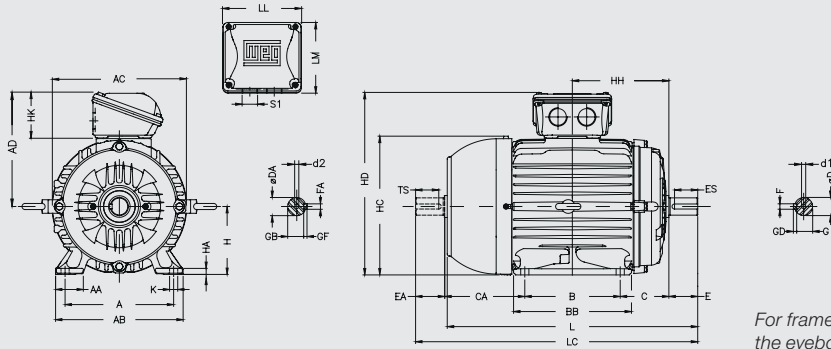


# 18. Mechanical Data

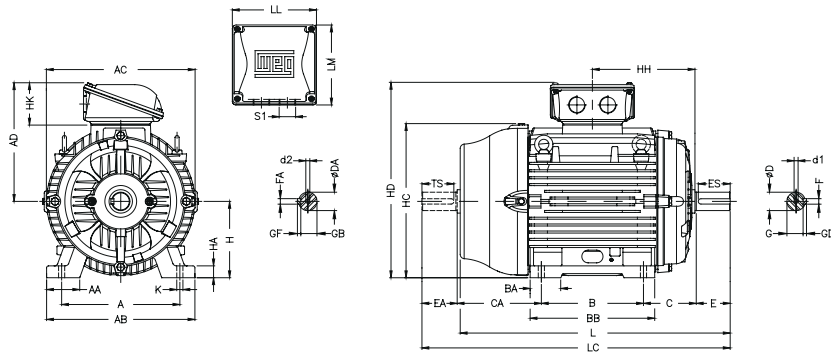
## Foot Mounted Motors, Terminal Box Top

### Frames 63 to L132M/L

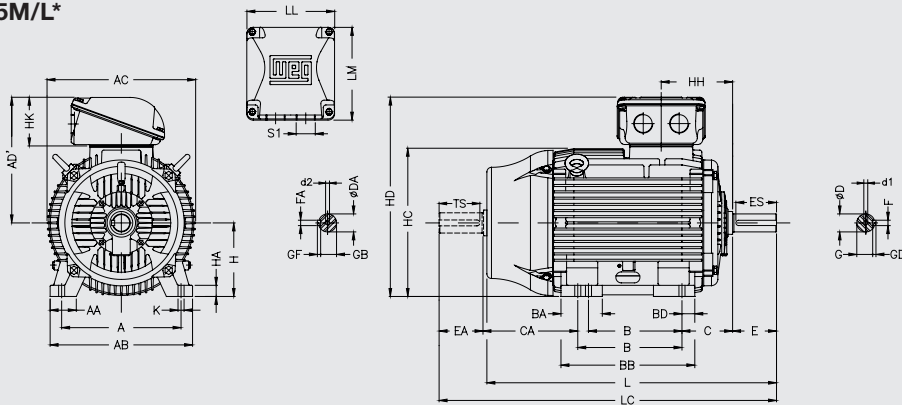


For frames 132S, 132M/L and 132M, the eyebolt will be fitted at 50°.

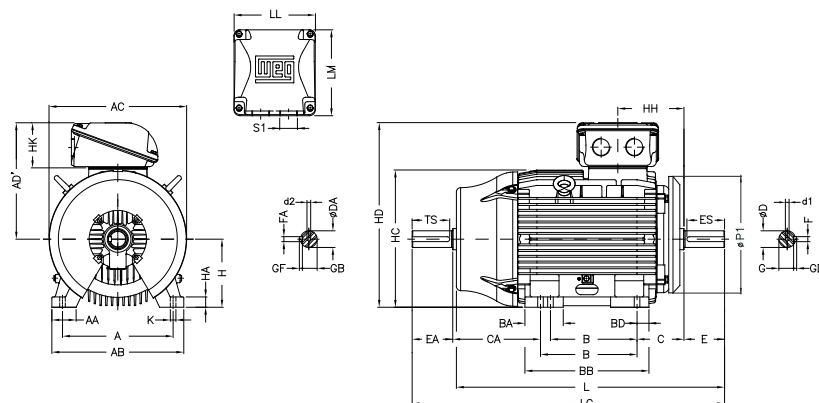
### Frames 160M to 200L



### Frames 225 to 355M/L\*



### Frame 355A/B\*



\* Some outputs in frame sizes 315 and 355 are equipped with an air deflector at the DE. In this case the dimension P1 will be 780mm and 880mm for frames 315 and 355 respectively.

