

# Metric Efficient Line Aluminum & Cast-iron IEC Motors

Colombia-Venezuela-Ecuador

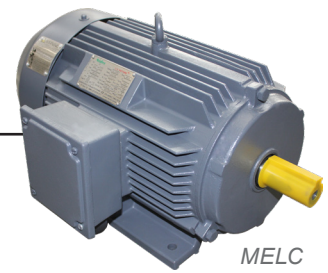


MOTOR MELA (ALUMINUM FRAME) MULTI-MOUNTING CONDUIT BOX POSITION F1  
CONVERTIBLE TO F2 & F3

MOTOR MELC (CAST IRON FRAME) SINGLE MOUNTING CONDUIT BOX POSITION F1

**Nidec**  
NIDEC MOTOR CORPORATION

# Three Phase, IEC Motors IE2 Efficient Aluminum & Cast-iron, IP55 Severe Duty Footed IM1001 (B3)



MELC

## Colombia-Venezuela-Ecuador

### APPLICATIONS:

For severe duty environments found in the pulp & paper, lumber, aggregates, mining, chemical and other industries.

### FEATURES:

- Fully comply with IEC 60034, 60038, 60072 and IE2 efficiency standards
- 40°C ambient, continuous duty
- Altitude 1000 m
- Sealed bearings of same size on both ends Frame 80 to 160
- Regreasable bearings of the same size on both ends Frame 180 to 355
- Grease type Polyrex-EM
- Corrosion resistant mill & chemical duty paint RAL 7024 Grey
- VPI, Class F insulation system, 80K rise at full load on sine wave power
- Stainless steel nameplate and zinc plated hardware
- Shaft seal ring for IP55 protection
- Lifting provisions
- F1 mounting conduit box with F2-F3 capability on MELA serie. Only F1 for MELC serie.
- Frequency 60HZ
- 220/440v ± 10% 60 Hz up to Frame 112 (9 leads)
- 220/440v ± 10% 60 Hz from Frame 132 to 280 (12 leads)
- 440v ± 10% 60 Hz frame 315 132 kW ( 2, 4 poles 12 leads ) and Up
- Suitable for wye-delta start @ 440v- 60Hz Frame 132 and up
- Winding Protection: Dandong PTC (1 per phase) from 110KW and Up
- 12 or 6 Leads connection Y Δ with Conduit box suitable for 6 terminals
- Single Voltage nameplated @ 60Hz only
- SF 1.15 at 60 Hz
- CE mark on nameplate
- Field convertible flange FF & FT kits available

