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» Z 系列中型直流电机

Z Serics Medium Size DC Motors

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC17, IC37, ICW37A86

Z630-5A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa				风量 volume	风压 pre- ssure	
	440V	550V	660V	750V										
01	165	211	257	294	540 678 809 911	1378 1355 1329 1306	89.0 91.0 92.2 93.0	500 600 700 700	18.13 18.10 18.08 18.27	438 438 438 438	5.0 5.0 5.1 5.1	1870 1870 1940 1940		
02	193	246	299	342	639 795 942 1054	1610 1573 1535 1501	90.2 91.9 93.0 93.6	600 700 700 700	18.06 18.08 18.09 18.19	441 441 441 441	5.2 5.2 5.3 5.3	2020 2020 2090 2090		
03	211	268	326	373	702 868 1022 1139	1747 1701 1653 1612	91.3 92.8 93.7 94.2	500 700 800 700	18.20 18.28 18.08 18.06	445 445 445 445	5.0 5.1 5.1 5.1	1870 1940 1940 2020		
04	262	333	404		820 1009 1180	2036 1975 1907	91.5 92.9 93.8	600 700 700	18.07 18.06 18.05	449 449 449	5.5 5.6 5.7	2240 2310 2390		
05														
06														

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC17, IC37, ICW37A86

Z710-2A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation						
	440V	550V	660V	750V								P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s
01	230	300	335	380		490 630 759 860	1233 1223 1229 1208	89.1 92.2 92.0 92.3	690 1000 1050 1150	7.6 7.6 7.6 7.6	320 320 320 320	6.5 6.5 6.5 6.5	1000 1000 1000 1000					
02	280	335	425	485		650 840 1000 1150	1630 1625 1600 1615	92.8 93.0 93.2 93.3	900 1000 1000 1100	7.6 7.6 7.6 7.6	320 320 320 320	6.5 6.5 6.5 6.5	1000 1000 1000 1000					
03	325	400	470	530		800 1000 1250 1400	1952 1935 2000 1965	92.5 92.9 93.1 93.3	900 850 1000 1000	7.6 7.6 7.6 7.6	320 320 320 320	6.5 6.5 6.5 6.5	1000 1000 1000 1000					
04	350	450	500			850 1200 1400	2065 1930 1915	92.5 92.8 93.3	900 1000 1000	7.6 7.6 7.6	320 320 320	6.5 6.5 6.5	1000 1000 1000					
05																		
06																		

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC17, IC37, ICW37A86

Z630-3A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation	
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa				风量 volume	风压 pre- ssure
01	268 341 414 474	561 697 825 922 1403 1372 1340 1311	90.9 92.4 93.3 93.8	800 1000 1000 1000	13.86 13.85 13.84 13.81	320 320 320 320	4.1 4.2 4.3 4.4	1300 1360 1420 1480					
02	313 397 481 550	660 813 954 1058 1636 1590 1542 1498	91.7 93.0 93.7 94.2	900 1000 1000 1000	13.79 13.85 13.88 13.88	324 324 324 324	4.3 4.4 4.6 4.7	1420 1480 1610 1670					
		723 884 1030 1135 1776 1717 1657 1601	92.5 93.6 94.2 94.5	1000 1000 1000 1100	13.80 13.83 13.86 13.82	327 327 327 327	4.3 4.4 4.6 4.7	1420 1480 1610 1670					
		840 1019 1177 2061 1979 1894	92.6 93.6 94.2	1000 1000 1000	13.79 13.81 13.83	331 331 331	4.8 4.9 5.0	1730 1800 1940					
05													
06													

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC17, IC37, ICW37A86

Z630-4A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation						
	440V	550V	660V	750V								P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s
01	211 269 327 375	555 692 822 923	1400 1371 1341 1317	90.0 91.8 92.8 93.5	600 800 800 800	15.79 15.79 15.80 15.70	371 371 371 371	4.5 4.6 4.6 4.7	1540 1610 1610 1610									
		654 810 955 1064	1633 1592 1549 1510	91.0 92.5 93.4 94.0	800 800 800 800	15.60 15.64 15.67 15.66	375 375 375 375	4.7 4.8 4.9 4.9	1670 1730 1800 1800									
		717 882 1033 1150	1771 1720 1665 1624	92.0 93.2 94.0 94.4	800 800 800 800	15.65 15.77 15.69 15.75	378 378 378 378	4.6 4.7 4.8 4.9	1610 1670 1730 1800									
		836 1021 1188	2061 1989 1914	92.2 93.3 94.0	800 800 800	15.70 15.68 15.67	382 382 382	5.1 5.2 5.3	1940 2020 2090									
05																		
06																		

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z560-4A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit	
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH					
	220V	330V	440V	550V	660V										
01	95	156	210	269	328	185 300 400 500 600	1087 1076 1035 1009 994	74.3 82.2 86 88.5 90.1	300 500 1600 1800 1000	9.9 9.9 9.9 9.9 9.9	180.6 180.6 180.6 180.6 180.6	3.9 4.0 4.0 4.1 4.1	1770 1860 1860 1950 1950	46.6 46.1 45.4 44.7 43.9	1.02 0.94 0.97 0.97 0.97
02	112	193	264	341	390	220 375 500 630 728	1223 1301 1260 1248 1184	78.9 85.4 88.6 90.5 92	400 700 800 1000 1200	9.9 9.9 9.9 9.9 9.9	184.7 184.7 184.7 184.7 184.7	3.8 3.9 3.9 4.0 4.1	1690 1770 1770 1860 1950	36.7 36.2 35.5 34.8 34.1	0.77 0.63 0.63 0.63 0.69
03	161	250	341	449	525	315 475 630 800 900	1693 1614 1564 1556 1458	82.4 87.6 90.3 91.9 92.6	500 800 1000 1200 1200	9.9 9.9 9.9 9.9 9.9	184.7 184.7 184.7 184.7 184.7	4.1 4.0 4.2 4.3 4.4	1950 1950 2030 2130 2220	30.4 29.8 29 28.1 27.1	0.39 0.39 0.40 0.38 0.41
04	193	296	413	520		385 560 750 900	1954 1862 1841 1748	85.3 89.7 91.5 92.7	600 1000 1200 1200	9.9 9.9 9.9 9.9	188.9 188.9 188.9 188.9	4.0 4.1 4.2 4.3	1860 1950 2030 2130	23.9 23.3 22.6 21.6	0.28 0.29 0.28 0.29
05															
06															

