

ZBL4 Series DC Motors



- Frame size: 112~180
- Duty cycle: S1
- Rated voltage: 160V-440V
- Excitation method: separate excitation
- Rotation speed: 3000, 1500, 1000, 750r/m
- Rated power: 1.1 to 15kW
- Insulation class: F
- Degree of protection: IP44

Application: ZBL4 mainly used in harsh environment for mechanical transmission.

Features: Steady and good speed regulation system which has wide speed range; reduce speed by lowering the voltage with constant torque or raise speed by reducing exciting field current with constant power; large output power; great overload capacity; protection grade IP44 or above, cooling method IC410; step less speed regulation.

Designation of Type



- 1、The protection degree and mounting type.
 - a. Protection degree IP44 or IP54.
 - b. Frame with feet, and the installation type are IMB3、IMB35、IMB5、IMV1、IMV15.
- 2、Terminal box is at the top of the frame from the view of DE
- 3、Cooling method
Totally enclosed, cooling method are IC410, IC410 motor can reach stepless speed regulation from min speed 20r/min (constant torque) to max speed (constant output power)

Performance Data

Type	Rated Output POW	Rated Speed			Speed with Weakened Field	Arm. Current	Field POW	Eff.	Moment of Inertia GD ²	Weight
		160V	400V	440V						
	kW	r/min			r/min	A	W	%	kg·m ²	kg
ZBL4-112/2-3	3	2970			3500	24	380	69.1	0.112	105
	2.8		2680		3500	9.1		71.2		
	3			2950	3500	8.6		72.8		
	1.1	980			2000	9.3		66.8		
ZBL4-112/2-4	2.2	1510			3000	19.6	430	62.1	0.124	111
	2		1310		3000	6.6		68.4		
	2.2			1480	3000	6.5		70.6		
	1.5	1000			2000	13.3		58.5		
	1.4		860		2000	5.1		60.3		
	1.5			990	2000	4.77		63.2		
	1.1	750			1500	8.9		66.8		
ZBL4-132-2	4	2980			3500	31.3	730	72.6	0.4	149
	3.7		2680		3500	11.7		74.1		
	4			2950	3500	11.2		76		
	3	1450			3000	24.8		66.8		
	2.6		1320		3000	9		65.1		
	3			1500	3000	9.1		67.3		
	2.2	955			2000	17.9		67.8		
	1.9		855		2000	6.3		68.4		
	2.2			965	2000	6.5		70.6		
	1.5	750			1500	13.3		58.5		
	1.4		670		1500	5.1		60.3		
	1.5			750	1500	4.77		63.2		
ZBL4-132-3	5.5	2940			3500	42.5	800	73	0.48	168
	5		2660		3500	15.7		74.3		
	5.5			2980	3500	15.4		75.7		
	4	1480			3000	33.7		64.9		
	3.7		1320		3000	13		65.2		
	4			1500	3000	12.2		68.7		
	3	980			2000	24.8		66.8		
	2.6		895		2000	9		65.1		
	3			1010	2000	9.1		67.3		
	2.2	740			1500	19.6		62.1		
	1.9		670		1500	6.9		61.1		
	2.2			750	1500	7.1		63.5		
ZBL4-160-31	6.7		2660		3500	20.6	1050	76.8	0.88	250
	7.5			2980	3500	20.6		78.4		
	5.5	1520			3000	42.5		73		
	5		1340		3000	16.1		71.1		
	5.5			1480	3000	15.7		71.9		
	4	975			2000	31.3		72.6		
	3.7		895		2000	11.7		74.1		

