



AllianceMotori
eco-drive

A-YL-YC-YY Series

■ Single-phase Asynchronous Motor



A-YL-YC-YY SERIES

SINGLE-PHASE ASYNCHRONOUS MOTOR

PRODUCT INFORMATION

A-YL Single-Phase Asynchronous Motor - General Purpose

A-YL Series capacitor asynchronous motors are single-phase the motors of capacitor start and run. Main features: small size high capacity, strong starting torque, high power factor and efficiency, safety and reliability in running, simple construction and easy maintenance, it possess same frame size and capacity as three-phase asynchronous motors.

The rated frequency of the motors in 50Hz while the rated voltage is 220V.

This series motors are of totally enclosed fan-cooled structure, class F insulation, IP54 degree of protection and IC411 method of cooling. The mounting dimensions of the motors are all in conformity with IEC standards. Mounting types: IM B3, IM B5, IM B35, IM B14, IM V1, IM V5, IM V6, IM V18, IM V19, IM V36.

A-YL series motors are suitable for machines and equipments such as full load start.



A-YC Single-Phase Asynchronous Motor - High Torque

Single-phase capacitor-start asynchronous motor. Series A-YC, is totally enclosed fan-cooled type. The starting torque of motors is 2-3 times as rated torque. The motors give excellent performance such as low in noise, low in temperature-rise, high in overloading capacity and convenience in maintenance. It way widely application in all types of small machine tools compression pumps refrigerators and the equipment which need bigger starting torque, etc.

They are wonderful utilities for family workshop where only single-phase power are available. This series motors adopts class F insulation, IP54 degree of protection and IC0141 method of cooling. The rated frequency of the motor is 50Hz while the rating voltage is 220V.

The mounting dimensions of the motors are all in conformity with IEC standarde. Mounting types: IM B3, IM B5, IM B35, IM B14, IM B34, IM V1, IM V3, IM V5, IM V6, IM V18, IM V19, IM V36. Working conditions: Altitude above sea level not over 1000m, altitude temperature not over 40°C.



A-YY Single-Phase Asynchronous Motor - Industrial Fan & Pump

A-YY series run capacitor asynchronous motor, is produced according IEC standard, with many feature as simply structure, steady running, advanced technical indicators and easily maintenance. Fitting for household appliances, air compressor, pump, blower, recorder instrument, etc.

A-YY series motor is TEFC (Totally Enclosed Fan Cooling), 1854, INS. CL.F. Terminal box at top.



Note. Data May Change Without Notice

A-YL SERIES | 2-Pole, 3000 r/min Synchronous Speed

Motor Type	Rated Output	Rated Speed	Rated Current	Rated Voltage	Rated Eff.	Power Factor	LRT RLT	BDT RLT	LRA RLA	Noise LwdB	Start Capacitor	Running Capacitor	Frequency	Weight Kg
	kW	r/min	A	V	η %	Cos Φ				A	μ f/v	μ f/v		
A-YL-711-2	0.37	2760	2.7	220	67	0.92	1.8	1.6	5.5	72	50/250	8/450	-	6.1
A-YL-712-2	0.55	2780	3.9	220	70	0.92	1.8	1.6	5.5	72	100/250	15/450	-	6.9
A-YL-801-2	0.75	2820	4.9	220	73	0.95	1.8	1.6	5.5	75	100/250	25/450	-	10.5
A-YL-802-2	1.1	2825	7.0	220	75	0.95	1.8	1.6	5.5	75	100/250	30/450	-	11
A-YL-90L1-2	1.5	2825	9.4	220	76	0.95	1.8	1.6	5.5	78	200/250	40/450	-	14.5
A-YL-90L-2	2.2	2830	13.7	220	77	0.95	1.7	1.6	5.5	78	300/250	50/450	-	17
A-YL-100L-2	3	2850	18.2	220	79	0.95	1.7	1.6	6.0	83	350/250	55/450	-	22
A-YL-112L-2	3.7	2880	22.1	220	80	0.95	1.7	1.6	6.0	83	350/250	60/450	-	36
A-YL-132M-2	5.5	2900	32.9	220	80	0.95	1.7	1.6	6.0	83	450/250	70/450	-	49
A-YL-132M2-2	7.5	2900	43.7	220	82	0.95	1.7	1.6	6.5	83	650/250	70/450	-	52