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC17, IC37, ICW37A86

Z630-2A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		
	440V	550V	660V	750V								P _n kW	I _a A	η %
01	337	428	519	593		564 697 821 915	1410 1366 1330 1298	91.5 92.8 93.5 94.0	1000 1200 1200 1200	12.39 12.38 12.38 12.42	281 281 281 281	3.8 3.9 4.1 4.2	1140 1190 1300 1360	
02	393	498	603	689		662 811 946 1045	1633 1581 1527 1479	92.2 93.2 93.9 94.2	1200 1200 1200 1200	12.37 12.39 12.41 12.42	285 285 285 285	4.0 4.2 4.4 4.5	1240 1360 1480 1540	
03	429	543	457	750		723 879 1019 1118	1769 1705 1638 1578	92.9 93.8 94.2 94.5	1100 1200 1200 1200	12.39 12.36 12.35 12.37	288 288 288 288	4.0 4.2 4.4 4.6	1240 1360 1480 1610	
04	553	674	816			839 1010 1157	2052 1960 1863	92.9 93.7 94.1	1200 1200 1200	12.38 12.40 12.34	292 292 292	4.5 4.7 5.0	1540 1670 1870	
05														
06														

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z560-2A

技术数据表

Technical data

Z560-3A

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z500-3A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit							
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance						
	220V	330V	440V	550V	660V							P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH
01	124	209	284	368	440	150	856	76.5	400	7.8	94.4	2.9	1470	41.7	0.99						
						250	882	83.7	600	7.8	94.4	3.0	1560	41.3	0.86						
						335	854	87.4	1000	7.8	94.4	3.0	1560	40.7	0.87						
						425	848	89.7	1200	7.8	94.4	3.0	1560	40.2	0.85						
						500	819	91.2	1200	7.8	94.4	3.0	1560	39.4	0.88						
02	150	248	336	550	532	185	1015	80.1	500	7.8	94.4	2.9	1470	34.5	0.69						
						300	1031	86.2	700	7.8	94.4	2.9	1470	33.8	0.62						
						400	1001	89.3	1000	7.8	94.4	3.0	1560	33.2	0.61						
						550	1073	92	1300	7.8	94.4	3.0	1560	32.6	0.45						
						600	973	92.4	1200	7.8	94.4	3.0	1560	31.8	0.61						
03	209	344	444	600	680	250	1318	84	600	7.8	95.8	3.0	1560	26.8	0.38						
						400	1340	88.9	1000	7.8	95.8	3.0	1560	26.1	0.35						
						500	1230	91.1	1200	7.8	95.8	3.0	1560	25.3	0.39						
						600	1166	92.5	1400	7.8	95.8	3.1	1660	24.6	0.38						
						710	1142	93.3	1200	7.8	95.8	3.1	1660	23.7	0.41						
04	285	440	582	714		355	1711	87.2	1000	7.8	99.8	3.1	1660	20.8	0.22						
						500	1645	90.8	1200	7.8	99.8	3.1	1660	20.1	0.22						
						630	1532	92.4	1200	7.8	99.8	3.2	1760	19.3	0.24						
						769	1480	93.6	1200	7.8	99.8	3.2	1870	18.4	0.25						
05	337	532	709			400	2015	88.7	1000	7.8	99.8	3.1	1660	17.4	0.16						
						600	1957	91.8	1200	7.8	99.8	3.2	1760	16.5	0.16						
						750	1810	93.3	1200	7.8	99.8	3.3	1870	15.8	0.13						
06																					

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z500-4A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit	
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH					
01	102	151	220	282	285	150	884	73.9	300	8.5	110.8	3.1	1660	46.6	1.2
						220	790	81.8	500	8.5	110.8	3.2	1760	46.1	1.3
						315	813	86.1	650	8.5	110.8	3.2	1760	45.5	1.2
						400	808	88.4	1000	8.5	110.8	3.2	1760	44.8	1.2
						403	655	91.5	800	8.5	110.8	3.2	1760	44.1	1.7
02	122	189	258	337	405	185	103								

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z500-1A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit							
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance						
	220V	330V	440V	550V	660V							P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH
01	201	319	462	565	679	160	878	80.3	600	6.2	70.2	2.4	1050	34.1	0.6						
						250	879	86.2	1000	6.2	70.2	2.5	1130	33.7	0.56						
						355	888	89.5	1200	6.2	70.2	2.6	1210	33.1	0.51						
						425	839	90.9	1200	6.2	70.2	2.6	1210	32.5	0.55						
						500	813	92.1	1200	6.2	70.2	2.7	1290	32.0	0.57						
02	247	396	517	664	823	200	1062	83.4	800	6.2	70.2	2.4	1050	28.2	0.4						
						315	1063.	88.3	1200	6.2	70.2	2.5	1130	27.8	0.37						
						400	990	90.6	1200	6.2	70.2	2.6	1210	27.1	0.41						
						500	977	92	1200	6.2	70.2	2.7	1290	26.5	0.4						
						600	967	93.1	1200	6.2	70.2	2.7	1290	25.8	0.4						
03	318	526	724	898	1065	250	1293	86	1000	6.2	72.1	2.6	1210	22.5	0.26						
						400	1325	90.2	1200	6.2	72.1	2.7	1290	19.9	0.23						
						530	1294	92.1	1200	6.2	72.1	2.8	1380	21.2	0.22						
						630	1219	93.1	1200	6.2	72.1	2.9	1470	20.5	0.24						
						710	1139	93.7	1200	6.2	72.1	3.0	1560	19.6	0.26						
04	461	681	962	1150		355	1787	88.9	1200	6.2	73.8	2.7	1290	17.1	0.13						
						500	1636	91.6	1200	6.2	73.8	2.8	1380	16.5	0.14						
						670	1620	93.2	1200	6.2	73.8	3.0	1560	15.8	0.13						
						750	1444	93.7	1200	6.2	73.8	3.1	1660	15.0	0.16						
05	518	823	1095			400	1999	89.7	1200	6.2	73.8	2.8	1380	14.8	0.1						
						600	1949	92.4	1200	6.2	73.8	3.0	1560	14.1	0.1						
						750	1809	93.5	1200	6.2	73.8	3.2	1760	13.3	0.1						
06																					

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式

Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z500-2A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit							
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance						
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH											
01	162	256	348	428	540	160	896	78.7	500	6.3	80.2	2.6	1210	37.7	0.72						
						250	873	85	800	6.3	80.2	2.7	1290	37.3	0.71						
						335	850	88.3	1000	6.3	80.2	2.7	1290	36.7	0.71						
						425	844	90.4	1200	6.3	80.2	2.8	1380	36.1	0.73						

