

DYNAMIC[®]

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IE3 SERIES HIGH-EFFICIENCY THREE-PHASE ASYNCHRONOUS MOTOR



PRODUCT OVERVIEW

IE3 series high-efficiency three-phase asynchronous motors are fully enclosed self-fan air-cooled squirrel-cage ultra-efficient three-phase asynchronous motors newly developed according to GB/T28575-2012. The 3-level energy efficiency grade in "Energy Efficiency Limits and Energy Efficiency Grades of Asynchronous Motors" is in line with IE3 in the energy efficiency grade in IEC60034-30, and is at the first-class level with the most advanced American NEMA ultra-high-efficiency motors in the world.

Compared with IE2 series, IE3 series high-efficiency motors are more energy-saving, low-carbon and environmentally friendly. The installation size and power level are exactly the same as those of ordinary motors, conforming to the IEC60072-1 standard of the International Electrotechnical Commission, and can be directly replaced to achieve the purpose of energy saving and power saving, which is convenient for market promotion. Motors with a center height of H160 and above can be equipped with non-stop oil filling and discharging devices, and there is reserved space for installing thermistors and moisture-proof heating belts, which is convenient for users to choose.

The power range of this series of motors: 0.12KW-315KW; the center height of the frame: H71-H355.

OPERATING CONDITIONS

Ambient temperature: $-15^{\circ}\text{C} \leq 0 \leq 40^{\circ}\text{C}$

Altitude: not exceeding 1000m

Rated voltage: 380V or any voltage between 220-760V

Rated frequency: 50Hz、60Hz

Protection class: IP55

Insulation class: F、H

Cooling method: ICO141

Duty: S1(continuous)

Connection: Star-connection for up to 3kw,
delta-connection for 4kw and above.

TECHNICAL DATA

Model	Output		Rated Current (A)			Speed (r/min)	Efficiency η %	Efficiency at 75% load	Efficiency at 50% load	Power factor	Rated Torque Nm	Locked torque Rated torque TST/TFL	Locked current Rated torque IST/TFL	Max torque Rated torque TM/TFL	Weight (kg)
	kw	HP	380V	400V	415V										
IE3															
Synchronous Speed 3000r/min(2 poles)															
YE3-711-2	0.37	0.5	0.94	0.89	0.86	2750	73.8	73.8	72.3	0.81	1.28	2.2	6.1	2.2	11
YE3-712-2	0.55	0.75	1.31	1.24	1.20	2750	77.8	77.8	76.2	0.82	1.91	2.3	6.1	2.3	12.1
IE3-80M1-2	0.75	1	1.72	1.64	1.58	2880	80.7	80.7	79.1	0.82	2.49	2.3	7.0	2.3	18.1
IE3-80M2-2	1.1	1.5	2.43	2.31	2.23	2880	82.7	82.7	81.0	0.83	3.65	2.2	7.3	2.3	19.5
IE3-90S-2	1.5	2	3.22	3.06	2.95	2895	84.2	84.2	82.5	0.84	4.95	2.2	7.6	2.3	23.3
IE3-90L-2	2.2	3	4.58	4.35	4.19	2895	85.9	85.9	84.2	0.85	7.26	2.2	7.6	2.3	27.1
IE3-100L-2	3	4	6.02	5.71	5.51	2895	87.1	87.1	85.4	0.87	9.90	2.2	7.8	2.3	38.8
IE3-112M-2	4	5.5	7.84	7.45	7.18	2905	88.1	88.1	86.3	0.88	13.1	2.2	8.3	2.3	48.3
IE3-132S1-2	5.5	7.5	10.6	10.1	9.75	2930	89.2	89.2	87.4	0.88	17.9	2.0	8.3	2.3	55.1
IE3-132S2-2	7.5	10	14.4	13.7	13.2	2930	90.1	90.1	88.3	0.88	24.4	2.0	7.9	2.3	69.2
IE3-160M1-2	11	15	20.6	19.6	18.9	2945	91.2	91.2	89.4	0.89	35.7	2.0	8.1	2.3	113
IE3-160M2-2	15	20	27.9	26.5	25.5	2945	91.9	91.9	90.1	0.89	48.6	2.0	8.1	2.3	123
IE3-160L-2	18.5	25	34.2	32.5	31.3	2940	92.4	92.4	90.6	0.89	60.1	2.0	8.2	2.3	142
IE3-180M-2	22	30	40.5	38.5	37.1	2955	92.7	92.7	90.8	0.89	71.1	2.0	8.2	2.3	182
IE3-200L1-2	30	40	54.9	52.1	50.3	2960	93.3	93.3	91.4	0.89	96.8	2.0	7.6	2.3	246
IE3-200L2-2	37	50	67.4	64.0	61.7	2960	93.7	93.7	91.8	0.89	119.4	2.0	7.6	2.3	265
IE3-225M-2	45	60	80.8	76.8	74.0	2965	94.0	94.0	92.1	0.90	144.9	2.0	7.7	2.3	323
IE3-250M-2	55	75	98.5	93.5	90.2	2970	94.3	94.3	92.4	0.90	176.9	2.0	7.7	2.3	413
IE3-280S-2	75	100	134	127	122	2975	94.7	94.7	92.8	0.90	240.8	1.8	7.1	2.3	546
IE3-280M-2	90	125	160	152	146	2975	95.0	95.0	93.1	0.90	288.9	1.8	7.1	2.3	569
IE3-315S-2	110	150	195	185	179	2978	95.2	95.2	93.3	0.90	352.8	1.8	7.1	2.3	897
IE3-315M-2	132	180	234	222	214	2978	95.4	95.4	93.5	0.90	423.3	1.8	7.1	2.3	1029
IE3-315L1-2	160	200	279	265	256	2980	95.6	95.6	93.7	0.91	512.8	1.8	7.2	2.3	1067
IE3-315L2-2	200	270	349	331	319	2980	95.8	95.8	93.9	0.91	640.9	1.8	7.2	2.2	1194
IE3-355M-2	250	340	436	414	399	2982	95.8	95.8	93.9	0.91	800.6	1.6	7.2	2.2	1685
IE3-355L-2	315	430	549	522	503	2982	95.8	95.8	93.9	0.91	1009	1.6	7.2	2.2	1734