### MELA (Aluminum Frames)

KW	HP	Pole	IEC Frame	Catalog #	Model #	DS-Sym	Weight Kg	List		
				Motors F1 Mounting Position F2-F3 Capability				B3	B5	B14
0.75	1	2	80M1	MELA075E1M	ELA101S	IE2CA	16	\$213	\$224	\$228
		4	80M2	MELA075E2M	ELA102S	IE2CA	17	\$270	\$284	\$289
		6	90S	MELA075E3M	ELA103S	IE2CA	23	\$314	\$330	\$336
1.1	1.5	2	80M2	MELA1E1M	ELA104S	IE2CA	18	\$228	\$239	\$244
		4	90S	MELA1E1M	ELA105S	IE2CA	22	\$321	\$337	\$344
		6	100L1	MELA1E1M	ELA106S	IE2CA	28	\$380	\$399	\$407
1.5	2	2	80M3	MELA3E1M	ELA107S	IE2CA	20	\$291	\$306	\$312
		4	90S1	MELA3E2M	ELA108S	IE2CA	24	\$376	\$394	\$402
		6	112M1	MELA3E3M	ELA109S	IE2CA	37	\$445	\$467	\$476
2.2	3	2	90S1	MELA2E1M	ELA110S	IE2CA	23	\$328	\$344	\$351
		4	90L2	MELA2E2M	ELA111S	IE2CA	34	\$410	\$431	\$439
		6	112M	MELA2E3M	ELA112S	IE2CA	41	\$566	\$594	\$605
3	4	2	90L1	MELA3E1M	ELA113S	IE2CA	28	\$457	\$480	\$489
		4	100L2	MELA3E2M	ELA114S	IE2CA	38	\$561	\$589	\$600
		6	132S	MELA3E3M	ELA115	IE2CA	52	\$722	\$758	
4	5	2	100L1	MELA4E1M	ELA116S	IE2CA	37	\$535	\$561	\$572
		4	100L3	MELA4E2M	ELA117S	IE2CA	40	\$648	\$680	\$693
		6	132S1	MELA4E3M	ELA118	IE2CA	57	\$814	\$855	
4.4	6	2	112M1	MELA4X4E1M	ELC119S	IE2CA	46	\$642	\$674	
		4	112M1	MELA4X4E2M	ELC120S	IE2CA	45	\$722	\$758	
		6	132S	MELA4X4E3M	ELC121	IE2CA	60	\$850	\$892	
5.5	7.5	2	112M2	MELA5E1M	ELA122S	IE2CA	51	\$767	\$805	
		4	112M2	MELA5E2M	ELA123S	IE2CA	51	\$883	\$927	
		6	132M2	MELA5E3M	ELA124	IE2CA	70	\$966	\$1,014	
7.5	10	2	132S2	MELA7E1M	ELA125	IE2CA	59	\$840	\$882	
		4	132M	MELA7E2M	ELA126	IE2CA	67	\$1,017	\$1,068	
		6	132ML3	MELA7E3M	ELA127	IE2CA	89	\$1,154	\$1,212	
9.2	12.5	2	132M	MELA9E1M	ELA128	IE2CA	68	\$963	\$1,011	
		4	132M1	MELA9E2M	ELA129	IE2CA	72	\$1,150	\$1,208	
11	15	2	132ML1	MELA11E1M	ELA131	IE2CA	81	\$1,145	\$1,202	
		4	132ML2	MELA11E2M	ELA132	IE2CA	89	\$1,196	\$1,256	
		6	160M1	MELA11E3M	ELA133S	IE2CA	112	\$1,679	\$1,763	
15	20	2	160M2	MELA15E1M	ELA134S	IE2CA	107	\$1,524	\$1,600	
		4	160M1	MELA15E2M	ELA135S	IE2CA	110	\$1,691	\$1,776	
		6	160L1	MELA15E3M	ELA136S	IE2CA	135	\$2,143	\$2,250	

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# Three Phase, IEC Motors IE2 Efficient Aluminum & Cast-iron, IP55 Severe Duty Footed IM1001 (B3)



Colombia-Venezuela-Ecuador

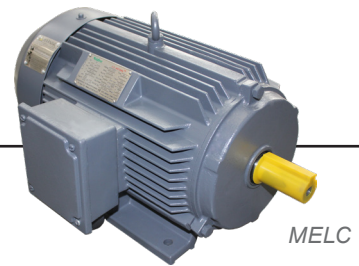
## MELC (Cast Iron Frames)

