	10800
	1400	106	593	94.96	0.8414	1.91	0.99	4.92	314	3850	10900	11300
	1600	121	593	95.15	0.8375	1.99	1.08	5.2	347	4320	11400	11800
	1800	136	593	95.2	0.836	2.2	1.26	5.3	383	4780	11900	12300

Design Data Table of Y and YKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

800-10	2000	147	595	95.1	0.8537	2.07	0.76	4.88	476	5225	16000	16800
	2240	164	595	95.19	0.8554	2.09	0.79	4.97	524	5747	16800	17500
900-10	2500	181	596	95.26	0.8771	2.16	0.64	5.13	852	6296	22600	23300
	2800	202	596	95.43	0.8782	2.09	0.62	4.98	933	6911	23600	24300
	3150	227	596	95.63	0.8794	2.29	0.71	5.51	1014	7605	24500	25300
1000-10	3550	256	596	95.75	0.8668	1.95	0.6	4.92	1209	8568	24600	25400
	4000	288	596	95.87	0.8678	2.06	0.67	5.34	1340	9192	25900	26700
	4500	320	596	95.95	0.867	2.01	0.66	5.24	1460	10068	27300	28100
	5000	355	596	96.02	0.8665	2.06	0.7	5.45	1579	10904	28700	29500
710-12	1000	79	495	93.81	0.7889	1.92	1.06	4.8	299	4500	10000	10300
	1120	88	495	93.86	0.7918	1.91	1.08	4.83	332	4980	10500	10800
	1250	98	495	94.46	0.786	1.97	1.15	5.04	368	5490	11000	11300
800-12	1400	107	495	94.62	0.8251	2.17	0.8	4.76	388	6059	15150	16000
	1600	122	495	94.56	0.8258	2.19	0.84	4.89	440	6808	15700	16550
	1800	134	495	94.69	0.8368	2.05	0.8	4.65	490	7539	16250	17100
	2000	149	495	94.79	0.8422	1.98	0.79	4.54	542	8255	16800	17800
900-12	2240	166	497	95.28	0.8422	2.25	0.79	5.24	801	9093	22800	23600
	2500	185	497	95.39	0.8459	2.22	0.79	5.25	888	9978	23700	24500
1000-12	2800	208	497	95.32	0.8481	2.29	0.72	5.31	1270	10973	25500	26300
	3150	233	497	95.45	0.8505	2.29	0.75	5.4	1409	12099	26800	27600
	3550	263	497	95.47	0.8491	2.37	0.81	5.66	1535	13344	28100	28900
	4000	296	497	95.62	0.8539	2.39	0.87	5.91	1640	14695	29400	30200
800-16	1120	93.3	371	94.08	0.7495	2.01	0.78	4.01	496	10115	15800	16600
	1250	104	371	94.15	0.7425	2.11	0.85	4.22	544	11159	16450	17250
	1400	116	372	94.12	0.7389	2.2	0.91	4.43	621	12345	17200	17900

Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

► Design Data Table of YKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque / Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque / Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current / Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)
									Motor Jm ($kg.^2$)	Load J ($kg.^2$)	YKK
710-4	2800	319	1491	96	0.9001	2.04	0.76	4.78	159	630	12700
	3150	359	1491	96.1	0.9086	2.09	0.83	5.06	173	680	13200
	3550	404	1491	96.18	0.9079	2.21	0.94	5.46	187	730	13700
	4000	455	1491	96.25	0.9116	2.16	0.98	5.46	206	790	14200
	4500	512	1491	96.3	0.9156	2.29	1.14	5.98	237	840	14700
710-6	2000	231	993	95.72	0.9051	2.19	0.86	5.3	193	1420	11900
	2240	259	993	95.85	0.9066	2.26	0.92	5.56	210	1560	12500
	2500	288	993	95.91	0.9084	2.19	0.92	5.34	231	1700	13100
	2800	323	993	95.99	0.907	2.17	0.93	5.44	259	1850	13700
800-6	3150	363	994	96.06	0.894	2.03	0.6	5.25	368	2023	17500
	3550	409	994	96.1	0.8979	1.98	0.64	5.39	406	2206	18200
	4000	460	994	96.18	0.9004	2.12	0.71	5.78	455	2398	19000
	4500	518	994	96.2	0.904	2.09	0.73	5.81	521	2597	20200
900-6	5000	575	994	96.2	0.8911	1.85	0.62	4.6	628	2782	25800
	5600	637	995	96.3	0.8943	2.01	0.72	5.15	701	2984	26800
	6300	715	995	96.44	0.8956	1.93	0.72	5.02	774	3197	27700
710-8	1400	166	744	95.29	0.8837	2.13	0.99	5.41	218	2200	11000
	1600	190	744	95.43	0.8841	2.09	1.01	5.38	232	2470	11500
	1800	214	744	95.56	0.8857	2.01	1.00	5.24	242	2720	12000
	2000	237	744	95.68	0.8874	2.03	1.04	5.34	267	2970	12500
800-8	2240	262	745	95.26	0.8983	2.51	1.0	6.02	393	3263	17100
	2500	292	746	95.99	0.8915	2.16	0.73	6.05	428	3568	17800
	2800	327	744	96.06	0.9044	2.32	0.97	5.71	472	3908	18500
	3150	368	744	96.2	0.9071	2.33	1.02	5.82	520	4285	19200
900-8	3550	414	745	95.95	0.9008	2.27	0.78	5.29	727	4699	24500
	4000	461	745	96.04	0.9028	2.31	0.84	5.47	798	5142	25400
	4500	518	745	96.27	0.9054	2.27	0.85	5.44	879	5608	26300
	5000	575	745	96.32	0.9073	2.31	0.89	5.61	968	6049	27200

Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

► Design Data Table of YKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque / Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque / Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current / Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)
									Motor Jm ($kg.^2$)	Load J ($kg.^2$)	YKK
1000-8	5600	643	745	96.25	0.8929	2.03	0.62	5.16	1163	6546	27260
	6300	723	746	96.34	0.8897	2.21	0.68	5.72	1282	7085	28660
	7100	815	746	96.44	.0.8939	2.12	0.67	5.58	1413	7651	30060
	8000	917	745	96.53	0.8941	2.08	0.68	5.55	1532	8227	31460
710-10	1250	153	595	95.71	0.8627	2.37	1.2	5.7	263	3480	11500
	1400	171	595	95.81	0.866	2.37	1.23	5.71	287	3850	11900
	1600	195	595	95.46	0.8666	2.34	1.26	5.74	316	4320	12300
	1800	219	595	95.62	0.8664	2.4	1.34	5.97	350	4780	12800
800-10	2000	241	596	95.42	0.8641	2.17	0.95	5.19	434	5225	17500
	2240	269	596	95.44	0.869	2.15	0.99	5.24	472	5747	18050
	2500	300	596	95.52	0.8703	2.17	1.02	5.32	530	6296	18600
900-10	2800	332	596	95.69	0.8732	2.03	0.81	4.94	731	6911	24500
	3150	373	596	95.73	0.8756	1.91	0.78	4.69	803	7605	25400
	3550	420	596	95.86	0.8826	2.13	0.93	5.37	974	8368	27200
	4000	473	596	95.91	0.8831	2.11	0.95	5.38	1055	9192	28100
1000-10	4500	532	596	95.89	0.8623	1.9	0.62	4.96	1227	10068	27900
	5000	590	596	96.02	0.8639	1.91	0.65	5.05	1358	10904	29300
	5600	661	596	96.09	0.8626	1.97	0.69	5.27	1477	11858	30700
	6300	743	596	96.16	0.8622	1.95	0.71	5.29	1597	12910	32100
710-12	900	116	496	94.2	0.791	2.55	1.36	5.71	263	4100	10700
	1000	127	495	94.36	0.7992	2.48	1.35	5.65	291	4500	11100
	1120	143	496	94.47	0.8068	2.4	1.32	5.54	320	4980	11500
	1250	159	495	94.57	0.8109	2.36	1.33	5.52	352	5490	12000
800-12	1400	178	496	94.71	0.8269	2.44	1.27	5.51	436	6059	16600
	1600	201	495	94.8	0.8374	2.25	1.21	5.25	476	6808	17200
	1800	225	495	94.9	0.8448	2.15	1.21	5.16	524	7539	17800
	2000	250	495	95	0.849	2.13	1.19	5.04	577	8255	18400
900-12	2240	276	496	95.34	0.8397	2.12	0.97	5.06	695	9093	24200
	2500	308	496	95.43	0.8425	2.1	0.98	5.06	764	9978	25100
	2800	345	496	95.51	0.8441	2.11	1.02	5.15	843	10972	26000
	3150	387	496	95.6	0.8454	2.21	1.09	5.38	930	12099	26900

XEMC 湘电集团

Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of YKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)
									Motor Jm ($kg.^2$)	Load J ($kg.^2$)	YKK
1000-12	3550	436	497	95.55	0.8464	2.2	0.92	5.19	1270	13344	28300
	4000	491	497	95.69	0.851	2.16	0.93	5.16	1409	14695	29600
	4500	552	497	95.77	0.8506	2.18	0.97	5.28	1535	16139	30900
	5000	613	497	95.75	0.8518	2.22	1.01	5.43	1724	17527	32200
800-14	1250	164	425	94.3	0.7961	2.18	1.11	5.01	483	8029	16900
	1400	183	425	94.4	0.7968	2.22	1.22	4.94	524	8877	17500
	1600	209	425	94.5	0.7972	2.21	1.2	5.2	580	9984	18200
900-14	1800	234	425	95.01	0.7997	2.11	0.96	4.79	725	11067	24600
	2000	260	426	95.06	0.7978	2.23	1.06	5.15	804	12128	25400
	2240	291	426	95.12	0.8107	1.93	0.9	4.5	844	13169	26200
1000-14	2500	324	426	95.26	0.8086	2.12	0.85	4.73	1146	14695	27000
	2800	363	426	95.32	0.8079	2.22	0.93	5	1335	16181	27950
	3150	408	425	95.42	0.8126	1.97	0.82	4.48	1335	17868	28950
	3550	460	426	95.57	0.8148	2.13	0.92	4.9	1601	19740	30550
710-16	560	80	372	93.2	0.7206	2.55	1.14	4.7	271	5400	11000
	630	90	372	93.47	0.7207	2.6	1.18	4.82	300	6010	11500
	710	102	372	93.39	0.7147	2.68	1.25	4.97	333	6700	12000
	800	114	372	93.59	0.7243	2.61	1.22	4.93	370	7470	12500
	900	127	372	94.08	0.7249	2.68	1.29	5.19	400	8310	13000
800-16	1000	141	371	93.6	0.7382	2.14	1.12	4.57	437	9136	16700
	1120	158	372	93.7	0.7438	2.09	1.11	4.53	484	10115	17300
	1250	176	372	93.8	0.7486	2.05	1.12	4.52	532	11159	17900
900-16	1400	194	372	94.8	0.7466	2.03	0.91	4.16	664	12344	24000
	1600	221	372	94.8	0.7492	1.97	0.91	4.15	724	13895	24600
	1800	249	372	94.9	0.746	2	0.96	4.25	795	15415	25200

