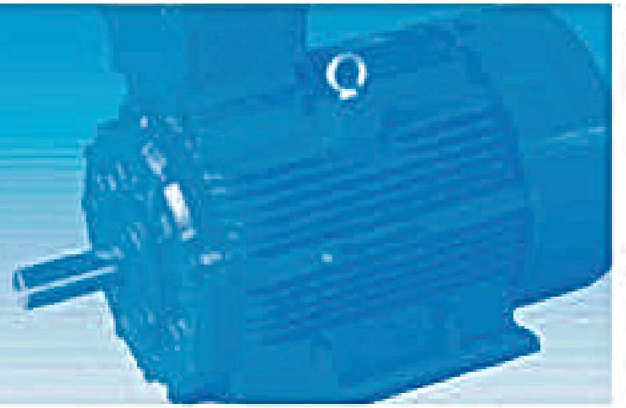


Three phase IEC low voltage motors

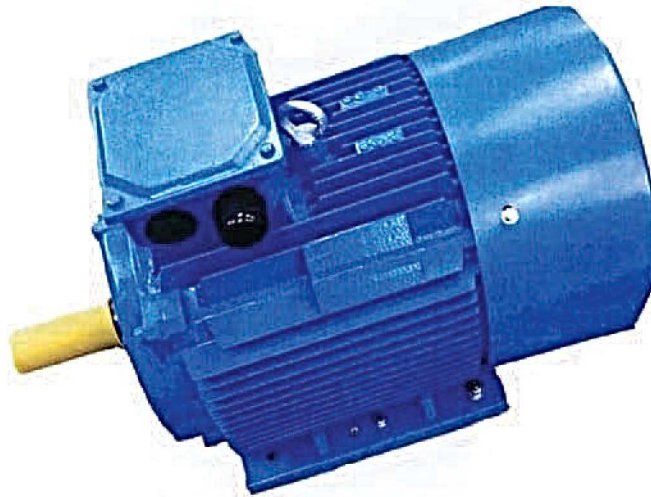


Frames 80 to 355



**WESTERN
ELECTRIC**

Three phase IEC low voltage motors 63 to 400L



Western Electric

Western Electric is a leading manufacturer of electric motors for the global industrial market, with motor solutions which benefit a wide range of customers.

Our products are used in almost every industrial activity including water treatment, building services, chemical/petrochemicals, general processing and manufacturing where they drive fans, pumps, compressors and conveyors, amongst other things.

We have extensive stocks of motors around the world, backed-up by a network of distributors, ensuring excellent local support wherever needed.

Quality assurance

Stringent quality procedures are observed from first design to finished product in accordance with the ISO9001 documented quality systems.

All of our factories have been assessed to meet these requirements, a further assurance that only the highest possible standards of quality are accepted.

Three phase IEC low voltage range

A high quality standard range of electric motors with a specification suitable for most industrial applications. It covers products from as little as 0.18kW up to 500kW in frame sizes 63 to 400L.

Benefits include:

- full output range to meet your requirements
- where applicable, efficiencies are within the IE1&IE2&IE3&IE4 IEC 60034-30:2008 band and meet MEPS standard efficiency levels.
- robust construction for long life
- mountings: foot, flange, face or combination
- bolt on feet/pads - aluminium range
- eurovoltage: up to 2.2kW 230/400V; 3kW and above 400/690V
- frequency 50 or 60Hz
- single or multispeed options
- IP55
- metric entries
- metal fan cover
- thermistors fitted as

Standards and environment

Standards

Standards	
Three phase IEC motors are manufactured to the international standards listed below:	
Performance	IEC 60034-1
Dimensions	IEC 60072-1
Mounting	IEC 60034-7
Enclosure protection	IEC 60034-5
Vibration	IEC 60034-14 (grade N)
Noise	IEC 60034-9

Specification

Specification	Standard product	Option
Frame material	63 - 71 aluminium	–
	80 - 355 cast iron	cast iron
Fan cover	steel	cast iron
Enclosure	IP55	–
Voltage	2.2 kW and below 220 - 240/380 - 415	spot voltage in the range 110 to 500V
	3 kW and above 380 - 415/660 - 720	
	355 frame spot voltage 380V, 400V, 415V	
Frequency	50 Hz	60 Hz
Lubrication	63-132 double-shielded bearings	–
	160-355 through greasing	–
Insulation	class F	–
Temperature rise	class B (class F on multispeed motors)	class F
Paint colour	blue (RAL 5015)	–
Drain holes	63 - 71 – none	–
	80 - 355 – provided	–
Bearing location	160-355 non-drive end	drive end or non-drive end on all sizes.
Thermistor protection		63-355

Environment

Enclosure

All motors are constructed to IP55 enclosure as defined in IEC EN 60034-5.

European directives

Three European directives apply in varying degrees to ac induction motors. Western Electric comply in the following manner:

Motor cooling

Motors are cooled in accordance with IEC 60034-6. The normal arrangement is IC411 (Totally Enclosed Fan Ventilated) via a fan mounted at the non-drive end. Alternative methods of cooling available on request.

Inverter duty

Motors are suitable for use on inverter supplies per the requirement of IEC 60034-17. Dependent upon application, some de-rating may be required, contact Western Electric with the full details.

