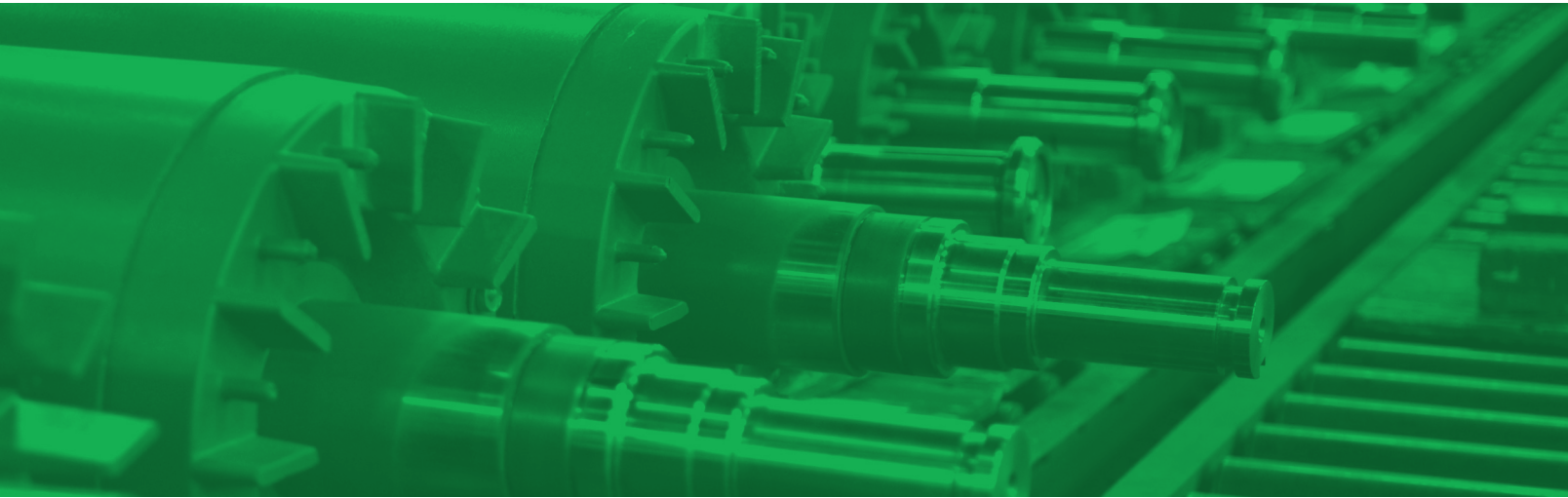


Metric Efficient Line Cast-iron IEC Motors

The Philippines



SPECIFICATION FOR METRIC EFFICIENT LINE CAST-IRON (MELC)
IEC MOTORS IN THE PHILIPPINES

Nidec

NIDEC MOTOR CORPORATION

Three Phase, IP55 Cast-iron Frame IE2 Metric Motors @ 40°C Ambient



MELC

Motor Specifications for the Philippines

60 Hz

Totally Enclosed Three-Phase Induction Motors

Frame : Cast-iron

Motor Type : Metric Efficient Line Cast-iron (MELC)

Manufacturing according to : Standards IEC 60034, 60038 60072

Power Range : from 0.75 to 315kW

Frame Size : 80 to 355mm

Speed : Single 2, 4 or 6 poles

Operating Voltages : 220v / 380v / 440v \pm 10% 60 Hz From 0.75 kW up to 200 kW (Frame 355)

Efficiency : IE2

Frequency : 60 HZ

Insulation Class : F

Temperature Rise : 80°C (K)

Ambient Temperature : 40°C

Altitude : 1000 m

Protection : IP55 by superior sealing and lipseal on the shaft

Varnish Treatment : VPI

Winding Voltages : 220V 2 Δ /380v 2Y /440V Δ / 762V Y

12 Leads connection Y Δ with Conduit box suitable for 6 terminals

Starting: Direct on line : All up to 10 kW and 380v

Starting: Wye / Delta and on line : 220v / 440v - 60Hz from 0.75 kW to 200 kW in the complete kW range

Winding Protection : Dandong PTC (1 per phase) from 110KW and above

Hardware : Corrosion Treated

Paint : RAL 7024 Grey

Terminal Box : Cast-iron body and Cast-iron Cover

Mounted on F3 position on the Top of the motor as standard

End Shields : Cast-iron

Bearing Inner Cap : 180 to 355 mm

Regreasable Bearing : 180 to 355 mm

Grease Type : Polyrex-EM

Conversion Kits : FF and FT Flange Kit Available for Field Conversion

Performance Data MELC Motor for the Philippines

Three Phase, IP55 Cast-iron Frame IE2 Metric Motors @ 40°C Ambient Typical Performances @60 Hz