KW	HP	Pole	IEC Frame	Catalog #	Model #	DS-Sym	Weight Kg	List		
				Motors F1 Mounting Position				B3	B5	B14
0.75	1	2	80M1	MELC075E1M	ELC101S	IE2CA	18	213	224	228
		4	80M2	MELC075E2M	ELC102S	IE2CA	19	270	284	289
		6	90S	MELC075E3M	ELC103S	IE2CA	26	314	330	336
1.1	1.5	2	80M2	MELC1E1M	ELC104S	IE2CA	20	228	239	244
		4	90S	MELC1E1M	ELC105S	IE2CA	25	321	337	344
		6	100L1	MELC1E1M	ELC106S	IE2CA	32	380	399	407
1.5	2	2	80M3	MELC3E1M	ELC107S	IE2CA	23	291	306	312
		4	90S1	MELC3E2M	ELC108S	IE2CA	27	376	394	402
		6	112M1	MELC3E3M	ELC109S	IE2CA	42	445	467	476
2.2	3	2	90S1	MELC2E1M	ELC110S	IE2CA	26	328	344	351
		4	90L2	MELC2E2M	ELC111S	IE2CA	38	410	431	439
		6	112M	MELC2E3M	ELC112S	IE2CA	46	566	594	605
3	4	2	90L1	MELC3E1M	ELC113S	IE2CA	32	457	480	489
		4	100L2	MELC3E2M	ELC114S	IE2CA	43	561	589	600
		6	132S	MELC3E3M	ELC115S	IE2CA	58	722	758	
4	5	2	100L1	MELC4E1M	ELC116S	IE2CA	41	535	561	572
		4	100L3	MELC4E2M	ELC117S	IE2CA	45	648	680	693
		6	132S1	MELC4E3M	ELC118	IE2CA	64	814	855	
4.4	6	2	112M1	MELC4X4E1M	ELC119S	IE2CA	51	642	674	
		4	112M1	MELC4X4E2M	ELC120S	IE2CA	50	722	758	
		6	132S	MELC4X4E3M	ELC121	IE2CA	67	850	892	
5.5	7.5	2	112M2	MELC5E1M	ELC122S	IE2CA	57	767	805	
		4	112M2	MELC5E2M	ELC123S	IE2CA	57	883	927	
		6	132M2	MELC5E3M	ELC124	IE2CA	78	966	1014	
7.5	10	2	132S2	MELC7E1M	ELC125	IE2CA	66	840	882	
		4	132M	MELC7E2M	ELC126	IE2CA	75	1017	1068	
		6	132ML3	MELC7E3M	ELC127	IE2CA	99	1154	1212	
9.2	12.5	2	132M	MELC9E1M	ELC128	IE2CA	76	963	1011	
		4	132M1	MELC9E2M	ELC129	IE2CA	80	1150	1208	
11	15	2	132ML1	MELC11E1M	ELC131	IE2CA	90	1145	1202	
		4	132ML2	MELC11E2M	ELC132	IE2CA	99	1196	1256	
		6	160M1	MELC11E3M	ELC133S	IE2CA	125	1679	1763	
15	20	2	160M2	MELC15E1M	ELC134S	IE2CA	119	1524	1600	
		4	160M1	MELC15E2M	ELC135S	IE2CA	122	1691	1776	
		6	160L1	MELC15E3M	ELC136S	IE2CA	150	2143	2250	
18.5	25	2	160M3	MELC19E1M	ELC137S	IE2CA	123	1664	1748	
		4	160L1	MELC19E2M	ELC138S	IE2CA	140	2172	2280	
		6	180L1	MELC19E3M	ELC139S	IE2CA	195	2440	2562	
22	30	2	160L1	MELC22E1M	ELC140S	IE2CA	139	2232	2344	
		4	180M1	MELC22E2M	ELC141S	IE2CA	176	2405	2526	
		6	200L2	MELC22E3M	ELC142S	IE2CA	230	2714	2850	
30	40	2	200L1	MELC30E1M	ELC143S	IE2CA	218	2577	2706	
		4	200L	MELC30E2M	ELC144S	IE2CA	241	2959	3107	
		6	200L3	MELC30E3M	ELC145S	IE2CA	250	3464	3638	
37	50	2	200L2	MELC37E1M	ELC146S	IE2CA	230	2854	2997	
		4	200L1	MELC37E2M	ELC147S	IE2CA	254	3591	3770	
		6	225M1	MELC37E3M	ELC148S	IE2CA	310	4180	4389	

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**Three Phase, IEC Motors IE2 Efficient  
All Cast-iron, IP55 Severe Duty Footed IM1001 (B3)**



