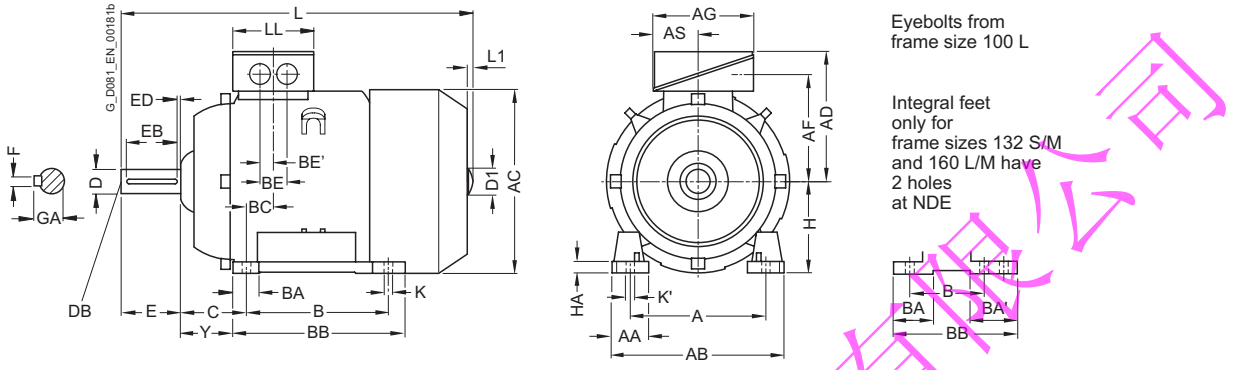
Dimensions

1

Dimensional drawings

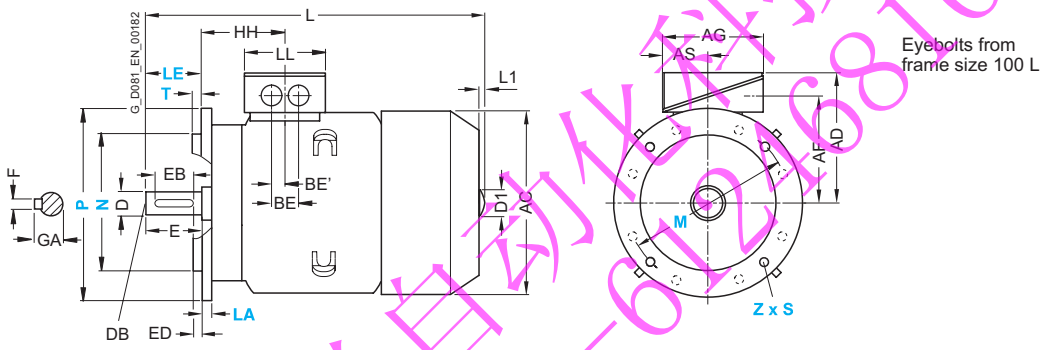
Aluminum series 1LE1, frame sizes 100 to 160 - General Line motors with shorter delivery time

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



For motor		Dimension designation acc. to **IEC**																		
Frame size	Number of poles	A	AA	AB	AC	AD	AF	AG	AS	B*	BA	BA'	BB	BC	BE	BE'	C	H	HA	Y [1]
100 L	2, 4, 6, 8	160	42	196	198	166	125.5	135	63.5	140	37.5	–	176	33.5	50	25	63	100	12	45
112 M	2, 4, 6, 8	190	46	226	222	177	136.5	135	63.5	140	35.4	–	176	26	50	25	70	112	12	52
132 S	2, 4, 6, 8	216	53	256	262	202	159.5	155	70.5	140	38	76	218	26.5	48	24	89	132	15	69
132 M	2, 4, 6, 8	216	53	256	262	202	159.5	155	70.5	178	38	76	218	26.5	48	24	89	132	15	69
160 M	2, 4, 6, 8	254	60	300	314	236.5	190	175	77.5	210	44	89	300	47	57	28.5	108	160	18	85
160 L	2, 4, 6, 8	254	60	300	314	236.5	190	175	77.5	254	44	89	300	47	57	28.5	108	160	18	85