技术数据表

Technical data

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z450-3A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n					功率 Output	额定 电流 Rated current	效率 Effi- ciency	最大 转速 Max. Speed	励磁 功率 Excita- tion Power	转动 惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit	
	r/min											风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance
	220V	330V	440V	550V	660V	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	L _a mH
01	110	185	274	353	402	90	558	69.6	350	6.5	47.9	2.4	1570	56.2	1.7
						150	555	79.1	600	6.5	47.9	2.5	1690	55.6	1.5
						220	581	84	800	6.5	47.9	2.5	1690	55.4	1.3
						280	574	86.9	1000	6.5	47.9	2.5	1690	54.7	1.3
						315	528	88.8	1500	6.5	47.9	2.5	1690	54.1	1.5
02	133	227	310	396	497	110	645	74.1	500	6.5	47.9	2.5	1690	47	1.5
						185	663	82.2	800	6.5	47.9	2.5	1690	46.4	1.1
						250	646	86.1	1000	6.5	47.9	2.5	1690	46.1	1.0
						315	636	88.5	1200	6.5	47.9	2.6	1810	45.5	1.0
						375	620	90.2	1500	6.5	47.9	2.6	1810	44.8	1.0
03	183	309	395	512	593	150	832	79.1	600	6.5	49.2	2.4	1570	37.1	0.69
						250	867	85.5	800	6.5	49.2	2.5	1690	36.5	0.59
						315	794	88.6	1200	6.5	49.2	2.5	1690	36.1	0.67
						400	793	90.4	1500	6.5	49.2	2.6	1810	35.4	0.64
						467	761	91.8	1500	6.5	49.2	2.6	1810	34.7	0.7
04	251	402	554	711	871	200	1061	83.4	800	6.5	49.2	2.5	1690	28.5	0.39
						315	1062	88.3	1500	6.5	49.2	2.6	1810	28	0.37
						425	1049	90.8	1500	6.5	49.2	2.7	1950	27.4	0.36
						530	1033	92.3	1500	6.5	49.2	2.8	2080	26.8	0.36
						630	1012	93.4	1500	6.5	49.2	2.8	2080	26.2	0.36
05	311	478	660	863		250	1298	85.6	1000	6.5	51.6	2.6	1810	23.8	0.26
						375	1246	89.8	1500	6.5	51.6	2.7	1950	23.4	0.26
						500	1223	91.8	1500	6.5	51.6	2.8	2080	22.7	0.26
						630	1218	93.2	1500	6.5	51.6	2.9	2230	21.9	0.25
06	397	622	828			315	1598	88	1200	6.5	51.6	2.6	1810	19	0.17
						475	1556	91.4	1500	6.5	51.6	2.8	2080	18.2	0.16
						600	1454	92.9	1500	6.5	51.6	2.9	2230	17.5	0.17

适用于冷却方式
Applied to the cooling types of
IC06, IC17, IC37, ICW37A8

Z450-4A

编号 series number	额定电压U _n 下的转速					功率 Output	额定 电流 Rated current	效率 Effi- ciency	最大 转速 Max. Speed	励磁 功率 Excita- tion Power	转动 惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit							
	Rotating speed under the voltage below rated voltage U _n																				
	r/min											风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance						
	220V	330V	440V	550V	660V	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	L _a mH						
01	90	142	201	283	322	90	580	66.7	300	7.3	56.9	2.7	1950	62.5	2.0						
						150	569	77	500	7.3	56.9	2.7	1950	62.4	2.0						
						220	536	82.2	700	7.3	56.9	2.7	1950	61.7	2.0						
						280	581	85.8	800	7.3	56.9	2.8	2080	61.5	1.6						
						315	535	87.5	1000	7.3	56.9	2.9	2080	61.0	1.8						
02	107	183	249	317	383	110	665	71.6	350	7.3	56.9	2.7	1950	51.9	1.5						
						185	672	80.8	600	7.3	56.9	2.7	1950	51.1	1.3						
						250	652	85.0	800	7.3	56.9	2.7	1950	50.9	1.3						
						315	641	87.6	1000	7.3	56.9	2.8	2080	50.2	1.3						
						375	625	89.4	1200	7.3	56.9	2.8	2080	49.5	1.3						
03	147	219	318	384	497	150	855	76.8	500	7.3	59	2.7	1950	41.5	0.84						
						220	773	86.5	800	7.3	59	2.7	1950	41	0.93						
						315	802	87.5	1000	7.3	59	2.7	1950	40.4	0.82						
						375	749	89.5	1200	7.3	59	2.8	2080	39.9	0.91						
						475	777	91.3	1500	7.3	59	2.8	2080	39.2	0.82						
04	201	321	443	567	692	220	1080	81.7	600	7.3	59	2.8	2080	32.0	0.48						
						315	1071	87.3	1000	7.3	59	2.8	2230	31.4	0.46						
						425	1055	90.1	1500	7.3	59	2.8	2230	30.8	0.45						
						530	1037	91.8	1500	7.3	59	2.9	2230	30.8	0.45						
						630	1016	93.3	1500	7.3	59	3.0	2370	29.4	0.45						
05	250	382	526	686		250	1313	84.4	800	7.3	61.2	2.9	2230	26.8	0.32						
						375	1258	88.8	1200	7.3	61.2	2.9	2230	26.2	0.33						
						500	1230	91.2	1500	7.3	61.2	3.0	2370	25.5	0.32						
						630	1223	92.7	1550	7.3	61.2	3.0	2370	24.7	0.31						
06	317	498	657			315	1609	87.2	1000	7.3	61.2	2.8	2080	20.8	0.21						
						475	1560	91	1500	7.3	61.2	2.9	2230	20.1	0.20						
						600	1458	92.5	1500	7.3	61.2	3.0	2370	19.3	0.22						