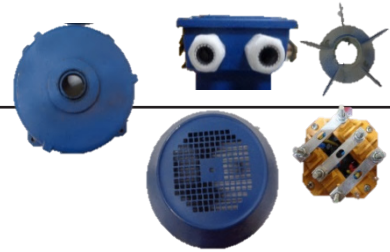
**Colombia-Venezuela-Ecuador**

**MELC (Cast Iron Frames)**

KW	HP	Pole	IEC Frame	Catalog #	Model #	DS-Sym	Weight Kg	List		
				Motors F1 Mounting Position				B3	B5	B14
45	60	2	225M	MELC45E1M	ELC149S	IE2CA	283	3578	3757	
		4	225M	MELC45E2M	ELC150S	IE2CA	325	3936	4133	
		6	250M1	MELC45E3M	ELC151S	IE2CA	390	5558	5836	
55	75	2	225M1	MELC55E1M	ELC152S	IE2CA	326	3622	3803	
		4	225M1	MELC55E2M	ELC153S	IE2CA	356	4221	4432	
		6	250M2	MELC55E3M	ELC154S	IE2CA	450	6349	6667	
75	100	2	250M1	MELC75E1M	ELC155S	IE2CA	420	5053	5306	
		4	250M1	MELC75E2M	ELC156S	IE2CA	490	5731	6018	
		6	280M2	MELC75E3M	ELC157S	IE2CA	610	7623	8004	
90	125	2	280M	MELC90E1M	ELC158S	IE2CA	536	6756	7094	
		4	280M	MELC90E2M	ELC159S	IE2CA	602	7796	8186	
		6	280M3	MELC90E3M	ELC160S	IE2CA	725	8724	9160	
110	150	2	280M1	MELC110E1M	ELC161S	IE2CA	580	9988	10487	
		4	280M1	MELC110E2M	ELC162S	IE2CA	646	9660	10143	
		6	315M1	MELC110E3I	ELC163S	IE2CA	988	11932	12528	
132	175	2	315M	MELC132E1I	ELC164S	IE2CA	946	11035	11587	
		4	315M	MELC132E2I	ELC165S	IE2CA	927	12243	12855	
		6	315M2	MELC132E3I	ELC166S	IE2CA	1116	13515	14190	
160	200	2	315M1	MELC160E1I	ELC167S	IE2CA	990	11780	12369	
		4	315M1	MELC160E2I	ELC168S	IE2CA	1007	13569	14247	
		6	355M1	MELC160E3I	ELC169S	IE2CA	1506	19396		
185	250	2	315M2	MELC185E1I	ELC170S	IE2CA	1025	12880	13524	
		4	315M2	MELC185E2I	ELC171S	IE2CA	1094	14186	14896	
		6	355M2	MELC185E3I	ELC172S	IE2CA	1512	20821		
200	270	2	315L2	MELC200E1I	ELC173S	IE2CA	1500	13108	13764	
		4	315L2	MELC200E2I	ELC174S	IE2CA	1550	14818	15559	
		6	355M3	MELC200E3I	ELC175S	IE2CA	1512	21838		
250	340	2	355M2	MELC250E1I	ELC176S	IE2CA	1650	23104		
		4	355M2	MELC250E2I	ELC177S	IE2CA	1720	22408		
		6	355L3	MELC250E3I	ELC178S	IE2CA	1880	24914		
315	430	2	355L2	MELC315E1I	ELC179S	IE2CA	1850	25851		
		4	355L2	MELC315E2I	ELC180S	IE2CA	1940	25175		
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**Kit FF Flange**

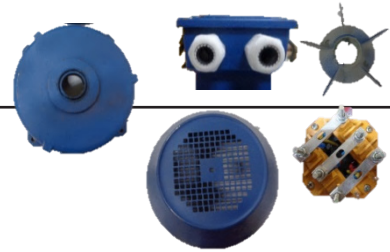
IEC Symbol	Motor Frame	For Cast-iron MELC			For Aluminum MELA	
		Nidec Catalog #	Comment	List	Nidec Catalog #	List
FF165	80	FF165ELC80	2-4-6 Poles	79	FF165ELA80	43
	90	FF165ELC90	2-4-6 Poles	89	FF165ELA90	45
FF215	100	FF215ELC100	2-4-6 Poles	138	FF215ELA100	70
	112	FF215ELC112	2-4-6 Poles	162	FF215ELA112	75
FF265	132	FF265ELC132	2-4-6 Poles	238	FF265ELA132	110
FF300	160	FF300ELC160	2-4-6 Poles	365		
	180	FF300ELC180	2-4-6 Poles			
FF350	200	FF350ELC200	2-4-6 Poles	522		
FF400	225	FF400ELC225-2	2 Poles Only	634		
		FF400ELC225	4 & 6 Poles			
FF500	250	FF500ELC250-2	2 Poles Only	896		
		FF500ELC250	4 & 6 Poles			
	280	FF500ELC280-2	2 Poles Only	1054		
		FF500ELC280	4 & 6 Poles			
FF600	315	FF600ELC315	2 Poles Only	1497		
		FF600ELC315	4 & 6 Poles			

**Kit FT Flange**

IEC Symbol	Motor Frame	For Cast-iron MELC			For Aluminum MELA	
		Nidec Catalog #	L.A Model #	List	Nidec Catalog #	List
FT100	80	FT100ELC80	80 B14	84	FT100ELA80	45
FT115	90	FT115ELC90	90 B14	94	FT115ELA90	50
FT130	100	FT130ELC100	100 B14	147	FT130ELA100	80
FT130	112	FT130ELC112	112 B14	172	FT130ELA112	90
FT215	132	FT215ELC132	132 B14		FF265ELA132	130

