

# Three Phase Squirrel Cage IE3 Premium Efficiency Motors Low Voltage

AG - B6 SERIES  
160 - 355 SIZES  
INDUSTRIAL APPLICATIONS

new IE<sup>3</sup> series



# THREE PHASE SQUIRREL CAGE

DETERMINATION OF EFFICIENCY ACCORDING TO IEC 60034-2-1:2007

IE3 EFFICIENCY ACCORDING TO IEC 60034-30

Insulation class: F Temperature rise class: B Protection degree: IP 55 Cooling method: IC 411

RATED OUTPUT 400 V		MOTOR TYPE	PERFORMANCES AT RATED OUTPUTS @ 400 V														SOUND PRESSURE LEVEL L <sub>PA</sub> dB(A)	MOMENT OF INERTIA J kg m <sup>2</sup>	WEIGHT IM 1001 IM B3 kg	WEIGHT IM 3011 IM V1 kg
50 Hz kW	60 Hz kW		RATED SPEED 50 Hz rpm	EFFICIENCY 50 Hz eff % (load)			EFFICIENCY 60 Hz eff % (load)			POWER FACTOR cos φ	CURRENT			TORQUE						
			Full	3/4	2/4	Full	3/4	2/4		I <sub>n</sub> A	I <sub>n</sub> star A	I <sub>s</sub> /I <sub>n</sub> p.u.	T <sub>n</sub> N m	T <sub>s</sub> /T <sub>n</sub> p.u.	T <sub>max</sub> /T <sub>n</sub> p.u.					

## 2 poles

11	11	<b>A6C 160 MA2</b>	2930	91.2	91.5	90.7	91.0	91.3	90.5	0.86	20.2	11.7	6.5	36	2.2	3.3	72	0.040	112	122	
15	15		<b>160 MB2</b>	2930	91.9	92.3	91.4	91.0	91.4	90.5	0.87	27.1	15.7	6.6	49	2.2	3.3	72	0.048	122	132
18.5	18.5		<b>160 L2</b>	2928	92.4	92.7	91.9	91.7	92.0	91.2	0.87	33.2	19.3	7.4	60	2.4	3.2	72	0.055	132	142
22	23	<b>180 M2</b>	2950	92.7	93.0	92.5	91.7	92.0	91.5	0.90	38.1	22.1	7.0	71	2.0	2.8	74	0.165	140	145	
30	30	<b>200 LA2</b>	2950	93.3	93.5	93.0	92.4	92.6	92.1	0.89	52.1	30.2	6.4	97	2.2	3.1	74	0.180	179	183	
37	37		<b>200 LB2</b>	2940	93.7	94.0	93.4	93.0	93.3	92.7	0.90	63.3	36.7	6.9	120	2.4	2.8	74	0.190	186	193
45	47	<b>225 M2</b>	2960	94.0	93.5	92.6	93.6	93.1	92.2	0.87	79.4	46.0	7.1	145	2.5	3.3	77	0.250	238	247	
55	55	<b>250 M2</b>	2960	94.3	94.6	94.4	93.6	93.9	93.7	0.88	95.7	55.5	6.6	177	2.3	3.1	77	0.290	264	252	
75	78	<b>280 S2</b>	2960	94.7	94.9	94.8	95.0	95.2	95.1	0.90	127	73.6	6.3	242	2.2	2.7	80	0.416	392	400	
90	94		<b>280 M2</b>	2960	95.0	95.3	95.0	95.0	95.3	95.0	0.91	150	87.1	6.8	290	2.0	2.4	80	0.550	450	457
110	115	<b>B6C 315 MA2</b>	2975	95.2	95.0	94.3	95.0	94.8	94.1	0.86	194	112	6.8	353	2.1	2.0	83	1.12	810	815	
132	138		<b>315 MB2</b>	2975	95.4	95.2	93.9	95.4	95.2	93.9	0.85	235	136	6.3	424	2.0	1.9	83	1.13	855	885
160	168		<b>315 LA2</b>	2980	95.6	95.5	94.2	95.8	95.7	94.4	0.86	281	163	7.0	513	2.5	2.0	83	1.60	1000	1030
200	210	<b>315 LB2</b>	2980	95.8	95.6	94.3	95.8	95.6	94.3	0.86	350	203	7.0	641	2.5	2.0	83	2.00	1050	1080	
250	270	<b>B6C 355 LA2</b>	2985	95.8	95.6	94.8	95.8	95.6	94.8	0.89	423	245	7.2	800	2.2	2.2	82	3.7	1620	1545	
315	340		<b>355 LB2</b>	2985	95.8	95.7	95.0	95.8	95.7	95.0	0.90	527	306	7.4	1008	2.0	2.0	82	4.5	1810	1735
355	375		<b>355 LC2</b>	2985	95.8	95.7	94.8	95.8	95.7	94.8	0.88	608	352	7.6	1136	2.1	2.3	82	5.2	2030	1980