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

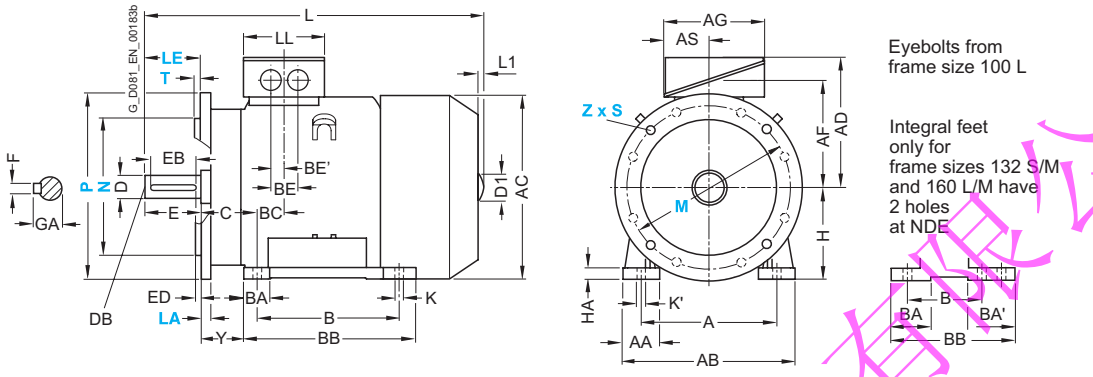
1) Additional information: not a standard dimension acc. to DIN 50347.

Dimensional drawings (continued)

Aluminum series 1LE1, frame sizes 100 to 160 - General Line motors with shorter delivery time

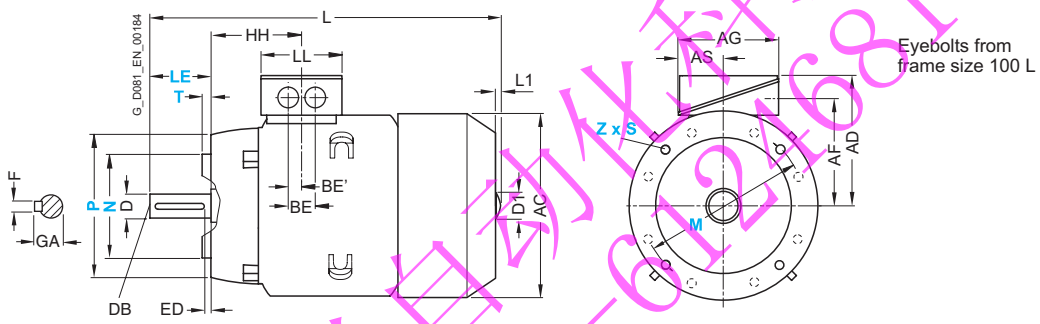
Type of construction IM B35

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



For motor		Dimension designation acc. to IEC							DE shaft extension						
Frame size	Number of poles	HH	K	K'	L [1]	L1	D1	LL	D	DB	E	EB	ED	F	GA
100 L	2, 4, 6, 8	96.5	12	16	395.5	7	32	112	28	M10	60	50	5	8	31
112 M	2, 4, 6, 8	96	12	16	389	7	32	112	28	M10	60	50	5	8	31
132 S	2, 4, 6, 8	115.5	12	16	465	8.5	39	130	38	M12	80	70	5	10	41
132 M	2, 4, 6, 8	115.5	12	16	465	8.5	39	130	38	M12	80	70	5	10	41
160 M	2, 4, 6, 8	155	15	19	604	10	45	145	42	M16	110	90	10	12	45
160 L	2, 4, 6, 8	155	15	19	604	10	45	145	42	M16	110	90	10	12	45

[1] The length is specified as far as the tip of the fan cover.

