

Three phase IEC low voltage motors



Frames 80 to 355



新法機械有限公司

NEW WAY ENGINEERING CO., LTD.

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**WESTERN
ELECTRIC**

4DF SERIES TECHNICAL SPECIFICATIONS(50Hz)

4DF FEATURES

- . Cast iron three-phase squirrel cage induction motors
- . Efficiency class IE4 according IEC60034-30
- . Voltage:380-420/660-720V,50HZ or 60HZ
- . Insulation class F,IP55,PTC150°C,TEFC IC411
- . Withstand 1.5 times of rated current for 2 minutes(IEC60034-1)

TECHNICAL DATA-2 POLES(3000 RPM)

Motor Type	Rated Power	Rated Speed	Rated Torque Moment	Efficiency	Power Factor	Current			Torque			Moment of inertia(J)	Approx WT
						FULL Load 380V	FULL Load 660V	Locked Rotor	Locked Rotor	Pull Out			
	KW	RPM	MN Nm	%	A	A	%FLC	%FLT	%FLT	Kg-m ²	Kg		
4DF-160M2	11	2960	35.5	92.6	0.89	20.3	11.7	8.4	3.1	3.7	0.0510	122	
4DF-160MX2	15	2940	48.7	93.3	0.88	27.9	16.1	7.8	2.6	2.9	0.0637	132	
4DF-160LY2	18.5	2940	60.1	93.7	0.88	34.1	19.6	7.6	2.3	3.0	0.0765	152	
4DF-180M2	22	2950	71.2	94.0	0.88	40.3	23.2	7.9	2.7	3.6	0.1170	194	
4DF-200L2	30	2960	96.7	94.5	0.87	55.4	31.9	7.4	2.4	3.4	0.1737	249	
4DF-200LX2	37	2960	119.3	94.8	0.87	68.5	39.4	7.6	2.4	3.3	0.2048	264	
4DF-225M2	45	2950	145.6	95.0	0.88	81.9	47.1	7.8	2.3	3.4	0.3020	336	
4DF-250M2	55	2970	176.8	95.3	0.89	98.4	56.7	7.1	2.0	3.3	0.4077	416	
4DF-280S2	75	2975	241	95.6	0.88	135.0	77.7	6.3	2.0	2.9	0.7988	578	
4DF-280M2	90	2980	288	95.8	0.88	162.2	93.4	7.7	2.5	3.7	1.0708	609	
4DF-315S2	110	2970	354	96.0	0.90	192.8	111.0	7.4	2.0	3.2	2.0314	1019	
4DF-315M2	132	2975	424	96.2	0.91	230.1	132.5	7.0	1.8	2.9	2.2065	1082	
4DF-315L2	160	2970	514	96.3	0.90	281.4	162.0	6.6	1.8	3.0	2.4867	1197	
4DF-315LX2	200	2965	644	96.5	0.91	347.6	200.1	6.4	1.9	3.0	2.9069	1281	
4DF-355M2	250	2980	801	96.5	0.90	435.9	251.0	7.7	2.0	3.5	3.8123	1869	
4DF-355L2	280	2975	898	96.5	0.91	485.0	279.2	6.9	1.7	3.1	3.8123	1880	
4DF-355LX2	315	2980	1009	96.5	0.92	539.1	310.4	8.2	2.1	3.8	4.4632	1898	
4DF-355LY2	355	2975	1139	96.5	0.91	614.2	353.6	7.2	1.9	3.4	4.4632	1919	

4DF SERIES TECHNICAL SPECIFICATIONS(50Hz)

TECHNICAL DATA-4 POLES(1500 RPM)

