

ZZJ-802~ZZJ-824 SERIES

D-C MOTOR

ZZJ-802~ZZJ-824 SERIES DC MOTORS



DESCRIPTION

The specifications, performances and outline installation dimensions of ZZJ-800 series mill auxiliary DC motors.

Conform to the "Technical Specifications for DC motors Applied to Lifting & Metallurgical Auxiliaries" specified in the standard of IEC34-13 and "Specifications for Mill Auxiliary DC Motors" specified in the standard of GB5227-85, while the mechanical tolerances of all motor components conform to the standard of ISO. The motors of this series can Interchange the motors of 800 series produced by foreign Companies.

Reversible rotation of the motor is permitted. The motors have good overload characteristic and are suitable for mechanic driving which requires frequent starting such as auxiliary driving devices of mills, craned, excavators and so on.

WORKING CONDITIONS

1. The motors of this series can be applied under foolowing circumstances ambient temperature:-30℃~+40℃ sea level:less than 1000m.
2. Static rectified power or power generated from DC generator can be adopted for motors' power source.

PERFORMANCES

1. The motors are of class F Insulation.
2. There are two voltage ratings, 220V and 440V.However other voltage ratings could be derived upon customers' requirements.
3. Four excitation types are adopted for the motors.
They are: series excitation, compound excitation, shunt excitation and separate exhortation.
The normal excitation winding voltage of separate excitation is 220V, while 110V is also possible depending on requirement.
The series to shunt excitation is about 50% under outside ventilation, continuous rating(S1) and totally enclosed short time rating(S2 60 minutes).
4. The motors of 802818 frame size and 220 rated oltage can be operated at or Below 500V, while the motors of 820-824 frame size and 220V rated voltage can be operated at or below 440V.
5. The rotating speed of the motors of 220V rated voltage can be neasured to 2 times of the rated value by raising the outside applying voltage.
6. The motors of this series are permitted to operate at max. torque specified in the No.1 list within 15 seconds.

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STRUCTURE FEATURES

Adopting round integral frames and Integral pieces of commutating plates and risers, the motors are sturdy in structure. As the metal-alloy is applied to the rotor shaft, the motors can sustain frequent impulse and vibration. Meanwhile, the stator cores of the motor laminated with high-quality steel plates are suitable for silicon rectified source power and the armature cores laminated with cold-milled silicon steel sheets have good performance of permeability.

In addition, the motors have good insulation performance, electric performance and mechanical strength, as the magnetic poles of the stators and armatures are treated with solventless varnish under vacuum pressure(VPI) and the commutating plates are welded with armature coils by TIG welding.

The motors of frames size 810-824 with compensating windings and shunt or separate excitation have good commutating performance and overload capabilities in case sudden change of load current occurs.

Conical shaft extensions with conicity of 1:10 are adopted for the motors of this series. Shaft extension keys, stopper washers and nuts are also provided.

Rolling bearing with operating oiling construction is adopted.

STRUCTURE FEATURES

1. Following three types of working System are adopted for the motors of this Series:

outside ventilation continuous working system(S1)

totally enclosed short time working system(S2-30min.),(S2-60min)

totally enclosed periodic working system(S3-30%)

2. Two protection types of Ip23 and Ip44 are adopted for the motors.

3. The motors of this series have three cooling types.

They are IC06(with blower),IC37(duct ventilation at both ends) and IC0040(enclosed frame cooling)

4. Two installation types of IM1004(horizontal foot mounting with bracket bearing and conical double shaft extension) and IM1003(horizontal foot mounting with bracket bearing and conical single shaft extension) are adopted.

Other types of working system, protection, cooling and Installation could be designed and manufactured upon customers' request.

ACCESSORIES AND SPARE PARTS

Techo-generator, space heater, temperature relay and other accessories can be supplied upon customers requirements.

Spare parts(brushes and brush holders) can be supplied with the motor, as long as they are noted in the contract according to customers' requirements.