Directives

Compliance with European directives applying to AC induction motors			
Directives	Low voltage (LV)	Machinery (MD)	Electromagnetic compatibility (EMC)
Reference numbers	73/23/EEC 93/68/EEC 2006/95/EC	89/392/EEC 93/44/EEC 98/37/EC 98/79/EC 2006/42/EC	89/336/EEC 92/31/EEC 93/68/EEC 2004/108/EC
Motor CE marked	Yes	No	No
Standards	EN 60034	Not applicable	EN 60034-1
Documentation for customers' technical file	Declaration of conformity	Certificate of incorporation	Statement ⁽¹⁾
Safety instructions with every motor	Yes	Yes	Yes
Comment	Relevant electrical equipment operating between 50 to 1000 volts AC	Statement ⁽²⁾	Component

⁽¹⁾ Motors operating from a correctly applied, sinusoidal (AC) supply meet the requirements of the EMC directive and are within the limits specified in standard EN 60034-1

⁽²⁾ When installed in accordance with our customer safety and installation and maintenance instructions, they can be put into service only when the machinery into which they are being incorporated, has been declared to be in conformity with the machinery directive in accordance with Article 4(2) and Annex IIB of that Directive [98/37/EEC]

3DF SERIES TECHNICAL SPECIFICATIONS(50Hz)

TECHNICAL DATA-2 POLES(3000 RPM)

Motor Type	Rated Power		Rated Speed	Efficiency	Power Factor	Current			Torque			Moment of inertia(J)	Approx WT
						FULL Load 380V	FULL Load 660V	Locked Rotor	Full Load	Locked Rotor	Pull Out		
	KW	(HP)	RPM	%		A	A	%FLC	Kg-m	%FLT	%FLT	Kg-m ²	Kg
3DF-80K2	0.75	1.0	2845	82.1	0.82	1.7	1.0	7.5	0.3	2.2	2.3	0.0011	18
3DF-80G2	1.1	1.5	2865	83.8	0.83	2.4	1.4	7.4	0.4	2.1	2.2	0.0013	19
3DF-90S2	1.5	2.0	2875	85	0.84	3.2	1.8	7.5	0.5	2.1	2.2	0.00185	24
3DF-90L2	2.2	3.0	2865	86.4	0.85	4.6	2.6	7.5	0.7	2.2	2.3	0.00215	27
3DF-100L2	3	4.0	2860	87.5	0.87	6.0	3.4	7.6	1.0	2.0	2.2	0.00426	36
3DF-112M2	4	5.5	2870	88.4	0.88	7.8	4.5	7.5	1.3	2.2	2.3	0.0065	43
3DF-132S2	5.5	7.5	2880	89.4	0.88	10.6	6.1	7.4	1.8	2.1	2.2	0.01456	65
3DF-132SX2	7.5	10	2925	90.3	0.88	14.3	8.3	7.5	2.4	2.2	2.4	0.01465	70
3DF-160M2	11	15	2960	91.2	0.89	20.6	11.9	8.4	3.6	3.1	3.7	0.05097	116
3DF-160MX2	15	20	2940	91.9	0.88	28.3	16.3	7.8	4.9	2.6	2.9	0.06372	126
3DF-160LY2	18.5	25	2940	92.4	0.88	34.6	19.9	7.6	6.0	2.3	3.0	0.07646	145
3DF-180M2	22	30	2950	92.7	0.88	40.8	23.5	7.9	7.1	2.7	3.6	0.11704	185
3DF-200L2	30	40	2960	93.3	0.87	56.2	32.3	7.4	9.7	2.4	3.4	0.17367	237
3DF-200LX2	37	50	2960	93.7	0.87	69.3	39.9	7.6	11.9	2.4	3.3	0.20484	251
3DF-225M2	45	60.3	2950	94	0.88	82.7	47.6	7.8	14.6	2.3	3.4	0.30196	320
3DF-250M2	55	75	2970	94.3	0.89	99.5	57.3	7.1	17.7	2.0	3.3	0.40769	396
3DF-280S2	75	100	2975	94.7	0.88	136.3	78.5	6.3	24.1	2.0	2.9	0.79884	550
3DF-280M2	90	120	2980	95	0.88	163.6	94.2	7.7	28.9	2.5	3.7	1.07078	580
3DF-315S2	110	145	2970	95.2	0.90	194.4	111.9	7.4	35.4	2.0	3.2	2.0314	970
3DF-315M2	132	175	2975	95.4	0.91	232.0	133.6	7.0	42.4	1.8	2.9	2.2065	1030
3DF-315L2	160	215	2970	95.6	0.90	283.5	163.2	6.6	51.4	1.8	3.0	2.4867	1140
3DF-315LX2	200	270	2965	95.8	0.91	350.1	201.6	6.4	64.4	1.9	3.0	2.9069	1220
3DF-355M2	250	335	2980	95.8	0.90	439.1	252.8	7.7	80.1	2.0	3.5	3.8123	1780
3DF-355L2	280	375.2	2975	95.8	0.91	488.5	281.3	6.9	89.9	1.7	3.1	3.8123	1790
3DF-355LX2	315	420	2980	95.8	0.92	543.0	312.7	8.2	101.0	2.1	3.8	4.4632	1808
3DF-355LY2	355	475	2975	95.8	0.91	618.7	356.2	7.2	114.0	1.9	3.4	4.4632	1828



3DF SERIES TECHNICAL SPECIFICATIONS(50Hz)

TECHNICAL DATA-4 POLES(1500 RPM)