## 4 poles

11	11	<b>A6C 160 M4</b>	1470	91.4	91.5	90.2	92.4	92.5	91.2	0.81	21.4	12.4	6.6	71	2.4	3.0	62	0.090	127	137	
15	15		<b>160 L4</b>	1470	92.1	92.2	91.6	93.0	93.1	92.5	0.81	29.0	16.8	7.0	97	2.6	3.0	62	0.100	139	149
18.5	19.5		<b>180 M4</b>	1465	92.6	93.0	92.4	93.6	94.0	93.4	0.87	33.1	19.2	6.0	121	2.3	2.6	63	0.110	143	148
22	23	<b>180 L4</b>	1470	93.0	93.4	92.7	93.6	94.0	93.3	0.86	39.7	23.0	6.8	143	2.5	3.0	63	0.180	165	169	
30	30	<b>200 L4</b>	1468	93.6	94.1	93.4	94.1	94.6	93.9	0.85	54.4	31.6	6.6	195	2.9	3.1	63	0.220	188	195	
37	39	<b>225 S4</b>	1480	93.9	94.1	93.8	94.5	94.7	94.4	0.86	66.1	38.3	6.4	239	2.0	2.5	68	0.410	247	257	
45	47		<b>225 M4</b>	1475	94.2	94.4	94.0	95.0	95.2	94.8	0.88	78.4	45.4	6.2	291	2.0	2.4	68	0.520	277	287
55	55	<b>250 M4</b>	1480	94.6	94.8	94.6	95.4	95.6	95.4	0.87	96.5	55.9	7.2	355	2.8	2.9	68	0.580	307	325	
75	79	<b>280 S4</b>	1480	95.0	95.3	95.1	95.4	95.7	95.5	0.90	127	73.4	7.2	484	2.6	2.3	75	1.060	448	456	
90	94.5		<b>280 M4</b>	1480	95.2	95.6	95.5	95.4	95.8	95.7	0.89	153	88.9	6.9	581	2.5	2.5	75	1.150	472	479
110	115	<b>B6C 315 MA4</b>	1486	95.4	95.5	94.9	95.8	95.9	95.3	0.85	196	114	6.5	707	2.1	2.0	78	2.50	825	835	
132	138		<b>315 MB4</b>	1486	95.6	95.7	95.0	96.2	96.3	95.6	0.85	235	136	6.0	848	1.9	1.9	78	3.10	940	970
160	168		<b>315 LA4</b>	1490	95.8	95.9	95.0	96.2	96.3	95.4	0.85	284	164	6.6	1026	2.2	2.0	78	3.40	1010	1040
200	210	<b>315 LB4</b>	1490	96.0	96.1	95.5	96.2	96.3	95.7	0.85	354	205	6.7	1282	2.3	2.1	78	4.20	1090	1120	
250	260	<b>B6C 355 LA4</b>	1490	96.0	95.9	94.7	96.2	96.1	94.9	0.86	437	253	6.6	1602	1.8	2.4	79	6.1	1690	1615	
315	330		<b>355 LB4</b>	1490	96.0	95.9	94.5	96.2	96.1	94.7	0.88	538	312	6.3	2019	1.5	2.3	79	7.4	1880	1805
355	372		<b>355 LC4</b>	1490	96.0	95.9	94.8	96.2	96.1	95.0	0.86	621	360	6.7	2275	1.9	2.4	79	8.3	2100	2050