TECHNICAL DATA

Model	Output		Rated Current (A)			Speed (r/min)	Efficiency η %	Efficiency at 75% load	Efficiency at 50% load	Power factor	Rated Torque Nm	Locked torque Rated torque TST/TFL	Locked current Rated torque IST/TFL	Max torque Rated torque TM/TFL	Weight (kg)
	kw	HP	380V	400V	415V										
IE3															
Synchronous Speed 1500r/min(4 poles)															
IE3-711-4	0.25	0.37	0.70	0.66	0.64	1340	73.5	73.5	72.0	0.74	1.78	2.1	5.2	2.2	15.2
IE3-712-4	0.37	0.5	0.97	0.92	0.89	1340	77.3	77.3	75.8	0.75	2.64	2.1	5.2	2.2	16.6
IE3-80M1-4	0.55	0.75	1.38	1.31	1.26	1400	80.8	80.8	79.2	0.75	3.75	2.4	5.2	2.3	17.6
IE3-80M2-4	0.75	1	1.84	1.75	1.69	1420	82.5	82.5	80.9	0.75	5.04	2.3	6.6	2.3	18.4
IE3-90S-4	1.1	1.5	2.61	2.48	2.39	1445	84.1	84.1	82.4	0.76	7.27	2.3	6.8	2.3	24.2
IE3-90L-4	1.5	2	3.47	3.3	3.18	1445	85.3	85.3	83.6	0.77	9.91	2.3	7.0	2.3	29.7
IE3-100L1-4	2.2	3	4.76	4.52	4.36	1450	86.7	86.7	85.0	0.81	14.6	2.3	7.6	2.3	41.5
IE3-100L2-4	3	4	6.34	6.02	5.8	1450	87.7	87.7	85.9	0.82	20.0	2.3	7.6	2.3	46
IE3-112M-4	4	5.5	8.37	7.95	7.66	1450	88.6	88.6	86.8	0.82	26.5	2.2	7.8	2.3	63.2
IE3-132S-4	5.5	7.5	11.2	10.7	10.3	1460	89.6	89.6	87.8	0.83	36.0	2.0	7.9	2.3	71.2
IE3-132M-4	7.5	10	15.0	14.3	13.7	1460	90.4	90.4	88.6	0.84	49.1	2.0	7.5	2.3	85.1
IE3-160M-4	11	15	21.5	20.4	19.7	1465	91.4	91.4	89.6	0.85	71.7	2.2	7.7	2.3	121
IE3-160L-4	15	20	28.8	27.3	26.3	1465	92.1	92.1	90.3	0.86	97.8	2.2	7.8	2.3	142
IE3-180M-4	18.5	25	35.3	33.5	32.3	1470	92.6	92.6	90.7	0.86	120.2	2.0	7.8	2.3	181
IE3-180L-4	22	30	41.8	39.7	38.3	1470	93.0	93.0	91.1	0.86	142.9	2.0	7.8	2.3	209
IE3-200L-4	30	40	56.6	53.8	51.8	1475	93.6	93.6	91.7	0.86	194.2	2.0	7.3	2.3	284
IE3-225S-4	37	50	69.6	66.1	63.7	1485	93.9	93.9	92.0	0.86	237.9	2.0	7.4	2.3	328
IE3-225M-4	45	60	84.4	80.2	77.3	1485	94.2	94.2	92.3	0.86	289.4	2.0	7.4	2.3	363
IE3-250M-4	55	75	103	97.6	94.1	1485	94.6	94.6	92.7	0.86	353.7	2.2	7.4	2.3	442
IE3-280S-4	75	100	136	129	125	1486	95.0	95.0	93.1	0.88	482.0	2.0	6.9	2.3	569
IE3-280M-4	90	125	163	155	149	1486	95.2	95.2	93.3	0.88	578.4	2.0	6.9	2.3	639
IE3-315S-4	110	150	197	187	180	1488	95.4	95.4	93.5	0.89	706.0	2.0	7.0	2.2	939
IE3-315M-4	132	180	236	224	216	1488	95.6	95.6	93.7	0.89	847.2	2.0	7.0	2.2	1033
IE3-315L1-4	160	200	285	271	261	1488	95.8	95.8	93.9	0.89	1027	2.0	7.1	2.2	1126
IE3-315L2-4	200	270	352	334	322	1490	96.0	96.0	94.1	0.90	1282	2.0	7.1	2.2	1238
IE3-355M-4	250	340	440	418	403	1490	96.0	96.0	94.1	0.90	1602	2.0	7.1	2.2	1830
IE3-355L-4	315	430	554	526	507	1490	96.0	96.0	94.1	0.90	2019	2.0	7.1	2.2	1950

