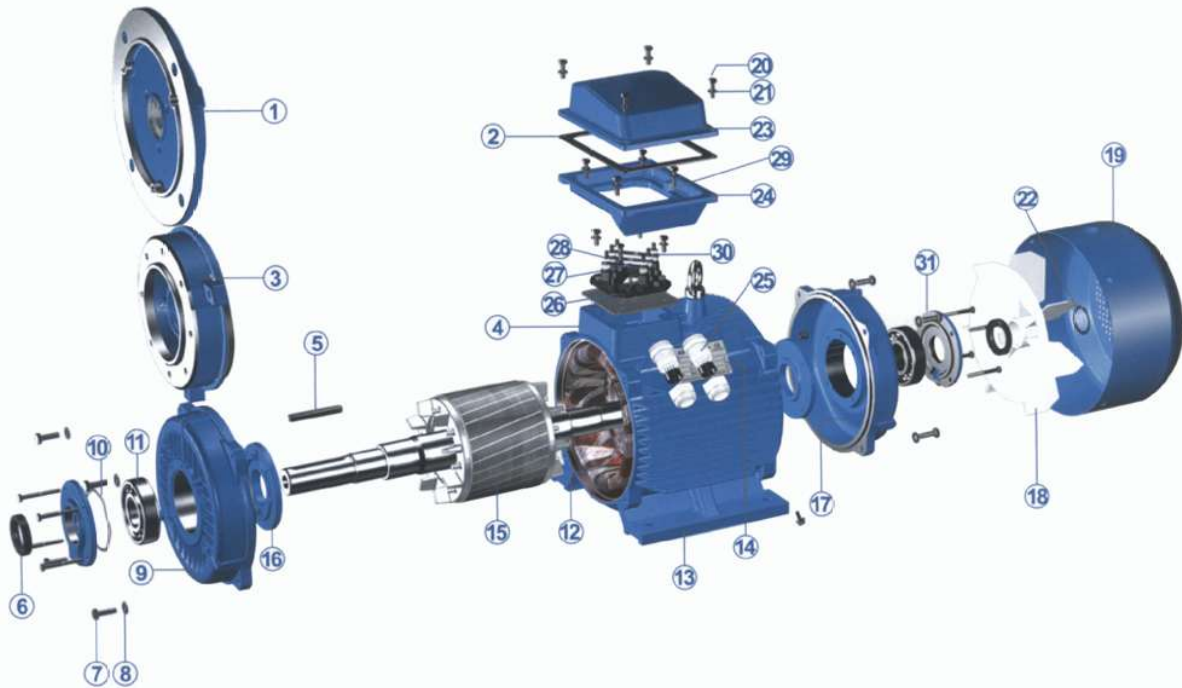


제품 분해도(Exploded View)



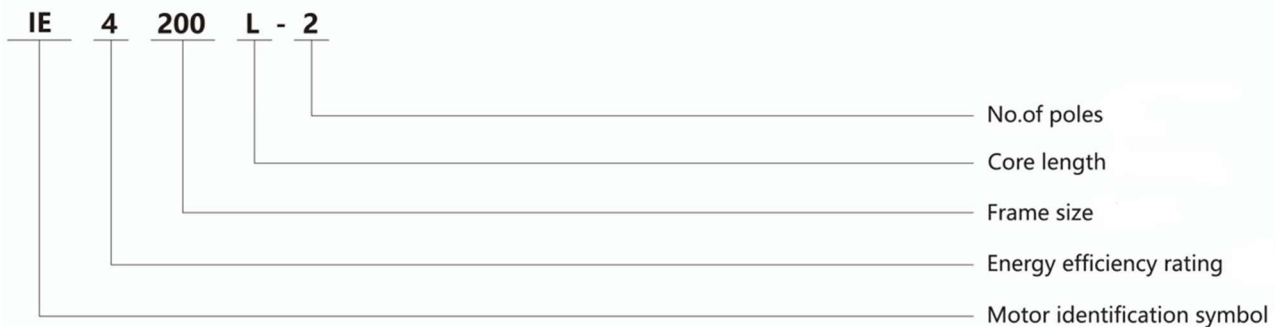
번호	명칭	번호	명칭
1	B5 Flange	17	Rear Endshield
2	Gasket	18	Fan
3	B14 Flange	19	Fan Cowl
4	Frame	20	Screw
5	Key	21	Spring Washer
6	Oil Seal	22	Fan Clamp
7	Bolt	23	Terminal Box Lid
8	Spring Washer	24	Terminal Box Base
9	Front Endshiled	25	Cable Grand
10	Wave Form	26	Terminal Board
11	Bearing	27	Brass Lug
12	Stator	28	Brass Nut
13	Feet	29	Earth Mark
14	Nameplate	30	Brass Washer
15	Rotor	31	Outer Bearing Cap
16	Inner Bearing Cap		

IE4 효율 표

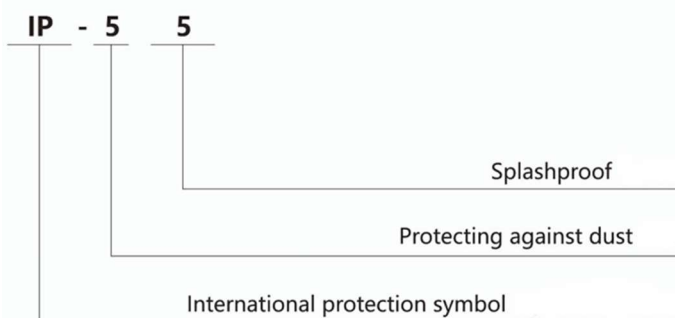
Nominal efficiency limits(%)for 50 Hz IE4				
PN kW	Number of poles/synchronous speed			
	2/3000	4/1500	6/1000	8/750
0.12	66.5	69.8	64.9	62.3
0.18	70.8	74.7	70.1	67.2
0.2	71.9	75.8	71.4	68.4
0.25	74.3	77.9	74.1	70.8
0.37	78.1	81.1	78.0	74.3
0.40	78.9	81.7	78.7	74.9
0.55	81.5	83.9	80.9	77.0
0.75	83.5	85.7	82.7	78.4
1.1	85.2	87.2	84.5	80.8
1.5	86.5	88.2	85.9	82.6
2.2	88.0	89.5	87.4	84.5
3	89.1	90.4	88.6	85.9
4	90.0	91.1	89.5	87.1
5.5	90.9	91.9	90.5	88.3
7.5	91.7	92.6	91.3	89.3
11	92.6	93.3	92.3	90.4
15	93.3	93.9	92.9	91.2
18.5	93.7	94.2	93.4	91.7
22	94.0	94.5	93.7	92.1
30	94.5	94.9	94.2	92.7
37	94.8	95.2	94.5	93.1
45	95.0	95.4	94.8	93.4
55	95.3	95.7	95.1	93.7
75	95.6	96.0	95.4	94.2
90	95.8	96.1	95.6	94.4
110	96.0	96.3	95.8	94.7
132	96.2	96.4	96.0	94.9
160	96.3	96.6	96.2	95.1
200	96.5	96.7	96.3	95.4
250	96.5	96.7	96.5	95.4
315-1000	96.5	96.7	96.6	95.4