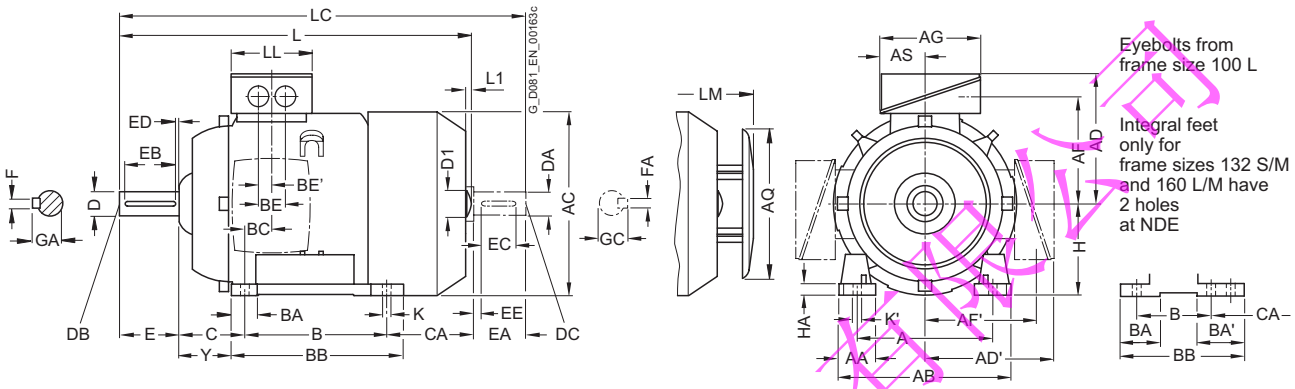
Dimensions

1

Dimensional drawings (continued)

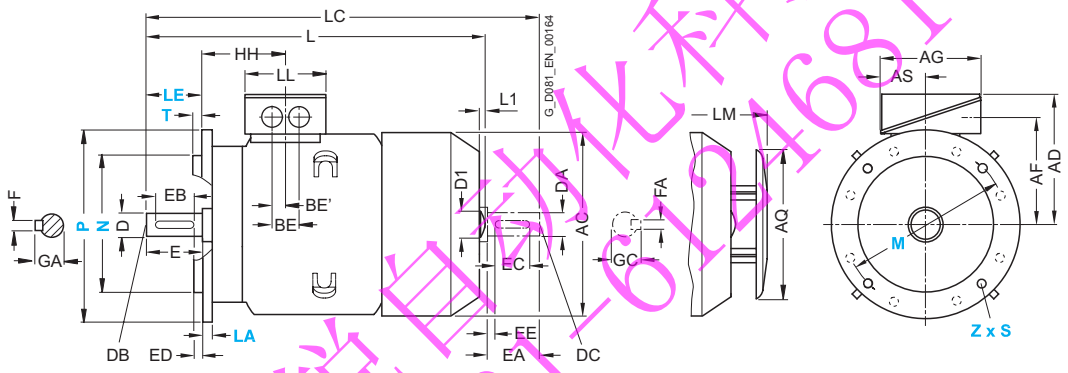
Aluminum series 1LE1, frame sizes 100 to 160 - self-ventilated energy-saving motors with improved/high efficiency

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



For motor		Dimension designation acc. to **IEC**																					
Frame size	Number of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AQ	AS	B*	BA	BA'	BB	BC	BE	BE'	C	CA*	H	HA	Y [1]
100 L	2, 4, 6, 8	160	42	196	198	166	166	125.5	125.5	135	195	63.5	140	37.5	–	176	33.5	50	25	63	141.2	100	12	45
112 M	2, 4, 6, 8	190	46	226	222	177	177	136.5	136.5	135	195	63.5	140	35.4	–	176	26	50	25	70	129.7	112	12	52
132 S	2, 4, 6, 8	216	53	256	262	202	202	159.5	159.5	155	260	70.5	140	38	76 [2]	218 [3]	26.5	48	24	89	128.5 [4]	132	15	69
132 M	2, 4, 6, 8	216	53	256	262	202	202	159.5	159.5	155	260	70.5	178	38	76	218	26.5	48	24	89	128.5 [4]	132	15	69
160 M	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	260	77.5	210	44	89 [5]	300 [6]	47	57	28.5	108	148 [7]	160	18	85
160 L	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	260	77.5	254	44	89	300	47	57	28.5	108	148 [7]	160	18	85

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

1) Additional information: not a standard dimension acc. to DIN 50347.

