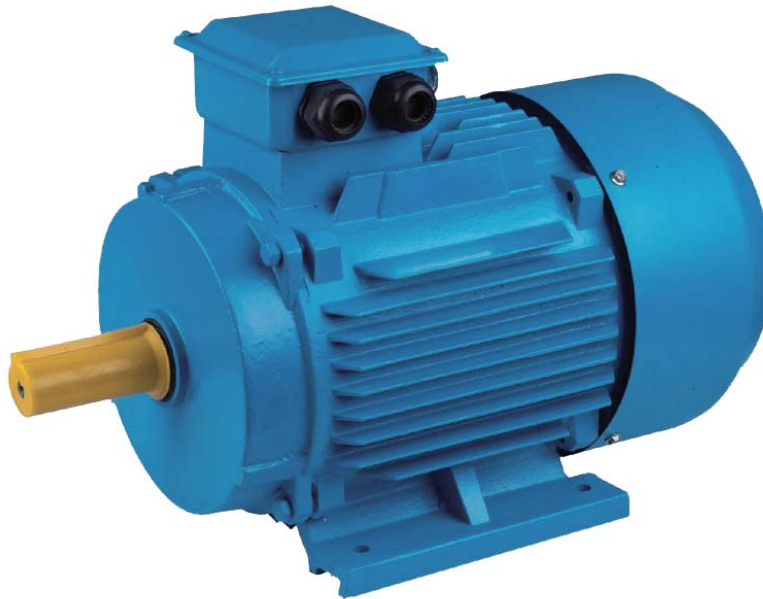


## A2 SERIES

# Three-phase Induction Motor

## A2 SERIES Three-phase Induction Motor



A2 Series motors are totally enclosed fan cooled (TEFC), squirrel cage type three-phase induction motors, developed with new technique. They are renewal and upgrading products of Y series. The efficiency meets EFF2 standards. The mounting dimension is fully conformed to IEC standard.

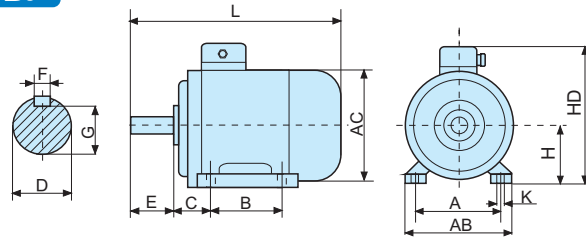
The motors have the merits of beautiful modelling, compact structure, low noise, high efficiency, large starting torque, easy operation, etc. The motors are adopted with F class insulation and designed with assessing method for insulation system according to international practice, it enhances greatly motor's safety and reliability. These motors have reached an international advanced level of 1990's.

A2 series motors are widely used in various machines and equipments, such as drilling machines, blowers, pumps, compressors, transporters, agricultural and food processing machines.

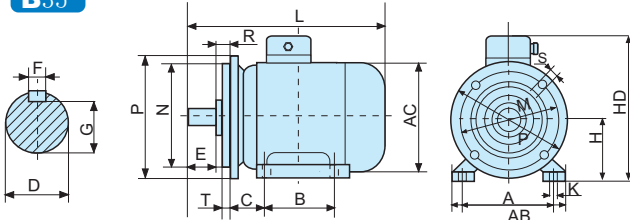
### OPERATING CONDITIONS

Ambient temperature:	$-15^{\circ}\text{C} \leq \theta \leq 40^{\circ}\text{C}$
Altitude:	Not exceeding 1000 meters
Rated voltage:	$380\text{V} \pm 5\%$
Rated frequency:	50Hz (60Hz is available on request)
Connection:	Y Star-connection for 3kw and below $\Delta$ Delta-connection for 4kw and above
Duty/Rating:	Continuous (S1)
Insulation class:	Class F
Protection class:	The main body of the motor IP54 The terminal box IP55
Cooling method:	IC 411