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STANDARDIZED MOTOR RATINGS

Table 1

Frame Size	Continuous rated(S1),ventilated or duty type(S2)60 min,totally-enclosed						Duty type S2 30min. Totallyen-closed. Series-wound		Duty type (S3)-30%,totally-enclosed						
	Output (kW)	Speed or rated voltage (r/min)				Motor of adjustable speed byshunt or separele excitaion control(With high field)	Output (kW)	Speed at rated voltage (r/min)	Series		Compound		Shunt		
		Series	Compound	Shunt Separate	220V				440V	Output (kW)	Speed (r/min)	Output (kW)	Speed (r/min)	Output (kW)	Speed (r/min)
802A	3.75	900	1025	1025	1025/250	1025/2050	5	750	4.1	840	3.75	1080	3.75	1130	
802B	5.6	800	900	900	900/1800	900/1800	7.5	675	6	780	5.6	950	5.6	1000	
802C	7.5	800	900	900	900/1800	900/1800	10	675	7.5	800	7.1	940	6.7	1000	
803	11.2	725	800	800	800/2000	800/1600	14.1	620	11.2	725	10.8	840	10.5	880	
804	15	650	725	725	725/1800	725/1450	19.5	580	15	650	13.8	775	12.7	800	
806	22.4	575	650	650	650/1950	650/1300	29	500	22.4	575	21.2	690	18.6	715	
808	37.3	525	575	575	575/1725	575/1150	48.5	450	30	570	28	625	26	630	
810	52	500	550	550	500/1650	550/1100	67	440	45	550	39	615	33.5	600	
812	75	475	515	515	515/1330	515/1050	100	420	63.5	525	56	580	45	565	
814	112	460	500	500	500/1250	500/1000	149	400	86	515	82	565	63.5	560	
816	150	450	480	480	480/1200	180/960	200	400	112	500	104	540	82	535	
818	186	410	435	435	435/1100	435/870	243	360	138	485	123	490	97	470	
820	280	370	390	390	390/975										
822	370	340	360	360	360/900										
824	50	320	340	340	340/850										

Table 2

Require ments for continuous rated. ventilated (m³ /s)	Maximum satarting torque N. m			Maximum running torque N. m			Momenl of inertial J Kg. m²	Maximum safe operatin g speed r/min	Weight kg
	Series	Compound	Shunt	Series	Compound	Shunt			
0.052	198	157	126	158	123	102	0.125	3600	245
0.052	330	270	216	268	210	177	0.188	3600	260
0.076	450	360	237	360	280	220	0.188	3600	260
0.094	740	610	400	600	470	360	0.45	3300	390
0.12	1100	880	590	880	685	530	0.75	3000	550
0.16	1870	1500	980	1490	1170	880	1.4	2600	770
0.2	3400	2800	1860	2700	2150	1650	2.15	2300	1200
0.25	5000	4000	2700	4000	3100	2450	3.15	2200	1400
0.35	7450	6250	4150	6000	1900	3750	5.75	1900	1700
0.42	11600	9600	6400	9300	7500	5800	9.75	1700	2300
0.57	16000	13300	8900	12600	10400	8000	14.5	1600	2785
0.75	21700	18400	12300	17400	14400	11000	22	1500	3700
1.7	36100	30850	20570	28900	24000	18500	52.5	1300	4800
2.1	51960	44160	29440	41570	34350	26500	92.5	1200	6300
2.6	74600	63200	42100	59700	49100	37900	160	1100	8200

Note:

1. Frame size 802 is assigned three ratings. Mountiong dimensions are identical for each rating; but electrical designs are different.
2. Frame Sizes 820,822 and 824 are of trial production model.
3. A light series field may be used to obtain these speed ranges for the speed-adjustable motors.
4. voltage of 220V or 440V will be available for any of the motors, but volgage for separate and shunt fields is rated at 220V. Intermittent periodic duty(S3) refers to 5 min. duration consisting of 1.5 min. loading and 3.5 min. deunenergizing with separate or shunt field remaining energized.
5. Totally enclosed motors used for one-hour or 30 min. short periode duty(S2) shall have all of their windings switched off when the motor load disappears.
6. The max. safe speed refers to that at which the motor can operate safely in mechanical respect.

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TABLE OF INSTALLATION DIMENSION

