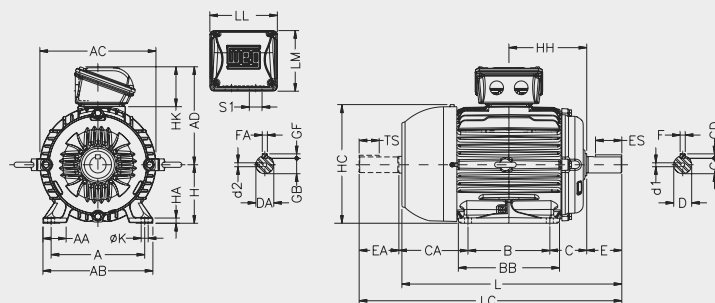


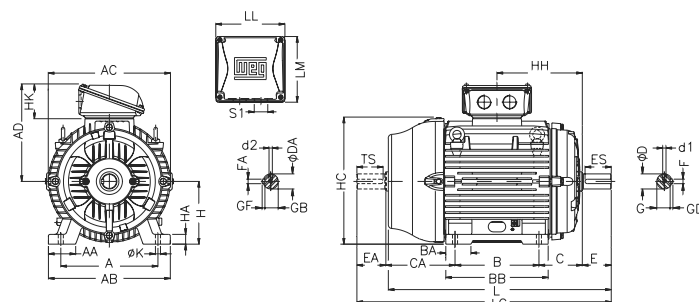
Mechanical data

Foot mounted motors

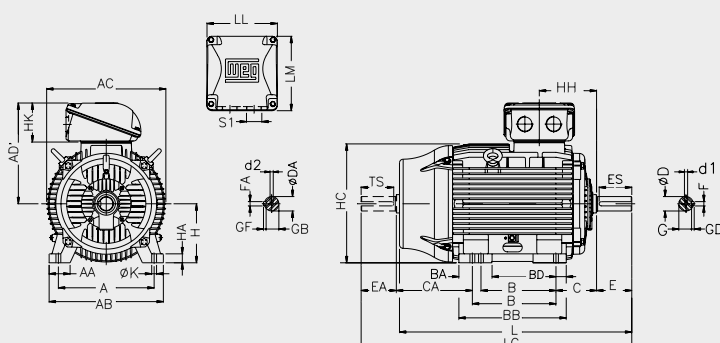
Frames 63 to 132M/L



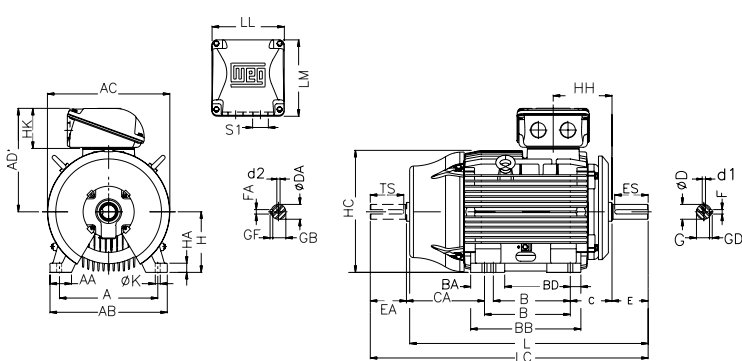
Frames 160M to 200L



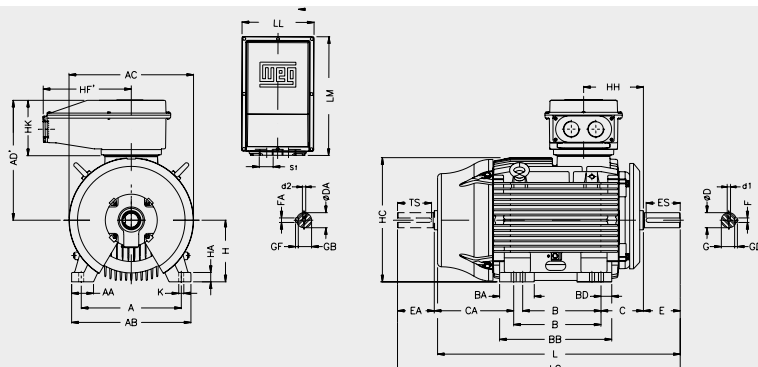
Frames 225 to 355M/L



Frame 355M/L (only for motors fitted with air deflector in the drive end side)