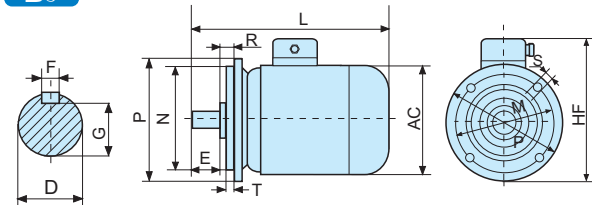
**B3**



**B35**



**B5**



**A2 SERIES MOTOR OVERALL INSTALLATION DIMENSIONS**

Frame Size	Mounting Dimensions (mm)															Overall Dimensions (mm)					
	A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	AB	AC	AD	HD	HF	L
63	100	80	40	11	23	4	8.5	63	7	115	95	140	0	10	3	135	130	70	180	130	230
71	112	90	45	14	30	5	11	71	7	130	110	160	0	10	3.5	150	145	80	195	145	255
80	125	100	50	19	40	6	15.5	80	10	165	130	200	0	12	3.5	165	175	145	220	185	295
90S	140	100	56	24	50	8	20	90	10	165	130	200	0	12	3.5	180	195	155	250	195	320
90L	140	125	56	24	50	8	20	90	10	165	130	200	0	12	3.5	180	195	155	250	195	345
100L	160	140	63	28	60	8	24	100	12	215	180	250	0	15	4	205	215	180	270	245	385
112M	190	140	70	28	60	8	24	112	12	215	180	250	0	15	4	230	240	190	300	265	400
132S	216	140	89	38	80	10	33	132	12	265	230	300	0	15	4	270	275	210	345	315	470
132M	216	178	89	38	80	10	33	132	12	265	230	300	0	15	4	270	275	210	345	315	510
160M	254	210	108	42	110	12	37	160	15	300	250	350	0	19	5	320	330	255	420	385	615
160L	254	254	108	42	110	12	37	160	15	300	250	350	0	19	5	320	330	255	420	385	670
180M	279	241	121	48	110	14	42.5	180	15	300	250	350	0	19	5	355	380	280	455	430	700
180L	279	279	121	48	110	14	42.5	180	15	300	250	350	0	19	5	355	380	280	455	430	740
200L	318	305	133	55	110	16	49	200	19	350	300	400	0	19	5	395	420	305	505	480	770
225S	356	286	149	60	140	18	53	225	19	400	350	450	0	19	5	435	470	335	560	535	815
225M-2	356	311	149	55	110	16	49	225	19	400	350	450	0	19	5	435	470	335	560	535	820
225M-4、6	356	311	149	60	140	18	53	225	19	400	350	450	0	19	5	435	470	335	560	535	845
250M-2	406	349	168	60	140	18	53	250	24	500	450	550	0	19	5	490	510	370	615	595	910
250M-4、6	406	349	168	65	140	18	58	250	24	500	450	550	0	19	5	490	510	370	615	595	910
280S-2	457	368	190	65	140	18	58	280	24	500	450	550	0	19	5	550	580	410	680	650	985
280S-4、6	457	368	190	75	140	20	67.5	280	24	500	450	550	0	19	5	550	580	410	680	650	985
280M-2	457	419	190	65	140	18	58	280	24	500	450	550	0	19	5	550	580	410	680	650	1035
280M-4、6	457	419	190	75	140	20	67.5	280	24	500	450	550	0	19	5	550	580	410	680	650	1035
315S-2	508	406	216	65	140	18	58	315	28	600	550	660	0	24	6	635	645	530	845	900	1160
315S-4、6	508	406	216	80	170	22	71	315	28	600	550	660	0	24	6	635	645	530	845	900	1270
315M-2	508	457	216	65	140	18	58	315	28	600	550	660	0	24	6	635	645	530	845	900	1190
315M-4、6	508	457	216	80	170	22	71	315	28	600	550	660	0	24	6	635	645	530	845	900	1300
315L-2	508	508	216	65	140	18	58	315	28	600	550	660	0	24	6	635	645	530	845	900	1190
315L-4、6	508	508	216	80	170	22	71	315	28	600	550	660	0	24	6	635	645	530	845	900	1300
355M-2	610	560	254	75	140	20	67.5	355	28	740	680	800	0	24	6	730	710	655	1010	1010	1500
355M-4、6	610	560	254	95	170	25	86	355	28	740	680	800	0	24	6	730	710	655	1010	1010	1530
355L-2	610	630	254	75	140	20	67.5	355	28	740	680	800	0	24	6	730	710	655	1010	1010	1500
355L-4、6	610	630	254	95	170	25	86	355	28	740	680	800	0	24	6	730	710	655	1010	1010	1530