A-YC SERIES | 2-Pole, 3000 r/min Synchronous Speed

A-YC-711-2	0.18	2750	1.9	220	60	0.72	3.0	1.8	12	70	75/250	-	-	7.5
A-YC-712-2	0.25	2770	2.4	220	64	0.74	3.0	1.8	15	70	75/250	-	-	8.5
A-YC-801-2	0.37	2800	3.4	220	65	0.77	2.8	1.8	21	75	100/250	-	-	11
A-YC-802-2	0.55	2810	4.7	220	68	0.79	2.8	1.8	29	75	150/250	-	-	12
A-YC-90L1-2	0.75	2820	6.1	220	70	0.80	2.5	1.8	37	75	200/250	-	-	13
A-YC-90L2-2	1.1	2830	8.7	220	72	0.80	2.5	1.8	60	78	250/250	-	-	16.5
A-YC-100L1-2	1.5	2830	11.4	220	74	0.81	2.5	1.8	80	83	250/250	-	-	19
A-YC-100L2-2	2.2	2840	16.5	220	75	0.81	2.2	1.8	120	83	300/250	-	-	22
A-YC-112M-2	3	2850	21.9	220	76	0.82	2.2	1.8	150	87	350/250	-	-	37
A-YC-132M-2	3.7	2870	26.6	220	77	0.82	2.2	1.8	175	87	600/250	-	-	51
A-YC-132M-2	5.5	2880	38.1	220	79	0.83	2.2	1.8	25	87	700/250	-	-	54

A-YY SERIES | 2-Pole, 3000 r/min Synchronous Speed

A-YY-631-2	0.18	2720	1.37	220	65	0.92	0.4	1.7	5.0	70	-	-	50	4.8
A-YY-632-2	0.25	2720	1.87	220	66	0.92	0.4	1.7	7.0	70	-	-	50	5.2
A-YY-711-2	0.37	2760	2.73	220	67	0.92	0.35	1.7	10	75	-	-	50	7
A-YY-722-2	0.55	2760	3.88	220	70	0.92	0.35	1.7	15	75	-	-	50	8.5
A-YY-801-2	0.75	2800	5.15	220	72	0.92	0.33	1.7	20	75	-	-	50	10.8
A-YY-802-2	1.1	2800	7.02	220	75	0.95	0.33	1.7	30	78	-	-	50	11.5
A-YY-90L1-2	1.5	2820	9.44	220	76	0.95	0.30	1.7	45	83	-	-	50	19
A-YY-90L2-2	2.2	2830	13.67	220	77	0.95	0.30	1.7	65	83	-	-	50	24

Note. Data May Change Without Notice

PERFORMANCE PARAMETERS

A-YL-YC-YY SERIES

A-YL SERIES | 4-Pole, 1500 r/min Synchronous Speed

Motor Type	Rated Output	Rated Speed	Rated Current	Rated Voltage	Rated Eff.	Power Factor	LRT	BDT	LRA	Noise LwdB	Frequency	Start Capacitor	Running Capacitor	Weight
	kW	r/min	A	V	η %	Cos Φ	RLT	RLT	RLA	A		μ f/v	μ f/v	
A-YL-711-4	0.25	1325	2.0	220	62	0.92	1.7	1.6	5.0	67	-	75/250	15/450	5.8
A-YL-712-4	0.37	1330	2.8	220	65	0.92	1.7	1.6	5.0	67	-	75/250	15/450	7.5
A-YL-801-4	0.55	1390	3.95	220	69	0.92	1.7	1.6	5.0	70	-	100/250	15/450	10
A-YL-802-4	0.75	1400	5.05	220	71	0.95	1.7	1.6	5.0	70	-	100/250	25/450	10.5
A-YL-90L1-4	1.1	1400	7.3	220	72	0.95	1.7	1.6	5.0	73	-	150/250	30/450	14
A-YL-90L-4	1.5	1410	9.7	220	74	0.95	1.7	1.6	5.0	73	-	200/250	40/450	16
A-YL-100L1-4	2.2	1420	13.9	220	76	0.95	1.7	1.6	5.0	78	-	300/250	50/450	21
A-YL-100L2-4	3	1430	18.4	220	78	0.95	1.7	1.6	5.0	78	-	350/250	55/450	27
A-YL-112L-4	3.7	1435	22.4	220	79	0.95	1.7	1.6	5.5	83	-	350/250	60/450	31
A-YL-132M-4	5.5	1440	33.3	220	79	0.95	1.7	1.6	5.5	83	-	450/250	70/450	53
A-YL-132M2-4	7.5	1440	44	220	81	0.95	1.7	1.6	6.0	83	-	650/250	70/450	57

