

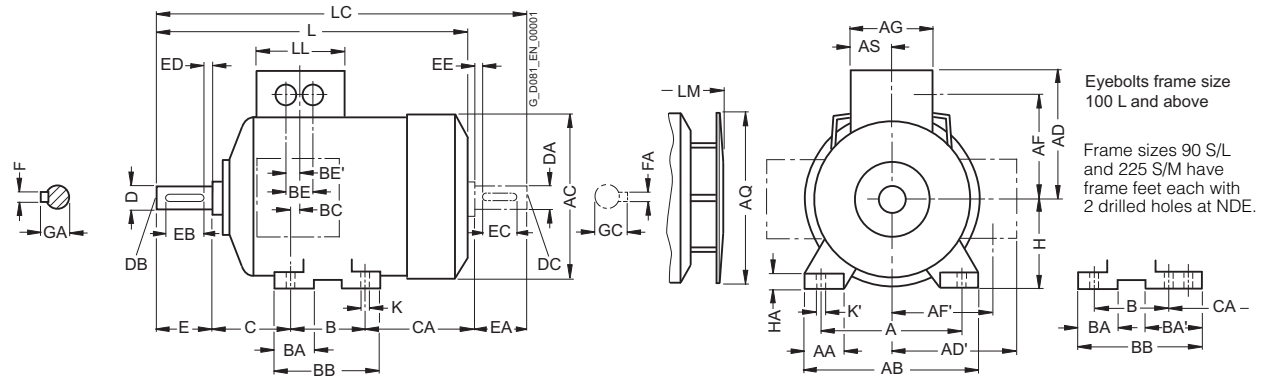
SIMOTICS GP 1LA Standard Motors

Dimensions

Aluminum series 1LA7 and 1LA5
Frame sizes 63 M to 225 M

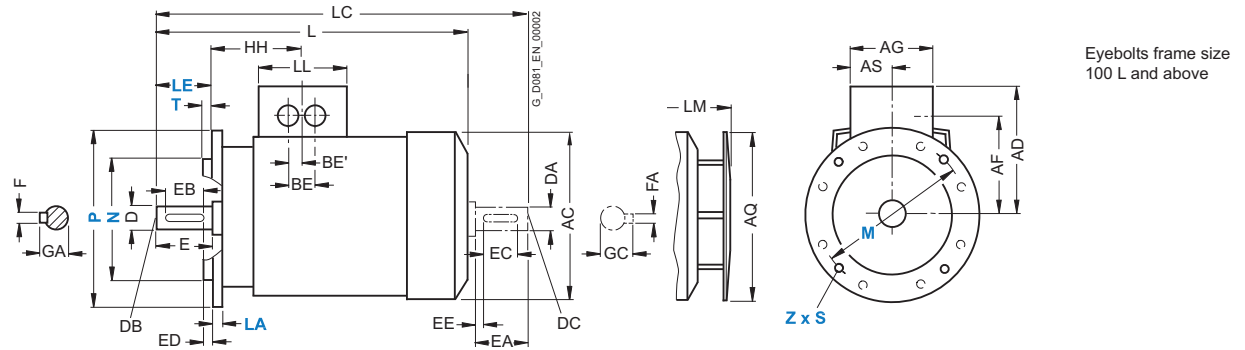
Dimensional drawings

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see section flange dimension (Z = the number of retaining holes)