Design Data Table of YKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque / Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque / Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current / Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)
									Motor Jm ($kg.^2$)	Load J ($kg.^2$)	YKK
710-4	2000	136	1493	95.3	0.8972	2.41	0.72	5.18	153	497	12900
	2240	156	1493	95.44	0.8971	2.46	0.82	5.53	167	540	13400
	2500	174	1493	95.64	0.8962	2.4	0.82	5.46	174	580	13900
	2800	194	1493	95.83	0.8991	2.45	0.9	5.71	188	630	14400
	3150	218	1493	96.1	0.9029	2.51	0.99	6	207	680	14900
800-4	3550	244	1494	95.46	0.8973	2.3	0.78	5.23	298	735	17700
	4000	275	1493	95.54	0.8979	2.21	0.76	5.01	310	788	18700
	4500	309	1494	95.65	0.8927	2.42	0.95	5.82	343	841	19700
	5000	343	1494	95.82	0.9038	2.38	1.04	5.95	393	886	20800
710-6	1600	112	994	95.11	0.903	2.69	0.81	6.43	191	1190	11500
	1800	125	994	95.21	0.903	2.59	0.81	6.37	214	1310	11900
	2000	139	994	95.38	0.905	2.54	0.81	6.31	231	1420	12400
	2240	156	994	95.49	0.907	2.48	0.81	6.15	254	1560	12900
800-6	2500	174	995	95.45	0.8955	2.3	0.63	5.83	359	1700	16800
	2800	195	995	95.51	0.8983	2.17	0.62	5.59	390	1853	17550
	3150	219	995	95.64	0.9013	2.2	0.66	5.77	431	2023	18300
900-6	3550	246	995	95.8	0.8833	2.29	0.61	5.61	536	2205	23800
	4000	277	994	95.96	0.8864	2.23	0.62	5.57	582	2398	24800
	4500	308	995	96.11	0.8871	2.36	0.69	6.03	645	2597	25800
	5000	342	995	96.24	0.8913	2.36	0.73	6.16	715	2782	26800
710-8	1120	81	745	94.89	0.8709	2.33	0.84	5.73	184	1820	10500
	1250	91	745	95.04	0.8776	2.26	0.84	5.66	209	2000	11000
	1400	102	745	95.2	0.8787	2.3	0.89	5.86	228	2200	11500
	1600	116	745	95.32	0.8794	2.55	1.04	6.6	263	2470	12000
	1800	130	745	95.41	0.8772	2.47	1.03	6.48	277	2720	12500
	2000	145	745	95.54	0.8826	2.36	1.01	6.28	305	2970	13000

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of YKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque Rated torque $\frac{T_{st}}{T_N}$	Locked-rotor current Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)
									Motor Jm ($kg.^2$)	Load J ($kg.^2$)	YKK
800-8	2240	158	745	95.2	0.8875	2.16	0.79	5.22	432	3264	17600
	2500	176	745	95.32	0.8766	2.51	0.98	6.07	468	3568	18350
	2800	197	745	95.41	0.8843	2.58	1.02	6.11	517	3906	19100
900-8	3150	219	745	95.46	0.8803	2.51	0.83	5.81	750	4285	24700
	3550	247	745	95.57	0.8859	2.49	0.86	5.86	830	4699	25600
	4000	278	745	95.74	0.8912	2.39	0.84	5.7	918	5142	26500
1000-8	4500	312	746	95.74	0.8816	2.22	0.61	5.42	1104	5608	27000
	5000	346	746	95.86	0.8829	2.32	0.66	5.78	1223	6049	28400
	5600	387	746	95.93	0.8936	2.28	0.67	5.81	1354	6546	29800
	6300	435	746	96.13	0.8941	2.27	0.7	5.9	1473	7085	31200
	7100	490	746	96.32	0.8912	2.33	0.75	6.11	1591	7651	32600
710-10	1120	84	594	94.37	0.8382	2.07	1.03	5.1	285	3170	11500
	1250	93	594	93.76	0.8363	2.14	1.11	5.4	314	3490	11900
	1400	104	594	94.64	0.8256	2.28	1.23	5.82	347	3850	12300
800-10	1600	118	595	94.78	0.8442	2.27	0.89	5.24	431	4321	17600
	1800	132	595	94.81	0.8495	2.23	0.91	5.24	473	4779	18250
	2000	147	595	94.91	0.8508	2.27	0.95	5.38	521	5225	19000
900-10	2240	164	597	95.08	0.8755	2.41	0.72	5.68	852	5747	25600
	2500	181	597	95.27	0.8792	2.34	0.69	5.55	933	6296	26500
	2800	202	597	95.6	0.8753	2.58	0.8	5.77	1014	6911	27400
	3150	225	597	95.7	0.8798	2.25	0.71	5.87	1095	7605	28300
1000-10	3550	252	597	95.41	0.8533	2.25	0.72	5.72	1222	8368	28400
	4000	285	596	95.45	0.8609	2.06	0.67	5.29	1341	9192	29800
	4500	320	597	95.58	0.8586	2.17	0.75	5.68	1461	10068	31200
	5000	355	596	95.67	0.862	2.09	0.73	5.52	1580	10904	32600
710-12	800	63	495	93.82	0.7842	2.16	1.17	5.23	274	3690	10700
	900	71	495	93.95	0.7866	2.13	1.18	5.22	299	4100	11100
	1000	79	495	94.03	0.7887	2.14	1.21	5.29	332	4500	11500
	1120	88	495	94.27	0.7867	2.2	1.29	5.51	368	4980	12000

Design Data Table of YKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (kW)	Rated current (%)	Rated speed (r/min)	Efficiency (%)	Power factor COSΦ	Max. torque Rated torque $\frac{T_m}{T_N}$	Locked-rotor torque Rated torque $\frac{T_{st}}{T_n}$	Locked-rotor current Rated current $\frac{I_{st}}{I_n}$	Moment of inertia		Weight (Kg)
									Motor Jm ($kg.^2$)	Load J ($kg.^2$)	YKK
800-12	1250	95.8	495	94.26	0.8075	2.29	1.02	4.94	383	5485	16800
	1400	107	495	94.31	0.810	2.36	1.09	5.18	434	6059	17500
900-12	1600	122	497	94.45	0.8273	2.52	0.85	5.74	692	6808	24000
	1800	134	497	94.58	0.8239	2.54	0.88	5.82	722	7539	24800
	2000	149	496	94.66	0.8298	2.28	0.86	5.05	799	8254	25700
	2240	167	495	94.71	0.8385	2.2	0.85	4.95	873	9093	26500
1000-12	2500	186	497	94.71	0.8366	2.3	0.78	5.19	1136	9978	27000
	2800	208	497	94.82	0.8406	2.25	0.79	5.15	1261	10973	28300
	3150	233	497	94.9	0.8336	2.43	0.89	5.63	1400	12099	29600
	3550	263	497	95.02	0.8392	2.34	0.87	5.48	1525	13344	30900

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of YR and YRKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)	
											YR	YRKS
710-4	2800	318.4	1489	96.07	0.8808	2.43	2298.4	744.3	Y	194	13400	13800
	3150	354.3	1489	96.21	0.8892	2.36	2478.5	776.4	Y	211	13900	14300
	3550	398.4	1490	96.33	0.8901	2.49	2802.5	770.6	Y	233	14500	14900
	4000	453.2	1491	96.41	0.881	2.71	3218.2	752.7	Y	255	15200	15600
710-6	2000	231.5	992	95.9	0.867	2.17	1603.9	768	Y	217	12200	12600
	2240	256.7	992	96.03	0.8744	2.09	1732	798.2	Y	237	12700	13100
	2500	288	992	96.11	0.869	2.12	1872.3	822..3	Y	247	13100	13500
	2800	318.7	992	96.24	0.8784	2.05	2049	842.9	Y	277	13600	14000
800-6	3150	363	992	95.98	0.8747	2.06	2139	912	Y	362	16800	16700
	3550	409	992	96.09	0.877	2.1	2373	922	Y	394	16500	17400
	4000	461	992	96.27	0.874	2.21	2667	919	Y	433	17300	18200
	4500	518	992	96.39	0.8885	2.32	3154	874	Y	522	18200	19000
710-8	1800	212	743	95.72	0.8536	1.93	1555.4	722.1	Y	277	12500	12900
	2000	234.3	743	95.86	0.8567	1.94	1730.3	720.3	Y	311	13000	13400
	2240	262.5	743	95.87	0.8564	1.99	1945.1	715.1	Y	343	13500	13900
800-8	2500	301	743	95.67	0.8532	1.94	2364	657	Y	436	16100	17000
	2800	336	743	95.84	0.8551	2.03	2652	652	Y	482	16800	17600
	3150	378	743	95.94	0.8585	2.01	2920	660	Y	524	17400	18100
900-8	3550	420	744	96.04	0.8655	2.34	1774	1226	△	782	22300	23100
	4000	473	744	96.05	0.8738	2.24	1931	1273	△	861	23000	23800
	4500	532	743	96.12	0.883	2.06	2058	1350	△	951	24000	24700
	5000	590	744	96.25	0.8814	2.23	2351	1304	△	1051	25000	25700
1000-8	5600	653	744	96.31	0.8821	2.01	2059	1678	△	1251	26500	27000
	6300	734	745	96.41	0.8808	2.14	2352	1644	△	1388	27900	28400
	7100	826	744	96.51	0.889	2.02	2540	1720	△	1540	29300	29800
710-10	1250	150.5	593	95.36	0.8382	2.15	1411.6	548.2	Y	292	11200	11600
	1400	169.1	593	95.07	0.8408	2.12	1726.9	575.2	Y	352	11600	12000
	1600	192.6	593	94.93	0.8393	2.14	1553.6	559.6	Y	319	12000	12400
	1800	217	593	95.18	0.8384	2.17	1943.6	573.8	Y	389	12500	12900

