

Mitsubishi SF-JRV
Super-Line Induction Motor



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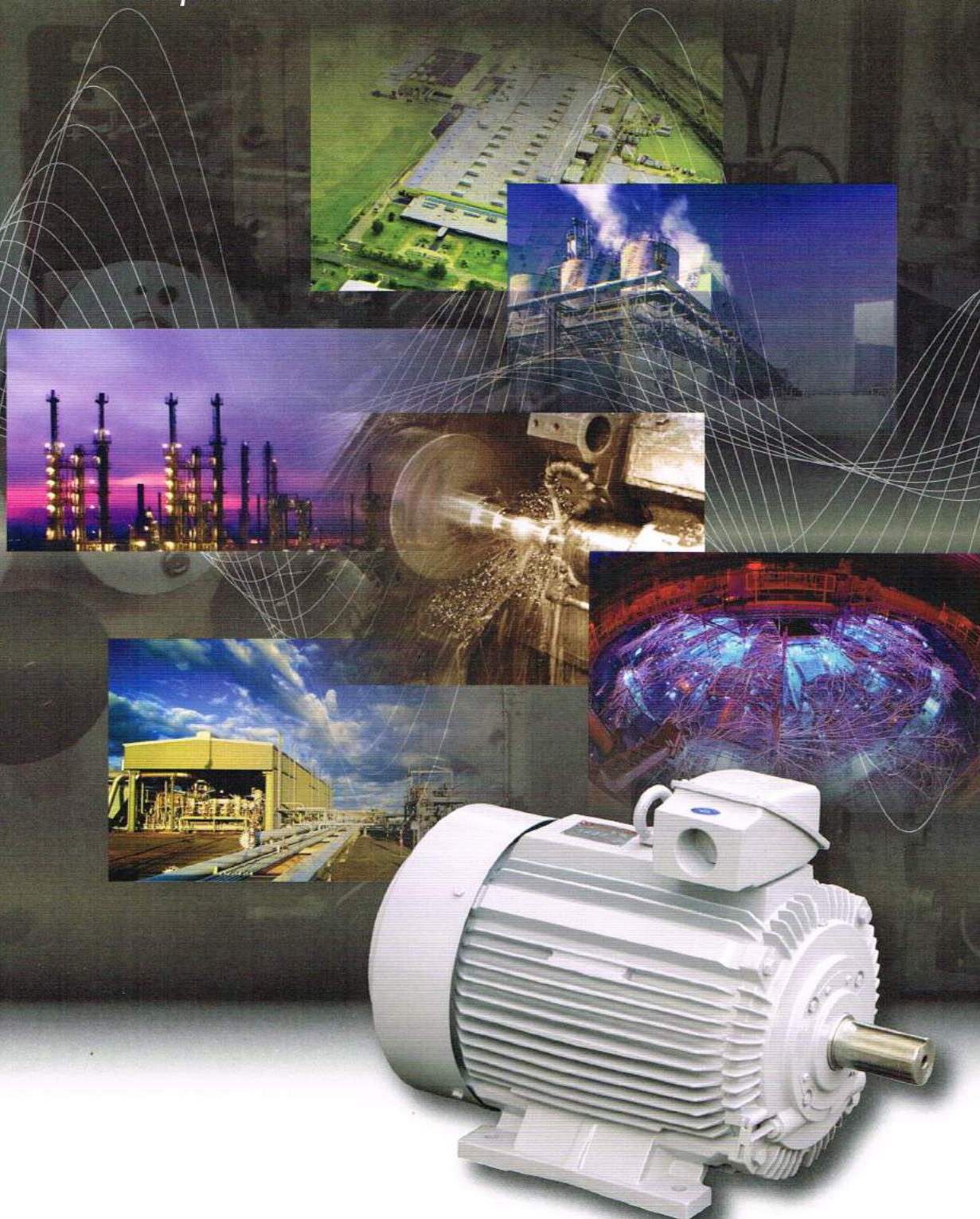
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The power for movements of entire industries.



Content

Management policy	3
Introduction of motor	4
Significance of type designations and degrees of protection	5
Motor section	5
 Single phase induction motor	
Standard specifications and connections	6
Characteristics and performances	7
Split phase start type	8
Capacitor start type	9
Capacitor start and run type	10
Repulsion start type	11
 Three phase induction motor	
Standard specifications	12
Connection	13
Characteristics and performances	14
Drip-proof type IP22	18
Totally enclosed fan cooled type IP44	20
Totally enclosed fan cooled type IP55	21
 Brake motor	
Standard specifications	24
Characteristics and performances and connections	25
Features & benefits, brake structure and brake operation	26
Horizontal type	27
Flange type	28
Vertical type	29
 Maintenance	 30
Special motor	31

Management policy

Product first

With the world rapidly changing and advancing, Mitsubishi Electric Automation (Thailand) Co., Ltd. focus on developing new products and production system as well as quality service to support our customers in their quest for success.

Best quality

MEATH adheres to a "Total System" concept, which includes non-stop development in product design and production in order to provide customers with only the highest quality products.

Global company

MEATH is always looking to expand and enter new markets around the world. At the same time, to best succeed in these endeavors, our attention is on innovation to operate as a truly Global Business.

Environmental management

MEATH realizes the importance of protecting our environment and preserving natural resources. Therefore, we concentrate on using minimum materials while achieving maximum results to best satisfy all demands.

Tomorrow is better than today

Our aim is develop the best relations with society, consumers, shareholders and personnel and work to ensure that for all "Tomorrow is better than today"

Introduction

The induction motor is named as the "Mother of Industry" because all manufacturing is dependent on them. With technology provide by Mitsubishi Electric Japan, MEATH can provide our clients with the highest quality motors which could be ideal for any application.

Features and benefits

Compact size and light weight

Size and weight reduction has been achieved by the use of steel plate frame and aluminium brackets in the small capacity motors.

Highly reliable insulation systems

Class B and F insulation systems are characterized by superior resistance to heat, humidity and chemicals for top notch reliability.

Superlative characteristics and high reliability

Based on experience and technology accumulated over many years, along with an exacting quality control system, each motor is ensured to exhibit only the finest characteristics.

Safety : All the rotating parts and the live areas are made sure that it cannot be accidentally touched directly.

Smooth acceleration : The low moment of inertia of the rotor combined with the motor's high acceleration torque, contributes to smooth starting and stopping.

Low noise and vibration level : This feature has been achieved due to our highly individualized electrical design, the ample rigidity and the precise machining of the motor frames and brackets, and the exact balance of rotor.

Full lineup

We have produced variety types of motors, thus providing a full lineup of motors ideal for any application.

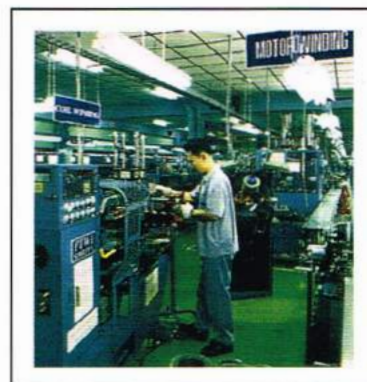
The company's range of motors includes:

SUPER LINE K series, single phase induction motors up to 10HP

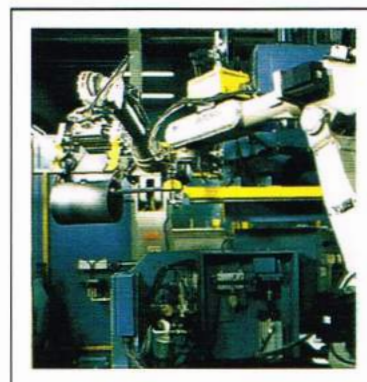
SUPER LINE J series, three phase induction motors up to 125HP

Standard motors are classified as IP55 with class F insulation.

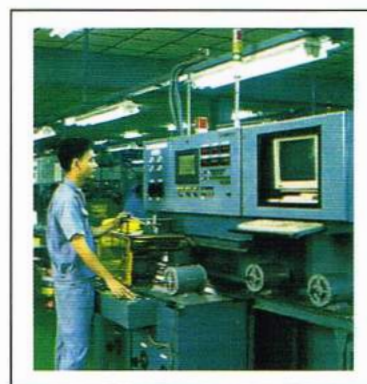
All motors are released until they have passed the most stringent quality assurance testing. Mitsubishi motors are renowned for their steel frames tailored to suit each motor's specifications and tasks, especially the electric induction motors.



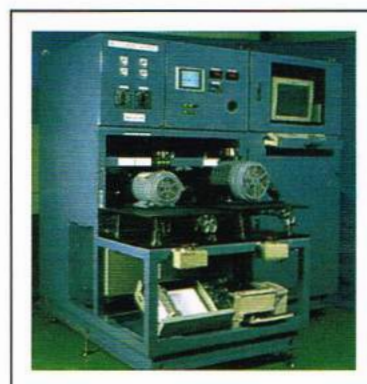
Automatic winding machine



Fin welding robot

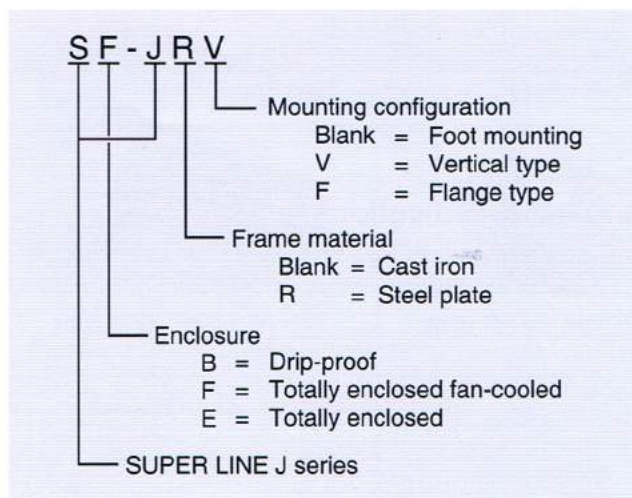
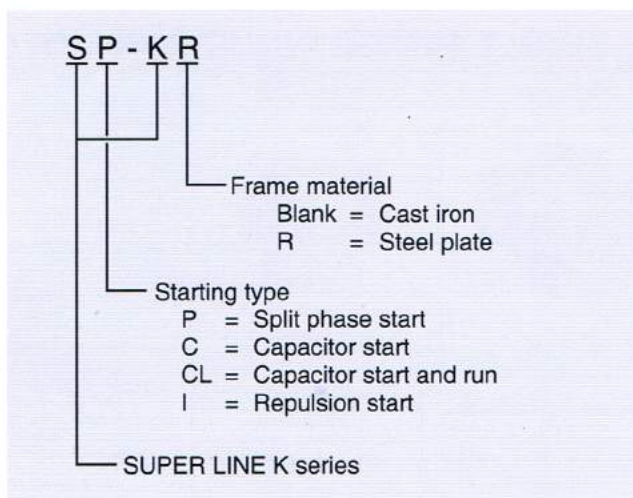