Motor Type	Rated Power		Rated Speed	Efficiency	Power Factor	Current			Torque			Moment of inertia(J)	Approx WT
						FULL Load 380V	FULL Load 660V	Locked Rotor	Full Load	Locked Rotor	Pull Out		
	KW	(HP)	RPM	%		A	A	%FLC	Kg-m	%FLT	%FLT	Kg-m ²	Kg
3DF-80G4	0.75	1.0	1410	84	0.75	1.8	1.0	7.3	0.5	2.3	2.3	0.00165	20
3DF-90S4	1.1	1.5	1415	85.3	0.76	2.6	1.5	7.5	0.7	2.3	2.6	0.0021	24
3DF-90L4	1.5	2.0	1420	86.3	0.77	3.4	2.0	7.6	1.0	2.4	2.7	0.0027	30
3DF-100L4	2.2	2.9	1420	87.5	0.77	5.0	2.9	7.5	1.5	2.4	2.7	0.0054	37
3DF-100LX4	3	4.0	1440	88.4	0.78	6.6	3.8	7.4	2.0	2.5	2.8	0.0067	41
3DF-112M4	4	5.5	1445	89.2	0.78	8.7	5.0	7.6	2.6	2.4	2.7	0.0086	48
3DF-132S4	5.5	7.5	1460	90	0.79	11.8	6.8	7.5	3.6	2.3	2.6	0.0205	71
3DF-132M4	7.5	10	1466	90.8	0.80	15.7	9.0	7.7	4.9	2.4	2.7	0.0296	83
3DF-160M4	11	15	1475	91.7	0.85	21.4	12.3	7.8	7.1	2.5	3.1	0.10676	128
3DF-160LX4	15	20	1475	92.3	0.81	30.5	17.6	7.8	9.7	2.9	3.3	0.12866	149
3DF-180M4	18.5	25	1475	92.7	0.82	37.2	21.4	7.9	12.0	2.5	3.6	0.19014	185
3DF-180L4	22	30	1475	93.1	0.80	45.2	26.0	7.8	14.2	2.5	3.8	0.22635	200
3DF-200L4	30	40	1480	93.6	0.81	59.8	34.4	8.8	19.4	2.7	3.5	0.36124	258
3DF-225S4	37	49.58	1485	94	0.68	87.8	50.6	6.6	23.8	3.2	3.9	0.62999	314
3DF-225M4	45	60.3	1485	94.3	0.84	86.3	49.7	7.8	29.0	3.2	3.7	0.73838	347
3DF-250M4	55	75	1485	94.6	0.86	103.2	59.4	7.7	35.4	2.5	3.6	1.02358	405
3DF-280S4	75	100	1490	95	0.85	141.8	81.6	7.3	48.0	2.6	3.2	2.0828	610
3DF-280M4	90	120	1490	95.2	0.86	167.2	96.3	7.6	57.6	2.6	3.4	2.54565	670
3DF-315S4	110	145	1490	95.4	0.85	205.4	118.3	7.8	70.6	3.0	3.9	3.4904	970
3DF-315M4	132	175	1490	95.6	0.88	238.7	137.4	8.0	84.7	2.9	4.0	4.0139	1060
3DF-315L4	160	215	1490	95.8	0.86	293.7	169.1	7.9	102.6	3.0	4.1	5.2356	1160
3DF-315LX4	200	270	1490	96	0.89	357.7	205.9	6.1	128.4	2.7	3.3	5.701	1270
3DF-355M4	250	335	1490	96	0.89	445.6	256.5	7.3	160.3	2.3	3.5	9.2972	1815
3DF-355L4	280	375.2	1490	96	0.89	496.3	285.7	6.5	179.8	2.0	3.1	9.2972	1915
3DF-355LX4	315	420	1490	96	0.88	565.2	325.4	7.0	202.3	2.3	3.4	10.2863	2000
3DF-355LY4	355	475	1490	96	0.89	629.2	362.3	7.2	227.8	2.2	3.3	11.2754	2060



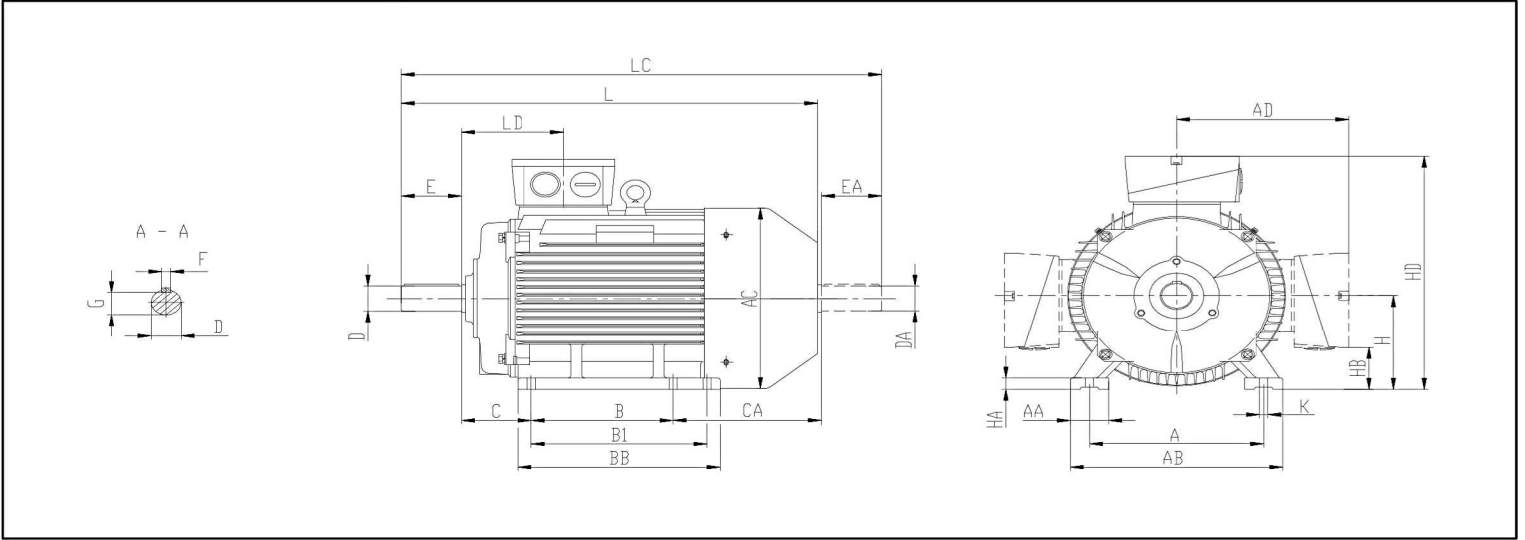
3DF SERIES TECHNICAL SPECIFICATIONS(50Hz)