Design Data Table of YR and YRKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)	
											YR	YRKS
800-10	2000	250	594	95.45	0.8195	2.16	2245	552	Y	463	16000	16800
	2240	279	594	95.55	0.8227	2.16	2463	563	Y	510	16800	17500
	2500	311	594	95.69	0.8174	2.19	2763	559	Y	564	17500	18300
900-10	2800	344	595	96.02	0.8458	2.02	1435	1212	△	815	22300	23100
	3150	387	595	96.1	0.846	2.04	1601	1221	△	896	23000	23800
	3550	435	595	96.19	0.8493	2.09	1784	1230	△	988	24000	24700
	4000	490	595	96.3	0.8556	2.03	1950	1270	△	1090	25000	25600
710-12	1120	145.1	494	94.39	0.7866	1.97	1195.1	588.1	Y	317	12400	12700
	1250	160.7	494	94.5	0.7919	1.91	1304.2	602	Y	349	12900	13300
	1400	179	494	94.62	0.7956	1.87	1435.9	612.9	Y	387	13300	13700
800-12	1600	207	494	94.93	0.8133	2.12	1644	606	Y	498	15700	16400
	1800	230	494	94.98	0.8271	2.02	1727	634	Y	545	16400	17200
	2000	255	494	95.07	0.8351	1.96	1930	650	Y	600	17100	17800
	2240	285	494	95.16	0.8427	2.18	2110	667	Y	662	17800	18500
900-12	2500	318	495	95.6	0.8221	1.95	2093	747	Y	790	22100	22800
	2800	356	495	95.7	0.8266	1.92	2305	760	Y	870	22800	23500
	3150	400	495	95.8	0.8283	1.92	2563	768	Y	960	23700	24400
710-16	630	89.3	368	92.99	0.73	2.04	1072.1	373.6	Y	283	12400	12800
	710	100.4	368	93.31	0.7259	2.07	1202	374.4	Y	314	12800	13200
	800	113.7	369	93.46	0.7242	2.14	1364.9	369.9	Y	350	13300	13700
	900	126.3	369	93.61	0.7323	2.09	1503.4	378	Y	390	13800	14200
800-16	1000	143	370	94.12	0.7379	1.95	1155	549	Y	461	15800	16600
	1120	161	370	94.18	0.741	1.92	1252	567	Y	485	16400	17100
	1250	179	370	94.34	0.7471	1.89	1368	580	Y	531	16900	17600
	1400	201	370	94.12	0.7512	1.85	1509	592	Y	586	17300	18200
900-16	1600	223	370	94.77	0.7535	1.8	1505	679	Y	722	21800	22400
	1800	251	370	94.89	0.7521	1.81	1671	687	Y	790	22600	23200
	2000	278	370	95.03	0.75	1.83	1879	675	Y	878	23400	24000

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of YR and YRKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)	
											YR	YRKS
710-4	2240	152	1488	95.36	0.89	2.78	2235	613	Y	185	12000	12400
	2500	173	1488	95.49	0.874	2.8	2380	642	Y	185	12500	12900
	2800	193	1488	95.63	0.876	2.86	2622	652	Y	202	13000	13400
	3150	215	1488	95.85	0.88	2.95	2918	656	Y	223	13500	13900
	3550	243	1488	95.95	0.877	3.09	3282	656	Y	244	14000	14400
710-6	1800	124	992	95.51	0.873	2.3	1623	683	Y	206	12100	12500
	2000	140	992	95.69	0.862	2.57	1868	654	Y	225	12500	12900
	2240	153	992	95.84	0.882	2.35	2033	676	Y	264	12900	13300
	2500	172	992	95.85	0.877	2.41	2215	691	Y	274	13300	13700
800-6	2800	198	992	95.64	0.8945	2.27	2229	773	Y	393	15900	16700
	3150	222	993	95.79	0.8963	2.3	2454	789	Y	434	16500	17400
	3550	250	993	95.89	0.8955	2.15	2654	825	Y	476	17200	18100
900-6	4000	277	993	95.96	0.8812	2.44	2821	868	Y	649	22600	23900
	4500	311	993	96.08	0.8885	2.36	3062	900	Y	729	23500	24300
	5000	346	993	96.13	0.8909	2.34	3343	921	Y	790	24500	25300
1000-6	5600	387	994	96.18	0.886	2.37	1963	1743	△	1051	27200	28000
	6300	434	993	96.29	0.8944	2.14	2066	1873	△	1173	28700	29500
	7100	489	994	96.41	0.8971	2.16	2298	1893	△	1296	30200	31000
	8000	551	994	96.56	0.8985	2.27	2586	1888	△	1418	31700	32500
710-8	1250	90.5	742	94.87	0.84	2.01	1172	668	Y	214	11000	11400
	1400	100	742	95.03	0.848	1.94	1294	679	Y	245	11500	11900
	1600	114	742	95.19	0.85	1.93	1438	697	Y	268	12000	12400
	1800	128	742	95.37	0.849	2.15	1725	646	Y	315	12500	12900
	2000	143	742	95.44	0.847	2.13	1848	671	Y	327	13000	13400
800-8	2240	164	743	95.11	0.8692	2.24	1437	966	△	464	16000	16700
	2500	181	744	95.01	0.8511	2.59	1701	904	△	507	16650	17350
	2800	202	744	95.15	0.8672	2.42	1820	948	△	560	17300	18000
	3150	225	744	95.27	0.8773	2.25	1956	995	△	635	18000	18800

Design Data Table of YR and YRKS 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)	
											YR	YRKS
900-8	3550	253	744	95.35	0.8768	2.66	2168	1003	△	971	24500	25300
	4000	285	744	95.4	0.8813	2.58	2350	1046	△	1058	25500	26300
1000-8	4500	320	744	95.71	0.8856	2.41	2116	1304	△	1265	24800	25500
	5000	355	744	95.82	0.8915	2.35	2294	1337	△	1397	26000	26900
	5600	393	744	95.94	0.8957	2.31	2506	1371	△	1544	27500	28300
	6300	443	744	96.04	0.8965	2.31	2757	1400	△	1677	29000	29700
710-10	1120	83	594	94.71	0.822	2.2	1350	516	Y	293	11300	11700
	1250	91	594	94.84	0.836	2.04	1434	544	Y	230	11800	12200
	1400	102	594	94.98	0.833	2.11	1612	540	Y	353	12300	12700
	1600	117	594	95.2	0.826	2.2	1842	538	Y	390	12800	13200
800-10	1800	136	594	94.83	0.8226	2.16	1256	893	△	466	16300	17000
	2000	151	594	94.98	0.826	2.16	1384	899	△	514	16950	17650
	2240	165	595	95.11	0.8318	2.18	1539	904	△	568	17600	18300
900-10	2500	185	594	95.04	0.8594	2.23	1593	975	△	838	24000	24300
	2800	208	594	95.13	0.8611	2.16	1745	999	△	920	25000	25300
	3150	235	595	95.37	0.8571	2.33	1992	977	△	1077	26000	26300
710-12	800	63.2	493	93.15	0.784	2.32	990	507	Y	298	10800	11200
	900	70.4	493	93.45	0.79	2.26	1082	522	Y	328	11200	11600
	1000	78	493	93.59	0.791	2.26	1192	526	Y	363	11600	12000
	1120	87	493	93.7	0.795	2.25	1325	530	Y	406	12000	12400
	1250	97	493	93.85	0.793	2.32	1492	524	Y	450	12400	12800
800-12	1400	110	494	94.27	0.81	2.02	1599	551	Y	529	16000	16700
	1600	126	494	94.28	0.8149	2.04	1831	549	Y	606	16650	17350
	1800	141	494	94.42	0.8283	1.91	1978	575	Y	674	17400	18100

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of YRKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)
710-4	2500	287	1491	95.55	0.8801	2.72	2296.7	667.3	Y	194	14100
	2800	317.6	1491	95.73	0.8888	2.66	2478.6	691.9	Y	211	14600
	3150	357.5	1491	95.89	0.887	2.8	2802.5	685.8	Y	233	15200
	3550	408.5	1492	95.96	0.8742	3.06	3218.2	670.7	Y	255	15900
710-6	1600	187.5	992	95.11	0.8632	2.35	1401.2	706.3	Y	190	12400
	1800	210.6	993	95.28	0.8631	2.42	1603.9	691.6	Y	217	12900
	2000	231.5	993	95.44	0.871	2.35	1732	712..1	Y	237	13400
	2240	261	993	95.56	0.8642	2.37	1872.3	736.3	Y	247	13800
	2500	286.8	993	95.73	0.8763	2.3	2047.3	751.4	Y	277	14300
800-6	2800	329	992	95.63	0.8711	2.32	2139	809	Y	362	17600
	3150	370	992	95.71	0.8731	2.37	2373	817	Y	394	18300
	3550	417	993	95.89	0.8685	2.49	2667	815	Y	433	19000
	4000	469	993	95.93	0.8836	2.61	3149	776	Y	522	19800
900-6	4500	526	994	96.02	0.8672	2.29	2840	973	Y	688	26100
	5000	583	994	96.12	0.8741	2.32	3137	977	Y	762	27000
	5600	653	994	96.2	0.8818	2.22	3384	1016	Y	835	28000
1000-6	6300	725	995	96.3	0.8792	2.05	3291	1181	Y	1128	30000
	7100	816	995	96.44	0.8885	1.96	3577	1226	Y	1256	31500
710-8	1250	150.1	742	95.42	0.84	2.01	1138	657	Y	215	12300
	1400	166.2	742	95.49	0.849	1.87	1179.9	681.2	Y	245	12700
	1600	189.9	743	95.74	0.8468	2.09	1550.2	641.5	Y	280	13200
	1800	212.3	744	95.9	0.8506	2.07	1725.1	648.3	Y	315	13700
	2000	236.2	744	95.93	0.8494	2.15	1939.9	638.1	Y	346	14200
800-8	2240	271	744	95.62	0.8522	2.17	2361	588	Y	436	18000
	2500	302	744	95.82	0.8507	2.27	2652	581	Y	482	18700
	2800	338	744	95.93	0.8542	2.25	2920	591	Y	530	19500
900-8	3150	372	744	95.87	0.8691	2.48	1728	1121	△	782	25500
	3550	419	745	95.96	0.8669	2.53	1931	1129	△	861	26400
	4000	472	745	96.11	0.88	2.47	2115	1162	△	951	27300
	4500	530	745	96.21	0.881	2.49	2351	1173	△	1051	28200