## 6 poles

7.5	7.5	<b>A6C 160 M6</b>	970	89.1	89.6	88.7	91.0	91.5	90.6	0.81	15.0	8.7	7.0	74	2.4	3.1	62	0.150	114	124	
11	11		<b>160 L6</b>	970	90.3	90.7	90.6	91.7	92.1	92.0	0.81	21.7	12.6	7.0	108	2.4	3.1	62	0.171	125	135
15	15		<b>180 L6</b>	975	91.2	91.7	92.0	91.7	92.2	92.5	0.84	28.3	16.4	6.9	147	2.3	2.6	63	0.214	152	156
18.5	18.5	<b>200 LA6</b>	975	91.7	92.1	92.0	93.0	93.4	93.3	0.83	35.1	20.3	6.8	181	2.4	2.9	63	0.260	179	183	
22	22		<b>200 LB6</b>	975	92.2	92.6	92.5	93.0	93.4	93.3	0.83	41.5	24.1	6.6	215	2.3	2.8	63	0.280	192	199
30	30	<b>225 M6</b>	980	92.9	93.4	93.2	94.1	94.6	94.4	0.84	55.5	32.2	7.3	292	2.2	2.9	66	0.580	250	258	
37	37	<b>250 M6</b>	980	93.3	93.8	93.5	94.1	94.6	94.3	0.82	69.8	40.5	6.9	361	2.6	2.7	66	0.740	304	325	
45	45	<b>280 S6</b>	985	93.7	93.6	93.5	94.5	94.4	94.3	0.84	82.5	47.8	6.7	436	2.3	2.4	72	1.150	383	392	
55	55		<b>280 M6</b>	985	94.1	94.1	93.8	94.5	94.5	94.2	0.84	100	58.2	6.8	533	2.4	2.4	72	1.380	424	432
75	75	<b>B6C 315 MA6</b>	990	94.6	94.7	92.7	95.0	95.1	93.1	0.86	133	77.1	7.2	723	2.6	2.3	74	3.40	782	795	
90	90		<b>315 MB6</b>	990	95.0	95.6	95.1	95.0	95.6	95.1	0.85	161	93.3	7.2	868	2.8	2.4	74	4.05	852	865
110	110		<b>315 MC6</b>	990	95.2	95.4	94.8	95.8	96.0	95.4	0.86	194	112	7.1	1061	2.7	2.2	74	4.70	968	980
132	132	<b>315 LA6</b>	990	95.4	95.6	95.3	95.8	96.0	95.7	0.86	232	135	6.9	1273	2.6	2.1	74	6.00	1130	1160	
160	160		<b>315 LB6</b>	990	95.6	95.9	95.5	95.8	96.1	95.7	0.85	284	165	7.2	1543	2.8	2.3	74	6.70	1220	1250
200	200	<b>B6C 355 LA6</b>	992	95.8	95.5	94.3	95.8	95.5	94.3	0.84	359	208	6.3	1925	1.6	2.1	75	10.5	1665	1625	
250	250		<b>355 LB6</b>	992	95.8	95.6	94.5	95.8	95.6	94.5	0.85	443	257	6.8	2407	1.8	2.5	75	13.1	1890	1815
315	315		<b>355 LC6</b>	992	95.8	95.9	95.2	95.8	95.9	95.2	0.85	558	324	6.8	3033	1.9	2.4	75	15.1	2315	2265
355	355		<b>355 LD6</b>	992	95.8	95.6	94.6	95.8	95.6	94.6	0.86	622	361	7.2	3418	1.6	3.0	75	17.7	2390	2340