## A2 SERIES MOTOR TECHNICAL DATA

Model	Output		Voltage (V)	Current (A)	Speed (r. p. m)	Eff (%)	Power factor	Start torque Rated torque	Start current Rated current	Max. torque Rated torque	Min. torque Rated torque
	HP	KW									
380V 50Hz Synchronous Speed 3000 r/min (2 poles)											
A2-6312	0.24	0.18	380	0.53	2800	65	0.80	2.2	5.5	2.2	1.6
A2-6322	0.33	0.25	380	0.69	2800	68	0.81	2.2	5.5	2.2	1.6
A2-7112	0.50	0.37	380	0.99	2800	70	0.81	2.2	6.1	2.2	1.6
A2-7122	0.75	0.55	380	1.40	2800	73	0.82	2.2	6.1	2.3	1.6
A2-8012	1	0.75	380	1.80	2825	75	0.83	2.2	6.1	2.3	1.5
A2-8022	1.5	1.1	380	2.58	2825	77	0.84	2.2	7.0	2.3	1.5
A2-90S-2	2	1.5	380	3.39	2840	79	0.84	2.2	7.0	2.3	1.5
A2-90L-2	3	2.2	380	4.85	2840	81	0.85	2.2	7.0	2.3	1.4
A2-100L-2	4	3	380	6.31	2880	83	0.87	2.2	7.5	2.3	1.4
A2-112M-2	5.5	4	380	8.13	2890	85	0.88	2.2	7.5	2.3	1.4
A2-132S1-2	7.5	5.5	380	11.0	2900	86	0.88	2.2	7.5	2.3	1.2
A2-132S2-2	10	7.5	380	14.9	2900	87	0.88	2.2	7.5	2.3	1.2
A2-160M1-2	15	11	380	21.3	2930	88	0.89	2.2	7.5	2.3	1.2
A2-160M2-2	20	15	380	28.8	2930	89	0.89	2.2	7.5	2.3	1.2
A2-160L-2	25	18.5	380	34.7	2930	90	0.90	2.2	7.5	2.3	1.1
A2-180M-2	30	22	380	41.0	2940	90.5	0.90	2.0	7.5	2.3	1.1
A2-200L1-2	40	30	380	55.5	2950	91.2	0.90	2.0	7.5	2.3	1.1
A2-200L2-2	50	37	380	67.9	2950	92	0.90	2.0	7.5	2.3	1.1
A2-225M-2	60	45	380	81	2950	92.3	0.90	2.0	7.5	2.3	1.0
A2-250M-2	75	55	380	99.6	2950	92.5	0.90	2.0	7.5	2.3	1.0
A2-280S-2	100	75	380	133.3	2950	93	0.90	2.0	7.5	2.3	0.9
A2-280M-2	120	90	380	158.2	2950	93.8	0.91	2.0	7.5	2.3	0.9
A2-315S-2	150	110	380	195.1	2950	94	0.91	1.8	7.1	2.2	0.9
A2-315M-2	176	132	380	231.6	2950	94.5	0.91	1.8	7.1	2.2	0.9
A2-315L1-2	213	160	380	279.6	2950	94.6	0.92	1.8	7.1	2.2	0.9
A2-315L2-2	267	200	380	347.7	2950	94.8	0.92	1.8	7.1	2.2	0.8
A2-355M-2	336	250	380	429.4	2950	95.3	0.92	1.6	7.1	2.2	0.8
A2-355L-2	420	315	380	538.9	2950	95.6	0.92	1.6	7.1	2.2	0.8
380V 50Hz Synchronous Speed 1500 r/min (4 poles)											
A2-6314	0.16	0.12	380	0.44	1400	57	0.72	2.1	4.4	2.2	1.7
A2-6324	0.24	0.18	380	0.62	1400	60	0.73	2.1	4.4	2.2	1.7
A2-7114	0.33	0.25	380	0.79	1400	65	0.74	2.1	5.2	2.2	1.7
A2-7124	0.50	0.37	380	1.12	1400	67	0.75	2.1	5.2	2.2	1.7
A2-8014	0.75	0.55	380	1.57	1390	71	0.75	2.1	5.2	2.3	1.7
A2-8024	1	0.75	380	2.03	1390	73	0.76	2.3	6.0	2.3	1.6
A2-90S-4	1.5	1.1	380	2.89	1400	75	0.77	2.3	6.0	2.3	1.6
A2-90L-4	2	1.5	380	3.70	1400	78	0.79	2.3	6.0	2.3	1.6
A2-100L1-4	3	2.2	380	5.16	1420	80	0.81	2.3	7.0	2.3	1.5
A2-100L2-4	4	3	380	6.78	1420	82	0.82	2.3	7.0	2.3	1.5
A2-112M-4	5.5	4	380	8.82	1440	84	0.82	2.3	7.0	2.3	1.5
A2-132S-4	7.5	5.5	380	11.7	1440	85	0.83	2.3	7.0	2.3	1.4
A2-132M-4	10	7.5	380	15.6	1440	87	0.84	2.3	7.0	2.3	1.4
A2-160M-4	15	11	380	22.3	1460	88	0.84	2.2	7.0	2.3	1.4
A2-160L-4	20	15	380	30.1	1460	89	0.85	2.2	7.5	2.3	1.4
A2-180M-4	25	18.5	380	36.5	1470	90.5	0.85	2.2	7.5	2.3	1.2
A2-180L-4	30	22	380	43.2	1470	91	0.86	2.2	7.5	2.3	1.2
A2-200L-4	40	30	380	57.6	1480	92	0.86	2.2	7.2	2.3	1.2
A2-225S-4	50	37	380	69.9	1480	92.5	0.87	2.2	7.2	2.3	1.2
A2-225M-4	60	45	380	84	1480	92.8	0.87	2.2	7.2	2.3	1.1
A2-250M-4	75	55	380	102.9	1480	93	0.87	2.2	7.2	2.3	1.1
A2-280S-4	100	75	380	138	1480	93.8	0.87	2.2	7.2	2.3	1.0
A2-280M-4	120	90	380	165.6	1480	94.2	0.87	2.2	7.2	2.3	1.0
A2-315S-4	150	110	380	200.2	1480	94.5	0.88	2.1	6.9	2.2	1.0
A2-315M-4	176	132	380	239.1	1480	94.8	0.88	2.1	6.9	2.2	1.0
A2-315L1-4	213	160	380	288	1480	94.9	0.89	2.1	6.9	2.2	1.0
A2-315L2-4	267	200	380	358.9	1480	95	0.89	2.1	6.9	2.2	0.9
A2-355M-4	336	250	380	437.5	1480	95.3	0.90	2.1	6.9	2.2	0.9
A2-355L-4	420	315	380	547.4	1480	95.6	0.90	2.1	6.9	2.2	0.8