Design Data Table of YRKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (6KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)
1000-8	5000	583	745	96.04	0.881	2.25	2060	1495	△	1251	29000
	5600	652	745	96.16	0.8766	2.41	2351	1460	△	1388	30400
710-10	1120	137.7	594	94.86	0.8253	2.4	1409.9	491.3	Y	292	12900
	1250	152.9	594	94.42	0.833	2.41	1551.9	499.3	Y	319	13300
	1400	171	594	94.56	0.8332	2.43	1725.1	502.4	Y	352	13700
	1600	195.5	594	94.69	0.8317	2.45	1939.9	509.6	Y	389	14200
800-10	1800	228	594	95.03	0.8106	2.4	2243	496	Y	463	18500
	2000	253	594	95.14	0.8132	2.42	2460	502	Y	510	19000
	2240	283	595	95.28	0.8147	2.45	2764	499	Y	564	19800
900-10	2500	316	595	95.5	0.8435	2.27	1426	1084	△	815	25500
	2800	349	595	95.7	0.8394	2.3	1600	1081	△	896	26400
	3150	392	595	95.7	0.8497	2.19	1738	1122	△	988	28200
	3550	441	595	95.9	0.85	2.29	1949	1122	△	1090	29100
710-12	1000	131.8	495	94.21	0.7768	2.25	1193.4	523.3	Y	329	13100
	1120	146	495	94.39	0.7843	2.18	1304.2	537.2	Y	363	13600
	1250	161.2	495	94.53	0.7918	2.14	1435.9	544.1	Y	401	14000
800-12	1400	181	495	94.46	0.8008	2.43	1644	529	Y	498	17400
	1600	206	495	94.58	0.8159	2.28	1775	561	Y	545	18000
	1800	229	495	94.7	0.8294	2.18	1930	583	Y	600	18700
	2000	254	495	94.81	0.8237	2.44	2316	534	Y	691	19500
710-16	560	81.8	369	92.65	0.7206	2.3	1070.4	330.4	Y	283	13100
	630	92	369	92.67	0.7284	2.34	1200.3	330.6	Y	314	13500
	710	104.6	370	93.10	0.7218	2.42	1363.1	326.9	Y	350	14000
	800	116	370	93.29	0.7213	2.35	1501.7	334.3	Y	390	14500

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Design Data Table of YRKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)
710-4	2000	140	1490	94.9	0.8658	3.21	2227	552	Y	172	13500
	2240	156	1490	95.08	0.8654	3.13	2380	578	Y	180	14000
	2500	174	1490	95.26	0.8671	3.21	2620	584	Y	196	14500
	2800	195	1490	95.52	0.873	3.32	2917	586	Y	218	15000
	3150	219	1491	95.62	0.8662	3.49	3280	585	Y	239	15500
710-6	1600	113	993	95.21	0.8679	2.59	1612	609	Y	206	13600
	1800	127	993	95.42	0.8566	2.85	1869	591	Y	225	14000
	2000	141	993	95.43	0.8797	2.63	2033	605	Y	266	14400
	2240	158	993	95.53	0.873	2.7	2217	620	Y	274	14800
800-6	2500	178	992	95.5	0.8862	2.54	2227	692	Y	393	18200
	2800	199	993	95.53	0.889	2.59	2453	702	Y	434	18900
	3150	223	992	95.63	0.8948	2.42	2652	732	Y	476	19600
900-6	3550	246	994	95.73	0.8759	2.76	2820	772	Y	649	25600
	4000	277	994	95.81	0.884	2.65	3060	801	Y	720	26600
	4500	311	994	95.93	0.8898	2.6	3341	825	Y	790	27600
1000-6	5000	346	995	95.96	0.8794	2.66	1963	1560	△	1051	30000
	5600	387	995	96.04	0.8865	2.66	2172	1576	△	1173	31500
	6300	436	995	96.11	0.8882	2.74	2430	1581	△	1296	33000
	7100	490	995	96.28	0.896	2.55	2585	1676	△	1418	34500
710-8	1120	83	743	94.47	0.8383	2.2	1172	598	Y	222	12500
	1250	92	743	94.61	0.8452	2.17	1292	606	Y	245	13000
	1400	103	743	94.66	0.8459	2.21	1453	609	Y	269	13500
	1600	118	744	94.8	0.8428	2.41	1725	576	Y	315	14000
	1800	132	744	94.9	0.8411	2.36	1846	605	Y	327	14500

Design Data Table of YRKK 710~1000 Series Large High-voltage Three-phase Asynchronous Motors (10KV)

(design value)

Model	Rated power (KW)	Stator current (A)	Rated speed (r/min)	Efficiency (%)	Power factor (cosΦ)	Max. torque Rated torque T_M/T_N	Rotor voltage (V)	Rotor current (A)	Rotor connection (Y/△)	Rotation inertia of motor ($kg.m^2$)	Weight (kg)
800-8	2000	147	743	94.84	0.8676	2.53	1438	862	△	460	18100
	2240	166	744	94.91	0.8397	2.89	1700	812	△	507	18750
	2500	182	744	95.2	0.8599	2.71	1820	847	△	560	19400
	2800	204	744	95.51	0.8598	2.53	1956	884	△	635	20300
900-8	3150	228	745	95.13	0.8683	3	2167	894	△	971	27300
	3550	256	745	95.24	0.8747	2.91	2349	928	△	1058	28200
1000-8	4000	285	745	95.38	0.87	2.61	2012	1224	△	1198	29000
	4500	320	744	95.42	0.8893	2.46	2176	1274	△	1246	30400
	5000	355	745	95.58	0.8927	2.41	2360	1305	△	1495	31800
710-10	1000	77	594	93.4	0.81	2.44	1348	464	Y	301	12800
	1120	86	593	93.58	0.8275	2.25	1432	490	Y	318	13300
	1250	96	594	93.7	0.8235	2.34	1611	485	Y	351	13800
	1400	107	594	93.81	0.812	2.49	1839	474	Y	388	14300
800-10	1600	122	595	94.42	0.8187	2.43	1257	791	△	466	18400
	1800	136	595	94.61	0.8235	2.41	1384	807	△	514	19000
	2000	151	595	94.73	0.8243	2.43	1538	806	△	568	19650
900-10	2240	168	595	94.81	0.8536	2.49	1592	873	△	901	26300
	2500	185	595	94.93	0.8556	2.42	1744	890	△	989	27300
	2800	208	595	95.12	0.848	2.62	1991	868	△	1077	28300
710-12	710	59	494	93.4	0.7638	2.61	989	451	Y	298	12300
	800	65	494	93.45	0.7781	2.54	1083	464	Y	329	12700
	900	73	494	93.55	0.7769	2.51	1190	474	Y	363	13100
	1000	81	494	93.65	0.7791	2.52	1323	473	Y	407	13500
	1120	91	494	93.83	0.7769	2.6	1490	469	Y	451	13900
800-12	1250	98.5	494	93.4	0.8034	2.26	1597	491	Y	529	17700
	1400	110	495	94.12	0.8116	2.34	1831	478	Y	606	18350
	1600	126	495	94.23	0.821	2.15	1975	509	Y	674	19100

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Guaranteed Efficiency and Power Factor of Y Series Motors (6000V)

Power KW	Speed r/min											
	1500	1000	750	600	500	375	1500	1000	750	600	500	375
	Efficiency (η)%						Power factor (cos φ)					
630						93.1						0.74
710						93.3						
800						93.4						
900						93.5						
1000						93.6					0.80	0.75
1120					94.5	93.7						
1250					94.6	93.8						
1400					94.7	93.9						
1600				95.0	94.8	94.0				0.84	0.81	0.76
1800			95.4	95.1	94.9	94.1			0.86			
2000			95.5	95.2	95.0	94.2						
2240		96.0	95.6	95.3	95.1	94.3		0.87			0.82	
2500		96.1	95.7	95.4	95.2	94.4						
2800		96.1	95.8	95.5	95.3	94.5				0.85		
3150	96.3	96.2	95.8	95.6	95.4		0.89					
3550	96.3	96.2	95.9	95.7	95.5				0.87			
4000	96.4	96.3	96.0	95.8	95.6							
4500	96.4	96.3	96.1	95.8	95.7							
5000	96.5	96.4	96.2	95.9	95.8		0.90	0.88				
5600	96.5	96.4	96.2	95.9								
6300	96.6	96.5	96.3	96.0								
7100	96.7	96.6	96.4	96.0								
8000	96.8	96.7	96.5									
9000	96.9	96.8										
10000		96.9										

Guaranteed Efficiency and Power Factor of YKK Series Motors (6000V)

Power KW	Speed r/min											
	1500	1000	750	600	500	375	1500	1000	750	600	500	375
	Efficiency (η)%						Power factor (cos φ)					
560						93.0						0.71
630						93.1						0.72
710						93.3						
800						93.4						
900					94.3	93.5					0.79	
1000					94.4	93.6					0.80	0.73
1120					94.5	93.7						
1250				94.9	94.6	93.8				0.83		
1400			95.2	95.0	94.7	93.9			0.85			
1600			95.3	95.0	94.8	94.0				0.84	0.81	0.74
1800			95.4	95.1	94.9	94.1			0.86			
2000		95.7	95.5	95.2	95.0	94.2		0.86				
2240		95.8	95.6	95.3	95.1	94.3		0.87			0.82	
2500		95.9	95.7	95.4	95.2	94.4						
2800	95.9	95.9	95.8	95.5	95-3	94.5	0.88			0.85		
3150	96.0	96.0	95.8	95.6	95.4		0.89					
3550	96.0	96.0	95.9	95.7	95.5							
4000	96.1	96.1	96.0	95.8	95.6				0.87			
4500		96.1	96.1	95.8	95.7							
5000		96.2	96.2	95.9			0.90	0.88				
5600		96.2	96.2	95.9								
6300		96.3	96.3	96.0								
7100			96.4									