Final inspection & testing equipment

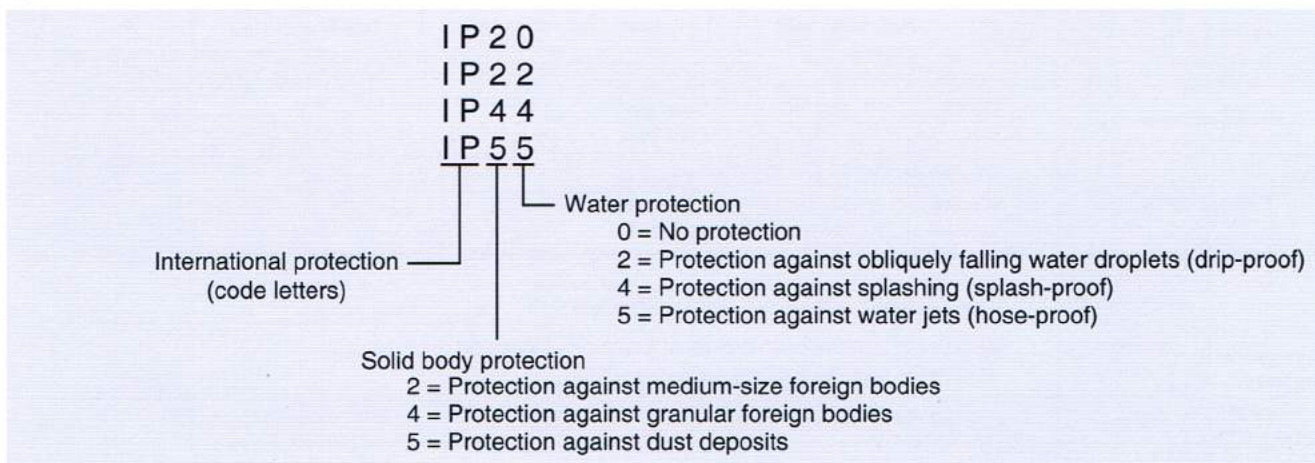


NT measuring equipment

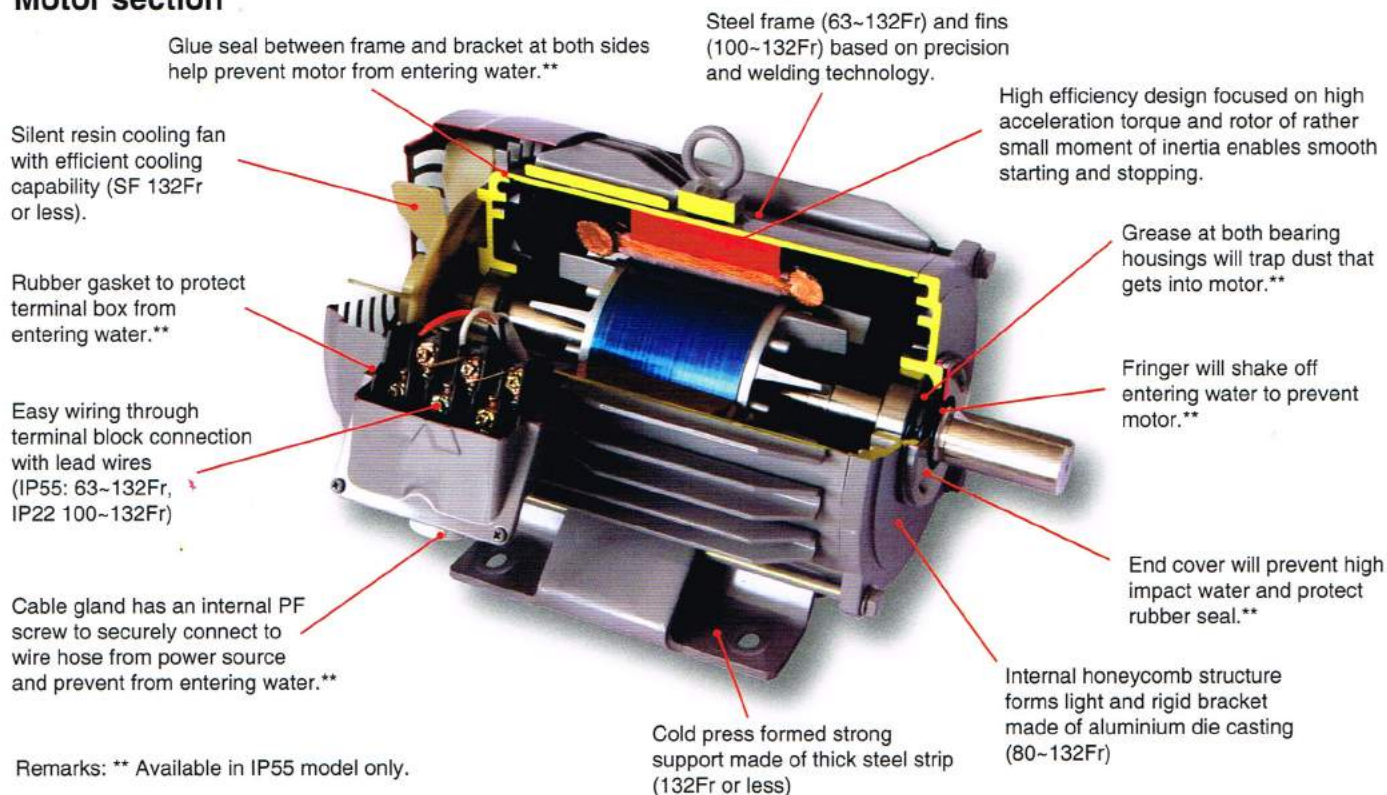
Significance of type designations



Degrees of protection



Motor section



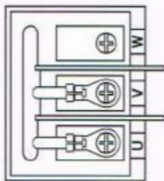
SINGLE PHASE INDUCTION MOTOR

Standard specifications

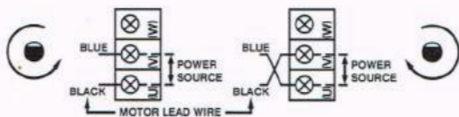
Item		Specifications				
Voltage and frequency		220~230V 50Hz, 220V 60Hz				
Starting method, enclosure construction and degrees of protection		Starting method	Model name	Frame No.	Enclosure construction	Degrees of protection
		Split phase start	SP-KR	A71 ~ 80M	Open-protected	IP20
		Capacitor start	SC-KR	A71 ~ 80M	Open-protected	IP20
		Capacitor start and run	SCL-KR	90S ~ 132ML	Drip-proof	IP22
		Repulsion start	SI-K	100	Totally enclosed	IP44
Frame material		SP-KR, SC-KR, SCL-KR : Steel plate SI-K : Cast iron				
Thermal class		SP-KR, SC-KR, SI-K : Class E SCL-KR 90S ~ 112M : Class B 132S ~ 132ML : Class F				
Circumstance conditions	Ambient temperature	-20 ~ +40°C				
	Ambient humidity	85% RH or less (for open-protected & drip-proof stucture) 95% RH or less (for totally enclosed structure)				
	Altitude	1,000m above sea level or less				
	Environment	No bursting / erosive gas or vapor				
Coating color		Munsell N5.5 (gray)				
Conformed standard		JIS C 4203 (for SP-KR, SC-KR), JEC-2137-2000 (for SCL-KR, SI-K)				

Connection

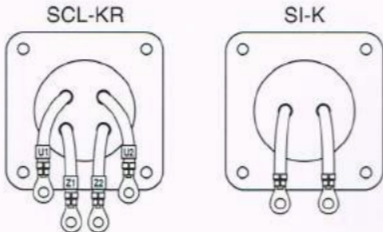
Terminal block: For SP-KR, SC-KR



Connection diagram



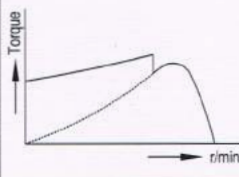
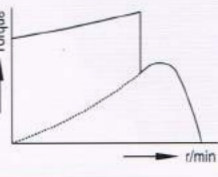
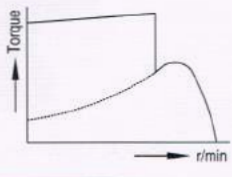
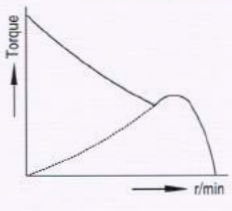
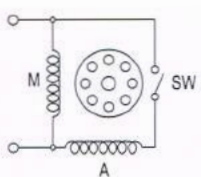
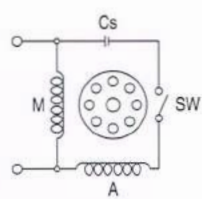
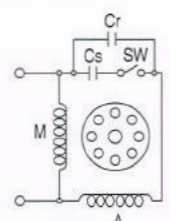
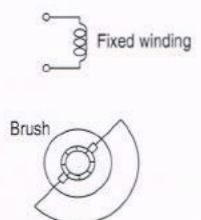
Lead wire: For SCL-KR, SI-K



Connection diagram (for SCL-KR only)



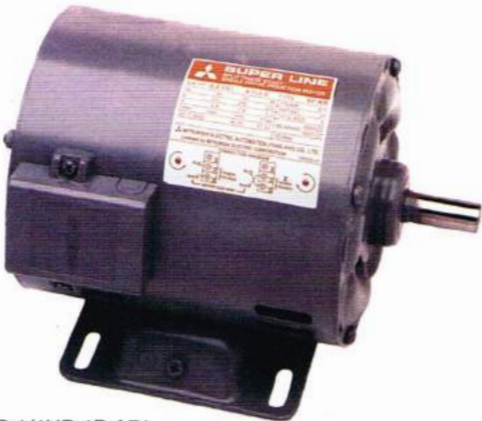
Characteristics and performance

Item	Motor type			
	Split phase start	Capacitor start	Capacitor start and run	Repulsion start
Appearance				
Characteristic curve				
Connection	 M : Main coil A : Auxiliary coil SW : Centrifugal switch	 M : Main coil A : Auxiliary coil SW : Centrifugal switch Cs : Starting capacitor	 M : Main coil A : Auxiliary coil SW : Centrifugal switch Cs : Starting capacitor Cr : Running capacitor	 Fixed winding Brush
Application	Drilling machine Blower	Conveyer Pump	Conveyer Compressor	Compressor Agricultural machine