**DIMENSIONS**

**B3 - B35**

Type	Poles	B3 - B35																			
		A	AA	AB	AC	AD	B	BA	BB	BC	BA'	C	CA	H	HA	HD	K	L	LC	W	
A6_160	M L	2-6	254	55	296	314	258	210	60	296	21	90	108	258	160	20	418	14,5	683	796	279
			254	55	296	314	258	254	60	296	21	90	108	214	160	20	418	14,5	683	796	279
A6_180	M L	2-4 4-6	279	58	320	354	278	241	80	320	20,5	80	121	254	180	22	458	14,5	723	836	296
			279	58	320	354	278	279	80	320	20,5	80	121	216	180	22	458	14,5	723	836	296
A6_200	L	2-6	318	74	360	354	278	305	70	347	21	70	133	220	200	24	478	18,5	764	877	296
A6_225	M S-M	2 4-6	356	76	405	411	-	311	80	360	24,5	80	149	255	225	28	523	18,5	820	935	288
			356	76	405	411	-	311	80	360	24,5	80	149	255	225	28	523	18,5	850	965	318
A6_250	M	2 4-6	406	90	465	411	-	349	90	406	28,5	90	168	223	250	28	548	22	875	990	318
			406	90	465	411	-	349	90	406	28,5	90	168	223	250	28	548	22	875	990	318
A6_280	S	2	457	90	540	490	-	368	110	480	30,5	110	190	272	280	40	640	24	959	1110	350
		4-6	457	90	540	490	-	368	110	480	30,5	110	190	272	280	40	640	24	959	1110	350
	M	2	457	90	540	490	-	419	110	480	30,5	110	190	221	280	40	640	24	959	1110	350
		4-6	457	90	540	490	-	416	110	480	30,5	110	190	221	280	40	640	24	959	1110	350
B6_315	M	2	508	110	590	604	-	457	110	520	32	165	216	299	315	43	800	27	1102	1252	387
		4-6	508	110	590	604	-	457	110	520	32	165	216	299	315	43	800	27	1132	1282	417