Nominal efficiency limits(%)for 60 Hz IE4				
PN kW	Number of poles/synchronous speed			
	2/3600	4/1800	6/1200	8/900
0.12	66.0	70.0	68.0	64.0
0.18	70.0	74.0	72.0	68.0
0.25	74.0	77.0	75.5	72.0
0.37	77.0	81.5	78.5	75.5
0.55	80.0	84.0	82.5	77.0
0.75	82.5	85.5	84.0	78.5
1.1	85.5	87.5	88.5	81.5
1.5	86.5	88.5	89.5	85.5
2.2	88.5	91.0	90.2	87.5
3.7	89.5	91.0	90.2	88.5
5.5	90.2	92.4	91.7	88.5
7.5	91.7	92.4	92.4	91.0
11	92.4	93.6	93.0	91.0
15	92.4	94.1	93.0	91.7
18.5	93.0	94.5	94.1	91.7
22	93.0	94.5	94.1	93.0
30	93.6	95.0	95.0	93.0
37	94.1	95.4	95.0	93.6
45	94.5	95.4	95.4	93.6
55	94.5	95.8	95.4	94.5
75	95.0	96.2	95.8	94.5
90	95.4	96.2	95.8	95.0
110	95.4	96.2	96.2	95.0
150	95.8	96.5	96.2	95.4
185	96.2	96.5	96.2	95.4
220	96.2	96.8	96.5	95.4
250-1000	96.2	96.8	96.5	95.8

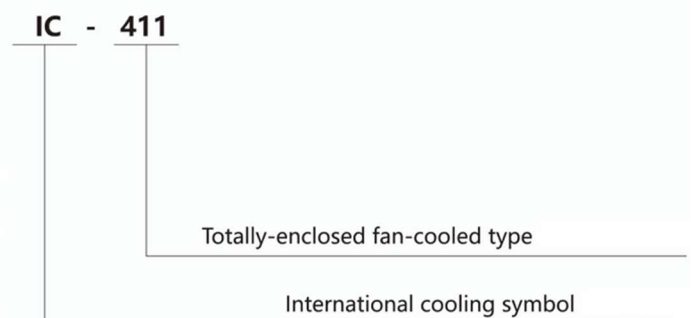
IE4 DESIGNATION



PROTECTION DEGREE



COOLING METHOD



IE4 기술사양(2극, 50Hz, 3,000rpm)

High Efficiency (IE4-Cast-iron Motor) 50Hz															
Type	Rated Output		Rated Speed rpm	Efficiency η%	Efficiency at 75% load	Efficiency at 50% load	Power factor cosΦ	Rated current A			Rated Torque Nm	구속토크/ 정격토크 Ts/Tn	최대토크/ 정격토크 Tmax/Tn	구속전류/ 정격전류 Is/In	Weight kg
	kW	HP						380	400	415					
Speed 3000rpm 2-Pole 50Hz															
IE4-631-2	0.18	0.25	2745	70.8	70.8	69.4	0.80	0.48	0.46	0.44	0.63	2.2	2.2	5.5	11.3
IE4-632-2	0.25	0.37	2745	74.3	74.3	72.8	0.81	0.63	0.60	0.58	0.87	2.2	2.2	5.5	11.8
IE4-711-2	0.37	0.5	2765	78.1	78.1	76.5	0.81	0.89	0.84	0.81	1.28	2.2	2.2	6.1	13.2
IE4-712-2	0.55	0.75	2765	81.5	81.5	79.9	0.82	1.25	1.19	1.14	1.90	2.3	2.3	6.1	14.5
IE4-801-2	0.75	1	2910	83.5	83.5	81.8	0.82	1.66	1.58	1.52	2.46	2.3	2.3	7.0	20
IE4-802-2	1.1	1.5	2920	85.2	85.2	83.5	0.83	2.36	2.25	2.16	3.60	2.2	2.3	7.3	21
IE4-90S-2	1.5	2	2930	86.5	86.5	84.8	0.84	3.14	2.98	2.87	4.89	2.2	2.3	7.6	24
IE4-90L-2	2.2	3	2930	88.0	88.0	86.2	0.85	4.47	4.25	4.09	7.17	2.2	2.3	7.6	29
IE4-100L-2	3	4	2935	89.1	89.1	87.3	0.87	5.88	5.59	5.38	9.76	2.2	2.3	7.8	37
IE4-112M-2	4	5.5	2940	90.0	90.0	88.2	0.88	7.67	7.29	7.03	13.0	2.2	2.3	8.3	48
IE4-132S1-2	5.5	7.5	2945	90.9	90.9	89.1	0.88	10.4	9.9	9.57	17.8	2.0	2.3	8.3	76
IE4-132S2-2	7.5	10	2950	91.7	91.7	89.9	0.88	14.1	13.4	12.9	24.3	2.0	2.3	7.9	85
IE4-160M1-2	11	15	2960	92.6	92.6	90.7	0.89	20.3	19.3	18.6	35.5	2.0	2.3	8.1	133
IE4-160M2-2	15	20	2960	93.3	93.3	91.4	0.89	27.4	26.1	25.1	48.4	2.0	2.3	8.1	146
IE4-160L-2	18.5	25	2960	93.7	93.7	91.8	0.89	33.7	32.0	30.9	59.7	2.0	2.3	8.2	160
IE4-180M-2	22	30	2965	94.0	94.0	92.1	0.89	40.0	38.0	36.6	70.9	2.0	2.3	8.2	221
IE4-200L1-2	30	40	2970	94.5	94.5	92.6	0.89	54.2	51.5	49.6	96.5	2.0	2.3	7.6	260
IE4-200L2-2	37	50	2970	94.8	94.8	92.9	0.89	66.6	63.3	61.0	119.0	2.0	2.3	7.6	309
IE4-225M-2	45	60	2975	95.0	95.0	93.1	0.90	80.0	76.0	73.2	144.5	2.0	2.3	7.7	370
IE4-250M-2	55	75	2975	95.3	95.3	93.4	0.90	97.4	92.6	89.2	176.6	2.0	2.3	7.7	520
IE4-280S-2	75	100	2980	95.6	95.6	93.7	0.90	132	126	121	240.4	1.8	2.3	7.1	570
IE4-280M-2	90	125	2982	95.8	95.8	93.9	0.90	159	151	145	288.2	1.8	2.3	7.1	630
IE4-315S-2	110	150	2980	96.0	96.0	94.1	0.90	193	184	177	352.5	1.8	2.3	7.1	985
IE4-315M-2	132	180	2980	96.2	96.2	94.3	0.90	232	220	212	423.0	1.8	2.3	7.1	1050
IE4-315L1-2	160	200	2980	96.3	96.3	94.4	0.91	277	264	254	512.8	1.8	2.3	7.2	1160
IE4-315L2-2	200	270	2980	96.5	96.5	94.6	0.91	346	329	317	640.9	1.8	2.2	7.2	1200
IE4-355M-2	250	340	2985	96.5	96.5	94.6	0.91	433	411	396	799.8	1.6	2.2	7.2	2050
IE4-355L-2	315	430	2982	96.5	96.5	94.6	0.91	545	518	499	1009	1.6	2.2	7.2	2380

IE4 기술사양(4극, 50Hz, 1,500rpm)