2) With screwed-on feet, dimension BA' is 38 mm.

3) With screwed-on feet, dimension BB is 180 mm.

4) With screwed-on feet, dimension CA is 166.5 mm.

5) With screwed-on feet, dimension BA' is 44 mm.

6) With screwed-on feet, dimension BB is 256 mm.

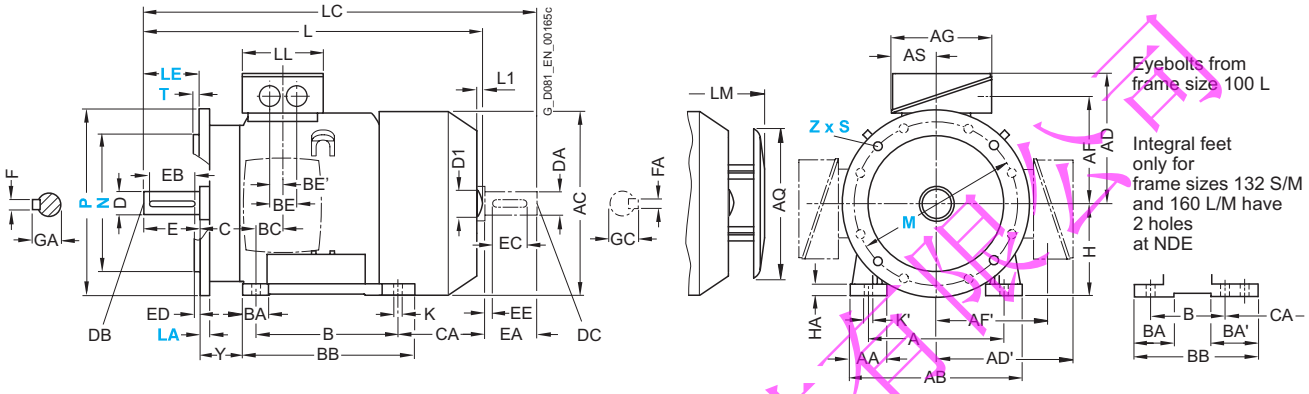
7) With screwed-on feet, dimension CA is 192 mm.

Dimensional drawings (continued)

Aluminum series 1LE1, frame sizes 100 to 160 - self-ventilated motors with improved/high efficiency

