

Controllable operating as desired in a blink of eyes.



Standard specifications

Item		Specification			
Motor	Voltage and frequency	LT: 220/380~415V 50Hz, 220/440V 60Hz (direct starting)			
	Enclosure construction	Totally enclosed fan cooled type			
	Degrees of protection	IP55			
	Method of cooling	IC411			
	Rating	S1 (continuous)			
	Model	Construction	Horizontal	Flange	Vertical
		Type	SF-JRB	SF-JRFB	SF-JRVB
	Frame No.	63M~132M		63M~112M	
	Output HP (kW)	4 pole	1/4(0.2)~10(7.5)		1/4(0.2)~5(3.7)
		6 pole	1/4(0.2)~7.5(5.5) (71M~132M)		1/4(0.2)~3(2.2) (71M~112M)
	Frame material	Steel plate			
	Thermal class	F			
	Terminal	6 lead wires with terminal block			
	Direction of rotation	Counterclockwise (CCW), viewed from shaft-end side			
	Circumstance conditions	Ambient temperature	-20 ~ +40 °C		
		Ambient humidity	95% RH or less		
		Altitude	1,000m above sea level or less		
Environment		No bursting/erosive gas or vapor			
Coating color	Munsell N5.5 (gray)				
Conformed standard	IEC 60034-1, JEC-2137-2000				
Brake	Damping system	Non-excited damping type (spring damping type)			
	Damping torque	2~75 N·m (150%)			
	Voltage and frequency	AC 220V 50Hz, 220V 60Hz (brake with rectifier)			
	Thermal class	F			
	Mechanical life	More than 1 million operations			
	Conformed standard	TES 1111			

Brake characteristics

Brake type	Rated damping torque (N·m)	Allowable damping equivalent (kJ/min)	Electromagnetic characteristic (20°C)		Electromagnetic stroke		Brake motor GD ² * (kg·m ²)	
			Input (W)	Current (DC A)	Initial (mm)	Adjustable limit (mm)	4 pole	6 pole
TB-2	2	2.3	23	0.19	0.15	0.4	0.0041	
TB-4	4	2.9	26	0.20	0.15	0.4	0.0063	
TB-7.5	7.5	3.2	40	0.26	0.15	0.5	0.0110	
TB-15	15	5.1	38	0.33	0.2	0.5	0.0310	
TB-22	22	7.2	43	0.37	0.2	0.5	0.0280	0.0340
TB-37	37	10.1	55	0.50	0.2	0.55	0.0590	0.0680
TB-75	132S	11.1	250/17**	2.2/0.55**	0.25	1.2	0.0960	0.1400
	132M						0.1400	0.1900

* Brake motor GD² includes motor driven shaft GD² and brake GD²

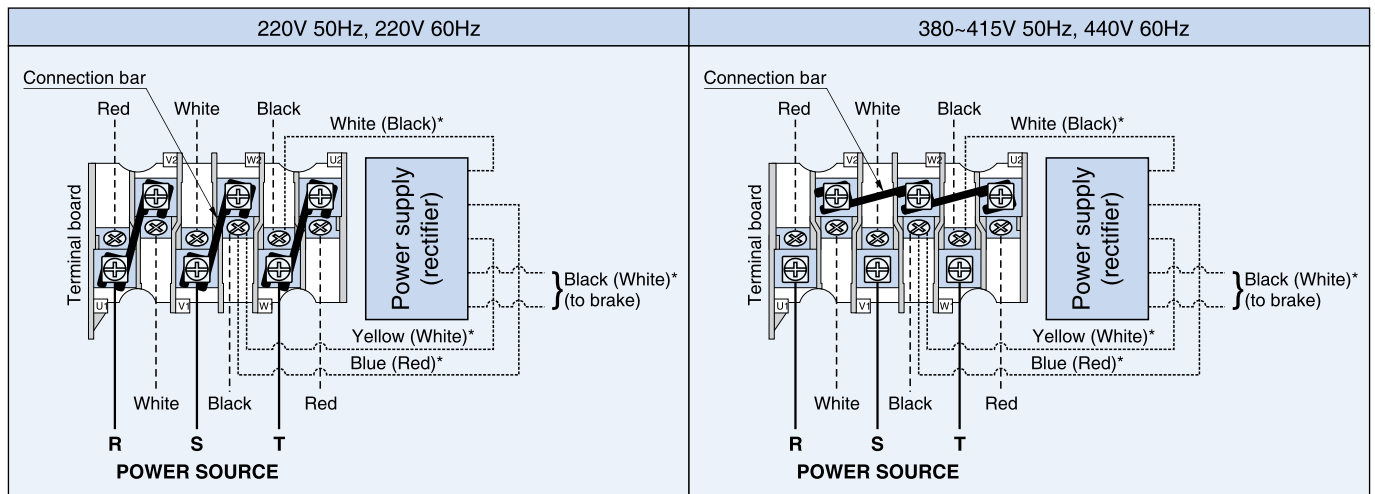
** The first number is the impulse value, the second number is at steady state