High Efficiency (IE4-Cast-iron Motor) 50Hz															
Type	Rated Output		Rated Speed rpm	Efficiency η%	Efficiency at 75% load	Efficiency at 50% load	Power factor cosΦ	Rated current A			Rated Torque Nm	구속토크/ 정격토크 Ts/Tn	최대토크/ 정격토크 Tmax/Tn	구속전류/ 정격전류 Is/In	Weight kg
	kW	HP						380	400	415					
Speed 1500rpm 4-Pole 50Hz															
IE4-631-4	0.12	0.18	1340	69.8	69.8	68.4	0.72	0.36	0.34	0.33	0.86	2.1	2.2	4.4	11.8
IE4-632-4	0.18	0.25	1340	74.7	74.7	73.2	0.73	0.50	0.48	0.46	1.28	2.1	2.2	4.4	12.6
IE4-711-4	0.25	0.37	1355	77.9	77.9	76.3	0.74	0.66	0.63	0.6	1.76	2.1	2.2	5.2	18
IE4-712-4	0.37	0.5	1355	81.1	81.1	79.5	0.75	0.92	0.88	0.85	2.61	2.1	2.2	5.2	19.5
IE4-801-4	0.55	0.75	1420	83.9	83.9	82.2	0.75	1.33	1.26	1.22	3.70	2.4	2.3	5.2	21
IE4-802-4	0.75	1	1430	85.7	85.7	84.0	0.75	1.77	1.68	1.62	5.01	2.3	2.3	6.6	24
IE4-90S-4	1.1	1.5	1445	87.2	87.2	85.5	0.76	2.52	2.40	2.31	7.27	2.3	2.3	6.8	30
IE4-90L-4	1.5	2	1450	88.2	88.2	86.4	0.77	3.36	3.19	3.07	9.88	2.3	2.3	7.0	34
IE4-100L1-4	2.2	3	1455	89.5	89.5	87.7	0.81	4.61	4.38	4.22	14.4	2.3	2.3	7.6	47
IE4-100L2-4	3	4	1455	90.4	90.4	88.6	0.82	6.15	5.84	5.63	19.7	2.3	2.3	7.6	53
IE4-112M-4	4	5.5	1460	91.1	91.1	89.3	0.82	8.14	7.73	7.45	26.2	2.2	2.3	7.8	60
IE4-132S-4	5.5	7.5	1470	91.9	91.9	90.1	0.83	11.0	10.4	10.0	35.7	2.0	2.3	7.9	85
IE4-132M-4	7.5	10	1470	92.6	92.6	90.7	0.84	14.6	13.9	13.4	48.7	2.0	2.3	7.5	96
IE4-160M-4	11	15	1475	93.3	93.3	91.4	0.85	21.1	20.0	19.3	71.2	2.2	2.3	7.7	146
IE4-160L-4	15	20	1475	93.9	93.9	92.0	0.86	28.2	26.8	25.8	97.1	2.2	2.3	7.8	156
IE4-180M-4	18.5	25	1480	94.2	94.2	92.3	0.86	34.7	33.0	31.8	119.4	2.0	2.3	7.8	181
IE4-180L-4	22	30	1480	94.5	94.5	92.6	0.86	41.1	39.1	37.7	142.0	2.0	2.3	7.8	209
IE4-200L-4	30	40	1480	94.9	94.9	93.0	0.86	55.8	53.1	51.1	193.6	2.0	2.3	7.3	280
IE4-225S-4	37	50	1485	95.2	95.2	93.3	0.86	68.7	65.2	62.9	237.9	2.0	2.3	7.4	373
IE4-225M-4	45	60	1485	95.4	95.4	93.5	0.86	83.3	79.2	76.3	289.4	2.0	2.3	7.4	390
IE4-250M-4	55	75	1485	95.7	95.7	93.8	0.86	102	96.5	93.0	353.7	2.2	2.3	7.4	553
IE4-280S-4	75	100	1490	96.0	96.0	94.1	0.88	135	128	124	480.7	2.0	2.3	6.9	655
IE4-280M-4	90	125	1490	96.1	96.1	94.2	0.88	162	154	148	576.8	2.0	2.3	6.9	730
IE4-315S-4	110	150	1490	96.3	96.3	94.4	0.89	195	185	179	705.0	2.0	2.2	7.0	980
IE4-315M-4	132	180	1490	96.4	96.4	94.5	0.89	234	222	214	846.0	2.0	2.2	7.0	1031
IE4-315L1-4	160	200	1490	96.6	96.6	94.7	0.89	283	269	259	1026	2.0	2.2	7.1	1093
IE4-315L2-4	200	270	1490	96.7	96.7	94.8	0.90	349	332	320	1282	2.0	2.2	7.1	1190
IE4-355M-4	250	340	1490	96.7	96.7	94.8	0.90	436	415	400	1602	2.0	2.2	7.1	1754
IE4-355L-4	315	430	1490	96.7	96.7	94.8	0.90	550	522	504	2019	2.0	2.2	7.1	1960

IE4 기술사양(6극, 50Hz, 1,000rpm)