KW	HP	IEC Frame	Nidec Catalog No.	Nidec Model No.	Operation Voltages	RPM	TORQUE				AMPS									EFF%			COSφ			J Kg.m2	Noise dB (A)	Wt Kg	Bearing System				
							Rated N.m	Start-ing/ Rated	Maxi-mum/ Rated	Starting/ Rated	Operating 220v Δ			Operating 380v Y			Operating 440v Δ			Starting 762v Y	1/2 Load	3/4 Load	Full Load	1/2 Load	3/4 Load				Full Load	DE	ODE		
											Rated Current	Current @ SF 1.15	Starting Amps	Rated current	Current @ SF1.15	Starting Amps	Rated Current	Current @ SF 1.15	Starting Amps													Rated Current	Starting Amps
0.75	1	80M1	MELC075E1R	ELC201	220/380/440	3495	2.1	2.3	2.3	6.8	3.0	3.4	20.2	1.7	2.0	11.7	1.5	1.7	10.1	0.9	5.8	77.9	80.7	81	0.64	0.75	0.82	0.04	67	18	6204	6204	
		80M2	MELC075E2R	ELC202	220/380/440	1730	4.2	2.3	2.3	6.4	3.1	3.6	20.1	1.8	2.1	11.6	1.6	1.8	10.0	0.9	5.8	80.7	82.55	82.5	0.59	0.70	0.76	0.17	59	19	6204	6204	
		90S	MELC075E3R	ELC203	220/380/440	1160	6.3	2.0	2.1	5.8	3.5	4.0	20.1	2.0	2.3	11.6	1.7	2.0	10.0	1.0	5.8	77.6	80.1	80	0.50	0.63	0.71	0.36	60	26	6205	6205	
1.1	1.5	80M2	MELC1E1R	ELC204	220/380/440	3485	3.0	2.3	2.3	7.1	4.2	4.8	29.9	2.4	2.8	17.3	2.1	2.4	15.0	1.2	8.6	81.1	82.8	82.5	0.66	0.78	0.83	0.06	67	20	6204	6204	
		90S	MELC1E2R	ELC205	220/380/440	1730	6.1	2.3	2.3	6.6	4.5	5.1	29.5	2.6	3.0	17.1	2.2	2.6	14.7	1.3	8.5	81	83.7	84	0.57	0.70	0.77	0.25	62	25	6205	6205	
		100L1	MELC1E3R	ELC206	220/380/440	1160	9.2	2.0	2.1	5.9	4.7	5.4	27.7	2.7	3.1	16.0	2.3	2.7	13.8	1.4	8.0	/	/	85.5	/	/	0.72	0.45	60	32	6206	6206	
1.5	2	80M3	MELC3E21R	ELC207	220/380/440	3490	4.1	2.3	2.3	7.3	5.6	6.4	40.7	3.2	3.7	23.6	2.8	3.2	20.4	1.6	11.8	82	83.8	84	0.67	0.78	0.84	0.08	72	23	6204	6204	
		90S1	MELC3E22R	ELC208	220/380/440	1725	8.3	2.3	2.3	6.7	6.0	6.9	40.3	3.5	4.0	23.3	3.0	3.5	20.1	1.7	11.6	82.6	84.1	84	0.58	0.71	0.78	0.34	62	27	6205	6205	
		112M1	MELC3E23R	ELC209	220/380/440	1165	12.6	2.0	2.1	5.9	6.3	7.3	37.3	3.7	4.2	21.6	3.2	3.6	18.6	1.8	10.8	/	/	86.5	/	/	0.72	0.62	64	42	6206	6206	
2.2	3	90S1	MELC2E1R	ELC210	220/380/440	3500	6.0	2.3	2.3	7.6	7.9	9.1	60.4	4.6	5.3	35.0	4.0	4.6	30.2	2.3	17.4	84.3	85.6	85.5	0.70	0.79	0.85	0.11	72	26	6205	6205	
		90L2	MELC2E2R	ELC211	220/380/440	1730	12.1	2.3	2.3	7.3	8.2	9.5	60.2	4.8	5.5	34.9	4.1	4.7	30.1	2.4	17.4	86.1	87.5	87.5	0.62	0.74	0.80	0.39	67	38	6205	6205	
		112M1	MELC2E3R	ELC212	220/380/440	1165	18.3	2.0	2.1	6.2	9.2	10.5	56.8	5.3	6.1	32.9	4.6	5.3	28.4	2.6	16.4	85.1	87.1	87.5	0.51	0.63	0.72	0.91	68	46	6206	6206	
3	4	90L1	MELC3E1R	ELC213	220/380/440	3500	8.2	2.2	2.3	7.8	10.3	11.9	80.7	6.0	6.9	46.7	5.2	5.9	40.3	3.0	23.3	86.4	87.6	87.5	0.74	0.83	0.87	0.15	79	32	6205	6205	
		100L2	MELC3E2R	ELC214	220/380/440	1750	16.5	2.3	2.3	7.5	11.1	12.8	83.3	6.4	7.4	48.2	5.6	6.4	41.7	3.2	24.1	86.5	87.7	87.5	0.63	0.76	0.81	0.63	67	43	6206	6206	
		132S	MELC3E3R	ELC215	220/380/440	1175	24.6	2.0	2.1	6.4	12.5	14.4	80.0	7.2	8.3	46.3	6.2	7.2	40.0	3.6	23.1	84.6	86.9	87.5	0.52	0.64	0.72	1.23	72	58	6208	6208	
4	5	100L1	MELC4E1R	ELC216	220/380/440	3490	10.9	2.2	2.3	8.1	13.6	15.7	110.4	7.9	9.1	63.9	6.8	7.8	55.2	3.9	31.9	87	87.8	87.5	0.76	0.84	0.88	0.20	82	41	6206	6206	
		100L3	MELC4E2R	ELC217	220/380/440	1750	21.9	2.3	2.3	7.5	14.8	17.0	111.1	8.6	9.9	64.3	7.4	8.5	55.5	4.3	32.1	86	87.5	87.5	0.61	0.73	0.81	0.84	68	45	6206	6206	
		132S1	MELC4E3R	ELC218	220/380/440	1175	32.8	2.0	2.1	6.6	16.2	18.6	107.0	9.4	10.8	61.9	8.1	9.3	53.5	4.7	30.9	85.4	87.3	87.5	0.54	0.66	0.74	1.65	72	64	6208	6208	
4.4	6	112M1	MELC4X4E1R	ELC219	220/380/440	3515	12.0	2.2	2.3	8.3	15.0	17.2	124.5	8.7	10.0	72.1	7.5	8.6	62.2	4.3	35.9	87.1	87.8	87.5	0.77	0.845	0.88	0.22	82	51	6206	6206	
		112M2	MELC4X4E2R	ELC220	220/380/440	1745	24.1	2.3	2.3	7.5	16.1	18.5	120.7	9.3	10.7	69.9	8.0	9.3	60.4	4.6	34.8	86.2	87.5	87.5	0.61	0.745	0.82	0.93	68	50	6206	6206	
		132S2	MELC4X4E3R	ELC221	220/380/440	1175	36.1	2.0	2.1	6.6	17.8	20.5	117.7	10.3	11.9	68.1	8.9	10.3	58.8	5.1	34.0	86.3	87.7	87.5	0.57	0.71	0.74	1.81	72	67	6208	6208	
5.5	7.5	112M2	MELC5E1R	ELC222	220/380/440	3515	15.0	2.2	2.3	8.2	18.5	21.3	152.0	10.7	12.3	88.0	9.3	10.7	76.0	5.4	43.9	86.5	88.4	88.5	0.75	0.84	0.88	0.23	84	57	6206	6206	
		112M2	MELC5E2R	ELC223	220/380/440	1750	30.0	2.0	2.3	7.5	19.7	22.6	147.5	11.4	13.1	85.4	9.8	11.3	73.8	5.7	42.6	87.8	89.3	89.5	0.62	0.74	0.82	1.08	74	57	6206	6206	
		132M2	MELC5E3R	ELC224	220/380/440	1175	45.1	2.0	2.1	6.8	21.5	24.7	146.2	12.4	14.3	84.7	10.8	12.4	73.1	6.2	42.2	88.3	89.5	89.5	0.56	0.68	0.75	2.26	72	78	6208	6208	
7.5	10	132S2	MELC7E1R	ELC225	220/380/440	3515	20.4	2.2	2.3	7.8	24.7	28.4	192.7	14.3	16.5	111.6	12.4	14.2	96.4	7.1	55.6	88.6	89.6	89.5	0.79	0.87	0.89	0.32	84	66	6208	6208	
		132M	MELC7E2R	ELC226	220/380/440	1760	40.9	2.0	2.3	7.3	26.5	30.5	193.4	15.3	17.6	112.0	13.2	15.2	96.7	7.6	55.8	88	89.4	89.5	0.68	0.79	0.83	1.48	74	75	6208	6208	
		132ML3	MELC7E3R	ELC227	220/380/440	1170	61.2	2.0	2.1	6.8	28.6	32.9	194.5	16.5	19.0	112.2	14.3	16.5	97.3	8.3	56.5	87.9	89.5	89.5	0.59	0.71	0.77	2.71	76	99	6208	6208	
9.2	13	132M1	MELC9E1R	ELC228	220/380/440	3520	25.1	2.2	2.3	8.3	30.3	34.9	251.6	17.5	20.2	145.6	15.2	17.4	125.8	8.8	72.6	88.6	89.7	89.5	0.79	0.865	0.89	0.39	84	76	6208	6208	
		132M1	MELC9E2R	ELC229	220/380/440	1765	49.8	2.0	2.3	7.4	32.5	37.4	240.5	18.8	21.6	139.2	16.3	18.7	120.3	9.4	69.4	88.5	89.4	89.5	0.67	0.79	0.83	1.81	74	80	6208	6208	
11	15	132ML1	MELC11E1R	ELC231	220/380/440	3520	29.8	2.2	2.3	8.3	36.0	41.4	298.8	20.8	23.9	172.7	18.0	20.7	149.4	10.4	86.4	88.6	90.1	90.2	0.78	0.86	0.89	0.41	86	90	6208	6208	
		132ML2	MELC11E2R	ELC232	220/380/440	1765	59.5	2.0	2.3	8.4	38.2	44.0	320.8	22.1	25.4	185.7	19.1	22.0	160.5	11.0	92.4	89	90.9	91	0.66	0.77	0.83	2.02	76	99	6208	6208	
		160M1	MELC11E3R	ELC233	220/380/440	1175	89.8	2.0	2.1	6.9	40.5	46.6	279.5	23.5	27.0	161.8	20.3	23.3	139.8	11.7	80.7	89.2	90.1	90.2	0.615	0.72	0.79	4.18	76	125	6309	6309	
15	20	160M2	MELC15E1R	ELC234	220/380/440	3545	40.6	2.2	2.3	7.9	49.0	56.4	387.4	28.4	32.6	224.3	24.5	28.2	193.7	14.2	111.8	89	90.1	90.2	0.81	0.87	0.89	0.63	86	119	6309	6309	
		160M1	MELC15E2R	ELC235	220/380/440	1770	81.2	2.0	2.3	7.5	51.5	59.2	386.2	29.8	34.3	223.6	25.7	29.6	193.1	14.9	111.5	90.1	91.1	91	0.70	0.80	0.84	2.96	76	122	6309	6309	
		160L1	MELC15E3R	ELC236	220/380/440	1175	121.9	2.0	2.1	7.3	53.2	61.2	388.5	30.8	35.4	224.9	26.6	30.6	194.3	15.4	112.2	89.2	90.3	90.2	0.64	0.76	0.82	5.70	76	150	6309	6309	
18.5	25	160M3	MELC19E1R	ELC237	220/380/440	3550	50.0	2.2	2.3	8.0	59.9	68.9	479.6	34.7	39.9	277.6	30.0	34.5	239.8	17.3	138.5	90	91										

Performance Data MELC Motor for the Philippines

Three Phase, IP55 Cast-iron Frame IE2 Metric Motors @ 40°C Ambient Typical Performances @60 Hz