Characteristics and performance

LT (220/380~415V 50Hz, 220/440V 60Hz) SF-JRB / SF-JRFB 63M~132M SF-JRVB 63M~112M

Pole	Frame No.	Output		Brake type	Full load current (A) / Full load revolution (r/min)				
		HP	kW		220V 50Hz	380V 50Hz	415V 50Hz	220V 60Hz	440V 60Hz
4	63M	1/4	0.2	TB-2	1.11 / 1430	0.64 / 1430	0.69 / 1440	0.97 / 1730	0.61 / 1750
	71M	1/2	0.4	TB-4	2 / 1410	1.15 / 1410	1.2 / 1430	1.8 / 1700	1 / 1730
	80M	1	0.75	TB-7.5	3.3 / 1400	1.9 / 1400	1.95 / 1410	3 / 1700	1.7 / 1720
	90L	2	1.5	TB-15	5.9 / 1430	3.4 / 1430	3.4 / 1440	5.5 / 1710	3.1 / 1730
	100L	3	2.2	TB-22	8.7 / 1420	5 / 1420	4.9 / 1430	8.5 / 1710	4.6 / 1730
	112M	5	3.7	TB-37	13.7 / 1420	7.9 / 1420	7.7 / 1430	13.5 / 1710	7.2 / 1730
	132S	7.5	5.5	TB-75	20.4 / 1430	11.8 / 1430	11.1 / 1440	19.9 / 1720	10.3 / 1740
	132M	10	7.5	TB-75	27 / 1430	15.4 / 1430	14.6 / 1440	26 / 1720	13.5 / 1740
6	71M	1/4	0.2	TB-4	1.21 / 920	0.7 / 920	0.7 / 930	1.12 / 1100	0.65 / 1120
	80M	1/2	0.4	TB-7.5	2.25 / 920	1.3 / 920	1.3 / 930	2.1 / 1100	1.2 / 1110
	90L	1	0.75	TB-15	3.6 / 940	2.1 / 940	2.2 / 950	3.5 / 1130	2 / 1150
	100L	2	1.5	TB-22	6.6 / 930	3.8 / 930	3.7 / 940	6.2 / 1110	3.4 / 1120
	112M	3	2.2	TB-37	9.5 / 940	5.5 / 940	5.4 / 950	9 / 1120	5.1 / 1140
	132S	5	3.7	TB-75	15.2 / 940	8.8 / 940	8.4 / 950	14.2 / 1130	7.8 / 1150
		132M	7.5	5.5	TB-75	22 / 950	12.8 / 950	13 / 960	21 / 1140

Connection



- Motor's lead wire
- Rectifier's lead wire
- Power source's lead wire

* Color of rectifier's lead wire in () is for 132S, 132M motor.

Note: 1. Υ - Δ starting is not allowable.