Motor Type	Rated Power	Rated Speed	Rated Torque Moment	Efficiency	Power Factor	Current			Torque		Moment of inertia(J)	Approx WT
						FULL Load 380V	FULL Load 660V	Locked Rotor	Locked Rotor	Pull Out		
	KW	RPM	MN Nm	%	A	A	%FLC	%FLT	%FLT	Kg-m ²	Kg	
4DF-160M4	11	1475	71.2	93.3	0.85	21.1	12.1	7.8	2.5	3.1	0.1068	134
4DF-160LX4	15	1475	97.1	93.9	0.81	30.0	17.3	7.8	2.9	3.3	0.1287	156
4DF-180M4	18.5	1475	119.7	94.2	0.82	36.6	21.1	7.9	2.5	3.6	0.1901	194
4DF-180L4	22	1475	142.4	94.5	0.80	44.5	25.6	7.8	2.5	3.8	0.2264	210
4DF-200L4	30	1480	193.5	94.9	0.81	59.0	34.0	8.8	2.7	3.5	0.3612	271
4DF-225S4	37	1485	238	95.2	0.84	70.3	40.5	6.6	3.2	3.9	0.6300	330
4DF-225M4	45	1485	289	95.4	0.84	85.3	49.1	7.8	3.2	3.7	0.7384	364
4DF-250M4	55	1485	354	95.7	0.86	102.0	58.7	7.7	2.5	3.6	1.0236	425
4DF-280S4	75	1490	480	96.0	0.85	140.3	80.8	7.3	2.6	3.2	2.0828	641
4DF-280M4	90	1490	577	96.1	0.86	165.7	95.4	7.6	2.6	3.4	2.5457	704
4DF-315S4	110	1490	705	96.3	0.85	203.5	117.1	7.8	3.0	3.9	3.4904	1019
4DF-315M4	132	1490	846	96.4	0.88	236.7	136.3	8.0	2.9	4.0	4.0139	1113
4DF-315L4	160	1490	1025	96.6	0.86	291.3	167.7	7.9	3.0	4.1	5.2356	1218
4DF-315LX4	200	1490	1281	96.7	0.89	355.1	204.4	6.1	2.7	3.3	5.7010	1334
4DF-355M4	250	1490	1602	96.7	0.89	442.4	254.7	7.3	2.3	3.5	9.2972	1906
4DF-355L4	280	1490	1794	96.7	0.89	492.7	283.7	6.5	2.0	3.1	9.2972	2011
4DF-355LX4	315	1490	2018	96.7	0.88	561.2	323.1	7.0	2.3	3.4	10.2863	2100
4DF-355LY4	355	1490	2274	96.7	0.89	624.6	359.6	7.2	2.2	3.3	11.2754	2163



4DF SERIES TECHNICAL SPECIFICATIONS(50Hz)