Table 3

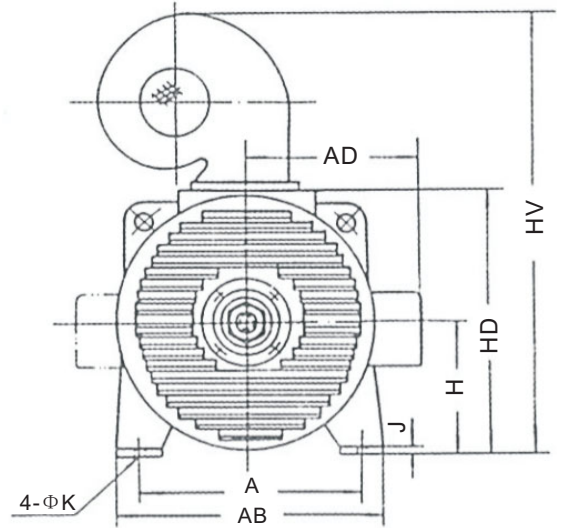
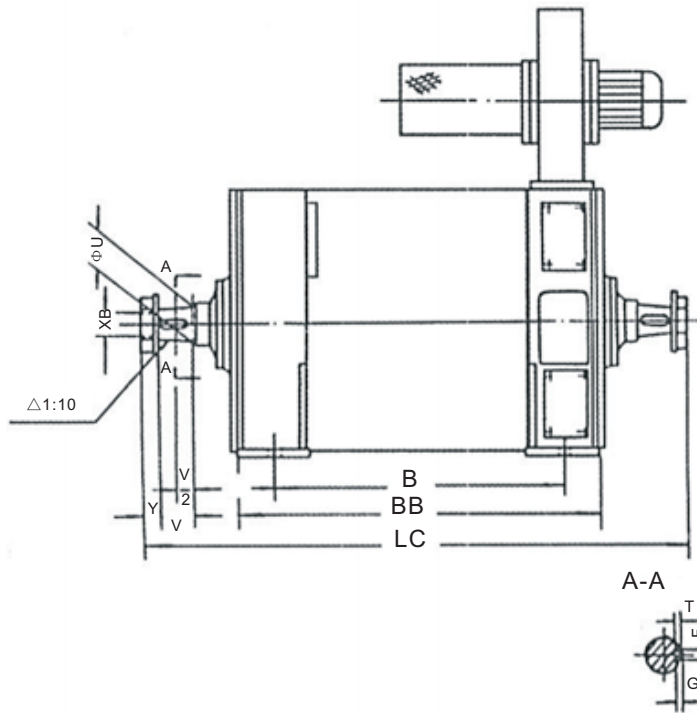
Type	Main dim				Foot dim						Shaft extension dim						Ventilatro flange dim					Terminal box dim		
	H	LC	C	HD	A	B	AB	BB	K	J	U	V	Y	XE	GD	F	T	VB	VC	VD	VE	VF	VG	AD
ZZJ-802	193.5	831	96	400	318	419	381	521	22	20	45	82	28	M30x2	8	12	5	22	10	10	184	121	56	320
ZZJ-803	215.8	932	127.5	444	356	457	432	597	22	20	50	82	28	M36X3	8	12	5	44	13	10	216	127	83	335
ZZJ-804	228.5	983	140	470	381	483	457	648	22	20	50	82	28	M36X3	8	12	5	57	13	10	229	140	70	355
ZZJ-806	254	1073	130	521	419	533	508	698	26	25	65	105	35	M42X3	10	16	6	54	13	19	260	152	86	385
ZZJ-808	285.5	1200	145.5	584	476	629	578	794	33	35	75	105	35	M48X3	11	18	7	51	13	19	292	165	89	425
ZZJ-810	311	1274	177	635	521	660	622	826	33	35	85	90	40	M56X4	12	20	7.5	54	13	19	305	178	92	460
ZZJ-812	339.5	1388	202	692	572	724	686	914	33	35	95	90	40	M64X4	14	22	9	65	163	19	349	210	124	495
ZZJ-814	974.5	1538	197.5	762	635	813	762	1054	39	35	110	120	45	M80X4	14	25	9	86	16	19	387	235	140	535
ZZJ-816	406.2	1703	242	829	686	889	826	1187	39	40	120	120	45	M90X4	16	28	10	114	25	19	406	279	168	580
ZZJ-818	450.8	1795	212	918	7623	991	914	1264	45	45	130	150	40	M100X4	16	28	10	98	25	19	457	305	181	625
ZZJ-820	530.2	1980	230	1076	916	1120	1055	1320	52	50	150	150	50	M110X4	18	32	11	95	25	22	558	195	180	745
ZZJ-822	584.2	2192	201	1184	1016	1310	1155	1575	52	50	160	180	60	M125X4	20	36	12	95	25	22	775	202	185	810
ZZJ-824	609.5	2444	272	1235	1070	1420	1205	1728	52	50	180	180	60	M145X6	22	40	13	95	25	22	812	240	220	870

