

A-YVVF Series

■ CONVERTER-FED THREE-PHASE INDUCTION MOTOR



A-YVF SERIES

CONVERTER-FED THREE-PHASE INDUCTION MOTOR



PRODUCT INFORMATION

A-YVF series motors use squirrel-cage construction for reliable operation and easy maintenance. This series motors have a good cooling effect at any speed with separated axial-flow ventilator. This series motors can save energy and can be automatic controlled, driven by variable frequency inverters. It fitted with highly accurate sensors, this series motors can achieve highly accurate operation of closed loop. A-YVF series motors are suitable for various operation systems by which speed-regulation is needed, so they have wide applications in many industries, such as light industry, textile, chemistry, metallurgy, crane, machine tool and so on.

SPECIFICATION

Standard | JB/T 7118
Frame Size | H90-355mm
Rated Power | 0.75kW-315kW
Voltage and Frequency | 380V / 50Hz
Running Zone for Constant Torque | 5-50 Hz
Running Zone for Constant Power | 50-100 Hz
Degrees of Protections | IP55
Degrees of Insulation / Temperature Rise | F/B
Installation Methods | B3/B5/B35/V1
Ambient Temperature | -15°C ~+ 40°C
Relative Humidity Should Be Less Than 90%
Altitude Should Be Lower Than 1000m
Above Sea Level
Cooling Method | IC416, IC411

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PERFORMANCE TABLE

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PERFORMANCE PARAMETERS

A-YVF SERIES

4-Pole, 1500 r/min Synchronous Speed

380V 50Hz

Motor Type	Rated Power	Rated Speed	Rated Current	Rated Torque	$\frac{T_{max}}{T_n}$	Weight (kg)	
	kW	r/min	A	Nm		IC416	IC411
A-YVF-90S-4	1.1	1395	2.8	7.5	2.8	24	22
A-YVF-90L-4	1.5	1410	3.9	10.2	2.8	29	27
A-YVF-100L1-4	2.2	1430	5.0	14.7	2.8	36	34
A-YVF-100L2-4	3	1430	6.8	20	2.8	40	38
A-YVF-112M-4	4	1440	8.8	26.5	2.8	48	44
A-YVF-132S-4	5.5	1445	11.5	36.4	2.8	70	61
A-YVF-132M-4	7.5	1445	15.5	49.6	2.8	82	73
A-YVF-160M-4	11	1450	22.5	72.5	2.8	125	113
A-YVF-160L-4	15	1450	29.7	98.8	2.8	145	133
A-YVF-180M-4	18.5	1465	36.5	121	2.8	187	167
A-YVF-180L-4	22	1465	42.5	143	2.8	201	181
A-YVF-200L-4	30	1470	58.5	195	2.8	257	232
A-YVF-225S-4	37	1470	72.8	240	2.8	317	287
A-YVF-225M-4	45	1475	84.7	291	2.8	352	322
A-YVF-250M-4	55	1475	104	356	2.8	411	381
A-YVF-280S-4	75	1480	136	484	2.8	545	510
A-YVF-280M-4	90	1480	163	581	2.8	635	600
A-YVF-315S-4	110	1485	205	708	2.8	961	921
A-YVF-315M-4	132	1485	235	849	2.8	1042	1002
A-YVF-315L1-4	160	1485	280	1029	2.8	1110	1070
A-YVF-315L2-4	200	1490	360	1282	2.8	1221	1181
A-YVF-355M-4	250	1490	445	1603	2.8	1765	1725
A-YVF-355L-4	315	1490	558	2020	2.8	1995	1955

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6-Pole, 1000 r/min Synchronous Speed