TECHNICAL DATA

Model	Output		Rated Current (A)			Speed (r/min)	Efficiency	Efficiency	Efficiency	Power factor	Rated Torque Nm	Locked torque Rated torque TST/TPL	Locked current Rated torque IST/TPL	Max torque Rated torque TMT/TPL	Weight (kg)
IE3	kw	HP	380V	400V	415V		η %	at 75% load	at 50% load						
Synchronous Speed 1000r/min(6poles)															
IE3-711-6	0.18	0.25	0.65	0.62	0.59	855	63.9	63.9	62.6	0.66	2.01	1.9	4.0	2.0	11
IE3-712-6	0.25	0.37	0.81	0.77	0.75	855	68.6	68.6	67.2	0.68	2.79	1.9	4.0	2.0	11.5
IE3-80M1-6	0.37	0.5	1.09	1.04	1.00	890	73.5	73.5	72.0	0.70	3.97	1.9	4.7	2.0	15.2
IE3-80M2-6	0.55	0.75	1.50	1.43	1.38	890	77.2	77.2	75.7	0.72	5.90	1.9	4.7	2.1	16.6
IE3-90S-6	0.75	1	2.03	1.93	1.86	935	78.9	78.9	77.3	0.71	7.66	2.0	6.0	2.1	24.1
IE3-90L-6	1.1	1.5	2.83	2.69	2.59	945	81.0	81.0	79.4	0.73	11.1	2.0	6.0	2.1	25.7
IE3-100L-6	1.5	2	3.78	3.59	3.47	949	82.5	82.5	80.9	0.73	15.1	2.0	6.5	2.1	34.9
IE3-112M-6	2.2	3	5.36	5.09	4.91	955	84.3	84.3	82.6	0.74	22.0	2.0	6.6	2.1	54.2
IE3-132S-6	3	4	7.20	6.84	6.59	968	85.6	85.6	83.9	0.74	29.6	2.0	6.8	2.1	62.3
IE3-132M1-6	4	5.5	9.46	8.99	8.66	968	86.8	86.8	85.1	0.74	39.5	2.0	6.8	2.1	75.2
IE3-132M2-6	5.5	7.5	12.7	12.0	11.6	968	88.0	88.0	86.2	0.75	54.3	2.0	7.0	2.1	82.3
IE3-160M-6	7.5	10	16.2	15.4	14.8	970	89.1	89.1	87.3	0.79	73.8	2.0	7.0	2.1	112
IE3-160L-6	11	15	23.1	22.0	21.2	970	90.3	90.3	88.5	0.80	106.3	2.0	7.2	2.1	134
IE3-180L-6	15	20	30.9	29.3	28.2	978	91.2	91.2	89.4	0.81	146.5	2.0	7.3	2.1	197
IE3-200L1-6	18.5	25	37.8	35.9	34.7	980	91.7	91.7	89.9	0.81	180.3	2.0	7.3	2.1	234
IE3-200L2-6	22	30	44.8	42.5	41.0	980	92.2	92.2	90.4	0.81	214.4	2.0	7.4	2.1	251
IE3-225M-6	30	40	59.1	56.2	54.1	980	92.9	92.9	91.0	0.83	292.3	2.0	6.9	2.1	308
IE3-250M-6	37	50	71.7	68.1	65.7	985	93.3	93.3	91.4	0.84	358.7	2.0	7.1	2.1	383
IE3-280S-6	45	60	85.8	81.6	78.6	985	93.7	93.7	91.8	0.85	436.3	2.0	7.3	2.0	501
IE3-280M-6	55	75	103	98.1	94.6	985	94.1	94.1	92.2	0.86	533.2	2.0	7.3	2.0	573
IE3-315S-6	75	100	143	136	131	985	94.6	94.6	92.7	0.84	727.2	2.0	6.6	2.0	843
IE3-315M-6	90	125	170	161	155	988	94.9	94.9	93.0	0.85	869.9	2.0	6.7	2.0	941
IE3-315L1-6	110	150	207	196	189	988	95.1	95.1	93.2	0.85	1063	2.0	6.7	2.0	1017
IE3-315L2-6	132	180	244	232	224	988	95.4	95.4	93.5	0.86	1276	2.0	6.8	2.0	1121
IE3-355M1-6	160	200	296	281	271	990	95.6	95.6	93.7	0.86	1543	1.8	6.8	2.0	1715
IE3-355M2-6	200	270	365	346	334	990	95.8	95.8	93.9	0.87	1929	1.8	6.8	2.0	1846
IE3-355L-6	250	340	456	433	417	990	95.8	95.8	93.9	0.87	2412	1.8	6.8	2.0	2085