	L	2	508	110	590	604	-	508	110	582	32	200	216	398	315	43	862	27	1252	1402	402
		4-6	508	110	590	604	-	508	110	582	32	200	216	398	315	43	862	27	1282	1432	432

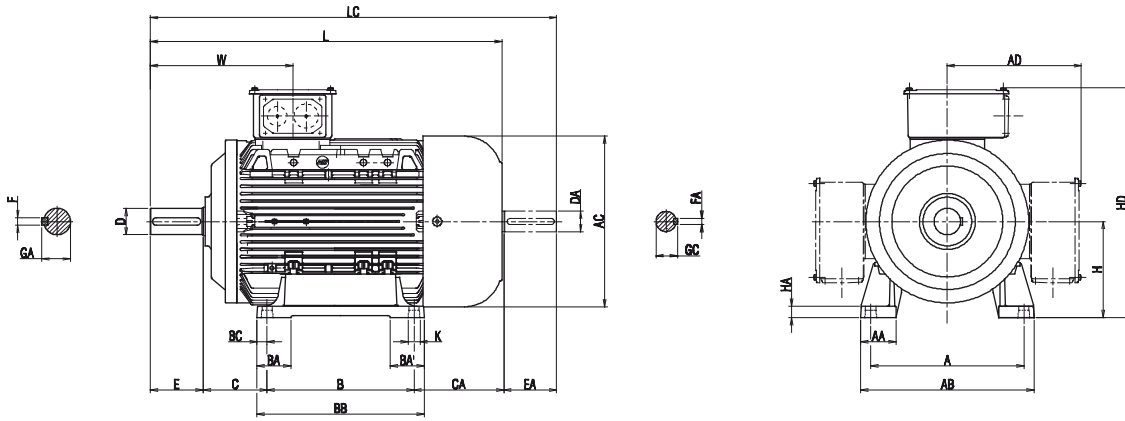
Type	Poles	B3- B35 Shaft extension										B35 Flange					
		D	E	F	GA	DA	EA	FA	GC	LA	M	N	P	S	T		
A6_160	M L	2-6	42	110	12	45	42	110	12	45	15	300	250	350	18,5	5	
			42	110	12	45	42	110	12	45	15	300	250	350	18,5	5	
A6_180	M L	2-4 4-6	48	110	14	51,5	42	110	12	45	14	300	250	350	18,5	5	
			48	110	14	51,5	42	110	12	45	14	300	250	350	18,5	5	
A6_200	L	2-6	55	110	16	59	42	110	12	45	15	350	300	400	18,5	5	
A6_225	M S-M	2 4-6	55	110	16	59	55	110	16	59	16	400	350	450	18,5	5	
			60	140	18	64	55	110	16	59	16	400	350	450	18,5	5	
A6_250	M	2 4-6	60	140	18	64	55	110	16	59	18	500	450	550	18,5	5	
			65	140	18	69	55	110	16	59	18	500	450	550	18,5	5	
A6_280	S	2	65	140	18	69	60	140	18	64	18	500	450	550	18,5	5	
		4-6	75	140	20	79,5	60	140	18	64	18	500	450	550	18,5	5	
	M	2	65	140	18	69	60	140	18	64	18	500	450	550	18,5	5	
		4-6	75	140	20	79,5	60	140	18	64	18	500	450	550	18,5	5	
B6_315	M	2	65	140	18	69	60	140	18	64	22	600	550	660	22	6	
		4-6	80	170	22	85	65	140	18	69	22	600	550	660	22	6	
	L	2	70	140	20	74,5	65	140	18	64	22	600	550	660	22	6	
		4-6	90	170	25	95	65	140	18	69	22	600	550	660	22	6	