Frame 355A/B



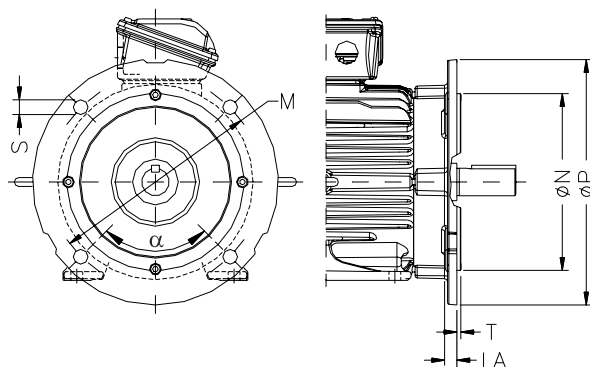
Frame	A	AA	AB	AC	AD (***)	AD'	B	BA	BB	BD	C	CA	Shaft																						
													D	DA	E	EA	ES	F	FA	G	GB	GD	GF	TS											
63	100	25.5	116	125	122	122	80		95		40	78	11j6	9j6	23	20	14	4	3	8.5	7.2	4	3	12											
71	112	28.5	132	141	130	130	90		113.5		45	88	14j6	11j6	30	23	18	5	4	11	8.5	5	4	14											
80	125	30.5	149	159	139	139	100		125.5		50	93	19j6	14j6	40	30	28	6	5	15.5	11	6		18											
L80(**)	140	36.5	164	179	157	157			125		131	56	104	24j6	16j6	50	40	36		8	6	20		13	7	5	28								
L90S(**)																							24j6					16j6	50	40	36	24	18.5	20	6
L90L(**)														190	40.5	220	222	192				192		177		70	128								
100L							160	40		188									199				167					167	140	173	63	118	28j6	22j6	60
L100L(**)	190	40.5	220	222	192	192	178	177	70	128	24j6	60	50	45	8	6	24	20	7	6	36														
112M	216	51	248	271	218	218																178	187	89	150	38k6	28j6	80					60	63	10
L112M(**)	254	64	308	329	264	264					178	225	108	174			42k6	42k6		110	110														
132S	279	78	350	360	279	279																				178	225	108	174	42k6	42k6	110	110	80	
132M	318	82	385	402	317	317	178	225	108	174					42k6	42k6	110	110	80	12	12														
160M	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
160L	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
180M	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
180L	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
200M	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
200L	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
225S/M	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
250S/M	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
280S/M	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
315S/M	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
315L	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
355M/L	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
355A/B	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78	350	360	279	279					178	225	108	174	42k6	42k6	110	110	80																
	318	82	385	402	317	317																				178	225	108	174	42k6	42k6	110	110	80	
	216	51	248	271	218	218	178	225	108	174					42k6	42k6	110	110	80	12	12														
	254	64	308	329	264	264																178	225	108	174					42k6	42k6	110	110	80	12
	279	78																																	

Frame	H	HA	HB (***)	HC	HD (***)	HF (***)	HG (***)	HH	HK	K	L	LC	LL	LM	S1	d1	d2	Bearings	
																		D.E.	N.D.E.
63	63	7	25.5	129		68.5		80	59	7	216	241	108	98	2xM20x1.5	M4	M3	6201 - ZZ	
71	71		33	145		76		90			248	276				M5	M4	6202 - ZZ	
80	80	8	43.5	163		87		100			276	313				M6		6204 - ZZ	6203 - ZZ
L80(**)											325	362							
90S					90			106	67	10	304	350	115	104	2xM25x1.5	M8	M6	6205 - ZZ	
L90S(**)	90	9	45	182							335	381						6205 - ZZ	
90L								118.5			329	375						6205 - ZZ	
L90L(**)											360	406						6205 - ZZ	
100L	100	10	61.5	205	244	106.4		133	79	12	376	431	140	133	2xM32x1.5	M10	M8	6206 - ZZ	
L100L(**)											420	475						6206 - ZZ	
112M	112		54.5	235	280	112		140			393	448						6207 - ZZ	
L112M(**)											423	478						6207 - ZZ	
132S	132	20	75	266	319	132		159	100	14.5	452	519	198	188	2xM40x1.5	M12	M10	6308 - ZZ	
132M/L								178			490	557						6308 - ZZ	
160M	160	22	79	327	374	168		191			515	582						6309 - C3	
160L								213			598	712						6309 - C3	
180M	180	28	92	363	413	180		235	118	18.5	642	756	228	217	2xM50x1.5	M16	M16	6311 - C3	
180L								241.5			664	782						6311 - C3	
200M	200	30	119	405	464	218		260.5			702	820						6312 Z-C3	
200L								266.5			729	842						6312 Z-C3	
225S/M	225	34	255	453	550	403	523	212	143	24	856*	974*	261	292	2xM63x1.5	M20	M20	6314 - C3	
250S/M	250	43	290	493	583	449	566	214			886	1034						6314 - C3	
280S/M	280	42	383	580	696	556	686	266			965	1113						6316 - C3	
315S/M	315	48	386	664	768	615	744	264			1071	1223						6316 - C3	
315L					774	575	760	284	215	28	1244*	1392*	372	382	2xM63x1.5	M24	M24	6314 - C3	
355M/L	355	50	461	723	898	700	885				1274	1426						6319 - C3	
355A/B			154		885	665	847				1353*	1505*						6319 - C3	
											1383	1535						6316 - C3	
											1412*	1577*	404	438				6316 - C3	
											1482	1677						6319 - C3	
											1607*	1772*						6316 - C3	
											1677	1872						6322 - C3	