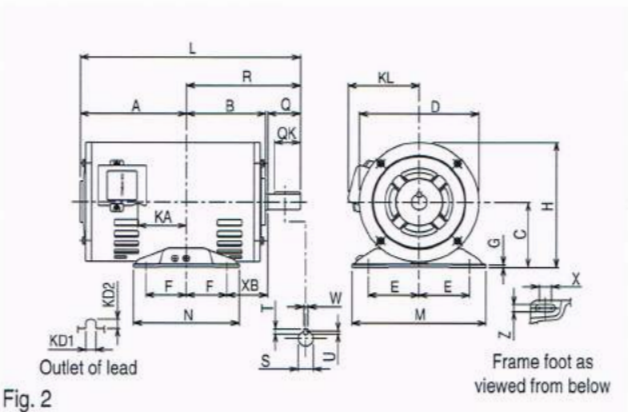
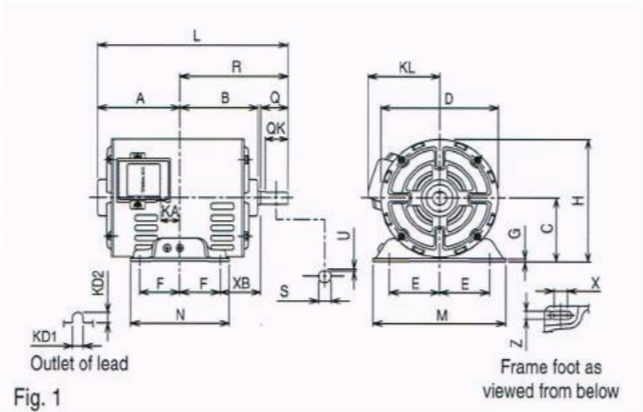
Item	SP-KR			SQ-KR			SCL-KR							SI-K		
Output (HP)	1/4	1/3	1/2	1/4	1/3	1/2	1	1.5	2	3	5	7.5	10	1/2	1	1 3/4
Frame No.	A71	B71	80M	A71	B71	80M	90S	90L	100L	112M	132S	132M	132ML	100	100	100
No. of poles	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Thermal class	E	E	E	E	E	E	B	B	B	B	F	F	F	E	E	E
Power supply	1 phase 220V 50Hz															
Full load current (A)	2.8	3.1	4.8	2.6	3.1	4.3	5.2	7.9	10.4	15.1	23	34	44.5	3.5	7.6	12
Full load speed (r/min)	1450	1440	1440	1450	1450	1430	1430	1440	1450	1450	1430	1450	1450	1455	1460	1450
Starting current (A)	20	26.5	34	11	13.5	18.5	32	44	55	95	107	162	215	12.5	25	40
Starting torque (%)	300	290	200	360	302	273	286	244	203	238	232	193	198	615	480	380
Break down torque (%)	310	270	293	280	262	390	250	290	239	260	174	195	187	478	290	250
Power supply	1 phase 220V 50Hz															
Full load current (A)	2.4	2.8	4.6	2.3	2.8	3.6	4.6	7.1	9.4	13.4	23	33.5	40	3.0	5.9	10.3
Full load speed (r/min)	1740	1730	1730	1740	1740	1720	1720	1720	1740	1740	1720	1700	1740	1750	1750	1740
Starting current (A)	19.5	26	34	10.3	13.3	19.3	32	45	54	73	102	171	208	13.5	27	40
Starting torque (%)	288	232	161	370	303	251	310	285	260	374	174	203	200	670	548	350
Break down torque (%)	299	227	251	283	229	327	265	225	245	202	165	210	170	435	265	227
Net weight (kg)	6.6	7.5	11	6.8	7.6	11.4	15.2	18.6	23.4	32.8	45.8	60	68.2	26.4	32	36.6

SP-KR SPLIT PHASE START TYPE

OPEN-PROTECTED TYPE, IP 20 DEGREES OF PROTECTION



SP-KR 1/4HP 4P A71



Dimensions (mm)

Model	Frame No.	Output HP (kW)	Pole	Fig.	Motor																	
					A	B	C*	D	E	F	G	H	KA	KD1	KD2	KL	L	M	N	X	XB	Z
SP-KR	A71	1/4(0.2)	4	1	92	87	71	131.2	56	45	3.2	136.6	21.3	12	12	82	212	148	110	15	45	9
	B71	1/3(0.25)	4		101	87	71	131.2	56	45	3.2	136.6	30.3	12	12	82	221	148	110	15	45	9
	80M	1/2(0.4)	4	2	125	97	80	146.6	62.5	50	3.2	153.3	44.5	12	12	92	265	165	130	10	50	10

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

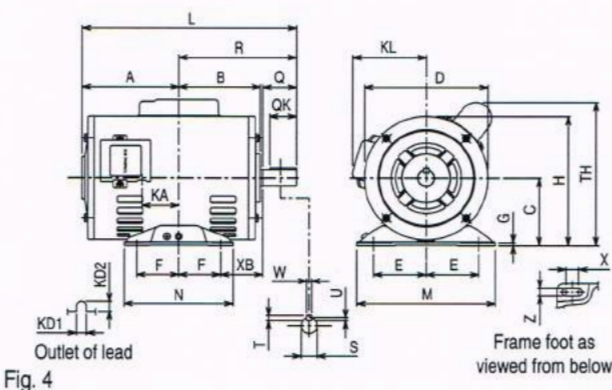
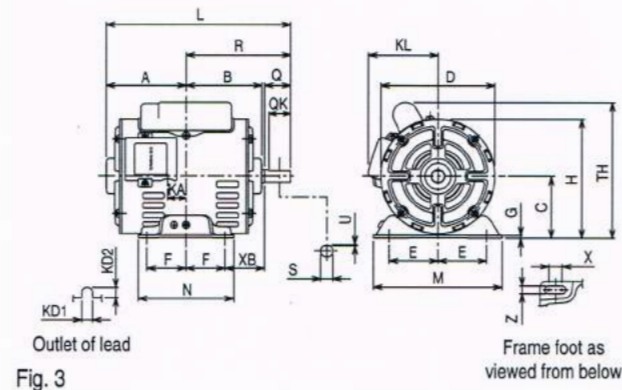
Model	Frame No.	Output HP (kW)	Pole	Fig.	Shaft end							Bearing No.		Approximate weight (kg)	Approximate packing dimensions (LxWxH)	Packing weight (kg)
					Q	QK	R	S	T	U	W	Drive end	Opposite			
SP-KR	A71	1/4(0.2)	4	1	30	27	120	14 h6	-	1	-	6202ZZ	6201ZZ	6.6	245 x 200 x 184	7.0
	B71	1/3(0.25)	4		30	27	120	14 h6	-	1	-	6202ZZ	6201ZZ	7.5	255 x 200 x 184	8.0
	80M	1/2(0.4)	4	2	40	28	140	16 j6	5	3	5	6203ZZ	6202ZZ	11	300 x 200 x 184	12

SC-KR CAPACITOR START TYPE

OPEN-PROTECTED TYPE, IP 20 DEGREES OF PROTECTION



SC-KR 1/2HP 4P 80M



Dimensions (mm)

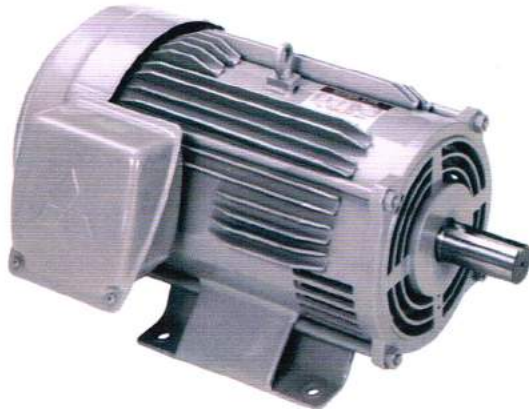
Model	Frame No.	Output HP (kW)	Pole	Fig.	Motor																		
					A	B	C*	D	E	F	G	H	KA	KD1	KD2	KL	L	M	N	X	XB	TH	Z
SC-KR	A71	1/4(0.2)	4	3	92	87	71	131.2	56	45	3.2	136.6	21.3	12	12	82	212	148	110	15	45	170	9
	B71	1/3(0.25)	4		101	87	71	131.2	56	45	3.2	136.6	30.3	12	12	82	221	148	110	15	45	167	9
	80M	1/2(0.4)	4	4	125	97	80	146.6	62.5	50	3.2	153.3	44.5	12	12	92	265	165	130	10	50	173	10

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

Model	Frame No.	Output HP (kW)	Pole	Fig.	Shaft end						Bearing No.		Approximate weight (kg)	Approximate packing dimensions (LxWxH)	Packing weight (kg)	
					Q	QK	R	S	T	U	W	Drive end				Opposite
SC-KR	A71	1/4(0.2)	4	3	30	27	120	14 h6	-	1	-	6202ZZ	6201ZZ	6.8	245 x 200 x 184	7.5
	B71	1/3(0.25)	4		30	27	120	14 h6	-	1	-	6202ZZ	6201ZZ	7.6	255 x 200 x 184	8.2
	80M	1/2(0.4)	4	4	40	28	140	16 j6	5	3	5	6203ZZ	6202ZZ	11.4	300 x 200 x 184	12

SCL-KR CAPACITOR START AND RUN TYPE

DRIP-PROOF TYPE, IP 22 DEGREES OF PROTECTION



SCL-KR 10HP 4P 132ML

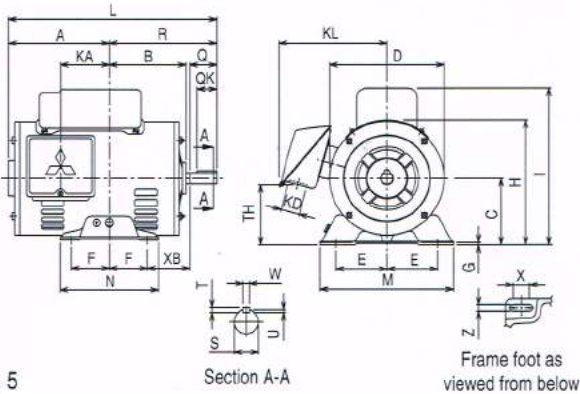


Fig. 5

Section A-A

Frame foot as viewed from below

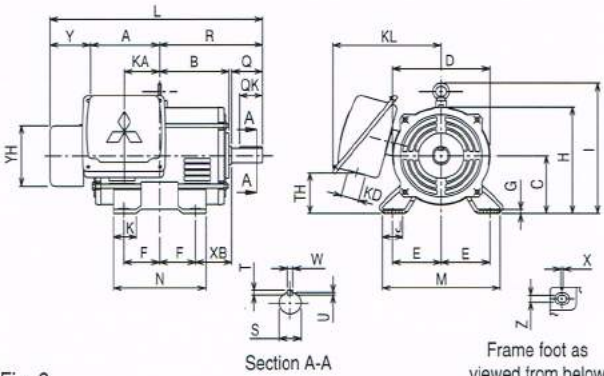


Fig. 6

Section A-A

Frame foot as viewed from below

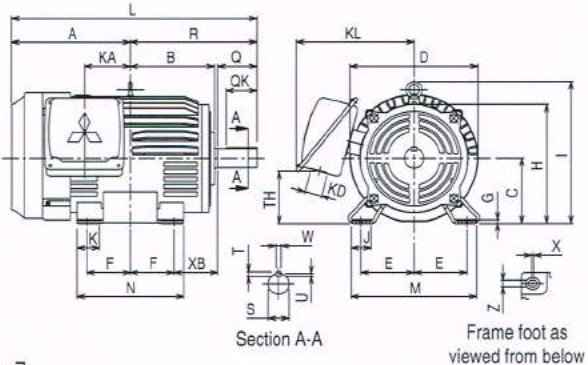


Fig. 7

Section A-A

Frame foot as viewed from below

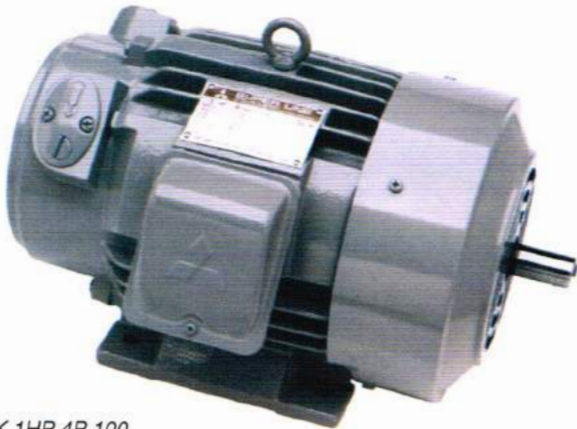
Dimensions (mm)