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Guaranteed Efficiency and Power Factor of Y Series Motors (10000V)

Power KW	Speed r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency (η)%					Power factor (cos φ)				
900					93.9					0.78
1000					94.0					
1120					94.1					
1250				94.5	94.2				0.82	0.80
1400			94.9	94.6	94.3			0.85		
1600			95.0	94.7	94.4					
1800			95.1	94.8	94.5				0.83	0.82
2000		95.5	95.2	94.9	94.6		0.87			
2240		95.6	95.3	95.0	94.7					
2500	95.8	95.7	95.4	95.1	94.8	0.88		0.86	0.84	
2800	95.9	95.8	95.5	95.2	94.9					
3150	96.0	95.9	95.6	95.3	95.0			0.87		
3550	96.1	96.0	95.7	95.4	95.1				0.85	
4000	96.2	96.1	95.8	95.5	95.2	0.89	0.88			
4500	96.2	96.1	95.9	95.6						
5000	96.3	96.2	96.0	95.7						
5600	96.3	96.2	96.1							
6300	96.4	96.3	96.2							
7100	96.5	96.4								
8000	96.6	96.5								
9000	96.7									
10000	96.8									

Guaranteed Efficiency and Power Factor of YKK Series Motors (10000V)

Power KW	Speed r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency (η)%					Power factor (cos φ)				
710					93.7					
800					93.8					
900					93.9					0.78
1000					94.0					
1120				94.4	94.1					
1250			94.6	94.5	94.2				0.82	0.80
1400			94.7	94.6	94.3			0.85		
1600			94.8	94.7	94.4					
1800		95.2	94.9	94.8	94.5		0.87		0.83	0.82
2000	95.3	95.3	95.0	94.9	94.6					
2240	95.4	95.4	95.1	95.0	94.7			0.86		
2500	95.5	95.4	95.2	95.1	94.8	0.88			0.84	
2800	95.6	95.5	95.3	95.2	94.9					
3150	95.7	95.6	95.4	95.3	95.0			0.87	0.85	
3550		95.7	95.5	95.4	95.1					
4000		95.8	95.6			0.89				
4500		95.9	95.7				0.88			
5000		96.0	95.8							
5600			95.9							

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Guaranteed Efficiency and Power Factor of YR Series Motors (6000V)

Power KW	Speed r/min											
	1500	1000	750	600	500	375	1500	1000	750	600	500	375
	Efficiency (η)%						Power factor (cos φ)					
630						92.7						0.72
710						92.9						
800						93						
900						93.1						
1000						93.4						
1120					94.2	93.6					0.79	
1250					94.3	93.8						
1400				94.8	94.4	94				0.82		
1600				94.9	94.5	94.2						0.74
1800			95.3	95	94.6	94.4			0.845			
2000		95.8	95.4	95.2	94.7	94.6						
2240		95.9	95.5	95.3	94.8	94.8		0.87				
2500		96	95.6	95.4	95	95					0.8	
2800	96	96	95.7	95.5	95.2	95.2				0.84		
3150	96.1	96	95.8	95.6	95.4		0.875		0.85			
3550	96.2	96.1	95.9	95.7	95.5							
4000	96.3	96.2	96	95.8	95.6							
4500	96.2	96.3	96.1	95.9	95.7							
5000	96.4		96.2	96	95.8							
5600	96.5			96.1								

Guaranteed Efficiency and Power Factor of YRKK Series Motors (6000V)

Power KW	Speed r/min											
	1500	1000	750	600	500	375	1500	1000	750	600	500	375
	Efficiency (η)%						Power factor (cos φ)					
560						92.6						0.72
630						92.7						
710						92.9*						
800						93.0						
900						93.1						
1000					94.1	93.4					0.78	
1120					94.2	93.6					0.79	
1250				94.7	94.3	93.8				0.79		
1400				94.8	94.4	94.0				0.80		
1600			95.2	94.9	94.5	94.2			0.84			0.74
1800		95.3	95.3	95.0	94.6	94.4		0.86				
2000		95.4	95.4	95.1	94.7	94.6						
2240		95.5	95.5	95.2	94.8	94.8						
2500	95.5	95.6	95.6	95.3	95.0	95.0	0.87			0.81	0.8	
2800	95.6	95.6	95.7	95.4	95.2							
3150	95.7	95.7	95.8	95.5	95.4				0.85			
3550	95.8	95.8	95.9	95.6	95.5							
4000		95.9	96.0	95.7	95.6							
4500				95.8	95.7							
5000				95.9								

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Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Guaranteed Efficiency and Power Factor of YR Series Motors (10000V)

Power KW	Speed r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency (η)%					Power factor (cos φ)				
800					93.2					0.76
900					93.4					
1000					93.5					
1120				94.0	93.7				0.80	
1250			94.4	94.1	93.9			0.83		0.78
1400			94.5	94.2	94.1					
1600			94.6	94.3	94.2					
1800		95.3	94.7	94.6	94.3		0.86		0.81	
2000		95.4	94.8	94.7	94.4					0.80
2240	95.5	95.4	94.9	94.8	94.5	0.87		0.85	0.82	
2500	95.6	95.5	95.0	94.9	94.6					
2800	95.6	95.5	95.1	95.0	94.7					
3150	95.7	95.6	95.2	95.1	94.8		0.87		0.83	0.81
3550	95.8	95.7	95.3	95.2	94.9			0.86		
4000	95.9	95.8	95.4			0.88				
4500	96.0	95.9	95.5							
5000	96.1	96.0	95.6							
5600	96.2									

Guaranteed Efficiency and Power Factor of YRKK Series Motors (10000V)

Power KW	Speed r/min									
	1500	1000	750	600	500	1500	1000	750	600	500
	Efficiency (η)%					Power factor (cos φ)				
710					93.1					0.75
800					93.2					0.76
900					93.4					
1000				94.0	93.5					
1120			94.3	94.0	93.7				0.80	
1250			94.4	94.1	93.9			0.83		0.78
1400			94.5	94.2	94.1					
1600		95.2	94.6	94.3	94.2					
1800		95.3	94.7	94.6	94.3		0.86		0.81	
2000	95.1	95.4	94.8	94.7	94.4	0.87				0.80
2240	95.2	95.4	94.9	94.8	94.5					
2500	95.3	95.5	95.0	94.9	94.6			0.84	0.82	
2800	95.3	95.5	95.1	95.0	94.7					
3150	95.4	95.6	95.2	95.1	94.8		0.87			
3550		95.7	95.3							
4000		95.8	95.4					0.85		
4500		95.9	95.5							

Under rated voltage, the guaranteed value of the ratio of locked-rotor torque to rated torque of Y, YKS and YKK series motors shall not be lower than the values in the table below

Speed r/min					
1500	1000	750	600	500	375
Locked-rotor torque/Rated torque					
0.5			0.6		

Under rated voltage, the guaranteed ratio of locked-rotor torque to rated torque of Y, YKS and YKK series motors shall not be higher than the values in the table below

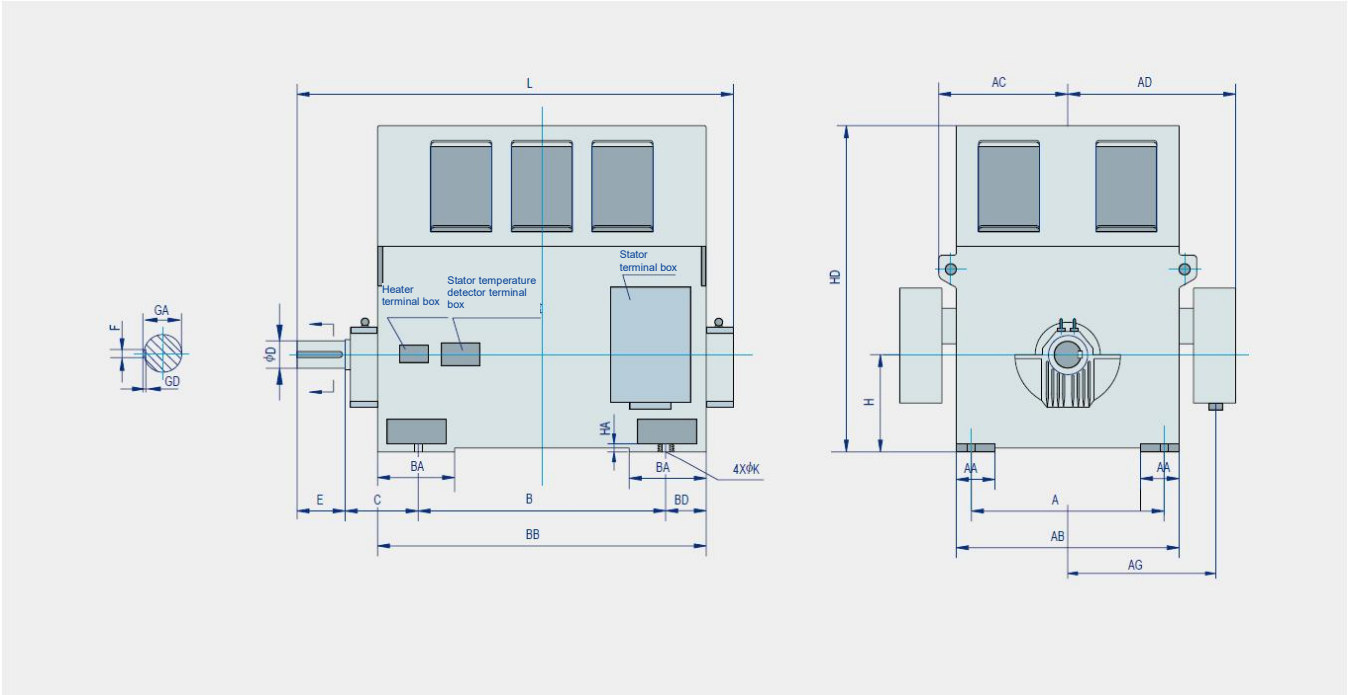
Speed r/min					
1500	1000	750	600	500	375
Locked-rotor torque/Rated torque					
6.5			6.0		