**B5**

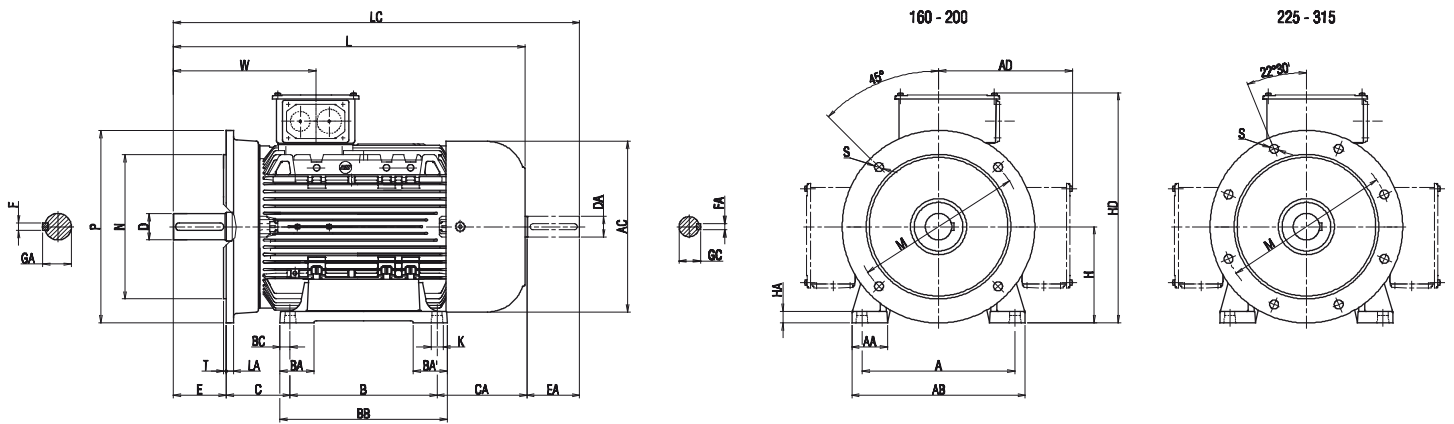
Type	Poles	B5							B5 Shaft extension								B5 Flange					
		AC	AD	L	LC	LD	W	D	E	F	GA	DA	EA	FA	GC	LA	M	N	P	S	T	
A6_160	M L	2-6	314	258	683	796	748	279	42	110	12	45	42	110	12	45	15	300	250	350	18,5	5
			314	258	683	796	748	279	42	110	12	45	42	110	12	45	15	300	250	350	18,5	5
A6_180	M L	2-4 4-6	354	278	723	836	788	296	48	110	14	51,5	42	110	12	45	14	300	250	350	18,5	5
			354	278	723	836	788	296	48	110	14	51,5	42	110	12	45	14	300	250	350	18,5	5
A6_200	L	2-6	354	278	764	877	829	296	55	110	16	59	42	110	12	45	15	350	300	400	18,5	5
A6_225	M S-M	2 4-6	411	298	820	935	885	288	55	110	16	59	55	110	16	59	16	400	350	450	18,5	5
			411	298	850	965	915	318	60	140	18	64	55	110	16	59	16	400	350	450	18,5	5
A6_250	M	2 4-6	411	298	875	990	940	318	60	140	18	64	55	110	16	59	18	500	450	550	18,5	5
			411	298	875	990	940	318	65	140	18	69	55	110	16	59	18	500	450	550	18,5	5
A6_280	S	2	490	360	959	1110	1054	350	65	140	18	69	60	140	18	64	18	500	450	550	18,5	5
		4-6	490	360	959	1110	1054	350	75	140	20	79,5	60	140	18	64	18	500	450	550	18,5	5
	M	2	490	360	959	1110	1054	350	65	140	18	69	60	140	18	64	18	500	450	550	18,5	5
		4-6	490	360	959	1110	1054	350	75	140	20	79,5	60	140	18	64	18	500	450	550	18,5	5
B6_315	M	2	604	485	1102	1252	1177	387	65	140	18	69	60	140	18	64	22	600	550	660	22	6
		4-6	604	485	1132	1282	1207	417	80	170	22	85	65	140	18	69	22	600	550	660	22	6
	L	2	604	547	1252	1402	1327	402	70	140	20	74,5	65	140	18	64	22	600	550	660	22	6
		4-6	604	547	1282	1432	1357	432	90	170	25	95	65	140	18	69	22	600	550	660	22	6