\*\*240V/440V, 380V/660V models are available on request.

## A2 SERIES MOTOR TECHNICAL DATA

Model	Output		Voltage (V)	Current (A)	Speed (r. p. m)	Eff (%)	Power factor	Start torque Rated torque	Start current Rated current	Max. torque Rated torque	Min. torque Rated torque
	HP	KW									
380V 50Hz Synchronous Speed 1000 r/min (6 poles)											
A2-7116	0.24	0.18	380	0.74	900	56	0.66	1.9	4.0	2.0	1.6
A2-7126	0.33	0.25	380	0.9	900	59	0.68	1.9	4.0	2.0	1.6
A2-8016	0.5	0.37	380	1.3	900	62	0.70	1.9	4.7	2.0	1.6
A2-8026	0.75	0.55	380	1.8	900	65	0.72	1.9	4.7	2.1	1.6
A2-90S-6	1	0.75	380	2.3	910	69	0.72	2.0	5.5	2.1	1.5
A2-90L-6	1.5	1.1	380	3.2	910	72	0.73	2.0	5.5	2.1	1.5
A2-100L-6	2	1.5	380	3.9	940	76	0.75	2.0	5.5	2.1	1.5
A2-112M-6	3	2.2	380	5.6	940	79	0.76	2.1	6.5	2.1	1.4
A2-132S-6	4	3	380	7.4	960	81	0.76	2.1	6.5	2.1	1.3
A2-132M1-6	5.5	4	380	9.7	960	82	0.76	2.1	6.5	2.1	1.3
A2-132M2-6	7.5	5.5	380	12.9	960	84	0.77	2.1	6.5	2.1	1.3
A2-160M-6	10	7.5	380	17.0	970	86	0.78	2.0	6.5	2.1	1.2
A2-160L-6	15	11	380	24.2	970	87.5	0.78	2.0	6.5	2.1	1.2
A2-180L-6	20	15	380	31.6	970	89	0.81	2.0	7.0	2.1	1.2
A2-200L1-6	25	18.5	380	38.6	970	90	0.81	2.1	7.0	2.1	1.2
A2-200L2-6	30	22	380	44.7	970	90	0.83	2.1	7.0	2.1	1.2
A2-225M-6	40	30	380	58.4	970	91.5	0.84	2.0	7.0	2.1	1.2
A2-250M-6	50	37	380	70.4	970	92	0.86	2.1	7.0	2.1	1.2
A2-280S-6	60	45	380	85.4	970	92.5	0.86	2.1	7.0	2.0	1.1
A2-280M-6	75	55	380	103.3	970	92.8	0.86	2.1	7.0	2.0	1.1
A2-315S-6	100	75	380	140.2	970	93.5	0.86	2.0	7.0	2.0	1.0
A2-315M-6	120	90	380	167	970	93.8	0.86	2.0	7.0	2.0	1.0
A2-315L1-6	150	110	380	202.3	970	94	0.86	2.0	6.7	2.0	1.0
A2-315L2-6	176	132	380	242.3	970	94.2	0.87	2.0	6.7	2.0	1.0
A2-355M1-6	213	160	380	287.9	970	94.5	0.88	1.9	6.7	2.0	1.0
A2-355M2-6	267	200	380	358.4	970	94.7	0.88	1.9	6.7	2.0	0.9
A2-355L-6	336	250	380	444.8	970	94.9	0.88	1.9	6.7	2.0	0.9
380V 50Hz Synchronous Speed 750 r/min (8 poles)											
A2-801-8	0.25	0.18	380	0.88	630	51.0	0.61	1.8	3.3	1.9	1.3
A2-802-8	0.34	0.25	380	1.15	640	54.0	0.61	1.8	3.3	1.9	1.3