Frame	A	AA	AB	AC	AD	AD'	B	BA	BB	BD	C	CA	DE Shaft end						NDE Shaft end								
													D	E	ES	F	G	GD	DA	EA	FA	TS	GB	GF			
63	100	25,5	116	125	123		80		95		40	78	11j6	23	14	4	8,5	4	9j6	20	3	12	7,2	3			
71	112	28,5	132	141	131		90		113,5		45	88	14j6	30	18	5	11	5	11j6	23	4	14	8,5	4			
80	125	30,5	149	159	140		100		125,5		50	93	19j6	40	28	6	15,5	6	14j6	30	18	11	11	5			
L80												118															
90S	140	37	164	179	149		125		131		56	135	24j6	50	36	8	20	7	16j6	40	5	28	13	5			
L90S																											
90L																											
L90L																											
100L	160	40	188	206	159		140		173		63	118	28j6	60	45	8	24	7	22j6	50	6	36	18,5	6			
L100L												162															
112M												128															
L112M												158															
132S	190	40,5	220	226	192		140		177		70	187		89	150	38k6	80	63	10	33	8	28j6	60	8	45	24	7
L132S																											
132M																											
L132M/L																											
160M	216	45,5	248	272	220		178		225		89	150	38k6	80	63	10	33	8	28j6	60	8	45	24	7			
L160M																											
160L																											
L160L																											
180M	254	44	292	329	266		210		254	63	298	108	174	42k6	110	80	12	37	8	42k6	110	12	37	8			
L180M																											
L180L																											
L180L																											
200L	279	78	350	360	281		241		294	70	332	121	200	48k6	110	80	14	42,5	9	48k6	110	14	42,5	9			
L180M																											
180L																											
L180L																											
225S/M*	318	82	385	402	319		305	82	370		133	222	55m6	100	16	49	10	55m6	16	100	49	10					
225S/M																											
250S/M*																											
250S/M																											
280S/M*	356	80	436	455		384	286/311	124	412	41	149	319/294	55m6	140	125	18	53	11	60m6	18	53	11	60m6	53			
225S/M																											
250S/M*																											
250S/M																											
280S/M*	406	100	506	486		398	311/349	146	467	59	168	354/316	60m6	140	125	18	53	11	60m6	18	53	11	60m6	53			
250S/M*																											
250S/M																											
280S/M*																											
315S/M*	457		557	599		472	368/419	151	517	49	190	385/334	65m6	140	125	18	58	11	60m6	140	18	125	53				
315S/M*																											
315S/M																											
315L*																											
315L	508	120	630	657		530	406/457	184	626	70	216	443/494	65m6	140	125	18	58	11	60m6	140	18	125	53				
315S/M*																											
315S/M																											
315L*																											
355M/L*	610	140	750	736		620	560/630	230	760	65	254	483/413	75m6	140	125	20	67,5	12	60m6	170	22	160	71	14			
355M/L*																											
355M/L																											
355A/B*																											
355A/B	728	710/800	325	965	70	254	528/438	100m6	210	200	28	90	16	80m6	170	22	160	71	14								
355A/B*																											
355A/B																											
355A/B																											