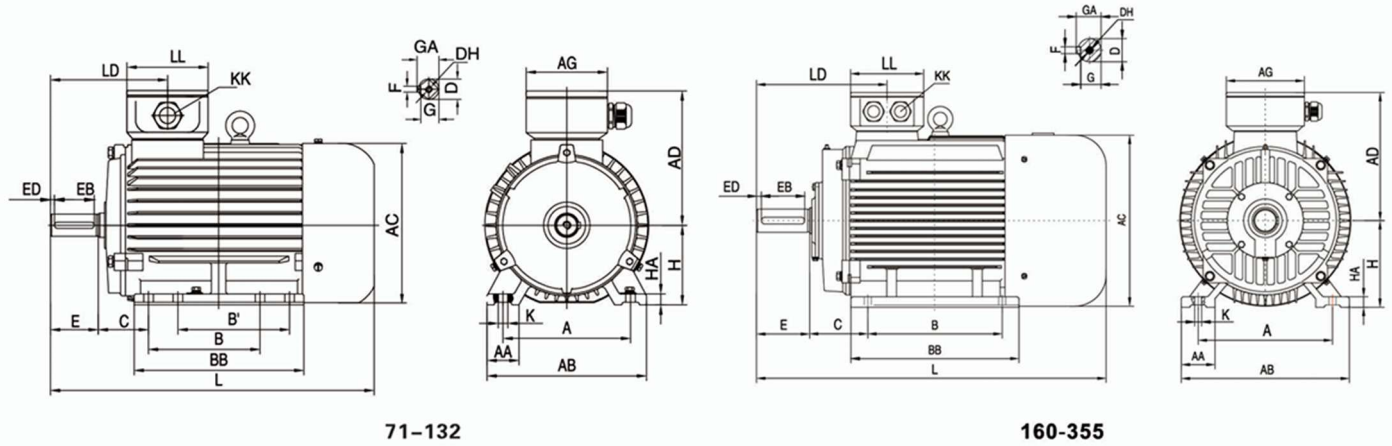
High Efficiency (IE4-Cast-iron Motor) 50Hz															
Type	Rated Output		Rated Speed rpm	Efficiency η%	Efficiency at 75% load	Efficiency at 50% load	Power factor cosΦ	Rated current A			Rated Torque Nm	구속토크/ 정격토크 Ts/Tn	최대토크/ 정격토크 Tmax/Tn	구속전류/ 정격전류 Is/In	Weight kg
	kW	HP						380	400	415					
Speed 1000rpm 6-Pole 50Hz															
IE4-632-6	0.12	0.18	860	64.9	64.9	63.6	0.60	0.47	0.44	0.43	1.33	1.8	1.9	3.5	12.3
IE4-711-6	0.18	0.25	860	70.1	70.1	68.7	0.66	0.59	0.56	0.54	2.00	1.9	2.0	4.0	13.3
IE4-712-6	0.25	0.37	860	74.1	74.1	72.6	0.68	0.75	0.72	0.69	2.78	1.9	2.0	4.0	13.8
IE4-801-6	0.37	0.5	895	78.0	78.0	76.4	0.70	1.03	0.98	0.94	3.95	1.9	2.0	4.7	18.2
IE4-802-6	0.55	0.75	895	80.9	80.9	79.3	0.72	1.43	1.36	1.31	5.87	1.9	2.1	4.7	20
IE4-90S-6	0.75	1	950	82.7	82.7	81.0	0.71	1.94	1.84	1.78	7.54	2.0	2.1	6.0	28
IE4-90L-6	1.1	1.5	955	84.5	84.5	82.8	0.73	2.71	2.57	2.48	11.0	2.0	2.1	6.0	32
IE4-100L-6	1.5	2	960	85.9	85.9	84.2	0.73	3.63	3.45	3.33	14.9	2.0	2.1	6.5	40
IE4-112M-6	2.2	3	965	87.4	87.4	85.7	0.74	5.17	4.91	4.73	21.8	2.0	2.1	6.6	56
IE4-132S-6	3	4	970	88.6	88.6	86.8	0.74	6.95	6.60	6.37	29.5	2.0	2.1	6.8	78
IE4-132M1-6	4	5.5	975	89.5	89.5	87.7	0.74	9.18	8.72	8.40	39.2	2.0	2.1	6.8	89
IE4-132M2-6	5.5	7.5	975	90.5	90.5	88.7	0.75	12.3	11.7	11.3	53.9	2.0	2.1	7.0	102
IE4-160M-6	7.5	10	980	91.3	91.3	89.5	0.79	15.8	15.0	14.5	73.1	2.0	2.1	7.0	140
IE4-160L-6	11	15	980	92.3	92.3	90.5	0.80	22.6	21.5	20.7	107.2	2.0	2.1	7.2	160
IE4-180L-6	15	20	985	92.9	92.9	91.0	0.81	30.3	28.8	27.7	145.4	2.0	2.1	7.3	245
IE4-200L1-6	18.5	25	985	93.4	93.4	91.5	0.81	37.2	35.3	34.0	179.4	2.0	2.1	7.3	265
IE4-200L2-6	22	30	985	93.7	93.7	91.8	0.81	44.0	41.8	40.3	213.3	2.0	2.1	7.4	285
IE4-225M-6	30	40	990	94.2	94.2	92.3	0.83	58.3	55.4	53.4	289.4	2.0	2.1	6.9	335
IE4-250M-6	37	50	990	94.5	94.5	92.6	0.84	70.8	67.3	64.8	356.9	2.0	2.1	7.1	471
IE4-280S-6	45	60	990	94.8	94.8	93.9	0.85	84.8	80.6	77.7	434.1	2.0	2.0	7.3	530
IE4-280M-6	55	75	990	95.1	95.1	93.2	0.86	102	97.1	93.6	530.6	2.0	2.0	7.3	670
IE4-315S-6	75	100	990	95.4	95.4	93.5	0.84	142	135	130	723.5	2.0	2.0	6.6	960
IE4-315M-6	90	125	990	95.6	95.6	93.7	0.85	168	160	154	868.2	2.0	2.0	6.7	1070
IE4-315L1-6	110	150	990	95.8	95.8	93.9	0.85	205	195	188	1061	2.0	2.0	6.7	1160
IE4-315L2-6	132	180	990	96.0	96.0	94.1	0.86	243	231	222	1273	2.0	2.0	6.8	1250
IE4-355M1-6	160	200	990	96.2	96.2	94.3	0.86	294	279	269	1543	1.8	2.0	6.8	1780
IE4-355M2-6	200	270	990	96.3	96.3	94.4	0.87	363	345	332	1929	1.8	2.0	6.8	1900
IE4-355L-6	250	340	990	96.5	96.5	94.6	0.87	452	430	414	2412	1.8	2.0	6.8	2100

IE4 기술사양(8극, 50Hz, 750rpm)

High Efficiency (IE4-Cast-iron Motor) 50Hz															
Type	Rated Output		Rated Speed rpm	Efficiency η%	Efficiency at 75% load	Efficiency at 50% load	Power factor cosΦ	Rated current A			Rated Torque Nm	구속토크/ 정격토크 Ts/Tn	최대토크/ 정격토크 Tmax/Tn	구속전류/ 정격전류 Is/In	Weight kg
	kW	HP						380	400	415					
Speed 750rpm 8-Pole 50Hz															
IE4-712-8	0.12	0.18	610	62.3	62.3	61.1	0.57	0.51	0.49	0.47	1.88	1.8	1.9	2.8	13
IE4-801-8	0.18	0.25	655	67.2	67.2	65.9	0.61	0.67	0.63	0.61	2.62	1.8	1.9	3.3	17.4
IE4-802-6	0.25	0.37	655	70.8	70.8	69.4	0.61	0.88	0.84	0.81	3.65	1.8	1.9	3.3	20
IE4-90S-8	0.37	0.5	680	74.3	74.3	72.8	0.61	1.24	1.18	1.14	5.20	1.8	1.9	4.0	34
IE4-90L-8	0.55	0.75	680	77.0	77.0	75.5	0.61	1.78	1.69	1.63	7.72	1.8	2.0	4.0	35.5
IE4-100L1-8	0.75	1	700	78.4	78.4	76.8	0.67	2.17	2.06	1.99	10.2	1.8	2.0	4.0	40
IE4-100L2-8	1.1	1.5	700	80.8	80.8	79.2	0.69	3.00	2.85	2.74	15.0	1.8	2.0	5.0	45
IE4-112M-8	1.5	2	710	82.6	82.6	80.9	0.70	3.94	3.74	3.61	20.2	1.8	2.0	5.0	50
IE4-132S-8	2.2	3	720	84.5	84.5	82.8	0.71	5.57	5.29	5.10	29.2	1.8	2.0	6.0	78
IE4-132M-8	3	4	720	85.9	85.9	84.2	0.73	7.27	6.91	6.66	39.8	1.8	2.0	6.0	88
IE4-160M1-8	4	5.5	730	87.1	87.1	85.4	0.73	9.56	9.08	8.75	52.3	1.9	2.0	6.0	138
IE4-160M2-8	5.5	7.5	730	88.3	88.3	86.5	0.74	12.8	12.1	11.7	72.0	1.9	2.0	6.0	150
IE4-160L-8	7.5	10	730	89.3	89.3	87.5	0.75	17.0	16.2	15.6	98.1	1.9	2.0	6.0	170
IE4-180L-8	11	15	735	90.4	90.4	88.6	0.75	24.7	23.4	22.6	142.9	2.0	2.0	6.5	230
IE4-200L-8	15	20	735	91.2	91.2	89.4	0.76	32.9	31.2	30.1	194.9	2.0	2.0	6.6	280
IE4-225S-8	18.5	25	735	91.7	91.7	89.9	0.76	40.3	38.2	36.9	240.4	1.9	2.0	6.6	302
IE4-225M-8	22	30	735	92.1	92.1	90.3	0.78	46.5	44.2	42.6	285.9	1.9	2.0	6.6	335
IE4-250M-8	30	40	735	92.7	92.7	90.8	0.79	62.2	59.1	57.0	389.8	1.9	2.0	6.5	400
IE4-280S-8	37	50	740	93.1	93.1	91.2	0.79	76.4	72.6	70.0	477.5	1.9	2.0	6.6	520
IE4-280M-8	45	60	740	93.4	93.4	91.5	0.79	92.7	88.0	84.8	580.7	1.9	2.0	6.6	600
IE4-315S-8	55	75	740	93.7	93.7	91.8	0.81	110	105	101	709.8	1.8	2.0	6.6	1010
IE4-315M-8	75	100	740	94.2	94.2	92.3	0.81	149	142	137	967.9	1.8	2.0	6.2	1140
IE4-315L1-8	90	125	740	94.4	94.4	92.5	0.82	177	168	162	1161	1.8	2.0	6.4	1175
IE4-315L2-8	110	150	740	94.7	94.7	92.8	0.82	215	204	197	1420	1.8	2.0	6.4	1210
IE4-355M1-8	132	180	740	94.9	94.9	93.0	0.82	258	245	236	1704	1.8	2.0	6.4	2050
IE4-355M2-8	160	220	740	95.1	95.1	93.2	0.82	312	296	285	2065	1.8	2.0	6.4	2200
IE4-355L-8	200	270	740	95.4	95.4	93.5	0.83	384	365	351	2581	1.8	2.0	6.4	2300