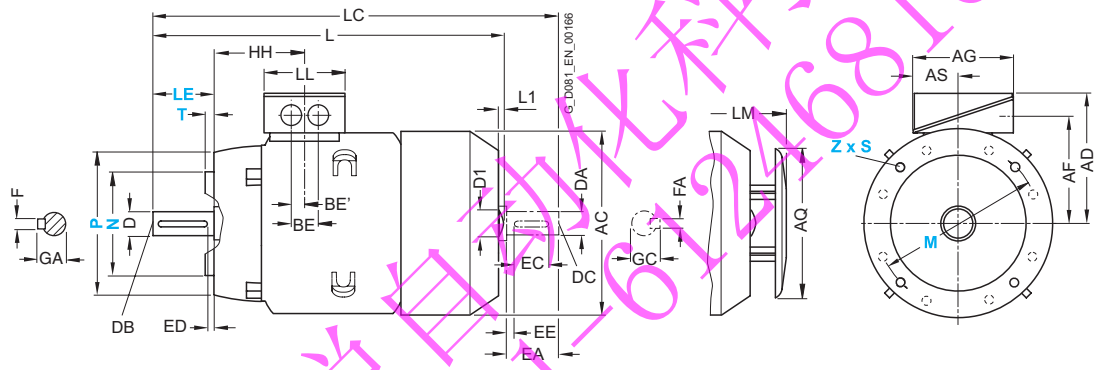
Type of construction IM B35

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



For motor		Dimension designation acc. to **IEC**									DE shaft extension						NDE shaft extension							
Frame size	Number of poles	HH	K	K'	L [1]	L1	D1	LC	LL	LM	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
100 L	2, 4, 6, 8	96.5	12	16	395.5	7	32	454.2	112	428.5	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	2, 4, 6, 8	96	12	16	389	7	32	450	112	422	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 S	2, 4, 6, 8	115.5	12	16	465	8.5	39	535.5	130	500.5	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
132 M	2, 4, 6, 8	115.5	12	16	465	8.5	39	535.5	130	500.5	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 M	2, 4, 6, 8	155	15	19	604	10	45	730	145	638	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	2, 4, 6, 8	155	15	19	604	10	45	730	145	638	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45

[1] The length is specified as far as the tip of the fan cover.

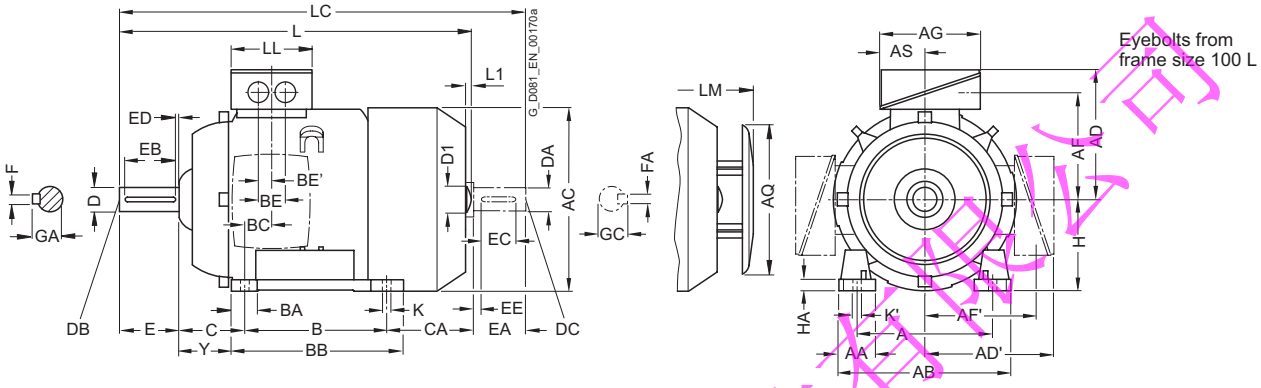
Dimensions

1

Dimensional drawings (continued)

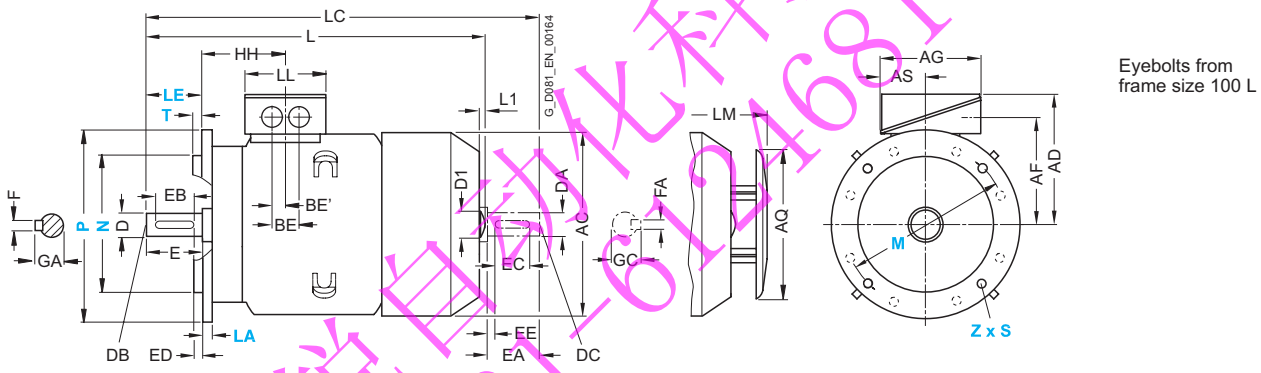
Aluminum series 1LE1, frame sizes 100 to 160 - self-ventilated motors with increased output and improved/high efficiency