Under rated voltage, the guaranteed ratio of the max. torque to rated torque of Y, YKS and YKK series motors shall not be lower than 1.8

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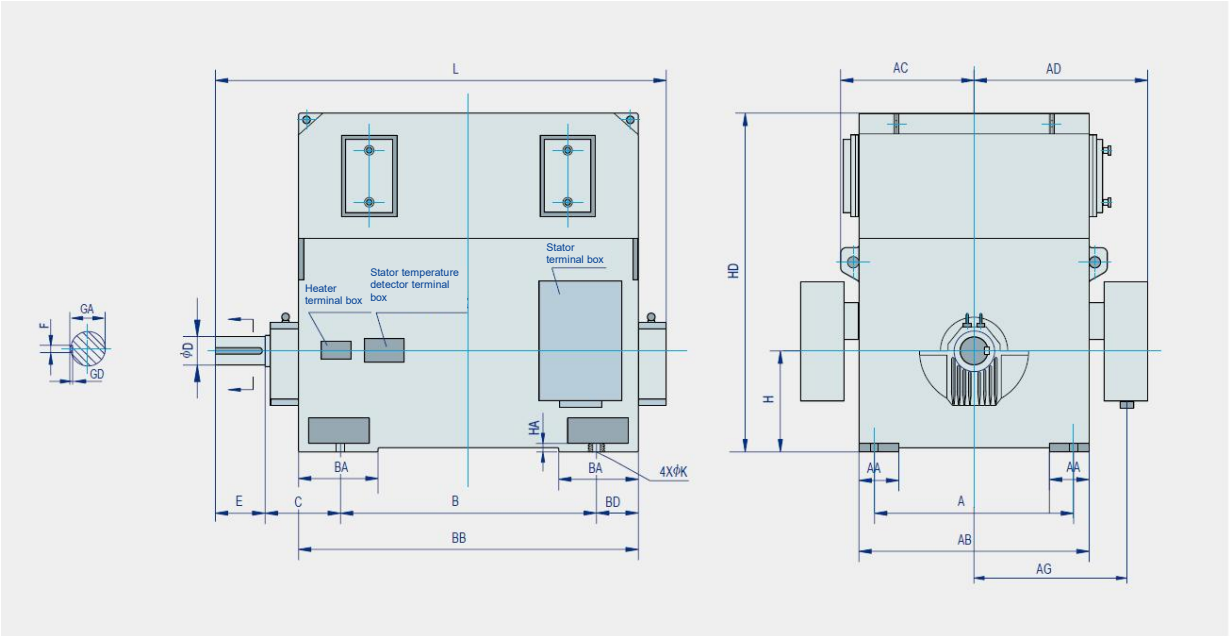
Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Overall and Installation Dimensions of Y (IP23) Series Large Motors



Frame No.	Mounting dimensions and tolerance								Overall dimensions								
	A	B	C	D	E	F	GA	H	K	AC	AD	AE	AF	BE	BF	HD	L
710	1400±2.8	1800±2.8	530±4.2	$200^{+0.046}_{+0.017}$	350±0.70	45	210	$710^{0}_{-1.5}$	56	1470	1500	280	1600	560	2400	2400	3200
800	1600±2.8	2000±2.8	530±4.2	$220^{+0.046}_{+0.017}$	350±0.70	50	231	$800^{0}_{-1.5}$	56	1600	1600	280	1860	560	2600	3300	3500
900	1800±3.5	2240±3.5	600±4.2	$250^{+0.046}_{+0.017}$	410±0.77	56	262	$900^{0}_{-1.5}$	66	1700	1700	310	2060	600	2800	3500	3800
1000	2000±3.5	2500±3.5	600±4.2	$280^{+0.052}_{+0.020}$	470±0.77	63	292	$1000^{0}_{-1.5}$	66	1800	1800	310	2250	600	3200	3800	4200

Overall and Installation Dimensions of YKS (IP44) Series Large Motors

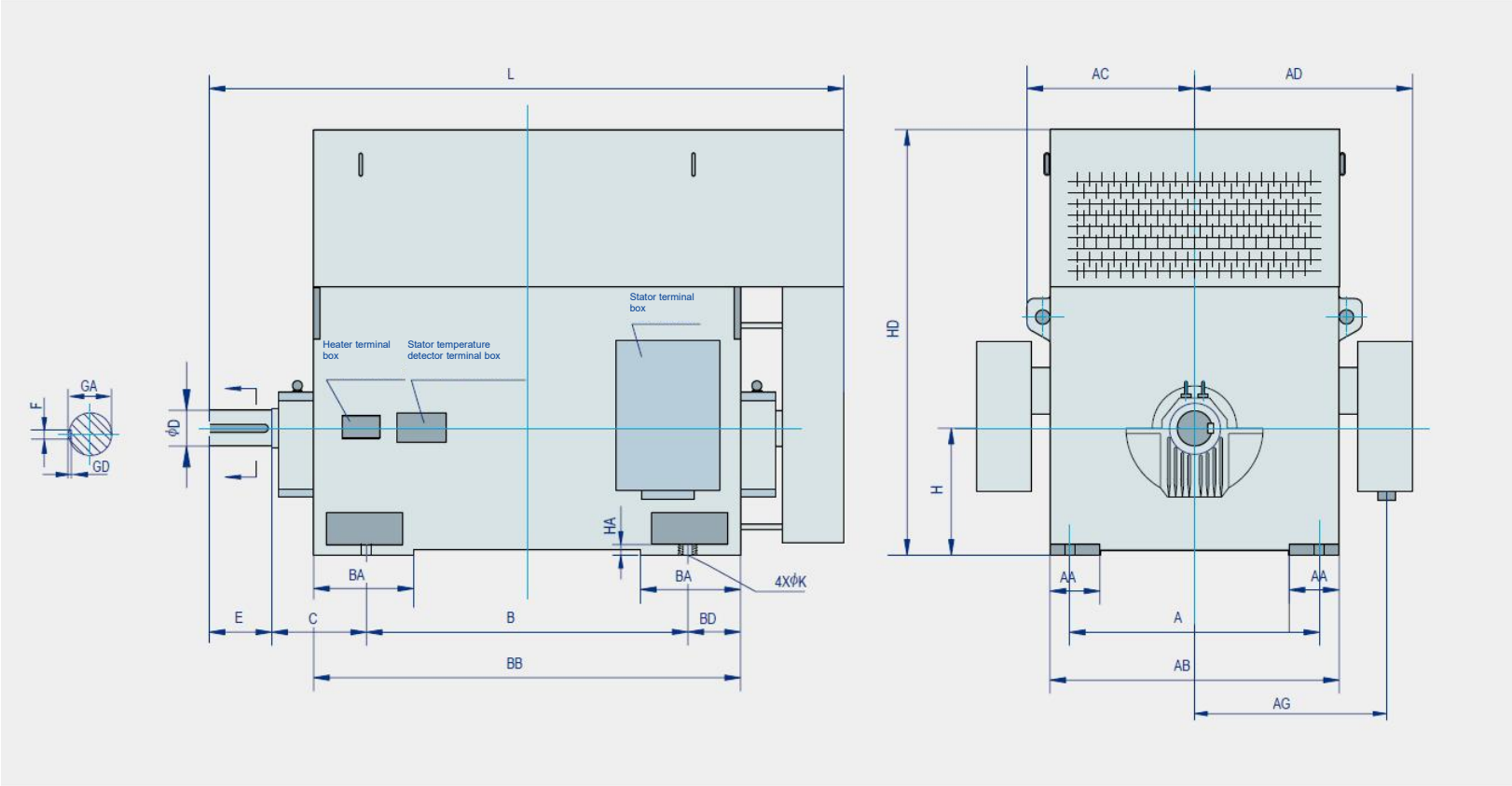


Frame No.	Mounting dimensions and tolerance								Overall dimensions								
	A	B	C	D	E	F	GA	H	K	AC	AD	AE	AF	BE	BF	HD	L
710	1400±2.8	1800±2.8	530±4.2	$200^{+0.046}_{+0.017}$	350±0.70	45	210	$710^{0}_{-1.5}$	56	1470	1500	280	1600	560	2400	2400	3200
800	1600±2.8	2000±2.8	530±4.2	$220^{+0.046}_{+0.017}$	350±0.70	50	231	$800^{0}_{-1.5}$	56	1600	1600	280	1860	560	2600	3300	3500
900	1800±3.5	2240±3.5	600±4.2	$250^{+0.046}_{+0.017}$	410±0.77	56	262	$900^{0}_{-1.5}$	66	1700	1700	310	2060	600	2800	3500	3800
1000	2000±3.5	2500±3.5	600±4.2	$280^{+0.052}_{+0.020}$	470±0.77	63	292	$1000^{0}_{-1.5}$	66	1800	1800	310	2250	600	3200	3800	4200