Notes:
 (*) Dimension applicable to 2 pole motors
 (**) Except for IE3, 3kW, 4p, L100L, these frames apply to specific high output design.
 (***) Dimension is applicable to right or left terminal box mounting

Flange mounted motors

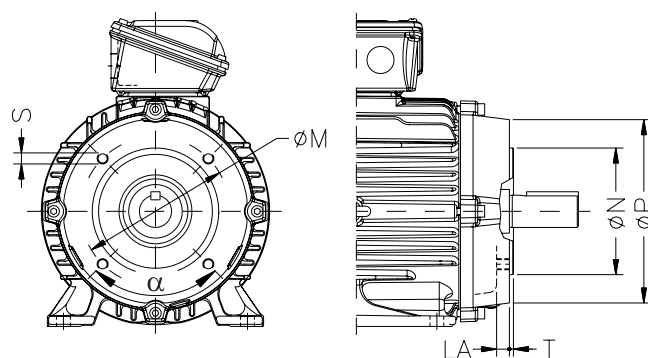
“FF” Flange



Flange “FF”											
Frame	Flange	LA	M	N	P	S	T	α	N° of holes		
63	FF-115	9	115	95	140	10	3	45°	4		
71	FF-130		130	110	160						
80	FF-165	10	165	130	200	12	3,5				
90											
100	FF-215	11	215	180	250	15	4				
112											
132	FF-265	12	265	230	300						
160	FF-300	18	300	250	350	19	5				
180											
200	FF-350		350	300	400						
225	FF-400	18	400	350	450	19	5	22°30'	8		
250	FF-500		500	450	550						
280											
315	FF-600	22	600	550	660	24	6				
355	FF-740		740	680	800/880*						

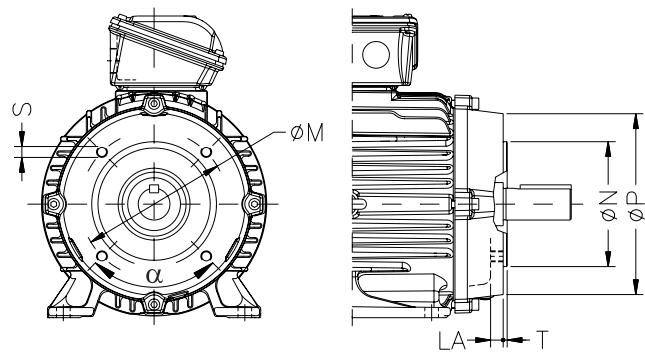
*Only for motors fitted with air deflector in drive end side.

“C-DIN” Flange



Frame	Flange	LA	M	N	P	S	T	α	N° of holes
63	C-90	9.5	75	60	90	M5	2.5	45°	4
71	C-105	8	85	70	105	M6			
80	C-120	10.5	100	80	120		M8		
90	C-140	12	115	95	140	M8			
100	C-160	13.5	130	110	160				
112									
132	C-200	15.5	165	130	200	M10			