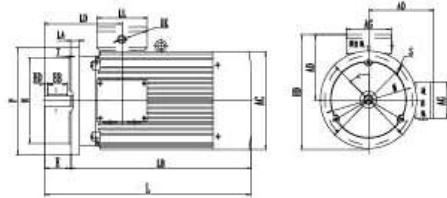
TECHNICAL DATA

Model	Output		Rated Current (A)			Speed (r/min)	Efficiency η %	Efficiency at 75% load	Efficiency at 50% load	Power factor	Rated Torque Nm	Locked torque Rated torque TST/TPL	Locked current Rated torque IST/TPL	Max torque Rated torque TM/TPL	Weight (kg)
IE3	kw	HP	380V	400V	415V										
Synchronous Speed 750r/min(8poles)															
IE3-712-8	0.12	0.18	0.63	0.60	0.58	605	50.7	50.7	49.7	0.57	1.89	1.8	2.8	1.9	11
IE3-80M1-8	0.18	0.25	0.76	0.73	0.70	650	58.7	58.7	57.5	0.61	2.64	1.8	3.3	1.9	14.5
IE3-80M2-8	0.25	0.37	0.97	0.92	0.89	650	64.1	64.1	62.8	0.61	3.67	1.8	3.3	1.9	16.7
IE3-90S-8	0.37	0.5	1.33	1.26	1.22	675	69.3	69.3	67.9	0.61	5.23	1.8	4.0	1.9	28.2
IE3-90L-8	0.55	0.75	1.88	1.78	1.72	675	73.0	73.0	71.5	0.61	7.78	1.8	4.0	2.0	29.7
IE3-100L1-8	0.75	1	2.27	2.15	2.08	685	75.0	75.0	73.5	0.67	10.5	1.8	4.0	2.0	40
IE3-100L2-8	1.1	1.5	3.12	2.96	2.85	685	77.7	77.7	76.1	0.69	15.3	1.8	5.0	2.0	41.4
IE3-112M-8	1.5	2	4.08	3.88	3.74	695	79.7	79.7	78.1	0.70	20.6	1.8	5.0	2.0	57.5
IE3-132S-8	2.2	3	5.75	5.46	5.26	710	81.9	81.9	80.3	0.71	29.6	1.8	6.0	2.0	74.8
IE3-132M-8	3	4	7.48	7.10	6.85	710	83.5	83.5	81.8	0.73	40.4	1.8	6.0	2.0	89.1
IE3-160M1-8	4	5.5	9.82	9.33	8.99	725	84.8	84.8	83.1	0.73	52.7	1.9	6.0	2.0	101
IE3-160M2-8	5.5	7.5	13.1	12.4	12.0	725	86.2	86.2	84.5	0.74	72.4	1.9	6.0	2.0	126.5
IE3-160L-8	7.5	10	17.4	16.5	15.9	725	87.3	87.3	85.6	0.75	98.8	1.9	6.0	2.0	136
IE3-180L-8	11	15	25.2	23.9	23.0	735	88.6	88.6	86.8	0.75	142.9	2.0	6.5	2.0	198
IE3-200L-8	15	20	33.5	31.8	30.6	730	89.6	89.6	87.8	0.76	196.2	2.0	6.6	2.0	234
IE3-225S-8	18.5	25	41.0	39.0	37.6	730	90.1	90.1	88.3	0.76	242.0	1.9	6.6	2.0	284
IE3-225M-8	22	30	47.3	44.9	43.3	730	90.6	90.6	88.8	0.78	287.8	1.9	6.6	2.0	325
IE3-250M-8	30	40	63.2	60.0	57.9	735	91.3	91.3	89.5	0.79	389.8	1.9	6.5	2.0	425
IE3-280S-8	37	50	77.5	73.6	71.0	735	91.8	91.8	90.0	0.79	480.7	1.9	6.6	2.0	518
IE3-280M-8	45	60	93.9	89.2	85.9	735	92.2	92.2	90.4	0.79	584.7	1.9	6.6	2.0	582
IE3-315S-8	55	75	112	106	102	735	92.5	92.5	90.7	0.81	714.6	1.8	6.6	2.0	852
IE3-315M-8	75	100	151	144	138	735	93.1	93.1	91.2	0.81	974.5	1.8	6.2	2.0	952
IE3-315L1-8	90	125	179	170	163	735	93.4	93.4	91.5	0.82	1169	1.8	6.4	2.0	1040
IE3-315L2-8	110	150	218	207	199	735	93.7	93.7	91.8	0.82	1429	1.8	6.4	2.0	1056
IE3-355M1-8	132	180	260	247	238	740	94.0	94.0	92.1	0.82	1704	1.8	6.4	2.0	1784
IE3-355M2-8	160	200	314	299	288	740	94.3	94.3	92.4	0.82	2065	1.8	6.4	2.0	1941
IE3-355L-8	200	270	387	368	354	740	94.6	94.6	92.7	0.83	2581	1.8	6.4	2.0	2026