TECHNICAL DATA-6 POLES(1000 RPM)

Motor Type	Rated Power		Rated Speed	Efficiency	Power Factor	Current			Torque			Moment of inertia(J)	Approx WT
						FULL Load 380V	FULL Load 660V	Locked Rotor	Full Load	Locked Rotor	Pull Out		
	KW	(HP)	RPM	%		A	A	%FLC	Kg-m	%FLT	%FLT	Kg-m ²	Kg
3DF-90S6	0.75	1.0	905	80.6	0.69	2.0	1.2	6.3	0.8	2.0	2.3	0.00321	25
3DF-90L6	1.1	1.5	910	82.4	0.70	2.9	1.7	6.0	1.2	1.9	2.3	0.00412	27
3DF-100L6	1.5	2.0	925	83.8	0.70	3.9	2.2	6.4	1.5	2.0	2.5	0.00845	36
3DF-112M6	2.2	3.0	920	85.4	0.70	5.6	3.2	6.5	2.3	2.0	2.8	0.01326	42
3DF-132S6	3	4.0	930	86.6	0.71	7.4	4.3	6.3	3.1	2.0	2.7	0.03716	63
3DF-132M6	4	5.5	945	87.7	0.72	9.6	5.5	6.2	4.0	2.1	3.0	0.04889	80
3DF-132MX6	5.5	7.5	965	88.7	0.72	13.1	7.5	6.0	5.4	1.9	2.8	0.05845	85
3DF-160M6	7.5	10	975	89.7	0.74	17.1	9.9	6.0	7.4	1.9	3.0	0.11698	135
3DF-160LX6	11	15	975	90.8	0.75	24.5	14.1	6.7	10.8	2.1	2.7	0.17749	140
3DF-180L6	15	20	985	91.6	0.77	32.5	18.7	6.3	14.6	2.1	3.1	0.31578	190
3DF-200L6	18.5	25	985	92.1	0.77	39.6	22.8	7.3	18.0	2.4	3.1	0.46836	257
3DF-200LX6	22	30	985	92.5	0.78	46.4	26.7	7.5	21.4	2.4	3.1	0.54832	308
3DF-225M6	30	40.2	985	93.1	0.82	59.9	34.5	6.8	29.1	2.6	3.1	0.88418	315
3DF-250M6	37	49.58	985	93.5	0.84	72.0	41.5	7.3	35.8	2.3	3.4	1.19682	410
3DF-280S6	45	60.3	990	93.9	0.84	86.3	49.7	7.4	43.4	2.7	3.5	2.33817	475
3DF-280M6	55	75	990	94.2	0.84	105.7	60.9	8.0	53.1	3.2	4.0	2.79745	550
3DF-315S6	75	100	990	94.7	0.83	145.5	83.8	7.4	72.3	2.5	3.4	4.7411	915
3DF-315M6	90	120	990	94.9	0.83	173.2	99.7	7.6	86.7	2.7	3.6	5.8225	996
3DF-315L6	110	145	990	95.2	0.84	209.2	120.5	7.7	106.0	2.8	3.7	6.6542	1175
3DF-315LX6	132	175	990	95.4	0.84	251.2	144.6	7.8	127.1	2.8	3.7	7.9851	1225
3DF-355M6	160	215	990	95.6	0.85	300.2	172.9	7.0	154.2	1.9	3.3	10.3863	1790
3DF-355MX6	185	250	990	95.8	0.85	347.2	199.9	7.3	178.3	2.0	3.4	10.893	1840
3DF-355MY6	200	270	990	95.8	0.85	373.6	215.1	7.1	192.7	1.9	3.3	12.413	1890
3DF-355L6	220	300	990	95.8	0.85	410.5	236.3	7.4	211.8	2.0	3.5	13.1729	1905
3DF-355LX6	250	335	990	95.8	0.87	456.8	263.0	6.7	241.2	1.8	2.9	13.9329	1920
3DF-355LY6	280	375.2	990	95.8	0.86	517.6	298.0	7.1	270.1	1.9	3.1	14.6929	2106