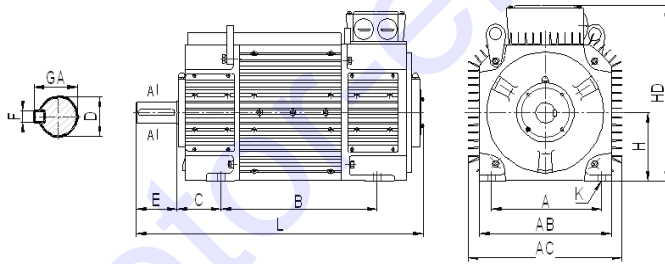
Performance Data

Type	Rated Output POW	Rated Speed			Speed with Weakened Field	Arm. Current	Field POW	Eff.	Moment of Inertia GD^2	Weight
		160V	400V	440V						
	kW	r/min			r/min	A	W	%	kg·m ²	kg
ZBL4-160-31	4			1010	2000	11.2	1050	76	0.88	250
	3	745			1500	24.8		66.8		
	2.6		675		1500	9		65.1		
	3			750	1500	9.1		67.3		
ZBL4-180-21	10		2680		3500	29	1400	82.7	1.72	322
	11			2950	3500	28.8		83.3		
	6.7		1330		3000	20.6		76.8		
	7.5			1480	3000	20.6		78.4		
	5.5	1020			2000	42.5		73		
	5		955		2000	15.7		74.3		
	5.5			1025	2000	15.4		75.7		
	4	750			1500	33.7		64.9		
	3.7		670		1500	13		65.2		
	4			750	1500	12.2		68.7		
ZBL4-180-31	13		2740		3500	37	1500	84.4	1.92	350
	15			3010	3500	38.6		85.4		
ZBL4-180-41	10		1330		2500	29	1700	82.7	2.2	378
	11			1480	2500	28.8		83.3		
	7		865		1600	20.4		82.4		
	7.5			975	1600	19.7		83.5		
	5.5	750			1500	42.5		73		
	5		670		1500	15.7		74.3		
	5.5			750	1500	15.4		75.7		
ZBL4-180-51	7		670		1500	20.6	1950	76.8	2.5	405
	7.5			750	1500	20.6		78.4		

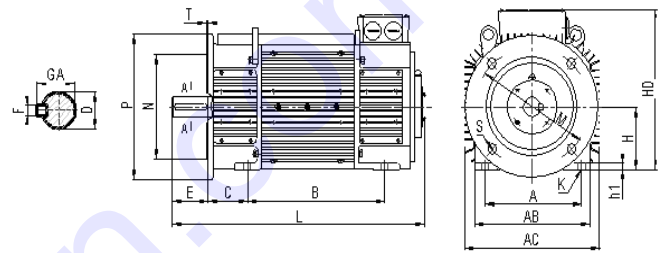
Note: When start-up, the excitation voltage of the motor must be raised to rated value before connected to armature loop; when stop, cut off the armature circuit and magnetic field circuit successively, which will avoid over speed caused by weakening magnetic field.

Dimensions

mm



Horizontal and Foot mounted



Horizontal and Foot mounted with flange

1. Horizontal and Foot mounted

Type	Mounting Dimensions									Outline Dimensions			
	A	B	C	D	E	F	GA	H	K	AB	AC	HD	L
ZBL4-112/2-3	190	407.5	70	28	60	8	31	112	12	225	290	375	625
ZBL4-112/2-4		477.5											695
ZBL4-132-2	216	405	89	38	80	10	41	132	12	260	325	415	690
ZBL4-132-3		465											740
ZBL4-160-31	254	501	108	48	110	14	51.5	160	15	320	385	520	845
ZBL4-180-21	279	476	121	55	110	16	59	180	15	356	420	560	845
ZBL4-180-31		526											895
ZBL4-180-41		586											955
ZBL4-180-51		656											1025

2. Horizontal and Foot mounted with flange

Type	Mounting Dimensions														Outline Dimensions					
	A	B	C	D	E	F	GA	H	K	M	N	S	Holes	T	P	AB	AC	HD	L	h1
ZBL4-112/2-3	190	407.5	70	28	60	8	31	112	12	215	180	15	4	4	250	225	290	375	625	10
ZBL4-112/2-4		477.5																	695	
ZBL4-132-2	216	405	89	38	80	10	41	132	12	265	230	15	4	4	300	260	325	415	690	12
ZBL4-132-3		465																	740	
ZBL4-160-31	254	501	108	48	110	14	51.5	160	15	300	250	19	4	5	350	320	385	520	845	14
ZBL4-180-21	279	476	121	55	110	16	59	180	15	350	300	19	4	5	400	356	420	560	845	16
ZBL4-180-31		526																	895	
ZBL4-180-41		586																	955	
ZBL4-180-51		656																	1025	

Dimensions here are indicative only. Actual product may differ. Data above may be changed without prior notice.

❖ Order Description

1. Specify the motor type, power, voltage, rotation speed, exciting voltage, cooling method, shaft quantity, terminal box position etc.
2. Specify the auxiliary device type, specification, quantity etc.
3. If the motor on the sample book can't meet clients' requirement, various motor of other technical requirement are also available. Contact the producer directly.