DRAWINGS

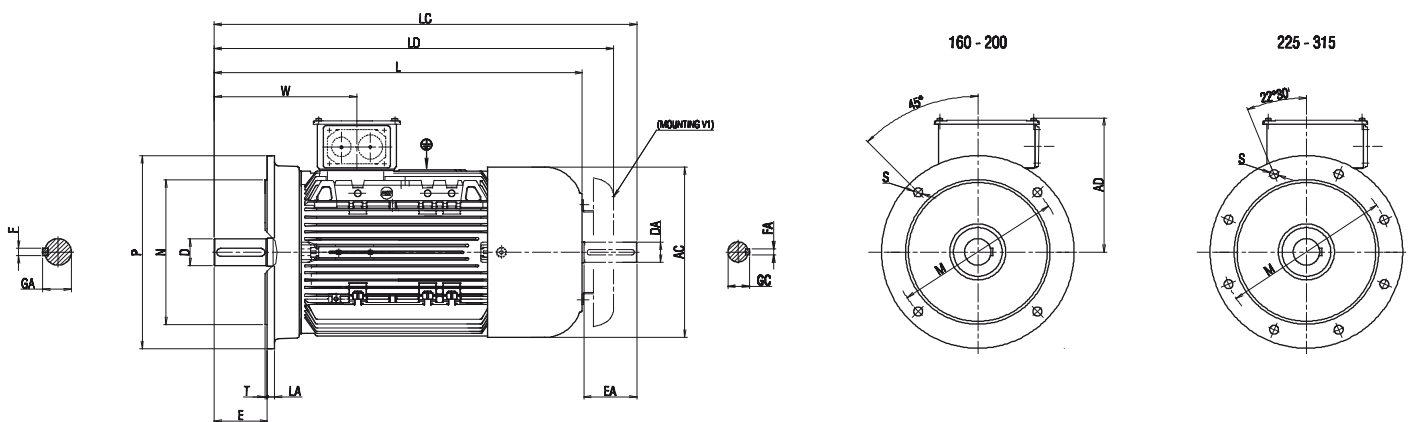
B3



B35



B5



**DIMENSIONS**

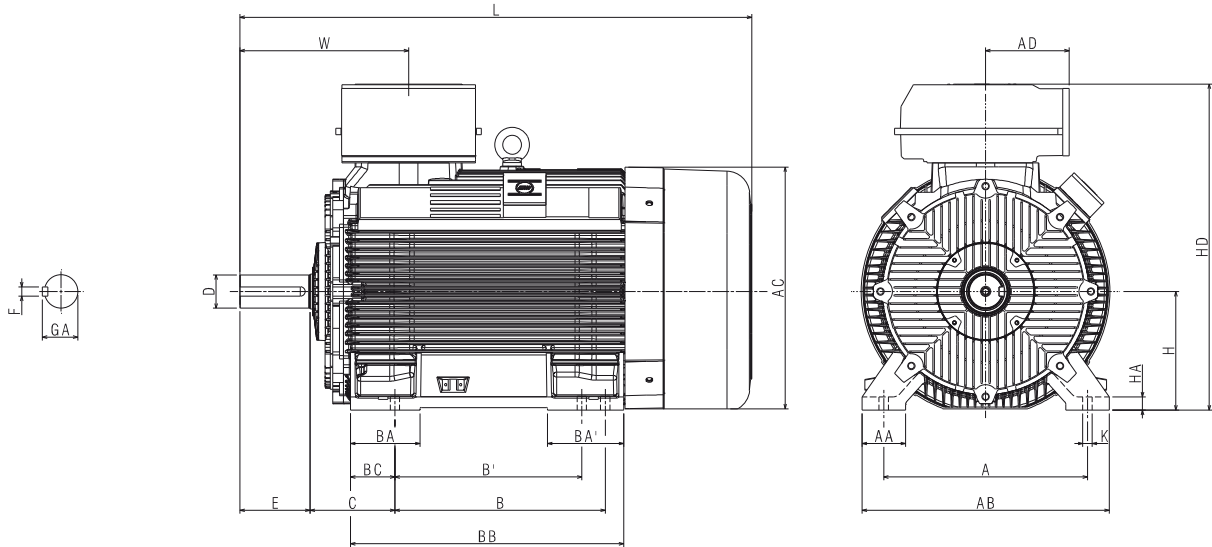
**B3 - B35 - V1**

Type	Poles	A	AA	AB	AC	AD	B	BA	BB	BC	B'	BA'	H	HA	HB	HD	K	L	LC	W
B6_355	LA-LB 2	610	130	740	770	267	630	208	818	133	560	228	355	40	607	962	28	1475	1595	435
	LA-LB 4-6	610	130	740	770	267	630	208	818	133	560	228	355	40	607	962	28	1545	1665	505
	LC-LE 2	610	130	740	770	267	630	208	1018	133	800	313	355	40	607	962	28	1675	1795	435
	LC-LF 4-6	610	130	740	770	267	630	208	1018	133	800	313	355	40	607	962	28	1745	1865	505