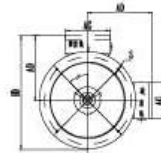
INSTALLATION AND OVERALL DIMENSIONS

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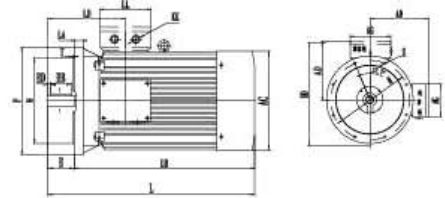
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H160-200



H225-355

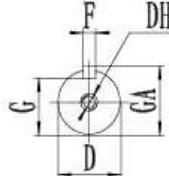
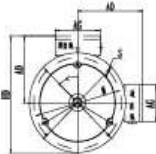
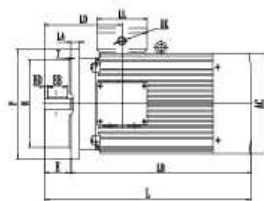


Model	Poles	AC	AD	AG	D	DH	E	EB	ED	F	G	GA	HD	KK	L	LA	LB	LD	LL	M	N	P	S	T
63	2,4	120	120	92	11	M4X12	23	13	5	4	8.5	13	190	1-M25X1.5	225	11	202	90	92	115	95	140	10	3
71	2,4,6	136	124	92	14	M5X13	30	20	5	5	11	16.5	204	1-M25X1.5	250	11	220	102	92	130	110	160	10	3
80	2,4,6,8	167	154.5	102	19	M6X16	40	30	5	6	15.5	21.5	254.5	1-M25X1.5	304	12	264	112	102	165	130	200	12	3.5
90S	2,4,6,8	182.4	162	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	336	12	286	130	102	165	130	200	12	3.5
90L	2,4,6,8	182.4	162	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	361	12	311	130	102	165	130	200	12	3.5
100L	2,4,6,8	205.4	173.5	102	28	M8X22	60	50	5	8	24	31	298.5	1-M32X1.5	406	13	346	139	102	215	180	250	14.5	4
112M	2,4,6,8	219.4	190	118	28	M8X22	60	50	5	8	24	31	315	2-M32X1.5	452	14	392	147	110	215	180	250	14.5	4
132S	2,4,6,8	258.4	203	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	470	14	390	172	110	265	230	300	14.5	4
132M	4,6,8	258.4	203	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	508	14	428	172	110	265	230	300	14.5	4
160M	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	608	15	498	256	152	300	250	350	18.5	5
160L	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	652	15	524	256	152	300	250	350	18.5	5
180M	2,4,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	444.5	2-M40X1.5	688	15	578	271	152	300	250	350	18.5	5
180L	4,6,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	444.5	2-M40X1.5	726	15	616	271	152	300	250	350	18.5	5
200L	2,4,6,8	397	299	210	55	M20X42	110	100	5	16	49	59	499	2-M50X1.5	779	17	669	296	190	350	300	400	18.5	5
225S	4,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	824	20	684	329	190	400	350	450	18.5	5
225M	2	446	322	210	55	M20X42	110	100	5	16	49	59	547	2-M50X1.5	819	20	709	299	190	400	350	450	18.5	5
225M	4,6,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	849	20	709	329	190	400	350	450	18.5	5
250M	2	485	358	248	60	M20X42	140	125	7.5	18	53	64	633	2-M63X1.5	910	22	770	347	218	500	450	550	18.5	5
250M	4,6,8	485	358	248	65	M20X42	140	125	7.5	18	58	69	633	2-M63X1.5	910	22	7700	347	218	500	450	550	18.5	5
280S	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280S	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280M	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
280M	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
315S	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1194	22	1054	397	280	600	550	660	24	6
315S	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1224	22	1054	427	280	600	550	660	24	6
315M	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315M	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
315L	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315L	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
355M	2	698	642	380	75	M20X50	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355M	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6
355L	2	698	642	380	75	M20X50	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355L	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6

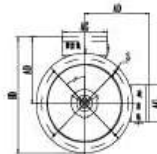
INSTALLATION AND OVERALL DIMENSIONS

IM B5 H63-355

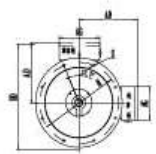
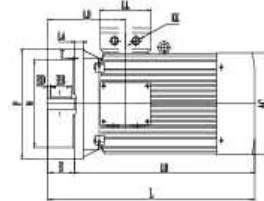
H63-132