Type of construction IM B3



Type of construction IM B5 and IM V1

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



For motor		Dimension designation acc. to **IEC**																					
Frame size	Number of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AQ	AS	B*	BA	BA'	BB	BC	BE	BE'	C	CA*	H	HA	Y [1]
100 L	2, 4, 6, 8	160	42	196	198	166	166	125.5	125.5	135	195	63.5	140	37.5	–	176	33.5	50	25	63	176.2	100	12	45
112 M	2, 4, 6, 8	190	46	226	222	177	177	136.5	136.5	135	195	63.5	140	35.4	–	176	26	50	25	70	155	112	12	52
132 M	2, 4, 6, 8	216	53	256	262	202	202	159.5	159.5	155	260	70.5	178	38	–	218	26.5	48	24	89	178.5	132	15	69
160 L	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	260	77.5	254	44	–	300	47	57	28.5	108	208	160	18	85

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

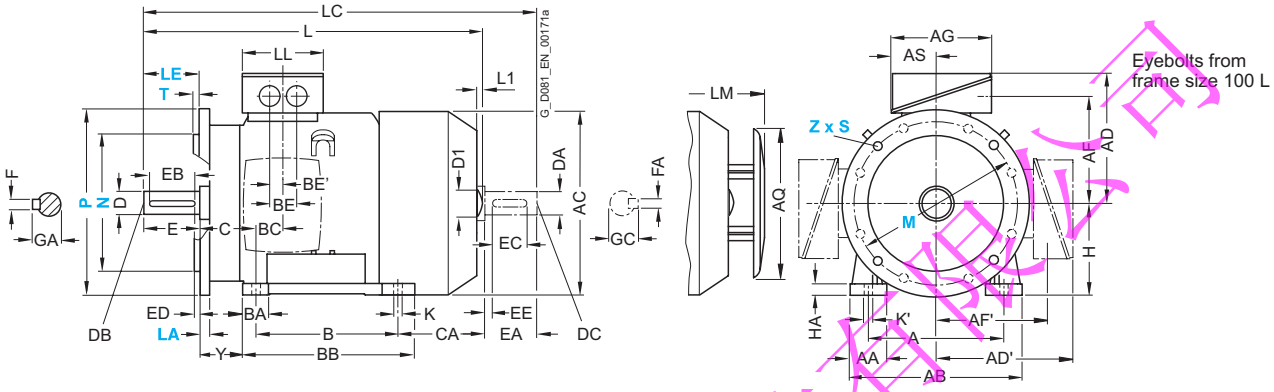
1) Additional information: not a standard dimension acc. to DIN 50347.

Dimensional drawings (continued)

Aluminum series 1LE1, frame sizes 100 to 160 - self-ventilated motors with increased output and improved/high efficiency