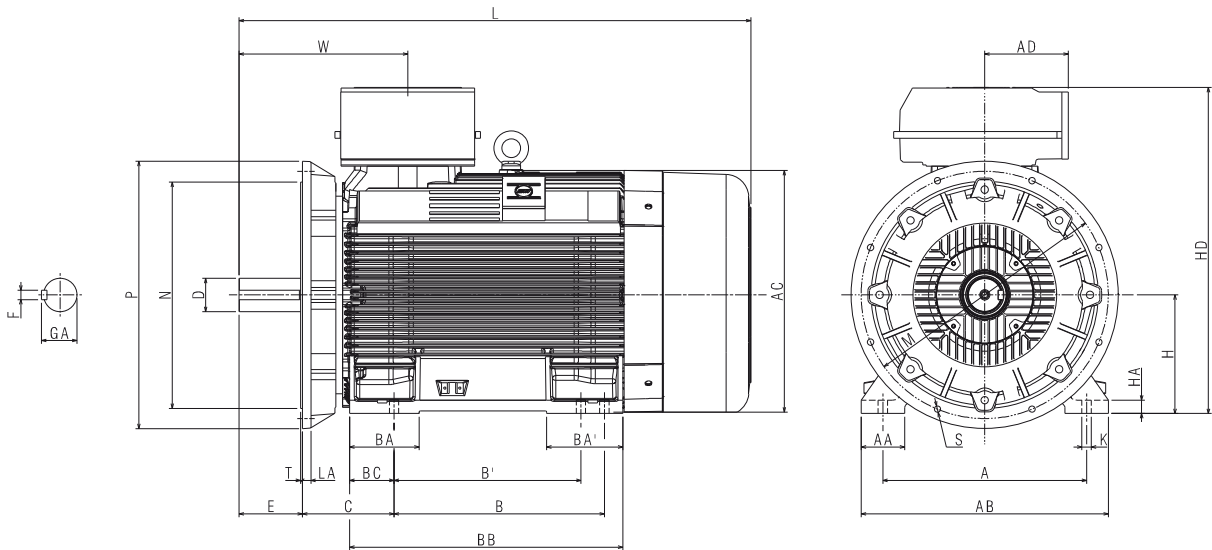
Type	Poles	D	Shaft extension				Flange					
			E	F	GA	LA	M	N	P	S	T	
B6_355	LA-LB 2	75	140	20	79.5	25	740	680	800	24	6	
	LA-LB 4-6	100	210	28	106	25	740	680	800	24	6	
	LC-LE 2	75	140	20	79.5	25	740	680	800	24	6	
	LC-LF 4-6	100	210	28	106	25	740	680	800	24	6	

**DRAWINGS**

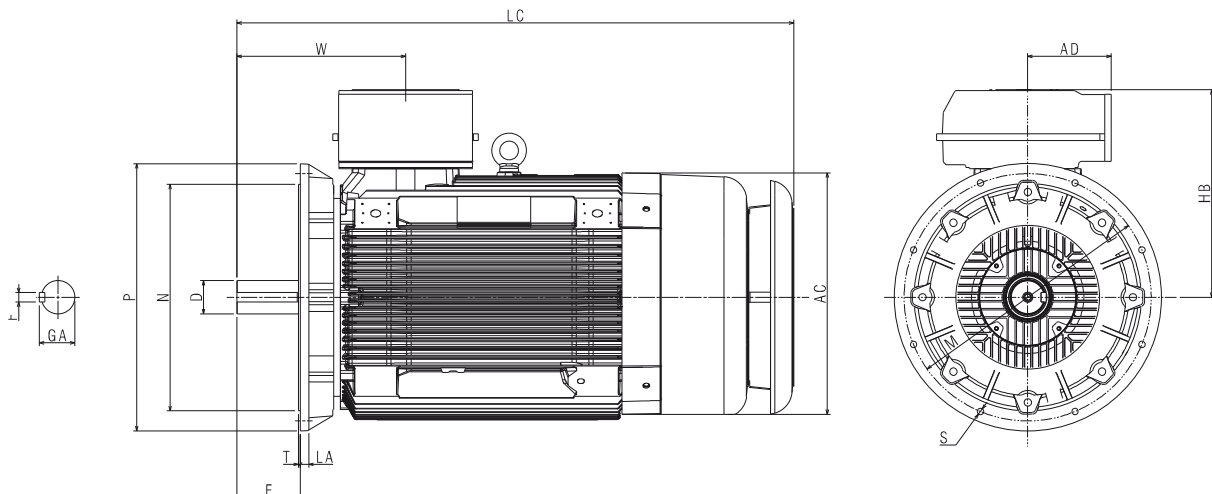
**B3**



**B35**



**V1**





**Italian Manufacturing Plant**  
Arzignano - Italy



**Malaysian Manufacturing Plant**  
Shah Alam - Malaysia



#### HEADQUARTERS

##### Marelli Motori S.p.A.

Via Sabbionara 1  
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