KW	HP	IEC Frame	Nidec Catalog No.	Nidec Model No.	Operation Voltages	RPM	TORQUE				AMPS												EFF%			COSφ			J Kg.m ²	Noise dB (A)	Wt Kg	Bearing System	
							Rated N.m	Start-ing/Rated	Maxi-mum/Rated	Starting/Rated	Operating 220v Δ			Operating 380v Y			Operating 440v Δ			Starting 762v Y		1/2 Load	3/4 Load	Full Load	1/2 Load	3/4 Load	Full Load	DE				ODE	
											Rated Current	Current @ SF 1.15	Starting Amps	Rated current	Current @ SF1.15	Starting Amps	Rated Current	Current @ SF 1.15	Starting Amps	Rated Current	Starting Amps												
45	60	225M	MELC45E1R	ELC249	220/380/440	3565	120.9	2.2	2.3	7.5	142.7	164.1	1070.1	82.6	95.0	619.5	71.3	82.0	535.0	41.2	308.9	91.5	92.6	93.0	0.8	0.865	0.89	1.58	91	283	6312	6312	
		225M	MELC45E2R	ELC250	220/380/440	1780	242.1	2.2	2.3	7.3	146.7	168.7	1071.0	84.9	97.7	620.0	73.4	84.4	535.5	42.4	309.2	90	93.4	93.6	0.765	0.835	0.86	6.97	81	325	6313	6313	
		250M1	MELC45E3R	ELC251	220/380/440	1185	364.2	2.0	2.0	7.2	148.4	170.7	1068.7	85.9	98.8	618.7	74.2	85.3	534.4	42.9	308.6	92.5	93.5	93.6	0.73	0.815	0.85	15.67	81	390	6314	6314	
55	75	225M1	MELC55E1R	ELC252	220/380/440	3560	147.5	2.2	2.3	7.6	174.4	200.5	1325.3	101.0	116.1	767.3	87.2	100.3	662.7	50.3	382.6	91.3	92.6	93.0	0.81	0.88	0.89	1.87	94	326	6312	6312	
		225M1	MELC55E2R	ELC253	220/380/440	1780	295.9	2.2	2.3	7.3	178.4	205.1	1302.0	103.3	118.7	753.8	89.2	102.6	651.0	51.5	375.9	92.7	93.8	94.1	0.76	0.83	0.86	7.91	82	356	6313	6313	
		250M2	MELC55E3R	ELC254	220/380/440	1185	445.1	2.0	2.0	7.2	179.3	206.2	1291.0	103.8	119.4	747.4	89.7	103.1	645.5	51.8	372.7	92.5	93.5	93.6	0.73	0.82	0.86	19.16	81	450	6314	6314	
75	100	250M1	MELC75E1R	ELC255	220/380/440	3565	200.9	1.8	2.3	6.9	236.3	271.7	1630.3	136.8	157.3	943.8	118.1	135.9	815.1	68.2	470.7	93.5	93.7	93.6	0.82	0.87	0.89	2.05	96	420	6313	6313	
		250M1	MELC75E2R	ELC256	220/380/440	1780	402.4	2.2	2.3	6.8	239.4	275.3	1627.9	138.6	159.4	942.5	119.7	137.7	814.0	69.1	470.0	93.8	94.4	94.5	0.77	0.84	0.87	9.89	83	490	6314	6314	
		280M2	MELC75E3R	ELC257	220/380/440	1190	607.0	2.0	2.0	7.0	249.0	286.4	1743.1	144.2	165.8	1009.2	124.5	143.2	871.5	71.9	503.3	92.6	94.1	94.1	0.73	0.80	0.84	22.65	86	610	6317	6317	
90	125	280M	MELC90E1R	ELC258	220/380/440	3575	240.8	1.8	2.3	6.9	280.8	322.9	1937.7	162.6	187.0	1121.8	140.4	161.5	968.8	81.1	559.4	92.5	93	94.5	0.81	0.87	0.89	2.85	96	536	6314	6314	
		280M	MELC90E2R	ELC259	220/380/440	1785	482.9	2.2	2.3	6.9	284.0	326.6	1959.7	164.4	189.1	1134.6	142.0	163.3	979.9	82.0	565.8	93.2	94.2	94.5	0.80	0.86	0.88	12.67	83	602	6317	6317	
		280M3	MELC90E3R	ELC260	220/380/440	1190	728.4	2.0	2.0	7.9	295.3	339.6	2332.8	171.0	196.6	1350.9	147.6	169.8	1166.4	85.3	673.9	92.8	93.9	94.1	0.71	0.80	0.85	25.77	86	725	6317	6317	
110	150	280M1	MELC110E1R	ELC261	220/380/440	3575	294.3	1.8	2.2	7.0	339.4	390.3	2375.9	196.5	226.0	1375.5	169.7	195.2	1188.0	98.0	686.0	92	93.7	94.5	0.79	0.86	0.90	3.48	97	580	6314	6314	
		280M1	MELC110E2R	ELC262	220/380/440	1785	591.8	2.1	2.2	6.9	341.4	392.6	2355.8	197.7	227.3	1363.9	170.7	196.3	1177.9	98.6	680.2	92	94.5	95.0	0.80	0.87	0.89	15.48	91	646	6317	6317	
		315M1	MELC110E3R	ELC263	220/380/440	1190	890.3	2.0	2.0	6.6	357.5	411.1	2359.5	207.0	238.0	1366.0	178.7	205.6	1179.7	103.2	681.2	93.8	94.7	95.0	0.74	0.82	0.85	34.83	86	988	6319	6319	
132	175	315M	MELC132E1R	ELC264	220/380/440	3580	353.1	1.8	2.2	7.0	405.2	465.9	2836.1	234.6	269.7	1642.0	202.6	233.0	1418.1	117.0	818.8	93	94.4	95.0	0.81	0.88	0.90	4.18	97	946	6317	6317	
		315M	MELC132E2R	ELC265	220/380/440	1785	710.2	2.1	2.2	6.9	409.7	471.2	2827.0	237.2	272.8	1636.7	204.9	235.6	1413.5	118.3	816.2	93.6	94.6	95.0	0.82	0.87	0.89	18.58	91	927	6319	6319	
		315M2	MELC132E3R	ELC266	220/380/440	1190	1068.3	2.0	2.0	6.6	424.0	487.6	2798.4	245.5	282.3	1620.1	212.0	243.8	1399.2	122.4	807.9	94	94.7	95.0	0.75	0.83	0.86	41.79	86	1116	6319	6319	
160	200	315M1	MELC160E1R	ELC267	220/380/440	3580	428.0	1.8	2.2	7.1	485.7	558.6	3448.5	281.2	323.4	1996.5	242.9	279.3	1724.2	140.2	995.6	93.1	94.5	95.0	0.82	0.88	0.91	5.07	97	990	6317	6317	
		315M1	MELC160E2R	ELC268	220/380/440	1785	860.8	2.1	2.2	6.9	491.1	564.8	3388.6	284.3	327.0	1961.8	245.6	282.4	1694.3	141.8	978.3	93.5	94.6	95.0	0.82	0.88	0.90	22.52	91	1007	6319	6319	
		355M1	MELC160E3R	ELC269	220/380/440	1190	1289.5	2.0	2.0	6.7	513.9	591.0	3443.4	297.5	342.2	1993.6	257.0	295.5	1721.7	148.4	994.2	93.2	94.5	95.0	0.76	0.83	0.86	50.66	88	1506	6322	6322	
185	250	315M2	MELC185E1R	ELC270	220/380/440	3580	494.9	1.8	2.2	7.1	559.2	643.1	3970.6	323.8	372.3	2298.8	279.6	321.6	1958.3	161.5	1146.4	94.1	95.2	95.4	0.86	0.90	0.91	5.86	105	1025	6317	6317	
		315M2	MELC185E2R	ELC271	220/380/440	1785	989.8	2.1	2.2	6.9	565.5	650.3	3901.6	327.4	376.5	2258.8	282.7	325.1	1950.8	163.3	1126.5	94.1	95.1	95.4	0.82	0.88	0.90	26.03	98	1094	6319	6319	
		355M2	MELC185E3R	ELC272	220/380/440	1190	1491.0	2.0	2.0	6.7	594.2	683.4	3981.4	344.0	395.6	2305.0	297.1	341.7	1990.7	171.6	1149.5	93.2	94.6	95	0.76	0.84	0.86	58.58	88	1512	6322	6322	
200	270	315L2	MELC200E1R	ELC273	220/380/440	3580	535.0	1.8	2.2	7.1	604.6	695.3	4292.5	350.0	402.5	2485.2	302.3	347.6	2146.3	174.6	1239.3	93.2	94.8	95.4	0.81	0.88	0.91	5.63	97	1500	6317	6317	
		315L2	MELC200E2R	ELC274	220/380/440	1785	1076.1	1.8	2.2	6.9	611.3	703.0	4218.0	353.9	402.0	2442.0	305.7	351.5	2109.0	176.5	1217.8	94	95.1	95.4	0.82	0.88	0.90	25.33	97	1550	6319	6319	
		355M3	MELC200E3R	ELC275	220/380/440	1190	1491.0	2.0	2.0	6.7	642.4	738.8	4304.3	371.9	427.7	2491.9	321.2	369.4	2152.1	185.5	1242.7	93.2	94.6	95.0	0.76	0.84	0.86	58.58	88	1512	6322	6322	
250	340	355M2	MELC250E1R	ELC276	220/380/440	3585	668.8	1.6	2.2	7.1	755.7	869.1	5365.7	437.5	503.2	3106.4	377.9	434.5	2682.8	218.2	1549.1	93.2	94.8	95.4	0.82	0.88	0.91	7.04	97	1650	6319	6319	
		355M2	MELC250E2R	ELC277	220/380/440	1790	1345.0	1.8	2.2	6.9	764.1	878.7	5272.5	442.4	508.7	3052.5	382.1	439.4	2636.2	220.6	1522.2	93.7	95	95.4	0.83	0.89	0.90	31.66	97	1720	6322	6322	
		355L3	MELC250E3R	ELC278	220/380/440	1190	2015.0	2.0	2.0	6.7	803.0	923.5	5380.3	464.9	534.7	3114.9	401.5	461.7	2690.2	231.8	1553.4	93.3	94.6	95	0.76	0.84	0.86	71.24	88	1880	6322	6322	
315	430	355L2	MELC315E1R	ELC279	220/380/440	3585	843.0	1.6	2.2	7.1	952.2	1095.1	6760.8	551.3	634.0	3914.1	476.1	547.5	3380.4	274.9	1951.9	93.3	94.8	95.4	0.83	0.88	0.91	8.87	97	1850	6319	6319	
		355L2	MELC315E2R	ELC280	220/380/440	1790	1695.0	1.8	2.2	6.9	962.8	1107.2	6643.3	557.4	641.0	3846.1	481.4	553.6	3321.7	278.0	1918.0	93.7	95	95.4	0.83	0.89	0.90	39.90	97	1940	6322	6322	