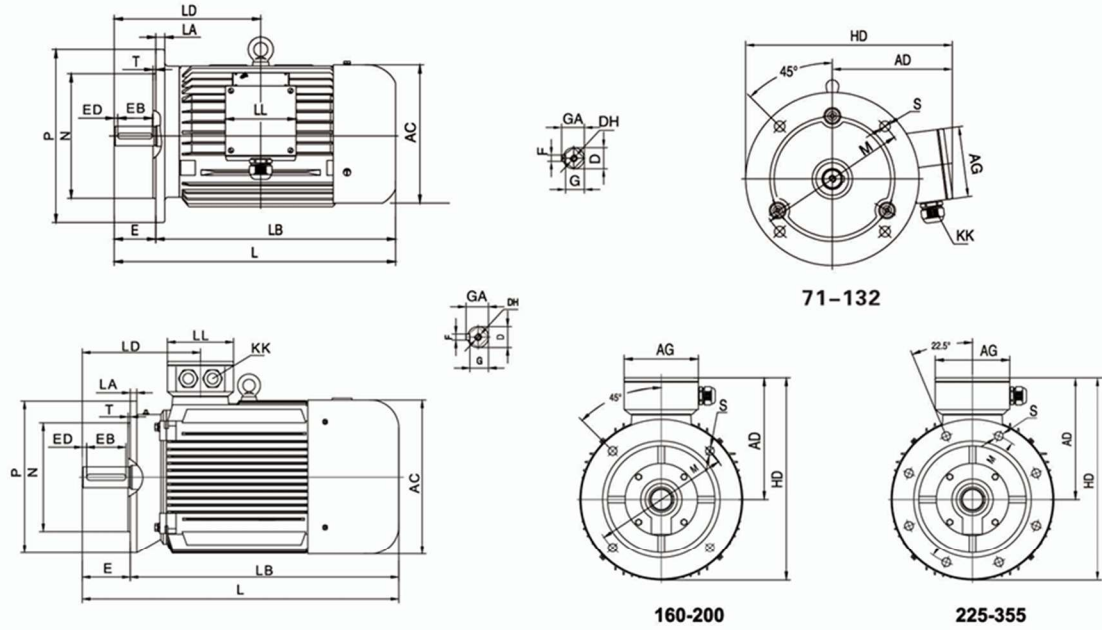
IE4 외형 규격표

IM B3 H80-355



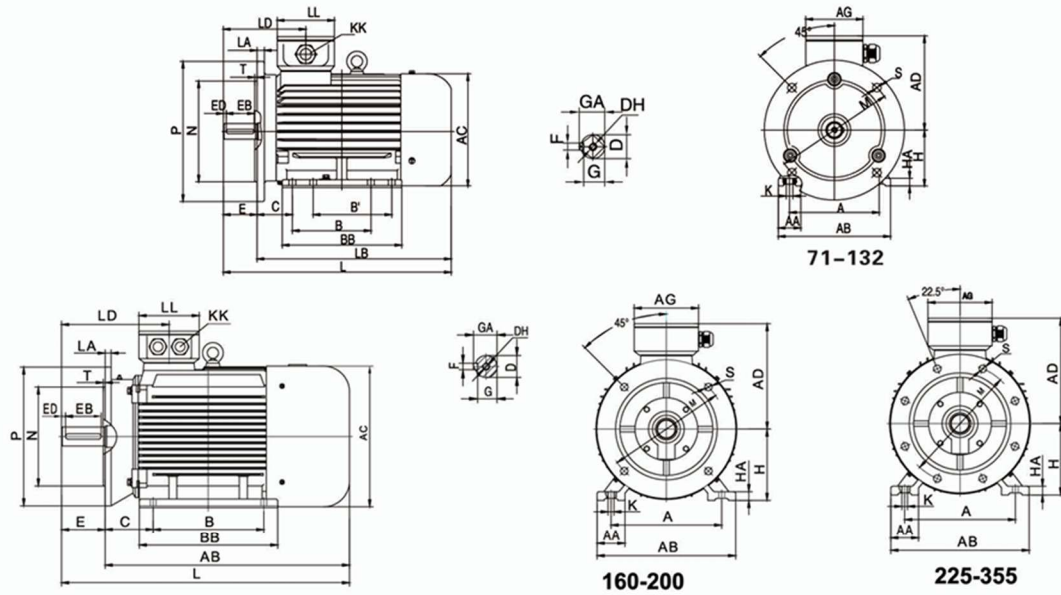
Type	Pole	A	AA	AB	AC	AD	AG	B	BB	C	D	DH	E	EB	ED	F	G	GA	H	HA	K	KK	L	LD	LL
63	2,4,6,8	100	30	130	136	113	94	80	110	40	11	M4×12	23	16	3.5	4	8.5	12.5	63	8	4-Φ7	1-M20×1.5	250	80.5	94
71	2,4,6,8	112	32	144	155	119	94	90	120	45	14	M5×12	30	25	2.5	5	11	16	71	8	4-Φ7	1-M20×1.5	266	99	94
80	2,4,6,8	125	34	160	167	147	102	100	150	50	19	M6×16	40	30	5	6	15.5	21.5	80	10	4-Φ10	1-M25×1.5	311	119	102
90S	2,4,6,8	140	36	176	183.4	155.5	102	100	180	56	24	M8×19	50	40	5	8	20	27	90	12	4-Φ10	1-M25×1.5	356	125	102
90L	2,4,6,8	140	36	176	183.4	155.5	102	125	210	56	24	M8×19	50	40	5	8	20	27	90	12	4-Φ10	1-M25×1.5	386	125	102
100L	2,4,6,8	160	40	200	205.4	167	102	140	213	63	28	M10×22	60	50	5	8	24	31	100	14	4-Φ12	1-M32×1.5	411	147	102
112M	2,4,6,8	190	50	240	230	188	118	140	188	70	28	M10×22	60	50	5	8	24	31	112	15	4-Φ12	2-M32×1.5	394	147	110
132S	2,4,6,8	216	55	262	292.4	217	118	140	226	89	38	M12×28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32×1.5	503	179	110
132M	4,6,8	216	55	262	292.4	217	118	178	256	89	38	M12×28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32×1.5	533	179	110
160M	2,4,6,8	254	63	310	335	256	162	210	315	108	42	M16×36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40×1.5	648	248	152
160L	2,4,6,8	254	63	310	335	256	162	254	355	108	42	M16×36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40×1.5	688	248	152
180M	2,4,8	279	70	349	363	271	162	241	359	121	48	M16×36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40×1.5	711	271	152
180L	4,6,8	279	70	349	363	271	162	279	360	121	48	M16×36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40×1.5	746	271	152
200L	2,4,6,8	318	70	395	418	312	210	305	372	133	55	M20×42	110	100	5	16	49	59	200	25	4-Φ18.5	2-M50×1.5	846	296	190
225S	4,8	356	75	431	465	334	210	286	431	149	60	M20×42	140	125	7.5	18	53	64	225	28	4-Φ18.5	2-M50×1.5	880	330	190
225M	2	356	75	431	465	334	210	311	466	149	55	M20×42	110	100	5	16	49	59	225	28	4-Φ18.5	2-M50×1.5	885	299	190
225M	4,6,8	356	75	431	465	334	210	311	466	149	60	M20×42	140	125	7.5	18	53	64	225	28	4-Φ18.5	2-M50×1.5	915	330	190
250M	2	406	80	484	525	379	248	349	515	168	60	M20×42	140	125	7.5	18	53	64	250	30	4-Φ24	2-M63×1.5	980	347	220
250M	4,6,8	406	80	484	525	379	248	349	515	168	65	M20×42	140	125	7.5	18	58	69	250	30	4-Φ24	2-M63×1.5	980	347	220
280S	2	457	85	542	588	412	248	368	510	190	65	M20×42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63×1.5	980	355	220
280S	4,6,8	457	85	542	588	412	248	368	510	190	75	M20×42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63×1.5	980	355	220
280M	2	457	85	542	588	412	248	419	550	190	65	M20×42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63×1.5	1020	355	220
280M	4,6,8	457	85	542	588	412	248	419	550	190	75	M20×42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63×1.5	1020	355	220
315S	2	508	120	628	620	524	320	406	570	216	65	M20×42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63×1.5	1158	397	280
315S	4,6,8,10	508	120	628	620	524	320	406	570	216	80	M20×42	170	160	5	22	71	85	315	45	4-Φ28	2-M63×1.5	1188	427	280
315M	2	508	120	628	620	524	320	457	680	216	65	M20×42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63×1.5	1268	397	280
315M	4,6,8,10	508	120	628	620	524	320	457	680	216	80	M20×42	170	160	5	22	71	85	315	45	4-Φ28	2-M63×1.5	1298	427	280
315L	2	508	120	628	620	524	320	508	680	216	65	M20×42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63×1.5	1268	397	280
315L	4,6,8,10	508	120	628	620	524	320	508	680	216	80	M20×42	170	160	5	22	71	85	315	45	4-Φ28	2-M63×1.5	1298	427	280
355M	2	610	116	726	698	639	380	560	750	254	75	M20×42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63×1.5	1496	422	330
355M	4,6,8,10	610	116	726	698	639	380	560	750	254	95	M24×50	170	160	5	25	86	100	355	52	6-Φ28	2-M63×1.5	1536	452	330
355L	2	610	116	726	698	639	380	630	750	254	75	M20×42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63×1.5	1496	422	330
355L	4,6,8,10	610	116	726	698	639	380	630	750	254	95	M24×50	170	160	5	25	86	100	355	52	6-Φ28	2-M63×1.5	1536	452	330