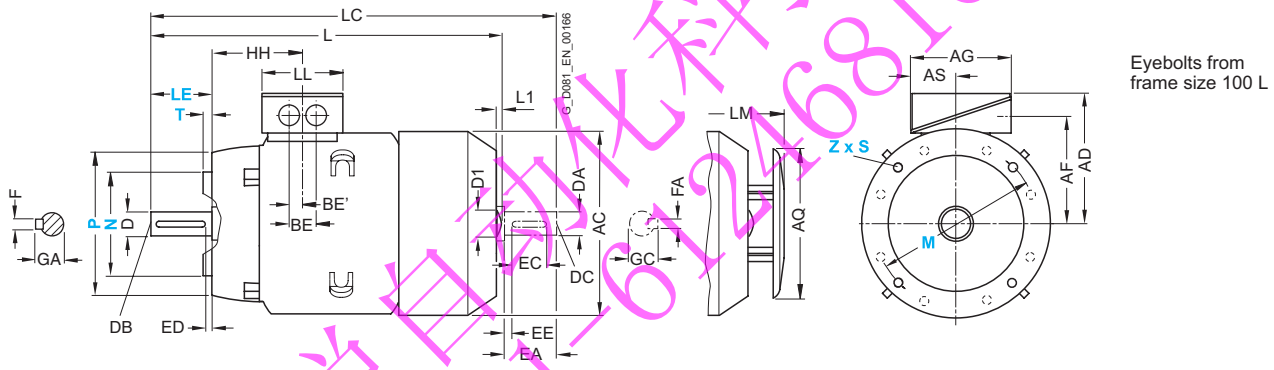
Type of construction IM B35

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



For motor		Dimension designation acc. to **IEC**									DE shaft extension							NDE shaft extension							
Frame size	Number of poles	HH	K	K'	L [1]	L1	D1	LC	LL	LM	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
100 L	2, 4, 6, 8	96.5	12	16	430.5	7	32	489.2	112	463.5	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	2, 4, 6, 8	96	12	16	414	7	32	475	112	447	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 M	2, 4, 6, 8	115.5	12	16	515	8.5	39	585.5	130	550.5	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 L	2, 4, 6, 8	155	15	19	664	10	45	790	145	698	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45

[1] The length is specified as far as the tip of the fan cover.

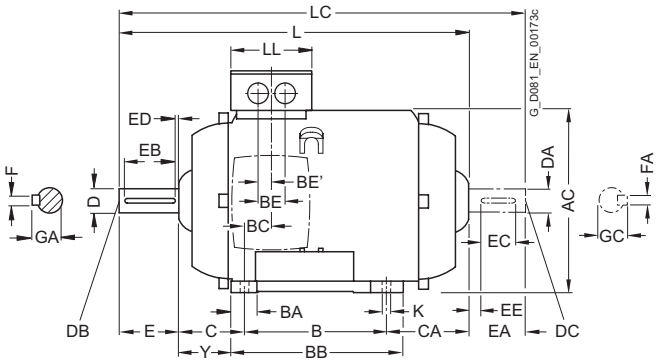
Dimensions

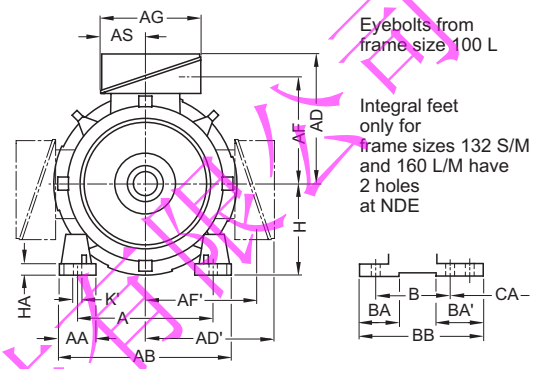
1

Dimensional drawings (continued)

Aluminum series 1LE1, frame sizes 100 to 160 - forced-air cooled motors without external fan and fan cover with improved/ high efficiency