2. The difference of these 2 cases of connection is only at connection bar position.

Feature and benefits

Low noise level

The noise level when braking operation is proceeded is not over 75dB

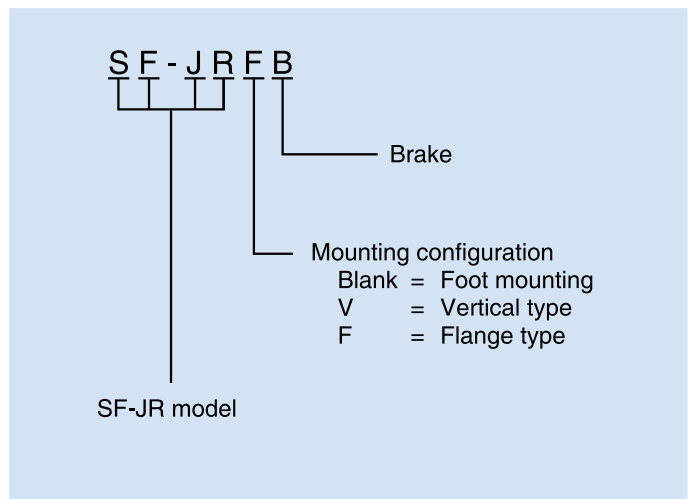
Safety brake

Brake rated damping torque is about 150% of motor rated torque, enhance braking performance

IP55 degrees of protection

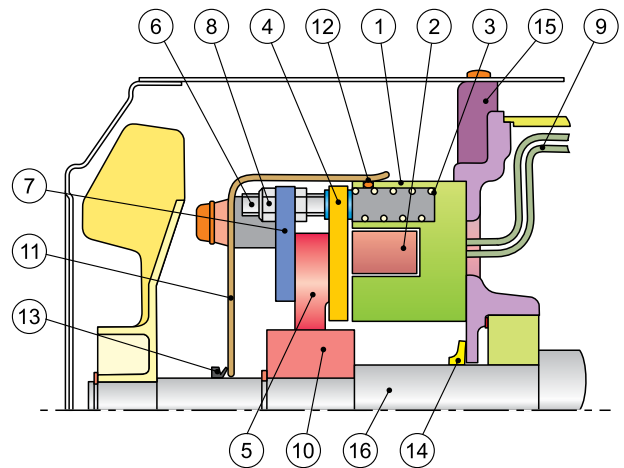
Dust and water jet proof structure of both motor and brake body is excellent for operation at outdoor or dusty site.

Significance of type designations



Brake Structure

①	Fixed core	⑨	Brake lead wire
②	Coil	⑩	Hub
③	Braking spring	⑪	Brake cover
④	Armature	⑫	O-ring
⑤	Disc (lining)	⑬	V-ring
⑥	Stopper bolt	⑭	Fringer
⑦	Brake plate	⑮	Motor bracket
⑧	Nut (for adjustment)	⑯	Motor shaft



The brake's fixed core (1) and coil (2) are relative to the armature (4) fixed with installation screws to the bracket (15) on the motor's counter-load side. Braking spring (3) is mounted on the fixed core (1). The disc (5) is installed on the motor shaft (16) via the hub (10). Stopping bolt (6) fixes the brake plate (7) with the nut (8) that is used to adjust the gap (g) between the armature (4) and fixed core (1). The brake cover (11) is fixed to the brake plate (7) with the screw to protect brake body from water. O-ring (12) between brake cover (11) and fixed core (1) prevent dripping water from seeping inside the brake. V-ring (13) and fringer (14) those rotate with shaft shake the water dripping off before seeping inside the brake and motor.