3DF SERIES

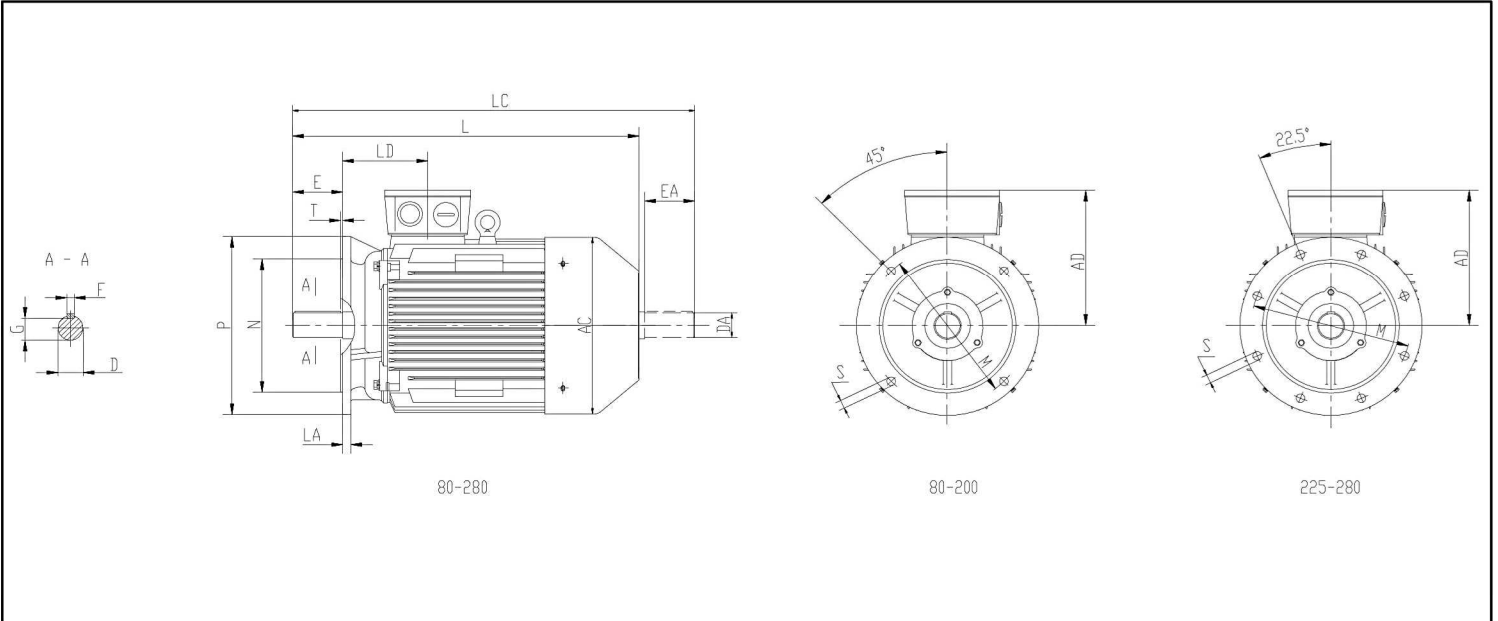
B3: Dimension Drawings



Frame	Pole	Mounting dimension											Overall dimension											
		D	E	F	G	A	B	B1	C	CA	H	K	AA	AB	AC	AD	BB	HA	HB	HD		LD	L	LC
																				TOP	L/R			
80	2-8	19	40	6	15.5	125	100	-	50	98	80 ⁰ _{-0.5}	10	35	160	160	145	130	12	36	225	160	75	280	336
90S	2-8	24	50	8	20	140	100	-	56	117	90 ⁰ _{-0.5}	10	36	180	180	155	140	12	50	245	180	75	315	373
90L	2-8	24	50	8	20	140	125	-	56	117	90 ⁰ _{-0.5}	10	36	180	180	155	165	12	50	245	180	75	340	373
100L	2-8	28	60	8	24	160	140	-	63	120	100 ⁰ _{-0.5}	12	40	200	200	180	175	14	55	280	200	83	375	443
112M	2-8	28	60	8	24	190	140	-	70	138	112 ⁰ _{-0.5}	12	45	230	220	190	180	15	60	305	222	87	411	479
132M	2-8	38	80	10	33	216	140	178	89	146	132 ⁰ _{-0.5}	12	55	265	260	220	230	18	65	355	262	102	516	604
160L	2-4	42	110	12	37	254	210	254	108	188	160 ⁰ _{-0.5}	15	65	315	315	265	305	20	81	425	385	146	627	745
160L	6-8	42	110	12	37	254	210	254	108	188	160 ⁰ _{-0.5}	15	65	315	315	265	305	20	81	425	385	146	652	770
180M	2.4	48	110	14	42.5	279	241	-	121	226	180 ⁰ _{-0.5}	15	70	350	360	280	315	22	105	460	420	161	650	768
180L	4-8	48	110	14	42.5	318	279	-	121	228	180 ⁰ _{-0.5}	15	70	350	360	280	350	22	105	460	420	161	710	828
200L	2-4	55	110	16	49	318	305	-	133	220	200 ⁰ _{-0.5}	19	70	390	400	310	370	25	85	510	475	186	738	856
200L	6-8	55	110	16	49	318	305	-	133	220	200 ⁰ _{-0.5}	19	70	390	400	310	370	25	85	510	475	186	758	876
225S	4-8	60	140	18	53	356	286	-	149	243	225 ⁰ _{-0.5}	19	75	435	450	335	370	28	110	555	535	189	792	910
225M	2	55	110	16	49	356	311	-	149	243	225 ⁰ _{-0.5}	19	75	435	450	335	395	28	110	555	535	189	768	886
225M	4-8	60	140	18	53	356	311	-	149	198	225 ⁰ _{-0.5}	19	75	435	450	335	395	28	110	555	535	189	842	960
250M	2	60	140	18	53	406	349	-	168	261	250 ⁰ _{-0.5}	24	80	485	485	375	445	30	110	625	570	207	876	994
250M	4-8	65	140	18	58	406	349	-	168	261	250 ⁰ _{-0.5}	24	80	485	485	375	445	30	120	625	570	207	910	1028
280S	2	65	140	18	58	457	368	-	190	295	280 ⁰ _{-1.0}	24	85	545	550	405	490	35	142	685	660	215	946	1064
280S	4-8	75	140	20	67.5	457	368	-	190	315	280 ⁰ _{-1.0}	24	85	545	550	405	490	35	142	685	660	215	1013	1161
280M	2	65	140	18	58	457	419	-	190	289	280 ⁰ _{-1.0}	24	85	545	550	405	540	35	142	685	660	215	991	1109
280M	4-8	75	140	20	67.5	457	419	-	190	319	280 ⁰ _{-1.0}	24	85	545	550	405	540	35	142	685	660	215	1068	1216
315S	2	65	140	18	58	508	406	-	216	426	315 ⁰ _{-1.0}	28	120	630	625	530	570	45	110	845	750	257	1169	1317
315S	4-8	80	170	22	71	508	406	-	216	426	315 ⁰ _{-1.0}	28	120	630	625	530	570	45	110	845	750	257	1185	1333
315M	2	65	140	18	58	508	457	508	216	485	315 ⁰ _{-1.0}	28	120	630	625	530	680	45	110	845	750	257	1293	1441
315L	4-8	80	170	22	71	508	457	508	216	485	315 ⁰ _{-1.0}	28	120	630	625	530	680	45	110	845	750	257	1323	1501
355M	2	75	140	20	67.5	610	500	560	254	640	355 ⁰ _{-1.0}	28	120	730	700	615	750	52	110	970	830	284	1526	1674
355M	4-8	95	170	25	86	610	500	560	254	640	355 ⁰ _{-1.0}	28	120	730	700	615	750	52	110	970	830	284	1556	1734
355L	2	75	140	20	67.5	610	560	630	254	580	355 ⁰ _{-1.0}	28	120	730	700	615	750	52	110	970	830	284	1526	1674
355L	4-8	95	170	25	86	610	560	630	254	580	355 ⁰ _{-1.0}	28	120	730	700	615	750	52	110	970	830	284	1556	1734