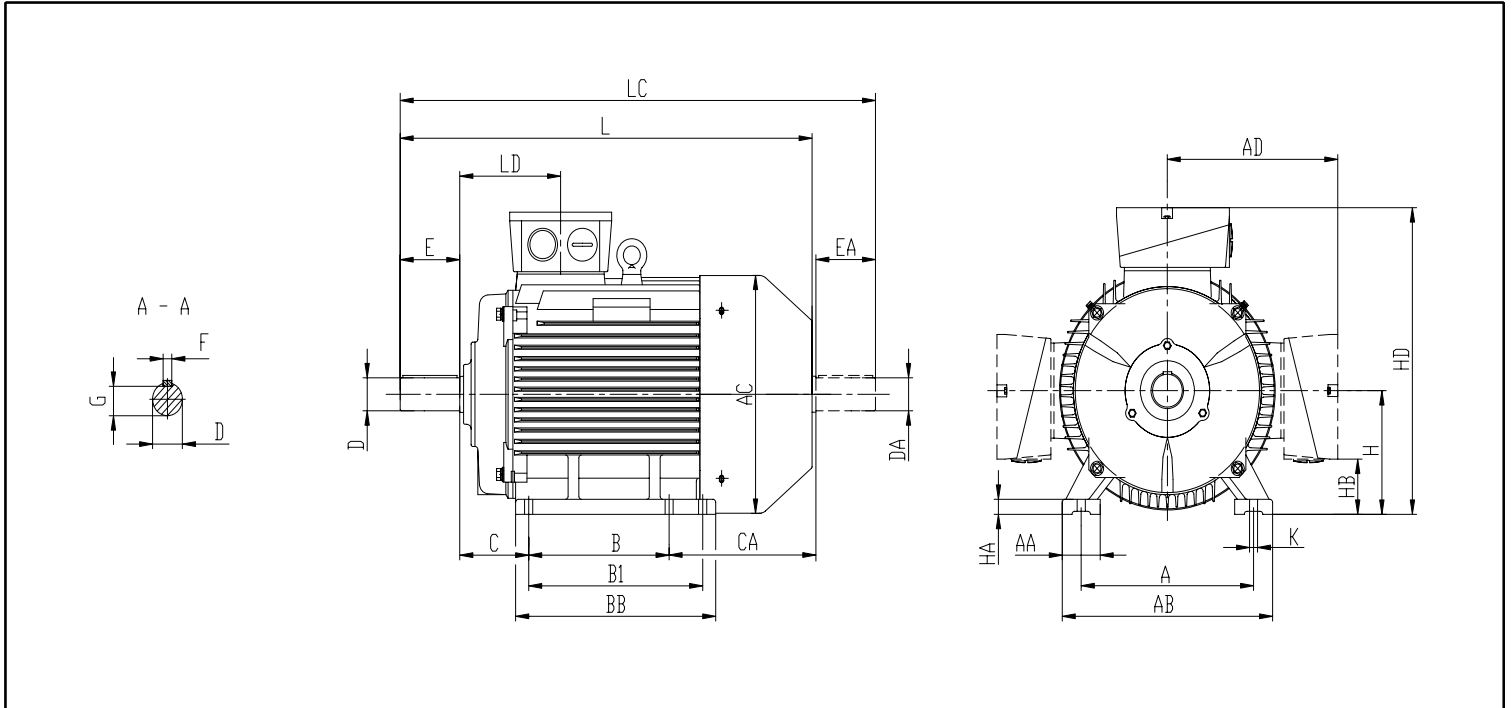
TECHNICAL DATA-6 POLES(1000 RPM)

Motor Type	Rated Power	Rated Speed	Rated Torque Moment	Efficiency	Power Factor	Current			Torque		Moment of inertia(J)	Approx WT
						FULL Load 380V	FULL Load 660V	Locked Rotor	Locked Rotor	Pull Out		
	KW	RPM	MN Nm	%	A	A	%FLC	%FLT	%FLT	Kg-m ²	Kg	
4DF-160L6	7.5	975	73.4	91.3	0.74	16.8	9.7	6.0	1.9	3.0	0.1170	142
4DF-160LX6	11	975	107.7	92.3	0.75	24.1	13.9	6.7	2.1	2.7	0.1775	147
4DF-180L6	15	985	145.4	92.9	0.77	32.1	18.5	6.3	2.1	3.1	0.3158	200
4DF-200L6	18.5	985	179.3	93.4	0.77	39.0	22.5	7.3	2.4	3.1	0.4684	270
4DF-200LX6	22	985	213	93.7	0.78	45.9	26.4	7.5	2.4	3.1	0.5483	323
4DF-225M6	30	985	291	94.2	0.82	59.2	34.1	6.8	2.6	3.1	0.8842	331
4DF-250M6	37	985	359	94.5	0.84	71.2	41.0	7.3	2.3	3.4	1.1968	431
4DF-280S6	45	990	434	94.8	0.84	85.5	49.2	7.4	2.7	3.5	2.3382	499
4DF-280M6	55	990	530	95.1	0.84	104.7	60.3	8.0	3.2	4.0	2.7975	578
4DF-315S6	75	990	723	95.4	0.83	144.4	83.2	7.4	2.5	3.4	4.7411	961
4DF-315M6	90	990	868	95.6	0.83	171.9	99.0	7.6	2.7	3.6	5.8225	1046
4DF-315L6	110	990	1061	95.8	0.84	207.9	119.7	7.7	2.8	3.7	6.6542	1234
4DF-315LX6	132	990	1273	96.0	0.84	249.6	143.7	7.8	2.8	3.7	7.9851	1286
4DF-355M6	160	990	1543	96.2	0.85	298.4	171.8	7.0	1.9	3.3	10.3863	1880
4DF-355MX6	185	990	1784	96.2	0.85	345.8	199.1	7.3	2.0	3.4	10.8930	1932
4DF-355MY6	200	990	1928	96.3	0.85	371.7	214.0	7.1	1.9	3.3	12.4130	1985
4DF-355L6	220	990	2121	96.3	0.85	408.4	235.1	7.4	2.0	3.5	13.1729	2000
4DF-355LX6	250	990	2410	96.5	0.87	453.5	261.1	6.7	1.8	2.9	13.9329	2016
4DF-355LY6	280	990	2632	96.6	0.86	513.3	295.5	7.1	1.9	3.1	14.6929	2211