A-YC SERIES | 4-Pole, 1500 r/min Synchronous Speed

A-YC-711-4	0.12	1350	1.9	220	50	0.58	3.0	1.8	9	65	-	75/250	-	7.5
A-YC-712-4	0.18	1370	2.5	220	53	0.62	2.8	1.8	12	65	-	75/250	-	8.5
A-YC-801-4	0.25	1400	3.1	220	58	0.63	2.8	1.8	15	65	-	100/250	-	10.5
A-YC-802-4	0.37	1410	4.2	220	62	0.64	2.5	1.8	21	70	-	100/250	-	11
A-YC-90L1-4	0.55	1420	5.5	220	66	0.69	2.5	1.8	29	70	-	150/250	-	15
A-YC-90L2-4	0.75	1420	6.9	220	68	0.73	2.5	1.8	37	70	-	150/250	-	16
A-YC-100L1-4	1.1	1425	9.5	220	71	0.74	2.5	1.8	60	73	-	200/250	-	24
A-YC-100L2-4	1.5	1430	12.5	220	73	0.75	2.5	1.8	80	78	-	300/250	-	25
A-YC-112M-4	2.2	1440	17.8	220	74	0.76	2.2	1.8	120	78	-	600/250	-	32
A-YC-132M1-4	3	1450	23.6	220	75	0.77	2.2	1.8	150	82	-	600/250	-	48
A-YC-132M2-4	3.7	1450	28.0	220	76	0.79	2.2	1.8	175	82	-	600/250	-	54
A-YC-132M3-4	5.5	1450	40	220	78	0.80	2.2	1.8	250	82	-	600/250	-	57

A-YY SERIES | 4-Pole, 1500 r/min Synchronous Speed

A-YY-631-4	0.12	1310	1.06	220	57	0.920	0.4	1.7	3.5	65	50	-	-	4
A-YY-632-4	0.18	1310	1.54	220	59	0.90	0.35	1.7	5.0	65	50	-	-	5
A-YY-711-4	0.25	1340	2.02	220	61	0.92	0.35	1.7	7	65	50	-	-	6.7
A-YY-712-4	0.37	1340	2.95	220	62	0.92	0.35	1.7	10	70	50	-	-	6.9
A-YY-801-4	0.55	1400	4.25	220	64	0.92	0.35	1.7	15	70	50	-	-	8
A-YY-802-4	0.75	1410	5.45	220	68	0.92	0.32	1.7	20	70	50	-	-	9.8
A-YY-90L1-4	1.1	1420	7.41	220	71	0.95	0.32	1.7	30	73	50	-	-	14.5
A-YY-90L2-4	1.5	1420	9.83	220	73	0.95	0.30	1.7	45	78	50	-	-	18

Note. Data May Change Without Notice

A-YL SERIES | Capacitor Data

Model No	0.8	Start	Run
A-YL-711-2	0.37	50uF/250v	8uF/450v
A-YL-712-2	0.55	100uF/250v	15uF/450v
A-YL-801-2	0.75	100uF/250v	25uF/450v
A-YL-802-2	1.1	100uF/250v	30uF/450v
A-YL-90L1-2	1.5	100uF/250v	40uF/450v
A-YL-90L2-2	2.2	300uF/250v	50uF/450v
A-YL-100L-2	3	350uF/250v	55uF/450v
A-YL-112L-2	3.7	350uF/250v	60uF/450v
A-YL-132M-2	5.5	450uF/250v	70uF/450v

Model No	0.8	Start	Run
A-YL-711-4	0.25	75uF/250v	15uF/450v
A-YL-712-4	0.37	75uF/250v	15uF/450v
A-YL-801-4	0.55	100uF/250v	15uF/450v
A-YL-802-4	0.75	100uF/250v	25uF/450v
A-YL-90L1-4	1.1	150uF/250v	30uF/450v
A-YL-90L2-4	1.5	200uF/250v	40uF/450v
A-YL-100L1-4	2.2	300uF/250v	50uF/450v
A-YL-100L2-4	3	350uF/250v	55uF/450v
A-YL-112L-4	3.7	350uF/250v	60uF/450v
A-YL-132M-4	5.5	450uF/250v	70uF/450v