Frame	H	HA	HC	HD	HH	HK	L	LC	LL	LM	S1	K	D1	D2	Bearing	
															DE	NDE
63	63	7	130	186	80	59	216	241	108	98	2xM20x1,5	7	EM4	EM3	6201 ZZ	6201 ZZ
71	71		145	202	90		250	276					DM5	EM4	6202 ZZ	6202 ZZ
80	80	8	163	220	100	59	277	313	108	98	2xM25x1,5	10	DM6	DM5	6204 ZZ	6203 ZZ
L80							301	338								
90S	90	9	182	239	106	59	305	350	108	98	2xM25x1,5	10	DM8	DM6	6205 ZZ	6204 ZZ
L90S							334,5	381								
90L							329	375								
L90L							360	406								
100L	100	10	203	259	133	80	376	431	140	133	2xM32x1,5	12	DM10	DM8	6206 ZZ	6205 ZZ
L100L							418	475								
112M							394	448								
L112M							423	478								
132S	132	16	274	352	159	80	452	519	140	133	2xM32x1,5	12	DM12	DM10	6308 ZZ	6207 ZZ
L132S							476	544								
132M							489	557								
L132M/L							515	582								
160M	160	17	331	426	213	101	538,5	607	198,5	190	2xM40x1,5	14,5	DM16	DM16	6309 ZZ-C3	6209 ZZ-C3
L160M							598	712								
180M							642	756								
L180M							676	790								
180L	180	28	366	461	241,5	101	664	782	198,5	190	2xM40x1,5	14,5	DM16	DM16	6311 ZZ-C3	6211 ZZ-C3
L180M							706	824								
180L							702	820								
L180L							744	862								
200L	200	30	407	519	285,5	120	767	880	230	220	2xM50x1,5	18,5	DM20	DM20	6312 ZZ-C3	6212 ZZ-C3
225S/M*							856	974								
225S/M							886	1034								
250S/M*							965	1113								
250S/M	250	43	493	648	214	153	965	1113	314	312	2xM63x1,5	24	DM20	DM20	6314 C3	6314 C3
280S/M*																
280S/M																
315S/M*																
315S/M	315	48	644	845	264	176	1244	1392	404	436	2xM80x2	28	DM20	DM20	6316 C3	6316 C3
L315S/M*							1274	1426								
315L*							1355	1506								
315L							1385	1536								
355M/L*	355	50	723	975	339	220	1412	1577	460	544	2xM80x2	28	DM20	DM20	6316 C3	6314 C3
355M/L							1482	1677								
355A/B*							1607	1772								
355A/B							1677	1872								

Notes:  
 (\*) Dimension applicable to 2 pole motors.  
 (\*\*) All dimensions are in mm.

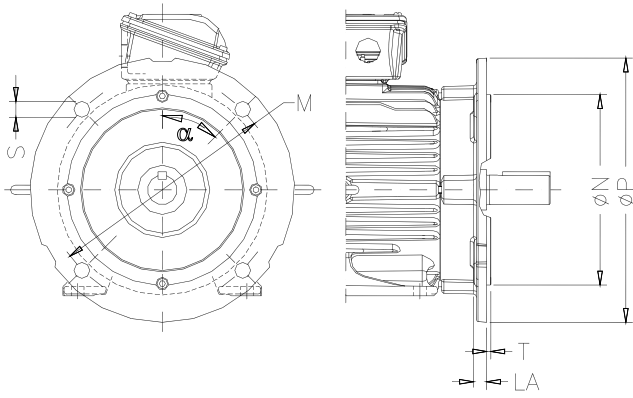


Frame	A	AA	AB	AC	AD	B	BA	BB	BD	C	CA	DE Shaft					NDE Shaft																									
												D	E	ES	F	G	GD	DA	EA	TS	FA	GB	GF																			
63	100	25,5	116	125	123	80		95		40	78	11j6	23	14	4	8,5	4	9j6	20	12	3	7,2	3																			
71	112	28,5	132	141	131	90		113,5		45	88	14j6	30	18	5	11	5	11j6	23	14	4	8,5	4																			
80	125	30,5	149	159	140	100		125,5		50	93	19j6	40	28	6	15,5	6	14j6	30	18	5	11	5	11	5																	
L80																										142	40	28	6	15,5	6	14j6	30	18	5	11	5	11	5			
90S	140	37	164	179	149					125		156		56	135	24j6	50	36		20		16j6	40	28	5	13	5	5														
L90S																													173	63	118	28j6	60	45	8	7	22j6	50	36	6	18,5	6
90L																																										
L90L	160	40	188	206	159	140		177		70	118	28j6	60	45		24		22j6	50	36	6	18,5	6																			
100L																								177	70	118	128	158	24j6	50	36	6	18,5	6								
L100L	190	40,5	220	215	192	140		187		89	150	38k6	80	63	10	33		28j6	60	45	8	24	7																			
L112M																								250	80	63	10	33	8	28j6	60	45	8	24	7							
L132S	216	45,5	248	272	220	178		225		108	174	42k6						42k6			12	37	8	37	8																	
L132S																										254	63	298	108	174	42k6	12	37	8	37	8						
L132M	254	44	292	329	266	254	63	294		121	200	48k6	110	80				48k6	110	80	14	42,5	9	14	42,5	9																
L132M/L																											279	70	332	121	200	48k6	110	80	14	42,5	9	14	42,5	9		
160M	279	78	350	360	281	241	70	294		121	200	48k6	110	80				48k6	110	80	14	42,5	9	14	42,5	9																
L160L																											279	70	332	121	200	48k6	110	80	14	42,5	9	14	42,5	9		
180M	318	82	385	402	319	305	82	370		133	222	55m6						55m6	140	125	18	49	10	16	49	10																
L180L																											318	82	385	402	319	305	82	370	133	222	55m6	100	16	49	10	55m6
225S/M*	356	80	436	455	410	286/311	124	412	41	149	319/294	60m6						60m6	140	125	18	53	11	60m6	53	11																
225S/M																											311/349	146	467	59	168	354/316	65m6	140	125	18	53	11	60m6	53	11	
250S/M*	406	100	506	486	445	368/419	151	517	49	190	385/334	75m6						75m6	140	125	18	58	11	65m6	58	11																
250S/M																											406/457	184	626	70	216	494/443	80m6	170	160	22	71	14	65m6	58	11	
280S/M*	457		557	599	445	368/419	151	517	49	190	385/334	80m6	170	160	22	71	14	65m6	140	125	18	58	11	60m6	58	11																
280S/M																											406/457	184	626	70	216	494/443	80m6	170	160	22	71	14	65m6	58	11	
315S/M*	508	120	630	657	525	406/457	184	626	70	216	494/443	80m6	170	160	22	71	14	65m6	140	125	18	58	11	60m6	58	11																
315S/M																											406/457	184	626	70	216	494/443	80m6	170	160	22	71	14	65m6	58	11	
315L*	508	120	630	657	525	508	219	752	81	254	483/413	75m6	140	125	20	67,5	12	60m6	140	125	18	53	11	60m6	58	11																
315L																											483/413	75m6	140	125	20	67,5	12	60m6	140	125	18	53	11	60m6	58	11
355M/L*	610	140	750	736	609	560/630	230	760	65	254	483/413	75m6	140	125	20	67,5	12	60m6	140	125	18	53	11	60m6	58	11																
355M/L																											483/413	75m6	140	125	20	67,5	12	60m6	140	125	18	53	11	60m6	58	11
355A/B*	610	140	750	736	701	710/800	325	955	70	254	528/438	100m6	210	200	28	90	16	80m6	170	160	22	71	14	80m6	170	160																
355A/B																											528/438	100m6	210	200	28	90	16	80m6	170	160	22	71	14	80m6	170	160