IM B5 H80-355



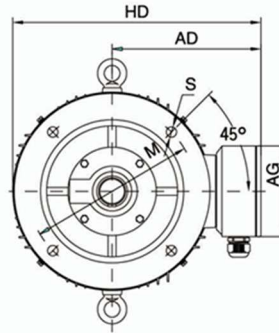
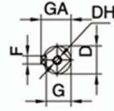
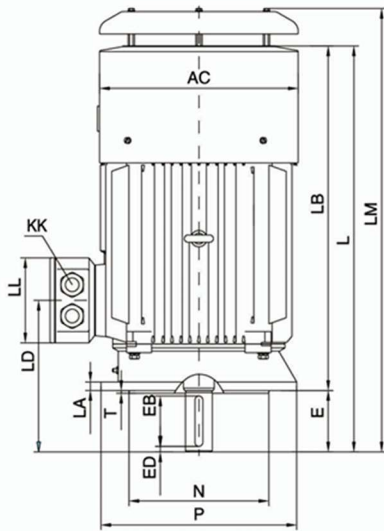
Type	Pole	AC	AD	AG	D	DH	E	EB	ED	F	G	GA	HD	KK	L	LA	LD	LL	M	N	P	S	T
63	2,4,6,8	136	113	94	11	M4×12	23	16	3.5	4	8.5	12.5	179	1-M20×1.5	250	10	80.5	94	115	95	140	10	3
71	2,4,6,8	155	119	94	14	M5×12	30	25	2.5	5	11	16	207	1-M20×1.5	266	10	99	94	130	110	160	10	3.5
80	2,4,6,8	167	147	102	19	M6×16	40	30	5	6	15.5	21.5	255	1-M25×1.5	311	12	150	102	165	130	200	12	3.5
90S	2,4,6,8	183.4	155.5	102	24	M8×19	50	40	5	8	20	27	262	1-M25×1.5	356	12	176	102	165	130	200	12	3.5
90L	2,4,6,8	183.4	155.5	102	24	M8×19	50	40	5	8	20	27	262	1-M25×1.5	386	12	191	102	165	130	200	12	3.5
100L	2,4,6,8	205.4	167	102	28	M10×22	60	50	5	8	24	31	299	1-M32×1.5	411	13	211	102	215	180	250	14.5	4
112M	2,4,6,8	230	188	118	28	M10×22	60	50	5	8	24	31	315	2-M32×1.5	394	14	205	110	215	180	250	14.5	4
132S	2,4,6,8	292.4	217	118	38	M12×28	80	65	7.5	10	33	41	353	2-M32×1.5	503	14	179	110	265	230	300	14.5	4
132M	4,6,8	292.4	217	118	38	M12×28	80	65	7.5	10	33	41	353	2-M32×1.5	533	14	179	110	265	230	300	14.5	4
160M	2,4,6,8	335	256	162	42	M16×36	110	90	10	12	37	45	426	2-M40×1.5	648	15	248	152	300	250	350	18.5	5
160L	2,4,6,8	335	256	162	42	M16×36	110	90	10	12	37	45	426	2-M40×1.5	688	15	248	152	300	250	350	18.5	5
180M	2,4,8	363	271	162	48	M16×36	110	90	10	14	42.5	51.5	445	2-M40×1.5	711	15	271	152	300	250	350	18.5	5
180L	4,6,8	363	271	162	48	M16×36	110	90	10	14	42.5	51.5	445	2-M40×1.5	746	15	271	152	300	250	350	18.5	5
200L	2,4,6,8	418	312	210	55	M20×42	110	100	5	16	49	59	499	2-M50×1.5	846	17	296	190	350	300	400	18.5	5
225S	4,8	465	334	210	60	M20×42	140	125	7.5	18	53	64	547	2-M50×1.5	880	20	330	190	400	350	450	18.5	5
225M	2	465	334	210	55	M20×42	110	100	5	16	49	59	547	2-M50×1.5	885	20	299	190	400	350	450	18.5	5
225M	4,6,8	465	334	210	60	M20×42	140	125	7.5	18	53	64	547	2-M50×1.5	915	20	330	190	400	350	450	18.5	5
250M	2	525	379	248	60	M20×42	140	125	7.5	18	53	64	633	2-M63×1.5	980	22	347	220	500	450	550	18.5	5
250M	4,6,8	525	379	248	65	M20×42	140	125	7.5	18	58	69	633	2-M63×1.5	980	22	347	220	500	450	550	18.5	5
280S	2	588	412	248	65	M20×42	140	125	7.5	18	58	69	662	2-M63×1.5	980	22	355	220	500	450	550	18.5	5
280S	4,6,8	588	412	248	75	M20×42	140	125	7.5	20	67.5	79.5	662	2-M63×1.5	980	22	355	220	500	450	550	18.5	5
280M	2	588	412	248	65	M20×42	140	125	7.5	18	58	69	662	2-M63×1.5	1020	22	355	220	500	450	550	18.5	5
280M	4,6,8	588	412	248	75	M20×42	140	125	7.5	20	67.5	79.5	662	2-M63×1.5	1020	22	355	220	500	450	550	18.5	5
315S	2	620	524	320	65	M20×42	140	125	7.5	18	58	69	857	2-M63×1.5	1158	22	397	280	600	550	660	24	6
315S	4,6,8,10	620	524	320	80	M20×42	170	160	5	22	71	85	857	2-M63×1.5	1188	22	427	280	600	550	660	24	6
315M	2	620	524	320	65	M20×42	140	125	7.5	18	58	69	857	2-M63×1.5	1268	22	397	280	600	550	660	24	6
315M	4,6,8,10	620	524	320	80	M20×42	170	160	5	22	71	85	857	2-M63×1.5	1298	22	427	280	600	550	660	24	6
315L	2	620	524	320	65	M20×42	140	125	7.5	18	58	69	857	2-M63×1.5	1268	22	397	280	600	550	660	24	6
315L	4,6,8,10	620	524	320	80	M20×42	170	160	5	22	71	85	857	2-M63×1.5	1298	22	427	280	600	550	660	24	6
355M	2	698	639	380	75	M20×42	140	130	5	20	67.5	79.5	1042	2-M63×1.5	1496	25	422	330	740	680	800	24	6
355M	4,6,8,10	698	639	380	95	M24×50	170	160	5	25	86	100	1042	2-M63×1.5	1536	25	452	330	740	680	800	24	6
355L	2	698	639	380	75	M20×42	140	130	5	20	67.5	79.5	1042	2-M63×1.5	1496	25	422	330	740	680	800	24	6
355L	4,6,8,10	698	639	380	95	M24×50	170	160	5	25	86	100	1042	2-M63×1.5	1536	25	452	330	740	680	800	24	6

IM B35 H80-355

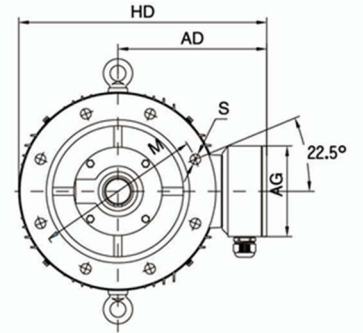


Type	Pole	A	AA	AB	AC	AD	AG	B	BB	C	D	DH	E	EB	ED	F	G	GA	H	HA	K	KK	L	LA	LD	LL	M	N	P	S	T
63	2,4,6,8	100	30	130	136	116	94	80	110	40	11	M4×12	23	16	3.5	4	8.5	12.5	63	8	4-Φ7	1-M20×1.5	250	10	80.5	94	115	95	140	10	3
71	2,4,6,8	112	32	144	155	136	94	90	120	45	14	M5×12	30	25	2.5	5	11	16	71	8	4-Φ7	1-M20×1.5	266	10	99	94	130	110	160	10	3.5
80	2,4,6,8	125	34	160	167	147	102	100	150	50	19	M6×16	40	30	5	6	15.5	21.5	80	10	4-Φ10	1-M25×1.5	311	12	119	102	165	130	200	12	3.5
90S	2,4,6,8	140	36	176	183.4	155.5	102	100	180	56	24	M8×19	50	40	5	8	20	27	90	12	4-Φ10	1-M25×1.5	356	12	125	102	165	130	200	12	3.5