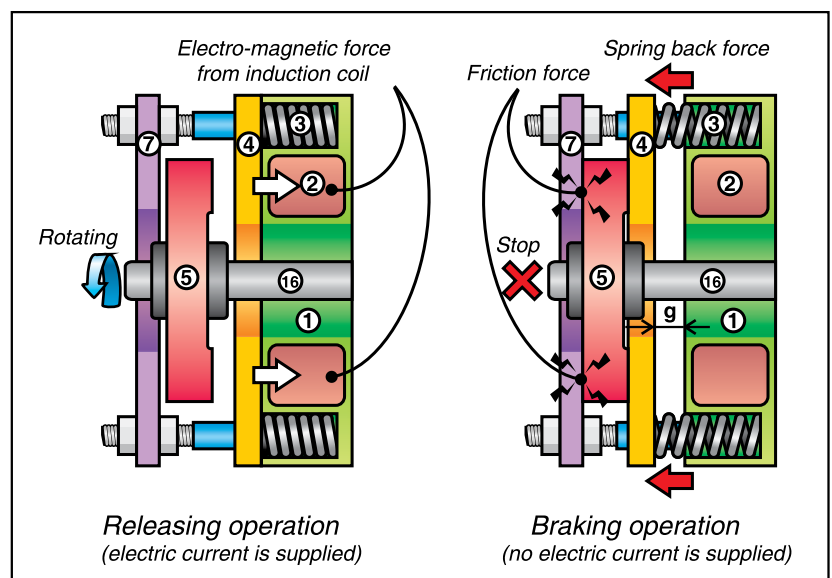
Brake operation

RELEASING OPERATION

When electric current is supplied to the coil(2), the electro-magnetic force is occurred. This effects the armature(4) overcomes pressing force of braking spring(3) so the armature(4) is attracted to the fixed core(1). The gap(g) is disappeared and a clearance is formed between the armature(4) and disc(5), freeing the disc(5) and releasing the brake. In this state, the motor shaft(16) can be rotated.

BRAKING OPERATION

When the electric current to the coil(2) is shut off, there is not electromagnetic force. The armature(4) is released and pressed back by force of braking spring(3). The armature(4) presses the disc(5) against brake plate(7) surface and braking are applied with frictional torque. In this manner, when the fixed core(1) is in the non-excited state, the brake is always applied.



SF-JRB 63M~132M

HORIZONTAL TYPE BRAKE MOTOR



SF-JRB 3HP 4P 100L

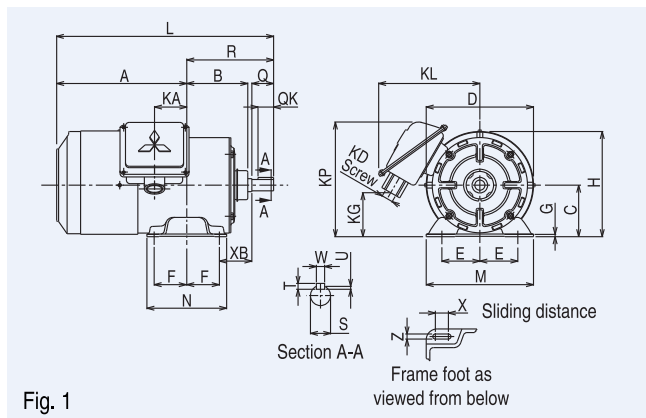


Fig. 1

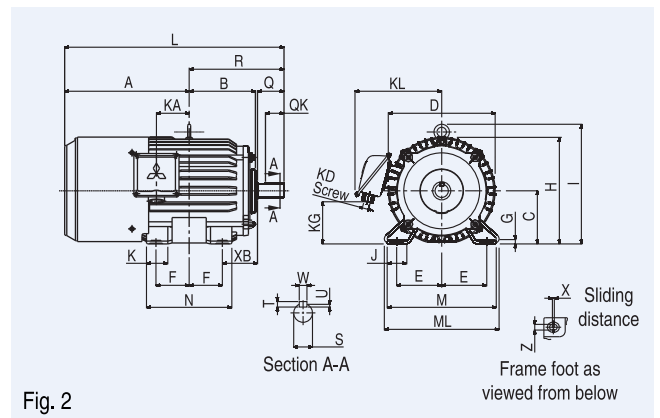


Fig. 2

Dimensions (mm)

Model	Frame No.	Output HP (kW)		Brake type	Fig.	Motor																	
		4-Pole	6-Pole			A	B	C*	D	E	F	G	H	I	J	K	L	M	ML	N	X	XB	Z
SF-JRB	63M	1/4(0.2)	-	TB-2	1	173	73.6	63	128	50	40	2.3	126.9	-	-	-	276	135	-	100	12	40	7
	71M	1/2(0.4)	1/4(0.2)	TB-4		178.5	83	71	150	56	45	3.2	145.6	-	-	-	298.5	148	-	110	18	45	7
	80M	1(0.75)	1/2(0.4)	TB-7.5		191	98	80	168	62.5	50	3.2	161.6	-	-	-	331	160	-	125	15	50	9
	90L	2(1.5)	1(0.75)	TB-15		218.5	117	90	189	70	62.5	4	182.6	-	-	-	387	175	-	150	15	56	9
	100L	3(2.2)	2(1.5)	TB-22	2	250	131	100	213	80	70	6.5	203.5	230	40	45	443	200	212	180	4	63	12
	112M	5(3.7)	3(2.2)	TB-37		262	138	112	232	95	70	6.5	226	253	40	45	462	230	242	180	4	70	12
	132S	7.5(5.5)	5(3.7)	TB-75		287.5	155	132	272	108	70	6.5	265	288	40	45	526.5	256	268	180	4	89	12
	132M	10(7.5)	7.5(5.5)	TB-75		306.5	174	132	272	108	89	6.5	265	288	40	45	564.5	256	268	218	4	89	12