* 电机效率包括励磁功率

efficiency including excitation loss

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z450-1A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit						
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance					
	220V	330V	440V	550V	660V							P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V
01	173	311	431	557	676	90	525	74.3	600	5.8	41.8	2.0	1130	46.3	1.2					
						160	571	82.5	1000	5.8	41.8	2.1	1230	45.4	0.89					
						220	566	86.4	1200	5.8	41.8	2.1	1230	45.6	0.86					
						280	564	88.7	1500	5.8	41.8	2.0	1340	45.0	0.84					
						335	554	90.3	1500	5.8	41.8	2.0	1340	44.5	0.84					
02	229	356	487	664	806	120	669	78.5	1500	5.7	41.8	2.1	1230	38.3	0.69					
						185	544	84.8	700	5.7	41.8	2.1	1230	38.1	0.69					
						250	633	88	1000	5.7	41.8	2.2	1340	37.6	0.68					
						335	665	90.2	1500	5.7	41.8	2.2	1340	37.1	0.59					
						400	654	91.5	1500	5.7	41.8	2.3	1450	36.4	0.6					
03	287	485	623	750	986	150	805	82.1	1500	5.7	37.3	2.1	1230	30.5	0.45					
						250	848	87.6	1000	5.7	37.3	2.1	1230	30.1	0.38					
						315	785	89.8	1500	5.7	37.3	2.2	1340	29.6	0.43					
						400	784	91.6	1500	5.7	37.3	2.3	1450	29.0	0.45					
						475	769	92.6	1500	5.7	37.3	2.4	1570	28.2	0.42					
04	432	674	879	1132	1395	220	1138	85.9	1500	5.7	37.3	2.2	1340	23.8	0.21					
						335	1112	89.9	1500	5.7	37.3	2.3	1450	23.2	0.23					
						425	1042	91.6	1500	5.7	37.3	2.4	1570	22.7	0.23					
						530	1028	92.8	1500	5.7	37.3	2.5	1690	22.2	0.23					
						630	1013	93.5	1500	5.7	37.3	2.7	1950	21.5	0.22					
05	489	807	1049	1320		250	1275	87.4	1500	5.7	39.2	2.3	1450	19.7	0.17					
						400	1313	91.1	1500	5.7	39.2	2.4	1570	19.2	0.15					
						500	1219	92.3	1500	5.7	39.2	2.6	1810	18.6	0.16					
						600	1161	93.1	1500	5.7	39.2	2.7	1950	18.0	0.17					
06	626	990	1328			315	1578	89.3	1500	5.7	39.2	2.4	1570	15.7	0.10					
						475	1546	92.1	1500	5.7	39.2	2.5	1690	15.1	0.10					
						600	1454	93	1500	5.7	39.2	2.8	2080	14.2	0.11					

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z450-2A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit	
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH					
01	137	246	340	439	531	90	535	72.4	500	6.7	39.2	2.2	1340	50.3	1.4

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z400-3A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita- tion Power	转动惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit							
												风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance						
	220V	330V	440V	550V	660V							P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	La mH
01	97	162	239	336	402	55	375	61.9	350	6.5	23.9	2.1	1740	72.1	2.9						
						90	351	73.6	600	6.6	23.9	2.0	1590	71	2.8						
						132	362	79.7	800	6.6	23.9	2.1	1740	70.3	2.4						
						185	384	85.1	1000	6.6	23.9	2.1	1740	70.5	2.0						
02	130	192	282	355	449	75	469	68.4	500	6.5	23.9	2.0	1590	60.8	1.7						
						110	412	77.2	600	6.7	23.9	2.1	1740	60.1	2.0						
						160	425	82.7	1000	6.6	23.9	2.1	1740	59.5	1.8						
						200	414	85.5	1200	6.7	23.9	2.1	1740	59.3	1.8						
						250	421	87.9	1500	6.6	23.9	2.1	1740	58.6	1.7						
03	160	271	364	462	592	90	530	73.2	600	6.5	24.5	2.1	1740	48.8	1.2						
						150	537	81.7	1000	6.5	24.5	2.1	1740	47.8	1.1						
						200	517	85.5	1200	6.5	24.5	2.1	1740	47.6	1.1						
						250	505	88	1500	6.6	24.5	2.1	1740	46.8	1.1						
						315	522	89.9	1500	6.5	24.5	2.2	1900	46.3	1.0						
04	239	367	522	636	774	132	725	79.6	800	6.5	24.5	2.1	1740	36.6	0.61						
						200	689	85.5	1200	6.6	24.5	2.1	1740	36.1	0.62						
						280	702	88.8	1500	6.6	24.5	2.1	1740	35.7	0.57						
						335	662	90.4	1500	6.6	24.5	2.2	1900	35.2	0.62						
						400	652	91.6	1500	6.6	24.5	2.2	1900	34.7	0.62						
05	286	453	622	760	908	160	854	82.3	1000	6.6	25.1	2.1	1740	30.4	0.43						
						250	845	87.6	1500	6.6	25.1	2.2	1900	30.1	0.41						
						335	824	90.8	1500	6.6	25.1	2.2	1900	29.5	0.41						
						400	783	91.5	1500	6.6	25.1	2.3	2060	29.0	0.44						
						475	767	92.7	1500	6.6	25.1	2.3	2060	28.2	0.45						
06	371	573	787	972	1199	200	1037	85.2	1200	6.6	25.1	2.1	1740	24.4	0.27						
						300	997	89.4	1500	6.6	25.1	2.2	1900	24	0.28						
						400	977	91.7	1500	6.6	25.1	2.3	2060	23.4	0.27						
						475	921	92.6	1500	6.6	25.1	2.3	2230	22.6	0.29						
						560	898	93.5	1500	6.6	25.1	2.4	2230	21.6	0.29						

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

适用于冷却方式
Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z400-4A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定电流 Rated current	效率 Effi- ciency	最大转速 Max. Speed	励磁功率 Excita-<br
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技术数据表