3DF SERIES

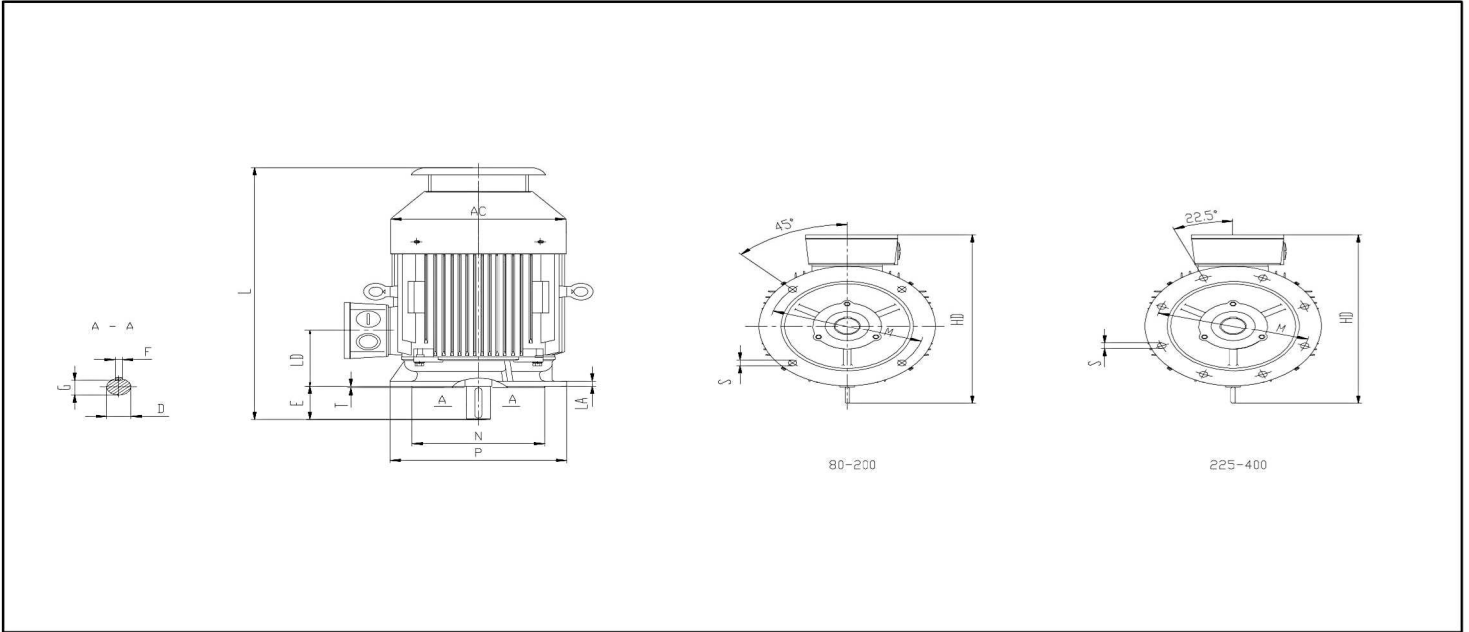
B5: Dimension Drawings



Frame	Pole	Mounting dimension										Overall dimension					
		D	E	F	G	M	N	P	R	S	T	AC	AD	LA	LD	L	LC
80	2-8	19	40	6	15.5	165	130	200	0	12	4	160	145	12	75	280	336
90S	2-8	24	50	8	20	165	130	200	0	12	4	180	155	12	75	315	373
90L	2-8	24	50	8	20	165	130	200	0	12	4	180	155	12	75	340	373
100L	2-8	28	60	8	24	215	180	250	0	15	4	200	180	13	83	375	443
112M	2-8	28	60	8	24	215	180	250	0	15	4	220	193	14	87	411	468
132M	2-8	38	80	10	33	265	230	300	0	15	4	260	223	14	102	516	593
160L	2-4	42	110	12	37	300	250	350	0	19	5	315	265	15	146	627	764
160L	6-8	42	110	12	37	300	250	350	0	19	5	315	265	15	146	652	764
180M	2.4	48	110	14	42.5	300	250	350	0	19	5	360	280	15	161	650	788
180L	4-8	48	110	14	42.5	300	250	350	0	19	5	360	280	15	161	710	843
200L	2-4	55	110	16	49	350	300	400	0	19	5	400	310	17	186	738	876
200L	6-8	55	110	16	49	350	300	400	0	19	5	400	310	17	186	758	876
225S	4-8	60	140	18	53	400	350	450	0	19	5	450	330	20	189	792	910
225M	2	55	110	16	49	400	350	450	0	19	5	450	330	20	189	768	886
225M	4-8	60	140	18	53	400	350	450	0	19	5	450	330	20	189	842	960
250M	2	60	140	18	53	500	450	550	0	19	5	485	375	22	207	876	994
250M	4-8	65	140	18	58	500	450	550	0	19	5	485	375	22	207	910	1028
280S	2	65	140	18	58	500	450	550	0	19	5	550	405	22	215	946	1064
280S	4-8	75	140	20	67.5	500	450	550	0	19	5	550	405	22	215	1013	1161
280M	2	65	140	18	58	500	450	550	0	19	5	550	405	22	215	991	1109
280M	4-8	75	140	20	67.5	500	450	550	0	19	5	550	405	22	215	1068	1216