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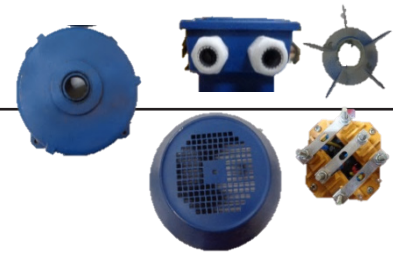


**Plastic Fan**

Motor Type	Motor Frame	Poles	List	Nidec Catalog #	List
MELA, MELC	80	All	5	FAN80EL	5
MELA, MELC	90	2 only	5	FAN80-2EL	5
MELA, MELC	90	4 & 6	5	FAN80EL	5
MELA, MELC	100	All	10	FAN100EL	10
MELA, MELC	112	2 only	15	FAN112-2EL	15
MELA, MELC	112	4 & 6 & 8	15	FAN112EL	15
MELA, MELC	132	2 only	20	FAN132-2EL	20
MELA, MELC	132	4 & 6 & 8	20	FAN132EL	20
MELA, MELC	160	2 only	25	FAN160-2EL	25
MELA, MELC	160	4 & 6 & 8	30	FAN160EL	30
MELC	180	2 & 4	35	FAN180-2-4ELC	35
MELC	180	6 & 8	40	FAN180-6-8ELC	40
MELC	200	2 only	45	FAN200-2ELC	45
MELC	200	4 & 6 & 8	50	FAN200ELC	50
MELC	225	2 only	60	FAN225-2ELC	60
MELC	225	4 & 6 & 8	75	FAN225ELC	75
MELC	250	2 only	80	FAN250-2ELC	80
MELC	250	4 & 6 & 8	100	FAN250ELC	100
MELC	280	2 only	110	FAN280-2ELC	110
MELC	280	4 & 6 & 8	150	FAN280ELC	150
MELC	315 & 355	2 only *	300	FAN300-2ELC	300
MELC	315 & 355	4 only *	300	FAN300-4ELC	300
MELC	315 & 355	6 & 8 *	300	FAN300-6-8ELC	300

\* Aluminum





**Fan Cover**

Motor Type	Motor Frame	Horizontal Mount		Vertical Mount	
		Nidec Catalog #	List	Nidec Catalog #	List
MELA, MELC	80	FCG80EL	13	FCV80EL	25
MELA	90	FCG90ELA	17	FCV90ELA	35
MELC	90	FCG90ELC	17	FCV90ELC	35
MELA, MELC	100	FCG100EL	20	FCV100EL	40
MELA	112	FCG112ELA	22	FCV112EL	45
MELC	112	FCG112ELC	22	FCV112ELC	45
MELA, MELC	132	FCG132EL	32	FCV132EL	65
MELA, MELC	160	FCG160EL	55	FCV160EL	110
MELC	180	FCG180ELC	80	FCV180ELC	160
MELC	200	FCG200ELC	110	FCV200ELC	220
MELC	225	FCG225ELC	140	FCV225ELC	280
MELC	250	FCG250ELC	170	FCV250ELC	340
MELC	280	FCG280ELC	200	FCV280ELC	400
MELC	315	FCG315ELC	300	FCV315ELC	600
MELC	355	FCG355ELC	560	FCV355ELC	1100

**Conduit Box and Terminal Board**

Motor Type	Motor Frame	Conduit Box				Terminal Board	
		MELC Cast-iron Frame		MELA Aluminum Frame		MELC & MELA	
		Nidec Catalog #	List	Nidec Catalog #	List	Nidec Catalog #	List
	80	CB80ELC	20	CB80ELA	30	TB80EL	15
	90	CB90ELC	30	CB90ELA	40	TB90EL	18
	100	CB100ELC	30	CB100ELA	40	TB100EL	18
	112	CB112ELC	40	CB112ELA	60	TB112EL	20
	132	CB132ELC	40	CB132ELA	60	TB132EL	20
	160	CB160ELC	60	CB160ELZ	180	TB160EL	40
	180	CB180ELC	60			TB180ELC	40
	200	CB200ELC	90			TB200ELC	90
	225	CB225ELC	90			TB225ELC	90
	250	CB250ELC	120			TB250ELC	150
	280	CB280ELC	120			TB280ELC	150
	315	CB315ELC	300			TB315ELC	700
	355	CB355ELC	300			TB355ELC	1300

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