Technical data

Z355-4A

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z400-2A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n					功率 Output	额定 电流 Rated current	效率 Effi- ciency	最大 转速 Max. Speed	励磁 功率 Excita- tion Power	转动 惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit	
	r/min											风量 volume	风压 pre- ssure	电压降 voltage drop	电感 induc- tance
	220V	330V	440V	550V	660V	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa	ΔU V	L _a mH
01	126	205	304	429	514	55	355	65.5	500	5.9	20.2	1.8	1310	63.9	2.3
						90	342	75.9	800	5.8	20.2	1.9	1450	94.3	2.3
						132	356	81.5	1000	5.7	20.2	1.9	1450	63.8	1.9
						185	382	85.7	1200	5.6	20.2	1.9	1450	63.2	1.6
						220	371	87.9	1500	5.6	20.2	1.9	1450	63.0	1.7
02	164	244	354	454	575	75	457	70.6	500	5.7	20.2	1.9	1450	55.1	1.4
						110	404	79.3	1000	5.7	20.2	1.9	1450	54.4	1.6
						160	420	84.1	1200	5.7	20.2	1.9	1450	53.9	1.4
						200	399	86.7	1500	5.7	20.2	1.9	1590	53.1	1.4
						250	418	88.9	1500	5.7	20.2	2.0	1590	52.8	1.3
03	203	341	460	596	746	90	516	75.4	800	5.9	20.9	1.9	1450	43.5	1.0
						150	530	83.1	1200	5.9	20.9	1.9	1450	43.1	0.87
						200	513	86.5	1500	5.9	20.9	1.9	1450	42.7	0.89
						255	512	88.8	1500	5.9	20.9	2.0	1590	42.3	0.86
						315	518	90.6	1500	5.9	20.9	2.0	1590	41.4	0.82
04	305	469	666	813	993	132	715	81.0	1000	5.8	20.9	1.9	1450	32.8	0.48
						200	683	86.6	1500	5.8	20.9	1.9	1450	32.5	0.49
						280	697	89.7	1500	5.8	20.9	2.0	1590	32.3	0.45
						335	658	91.2	1500	5.7	20.9	2.0	1590	31.5	0.49
						400	650	92.1	1500	5.8	20.9	2.1	1740	31.2	0.49
05	363	579	796	976	1193	160	843	83.7	1200	5.8	21.3	1.9	1450	27.4	0.34
						250	836	88.8	1500	5.7	21.3	2.0	1590	27.1	0.33
						335	823	91.1	1500	5.7	21.3	2.1	1740	26.4	0.32
						400	783	91.7	1500	5.8	21.3	2.1	1740	25.9	0.34
						475	766	93.0	1500	5.7	21.3	2.2	1900	25.2	0.34
06	468	724	999	1237	1534	200	1028	86.2	150	6.0	21.3	2.0	1590	22.3	0.22
						300	994	89.9	1500	6.0	21.3	2.1	1740	21.5	0.22
						400	975	92.0	1500	6.0	21.3	2.2	1900	21.0	0.22
						475	921	92.7	1500	6.0	21.3	2.3	2060	20.2	0.23
						560	899	93.5	1534	6.0	21.3	2.4	2230	19.4	0.23

* 电机效率包括励磁功率

efficiency including excitation loss

由用户与制造厂商定。

举例说明如下：

使用场合需90kW 220V 170r/min B类电机→
放大功率25%后，对应为110kW 220V 170r/
min A类电机→查A类电机规格表得相近型号
Z450-2A 110kW 220V 167r/min→将型号改
成Z450-2B，此型号近似代表90kW 220V 170
r/min B类电机可以初步满足使用场合要求。

功率和转速的换算(对A类电机)：

本系列电动机除技术数据表中所列的五种
电压和相应的功率转速外，任何一个规格的
电机都可以派生成其他等级的电压(但不得超
过该电机的最高电压)和相应的功率及转速。

换算关系如下：

Conversion formula is as follows:

$$K = \frac{U_1 - \Delta U}{U_N - \Delta U}$$

$$n_i \approx k \cdot n_N \quad (\text{r/min})$$

$$P_i \approx k \cdot P_N \quad (\text{kW})$$

ΔU : 电枢回路压降 voltage drop of armature circuit

U_i : 新的电枢电压 new armature voltage

n_i : 新的额定转速 new rated speed

P_i : 新的额定输出功率 new rated output

U_N 、 n_N 、 P_N : 在技术数据表中所列的和新的
电压最接近，且高于新的供电电压的那个额
定电压及相应的额定基速和额定功率。

capacity shall be replaced with the non-enlarged power (that means with the original capacity of the class B). Final specifications and data can be discussed between customers and manufacturer.

For example:

Motor required by customer:

Class B motor of 90kW 220V 170r/min

Power enlarged by 25%:

110kW 220V 170r/min

Corresponding type in the specification list for class A:

Z450-2A (110kW 220V 167r/min)

Type transformed from class A to class B:

Z450-2B (approximate 90kW 220V 170r/min)

The motor of this type can basically meet the customers' requirements.

Output-speed conversion (for motors of class A):

Besides the five voltages and corresponding outputs and speeds specified in the technical data list, other voltage grades and their corresponding outputs and speeds can be derived from motors of any specifications. (However, it is not allowed to exceed the allowable maximum voltage of such specification)

技术数据表

Technical data

适用于冷却方式

Applied to the cooling types of
IC06, IC17, IC37, ICW37A86

Z355-3A

编号 series number	额定电压 U_N 下的转速 Rotating speed under the voltage below rated voltage U_N r/min					功率 Output	额定 电流 Rated current	效率 Effi- ciency	最大 转速 Max. Speed	励磁 功率 Excita- tion Power	转动 惯量 Moment Of Inertial	通风 Ventilation		电枢回路 Armature circuit	
	220V	330V	440V	550V	660V							P_f kW	J kg.m ²	Q M ³ /s	H Pa
01	184	307	453	558	709	55	329	71.5	600	4.6	11.0	1.5	1430	52.1	1.7
						90	326	80.4	1000	4.6	11.0	1.5	1430	51.1	1.6
						132	344	84.6	1500	4.6	11.0	1.5	1430	50.7	1.4
						160	323	87.8	1500	4.6	11.0	1.5	1430	49.9	1.5
						200	331	89.9	1500	4.6	11.0	1.5	1430	49.3	1.3
02	248	443	550	772	898	75	421	77.2	800	4.5	11.0	1.4	1270	40.2	1.0
						132	457	85	1500	4.5	11.0	1.5	1430	39.6	0.78
						160	405	87.7	1500	4.5	11.0	1.5	1430	38.7	0.94
						220	437	89.8	1500	4.5	11.0	1.5	1430	38.1	0.78
						250	409	91.1	1500	4.5	11.0	1.5	1430	37.2	0.86
03	382	568	805	1057	1235	110	590	82.0	1500	4.5	11.3	1.5	1430	31.2	0.47
						160	543	87.1	1500	4.5	11.3	1.5	1430	30.5	0.51
						220	545	90.2	1500	4.5	11.3	1.5	1430	29.8	0.48
						280	549	91.5	1500	4.5	11.3	1.6	1610	28.9	0.45
						315	510	92.4	1500	4.5	11.3	1.6	1610	28.0	0.50
04	456	658	922	1214	1442	132	689	84.6	1500	4.6	12.0	1.5	1430	25.6	0.33
						185	617	88.9	1500	4.6	12.0	1.5	1430	25.1	0.39
						250	614	91	1500	4.6	12.0	1.6	1610	24.4	0.37
						315	614	92.1	1500	4.6	12.0	1.6	1610	23.2	0.35
						355	571	93.1	1500	4.6	12.0	1.7	1800	22.3	0.38
05	557	913	1219	1540		160	813	87.2	1500	4.7	12.0	1.5	1430	19.8	0.23
						250	821	90.7	1500	4.7	12.0	1.6	1610	19.1	0.21
						315	764	92.5	1500	4.7	12.0	1.7	1800	18.1	0.23
						371	716	93.1	1540	4.7	12.0	1.8	2000	17.1	0.24
06															