H160-200



H225-355

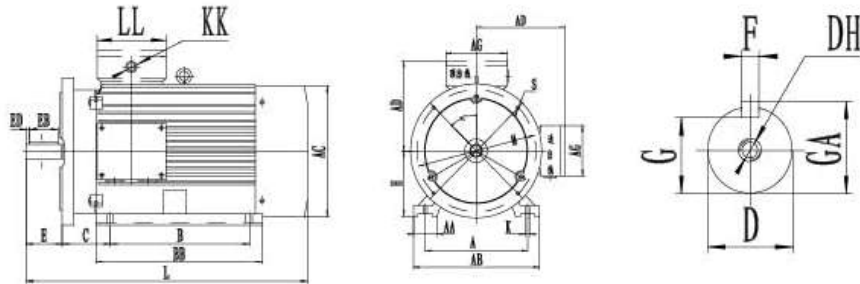


Model	Poles	AC	AD	AG	D	DH	E	EB	ED	F	G	GA	HD	KK	L	LA	LB	LD	LL	M	N	P	S	T
63	2,4	120	120	92	11	M4X12	23	13	5	4	8.5	13	190	1-M25X1.5	225	11	202	90	92	115	95	140	10	3
71	2,4,6	136	124	92	14	M5X13	30	20	5	5	11	16.5	204	1-M25X1.5	250	11	220	102	92	130	110	160	10	3
80	2,4,6,8	167	154.5	102	19	M6X16	40	30	5	6	15.5	21.5	254.5	1-M25X1.5	304	12	264	112	102	165	130	200	12	3.5
90S	2,4,6,8	182.4	162	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	336	12	286	130	102	165	130	200	12	3.5
90L	2,4,6,8	182.4	162	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	361	12	311	130	102	165	130	200	12	3.5
100L	2,4,6,8	205.4	173.5	102	28	M8X22	60	50	5	8	24	31	298.5	1-M32X1.5	406	13	346	139	102	215	180	250	14.5	4
112M	2,4,6,8	219.4	190	118	28	M8X22	60	50	5	8	24	31	315	2--M32X1.5	452	14	392	147	110	215	180	250	14.5	4
132S	2,4,6,8	258.4	203	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	470	14	390	172	110	265	230	300	14.5	4
132M	4,6,8	258.4	203	118	38	M12X28	80	65	7.5	10	33	41	353	2--M32X1.5	508	14	428	172	110	265	230	300	14.5	4
160M	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	608	15	498	256	152	300	250	350	18.5	5
160L	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	652	15	524	256	152	300	250	350	18.5	5
180M	2,4,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	444.5	2-M40X1.5	688	15	578	271	152	300	250	350	18.5	5
180L	4,6,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	444.5	2-M40X1.5	726	15	616	271	152	300	250	350	18.5	5
200L	2,4,6,8	397	299	210	55	M20X42	110	100	5	16	49	59	499	2-M50X1.5	779	17	669	296	190	350	300	400	18.5	5
225S	4,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	824	20	684	329	190	400	350	450	18.5	5
225M	2	446	322	210	55	M20X42	110	100	5	16	49	59	547	2-M50X1.5	819	20	709	299	190	400	350	450	18.5	5
225M	4,6,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	849	20	709	329	190	400	350	450	18.5	5
250M	2	485	358	248	60	M20X42	140	125	7.5	18	53	64	633	2-M63X1.5	910	22	770	347	218	500	450	550	18.5	5
250M	4,6,8	485	358	248	65	M20X42	140	125	7.5	18	58	69	633	2-M63X1.5	910	22	7700	347	218	500	450	550	18.5	5
280S	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280S	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280M	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
280M	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
315S	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1194	22	1054	397	280	600	550	660	24	6
315S	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1224	22	1054	427	280	600	550	660	24	6
315M	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315M	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
315L	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315L	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
355M	2	698	642	380	75	M20X50	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355M	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6
355L	2	698	642	380	75	M20X50	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355L	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6