Derating Table for MELC-IE2

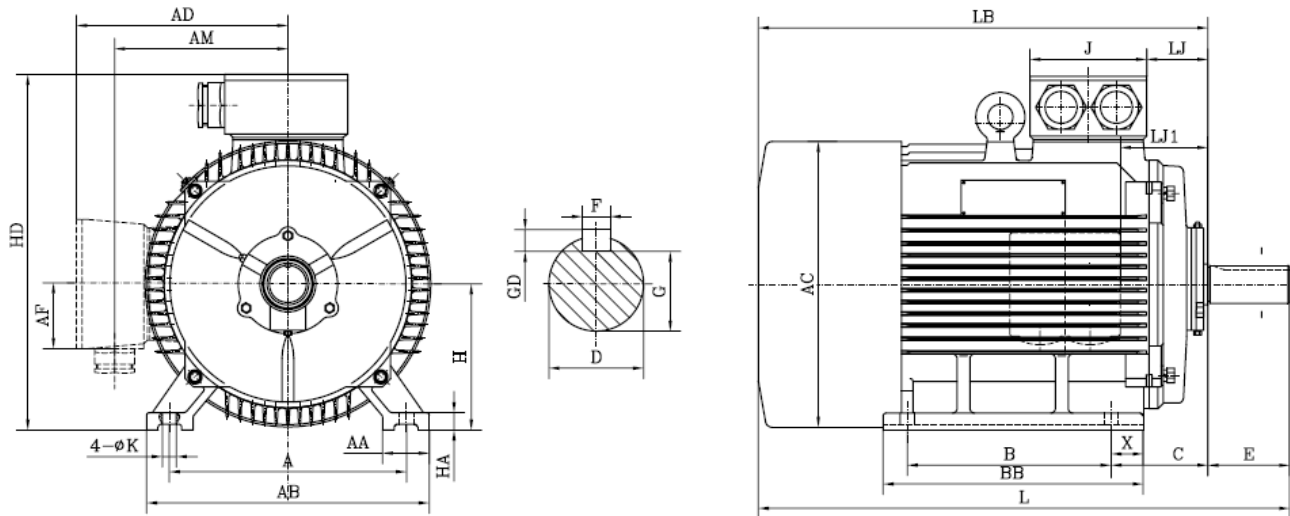
Factor correction to be applied to Motor kW depending of altitude and / or Ambient temperature
This factor correction can be applied on the SF of the motor .

Temp°C	<30	30~40	45	50	55	60
Alt (m)						
1000	1.07	1	0.96	0.92	0.87	0.82
1500	1.04	0.97	0.93	0.89	0.84	0.79
2000	1	0.94	0.9	0.86	0.82	0.77
2500	0.96	0.9	0.86	0.83	0.78	0.74
3000	0.92	0.86	0.82			

MELC-IE2 Cast-iron Mounting and Overall Dimensions

Foot-Mounted, IM 1001 (IM B3)

The Philippines



Frame	Mounting Dimensions (Millimeters)												
	A	AA	B	C	D 2p ₁ ≥4p	E 2p ₁ ≥4p	F 2p ₁ ≥4p	G 2p ₁ ≥4p	GD	H	K	p	x
80M	125	34	100	50	19	40	6	15.5	6	80	10	/	15
90S	140	36	100	56	24	50	8	20	7	90	10	/	20
90L	140	36	125	56	24	50	8	20	7	90	10	/	20
100L	160	40	140	63	28	60	8	24	7	100	12	/	18
112M	190	45	140	70	28	60	8	24	7	112	12	/	20
132S	216	55	140	89	38	80	10	33	8	132	12	/	23
132M	216	55	178	89	38	80	10	33	8	132	12	/	23
132ML	216	55	178	89	38	80	10	33	8	132	12	/	23
160M	254	65	210	108	42	110	12	37	8	160	15	/	25
160L	254	65	254	108	42	110	12	37	8	160	15	/	25
180M	279	70	241	121	48	110	14	42.5	9	180	15	/	35
180L	279	70	279	121	48	110	14	42.5	9	180	15	/	35
200L	318	70	305	133	55	110	16	49	10	200	19	/	32
225S	356	75	286	149	60	140	18	53	11	225	19	/	45
225M	356	75	311	149	55/60	110/140	16/18	49/53	10/11	225	19	/	45
250M	406	80	349	168	60/65	140	18	53/58	11	250	24	/	55
280S	457	85	368	190	65/75	140	18/20	58/67.5	11/12	280	24	/	68.5
280M	457	85	419	190	65/75	140	18/20	58/67.5	11/12	280	24	/	68.5
315S	508	120	406	216	65/80	140/170	18/22	58/71	11/14	315	28	/	84
315M	508	120	457	216	65/80	140/170	18/22	58/71	11/14	315	28	/	84
315L	508	120	508	216	65/80	140/170	18/22	58/71	11/14	315	28	/	84
355M	610	116	560	254	75/95	140/170	20/25	67.5/86	12/14	355	28	/	68
355L	610	116	630	254	75/95	140/170	20/25	67.5/86	12/14	355	28	/	68

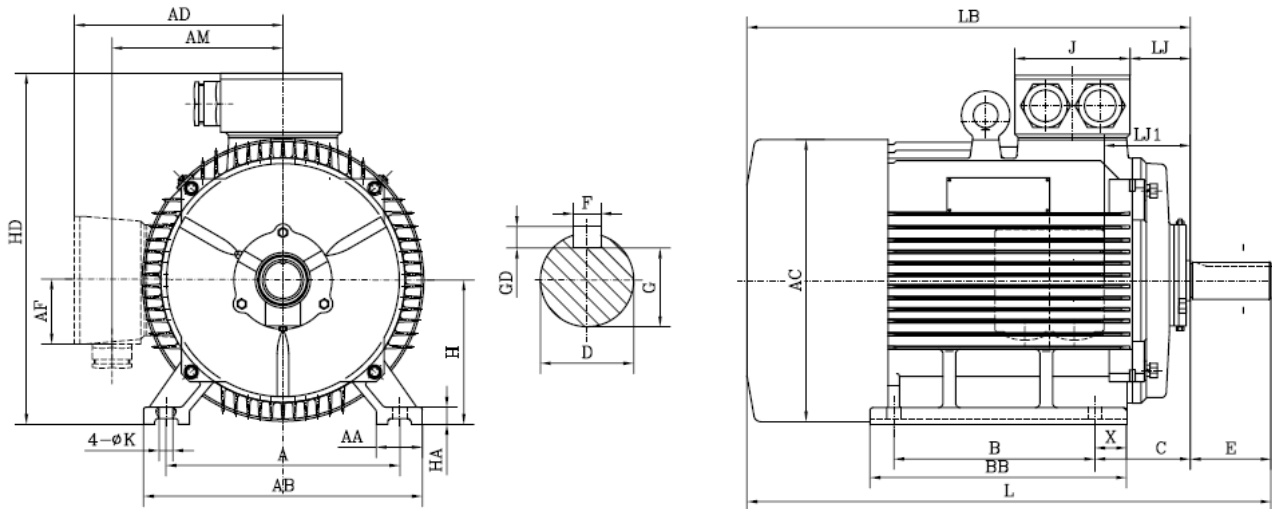
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MELC-IE2 Cast-iron Mounting and Overall Dimensions