380V 50Hz

Motor Type	Rated Power	Rated Speed	Rated Current	Rated Torque	T _{max} T _n	Weight (kg)	
	kW	r/min	A	Nm		IC416	IC411
A-YVF-90S-6	0.75	920	2.3	7.8	2.8	25	23
A-YVF-90L-6	1.1	920	3.3	11.4	2.8	29	27
A-YVF-100L1-6	1.5	930	4.0	15.4	2.8	36	34
A-YVF-112M-6	2.2	945	6.0	22.2	2.8	43	41
A-YVF-132S-6	3	965	7.4	29.7	2.8	60	56
A-YVF-132M1-6	4	965	9.5	39.6	2.8	79	70
A-YVF-132M2-6	5.5	965	12.6	54.5	2.8	83	74
A-YVF-160M-6	7.5	970	18.2	73.9	2.8	120	108
A-YVF-160L-6	26.5	970	26.5	108	2.8	143	131
A-YVF-180L-6	15	975	31.3	147	2.8	191	171
A-YVF-200L1-6	18.5	980	38.5	180	2.8	246	221
A-YVF-200L2-6	22	980	45.4	214	2.8	255	225
A-YVF-225M-6	30	985	58.8	291	2.8	322	292
A-YVF-250M-6	37	985	69.2	359	2.8	438	408
A-YVF-280S-6	45	985	84.2	436	2.8	500	465
A-YVF-280M-6	55	985	102	533	2.8	575	540
A-YVF-315S-6	75	990	143	724	2.8	901	861
A-YVF-315M-6	90	990	173	869	2.8	980	940
A-YVF-315L1-6	110	990	206	1062	2.8	1150	1110
A-YVF-315L2-6	132	990	250	1274	2.8	1215	1175
A-YVF-355M1-6	160	990	295	1544	2.8	1735	1695
A-YVF-355M2-6	200	990	370	1930	2.8	1915	1875
A-YVF-355L-6	250	990	456	2413	2.8	2025	1985

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PERFORMANCE PARAMETERS IC416 - TECHNICAL DATA TABLE FOR VENTILATOR

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8-Pole, 750 r/min Synchronous Speed

380V 50Hz

Motor Type	Rated Power	Rated Speed	Rated Current	Rated Torque	T _{max} T _n	Weight (kg)	
	kW	r/min	A	Nm		IC416	IC411
A-YVF-132S-8	2.2	715	5.7	29.4	2.8	70	61
A-YVF-132M-8	3	715	7.5	40.1	2.8	74	65
A-YVF-160M1-8	4	720	9.6	53.1	2.8	106	94
A-YVF-160M2-8	5.5	720	13.3	73	2.8	118	106
A-YVF-160L-8	7.5	720	17	99.5	2.8	140	128
A-YVF-180L-8	11	725	30.2	145	2.8	190	170
A-YVF-200L-8	15	730	33.8	196	2.8	255	230
A-YVF-225S-8	18.5	730	40.5	242	2.8	297	267
A-YVF-225M-8	22	735	46.5	286	2.8	319	289
A-YVF-250M-8	30	735	62.5	390	2.8	395	365
A-YVF-280S-8	37	735	75.6	481	2.8	510	475
A-YVF-280M-8	45	735	93.5	585	2.8	590	555
A-YVF-315S-8	55	740	112	710	2.8	945	905
A-YVF-315M-8	75	740	150	968	2.8	1021	981
A-YVF-315L1-8	90	740	180	1162	2.8	1141	1071
A-YVF-315L2-8	110	740	215	1420	2.8	1200	1160
A-YVF-355M1-8	132	745	250	1693	2.8	1845	1805
A-YVF-355M2-8	160	745	300	2052	2.8	1935	1895
A-YVF-355L-8	200	745	380	2565	2.8	2085	2045

IC416 - Technical Data Table For Ventilator

Frame Size	Type	kW	r/min	Pa	m ³ /h	LW dB (A)
80	G80A	30	2300	70	330	62
90	G90A	42	2800	80	500	65
100	G100A	52	2800	82	660	67
112	G112A	60	2800	90	900	70
132	G132A	40	1400	50	780	70
160	G160A	120	1400	50	1300	70
180	G180A	120	1400	55	1300	70
200	G200A	370	1400	100	2400	70
225	G225A	370	1400	150	4200	74
250	G250A	370	1400	150	4200	77
280	G280A	450	1250	150	5000	77
315	G315A	450	1250	180	6200	85
355	G355A	650	1350	180	6500	88