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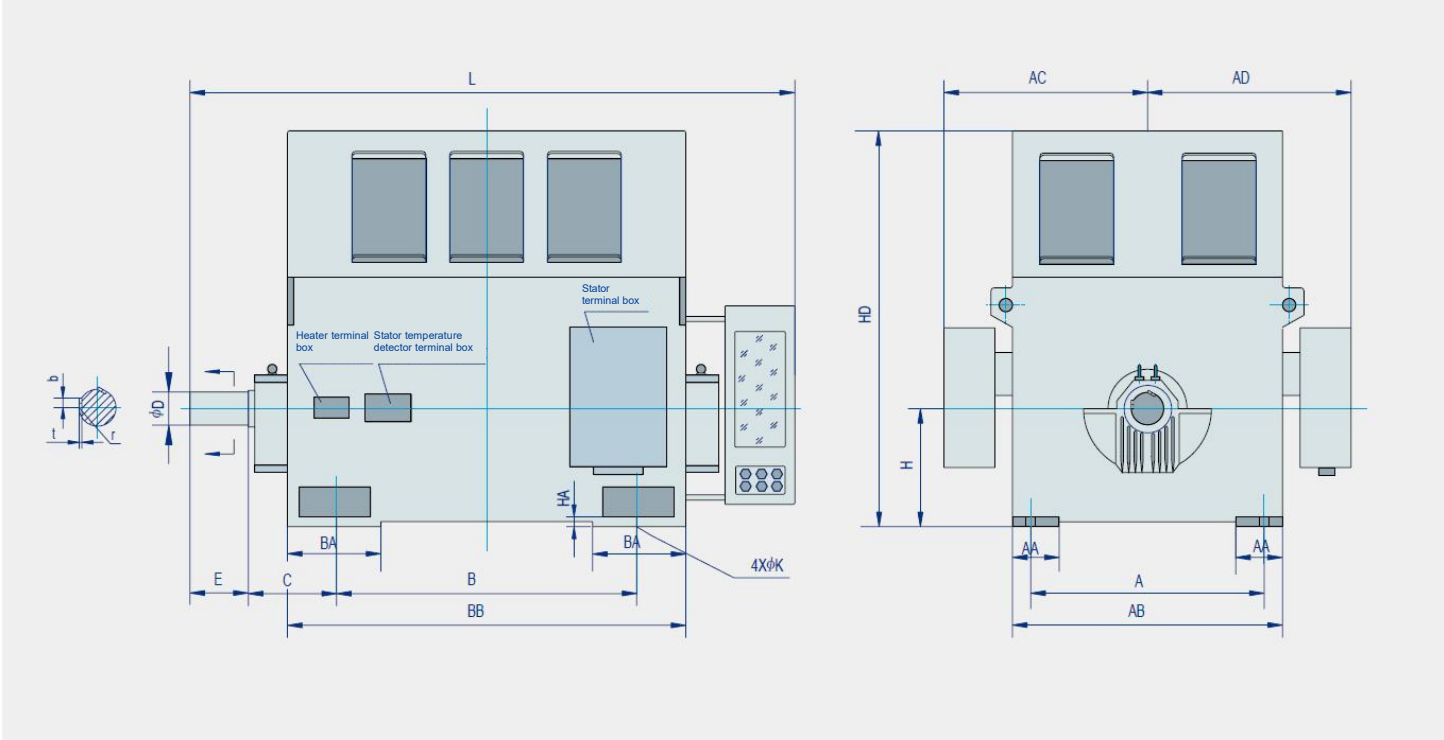
Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Overall and Installation Dimensions of YKK (IP54) Series Large Motors



Frame No.	Mounting dimensions and tolerance								Overall dimensions								
	A	B	C	D	E	F	GA	H	K	AC	AD	AE	AF	BE	BF	HD	L
710	1400±2.8	1800±2.8	530±4.2	$200^{+0.046}_{+0.017}$	350±0.70	45	210	$710^{0}_{-1.5}$	56	1470	1500	280	1600	560	2400	2710	3580
800	1600±2.8	2000±2.8	530±4.2	$220^{+0.046}_{+0.017}$	350±0.70	50	231	$800^{0}_{-1.5}$	56	1600	1600	280	1860	560	2600	3300	3900
900	1800±3.5	2240±3.5	600±4.2	$250^{+0.046}_{+0.017}$	410±0.77	56	262	$900^{0}_{-1.5}$	66	1700	1700	310	2060	600	2800	3500	4400
1000	2000±3.5	2500±3.5	600±4.2	$280^{+0.052}_{+0.020}$	470±0.77	63	292	$1000^{0}_{-1.5}$	66	1800	1800	310	2250	600	3200	4100	4700

Overall and Installation Dimensions of YR (IP44) Series Large Motors

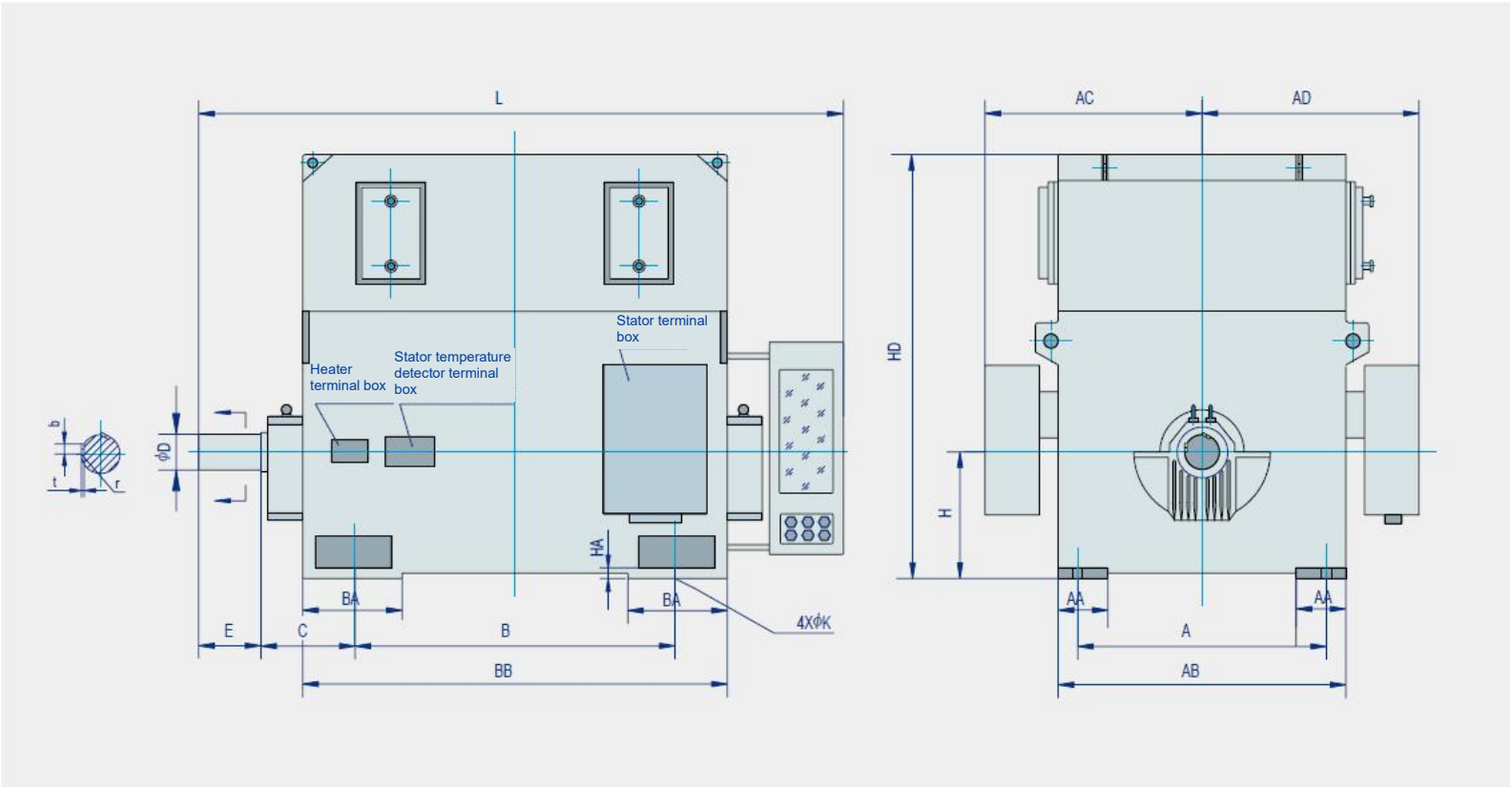


Frame No.	Mounting dimensions and tolerance										Overall dimensions								
	A	B	C	D	E	t	B	r min	r max	H	K	AC	AD	AE	AF	BE	BF	HD	L
710	1400±2.8	1800±2.8	530±4.2	200 $^{+0.046}_{+0.017}$	350±0.70	14	51	0.7	1.0	$710^{0}_{-1.5}$	56	1470	1500	280	1600	560	2400	2400	3900
800	1600±2.8	2000±2.8	530±4.2	220 $^{+0.046}_{+0.017}$	350±0.70	16	57.1	1.2	1.6	$800^{0}_{-1.5}$	56	1600	1600	280	1860	560	2600	3300	4300
900	1800±3.5	2240±3.5	600±4.2	250 $^{+0.046}_{+0.017}$	410±0.77	18	64.6	1.2	1.6	$900^{0}_{-1.5}$	66	1700	1700	310	2060	600	2800	3500	4700
1000	2000±3.5	2500±3.5	600±4.2	280 $^{+0.052}_{+0.020}$	470±0.77	20	72.1	2.0	2.5	$1000^{0}_{-1.5}$	66	1800	1800	310	2250	600	3200	3800	5000

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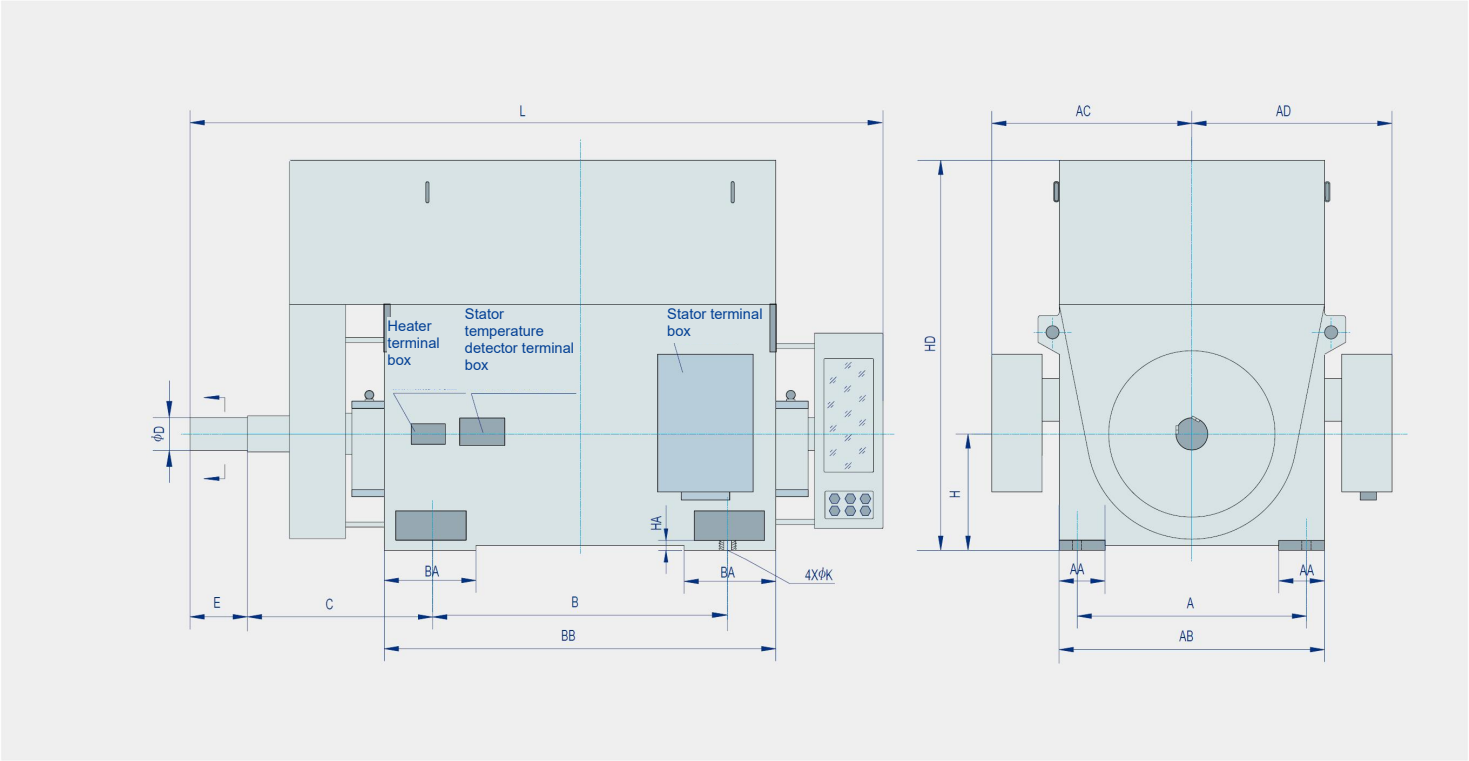
Y, YKS, YKK, YR, YRKS, YRKK Series
6kV and 10kV H710—1000 Large High-voltage Three-phase Asynchronous Motors