For motor			Dimension designation acc. to IEC																					
Frame size	Type	Number of poles	A	AA	AB	AC ¹⁾	AD ²⁾	AD'	AF ²⁾	AF'	AG ²⁾	AQ	AS	B*	BA	BA'	BB	BC	BE ²⁾	BE' ²⁾	C	CA*	H	HA
63 M	1LA7060 1LA7063	2, 4, 6	100	27	120	124	101	101	78	78	75	124	37.5	80	28	-	96	30	32	18	40	66	63	7
71 M	1LA7070 1LA7073	2, 4, 6, 8	112	27	132	145	111	111	88	88	75	124	37.5	90	27	-	106	18	32	18	45	83	71	7
80 M	1LA7080 1LA7083	2, 4, 6, 8, ● 2, 4, 6, 8, ●	125	30.5	150	163	120	120	97	97	75	124	37.5	100	32	-	118	14	32	18	50	94	80	8
90 S	1LA7090	2, 4, 6, 8, ●	140	30.5	165	180	128	128	105	105	75	170	37.5	100	33	54	143	23	32	18	56	143	90	10
90 L	1LA7096	2, 4, 6, 8, ●	140	30.5	165	180	128	128	105	105	75	170	37.5	100	33	54	143	23	32	18	56	143	90	10
100 L	1LA7106 1LA7107	2, 4, 6, 8, ● 4, 8, ●	160	42	196	203	135	163	78	123	120	170	60	140	47	-	176	39	42	21	63	125 195 ³⁾	100	12
112 M	1LA7113	2, 4, 6, 8, ●	190	46	226	227	148	176	91	136	120	170	60	140	47	-	176	32	42	21	70	141	112	12
132 S	1LA7130 1LA7131	2, 4, 6, 8, ● 2	216	53	256	267	167	194	107	154	140	250	70	140	49	-	180	39	42	21	89	162.5	132	15
132 M	1LA7133 1LA7134	4, 6, 8, ● 6	216	53	256	267	167	194	107	154	140	250	70	178	49	-	218	39	42	21	89	124.5 162.5 ⁴⁾	132	15
160 M	1LA7163 1LA7164	2, 4, 6, 8, ● 2, 8	254	60	300	320	197	226	127	183	165	250	82.5	210	57	-	256	52.5	54	27	108	183	160	18
160 L	1LA7166	2, 4, 6, 8, ● 6	254	60	300	320	197	226	127	183	165	250	82.5	254	57	-	300	52.5	54	27	108	139 176 ⁵⁾	160	18
180 M	1LA5183	2, 4, ●	279	69.5	339	363	258	258	216	216	152	340	71	241	50	-	287	38	54	27	121	259	180	18
180 L	1LA5186	4, 6, 8, ●	279	69.5	339	363	258	258	216	216	152	340	71	279	50	-	325	38	54	27	121	221	180	18
200 L	1LA5206 1LA5207	2, 6 2, 4, 6, 8, ●	318	83	388	402	305	305	252	252	260	340	96	305	58.5	-	355	45	85	42.5	133	239	200	24
225 S	1LA5220	4, 8	356	103	426	402	305	305	252	252	260	340	96	286	58	83	361	36	85	42.5	149	248.5	225	24
225 M	1LA5223	2 4, 6, 8	356	103	426	402	305	305	252	252	260	340	96	311	58	83	361	36	85	42.5	149	223.5	225	24

● Pole-changing motors

For SIMOTICS GP 1LA7 and 1LA5 Standard Motors in pole-changing version (6 or 9 terminals), the dimensions of the basic version apply.

* This dimension is assigned in DIN EN 50347 to the frame size listed.

1) Measured across the bolt heads.

2) The values increase if the connection box is rotated or if a brake is mounted. Further information is provided by the dimension sheet generator in the DT Configurator.

3) Only for 1LA7107-4PM.

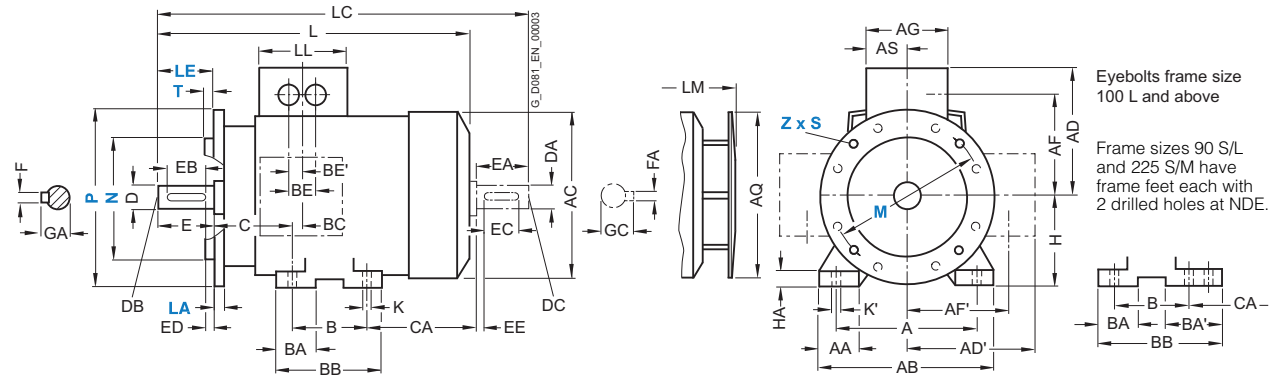
4) Only for 1LA7134-6PM.

5) Only for 1LA7166-6PM.