Foot-Mounted, IM 1001 (IM B3)

The Philippines



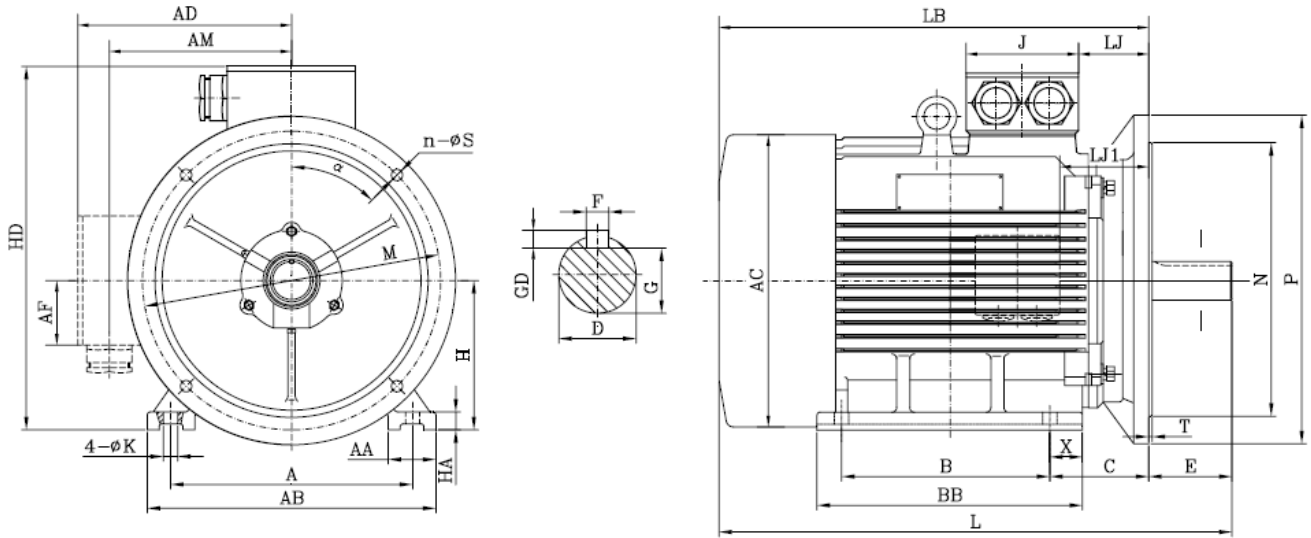
Frame	Overall Dimensions (Millimeters)														
	AB	AC	AD	AM	AF	BB	HA	HD	L 2p \geq 4p	LB	LJ	LJ1	J	Bearing No. 2p \geq 4p	
80M	162	168	145	115	35	145	10	223	300	260	21	55	102	6204	6204
90S	178	184	159	125	39	182	12	245	352	302	20	71	110	6205	6205
90L	178	184	159	125	39	212	12	245	382	332	20	86	110	6205	6205
100L	202	208	177	144	38	237	14	273	430	370	28	107	110	6206	6206
112M	228	222	197	155	55	252	15	300	465	405	27.5	115	119	6206	6206
132S	265	260	210	173	57	188	18	341	467	387	39.5	99.5	119	6208	6208
132M	265	260	210	173	57	226	18	341	505	425	39.5	119	119	6208	6208
132ML	265	260	210	173	57	267	18	341	543	463	39.5	138	119	6208	6208
160M	316	317	257	213	95	262	20	418	612	504	65.5	65.5	161	6309	6309
160L	316	317	257	213	95	307	20	418	656	546	65.5	65.5	161	6309	6309
180M	352	357	270	227	95	313	22	454	682	572	80.5	80.5	161	6311	6311
180L	352	357	270	227	95	351	22	454	720	610	80.5	80.5	161	6311	6311
200L	390	400	302	247	122	370	25	505	781	671	86	86	200	6212/6312	6212/6312
225S	432	448	325	272	122	370	28	553	821	681	89	89	200	6312/6313	6312/6313
225M	432	448	325	272	122	395	28	553	816/846	706/706	89	89	200	6312/6313	6312/6313
250M	486	487	362	303	146	447	30	615	914/914	774/774	93	93	228	6313/6314	6313/6314
280S	544	549	391	332	146	487	35	674	974/974	834/834	101.5	101.5	228	6314/6317	6314/6317
280M	544	549	391	332	146	538	35	674	1025/1025	885/885	101.5	101.5	228	6314/6317	6314/6317
315S	630	622	523	441	188	572	45	841	1158/1231	1018/1061	111	111	292	6317/6319	6317/6319
315M	630	622	523	441	188	682	45	841	1268/1341	1128/1171	111	111	292	6317/6319	6317/6319
315L	630	622	523	441	188	682	45	841	1268/1341	1128/1171	111	111	292	6317/6319	6317/6319
355M	728	700	640	550	223	755	52	996	1490/1520	1350/1350	113	113	342	6319/6322	6319/6322
355L	728	700	640	550	223	755	52	996	1490/1520	1350/1350	113	113	342	6319/6322	6319/6322

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MELC-IE2 Cast-iron Mounting and Overall Dimensions

FF Foot and Plain Hole Mounted IM 2001 (IM B35)

The Philippines



Frame	FF Symb	Mounting Dimensions (Millimeters)										
		A	AA	B	C	D 2p \geq 4p	E 2p \geq 4p	F 2p \geq 4p	G 2p \geq 4p	GD	H	K
80M	FF165	125	34	100	50	19	40	6	15.5	6	80	10
90S	FF165	140	36	100	56	24	50	8	20	7	90	10
90L	FF165	140	36	125	56	24	50	8	20	7	90	10
100L	FF215	160	40	140	63	28	60	8	24	7	100	12
112M	FF215	190	45	140	70	28	60	8	24	7	112	12
132S	FF265	216	55	140	89	38	80	10	33	8	132	12
132M	FF265	216	55	178	89	38	80	10	33	8	132	12
132ML	FF265	216	55	178	89	38	80	10	33	8	132	12
160M	FF300	254	65	210	108	42	110	12	37	8	160	15
160L	FF300	254	65	254	108	42	110	12	37	8	160	15
180M	FF300	279	70	241	121	48	110	14	42.5	9	180	15
180L	FF300	279	70	279	121	48	110	14	42.5	9	180	15
200L	FF350	318	70	305	133	55	110	16	49	10	200	19
225S	FF400	356	75	286	149	60	140	18	53	11	225	19
225M	FF400	356	75	311	149	55\60	110\140	16\18	49\53	10\11	225	19
250M	FF500	406	80	349	168	60\65	140	18	53\58	11	250	24
280S	FF500	457	85	368	190	65\75	140	18\20	58\67.5	11\12	280	24
280M	FF500	457	85	419	190	65\75	140	18\20	58\67.5	11\12	280	24
315S	FF600	508	120	406	216	65\80	140\170	18\22	58\71	11\14	315	28
315M	FF600	508	120	457	216	65\80	140\170	18\22	58\71	11\14	315	28
315L	FF600	508	120	508	216	65\80	140\170	18\22	58\71	11\14	315	28
355M	FF740	610	116	560	254	75\95	140\170	20\25	67.5\86	12\14	355	28
355L	FF740	610	116	630	254	75\95	140\170	20\25	67.5\86	12\14	355	28