3DF SERIES

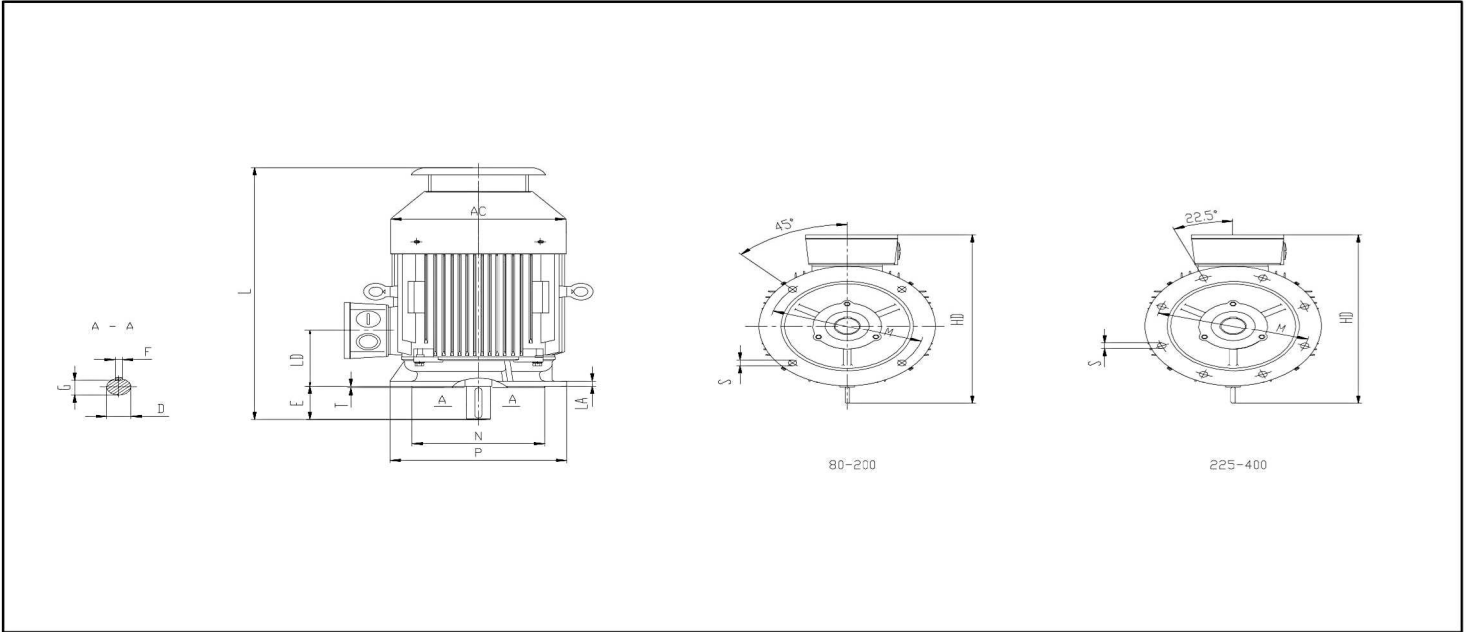
V1: Dimension Drawings



Frame	Pole	Mounting dimension									Overall dimension					
		D	E	F	G	M	N	P	R	S	T	AC	HD	LA	LD	L
80	2-8	19	40	6	15.5	165	130	200	0	12	4	160	225	12	75	305
90S	2-8	24	50	8	20	165	130	200	0	12	4	180	245	12	75	345
90L	2-8	24	50	8	20	165	130	200	0	12	4	180	245	12	75	370
100L	2-8	28	60	8	24	215	180	250	0	15	4	200	280	13	83	410
112M	2-8	28	60	8	24	215	180	250	0	15	4	220	305	14	87	461
132M	2-8	38	80	10	33	265	230	300	0	15	4	260	365	14	102	561
160L	2-4	42	110	12	37	300	250	350	0	19	5	315	445	15	146	680
160L	6-8	42	110	12	37	300	250	350	0	19	5	315	445	15	146	705
180M	2.4	48	110	14	42.5	300	250	350	0	19	5	360	480	15	161	710
180L	4-8	48	110	14	42.5	300	250	350	0	19	5	360	480	15	161	770
200L	2-8	55	110	16	49	350	300	400	0	19	5	400	530	17	186	818
200L	6-8	55	110	16	49	350	300	400	0	19	5	400	530	17	186	838
225S	4-8	60	140	18	53	400	350	450	0	19	5	450	575	20	189	887
225M	2	55	110	16	49	400	350	450	0	19	5	450	575	20	189	873
225M	4-8	60	140	18	53	400	350	450	0	19	5	450	575	20	189	942
250M	2	60	140	18	53	500	450	550	0	19	5	485	635	22	207	971
250M	4-8	65	140	18	58	500	450	550	0	19	5	485	635	22	207	1005
280S	2	65	140	18	58	500	450	550	0	19	5	550	725	22	215	1071
280S	4-8	75	140	20	67.5	500	450	550	0	19	5	550	725	22	215	1138
280M	2	65	140	18	58	500	450	550	0	19	5	550	725	22	215	1116
280M	4-8	75	140	20	67.5	500	450	550	0	19	5	550	725	22	215	1193
315S	2	65	140	18	58	600	550	660	0	24	6	625	865	22	257	1329
315S	4-8	80	170	22	71	600	550	660	0	24	6	625	865	22	257	1345
315M	2	65	140	18	58	600	550	660	0	24	6	625	865	22	257	1453
315L	4-8	80	170	22	71	600	550	660	0	24	6	625	865	22	257	1483
355M	2	75	140	20	67.5	740	680	800	0	24	6	700	970	25	284	1665
355L	4-8	95	170	25	86	740	680	800	0	24	6	700	970	25	284	1700

3DF SERIES

V1: Dimension Drawings



Frame	Pole	Mounting dimension									Overall dimension					
		D	E	F	G	M	N	P	R	S	T	AC	HD	LA	LD	L