A-YC SERIES | Capacitor Data

Model No	0.8	Start	Run
A-YC-711-2	0.18	75uF/250v	/
A-YC-712-2	0.25	75uF/250v	/
A-YC-801-2	0.37	100uF/250v	/
A-YC-802-2	0.55	150uF/250v	/
A-YC-90L1-2	0.75	200uF/250v	/
A-YC-90L2-2	1.1	250uF/250v	/
A-YC-100L1-2	1.5	250uF/250v	/
A-YC-100L2-2	2.2	300uF/250v	/
A-YC-112M-2	3	350uF/250v	/
A-YC-132M-2	3.7	350uF/250v	/

Model No	0.8	Start	Run
A-YC-711-4	0.12	75uF/250v	/
A-YC-712-4	0.18	75uF/250v	/
A-YC-801-4	0.25	100uF/250v	/
A-YC-802-4	0.37	100uF/250v	/
A-YC-90L1-4	0.55	150uF/250v	/
A-YC-90L2-4	0.75	150uF/250v	/
A-YC-100L1-4	1.1	200uF/250v	/
A-YC-100L2-4	1.5	300uF/250v	/
A-YC-112M-4	2.2	300uF/250v	/
A-YC-132M1-4	3	350uF/250v	/
A-YC-132M2-4	3.7		

A-YY SERIES | Capacitor Data

Model No	0.8	Start	Run
A-YY-631-2	0.18	/	4uF/450v
A-YY-632-2	0.25	/	5uF/450v
A-YY-711-2	0.37	/	10uF/450v
A-YY-712-2	0.55	/	10uF/450v
A-YY-801-2	0.75	/	20uF/450v
A-YY-802-2	1.1	/	25uF/450v
A-YY-90L1-2	1.5	/	50uF/450v
A-YY-90L2-2	2.2	/	110uF/450v

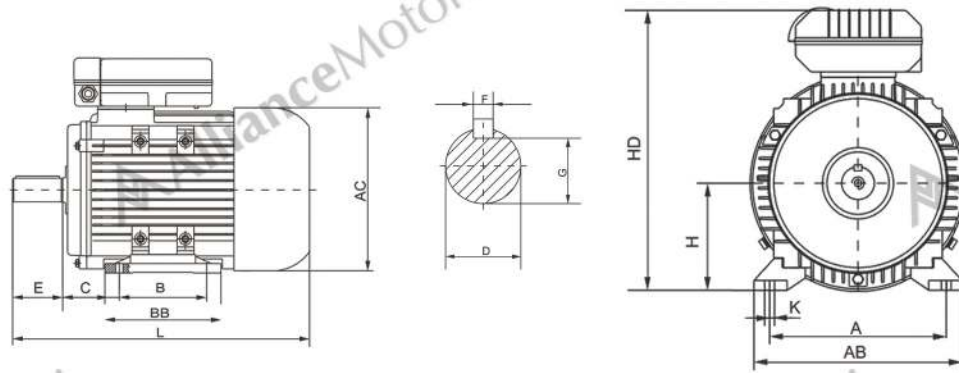
Model No	0.8	Start	Run
A-YY-631-4	0.12	/	4uF/450v
A-YY-632-4	0.18	/	6uF/450v
A-YY-711-4	0.25	/	8uF/450v
A-YY-712-4	0.37	/	10uF/450v
A-YY-801-4	0.55	/	25uF/450v
A-YY-802-4	0.75	/	25uF/450v
A-YY-90L1-4	1.1	/	30uF/450v
A-YY-90L2-4	1.5	/	40uF/450v