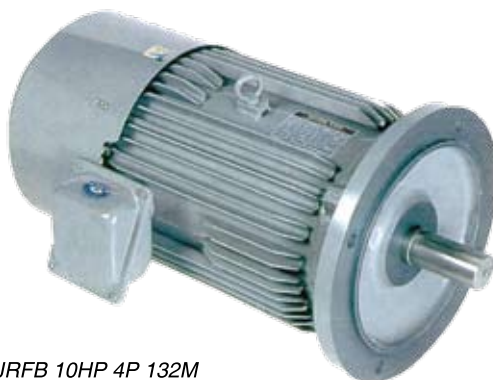
* The perpendicular variation of tolerance for the shaft center is $\frac{0}{-0.5}$

Model	Frame No.	Terminal box					Shaft end							Bearing No.		Approx. weight (kg)		Approximate packing dimensions (LxWxH)	Packing weight (kg)	
		KA	KG	KD	KL	KP**	Q	QK	R	S	T	U	W	Drive end	Opposite	4-Pole	6-Pole		4-Pole	6-Pole
SF-JRB	63M	38.4	69	PF 1/2	153	175	23	20	103	11 h6	4	2.5	4	6201ZZ	6201ZZ	8	-	315 x 270 x 206	8.7	-
	71M	44.5	53	PF 1/2	165	168	30	25	120	14 j6	5	3	5	6202ZZ	6202ZZ	11	11	315 x 270 x 206	11.7	11.7
	80M	39.5	32	PF 3/4	167	-	40	32	140	19 j6	6	3.5	6	6204ZZ	6204ZZ	15	15	368 x 280 x 226	16	16
	90L	53	46	PF 3/4	180	-	50	40	168.5	24 j6	7	4	8	6205ZZ	6205ZZ	25	24	430 x 355 x 300	26	25
	100L	65	59	PF 3/4	192	-	60	45	193	28 j6	7	4	8	6206ZZ	6205ZZ	31	33	579 x 435 x 347	39	41
	112M	69	74	PF 3/4	203	-	60	45	200	28 j6	7	4	8	6207ZZ	6206ZZ	43	45	579 x 435 x 347	51	53
	132S	75	84	PF 1	242	-	80	63	239	38 k6	8	5	10	6308ZZ	6207ZZ	58	60	650 x 450 x 370	67	69
	132M	94	84	PF 1	242	-	80	63	258	38 k6	8	5	10	6308ZZ	6207ZZ	69	72	650 x 450 x 370	78	81