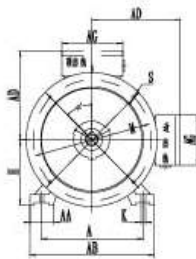
INSTALLATION AND OVERALL DIMENSIONS

IM B35 H63-355

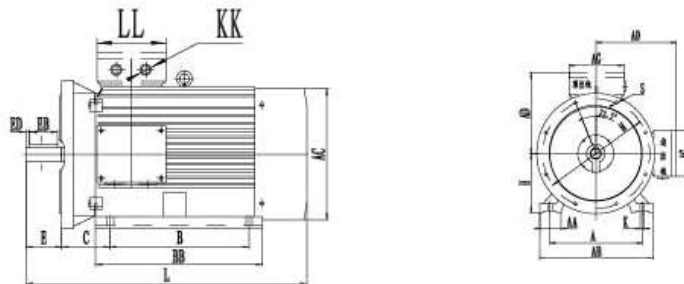
H63-132



H160-200



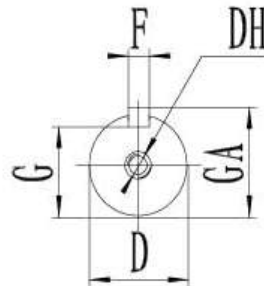
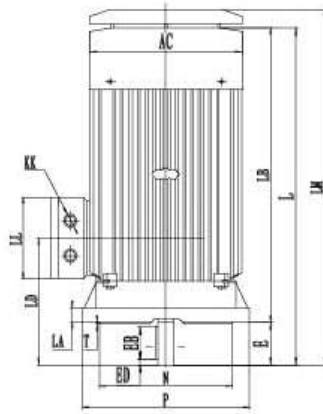
H225-355



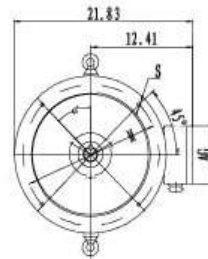
Model	Poles	A	AA	AB	AC	AD	AG	B	BB	C	D	DH	E	EB	ED	F	G	GA	H	HA	K	KK	L	LA	LB	LD	LL	M	N	P	S	T
63	2,4	100	30	130	115	120	92	80	115	40	11	M4X12	23	13	5	4	8.5	13	63	8	4-φ7	1-M25X1.5	225	11	202	90	92	115	95	140	10	3
71	2,4,6	112	32	144	135	124	92	90	120	45	14	M5X13	30	20	5	5	11	16.5	71	8	4-φ7	1-M25X1.5	250	11	220	102	92	130	110	160	10	3
80	2,4,6,8	125	34	160	167	147	102	100	150	50	19	M6X16	40	30	5	6	15.5	21.5	80	10	4-φ10	1-M25X1.5	304	12	264	112	102	165	130	200	12	3.5
90S	2,4,6,8	140	36	176	182.4	154.5	102	100	161	56	24	M8X19	50	40	5	8	20	27	90	12	4-φ10	1-M25X1.5	336	12	286	130	102	165	130	200	12	3.5
90L	2,4,6,8	140	36	176	182.4	154.5	102	125	186	56	24	M8X19	50	40	5	8	20	27	90	12	4-φ10	1-M25X1.5	361	12	311	130	102	165	130	200	12	3.5
100L	2,4,6,8	160	40	200	205.4	166	102	140	213	63	28	M8X22	60	50	5	8	24	31	100	14	4-φ12	1-M32X1.5	406	13	346	139	102	215	180	250	14.5	4
112M	2,4,6,8	190	50	240	219.4	182	118	140	225	70	28	M8X22	60	50	5	8	24	31	112	15	4-φ12	2-M32X1.5	452	14	392	147	110	215	180	250	14.5	4
132S	2,4,6,8	216	55	262	258.4	203	118	140	200	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-φ12	2-M32X1.5	470	14	390	172	110	265	230	300	14.5	4
132M	4,6,8	216	55	262	258.4	203	118	178	238	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-φ12	2-M32X1.5	508	14	428	172	110	265	230	300	14.5	4
160M	2,4,6,8	254	65	314	314	251	162	210	260	108	42	M16X36	110	90	10	12	37	45	160	20	4-φ14.5	2-M40X1.5	608	15	498	256	152	300	250	350	18.5	5
160L	2,4,6,8	254	65	314	314	251	162	254	304	108	42	M16X36	110	90	10	12	37	45	160	20	4-φ14.5	2-M40X1.5	652	15	542	256	152	300	250	350	18.5	5
180M	2,4,8	279	70	349	355	267	162	241	311	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-φ14.5	2-M40X1.5	688	15	578	271	152	300	250	350	18.5	5
180L	4,6,8	279	70	349	355	267	162	279	349	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-φ14.5	2-M40X1.5	726	15	616	271	152	300	250	350	18.5	5
200L	2,4,6,8	318	70	388	397	299	210	305	369	133	55	M20X42	110	100	5	16	49	59	200	25	4-φ16.5	2-M50X1.5	779	17	669	296	190	350	300	400	18.5	5
225S	4,8	356	75	431	446	322	210	286	368	149	60	M20X42	140	125	7.5	18	53	64	225	28	4-φ18.5	2-M50X1.5	824	20	684	329	190	400	350	450	18.5	5
225M	2	356	75	431	446	322	210	311	393	149	55	M20X42	110	100	5	16	49	59	225	28	4-φ18.5	2-M50X1.5	819	20	709	299	190	400	350	450	18.5	5
225M	4,6,8	356	75	431	446	322	210	311	393	149	60	M20X42	140	125	7.5	18	53	64	225	28	4-φ18.5	2-M50X1.5	849	20	709	329	190	400	350	450	18.5	5
250M	2	406	80	484	485	358	248	349	445	168	65	M20X42	140	125	7.5	18	53	64	250	30	4-φ24	2-M63X1.5	910	22	770	347	218	500	450	550	18.5	5
250M	4,6,8	406	80	484	485	358	248	349	445	168	65	M20X42	140	125	7.5	18	58	69	250	30	4-φ24	2-M63X1.5	910	22	770	347	218	500	450	550	18.5	5
280S	2	457	85	542	547	387	248	368	485	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-φ24	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280S	4,6,8	457	85	542	547	387	248	368	485	190	75	M20X42	140	125	7.5	20	67.5	79.5	280	35	4-φ24	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280M	2	457	85	542	547	387	248	419	536	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-φ24	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
280M	4,6,8	457	85	542	547	387	248	419	536	190	75	M20X42	140	125	7.5	20	67.5	79.5	280	35	4-φ24	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
315S	2	508	120	628	620	527	320	406	570	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-φ28	2-M63X1.5	1194	22	1054	397	280	600	550	660	24	6
315S	4,6,8,10	508	120	628	620	527	320	406	570	216	80	M20X42	170	160	5	22	71	85	315	45	4-φ28	2-M63X1.5	1224	22	1054	427	280	600	550	660	24	6
315M	2	508	120	628	620	527	320	457	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-φ28	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315M	4,6,8,10	508	120	628	620	527	320	457	680	216	80	M20X42	170	160	5	22	71	85	315	45	4-φ28	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
315L	2	508	120	628	620	527	320	508	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-φ28	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315L	4,6,8,10	508	120	628	620	527	320	508	680	216	80	M20X42	170	160	5	22	71	85	315	45	4-φ28	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
355M	2	610	116	726	698	642	380	560	750	254	75	M20X50	140	130	5	20	67.5	79.5	355	52	6-φ28	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355M	4,6,8,10	610	116	726	698	642	380	560	750	254	95	M24X50	170	160	5	25	86	100	355	52	6-φ28	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6
355L	2	610	116	726	698	642	380	630	750	254	75	M20X50	140	130	5	20	67.5	79.5	355	52	6-φ28	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355L	4,6,8,10	610	116	726	698	642	380	630	750	254	95	M24X50	170	160	5	25	86	100	355	52	6-φ28	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6