Model	Frame No.	Output HP (kW)	Pole	Fig.	Motor																						
					A	B	C*	D	E	F	G	H	I	J	K	KA	KD	KL	L	M	N	XB	TH	Y	YH	X	Z
SCL-KR	90S	1(0.75)	4	5	132	103	90	165.7	70	50	3.2	173	220	-	-	68	27	157	278	175	125	56	81	-	-	10	10
	90L	1.5(1.1)	4		120	115	90	165.7	70	62.5	4	173	220	-	-	55	27	157	313	175	150	56	81	-	-	15	9
	100L	2(1.5)	4	6	118	128	100	168	80	70	6.5	184	-	40	45	65	35	201	400	200	180	63	64	89	118	4	12
	112M	3(2.2)	4		125	135	112	190	95	70	6.5	207	254	40	45	69	35	211	414	230	180	70	79	89	118	4	12
	132S	5(3.7)	4	7	223	152	132	266	108	70	6.5	242	289	40	45	75	27	215	462	256	180	89	117	-	-	4	12
	132M	7.5(5.5)	4		242	171	132	266	108	89	6.5	242	289	40	45	94	35	240	500	256	218	89	106	-	-	4	12
	132ML	10(7.5)	4		270	171	132	266	108	89	6.5	242	289	40	45	122	35	240	528	256	218	89	106	-	-	4	12

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

Model	Frame No.	Output HP (kW)	Pole	Fig.	Shaft end							Bearing No.		Approximate weight (kg)	Approximate packing dimensions (LxWxH)	Packing weight (kg)
					Q	QK	R	S	T	U	W	Drive end	Opposite			
SCL-KR	90S	1(0.75)	4	5	40	28	146	19 j6	6	3.5	6	6204ZZ	6202ZZ	15	368 x 280 x 250	16
	90L	1.5(1.1)	4		50	40	168.5	24 j6	7	4	8	6205ZZ				

SI-K REPULSION START TYPE
TOTALLY ENCLOSED TYPE, IP 44 DEGREES OF PROTECTION



SI-K 1HP 4P 100

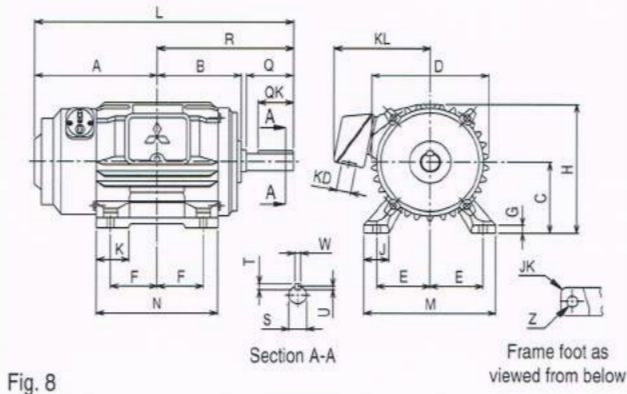


Fig. 8

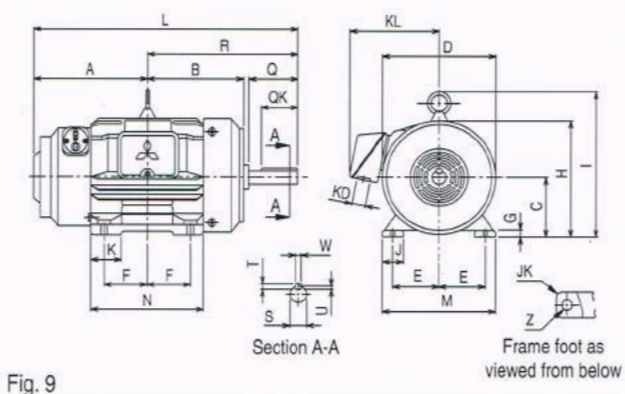


Fig. 9

Dimensions (mm)

Model	Frame No.	Output HP (kW)	Pole	Fig.	Motor																	
					A	B	C*	D	E	F	G	H	I	J	JK	K	KD	KL	L	M	N	Z
SI-K	100	1/2(0.4)	4	8	170.5	128	100	208	80	70	12	204	-	40	3	40	27	161	343.5	200	175	12
	100	1 (0.75)	4	9	170.5	168.5	100	212	80	70	12	206	237.5	40	3	40	27	161	383.5	200	175	12
	100	1 3/4 (1.3)	4		185.5	168.5	100	212	80	70	12	206	237.5	40	3	40	27	161	398.5	200	175	12

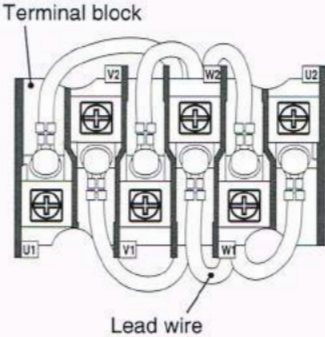
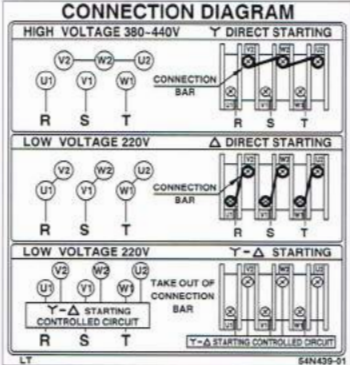
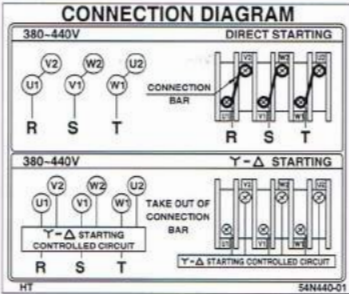
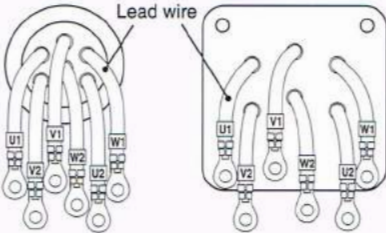
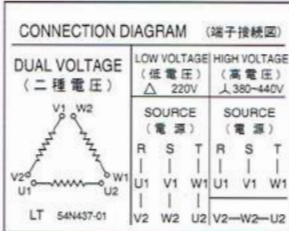
* The perpendicular variation of tolerance for the shaft center is $\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$

Model	Frame No.	Output HP (kW)	Pole	Fig.	Shaft end							Bearing No.		Approximate weight (kg)	Approximate packing dimensions (LxWxH)	Packing weight (kg)
					Q	QK	R	S	T	U	W	Drive end	Opposite			
SI-K	100	1/2(0.4)	4	8	40	28	173	16 j6	5	3	5	6205ZZ	6203ZZ	26.4	395 x 309 x 258	28.2
	100	1 (0.75)	4	9	40	36	213	22 j6	7	4	8	6205ZZ	6203ZZ	32.0	424 x 309 x 258	34
	100	1 3/4 (1.3)	4		40	36	213	24 j6	7	4	8	6206ZZ	6204ZZ	36.6	522 x 372 x 320	43.6

Standard specifications

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

Connection

Construction of lead wires	Connection diagram	
	LT	HT *
		
Lead wire IP 22: 60M ~ 90L IP 44: 63M ~ 71M IP 55: 160M ~ 250M 		

* HT can be used only with motors 5HP and above.

SF-JR IP44 63M~90L (Thermal Class: B), SF-JR(V) IP55 63M~132M (Thermal Class: F),
SF-J IP55 160M~250M (Thermal Class: F), SF-JV IP55 160M~180L (Thermal Class: F)

4-POLE

Type	Rated power		Frame No.	Hz	Volt	50% Load			75% Load			100% Load					Torque(%)		Is (A)	Inertia GD ² (kg-m ²)
	HP	kW				(A)	Eff(%)	PF(%)	(A)	Eff(%)	PF(%)	(A)	Eff(%)	PF(%)	Speed (r/min)	Torque (kg-m)	Tm	Ts		
LT	1/4	0.2	63M	50	220	0.91	0.60	0.48	1.00	0.67	0.59	1.11	0.69	0.68	1430	0.140	257	330	5.11	0.0040
					380	0.53	0.60	0.48	0.58	0.67	0.59	0.64	0.69	0.68	1430	0.140	257	330	2.95	
					415	0.61	0.55	0.42	0.64	0.63	0.52	0.68	0.68	0.60	1440	0.140	309	399	3.27	
	1/2	0.4	71M	50	220	0.73	0.66	0.54	0.84	0.71	0.66	0.97	0.73	0.74	1730	0.110	232	284	4.56	0.0061
					380	0.58	0.63	0.55	0.98	0.70	0.66	1.13	0.73	0.74	1410	0.280	286	336	5.91	
					415	1.01	0.58	0.47	1.08	0.67	0.58	1.18	0.71	0.66	1430	0.270	344	413	6.50	
	1	0.75	80M	50	220	1.22	0.72	0.60	1.44	0.77	0.72	1.71	0.78	0.79	1700	0.230	266	295	9.49	0.0109
					380	0.79	0.66	0.50	0.87	0.73	0.62	0.98	0.75	0.71	1730	0.230	354	392	6.36	
					440	2.19	0.74	0.61	2.61	0.77	0.73	3.14	0.78	0.80	1400	0.520	275	317	18.1	
	2	1.5	90L	50	380	1.26	0.74	0.61	1.51	0.78	0.73	1.81	0.78	0.80	1400	0.520	275	317	10.5	0.030
					415	1.44	0.70	0.52	1.62	0.75	0.65	1.86	0.76	0.74	1410	0.520	328	380	11.3	
					220	1.84	0.77	0.69	2.32	0.80	0.80	2.91	0.80	0.85	1700	0.430	237	263	15.6	
	3	2.2	100L	50	440	1.20	0.70	0.58	1.40	0.75	0.70	1.65	0.76	0.78	1720	0.420	322	355	10.5	0.026
					220	3.90	0.79	0.64	4.66	0.84	0.76	5.64	0.85	0.82	1420	1.02	316	297	41.2	
					380	2.25	0.79	0.64	2.69	0.84	0.76	3.26	0.85	0.82	1430	1.02	316	297	23.8	
	5	3.7	112M																	