Note. Data May Change Without Notice

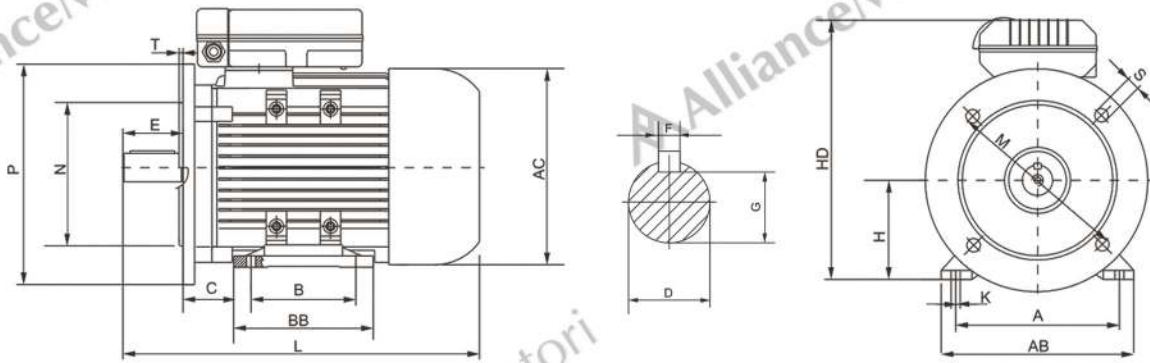
DIMENSIONS MOUNT

A-YL-YC-YY SERIES

IM B3 63-132



IM B35 63-132



IM B3 | Frame with feet and end-shield

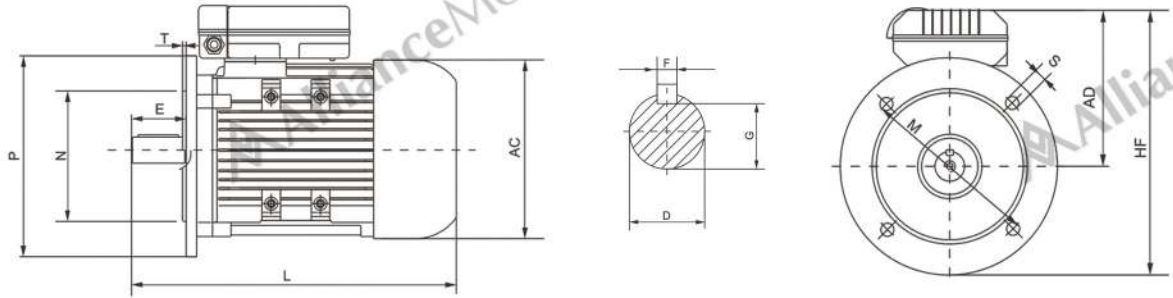
Type	Poles	A	B	C	D	E	F	G	H	K	AB	BB	HD	AC	L
63	2.4	100	80	40	11	23	4	8.5	63	7	135	100	182	120	217
71	2.4	80	80	45	14	30	5	11	71	7	150	112	202	136	250
80	2.4	125	100	50	19	40	6	15.5	80	10	153	125	227	160	310
90S	2.4	140	100	56	24	50	8	20	90	10	172	156	246	175	340
90L	2.4	140	125	56	24	50	8	20	90	10	172	156	246	175	340
100L	2.4	160	140	63	28	60	8	24	100	12	200	172	250	196	425
112M	2.4	190	140	70	28	60	8	24	112	12	230	181	285	220	450
132S	2.4	216	140	89	38	80	10	33	132	12	260	186	330	259	485
132M	2.4	216	178	89	38	80	10	33	132	12	260	224	330	259	525

IM B35 | Frame with feet and end-shield with flange

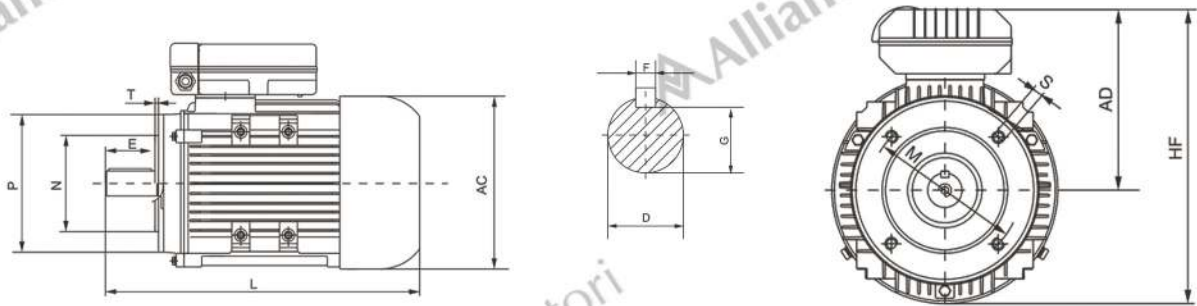
Type	Poles	A	B	C	D	E	F	G	H	K	P	N	M	S	T	AB	BB	AC	HD	L
63	2.4	100	80	40	11	23	4	8.5	63	7	140	95	115	10	3	135	100	120	182	217
71	2.4	80	80	45	14	30	5	11	71	7	160	110	130	12	3.5	150	112	136	202	250
80	2.4	125	100	50	19	40	6	15.5	80	10	200	130	165	12	3.5	153	125	160	227	310
90S	2.4	140	100	56	24	50	8	20	90	10	200	130	165	12	3.5	172	156	175	246	340
90L	2.4	140	125	56	24	50	8	20	90	10	200	130	165	12	3.5	172	156	175	246	340
100L	2.4	160	140	63	28	60	8	24	100	12	250	180	215	15	4	200	172	196	250	425
112M	2.4	190	140	70	28	60	8	24	112	12	250	180	215	15	4	230	181	220	285	450
132S	2.4	216	140	89	38	80	10	33	132	12	300	230	265	15	4	260	186	259	330	485
132M	2.4	216	178	89	38	80	10	33	132	12	300	230	265	15	4	260	224	259	330	525