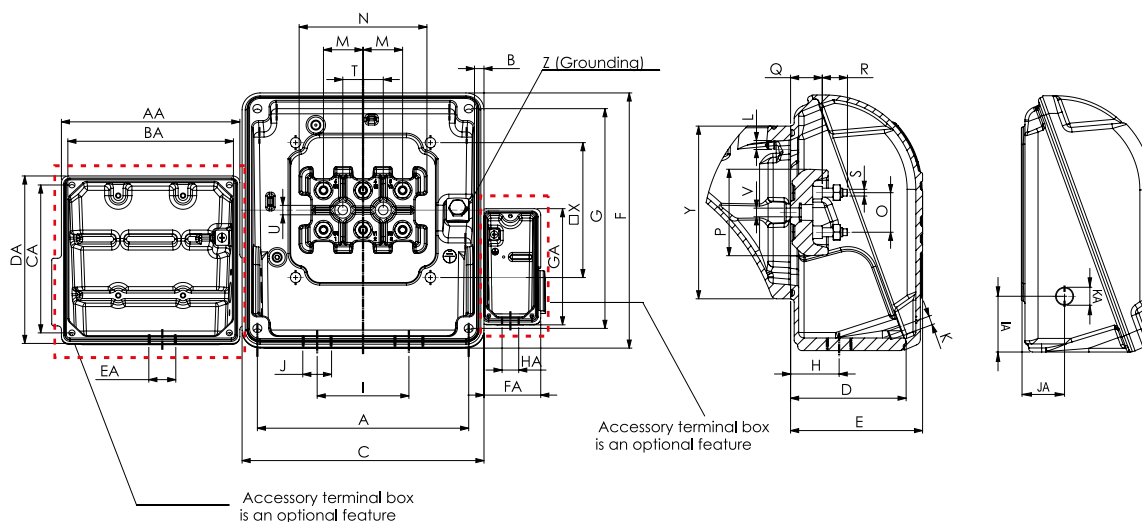
“NEMA C” Flange



Flange “C”									
Frame	Flange	LA	M	N	P	S	T	α	N° of holes
63	FC-95	8.5	95.2	76.2	143	UNC 1/4"x20	4	45°	4
71		10							
80									
90	FC-149	15	149.2	114.3	165	UNC 3/8"x16	6.3		
100		12							
112	FC-184	13.5	184.2	215.9	225	UNC 1/2"x13	6.3		
132		9							
160		19.5							
180	FC-228	13.5	228.6	266.7	280	UNC 5/8"x11	6.3	22°30'	8
200		18.5	279.4	317.5	395				
225	FC-355		355.6	406.4	455				
250			368.3	419.1					
280	FC-368				33.5				
315									
355									



Terminal box drawings



Frame	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U																		
63	90	3.5	108.5	51.5	59	96	85	27	42	2xM20x1.5	M5x0.8	M5x0.8	16	75	16	35	13.5	12	M4x0.7	20	5.8																		
71																																							
80																																							
90																																							
100	98	3	114.5	59.5	67	101	91	31	2xM25x1.5																														
112	117	2.5	138	71	80	130.5	117	36.5	54	2xM32x1.5	M6x1.0	M6x1.0	23	55	23	52	17	16	M5x0.8	23	6.5																		
132																																							
160																																							
180	175	4	198	90	100.5	187.5	175	49	84	2xM40x1.5	M8x1.25	M8x1.25	28	90	28	60	21.5	20.5	M6x1	28	6.6																		
200	204	4.5	228	107	118	216	204	59	94	2xM50x1.5														35	112	35	74	24	24	M8x1.25	35	9.5							
225S/M	235	12.5	269	133	153	301	260	71	110	2xM63x1.5			M10x1.5	M10x1.5	44	140	44	94	28	28	M10x1.5	45	10.5																
250S/M																																							
280S/M											275	13.5												314			311	275		126									
315S/M	340	14.5	379	162	182	390	345	78	160			M12x1.75	M12x1.75	45	153	45	108	34	40	M12x1.75																			
315L	365		404	202	226	422	390	97	200				M14x2.0	65	210	65	146	48	48	M16x2.0	65																		
355M/L																																							
355A/B**	415	-	442	267	355	729	678	187	140		M10x1.5	M12x1.75	80	-	105	-	-	-	-	M20x2.5	-	-																	
				232*	318*																		152*																

Frame	V	X	Y	Z	AA	BA	CA	DA	EA	FA	GA	HA	IA	JA	KA	Max number of connectors							
																Main	Accessories	Space Heater					
63	M5x0.8	56	77	0.5-6 mm ²	109	90	85	98	M20x1.5	-	-	-	-	-	-	4	16	-					
71			78																				
80			81																				
90			77																				
100			81																				
112		70	107	2-10 mm ²															6				
132			103																				
160	M6x1.0	110	140	5.2-25 mm ²	139	117	117	133		68	131	M20x1.5	47	40	M20x1.5	12	26	4					
180	M8x1.25	120	155	5.2-35 mm ²									198	175					175	189	47	45	16
225S/M																					M10x1.5	150	
250S/M					197																		
280S/M	204	35-70 mm ²	77	56																			
315S/M	200				260	82	69																
315L	260	300	85-120 mm ²	97	79																		
355M/L						-	290	-	-				-	-									
355A/B**	-	290																					

Notes:

* Dimension is applicable to right or left terminal box mounting

** Oversized terminal box