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DIMENSIONS MOUNT

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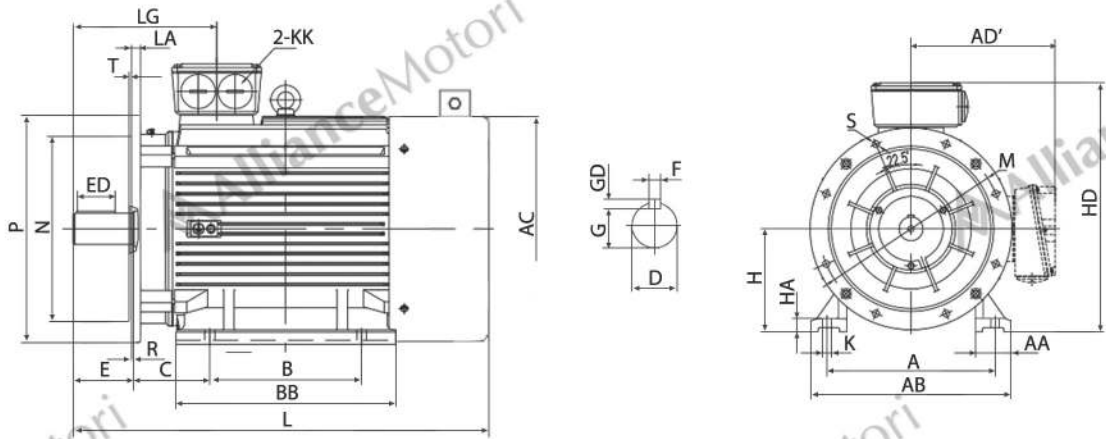
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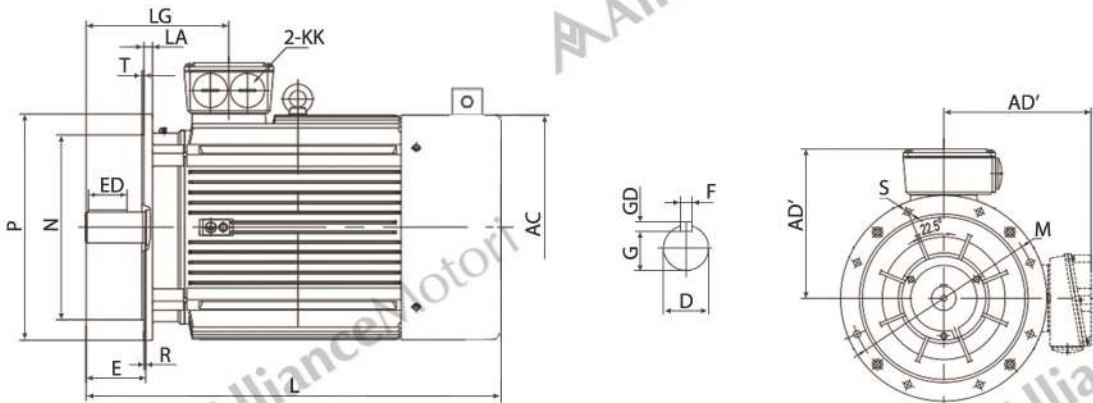
DIMENSIONS MOUNT