Note: IM B35 Dimensions AB, AC, AD, AM, AF, HA, HD, X, L are the same As IM B3

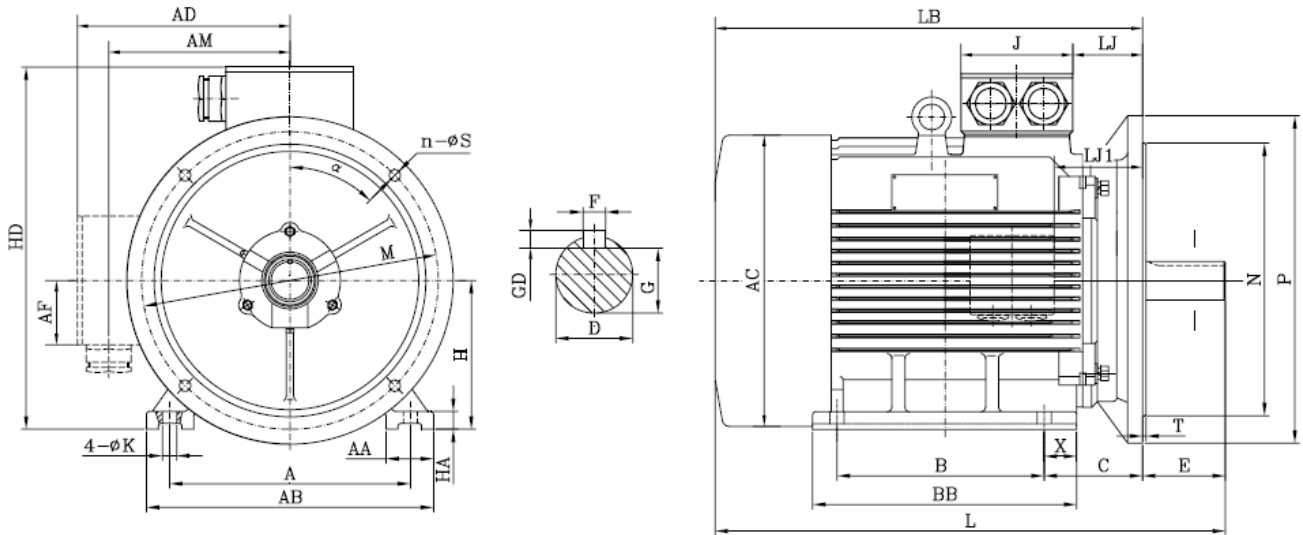
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MELC-IE2 Cast-iron Mounting and Overall Dimensions

FF Foot and Plain Hole Mounted IM 2001 (IM B35)

The Philippines



Frame	Overall Dimensions (Millimeters)												Bearing No	
	BB	LB	M	N	P	S	n	α	T	LJ	LJ 1	J	2p	≥4p
80M	145	260	165	130	200	12	4	45°	3.5	21	55	102	6204	6204
90S	182	302	165	130	200	12	4	45°	3.5	20	71	110	6205	6205
90L	212	332	165	130	200	12	4	45°	3.5	20	86	110	6205	6205
100L	237	370	215	180	250	15	4	45°	4	28	107	110	6206	6206
112M	252	405	215	180	250	15	4	45°	4	27.5	115	119	6206	6206
132S	188	387	265	230	300	15	4	45°	4	39.5	99.5	119	6208	6208
132M	226	425	265	230	300	15	4	45°	4	39.5	119	119	6208	6208
132ML	267	463	265	230	300	15	4	45°	4	39.5	138	119	6208	6208
160M	262	504	300	250	350	19	4	45°	5	65.5	65.5	161	6309	6309
160L	307	546	300	250	350	19	4	45°	5	65.5	65.5	161	6309	6309
180M	313	572	300	250	350	19	4	45°	5	80.5	80.5	161	6311	6311
180L	351	610	300	250	350	19	4	45°	5	80.5	80.5	161	6311	6311
200L	370	671	350	300	400	19	4	45°	5	86	86	200	6212\6312	6212\6312
225S	370	681	400	350	450	19	8	22.5°	5	89	89	200	6312\6313	6312\6313
225M	395	706\706	400	350	450	19	8	22.5°	5	89	89	200	6312\6313	6312\6313
250M	447	774\774	500	450	550	19	8	22.5°	5	93	93	228	6313\6314	6313\6314
280S	487	834\834	500	450	550	19	8	22.5°	5	101.5	101.5	228	6314\6317	6314\6317
280M	538	885\885	500	450	550	19	8	22.5°	5	101.5	101.5	228	6314\6317	6314\6317
315S	572	1018\1061	600	550	660	24	8	22.5°	6	111	111	292	6317\6319	6317\6319
315M	682	1128\1171	600	550	660	24	8	22.5°	6	111	111	292	6317\6319	6317\6319
315L	682	1128\1171	600	550	660	24	8	22.5°	6	111	111	292	6317\6319	6317\6319
355M	755	1350\1350	740	680	800	24	8	22.5°	6	113	113	342	6319\6322	6319\6322
355L	755	1350\1350	740	680	800	24	8	22.5°	6	113	113	342	6319\6322	6319\6322

Note: IM B35 Dimensions AB, AC, AD, AM, AF, HA, HD, X, L are the same As IM B3

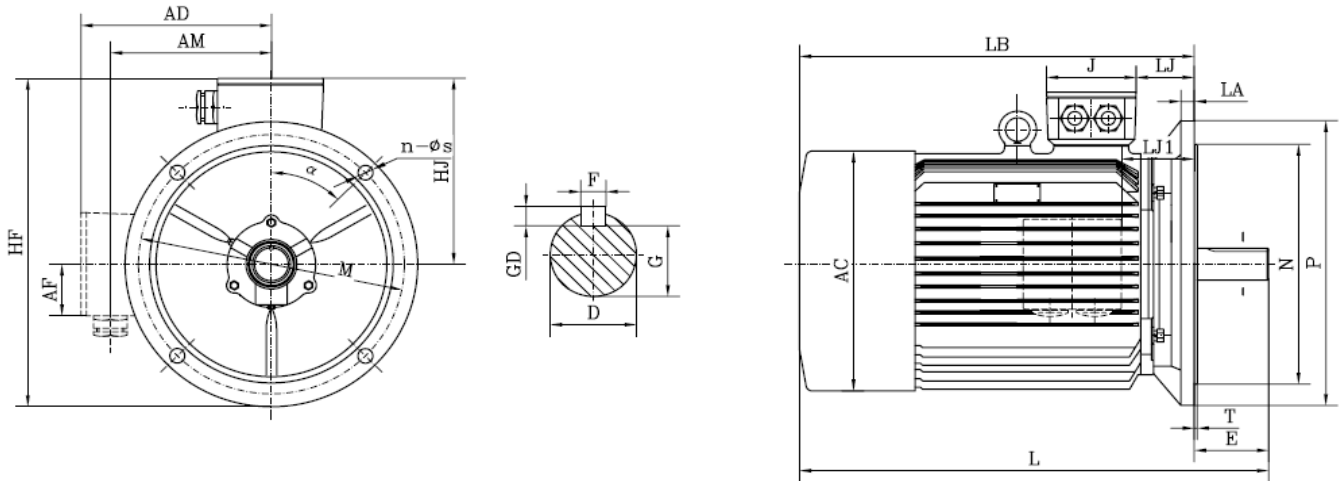
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MELC-IE2 Cast-iron Mounting and Overall Dimensions

FF Plain Hole Mounted IM 3001 (IM B5)

The Philippines



Frame	FF Symb	Mounting Dimensions (Millimeters)											
		D 2p≥4p	E 2p≥4p	F 2p≥4p	G 2p≥4p	GD	M	N	P	S	n	α	T
80M	FF165	19	40	6	15.5	6	165	130	200	12	4	45°	3.5
90S	FF165	24	50	8	20	7	165	130	200	12	4	45°	3.5
90L	FF165	24	50	8	20	7	165	130	200	12	4	45°	3.5
100L	FF215	28	60	8	24	7	215	180	250	15	4	45°	4
112M	FF215	28	60	8	24	7	215	180	250	15	4	45°	4
132S	FF265	38	80	10	33	8	265	230	300	15	4	45°	4
132M	FF265	38	80	10	33	8	265	230	300	15	4	45°	4
132ML	FF265	38	80	10	33	8	265	230	300	15	4	45°	4
160M	FF300	42	110	12	37	8	300	250	350	19	4	45°	5
160L	FF300	42	110	12	37	8	300	250	350	19	4	45°	5
180M	FF300	48	110	14	42.5	9	300	250	350	19	4	45°	5
180L	FF300	48	110	14	42.5	9	300	250	350	19	4	45°	5
200L	FF350	55	110	16	49	10	350	300	400	19	4	45°	5
225S	FF400	60	140	18	53	11	400	350	450	19	8	22.5°	5
225M	FF400	55\60	110\140	16\18	49\53	10\11	400	350	450	19	8	22.5°	5
250M	FF500	60\65	140	18	53\58	11	500	450	550	19	8	22.5°	5
280S	FF500	65\75	140	18\20	58\67.5	11\12	500	450	550	19	8	22.5°	5
280M	FF500	65\75	140	18\20	58\67.5	11\12	500	450	550	19	8	22.5°	5