** This dimension is for model which KP > H only.

SF-JRFB 63M~132M

FLANGE TYPE BRAKE MOTOR



SF-JRFB 10HP 4P 132M

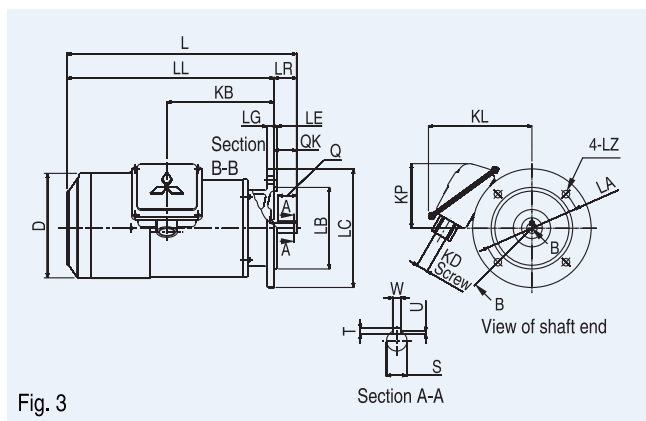


Fig. 3

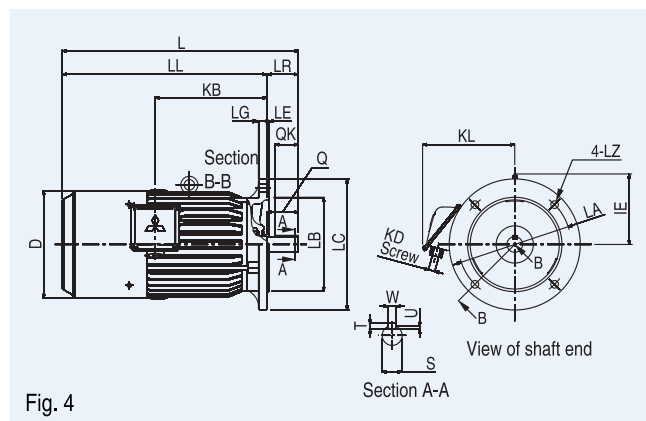


Fig. 4

Dimensions (mm)

Model	Frame No.	Output HP (kW)		Brake type	Fig.	Motor										Terminal box			
		4-Pole	6-Pole			D	IE	LA	LB	LC	LE	LG	LL	LZ	L	KB	KD	KL	KP*
SF-JRFB	63M	1/4(0.2)	-	TB-2	3	128	-	130	110 j6	160	3.5	10	259.5	10	282.5	125	PF 1/2	153	112
	71M	1/2(0.4)	1/4(0.2)	TB-4		150	-	130	110 j6	160	3.5	10	279	10	309	145	PF 1/2	165	97
	80M	1(0.75)	1/2(0.4)	TB-7.5		168	-	165	130 j6	200	3.5	12	295	12	335	143.5	PF 3/4	167	-
	90L	2(1.5)	1(0.75)	TB-15		189	-	165	130 j6	200	3.5	12	364	12	414	198.5	PF 3/4	180	-
	100L	3(2.2)	2(1.5)	TB-22	4	213	130	215	180 j6	250	4	16	398	14.5	458	213	PF 3/4	192	-
	112M	5(3.7)	3(2.2)	TB-37		232	141	215	180 j6	250	4	16	432	14.5	492	239	PF 3/4	203	-
	132S	7.5(5.5)	5(3.7)	TB-75		272	156	265	230 j6	300	4	20	468.5	14.5	548.5	256	PF 1	242	-
	132M	10(7.5)	7.5(5.5)	TB-75		272	156	265	230 j6	300	4	20	506.5	14.5	586.5	294	PF 1	242	-

* This dimension is for model which KP > LC/2 only.

Model	Frame No.	Shaft end							Bearing No.		Approximate weight (kg)		Approximate packing dimensions (LxWxH)	Packing weight (kg)	
		LR	Q	QK	S	T	U	W	Drive end	Opposite	4-Pole	6-Pole		4-Pole	6-Pole
SF-JRFB	63M	23	23	20	11 h6	4	2.5	4	6201ZZ	6201ZZ	9	-	368 x 280 x 226	10	-
	71M	30	30	25	14 j6	5	3	5	6202ZZ	6202ZZ	12	12	368 x 280 x 226	13	13
	80M	40	40	32	19 j6	6	3.5	6	6204ZZ	6204ZZ	18	18	425 x 280 x 226	19	19
	90L	50	50	40	24 j6	7	4	8	6205ZZ	6205ZZ	27	26	507 x 401 x 357	34	33
	100L	60	60	45	28 j6	7	4	8	6206ZZ	6205ZZ	35	37	650 x 450 x 370	44	46
	112M	60	60	45	28 j6	7	4	8	6207ZZ	6206ZZ	47	49	650 x 450 x 370	56	58
	132S	80	80	63	38 k6	8	5	10	6308ZZ	6207ZZ	66	68	650 x 450 x 370	75	77
	132M	80	80	63	38 k6	8	5	10	6308ZZ	6207ZZ	77	80	650 x 450 x 370	86	89