* 电机效率包括励磁功率

efficiency including excitation loss

基速的百分数 Percent of the basic speed	额定电流的百分数 Percent of the rated current	
	偶尔使用 Occasionally used	经常使用 Often used
100	200(180*)	175(160*)
200	200(180*)	160
300以上	175(160*)	140

当电动机的基速等于或大于下表规定的转速时,用括号内数值:

中心高(毫米) shaft height(mm)	355	400	450	500	560
基速(转/分) basic speed(r/min)	1000	900	800	710	630

偶尔使用的短时过载能力是指很少发生或在紧急情况下,电动机在一分钟内承受超过连续额定负载的能力,建议将断路的瞬时开断装置按偶尔使用的短时过载能力整定。

经常使用的短时过载能力是指作为正常工作周期的一部分,电动机反复承受超过额定负载的能力。

短时过载运行之后,必须轻载运行,使电动机整个负载周期的负载均方根值不超过其连续定额。

本系列第二类直流电动机(B类)应能承受下列连续负载:

(1)在额定电枢电压和额定转速范围内带115%额定功率负载连续运行,在此负载下,温升将较高,其他特性可能与额定条件下运行的规定不同。

(2)在额定电枢电压和额定转速范围内,在额定负载连续运行之后,紧接着以125%额定功率负载运行二小时,温升不超过规定数值,其他性能可能与额定条件下运行的规定值不同。

电动机在较低的过载倍数下允许较长的过载时间。对第二类直流电动机偶尔使用时过载倍数允许达到2.5倍(在额定基速时),时间不超过15秒,(但需在订货时商定)。

5. 转速调整率

本系列电动机的转速调整不作规定,用户如有特殊要求,应在订货时商定。

6. 电流变化率

在所有转速及负载下,本系列电动机的电流变化率(di/dt)允许达到200倍额定电流/秒。

The data in brackets are applied in case the basic speed of the motors is equal to or greater than the speed specified in the following list:

The occasionally used short time overload capability refers to the motors capability of sustaining continuous overload within 1 minute in emergent or unusual cases. The transient switching device of breaker is suggested to be rectified according to such capability.

The often-used short time overload capability. As a part of normal operating period refers to the motors' capability of sustaining overload repently.

After short time overload operation. Light load operation is necessary to restrict the load root-mean-square of the whole load period within its continuous rating.

The DC motors (Class B) can sustain following continuous load:

(1) Under the rated armature voltage and rated speed the motor can be continuously operated with 115% overload. In the case, temperature rise will be relatively higher, and the other performance may be different from those under specified ratings.

(2) Soon after continuous operation under rated armature voltage and rated speed. The motor can be operated with 12.5% overload for two hours. In this case, temperature rise will not exceed the specified value, while the other performance may be different from those under specified ratings.

Under lower overload. Longer time overload is allowed. For the motors (class B). The occasionally use overload time is 2.5 times (under the rated speed) within 15 sec.(please consult with the manufacturer in detail).

5. Speed adjustment.

No speed adjustment is specified for this series motors. Any special requirements in this field by customers can be discussed.

6. Current variation:

The allowable current variation (di/dt) of this series motors under all speeds and loads is 200 times of the rated current per second.

7. 噪声振动

本系列电动机的噪声符合GB10069《旋转电机噪声测定方法和限值》和IEC34-9《电机噪声限值标准》的规定。

本系列电动机的振动符合GB10068《旋转电机振动测定方法和限值》和IEC34-14《电机振动测试方法及限值》标准的规定。

7. Noise and vibration:

The noise level of this series motors conform to the specifications stipulated in noise measuring Method for Electric Machines of GB2806 and standard of noise level for Electric Machines of IEC34-9.

Vibration of this series motors conform to the specifications stipulated in vibration Measuring Method for Electric Machines of GB2807 and Vibration Measuring Method and Limit for Electric Machines of IEC34-14.

特点和用途

1. 本系列电动机的性能、外形安装尺寸及技术要求均符合国家标准(GB)和国际电工委员会标准(IEC),电机各部分机械尺寸,公差符合国际标准化委员会标准(ISO)。

2. 本系列电动机可安装在环境条件比较恶劣的场合,但必须选择正确的冷却方法和防护等级,以保持电机内部的清洁。

3. 本系列电动机的冷却空气中应不含有酸、碱等对电机的绝缘和换向性能有损害的气体。

4. 本系列电动机如使用于船舶和湿热带地区以及工作环境中有盐雾、潮湿等,应另行协议。

5. 本系列电动机的额定功率是指在海拔不超过1000米,环境空气温度不超过40℃的条件下。

6. 本系列电动机的供电电源采用静止整流电源,也可采用直流发电机电源。

7. 当电动机采用静止整流电源时,整流器的脉波数应不小于6,在额定基速、额定电压和额定负荷电流下,峰值纹波因素不超过10%。

Features and Uses

1. The performance, outline dimensions and technical specifications of the motors conform to the standard of our country (GB) and International Electric Committee (IEC), while the mechanic dimensions tolerance of the motors conform to the standard of International Standard Organization(ISO).

2. It is allowed to install this series motors in the environment with worse working conditions. However propercooling and protection type should be chosen to keep the cleanliness of the motors.

3. The cooling air should not contain acid or alkali material, which is harmful to the insulation and commutating performance of the motors.

4. In case the motors will be applied to marines, tropical and humid areas, or the areas with salt and humid air, please notify before signing contracts.

5. The motors can reach its rated power under the working condition of less than 1000M sea level height and 40℃ ambient temperature.

6. The power source for the motors can be provided by static rectified source or DC generator.

7. In case the motor is powered by static rectified source the number of pulse wave should not be less than 6, the peak ripple wave factor not be over 10% under the rated speed, V-oltage and load current.