4DF SERIES

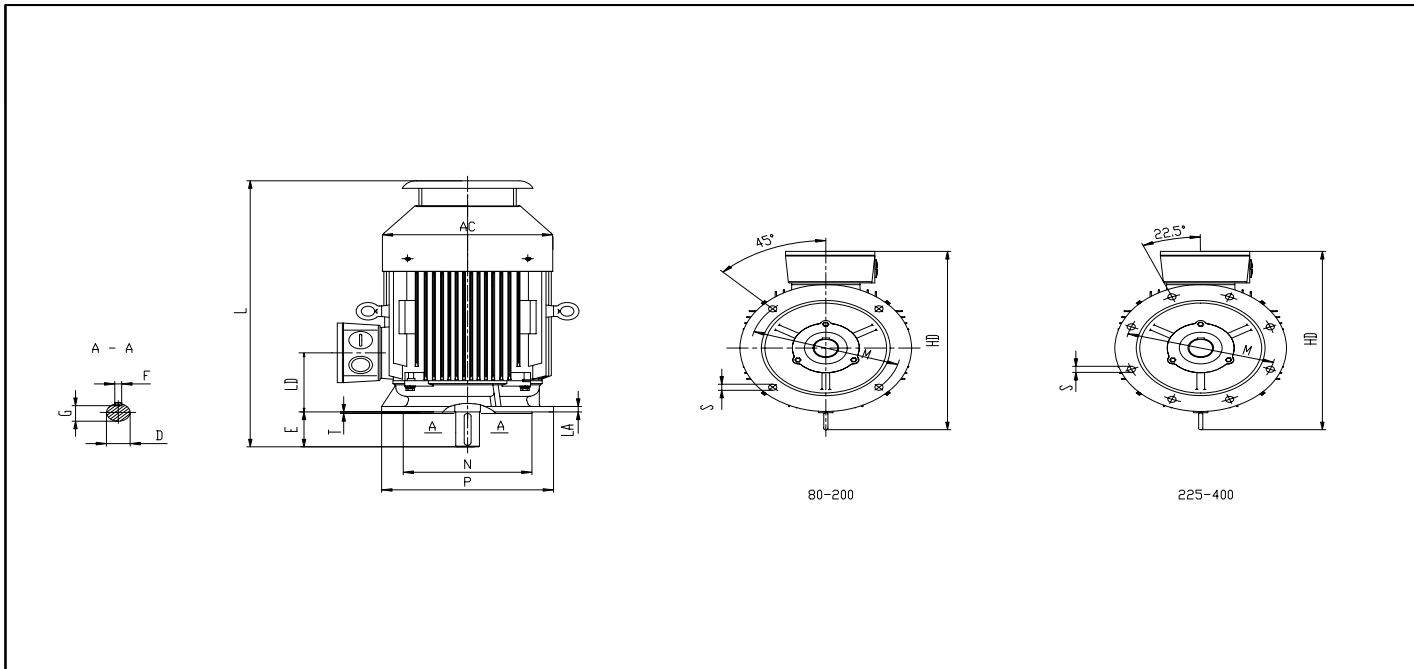
B3: Dimension Drawings



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	LD	L	LC																		
160M	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
160M	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	43	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	43	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	68	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	68	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	68	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	68	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