90L	2,4,6,8	140	36	176	183.4	155.5	102	125	210	56	24	M8×19	50	40	5	8	20	27	90	12	4-Φ10	1-M25×1.5	386	12	125	102	165	130	200	12	3.5
100L	2,4,6,8	160	40	200	205.4	167	102	140	213	63	28	M10×22	60	50	5	8	24	31	100	14	4-Φ12	1-M32×1.5	411	13	147	102	215	180	250	14.5	4
112M	2,4,6,8	190	50	240	230	188	118	140	188	70	28	M10×22	60	50	5	8	24	31	112	15	4-Φ12	2-M32×1.5	394	14	147	110	215	180	250	14.5	4
132S	2,4,6,8	216	55	262	292.4	217	118	140	226	89	38	M12×28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32×1.5	503	14	179	110	265	230	300	14.5	4
132M	4,6,8	216	55	262	292.4	217	118	178	256	89	38	M12×28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32×1.5	533	14	179	110	265	230	300	14.5	4
160M	2,4,6,8	254	63	310	335	256	162	210	315	108	42	M16×36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40×1.5	648	15	248	152	300	250	350	18.5	5
160L	2,4,6,8	254	63	310	335	256	162	254	355	108	42	M16×36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40×1.5	688	15	248	152	300	250	350	18.5	5
180M	2,4,8	279	70	349	363	271	162	241	359	121	48	M16×36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40×1.5	711	15	271	152	300	250	350	18.5	5
180L	4,6,8	279	70	349	363	271	162	279	360	121	48	M16×36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40×1.5	746	15	271	152	300	250	350	18.5	5
200L	2,4,6,8	318	70	395	418	312	210	305	372	133	55	M20×42	110	100	5	16	49	59	200	25	4-Φ18.5	2-M50×1.5	846	17	296	190	350	300	400	18.5	5
225S	4,8	356	75	431	465	334	210	286	431	149	60	M20×42	140	125	7.5	18	53	64	225	28	4-Φ18.5	2-M50×1.5	880	20	330	190	400	350	450	18.5	5
225M	2	356	75	431	465	334	210	311	466	149	55	M20×42	110	100	5	16	49	59	225	28	4-Φ18.5	2-M50×1.5	885	20	299	190	400	350	450	18.5	5
225M	4,6,8	356	75	431	465	334	210	311	466	149	60	M20×42	140	125	7.5	18	53	64	225	28	4-Φ18.5	2-M50×1.5	915	20	330	190	400	350	450	18.5	5
250M	2	406	80	484	525	379	248	349	515	168	60	M20×42	140	125	7.5	18	53	64	250	30	4-Φ24	2-M63×1.5	980	22	347	220	500	450	550	18.5	5
250M	4,6,8	406	80	484	525	379	248	349	515	168	65	M20×42	140	125	7.5	18	58	69	250	30	4-Φ24	2-M63×1.5	980	22	347	220	500	450	550	18.5	5
280S	2	457	85	542	588	412	248	368	510	190	65	M20×42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63×1.5	980	22	355	220	500	450	550	18.5	5
280S	4,6,8	457	85	542	588	412	248	368	510	190	75	M20×42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63×1.5	980	22	355	220	500	450	550	18.5	5
280M	2	457	85	542	588	412	248	419	550	190	65	M20×42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63×1.5	1020	22	355	220	500	450	550	18.5	5
280M	4,6,8	457	85	542	588	412	248	419	550	190	75	M20×42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63×1.5	1020	22	355	220	500	450	550	18.5	5
315S	2	508	120	628	620	524	320	406	570	216	65	M20×42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63×1.5	1158	22	397	280	600	550	660	24	6
315S	4,6,8,10	508	120	628	620	524	320	406	570	216	80	M20×42	170	160	5	22	71	85	315	45	4-Φ28	2-M63×1.5	1188	22	427	280	600	550	660	24	6
315M	2	508	120	628	620	524	320	457	680	216	65	M20×42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63×1.5	1268	22	397	280	600	550	660	24	6
315M	4,6,8,10	508	120	628	620	524	320	457	680	216	80	M20×42	170	160	5	22	71	85	315	45	4-Φ28	2-M63×1.5	1298	22	427	280	600	550	660	24	6
315L	2	508	120	628	620	524	320	508	680	216	65	M20×42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63×1.5	1268	22	397	280	600	550	660	24	6
315L	4,6,8,10	508	120	628	620	524	320	508	680	216	80	M20×42	170	160	5	22	71	85	315	45	4-Φ28	2-M63×1.5	1298	22	427	280	600	550	660	24	6
355M	2	610	116	726	698	639	380	560	750	254	75	M20×42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63×1.5	1496	25	422	330	740	680	800	24	6
355M	4,6,8,10	610	116	726	698	639	380	560	750	254	95	M24×50	170	160	5	25	86	100	355	52	6-Φ28	2-M63×1.5	1536	25	452	330	740	680	800	24	6
355L	2	610	116	726	698	639	380	630	750	254	75	M20×42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63×1.5	1496	25	422	330	740	680	800	24	6
355L	4,6,8,10	610	116	726	698	639	380	630	750	254	95	M24×50	170	160	5	25	86	100	355	52	6-Φ28	2-M63×1.5	1536	25	452	330	740	680	800	24	6