SB-JR(V) IP22 80M~90L (Thermal Class: B), 100L~132M (Thermal Class: F)

SF-JR(V) IP55 63M~132M (Thermal Class: F), SF-J IP55 160M~225S (Thermal Class: F)

SF-JV IP55 160M~180L (Thermal Class: F)

6-POLE

Type	Rated power		Frame No.	Hz	Volt	50% Load			75% Load			100% Load				Torque(%)		Is (A)	Inertia GD ² (kg·m ²)	
	HP	kW				(A)	Eff(%)	PF(%)	(A)	Eff(%)	PF(%)	(A)	Eff(%)	PF(%)	Speed (r/min)	Torque (kg·m)	Tm	Ts		
LT	1/4	0.2	71M	50	220	0.92	0.62	0.46	1.01	0.67	0.58	1.14	0.69	0.67	920	0.21	247	277	4.50	0.0061
					380	0.53	0.62	0.46	0.58	0.68	0.58	0.66	0.69	0.67	920	0.21	247	277	2.60	
					415	0.59	0.59	0.40	0.63	0.65	0.51	0.68	0.68	0.60	930	0.21	296	333	2.81	
				60	220	0.81	0.64	0.51	0.91	0.69	0.63	1.06	0.70	0.71	1100	0.18	213	235	4.16	
					440	0.51	0.58	0.44	0.55	0.65	0.55	0.60	0.68	0.64	1120	0.17	291	319	2.76	
	1/2	0.4	80M	50	220	1.80	0.65	0.45	1.97	0.70	0.57	2.20	0.71	0.67	920	0.42	265	282	9.28	0.0109
					380	1.04	0.65	0.45	1.14	0.70	0.57	1.27	0.71	0.67	920	0.42	265	282	5.36	
					415	1.11	0.61	0.41	1.18	0.69	0.51	1.28	0.71	0.61	930	0.42	301	322	5.70	
				60	220	1.48	0.70	0.51	1.67	0.75	0.63	1.94	0.75	0.72	1100	0.35	233	234	4.86	
					440	0.96	0.63	0.44	1.03	0.70	0.55	1.13	0.73	0.64	1110	0.35	300	301	5.49	
	1	0.75	90L	50	220	2.79	0.71	0.50	3.15	0.76	0.62	3.60	0.78	0.70	940	0.78	252	278	18.5	0.030
					380	1.61	0.71	0.50	1.82	0.76	0.62	2.08	0.78	0.70	940	0.78	252	278	10.7	
					415	1.75	0.68	0.44	1.91	0.74	0.55	2.12	0.77	0.64	950	0.77	302	335	11.6	
				60	220	2.44	0.73	0.55	2.85	0.78	0.66	3.38	0.79	0.74	1130	0.65	215	226	15.4	
					440	1.55	0.68	0.47	1.70	0.74	0.59	1.92								

SB-JR 80M~132M HORIZONTAL TYPE

DRIP-PROOF TYPE, IP 22 DEGREES OF PROTECTION



SB-JR 1HP 4P 80M

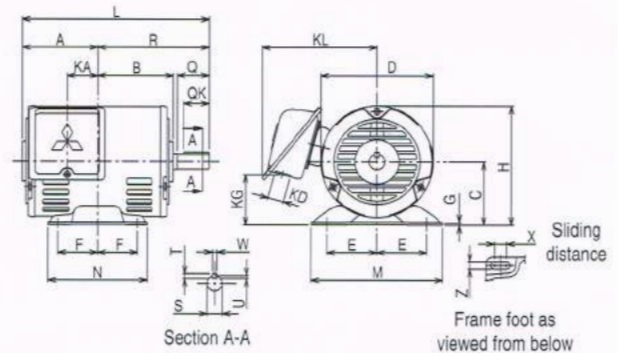


Fig. 10

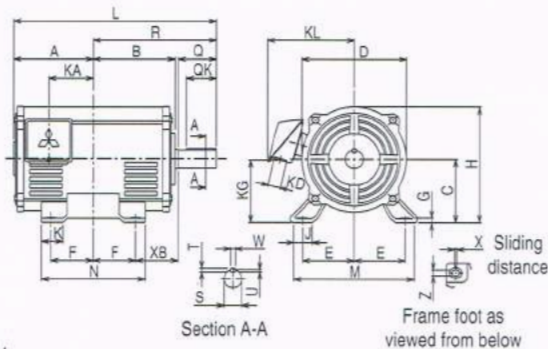


Fig. 11

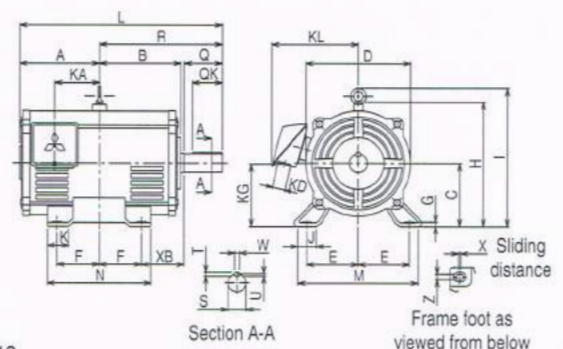


Fig. 12

Dimensions (mm)

Model	Frame No.	Output HP (kW)			Fig.	Motor															Terminal box						
		2-Pole	4-Pole	6-Pole		A	B	C*	D	E	F	G	H	I	J	K	L	M	ML	N	X	XB	Z	KA	KG	KD	KL
SB-JR	80M	1(0.75)	1(0.75)	1/2(0.4)	10	95	95	80	141	62.5	50	3.2	150.5	-	-	-	235	160	-	125	15	50	9	39.5	63	27	144
	90L	2(1.5), 3(2.2)	2(1.5)	1(0.75)		112.5	112.5	90	168	70	62.5	4	174	-	-	-	281	175	-	150	15	56	9	53	76	27	157
	100L	-	3(2.2)	2(1.5)	11	130	128	100	168	80	70	6.5	184	-	40	45	323	200	212	180	4	63	12	65	86	27	157
	112M	5(3.7)	5(3.7)	3(2.2)		136	135	112	190	95	70	6.5	220	254	40	45	336	230	242	180	4	70	12	69	101	27	168
	132S	7.5(5.5), 10(7.5)	7.5(5.5)	5(3.7)	12	153	152	132	220	108	70	6.5	255	289	40	45	392	256	268	180	4	89	12	75	118	27	185
	132M	-	10(7.5)	7.5(5.5)		172	171	132	220	108	89	6.5	255	289	40	45	430	256	268	218	4	89	12	94	118	27	185

* The perpendicular variation of tolerance for the shaft center is ± 0.5

Model	Frame No.	Shaft end						Bearing No.		Approximate weight (kg)			Approximate packing dimensions (LxWxH)	Packing weight (kg)			
		Q	QK	R	S	T	U	W	Drive end	Opposite	2-Pole	4-Pole	6-Pole	2-Pole	4-Pole	6-Pole	
SB-JR	80M	40	32	140	19 j6	6	3.5	6	6204ZZ	6203ZZ	9	11	11	295 x 270 x 206	10	12	12
	90L	50	40	168.5	24 j6	7	4	8	6205ZZ	6204ZZ	16, 16	16	16	350 x 280 x 350	17	17	17
	100L	60	45	193	28 j6	7	4	8	6206ZZ	6205ZZ	-	22	24	409 x 355 x 300	-	23	25
	112M	60	45	200	28 j6	7	4	8	6207ZZ	6206ZZ	27	30	31	477 x 399 x 315	31	34	35
	132S	80	63	239	38 k6	8	5	10	6308ZZ	6207ZZ	38, 42	40	41	526 x 403 x 347	42, 46	44	45

SB-JRV 80M~132M VERTICAL TYPE

DRIP-PROOF TYPE, IP 22 DEGREES OF PROTECTION



SB-JRV 10HP 4P 132M

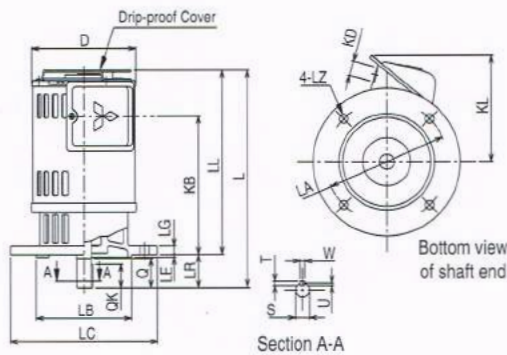


Fig. 13

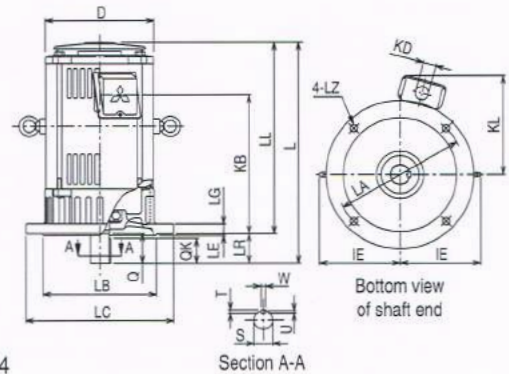


Fig. 14

Dimensions (mm)

Model	Flange No.	Frame No.	Output HP (kW)			Fig.	Motor										Terminal box		
			2-Pole	4-Pole	6-Pole		D	IE	LA	LB	LC	LE	LG	LL*	LZ	L*	KB	KD	KL
SB-JRV	FF165	80M	1(0.75)	1(0.75)	1/2(0.4)	13	141	-	165	130 j6	200	3.5	12	234(227)	12	274(267)	171.5	27	145
	FF165	90L	2(1.5), 3(2.2)	2(1.5)	1(0.75)		168	-	165	130 j6	200	3.5	12	270(261)	12	320(311)	201.5	27	158
	FF215	100L	-	3(2.2)	2(1.5)	14	168	-	215	180 j6	250	4	16	320(300)	14.5	380(360)	237	27	155
	FF215	112M	5(3.7)	5(3.7)	3(2.2)		190	141.5	215	180 j6	250	4	16	352(329)	14.5	412(389)	263	27	166
	FF265	132S	7.5(5.5), 10(7.5)	7.5(5.5)	5(3.7)		220	156.5	265	230 j6	300	4	20	393(369)	14.5	473(449)	292	27	181
	FF265	132M	-	10(7.5)	7.5(5.5)		220	156.5	265	230 j6	300	4	20	431(407)	14.5	511(487)	330	27	181

* () is dimension of vertical type without drip-proof cover.