Note. Data May Change Without Notice

IM B5 63-132



IM B14 63-132



Frame without feet and end-shield with flange | IM B5

Type	Poles	D	E	F	G	P	N	M	S	T	AD	HF	AC	L
63	2.4	11	23	4	8.5	140	95	115	10	3	119	189	120	217
71	2.4	14	30	5	11	160	110	130	12	3.5	131	211	136	250
80	2.4	19	40	6	15.5	200	130	165	12	3.5	147	247	160	310
90S	2.4	24	50	8	20	200	130	165	12	3.5	156	256	175	340
90L	2.4	24	50	8	20	200	130	165	12	3.5	156	256	175	340
100L	2.4	28	60	8	24	250	180	215	15	4	150	275	196	425
112M	2.4	28	60	8	24	250	180	215	15	4	173	298	220	450
132S	2.4	38	80	10	33	300	230	265	15	4	198	348	259	485
132M	2.4	38	80	10	33	300	230	265	15	4	198	348	259	525

Frame with feet and end-shield with small flange | IM B14

Type	Poles	D	E	F	G	P	N	M	S	T	AD	HF	AC	L
63	2.4	11	23	4	8.5	140	95	115	M5	2.5	119	180	120	217
71	2.4	14	30	5	11	105	70	85	M6	2.5	131	198.5	136	250
80	2.4	19	40	6	15.5	120	80	100	M6	3.0	147	227	160	310
90S	2.4	24	50	8	20	140	95	115	M8	3.0	156	243.5	175	340
90L	2.4	24	50	8	20	140	95	115	M8	3.0	156	243.5	175	340
100L	2.4	28	60	8	24	160	110	130	M8	3.5	150	249	196	425
112M	2.4	28	60	8	24	160	110	130	M8	3.5	173	283	220	450
132S	2.4	38	80	10	33	200	130	165	M10	3.5	198	327.5	259	485
132M	2.4	38	80	10	33	200	130	165	M10	3.5	198	327.5	259	525