INSTALLATION AND OVERALL DIMENSIONS

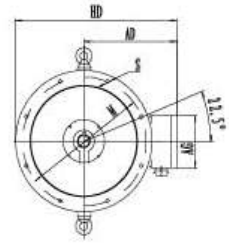
IM V1 H160-355



H160-200



H225-355



Model	Poles	AC	AD	AG	D	DH	E	EB	ED	F	G	GA	HD	KK	L	LA	LB	LD	LL	LM	M	N	P	S	T
160M	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	608	15	498	256	152	670	300	250	350	18.5	5
160L	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	652	15	542	256	152	714	300	250	350	18.5	5
180M	2,4,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	44.5	2-M40X1.5	688	15	578	271	152	760	300	250	350	18.5	5
180L	4,6,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	44.5	2-M40X1.5	728	15	616	271	152	798	300	250	350	18.5	5
200L	2,4,6,8	397	299	210	55	M20X42	110	100	5	16	49	59	499	2-M50X1.5	771	17	661	296	190	845	350	300	400	18.5	5
225S	4,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	824	20	684	329	190	898	400	350	450	18.5	5
225M	2	446	322	210	55	M20X42	110	100	5	16	49	59	547	2-M50X1.5	819	20	709	299	190	893	400	350	450	18.5	5
225M	4,6,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	849	20	709	329	190	893	400	350	450	18.5	5
250M	2	485	358	248	60	M20X42	140	125	7.5	18	53	64	633	2-M63X1.5	910	22	770	347	218	986	500	450	550	18.5	5
250M	4,6,8	485	358	248	65	M20X42	140	125	7.5	18	58	69	633	2-M63X1.5	910	22	770	347	218	986	500	450	550	18.5	5
280S	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	982	22	842	355.5	218	1058	500	450	550	18.5	5
280S	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	982	22	842	355.5	218	1058	500	450	550	18.5	5
280M	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	1033	22	893	355.5	218	1109	500	450	550	18.5	5
280M	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	1033	22	893	355.5	218	1109	500	450	550	18.5	5
315S	2	620	527	284	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1178	22	1038	397	280	1259	600	550	660	24	6
315S	4,6,8,10	620	527	284	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1208	22	1038	427	280	1289	600	550	660	24	6
315M	2	620	527	284	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1288	22	1148	397	280	1369	600	550	660	24	6
315M	4,6,8,10	620	527	284	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1318	22	1148	427	280	1399	600	550	660	24	6
315L	2	620	527	284	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1288	22	1148	397	280	1369	600	550	660	24	6
315L	4,6,8,10	620	527	284	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1318	22	1148	427	280	1399	600	550	660	24	6
355M	2	698	642	380	75	M20X50	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	1567	740	680	800	24	6
355M	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	1597	740	680	800	24	6
355L	2	698	642	380	75	M20X50	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	1567	740	680	800	24	6
355L	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	1597	740	680	800	24	6