Model	Flange No.	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	2-Pole	4-Pole	6-Pole		2-Pole	4-Pole	6-Pole
SB-JRV	FF165	80M	40	40	32	19 j6	6	3.5	6	6204ZZ	6203ZZ	12	14	14	305 x 260 x 235	14	16	16
	FF165	90L	50	50	40	24 j6	7	4	8	6205ZZ	6204ZZ	19, 19	19	19	370 x 280 x 235	21, 21	21	21
	FF215	100L	60	60	45	28 j6	7	4	8	6206ZZ	6205ZZ	-	28	30	430 x 340 x 330	-	30	32
	FF215	112M	60	60	45	28 j6	7	4	8	6207ZZ	6206ZZ	37	40	41	390 x 387 x 354	41	44	45
	FF265	132S	80	80	63	38 k6	8	5	10	6308ZZ	6207ZZ	52, 56	54	55	569 x 427 x 384	59, 63	61	62
	FF265	132M	80	80	63	38 k6	8	5	10	6308ZZ	6207ZZ	-	67	68	607 x 427 x 384	-	74	75

SF-JR 63M~90L HORIZONTAL TYPE

TOTALLY ENCLOSED FAN-COOLED TYPE, IP 44 DEGREES OF PROTECTION



SF-JR 1HP 4P 80M

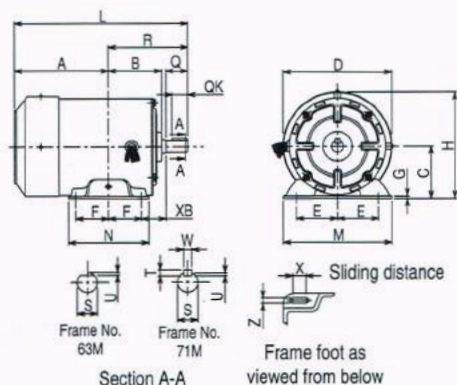


Fig. 15

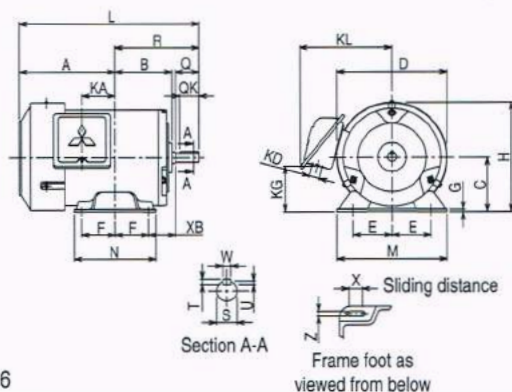


Fig. 16

Dimensions (mm)

Model	Frame No.	Output HP (kW)	Pole	Fig.	Motor													Terminal box				
					A	B	C*	D	E	F	G	H	L	M	N	X	XB	Z	KA	KG	KD	KL
SF-JR	63M	1/4(0.2)	4	15	113	77	63	127	50	40	2.3	127	216	135	100	12	40	7	-	-	-	-
	71M	1/2(0.4)			118	87	71	148	56	45	3.2	145	238	148	110	18	45	7	-	-	-	-
	80M	1(0.75)		16	122	95	80	166	62.5	50	3.2	166	262	160	125	15	50	9	39.5	63	27	145
	90L	2(1.5)			143	114	90	188	70	62.5	4	187	311.5	175	150	15	56	9	53	76	27	158

* The perpendicular variation of tolerance for the shaft center is ± 0.5

Model	Frame No.	Shaft end							Bearing No.		Approximate weight (kg)	Approximate packing dimensions (LxWxH)	Packing weight (kg)
		Q	QK	R	S	T	U	W	Drive end	Opposite			
SF-JR	63M	23	-	103	11 h6	-	1	-	6201ZZ	6201ZZ	5.6	245 x 165 x 170	6
	71M	30	25	120	14 j6	5	3	5	6202ZZ	6201ZZ	8.2	270 x 200 x 185	8.6
	80M	40	32	140	19 j6	6	3.5	6	6204ZZ	6203ZZ	11	315 x 270 x 206	11.7
	90L	50	40	168.5	24 j6	7	4	8	6205ZZ	6204ZZ	20	368 x 280 x 226	20

SF-JR 63M~132M HORIZONTAL TYPE

TOTALLY ENCLOSED FAN-COOLED TYPE, IP 55 DEGREES OF PROTECTION



SF-JR 3HP 4P 100L

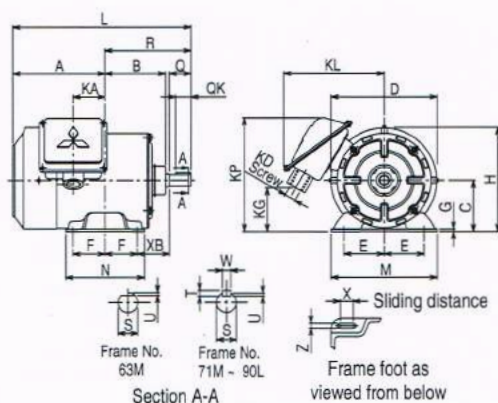


Fig. 17

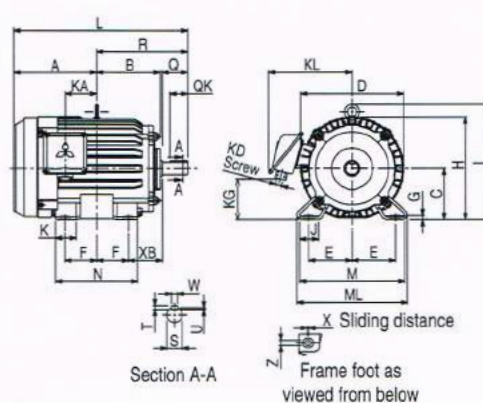


Fig. 18

Dimensions (mm)

Model	Frame No.	Output HP (kW)			Fig.	Motor														Terminal box								
		2-Pole	4-Pole	6-Pole		A	B	C*	D	E	F	G	H	I	J	K	L	M	ML	N	X	XB	Z	KA	KG	KD	KL	KP**
SF-JR	63M	1/4(0.2)	1/4(0.2)	-	17	121.4	73.6	63	130	50	40	2.3	126.3	-	-	-	224.4	135	-	100	12	40	7	38.4	75	PF1/2	130	162
	71M	1/2(0.4)	1/2(0.4)	1/4(0.2)		128.5	83	71	147.6	56	45	3.2	144.8	-	-	-	248.5	148	-	110	18	45	7	44.5	67	PF1/2	140	161
	80M	1(0.75)	1(0.75)	1/2(0.4)		122	98	80	161.6	62.5	50	3.2	165.4	-	-	-	262	160	-	125	15	50	9	39.5	38	PF3/4	145	-
	90L	2(1.5), 3(2.2)	2(1.5)	1(0.75)		143	117	90	183.6	70	62.5	4	186.3	-	-	-	311.5	175	-	150	15	56	9	53	59	PF3/4	158	-
	100L	-	3(2.2)	2(1.5)	18	173	131	100	207	80	70	6.5	203.5	230	40	45	366	200	212	180	4	63	12	65	64	PF3/4	170	-
	112M	5(3.7)	5(3.7)	3(2.2)		181	138	112	228	95	70	6.5	226	253	40	45	381	230	242	180	4	70	12	69	87	PF3/4	182	-
	132S	7.5(5.5), 10(7.5)	7.5(5.5)	5(3.7)		211.5	155	132	266	108	70	6.5	265	288	40	45	450.5	256	268	180	4	89	12	75	96	PF1	210	-
	132M	-	10(7.5)	7.5(5.5)		230.5	174	132	266	108	89	6.5	265	288	40	45	488.5	256	268	218	4	89	12	94	96	PF1	210	-

* The perpendicular variation of tolerance for the shaft center is ± 0.5
 ** This dimension is for model which $KP > H$ only.

Model	Frame No.	Shaft end						Bearing No.		Approximate weight (kg)			Approximate packing dimensions (LxWxH)	Packing weight (kg)			
		Q	QK	R	S	T	U	W	Drive end	Opposite	2-Pole	4-Pole	6-Pole	2-Pole	4-Pole	6-Pole	
SF-JR	63M	23	-	103	11 h6	-	1	-	6201ZZ	6201ZZ	5.3	5.6	-	245 x 221 x 193	5.7	6	-
	71M	30	25	120	14 j6	5	3	5	6202ZZ	6201ZZ	7	8.2	8	275 x 256 x 180	7.4	8.6	8.4

SF-J 160M~250M HORIZONTAL TYPE

TOTALLY ENCLOSED FAN-COOLED TYPE, IP 55 DEGREES OF PROTECTION



SF-J 75HP 4P 225S

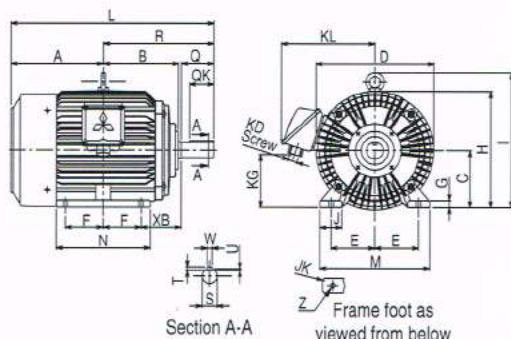


Fig. 19

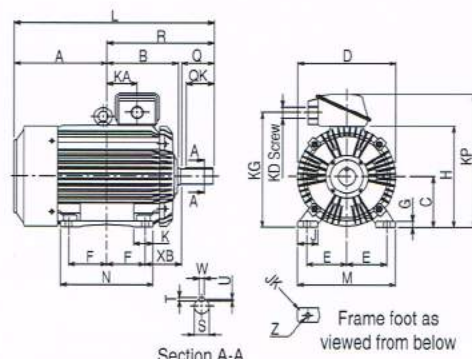


Fig. 20

Dimensions (mm)