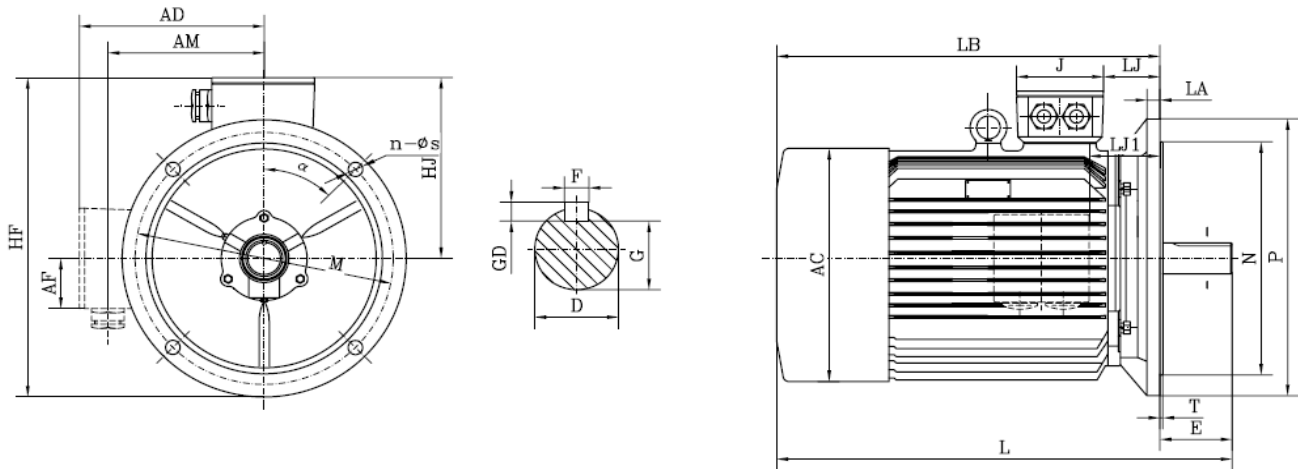
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MELC-IE2 Cast-iron Mounting and Overall Dimensions

FF Plain Hole Mounted IM 3001 (IM B5)

The Philippines



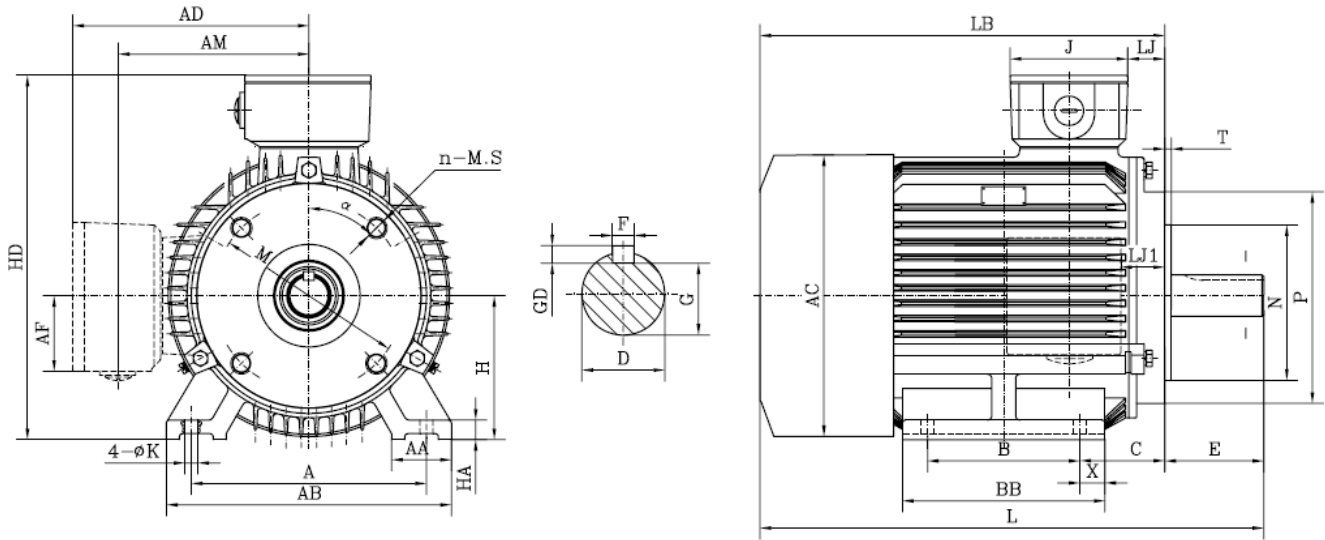
Frame	Overall Dimensions (Millimeters)												Bearing No 2p≥4p	
	AC	AD	AM	AF	HF	HJ	L 2p≥4p	LA	LB	LJ	LJ 1	J		
80M	168	145	115	35	245	143	300	12	260	21	55	102	6204	6204
90S	184	159	125	39	255	155	352	12	302	20	71	110	6205	6205
90L	184	159	125	39	255	155	382	12	332	20	86	110	6205	6205
100L	208	177	144	38	300	173	430	13	370	28	107	110	6206	6206
112M	222	197	155	55	315	188	465	14	405	27.5	115	119	6206	6206
132S	260	210	173	57	360	210	467	14	387	39.5	99.5	119	6208	6208
132M	260	210	173	57	360	210	505	14	425	39.5	119	119	6208	6208
132ML	260	210	173	57	360	210	543	14	463	39.5	138	119	6208	6208
160M	317	257	213	95	433	258	612	15	504	65.5	65.5	161	6309	6309
160L	317	257	213	95	433	258	656	15	546	65.5	65.5	161	6309	6309
180M	357	270	227	95	450	274	682	15	572	80.5	80.5	161	6311	6311
180L	357	270	227	95	450	274	720	15	610	80.5	80.5	161	6311	6311
200L	400	302	247	122	505	305	781	17	671	86	86	200	6212\6312	6212\6312
225S	448	325	272	122	555	328	821	20	681	89	89	200	6312\6313	6312\6313
225M	448	325	272	122	555	328	816\846	20	706\706	89	89	200	6312\6313	6312\6313
250M	487	362	303	146	640	365	914\914	22	774\774	93	93	228	6313\6314	6313\6314
280S	549	391	332	146	670	394	974\974	22	834\834	101.5	101.5	228	6314\6317	6314\6317
280M	549	391	332	146	670	394	1025\1025	22	885\885	101.5	101.5	228	6314\6317	6314\6317

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MELC-IE2 Cast-iron Mounting and Overall Dimensions

FT Foot and Tapped Hole Mounted IM 2101 (IM B34)

The Philippines



Frame	FT Symb	Mounting Dimensions (Millimeters)										
		A	AA	B	C	D 2p≥4p	E 2p≥4p	F 2p≥4p	G 2p≥4p	GD	H	K
80M	FT100	125	34	100	50	19	40	6	15.5	6	80	10
90S	FT115	140	36	100	56	24	50	8	20	7	90	10
90L	FT115	140	36	125	56	24	50	8	20	7	90	10
100L	FT130	160	40	140	63	28	60	8	24	7	100	12
112M	FT130	190	45	140	70	28	60	8	24	7	112	12

Frame	Overall Dimensions (Millimeters)												
	BB	LB	M	N	P	n-M.S	α	T	LJ	LJ1	J	Bearing No 2p≥4p	
80M	145	260	100	80	120	4-M6	45°	3	21	55	102	6204	6204
90S	182	302	115	95	140	4-M8	45°	3	20	71	110	6205	6205
90L	212	332	115	95	140	4-M8	45°	3	20	86	110	6205	6205
100L	237	370	130	110	160	4-M8	45°	3.5	28	107	110	6206	6206
112M	252	405	130	110	160	4-M8	45°	3.5	27.5	115	119	6206	6206

Note: IM B34 Dimensions AB, AC, AD, AM, AF, HA, HD, X, L are the same As IM B3

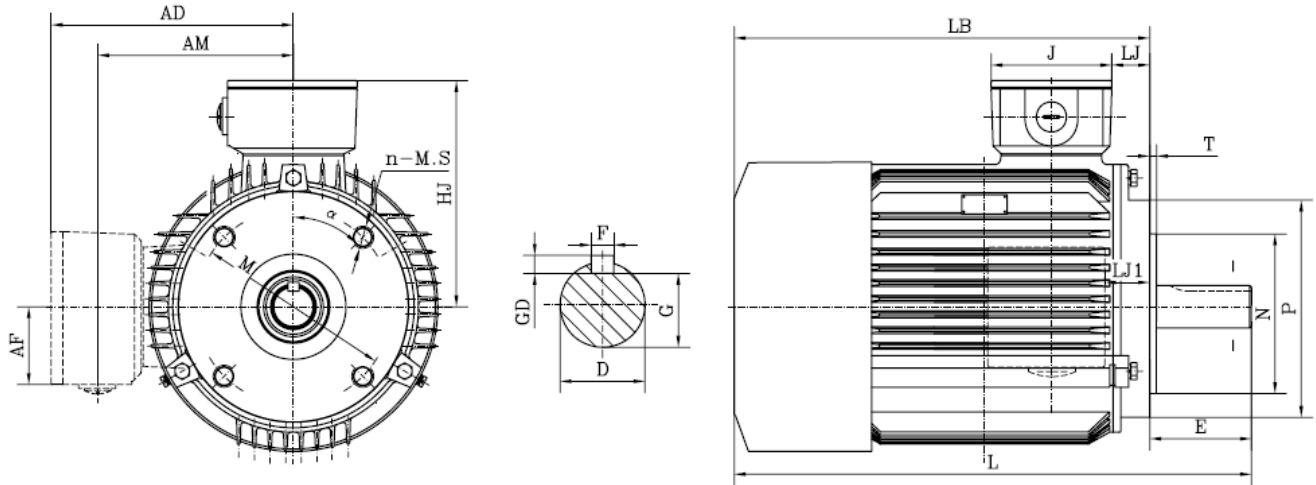
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MELC-IE2 Cast-iron Mounting and Overall Dimensions