80	2-8	19	40	6	15.5	165	130	200	0	12	4	160	225	12	75	305
90S	2-8	24	50	8	20	165	130	200	0	12	4	180	245	12	75	345
90L	2-8	24	50	8	20	165	130	200	0	12	4	180	245	12	75	370
100L	2-8	28	60	8	24	215	180	250	0	15	4	200	280	13	83	410
112M	2-8	28	60	8	24	215	180	250	0	15	4	220	305	14	87	461
132M	2-8	38	80	10	33	265	230	300	0	15	4	260	365	14	102	561
160L	2-4	42	110	12	37	300	250	350	0	19	5	315	445	15	146	680
160L	6-8	42	110	12	37	300	250	350	0	19	5	315	445	15	146	705
180M	2.4	48	110	14	42.5	300	250	350	0	19	5	360	480	15	161	710
180L	4-8	48	110	14	42.5	300	250	350	0	19	5	360	480	15	161	770
200L	2-8	55	110	16	49	350	300	400	0	19	5	400	530	17	186	818
200L	6-8	55	110	16	49	350	300	400	0	19	5	400	530	17	186	838
225S	4-8	60	140	18	53	400	350	450	0	19	5	450	575	20	189	887
225M	2	55	110	16	49	400	350	450	0	19	5	450	575	20	189	873
225M	4-8	60	140	18	53	400	350	450	0	19	5	450	575	20	189	942
250M	2	60	140	18	53	500	450	550	0	19	5	485	635	22	207	971
250M	4-8	65	140	18	58	500	450	550	0	19	5	485	635	22	207	1005
280S	2	65	140	18	58	500	450	550	0	19	5	550	725	22	215	1071
280S	4-8	75	140	20	67.5	500	450	550	0	19	5	550	725	22	215	1138
280M	2	65	140	18	58	500	450	550	0	19	5	550	725	22	215	1116
280M	4-8	75	140	20	67.5	500	450	550	0	19	5	550	725	22	215	1193
315S	2	65	140	18	58	600	550	660	0	24	6	625	865	22	257	1329
315S	4-8	80	170	22	71	600	550	660	0	24	6	625	865	22	257	1345
315M	2	65	140	18	58	600	550	660	0	24	6	625	865	22	257	1453
315L	4-8	80	170	22	71	600	550	660	0	24	6	625	865	22	257	1483
355M	2	75	140	20	67.5	740	680	800	0	24	6	700	970	25	284	1665
355L	4-8	95	170	25	86	740	680	800	0	24	6	700	970	25	284	1700

Rotating Electrical Machines

Worldwide sales and service network

Every care has been taken to ensure the accuracy of the information contained in this publication, but, due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication



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