Table 4

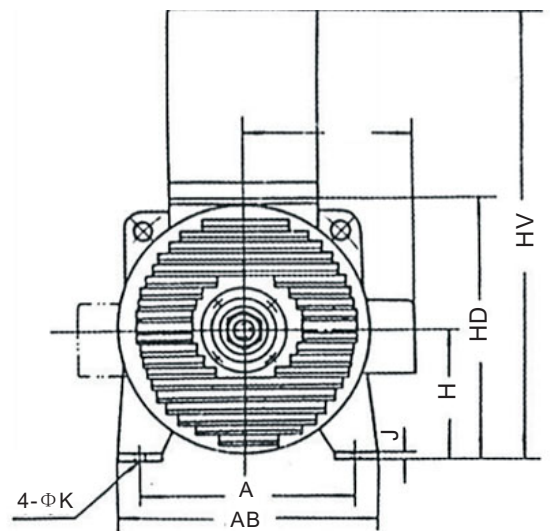
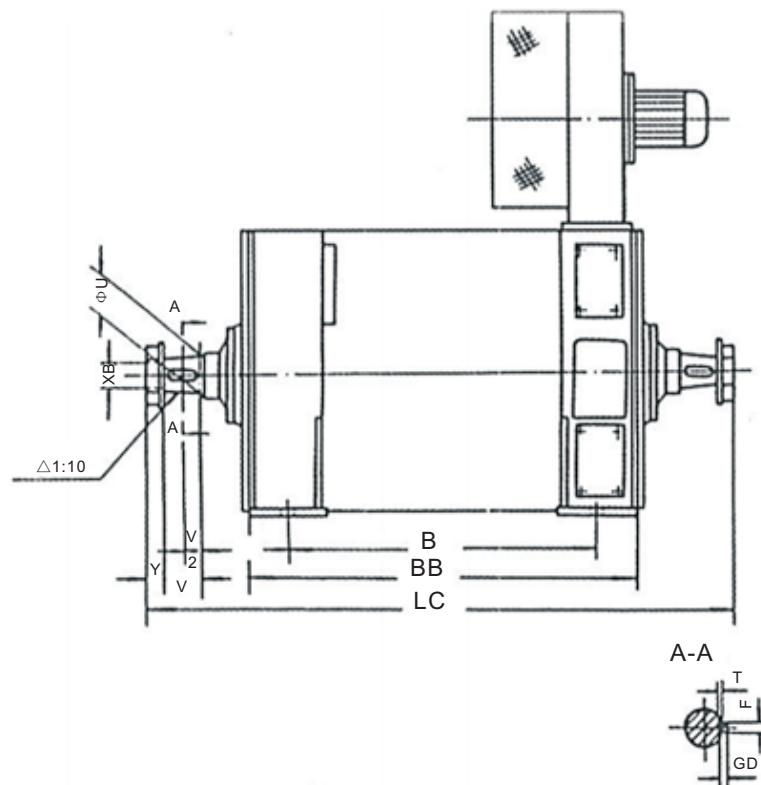
Type	Main dim				Foot dim						Shaft extension dim						Shaft extension dim	Terminal box dim	
	H	LC	C	HD	A	B	AB	BB	K	J	U	V	Y	XE	GD	F	T	HV	AD
ZZJ-802	193.5	831	96	400	318	419	381	521	22	20	45	82	28	M30x2	8	12	5	690	320
ZZJ-803	215.8	932	127.5	444	356	457	432	597	22	20	50	82	28	M36X3	8	12	5	740	335
ZZJ-804	228.5	983	140	470	381	483	457	648	22	20	50	82	28	M36X3	8	12	5	760	355
ZZJ-806	254	1073	130	521	419	533	508	698	26	25	65	105	35	M42X3	10	16	6	810	385
ZZJ-808	285.5	1200	145.5	584	476	629	578	794	33	35	75	105	35	M48X3	11	18	7	940	425
ZZJ-810	311	1274	177	635	521	660	622	826	33	35	85	90	40	M56X4	12	20	7.5	990	460
ZZJ-812	339.5	1388	202	692	572	724	686	914	33	35	95	90	40	M64X4	14	22	9	1050	495
ZZJ-814	974.5	1538	197.5	762	635	813	762	1054	39	35	110	120	45	M80X4	14	25	9	1120	535
ZZJ-816	406.2	1703	242	829	686	889	826	1187	39	40	120	120	45	M90X4	16	28	10	1260	580
ZZJ-818	450.8	1795	212	918	7623	991	914	1264	45	45	130	150	40	M100X4	16	28	10	1350	625
ZZJ-820	530.2	1980	230	1076	916	1120	1055	1320	52	50	150	150	50	M110X4	18	32	11	1890	745
ZZJ-822	584.2	2192	201	1184	1016	1310	1155	1575	52	50	160	180	60	M125X4	20	36	12	2000	810
ZZJ-824	609.5	2444	272	1235	1070	1420	1205	1728	52	50	180	180	60	M145X6	22	40	13	2130	870

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TABLE OF INSTALLATION DIMENSION