容量选择

第一类直流电动机(A类)

这类电动机的详细数据见数据表,用户可以根据所需的容量、转速和电压等选定电机的型号和规格。

第二类直流电动机(B类)

这类电动机的额定输出功率比相同中心高、相同底脚轴向长度的A类电动机要略为下降,其他数据基本相同。若已知B类电机规格,可用A类规格表初步选型B类电机,初选时B类电动机的额定功率应放大25%左右,然后按放大后的功率在A类规格表中选取相应的型号规格,但对应的中A需改为B,对应的功率仍为未放大时的功率(即B类电机的原功率)。最终型号规格可

Capacity choosing

Class A: DC motors

Please refer to the technical data list, Customers can choose motor type and specifications according to the required capacity, rotating speed, voltage and etc.

Class B: DC motors

Except the rated output of the motors. Which is lower than that of class A motors with same shaft height and foot axial length, the other technical data are basically the same as those of class A motors. Should the specification of class B motor be given, one can use the specification list for class A motors to choose the preliminary Type of class B. First of all, the rated power of class B motor shall be enlarged by 25%, according to which a corresponding type and specification list for class A. The A in the symbol of the selected type, however, shall be replaced with B and the

型号说明

Type description

Z XXX--X X

产品系列代号Z系列直流电动机
Code for product series
Z series DC electric machines

电机中心高, 以毫米表示
Shaft center height of motors in mm

电机类别代号, 用字母A、B分别代表第一类和第二类电机。

Code no for the motors' classification, letter 'A' refers to the first type motors and 'B' refers to the second type motors

底脚孔轴间距离代号(B尺寸), 由短至长用数字1、2、3、……表示。

Code no for the distance between the anchor bolt (B dimension) expressed in ordinal Arabic numbers distance from short to long.

d. 本系列电动机的防护等级和冷却方法见下表:

Following list shows the protection and cooling types of this series motors:

冷却方法 Cooling type	IC06 带鼓风机 with blower	IC17 半管道通风 duct ventilation at one end	IC37 管道通风 duct ventilation at both end	ICW37A86 带背包式冷却器 (空-水冷却) with top mounted cooler (water to air)
图示 Diagram				
防护等级 Protection grade	IP23防滴型 能防止直径大于12毫米的固体异物和与垂直线成80°角的滴水进入电机 drip proof Preventing any solid foreign matter with more than 12 mm dia. and drip within an angle of 60 degrees with right angle from dropping into the motors	IP44防溅型 能防止直径大于1毫米的固体异物和任何方向的溅水进入电机 splash proof Preventing any solid foreign matter with more than 1 mm dia. and drip of any directions from dropping into the motors		

结构特征

a. 本系列电动机的机座采用薄板多边形叠片结构, 具有体积小, 重量轻等优点。适用于可控硅整流电源, 在负载电流的迅速变化下, 电动机有良好的换向性能。整个定子和转子采用无溶剂漆真空压力浸漆处理(VPI), 使绕组具有良好的抗潮能力和机械强度, 并且绝缘和导热性能良好。电枢铁芯由硅钢片叠装而成, 具有良好的导磁性能。本系列电动机全部采用滚动轴承, 不停机加油结构。本系列电动机的绝缘等级为H级。

b. 本系列电动机的安装型式符合GB997和IEC34-7《电机结构及安装型式代号》。

标准IM1001
Standard IM1001



可派生IM 1002
Derivation IM 1002



Structure character

a. As the frame is of angular thin steel laminations structure, the motor is small in volume, light in weight and can be powered by silicon controlled rectified source. Meanwhile it has good commutating performance in case sudden change of load current occurs. Insulation treatment of VPI applied on the integral stator and rotor makes the windings good in anti-humidity performance, mechanical strength and insulation thermal conductivity. The armature core made up with silicon steel laminations has good magnetic conductivity. Rolling bearings with operating oiling construction are adopted. The motor insulation is class H.

b. The mounting of the motors conform to Symbols for Types of Construction and Mounting Arrangements of Rotating Electrical Machinery specified in GB 997 and IEC 34-7.

端盖式轴承, 底脚安装, 圆柱形单轴伸
bracket bearing, foot mounting with one cylindric shaft extension.

端盖式轴承, 底脚安装, 圆柱形双轴伸
bracket bearing, foot mounting with two cylindric shaft extension.

c. 本系列电动机的防护等级根据GB4942.1和IEC34-5《电机外壳防护分级》标准, 外壳防护等级有IP23和IP44两种。电动机冷却方法根据GB1993和IEC34-6《电机冷却方法》标准有IC06、IC17、IC37和ICW37A86四种。用户如需其他防护等级和冷却方法可另行协商。本系列电动机标准型式的冷却空气入口在电机的传动端(非换向器端)。

c. IP 23 and IP44 is adopted for the motors protection of this series, which conform to the standard of Classification of Degrees of Protection Provided by Enclosures for Rotating Machines specified in GB 4942-1 and IEC 34-5. IC06, IC17, IC37 and ICW37A86 is adopted for the cooling of this series motors, which conform to the standard of Methods of Cooling Rotating Machinery specified in GB 1993 and IEC34-6. Other types of protection and cooling required by customers can be negotiated. The standard cooling air