Frame	H	HA	HB	HC	HD	HF	HG	HH	HK	LL	LM	K	L	LC	S1	d1	d2	Bearing																					
																		DE	NDE																				
63	63		25,5	130	156,3	68,5		80				7	216	241	2xM20x1,5	EM4	EM3	6201 ZZ	6201 ZZ																				
71	71	7	33	145	163,8	76		90					250	276		DM5	EM4	6202 ZZ	6202 ZZ																				
80	80	8	43,5	163	174,3	87		100	59	108	98	10	277	313				6204 ZZ	6203 ZZ																				
L80																				325	360	305	350	334,5	381	329	375	360	406	376	431	418	475	394	448	423	478		
90S	90	9	45	182	182,4	90		106										6205 ZZ	6204 ZZ																				
L90S																				118,5	360	406	376	431	418	475	394	448	423	478	452	519	476	544	489	557	515	582	
90L	90							118,5										6205 ZZ	6204 ZZ																				
L90L																				360	406	376	431	418	475	394	448	423	478	452	519	476	544	489	557	515	582		
100L	100	10	61,5	205	244	106,4		133										6206 ZZ	6205 ZZ																				
L100L																				140	80	140	133	423	478	452	519	476	544	489	557	515	582	538,5	607	598	712	642	756
L112M	112		54,5	235	280	112		140										6207 ZZ	6206 ZZ																				
L112M																				159	80	140	133	423	478	452	519	476	544	489	557	515	582	538,5	607	598	712	642	756
L132S	132	16	75	274	319	132		178										6308 ZZ	6207 ZZ																				
L132S																				190,5	80	140	133	423	478	452	519	476	544	489	557	515	582	538,5	607	598	712	642	756
L132M/L	132							213										6308 ZZ	6207 ZZ																				
L132M/L																				213	80	140	133	423	478	452	519	476	544	489	557	515	582	538,5	607	598	712	642	756
160M	160	17	79	331	380			235										6309 ZZ-C3	6209 ZZ-C3																				
L160L																				241,5	101	198,5	190	14,5	664	782	706	824	702	820	744	862	767	880	856	974	886	1034	965
L160L	160							235										6309 ZZ-C3	6209 ZZ-C3																				
180M																				241,5	101	198,5	190	14,5	664	782	706	824	702	820	744	862	767	880	856	974	886	1034	965
L180M	180	28	92	366	413			260,5										6311 ZZ-C3	6211 ZZ-C3																				
180L																				260,5	101	198,5	190	14,5	664	782	706	824	702	820	744	862	767	880	856	974	886	1034	965
L180L	180							260,5										6311 ZZ-C3	6211 ZZ-C3																				
200L																				260,5	101	198,5	190	14,5	664	782	706	824	702	820	744	862	767	880	856	974	886	1034	965