IM V1 H80-355



160-200



225-355

Type	Pole	AC	AD	AG	D	DH	E	EB	ED	F	G	GA	HD	KK	L	LA	LD	LL	LM	M	N	P	S	T
160M	2,4,6,8	335	256	162	42	M16×36	110	90	10	12	37	45	426	2-M40×1.5	648	15	248	152	698	300	250	350	18.5	5
160L	2,4,6,8	335	256	162	42	M16×36	110	90	10	12	37	45	426	2-M40×1.5	688	15	248	152	738	300	250	350	18.5	5
180M	2,4,8	363	271	162	48	M16×36	110	90	10	14	42.5	51.5	445	2-M40×1.5	711	15	271	152	761	300	250	350	18.5	5
180L	4,6,8	363	271	162	48	M16×36	110	90	10	14	42.5	51.5	445	2-M40×1.5	746	15	271	152	796	300	250	350	18.5	5
200L	2,4,6,8	418	312	210	55	M20×42	110	100	5	16	49	59	499	2-M50×1.5	846	17	296	190	906	350	300	400	18.5	5
225S	4,8	465	334	210	60	M20×42	140	125	7.5	18	53	64	547	2-M50×1.5	880	20	330	190	940	400	350	450	18.5	5
225M	2	465	334	210	55	M20×42	110	100	5	16	49	59	547	2-M50×1.5	885	20	299	190	945	400	350	450	18.5	5
225M	4,6,8	465	334	210	60	M20×42	140	125	7.5	18	53	64	547	2-M50×1.5	915	20	330	190	975	400	350	450	18.5	5
250M	2	525	379	248	60	M20×42	140	125	7.5	18	53	64	633	2-M63×1.5	980	22	347	218	1050	500	450	550	18.5	5
250M	4,6,8	525	379	248	65	M20×42	140	125	7.5	18	58	69	633	2-M63×1.5	980	22	347	218	1050	500	450	550	18.5	5
280S	2	588	412	248	65	M20×42	140	125	7.5	18	58	69	662	2-M63×1.5	980	22	355	218	1050	500	450	550	18.5	5
280S	4,6,8	588	412	248	75	M20×42	140	125	7.5	20	67.5	79.5	662	2-M63×1.5	980	22	355	218	1050	500	450	550	18.5	5
280M	2	588	412	248	65	M20×42	140	125	7.5	18	58	69	662	2-M63×1.5	1020	22	355	218	1090	500	450	550	18.5	5
280M	4,6,8	588	412	248	75	M20×42	140	125	7.5	20	67.5	79.5	662	2-M63×1.5	1020	22	355	218	1090	500	450	550	18.5	5
315S	2	620	524	284	65	M20×42	140	125	7.5	18	58	69	857	2-M63×1.5	1158	22	397	280	1238	600	550	660	24	6
315S	2,4,6,8	620	524	284	80	M20×42	170	160	5	22	71	85	857	2-M63×1.5	1188	22	427	280	1268	600	550	660	24	6
315M	2	620	524	284	65	M20×42	140	125	7.5	18	58	69	857	2-M63×1.5	1268	22	397	280	1348	600	550	660	24	6
315M	2,4,6,8	620	524	284	80	M20×42	170	160	5	22	71	85	857	2-M63×1.5	1298	22	427	280	1378	600	550	660	24	6
315L	2	620	524	284	65	M20×42	140	125	7.5	18	58	69	857	2-M63×1.5	1268	22	397	280	1348	600	550	660	24	6
315L	2,4,6,8	620	524	284	80	M20×42	170	160	5	22	71	85	857	2-M63×1.5	1298	22	427	280	1378	600	550	660	24	6
355M	2	698	639	380	75	M20×42	140	130	5	20	67.5	79.5	1042	2-M63×1.5	1496	25	422	330	1576	740	680	800	24	6
355M	2,4,6,8	698	639	380	95	M24×50	170	160	5	25	86	100	1042	2-M63×1.5	1536	25	452	330	1616	740	680	800	24	6
355L	2	698	639	380	75	M20×42	140	130	5	20	67.5	79.5	1042	2-M63×1.5	1496	25	422	330	1576	740	680	800	24	6
355L	2,4,6,8	698	639	380	95	M24×50	170	160	5	25	86	100	1042	2-M63×1.5	1536	25	452	330	1616	740	680	800	24	6