Model	Frame No.	Output HP (kW)			Fig.	Motor														Terminal box							
		2-Pole	4-Pole	6-Pole		A	B	C*	D	E	F	G	H	I	J	JK	K	L	M	N	XB	Z	KA	KG	KD	KL	KP
SF-J	160M	15(11), 20(15)	15(11)	10(7.5)	19	252	207	160	324	127	105	20	322	373	55	R6	-	575	310	260	108	15	-	127	PF1 1/4	271	-
	160L	25(18.5)	20(15)	15(11)		274	229	160	324	127	127	20	322	373	55	R6	-	619	310	304	108	15	-	127	PF1 1/4	271	-
	180M	30(22)	25(18.5), 30(22)	20(15)		294.5	239	180	376	139.5	120.5	22	367	427	70	R6	-	646	350	300	121	15	-	151	PF1 1/2	295	-
	180L	40(30)	40(30)	25(18.5), 30(22)		313.5	258	180	376	139.5	139.5	22	367	427	70	R6	-	684	350	338	121	15	-	151	PF1 1/2	295	-
	200L	50(37), 60(45)	50(37), 60(45)	40(30), 50(37)	20	370.5	281	200	410	159	152.5	25	405	-	80	R6	78	(766) 796	390	369	133	18.5	120	476	PF2	-	550
	225S	75(55)	75(55)	60(45)		380	287.5	225	459	178	143	28	457	-	80	R8	82	(782) 812	430	350	149	18.5	120	528	PF2	-	602
	250S	-	100(75)	-		417.5	318.7	250	495	203	155.5	30	498	-	80	R8	95	881	486	387	168	24	136.5	560	PF2 1/2	-	643
	250M	-	125(93)	-		436.5	337.7	250	495	203	174.5	30	498	-	80	R8	95	919	486	425	168	24	155.5	560	PF2 1/2	-	643

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

Model	Frame No.	Shaft end							Bearing No.		Approximate weight (kg)			Approximate packing dimensions (LxWxH)	Packing weight (kg)		
		Q	QK	R	S	T	U	W	Drive end	Opposite	2-Pole	4-Pole	6-Pole		2-Pole	4-Pole	6-Pole
SF-J	160M	110	90	323	42 k6	8	5	12	6309ZZ	6308ZZ	105, 115	107	107	743 x 601 x 494	126, 136	128	128
	160L	110	90	345	42 k6	8	5	12	6309ZZ	6308ZZ	145	135	135	787 x 601 x 494</			

SF-JRV 63M~132M & SF-JV 160M~180L VERTICAL TYPE

TOTALLY ENCLOSED FAN-COOLED TYPE, IP 55 DEGREES OF PROTECTION



SF-JRV 10HP 4P 132M

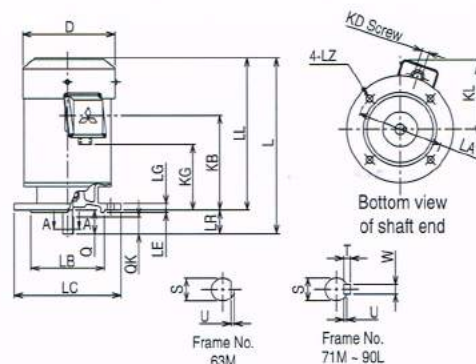


Fig. 21

Section A-A

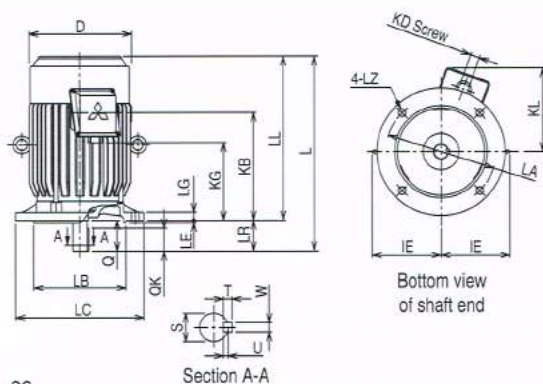


Fig. 22

Section A-A

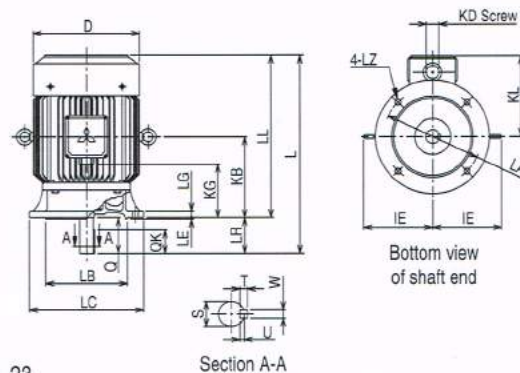


Fig. 23

Section A-A

Dimensions (mm)

Model	Flange No.	Frame No.	Output HP (kW)			Fig.	Motor											Terminal box		
			2-Pole	4-Pole	6-Pole		D	IE	LA	LB	LC	LE	LG	LL	LZ	L	KD	KG	KL	
SF-JRV	FF130	63M	1/4(0.2)	1/4(0.2)	-	21	127	-	130	110 j6	160	3.5	10	208	10	231	PF1/2	58	125	
	FF130	71M	1/2(0.4)	1/2(0.4)	1/4(0.2)		148	-	130	110 j6	160	3.5	10	229	10	259	PF1/2	80	138	
	FF165	80M	1(0.75)	1(0.75)	1/2(0.4)		166	-	165	130 j6	200	3.5	12	226	12	266	PF3/4	78	144	
	FF165	90L	2(1.5), 3(2.2)	2(1.5)	1(0.75)		186.3	-	165	130 j6	200	3.5	12	288.5	12	338.5	PF3/4	133	156	
	FF215	100L	-	3(2.2)	2(1.5)	22	207	130	215	180 j6	250	4	16	321	14.5	381	PF3/4	148	169	
	FF215	112M	5(3.7)	5(3.7)	3(2.2)		230	141	215	180 j6	250	4	16	351	14.5	411	PF3/4	174	180	
	FF265	132S	7.5(5.5), 10(7.5)	7.5(5.5)	5(3.7)		266	156	265	230 j6	300	4	20	392.5	14.5	472.5	PF1	173	213	
	FF265	132M	-	10(7.5)	7.5(5.5)		266	156	265	230 j6	300	4	20	430.5	14.5	510.5	PF1	211	213	
SF-JV	FF300	160M	15(11), 20(15)	15(11)	10(7.5)	23	324	213	300	250 j6	350	5	20	500	18.5	610	PF1 1/4	147	259	
	FF300	160L	25(18.5)	20(15)	15(11)		324	213	300	250 j6	350	5	20	544	18.5	654	PF1 1/4	169	259	
	FF350	180M	30(22)	25(18.5), 30(22)	20(15)		376	247	350	300 j6	400	5	20	576	18.5	686	PF1 1/2	176	284	
	FF350	180L	40(30)	40(30)	25(18.5), 30(22)		376	247	350	300 j6	400	5	20	614	18.5	724	PF1 1/2	195	284	

Model	Flange No.	Frame No.	Shaft end							Bearing No.		Approximate weight (kg)
-------	------------	-----------	-----------	--	--	--	--	--	--	-------------	--	-------------------------

BRAKE MOTOR

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		
Brake	Coating color		Munsell N5.5 (gray)		
	Conformed standard		IEC 60034-1, JEC-2137-2000		
	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	75	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

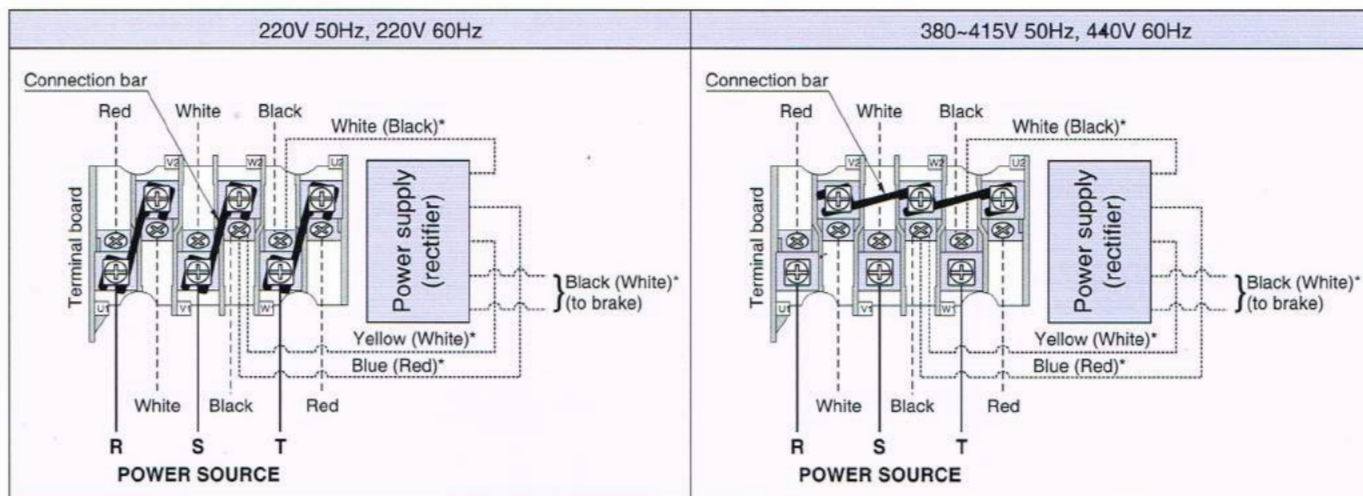
** The first number is the impulse value, the second number is at steady state

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	11.5 / 1150

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. Y-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

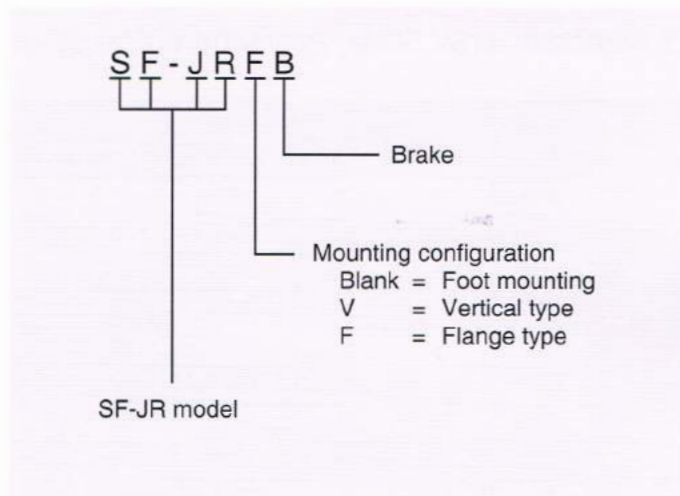
Safety brake

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

IP55 degrees of protection

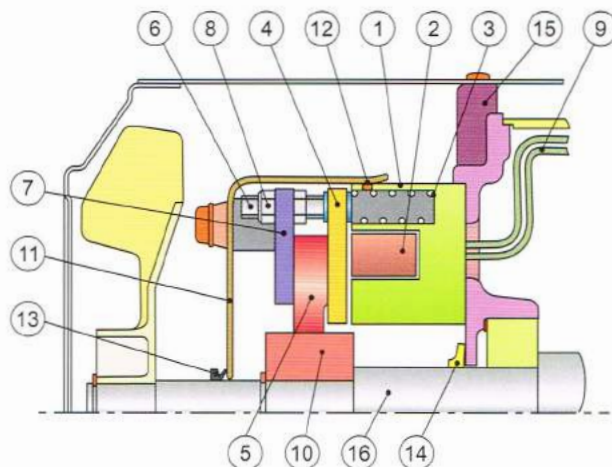
Dust and water jet proof structure of both motor and brake body is excellent for operation at outdoor or dusty site.