## Flange Mounted Motors

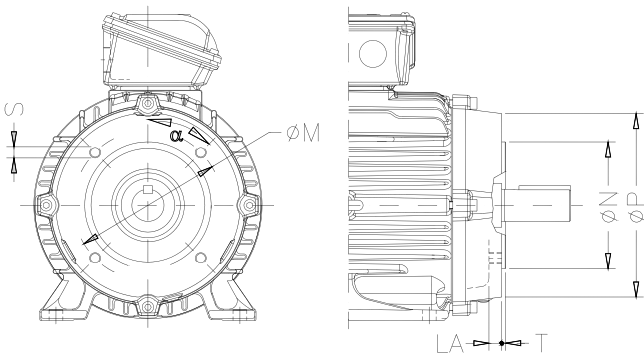
### “FF” Flange



Frame	Flange	LA	M	N	P	S	T	$\alpha$	N° of holes
63	FF-115	5,5	115	95	140	10	3	45°	4
71	FF-130	7	130	110	160		3,5		
80	FF-165	9	165	130	200	12	4		
90		10							
100	FF-215	12,5	215	180	250	15	5		
112									
132	FF-265	12	265	230	300	19	5		
160	FF-300	18	300	250	350				
180			350	300	400				
200	FF-350	400	350	450					
225	FF-400	20	500	450	550	24	6	22°30'	8
250	FF-500								
280		18							
280	FF-600	22	600	550	660/780*				
315S/M									
315L	16								
355	FF-740	22	740	680	800/880*				

\*Only for motors fitted with air deflector in drive end side.  
 \*\* Dimensions are in mm.

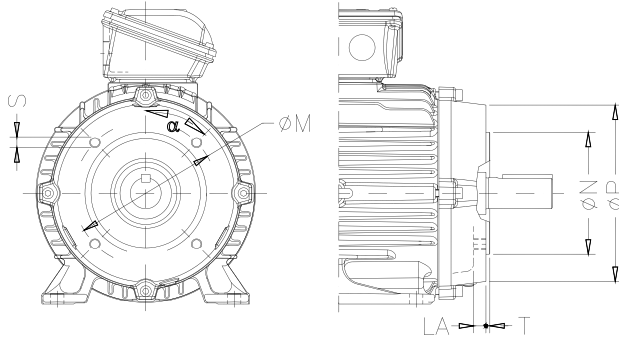
### “C-DIN” Flange



Frame	Flange	LA	M	N	P	S	T	$\alpha$	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	10,5	115	95	140	M10			
100	C-160	12	130	110	160				
112		13,5							
132	C-200	15,5	165	130	200				

\* Dimensions are in mm.

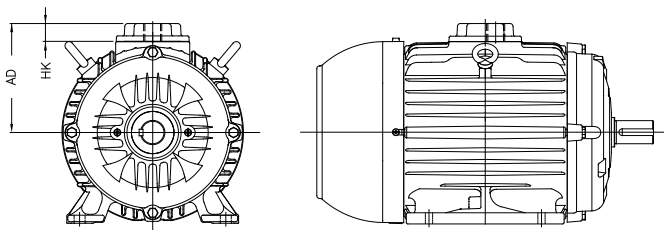
### “NEMA C” Flange



Frame	Flange	LA	M	N	P	S	T	$\alpha$	N° of holes
63	FC-95	4,5	95,2	76,2	143	UNC 1/4"x20	4	45°	4
71		10							
80		15							
90	12	149,2	114,3	165	UNC 3/8"x16				
100	FC-149	15	184,2	215,9	225	UNC 1/2"x13	6,3	22°30'	8
112		13,5							
132		15,5							
160	26								
180	FC-228	20	228,6	266,7	280	UNC 5/8"x11	6,3	22°30'	8
200		25							
225		25							
250	FC-279	25	368,3	419,1	395	UNC 5/8"x11			
280		25							
315S/M		18,5							
315L	FC-368	40	368,3	419,1	455	UNC 5/8"x11	6,3	22°30'	8
355M/L		40							
355A/B		33,5							

\*Dimensions are in mm.

### Dimensions for motors with terminal box base



Frame	Threaded hole $\leq$ M20 or 1/2"		Threaded hole $>$ M20 or 1/2"	
	HK	AD	HK	AD
63	40	106	40	106
71		114		114
80	20	103	30	113
90		113		123
100		123		133
112	25	140	45	160
132		168		188

The optional terminal box base is not available in B30D, B30E, and B30T mountings.

\*Dimensions are in mm.