A2-90S-8	0.50	0.37	380	1.49	660	62.0	0.61	1.8	4.0	1.9	1.3
A2-90L-8	0.75	0.55	380	2.18	660	63.0	0.61	1.8	4.0	2.0	1.3
A2-100L1-8	1	0.75	380	2.17	690	71.0	0.67	1.8	4.0	2.0	1.3
A2-100L2-5	1.5	1.1	380	2.39	690	73.0	0.69	1.8	5.0	2.0	1.2
A2-112M-8	2	1.5	380	4.50	680	75.0	0.69	1.8	5.0	2.0	1.2
A2-132S-8	3	2.2	380	6.00	710	78.0	0.71	1.8	6.0	2.0	1.2
A2-132M-8	4	3.0	380	7.90	710	79.0	0.73	1.8	6.0	2.0	1.3
A2-160M1-8	5.5	4.0	380	10.3	720	81.0	0.73	1.9	6.0	2.0	1.2
A2-160M2-8	7.5	5.5	380	13.6	720	83.0	0.74	2.0	6.0	2.0	1.2
A2-160L-8	10	7.5	380	17.8	720	85.5	0.75	2.0	6.0	2.0	1.2
A2-180L-8	15	11	380	25.1	730	87.5	0.76	2.0	6.6	2.0	1.1
A2-200L-8	20	15	380	34.1	730	88.0	0.76	2.0	6.6	2.0	1.1
A2-225S-8	25	18.5	380	40.6	730	90.0	0.76	1.9	6.6	2.0	1.1
A2-225M-8	30	22	380	47.4	740	90.5	0.78	1.9	6.6	2.0	1.1
A2-250M-8	40	30	380	64.0	740	91.0	0.79	1.9	6.6	2.0	1.1
A2-280S-8	50	37	380	78.0	740	91.5	0.79	1.9	6.6	2.0	1.1
A2-280M-8	60	45	380	94.0	740	92.0	0.79	1.9	6.6	2.0	1.0
A2-315S-8	75	55	380	111	740	92.8	0.81	1.8	6.6	2.0	1.0
A2-315M-8	100	75	380	151	740	93.0	0.81	1.8	6.6	2.0	0.8
A2-315L1-8	125	90	380	178	740	93.8	0.82	1.8	6.6	2.0	0.9
A2-315L2-8	150	110	380	217	740	94.0	0.82	1.8	6.4	2.0	0.9
A2-355M1-8	180	132	380	261	740	93.7	0.82	1.8	6.4	2.0	0.9
A2-355M2-8	220	160	380	313	740	94.2	0.82	1.8	6.4	2.0	0.9
A2-355L-8	270	200	380	388	740	94.5	0.83	1.8	6.4	2.0	0.9
380V 50Hz Synchronous Speed 600 r/min (10 poles)											
A2-315S-10	60	45	380	100	590	91.5	0.75	1.5	6.2	2.0	0.8
A2-315M-10	75	55	380	121	590	92.0	0.75	1.5	6.2	2.0	0.8
A2-315L1-10	100	75	380	162	590	92.5	0.76	1.5	6.2	2.0	0.8
A2-315L2-10	120	90	380	191	590	93.0	0.77	1.5	6.2	2.0	0.8
A2-355M1-10	150	110	380	230	590	93.2	0.78	1.3	6.0	2.0	0.8
A2-355M2-10	180	132	380	275	590	93.5	0.78	1.3	6.0	2.0	0.8
A2-355L-10	215	160	380	334	590	93.5	0.78	1.3	6.0	2.0	0.8

\*\*240V/440V, 380V/660V models are available on request.

**M&C<sup>®</sup>**  
*ELECTRIC POWER*

**CHINA ELECTRIC MOTOR ASSOCIATION**  
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