A-YVF SERIES

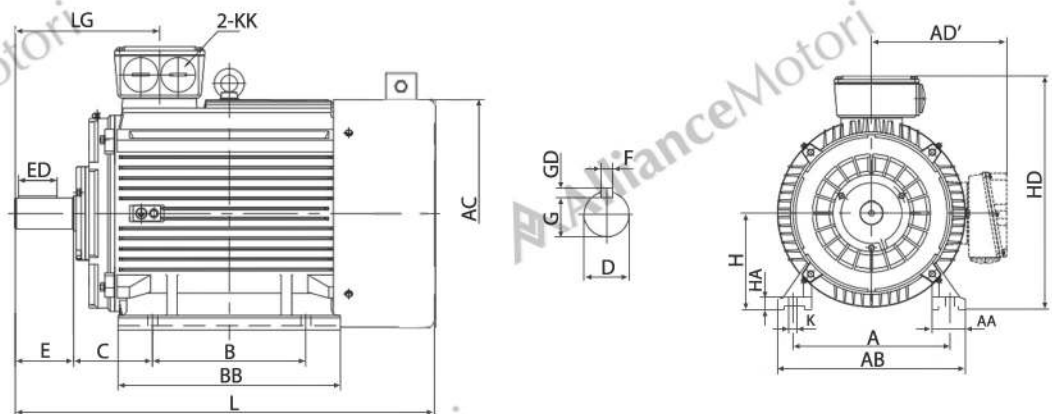
B35



B5 / V1



B3



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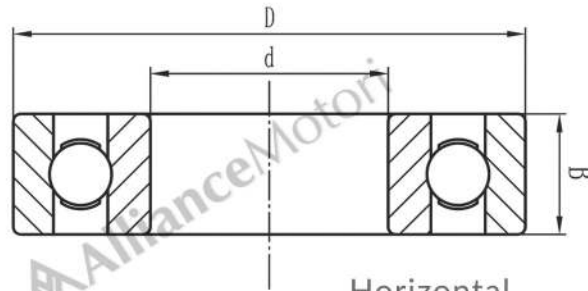
4-8P

Frame	B3																B35 , B5 & V1										
	A	AA	AB	AC	AD'	B	BB	C	D	E	ED	F	G	GD	H	HA	HD	K	KK	L	LG	LA	M	N	P	S	T
90S	140	36	180	190	165	100	135	56	24	50	32	8	20	7	90	12.5	260	10	M25x1.5	390	124	12	165	130	200	12	3.5
90L	140	36	180	190	165	125	160	56	24	50	32	8	20	7	90	12.5	260	10	M25x1.5	415	124	12	165	130	200	12	3.5
100L	160	40	200	215	170	140	182	63	28	60	40	8	24	7	100	14	275	12	M25x1.5	455	140	14	215	180	250	14.5	4
112M	190	45	230	236	195	140	195	70	28	60	40	8	24	7	112	14	310	12	M32x1.5	475	145	14	215	180	250	14.5	4
132S	216	52	265	275	215	140	205	89	38	80	56	10	33	8	132	16	350	12	M32x1.5	535	169	14	265	230	300	14.5	4
132M	216	52	265	275	215	178	245	89	38	80	56	10	33	8	132	16	350	12	M32x1.5	575	169	14	265	230	300	14.5	4
160M	254	65	320	330	265	210	260	108	42	110	80	12	37	8	160	19	425	14.5	M40x1.5	660	270	15	300	250	350	18.5	5
160L	254	65	320	330	265	254	305	108	42	110	80	12	37	8	160	19	425	14.5	M40x1.5	705	270	15	300	250	350	18.5	5
180M	279	70	350	380	280	241	285	121	48	110	80	14	42.5	9	180	22	440	14.5	M40x1.5	725	277	15	300	250	350	18.5	5
180L	279	70	350	380	280	279	325	121	48	110	80	14	42.5	9	180	22	440	14.5	M40x1.5	765	277	15	300	250	350	18.5	5
200L	318	80	390	420	315	305	355	133	55	110	80	16	49	10	200	25	505	18.5	M50x1.5	830	298	17	350	300	400	18.5	5
225S	356	75	435	465	335	286	350	149	60	140	100	18	53	11	225	28	550	18.5	M50x1.5	895	340	20	400	350	450	18.5	5
225M	356	75	435	465	335	311	375	149	60	140	100	18	53	11	225	28	550	18.5	M50x1.5	920	340	20	400	350	450	18.5	5
250M	406	100	485	520	370	349	450	168	65	140	100	18	58	11	250	33	635	24	M63x1.5	1025	357	20	500	450	550	18.5	5
280S	457	105	550	570	400	368	490	190	75	140	100	20	67.5	12	280	35	695	24	M63x1.5	1115	350	22	500	450	550	18.5	5
280M	457	103	550	570	400	419	540	190	75	140	100	20	67.5	12	280	35	695	24	M63x1.5	1165	350	22	500	450	550	18.5	5
315S	508	125	630	650	495	406	515	216	80	170	130	22	71	14	315	45	810	28	M63x1.5	1300	417	24	600	550	660	24	6
315M	508	125	630	650	495	457	525	216	80	170	130	22	71	14	315	45	810	28	M63x1.5	1410	417	24	600	550	660	24	6
315L	508	125	630	650	495	508	625	216	80	170	130	22	71	14	315	45	810	28	M63x1.5	1410	417	24	600	550	660	24	6
355M	610	125	735	735	640	560	850	254	95	170	140	25	86	14	355	49	1000	28	M63x1.5	1755	450	25	740	680	800	24	6
355L	610	125	735	735	640	630	850	254	95	170	140	25	86	14	355	49	1000	28	M63x1.5	1755	450	25	740	680	800	24	6