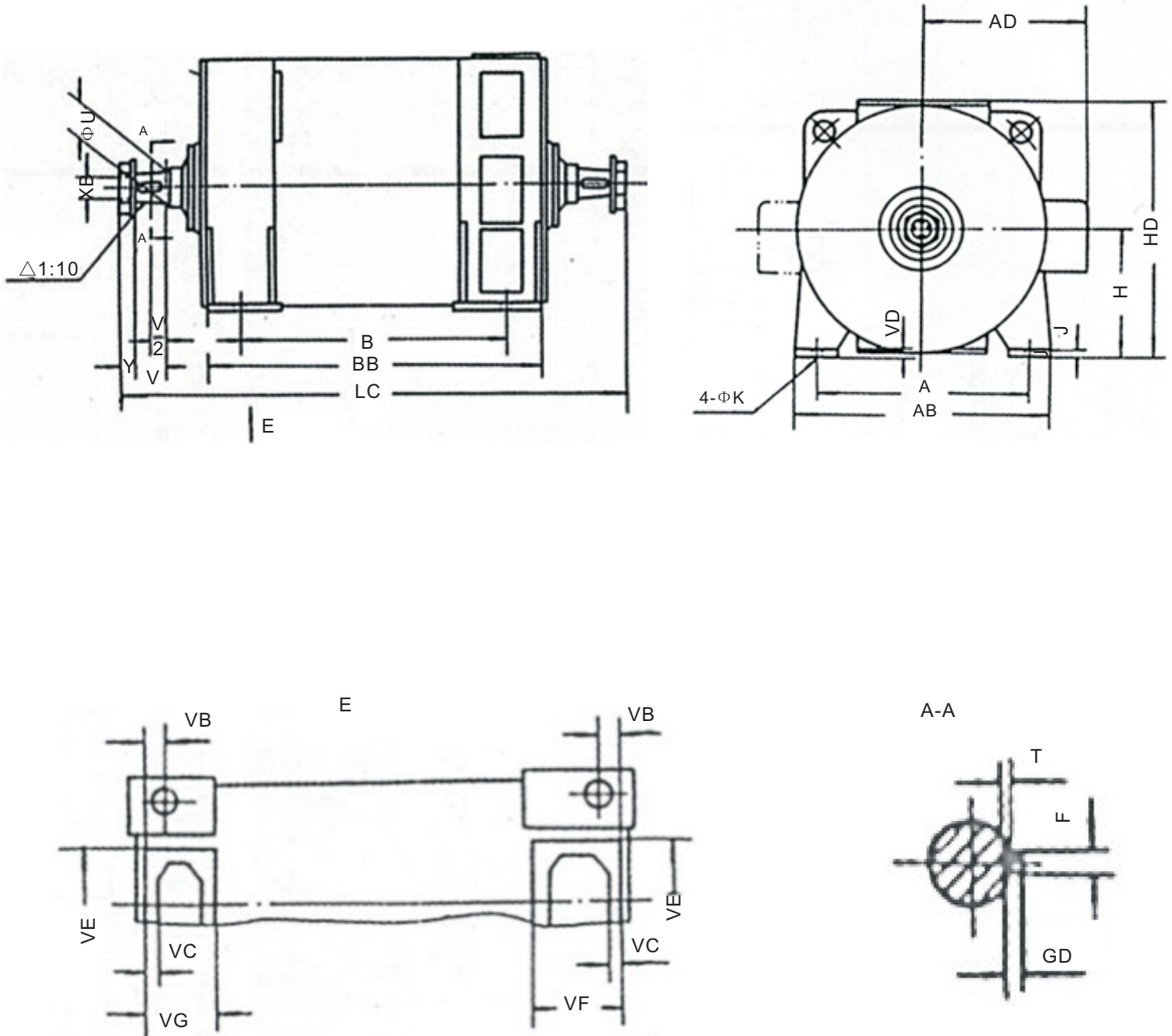
ZZJ802-818 IC06,IP23
Mill Auxiliary DC Motors



ZZJ820-824 IC06,IP23
Mill Auxiliary DC Motors

ZZJ-802~ZZJ-824 SERIES DC MOTORS

TABLE OF INSTALLATION DIMENSION



ZZJ802-824 IC0040,IC37,IP44
Mill Auxiliary DC Motors

M&C[®]
ELECTRIC POWER

CHINA ELECTRIC MOTOR ASSOCIATION
GUANGDONG M&C ELECTRIC POWER CO.,LTD

Add:3/f Dizhi Building No.739 Dongfeng Rd.E Guangzhou China

Tel.: 0086-20-89660216

Fax.: 0086-20-89660219

P.C.: 510080

E-mail: mc@china-electricmotor.com

Website: <http://www.china-electricmotor.com>