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see section flange dimension (Z = the number of retaining holes)

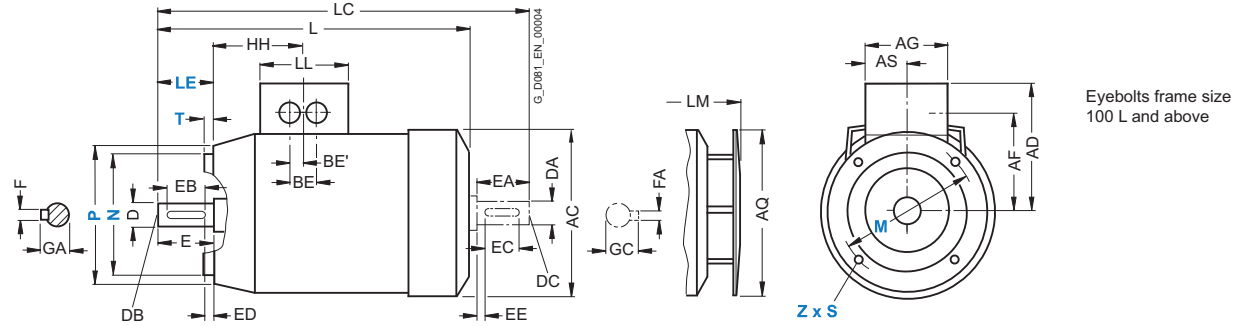


Eyebolts frame size 100 L and above

Frame sizes 90 S/L and 225 S/M have frame feet each with 2 drilled holes at NDE.

Type of construction IM B14

Type of construction IM B14 not possible for 1LA5 motors, frame sizes 180 M to 225 M
For flange dimensions, see section flange dimension (Z = the number of retaining holes)



Eyebolts frame size 100 L and above

For motor		Dimension designation acc. to IEC							DE shaft extension					NDE shaft extension									
Frame size	Type	Number of poles	HH	K	K'	L	LC	LL	LM	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
63 M	1LA7060 1LA7063	2, 4, 6	69.5	7	10	202.5 ¹⁾	232 ¹⁾	75	231.5 ¹⁾	11	M4	23	16	3.5	4	12.5	11	M4	23	16	3.5	4	12.5
71 M	1LA7070 1LA7073	2, 4, 6, 8	63.5	7	10	240	278	75	268	14	M5	30	22	4	5	16	14	M5	30	22	4	5	16
80 M	1LA7080 1LA7083	2, 4, 6, 8, ● 2, 4, 6, 8, ●	63.5	9.5	13.5	273.5	324 364	75	299.5	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	21.5
90 S 90 L	1LA7090 1LA7096	2, 4, 6, 8, ● 2, 4, 6, 8, ●	79	10	14	331	389	75	382.5	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
100 L	1LA7106 1LA7107	2, 4, 6, 8, ● 4, 8, ●	102	12	16	372 442 ³⁾	438 508 ³⁾	120	423.5 493 ³⁾	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	1LA7113	2, 4, 6, 8, ●	102	12	16	393	461	120	444.5	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 S	1LA7130 1LA7131	2, 4, 6, 8, ● 2	128	12	16	452.5 ²⁾	551.5	140	505 ²⁾	38	M12	80	70	5	10	41	38	M12	80	70	5	10	41
132 M	1LA7133 1LA7134	4, 6, 8, ● 6	128	12	16	452.5 ²⁾ 490.5 ⁴⁾	551.5 589.5 ⁴⁾	140	505 ²⁾ 543 ⁴⁾	38	M12	80	70	5	10	41	38	M12	80	70	5	10	41
160 M	1LA7163 1LA7164	2, 4, 6, 8, ● 2, 8	160.5	15	19	588	721	165	640.5	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	1LA7166	2, 4, 6, 8, ● 6	160.5	15	19	588 628 ⁵⁾	721 761 ⁵⁾	165	640.5 680.5 ⁵⁾	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 M	1LA5183	2, 4, ●	159	15	19	712	841	132	793.5	48	M16	110	100	5	14	51.5	48	M16	110	100	5	14	51.5
180 L	1LA5186	4, 6, 8, ●	159	15	19	712	841	132	793.5	48	M16	110	100	5	14	51.5	48	M16	110	100	5	14	51.5
200 L	1LA5206 1LA5207	2, 6 2, 4, 6, 8, ●	178	19	25	769.5	897	192	850	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59
225 S 225 M	1LA5220 1LA5223	4, 8 2 4, 6, 8	184.5 184.5	19	25	806 776	933.5 903.5	192	887.5 857.5	60 55	M20 M20	140 110	125 100	7.5 5	18 16	64 59	55	M20	110	100	5	16	59

● Pole-changing motors

1) For 1LA7063 in the case of type of construction code 1 (IM B5, IM V1 without protective cover, IM V3), dimensions L, LC and LM are 26 mm longer.

2) In a low-noise version, the dimension L is 8 mm greater and the dimension LM is 11.5 mm greater.

3) Only for 1LA7107-4PM.

4) Only for 1LA7134-6PM.

5) Only for 1LA7166-6PM.