FT Tapped Hole Mounted IM 3601 (IM B14)

The Philippines



Frame	FT Symb	Mounting Dimensions (Millimeters)										
		D 2p \geq 4p	E 2p \geq 4p	F 2p \geq 4p	G 2p \geq 4p	GD	M	N	P	n-M.S	α	T
80M	FT100	19	40	6	15.5	6	100	80	120	4-M6	45°	3
90S	FT115	24	50	8	20	7	115	95	140	4-M8	45°	3
90L	FT115	24	50	8	20	7	115	95	140	4-M8	45°	3
100L	FT130	28	60	8	24	7	130	110	160	4-M8	45°	3.5
112M	FT130	28	60	8	24	7	130	110	160	4-M8	45°	3.5

Frame	Overall Dimensions (Millimeters)											
	AC	AD	AM	AF	HJ	L 2p \geq 4p	LB	LJ	LJ 1	J	Bearing No 2p \geq 4p	
80M	168	145	115	35	143	300	260	21	55	102	6204	6204
90S	184	159	125	39	155	352	302	20	71	110	6205	6205
90L	184	159	125	39	155	382	332	20	86	110	6205	6205
100L	208	177	144	38	173	430	370	28	107	110	6206	6206
112M	222	197	155	55	188	465	405	27.5	115	119	6206	6206

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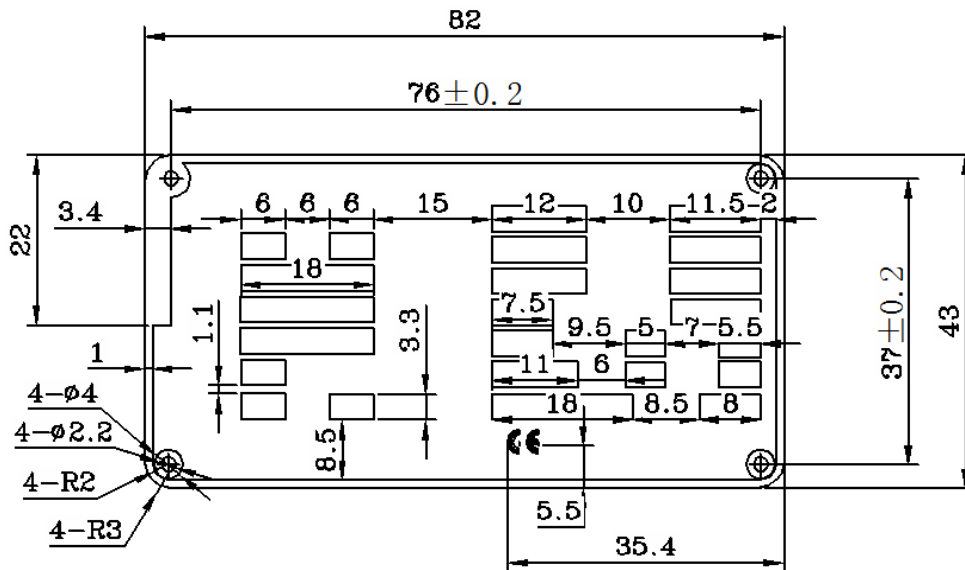
Main Nameplate

Frame 80 to 355

Nidec		U.S. MOTORS™	
Hz	60	Catalog	<input type="text"/>
kW	<input type="text"/>	HP	<input type="text"/>
RPM	<input type="text"/>	Model	<input type="text"/>
V	220/380/440	Serial #	<input type="text"/>
A	<input type="text"/>	Frame	<input type="text"/>
Eff %	<input type="text"/>	Mounting	<input type="text"/>
Cosφ	PF <input type="text"/>	Encl / Cool	IP55/IC411
SF	<input type="text"/>	Insul Class	<input type="text"/>
DE-ODE	Brg <input type="text"/>	ΔTemp	80°C
Brg Grease	Polyrex-EM	Amb	40°C
Duty	S1	Ph	3
Weight	<input type="text"/>	kg	<input type="text"/>

Suitable for Zone 2, IIA T2B and VFD Operation
IEC Motor IE2 www.usmotors.com

CE IEC/EN 60034-1 Made in China
Not for sale for use in the United States



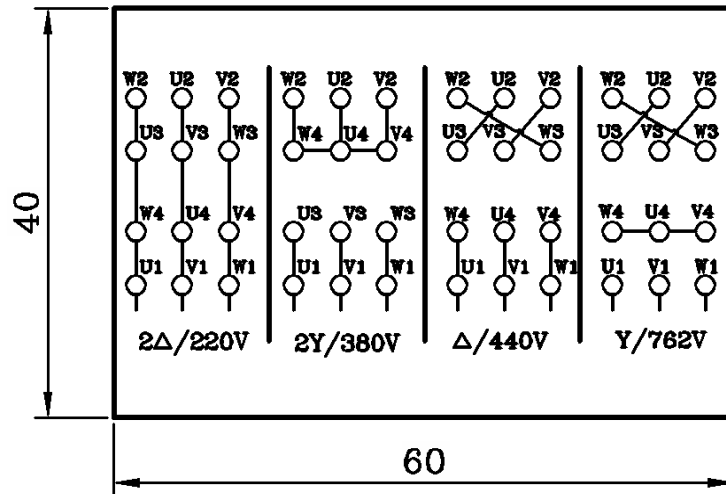
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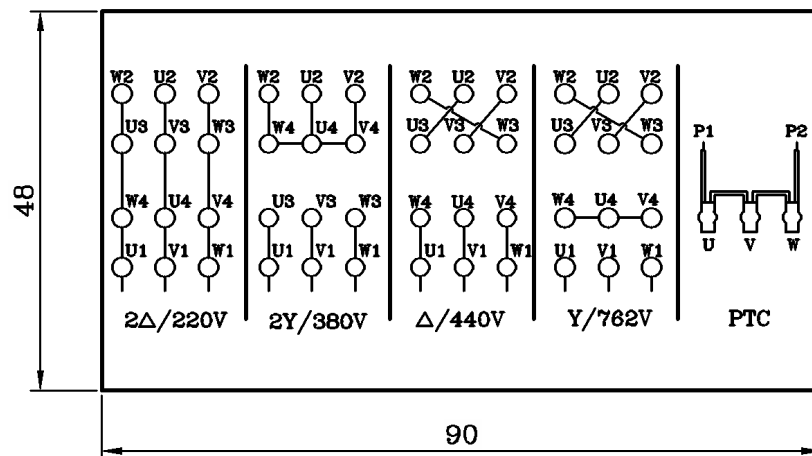
Connection Nameplate

Connection Stickers

90Kw and Below








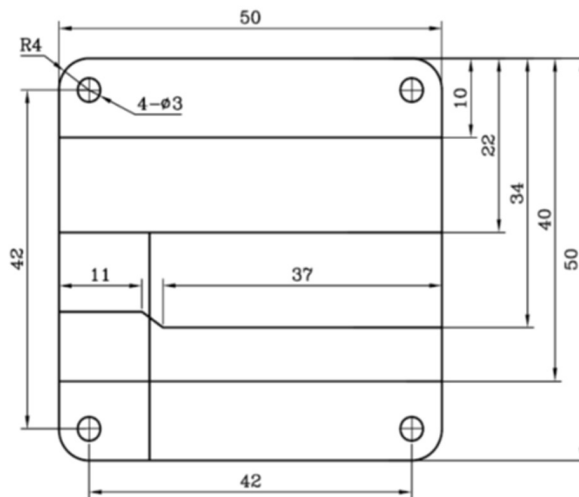
110Kw and Above



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Warning Nameplate

 WARNING 	
Improper installation of this motor may result in fire, explosion, electric shock or other personal injuries. Read operating instructions.	
	Disconnect power before maintenance. Open all circuits before removing conduit box cover. Be sure motor is properly grounded per local and national codes.
	Do not place fingers or objects near openings.
	Do not use eyebolts or lifting hooks to lift anything except the product.
931902	



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