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.

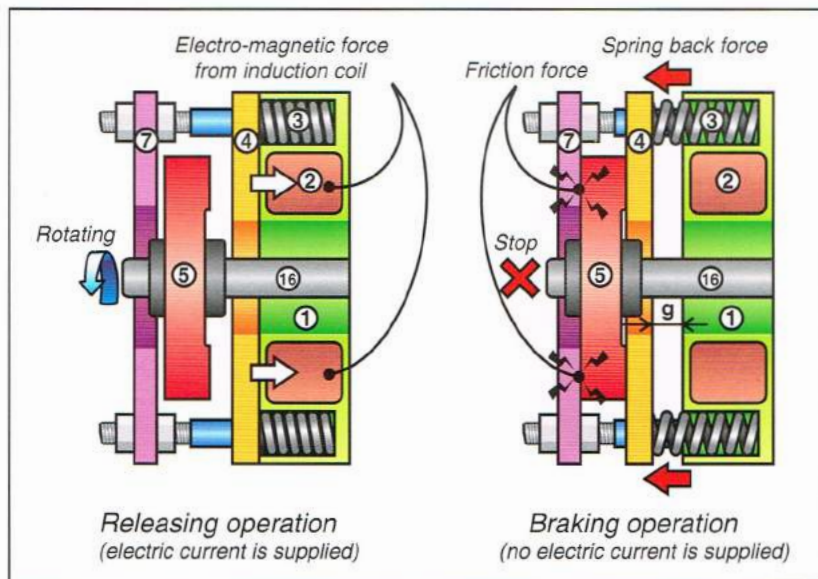
Brake operation

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

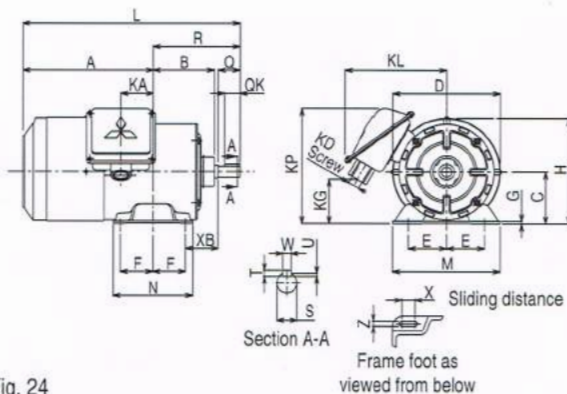


Fig. 24

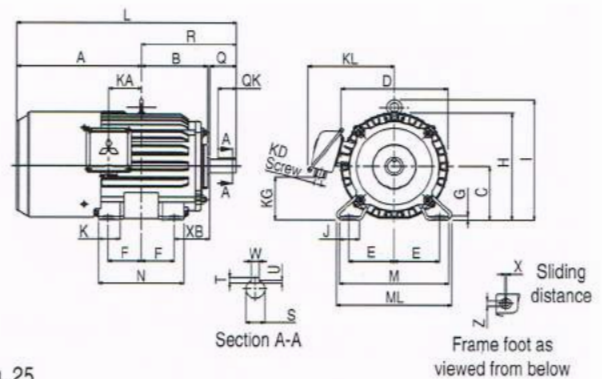


Fig. 25

Dimensions (mm)

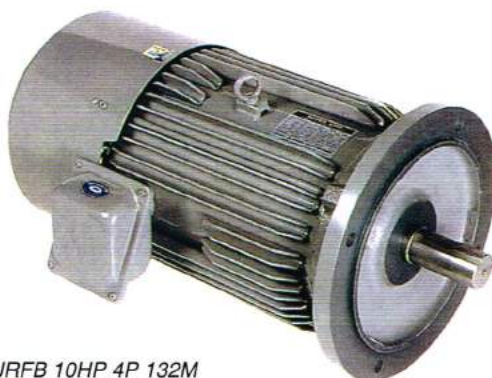
Model	Frame No.	Output HP (kW)		Brake type	Fig.	Motor																					
		4-Pole	6-Pole			A	B	C*	D	E	F	G	H	I	J	K	L	M	ML	N	X	XB	Z				
SF-JRB	63M	1/4(0.2)	-	TB-2	24	173	73.6	63	128	50	40	2.3	126.9	-	-	-	276	135	-	100	12	40	7				
	71M	1/2(0.4)	1/4(0.2)	TB-4		178.5	83	71	150	56	45	3.2	145.6	-	-	-	298.5	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	25	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						

SF-JRFB 63M~132M

FLANGE TYPE BRAKE MOTOR



SF-JRFB 10HP 4P 132M

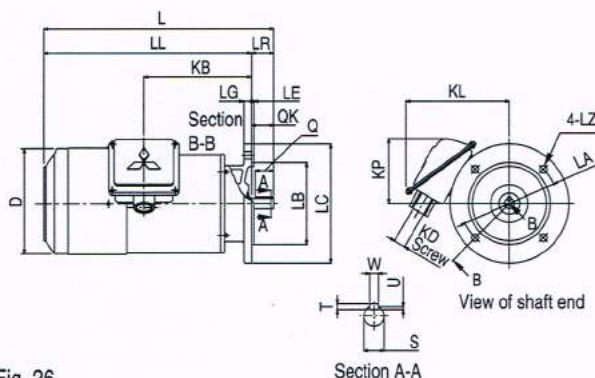


Fig. 26

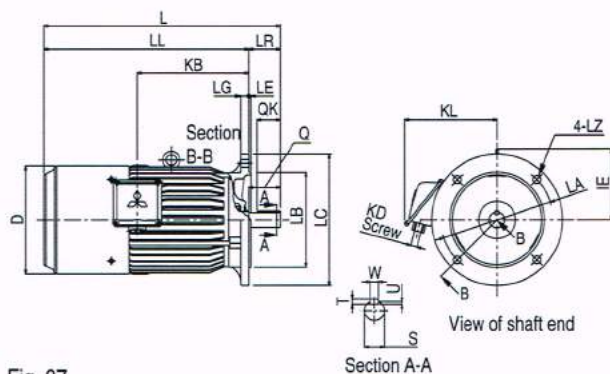


Fig. 27

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	26	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	27	213	130	215	180 j6	250	4	16	396	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		

SF-JRVB 63M~112M

VERTICAL TYPE BRAKE MOTOR



SF-JRVB 1/2HP 4P 71M

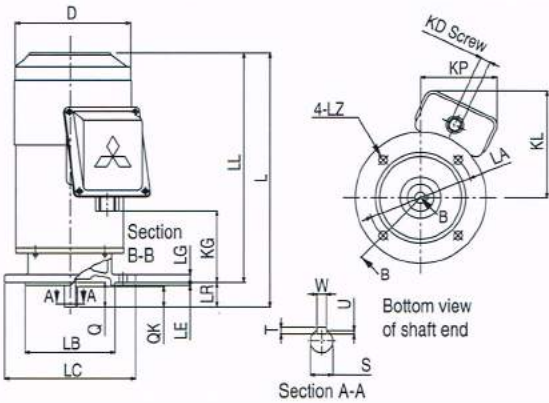


Fig. 28

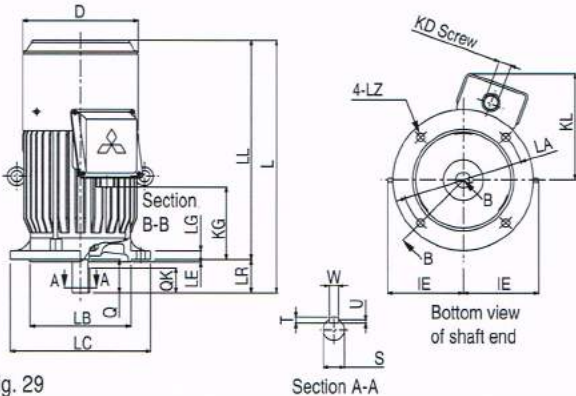


Fig. 29

Dimensions (mm)

* 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

Maintenance

Proper maintenance will greatly affect the motor life.

Inspection and maintenance schedule

- Motors which are only used occasionally, such as emergency motors, conveyors, etc., require daily attention since long periods of non-use may cause the insulation resistance drop ; however, frequently disassembly, cleaning and inspection are not required.
- Motors which are used continuously, such as pumps, fans, etc., must be disassembled, cleaned and inspected frequently.
- Recording of daily inspection, monthly inspections and disassembly inspections is helpful for future maintenance.
- Refer to [Table 1](#) for disassembly and inspection intervals.

Table 1 Disassembly and inspection intervals

Installation site	Infrequently used	Continuously used
Dusty environment	Every 1 - 2 years	Yearly
Clean environment	Every 2 - 3 years	Every 1 - 3 years

Daily inspection

- **Noise** Magnetic noise, mechanical noise, abrasion noise and abnormal bearing noise can be easily heard by listening to the motor with sounding rod.
- **Bad smell** Overheating of motor due to overloading or blocked ventilation can be easily known by the smell of scorched varnish.
- **Appearance** Check for oil leaks or blocked ventilation paths. Using your hand to judge the temperature of the bearings and frame is dangerous, so always use a thermometer such as an alcohol thermometer.

Monthly inspection

- **Grease** Replace and resupply grease in accordance with maintenance plan.
- **Measurement of insulation resistance** Check to see whether or not the insulation resistance is greater than the specified value.
- **Surface painting** Rust will form easily if the paint is peeled. Always repair the paint.

Inspection and cleaning during disassembly

- **Bearings** Clean the bearing and housing, etc., and then replace the grease.
- **Coil and insulation** Check for looseness of the binding twine of the coil and for the other troubles and clean if necessary.
- **Other parts** Remove the dust form the other parts. Repair or replace the damaged parts if occurred.
- **Paint** Repaint the motor if possible even if the paint is not peeling.

Special motor

MEATH is also the manufacturer of special purpose motors for specific applications. The following are some of the special motors we have designed and are now manufacturing.



(SP-KS 200W 4P)

Vibration protected motor

Supporting rubbers are installed on both ends of the motor to prevent motors from high vibration. Suitable for OA machine or all sorts of application which requires high accuracy.



(SL-KR 210W 4P)

Fan motor

Single phase capacitor run motor with double-shaft construction for installation with sirocco fan. The motor is mounted in fan unit of air-conditioner.



(SE-JF 1.5kW 2P V-3)

Spindle motor

For applications which requires extremely low vibration, such as spindling, each part of motor should be balanced carefully. MEATH also provided motors with low vibration degree of V-3



(SL-KRF 100W, 200W 4P)

Home pump motor

Single phase capacitor run motor with flange bracket is equipped with home pumps.



SB-JRF 7.5kW 4P

Elevator motor

Flange type motor with drip-proof enclosure and double shaft construction. One side is tapered to install with gear and the other side to install with encoder.



CHHM5-6135-29

Gear motor

Cyclo drive speed reducer assembled to MEATH IP55 standard motor is able to absorb 500% shock load without damage.

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