Overall and Installation Dimensions of YRKS (IP44) Series Large Motors



Frame No.	Mounting dimensions and tolerance									Overall dimensions									
	A	B	C	D	E	t	B	r min	r max	H	K	AC	AD	AE	AF	BE	BF	HD	L
710	1400±2.8	1800±2.8	530±4.2	200 $^{+0.046}_{+0.017}$	350±0.70	14	51	0.7	1.0	$710^{0}_{-1.5}$	56	1470	1500	280	1600	560	2400	2400	3900
800	1600±2.8	2000±2.8	530±4.2	220 $^{+0.046}_{+0.017}$	350±0.70	16	57.1	1.2	1.6	$800^{0}_{-1.5}$	56	1600	1600	280	1860	560	2600	3300	4300
900	1800±3.5	2240±3.5	600±4.2	250 $^{+0.046}_{+0.017}$	410±0.77	18	64.6	1.2	1.6	$900^{0}_{-1.5}$	66	1700	1700	310	2060	600	2800	3500	4700
1000	2000±3.5	2500±3.5	600±4.2	280 $^{+0.052}_{+0.020}$	470±0.77	20	72.1	2.0	2.5	$1000^{0}_{-1.5}$	66	1800	1800	310	2250	600	3200	3800	5000

Overall and Installation Dimensions of YRKK (IP54) Series Large Motors



Frame No.	Mounting dimensions and tolerance									Overall dimensions								
	A	B	C	D	E	t	B	r min	r max	H	K	AC	AD	AE	AF	BE	BF	HD	L
710	1400±2.8	1800±2.8	1040±6	$200^{+0.046}_{+0.017}$	350±0.70	14	51	0.7	1.0	$710^{0}_{-1.5}$	56	1470	1500	280	1600	560	2400	2710	4400
800	1600±2.8	2000±2.8	1140±6	$220^{+0.046}_{+0.017}$	350±0.70	16	57.1	1.2	1.6	$800^{0}_{-1.5}$	56	1600	1600	280	1860	560	2600	3300	4800
900	1800±3.5	2240±3.5	1220±6	$250^{+0.046}_{+0.017}$	410±0.77	18	64.6	1.2	1.6	$900^{0}_{-1.5}$	66	1700	1700	310	2060	600	2800	3500	5200
1000	2000±3.5	2500±3.5	1240±6	$280^{+0.052}_{+0.020}$	470±0.77	20	72.1	2.0	2.5	$1000^{0}_{-1.5}$	66	1800	1800	310	2250	600	3200	4100	5500



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 Rating	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	I	I	I	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	IC411 IC511 IC611	IC31 IC71W IC81W IC8A1W7	IC01 IC11 IC21	IC411 IC511 IC611	IC31 IC71W IC81W IC8A1W7	IC01 IC11 IC21	IC411 IC511 IC611	IC31 IC71W IC81W IC8A1W7	IC01 IC11 IC21	IC411 IC511 IC611	IC31 IC71W IC81W IC8A1W7	IC01 IC11 IC21	IC411 IC511 IC611	IC31 IC71W IC81W IC8A1W7	IC01 IC11 IC21	IC411 IC511 IC611	IC31 IC71W IC81W IC8A1W7
	Note 1	Note 2	Note 2	Note 1	Note 2	Note 2	Note 1	Note 2	Note 2	Note 1	Note 2	Note 2	Note 1	Note 2	Note 2	Note 1	Note 2	Note 2
P_n/kW (or kVA)																		
$1 \leq P_N \leq 1.1$	73	73	I	76	76	I	77	78	I	79	81	I	81	84	I	82	88	I
$1.1 < P_N \leq 2.2$	74	74	I	78	78	I	81	82	I	83	85	I	85	88	I	86	91	I
$2.2 < P_N \leq 5.5$	77	78	I	81	82	I	85	86	I	86	90	I	89	93	I	93	95	I
$5.5 < P_N \leq 11$	81	82	I	85	85	—	88	90	—	90	93	—	93	97	—	97	98	—
$11 < P_N \leq 22$	84	86	I	88	88	I	91	94	I	93	97	I	96	100	I	97	100	I
$22 < P_N \leq 37$	87	87	I	91	91	I	94	98	I	96	100	I	99	102	I	101	102	I
$37 < P_N \leq 55$	90	93	I	94	94	—	97	100	I	98	102	I	101	104	I	103	104	I
$55 < P_N \leq 110$	93	96	I	97	98	I	100	103	I	101	104	I	103	106	I	105	106	I
$110 < P_N \leq 220$	97	99	I	100	102	I	103	106	I	103	107	I	105	109	I	107	110	I
$220 < P_N \leq 550$	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

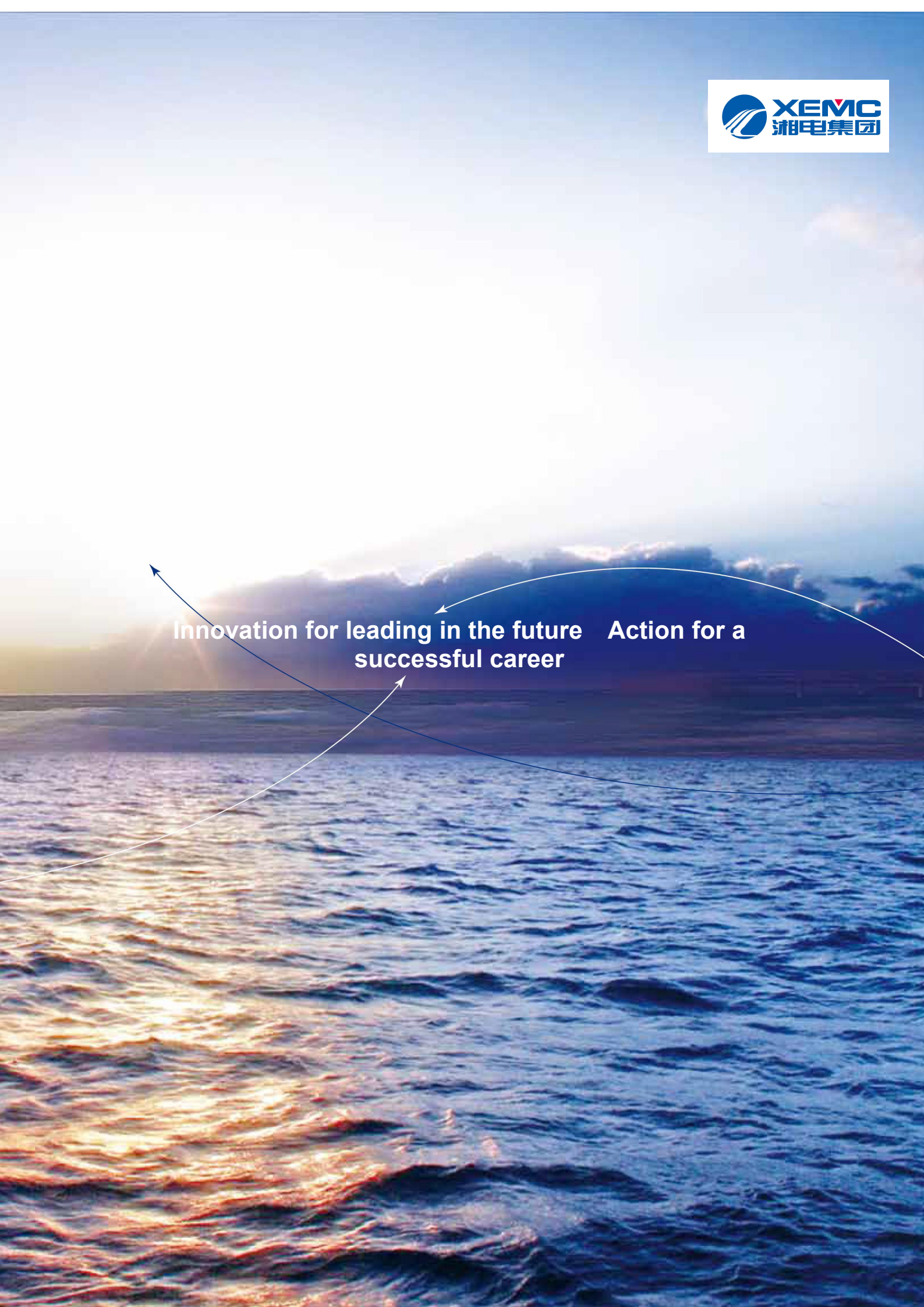




Note: 1. The electronic version of paint colors is for reference only, and the construction and quality inspection are subject to the physical standard color cards.

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




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