Note. Data May Change Without Notice

BEARING

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Vertical

Frame Size	DE	NDE	d	D	B
80	6204 ZZ	6204 ZZ	20	47	14
90	6205 ZZ	6205 ZZ	25	52	15
100	6206 ZZ	6206 ZZ	30	62	16
112	6306 ZZ	6306 ZZ	30	72	19
132	6308 ZZ	6308 ZZ	40	90	23
160	6309	6309	45	100	25
180	6311	6311	55	120	29
200	6312	6312	60	130	31
225	6313	6313	65	140	33
250	6314	7314	70	150	35
280 - 2P	6314	7314	70	150	35
280 - 4 - 8P	6317	7317	85	180	41
315 - 2P	6316	7316	80	170	39
315 - 4 - 10P	6319	7319	95	200	45
355 - 2P	6319	7319	95	200	45
355 - 4 - 10P	6322	7322	110	240	50
355L3 - 4P, L2-6P	NU324	7324	120	260	55

Horizontal

Frame Size	DE	NDE	d	D	B
80	6204 ZZ	6204 ZZ	20	47	14
90	6205 ZZ	6205 ZZ	25	52	15
100	6206 ZZ	6206 ZZ	30	62	16
112	6306 ZZ	6306 ZZ	30	72	19
132	6308 ZZ	6308 ZZ	40	90	23
160	6309	6309	45	100	25
180	6311	6311	55	120	29
200	6312	6312	60	130	31
225	6313	6313	65	140	33
250	6314	6314	70	150	35
280 - 2P	6314	6314	70	150	35
280 - 4 - 8P	6317	6317	85	180	41
315 - 2P	6316	6316	80	170	39
315 - 4 - 10P	6319	6319	95	200	45
355 - 2P	6319	6319	95	200	45
355 - 4 - 10P	6322	6322	110	240	50
355L3 - 4P, L2-6P	NU324	6324	120	260	55

BEARING TYPE AND LUBRICATION INTERVAL TABLE

Notes: Motor H80 ~ 132 with sealed bearings need not to grease, motors whose frames dimensions are greater than H160 are equipped with grease filling and draining devices.

For vertical motor, if unspecified, the interval is half of the above value. The above value is based on bearing temperature of 80°C and environment temperature of +25°C. The environment temperature changes will affect the bearing temperature. The interval shall be half every 15°C increased of the bearing temperature, while double the interval every 15°C reduced of bearing temperature.

The standard motor use HTHS grease. Please do not mix other brand and type of grease to avoid damage to the bearing which can be caused by incompatible of different grease.

Frame Size	Frame Size		Grease Amount G	Interval (hour)		
	DE	NDE		<3600rpm	<1800rpm	<1000rpm
160	6309	6309	30	3000	4000	5000
180	6311	6311	50	3000	4000	5000
200	6312	6312	60	3000	4000	5000
225	6313	6313	80	3000	4000	5000
250	6314	6314	80	2000	4000	5000
280 - 2P	6314	6314	80	2000	-	-
280 - 4 - 8P	6317	6317	120	-	4000	5000
315 - 2P	6316	6316	100	2000	-	-
315 - 4 - 10P	6319	6319	120	-	2000	4000
355 - 2P	6319	6319	120	1000	-	-
355 - 4 - 10P	6322	6322	220	-	2000	4000
355L3 - 4P, L2-6P	Nu324	6324	240	-	2000	4000

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THE MOUNTING ARRANGEMENTS

A-YVF 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					

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