4DF SERIES

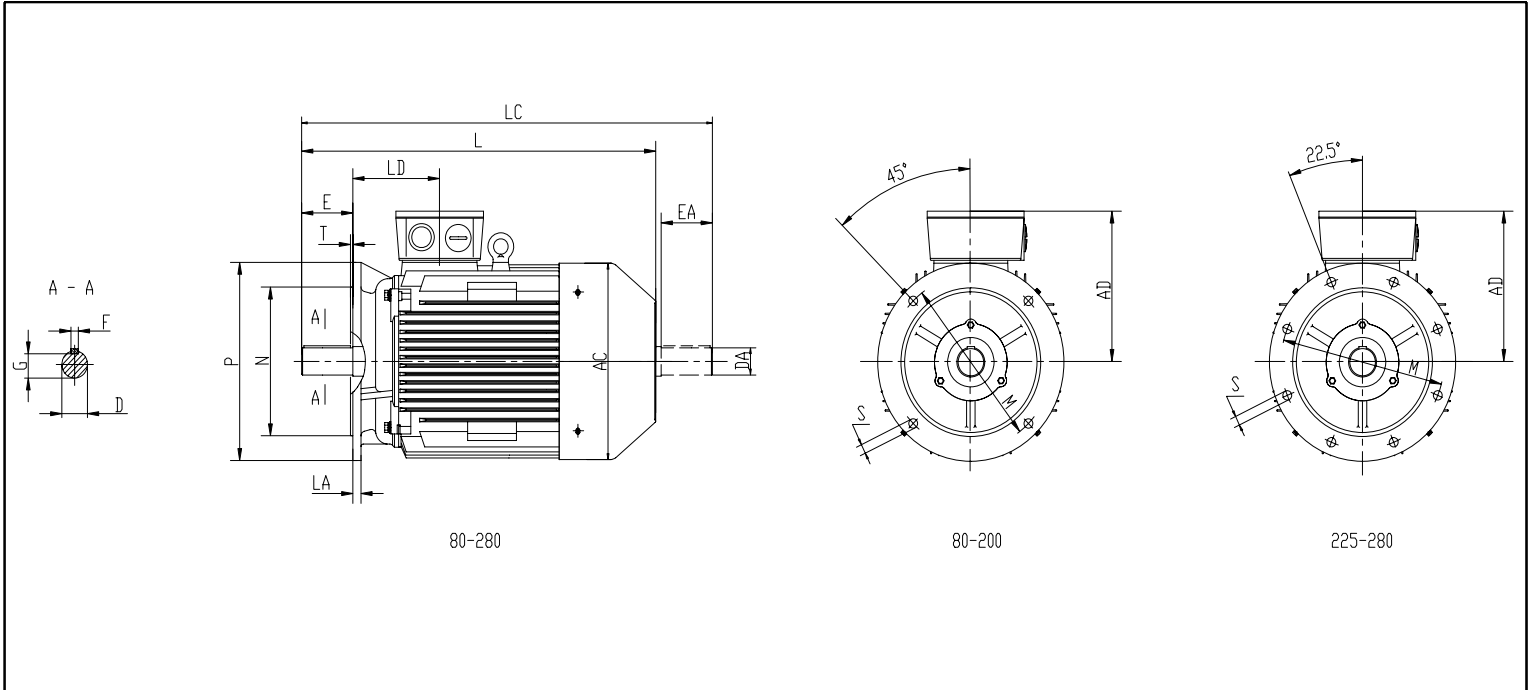
V1: Dimension Drawings



Frame	pole	Mounting dimension									Overall dimension					
		D	E	F	G	M	N	P	R	S	T	AC	HD	LA	LD	L
160M	2-4	42	110	12	37	300	250	350	0	4-Φ19	5	315	445	15	146	680
160M	6-8	42	110	12	37	300	250	350	0	4-Φ19	5	315	445	15	146	705
180M	2.4	48	110	14	42.5	300	250	350	0	4-Φ19	5	360	480	15	161	710
180L	4-8	48	110	14	42.5	300	250	350	0	4-Φ19	5	360	480	15	161	770
200L	2-8	55	110	16	49	350	300	400	0	4-Φ19	5	400	530	17	186	818
200L	6-8	55	110	16	49	350	300	400	0	4-Φ19	5	400	530	17	186	838
225S	4-8	60	140	18	53	400	350	450	0	4-Φ19	5	450	575	20	189	887
225M	2	55	110	16	49	400	350	450	0	4-Φ19	5	450	575	20	189	873
225M	4-8	60	140	18	53	400	350	450	0	4-Φ19	5	450	575	20	189	942
250M	2	60	140	18	53	500	450	550	0	4-Φ19	5	485	635	22	207	971
250M	4-8	65	140	18	58	500	450	550	0	4-Φ19	5	485	635	22	207	1005
280S	2	65	140	18	58	500	450	550	0	4-Φ19	5	550	725	22	215	1071
280S	4-8	75	140	20	67.5	500	450	550	0	4-Φ19	5	550	725	22	215	1138
280M	2	65	140	18	58	500	450	550	0	4-Φ19	5	550	725	22	215	1116
280M	4-8	75	140	20	67.5	500	450	550	0	4-Φ19	5	550	725	22	215	1193
315S	2	65	140	18	58	600	550	660	0	4-Φ24	6	625	865	22	257	1329
315S	4-8	80	170	22	71	600	550	660	0	4-Φ24	6	625	865	22	257	1345
315M	2	65	140	18	58	600	550	660	0	4-Φ24	6	625	865	22	257	1453
315L	4-8	80	170	22	71	600	550	660	0	4-Φ24	6	625	865	22	257	1483