Note. Data May Change Without Notice

BEARING SIZE & INSTALLATION DRAWING

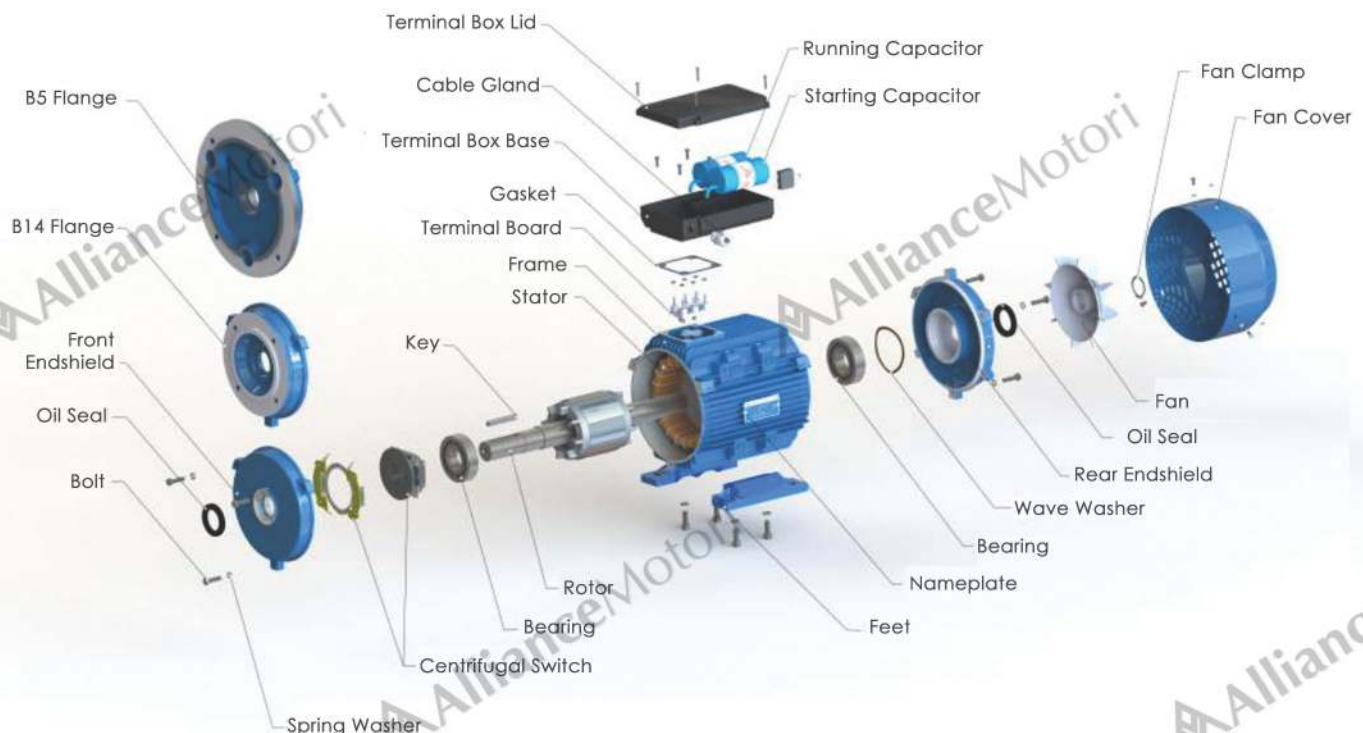
A-YL-YC-YY Series

Frame Size	Poles	Drive End	Non-Drive End
		International Type	International Type
Y3A-56	2 ~ 4	62012RZ	62012RZ
Y3A-63	2 ~ 4	62012RZ	62012RZ
Y3A-71	2 ~ 6	62022RZ	62022RZ
Y3A-80	2 ~ 8	62042RZ	62042RZ
Y3A-90	2 ~ 8	62052RZ	62052RZ
Y3A-100	2 ~ 8	62062RZ	62062RZ
Y3A-112	2 ~ 8	63062RZ	63062RZ
Y3A-132	2 ~ 8	63082RZ	63082RZ
Y3A-160	2 ~ 8	63092ZC3	63092ZC3

MAIN DATA FOR TERMINAL BOX

Classified Number	Frame Size	Max. F. Amps	Entry Hole Size
			International Standard
1	H56-80	2.6	2 X M20 X 1.5
2	H90-100	6.8	2 X M25 X 1.5
3	H112-132	15.4	2 X M32 X 1.5
4	H160-180	42.5	2 X M40 X 1.5
5	H200-225	84.2	2 X M50 X 1.5
6	H250-280	166.6	2 X M63 X 1.5
7	H315	358	2 X M63 X 1.5
8	H355	546	2 X M63 X 1.5
9	H400	600	3 X M63 X 1.5

INSTALLATION DRAWING



Note. Data May Change Without Notice

THE MOUNTING ARRANGEMENTS

A-YL-YC-YY SERIES

The Mounting arrangements of the motors comply with IEC34-7 Recommendation. Three are four basic arrangements shown as the following tables and figures.

Fundamental arrangement	B3					
Mounting arrangement	B3	B6	B7	B8	V5	V6
Diagram						
Range of Manufacture (framesize)	56-400			56-160		

Fundamental arrangement	B5			B35		
Mounting arrangement	B5	V1	V3	B35	V15	V36
Diagram						
Range of Manufacture (framesize)	56-280	56-355	56-160	56-400	56-160	

Fundamental arrangement	B14					
Mounting arrangement	B14	B34	V18	V58	V19	V69
Diagram						
Range of Manufacture (framesize)	56-132					

Note. Data May Change Without Notice



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