SF-JRVB 63M~112M

VERTICAL TYPE BRAKE MOTOR



SF-JRVB 1/2HP 4P 71M

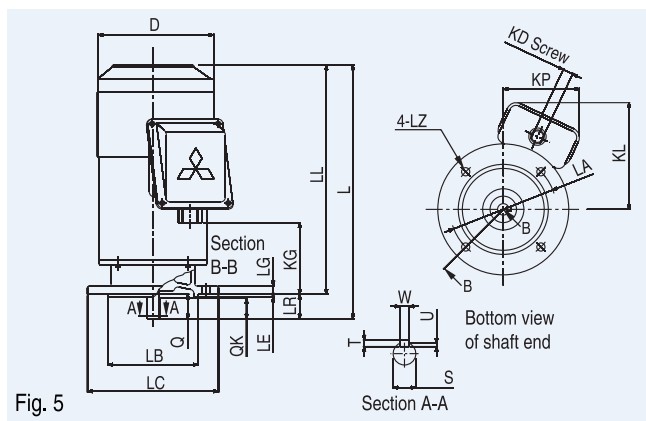


Fig. 5

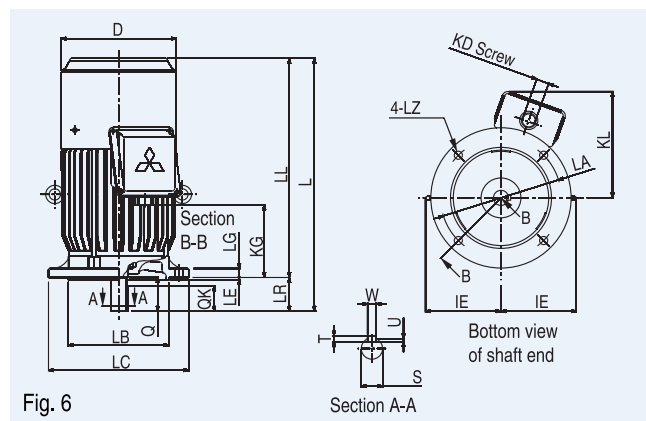


Fig. 6

Dimensions (mm)

Model	Frame No.	Output HP (kW)		Brake type	Fig.	Motor								Terminal box					
		4-Pole	6-Pole			D	IE	LA	LB	LC	LE	LG	LL	LZ	L	KD	KG	KL	KP*
SF-JRVB	63M	1/4(0.2)	-	TB-2	5	128	-	130	110 j6	160	3.5	10	259.5	10	282.5	PF 1/2	42	144	133
	71M	1/2(0.4)	1/4(0.2)	TB-4		150	-	130	110 j6	160	3.5	10	279	10	309	PF 1/2	62	159	120
	80M	1(0.75)	1/2(0.4)	TB-7.5		168	-	165	130 j6	200	3.5	12	295	12	335	PF 3/4	61	163	-
	90L	2(1.5)	1(0.75)	TB-15		189	-	165	130 j6	200	3.5	12	364	12	414	PF 3/4	116	176	-
	100L	3(2.2)	2(1.5)	TB-22	6	213	130	215	180 j6	250	4	16	398	14.5	458	PF 3/4	130	189	-
112M	5(3.7)	3(2.2)	TB-37	232		141	215	180 j6	250	4	16	432	14.5	492	PF 3/4	156	199	-	

* This dimension is for model which KP > LC/2 only.

Model	Frame No.	Shaft end							Bearing No.		Approximate weight (kg)		Approximate packing dimensions (LxWxH)	Packing weight (kg)	
		LR	Q	QK	S	T	U	W	Drive end	Opposite	4-Pole	6-Pole		4-Pole	6-Pole
SF-JRVB	63M	23	23	20	11 h6	4	2.5	4	6201ZZ	6201ZZ	9	-	368 x 280 x 226	10	-
	71M	30	30	25	14 j6	5	3	5	6202ZZ	6202ZZ	12	12	368 x 280 x 226	13	13
	80M	40	40	32	19 j6	6	3.5	6	6204ZZ	6204ZZ	18	18	425 x 280 x 226	19	19
	90L	50	50	40	24 j6	7	4	8	6205ZZ	6205ZZ	27	26	507 x 401 x 357	34	33
	100L	60	60	45	28 j6	7	4	8	6206ZZ	6205ZZ	35	37	650 x 450 x 370	44	46
	112M	60	60	45	28 j6	7	4	8	6207ZZ	6206ZZ	47	49	650 x 450 x 370	56	58

 **mitsubishi ELECTRIC AUTOMATION (THAILAND) CO., LTD.**