355M	2	75	140	20	67.5	740	680	800	0	4-Φ24	6	700	970	25	284	1665
355L	4-8	95	170	25	86	740	680	800	0	4-Φ24	6	700	970	25	284	1700

4DF SERIES

B5: Dimension Drawings



frame	poles	installation dimension										outline dimension					
		D	E	F	G	M	N	P	R	S	T	AC	AD	LA	LD	L	LC
160M	2-4	42	110	12	37	300	250	350	0	4-Φ19	5	315	265	15	146	627	764
160M	6-8	42	110	12	37	300	250	350	0	4-Φ19	5	315	265	15	146	652	764
180M	2.4	48	110	14	42.5	300	250	350	0	4-Φ19	5	360	280	15	161	650	788
180L	4-8	48	110	14	42.5	300	250	350	0	4-Φ19	5	360	280	15	161	710	843
200L	2-4	55	110	16	49	350	300	400	0	4-Φ19	5	400	310	17	186	738	876
200L	6-8	55	110	16	49	350	300	400	0	4-Φ19	5	400	310	17	186	758	876
225S	4-8	60	140	18	53	400	350	450	0	4-Φ19	5	450	330	20	189	792	910
225M	2	55	110	16	49	400	350	450	0	4-Φ19	5	450	330	20	189	768	886
	4-8	60	140	18	53	400	350	450	0	4-Φ19	5	450	330	20	189	842	960
250M	2	60	140	18	53	500	450	550	0	4-Φ19	5	485	375	22	207	876	994
	4-8	65	140	18	58	500	450	550	0	4-Φ19	5	485	375	22	207	910	1028
280S	2	65	140	18	58	500	450	550	0	4-Φ19	5	550	405	22	215	946	1064
	4-8	75	140	20	67.5	500	450	550	0	4-Φ19	5	550	405	22	215	1013	1161
280M	2	65	140	18	58	500	450	550	0	4-Φ19	5	550	405	22	215	991	1109
	4-8	75	140	20	67.5	500	450	550	0	4-Φ19	5	550	405	22	215	1068	1216

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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