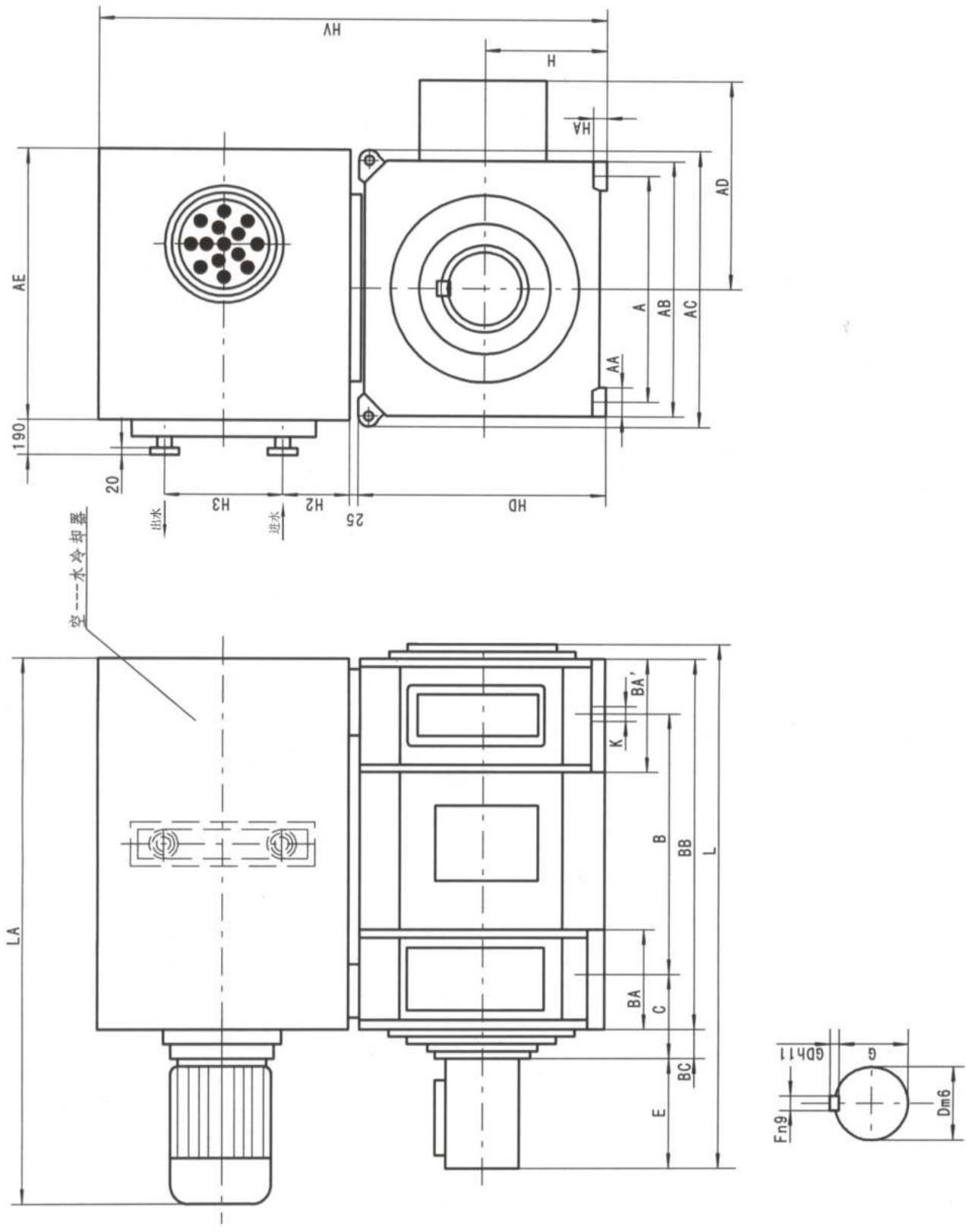
电机性能

1. 本系列电动机的定额为连续工作方式(S1)。
2. 本系列电动机的标准额定电压有220V、330V、440V、550V、660V、750V、六种, 也可派生出其他等级的电压, 需在订货时商定。
3. 本系列电动机的基本励磁方式为他励, 励磁绕组有四个引线端子, 分为两组, 其他励磁电压等级可在订货时商定。
4. 本系列电动机的短时过载能力:
第一类直流电动机(A类)能过载下载所规定的短时(一分钟)过载:

Electrical Performance

1. Continuous working system(S1) is applied.
2. The standard rated voltage of this series motors are 220V, 330V, 440V, 550V and 660V. The voltage beyond above scope can be negotiated when placing orders.
3. Separate excitation is the basic excitation type of this series motors. Four terminals of the excitation winding are divided into two groups. In case the two groups are in series or parallel connection. The excitation voltage is 220V or 110V respectively. Excitation voltage beyond the scope can be negotiated.
4. Forced excitation is allowed with the voltage of less than 500V. During forced excitation, the transient excitation current can exceed the rated excitation current slightly until the excitation current gets stabilized.
4. short time overload capability:
The DC motor (class A) can sustain the short time (1 min) overload specified in the following list:

基速的百分数 Percent of the basic speed	额定电流的百分数 Percent of the rated current	
	偶尔使用 Occasionally used	经常使用 Often used
100	200(180*)	175(160*)
200	160	150
300以上	140	125



技术数据表

Technical data

Z710-3A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定 电流 Rated current	效率 Effi- ciency	最大 转速 Max. Speed	励磁 功率 Excita- tion Power	转动 惯量 Moment Of Inertial	通风 Ventilation	
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa					
	440V	550V	660V	750V									
01	180	235	285	325	487	1230	88.6	540	8.7	350	7.0	1150	
					630	1233	89.5	700	8.7	350	7.0	1150	
					755	1236	91.6	855	8.7	350	7.0	1150	
					850	1215	92.0	900	8.7	350	7.0	1150	
02	225	300	355	400	634	1576	90.3	675	8.7	350	7.0	1150	
					815	1590	91.4	780	8.7	350	7.0	1150	
					977	1586	92.6	900	8.7	350	7.0	1150	
					1150	1648	93.1	1000	8.7	350	7.0	1150	
03	280	355	430		808	2008	90.6	840	8.7	350	7.0	1150	
					1025	2004	92.1	840	8.7	350	7.0	1150	
					1231	1986	93.3	860	8.7	350	7.0	1150	
04													
05													
06													

* 电机效率包括励磁功率

efficiency including excitation loss

技术数据表

Technical data

Z710-4A

编号 series number	额定电压U _n 下的转速 Rotating speed under the voltage below rated voltage U _n r/min					功率 Output	额定 电流 Rated current	效率 Effi- ciency	最大 转速 Max. Speed	励磁 功率 Excita- tion Power	转动 惯量 Moment Of Inertial	通风 Ventilation	
	P _n kW	I _a A	η %	n _{max} r/min	P _f kW	J kg.m ²	Q M ³ /s	H Pa					
	440V	550V	660V	750V									
01	145	190	230	260	482	1229	87.6	435	9.6	390	7.5	1350	
					625	1235	90.2	570	9.6	390	7.5	1350	
					750	1236	90.9	690	9.6	390	7.5	1350	
					850	1220	91.2	700	9.6	390	7.5	1350	
02	185	235	285	325	629	1580	89.3	555	9.6	390	7.5	1350	
					800	1565	91.3	580	9.6	390	7.5	1350	
					972	1585	92.1	600	9.6	390	7.5	1350	
					1150	1640	93.3	650	9.6	390	7.5	1350	
03	225	300	360		798	1978	90.7	675	9.6	390	7.5	1350	
					1050	2032	92.5	720	9.6	390	7.5	1350	
					1237	2001	93.0	800	9.6	390	7.5	1350	
04													
05													
06													

* 电机效率包括励磁功率

efficiency including excitation loss