Type of construction IM B3



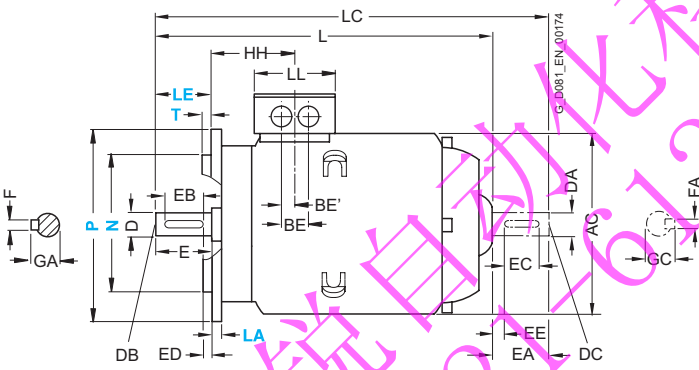


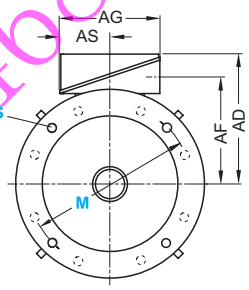
Eyebolts from frame size 100 L

Integral feet only for frame sizes 132 S/M and 160 L/M have 2 holes at NDE

Type of construction IM B5 and IM V1

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)





Eyebolts from frame size 100 L

For motor		Dimension designation acc. to **IEC**																				
Frame size	Number of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B*	BA	BA'	BB	BC	BE	BE'	C	CA*	H	HA	Y [1]
100 L	2, 4, 6, 8	160	42	196	197	166	166	125.5	125.5	135	63.5	140	37.5	–	176	33.5	50	25	63	–	100	12	45
112 M	2, 4, 6, 8	190	46	226	221	177	177	136.5	136.5	135	63.5	140	35.4	–	176	26	50	25	70	–	112	12	52
132 S	2, 4, 6, 8	216	53	256	261	202	202	159.5	159.5	155	70.5	140	38	76 [2]	218 [3]	26.5	48	24	89	–	132	15	69
132 M	2, 4, 6, 8	216	53	256	261	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	–	132	15	69
160 M	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	210	44	89 [4]	300 [5]	47	57	28.5	108	–	160	18	85
160 L	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	–	160	18	85

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

1) Additional information: not a standard dimension acc. to DIN 50347.

2) With screwed-on feet, dimension BA' is 38 mm.

3) With screwed-on feet, dimension BB is 180 mm.

4) With screwed-on feet, dimension BA' is 44 mm.

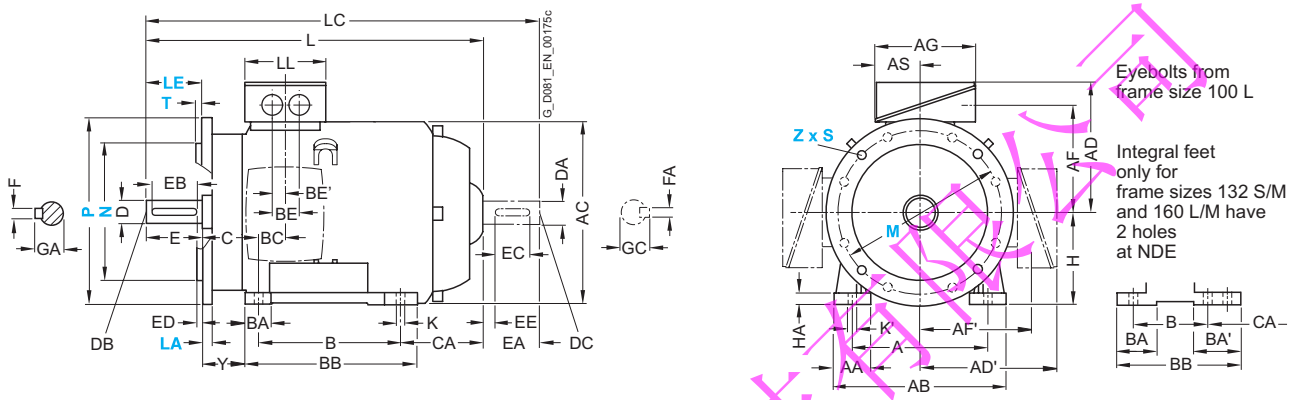
5) With screwed-on feet, dimension BB is 256 mm.

Dimensional drawings (continued)

Aluminum series 1LE1, frame sizes 100 to 160 - forced-air cooled motors without external fan and fan cover with improved/ high efficiency

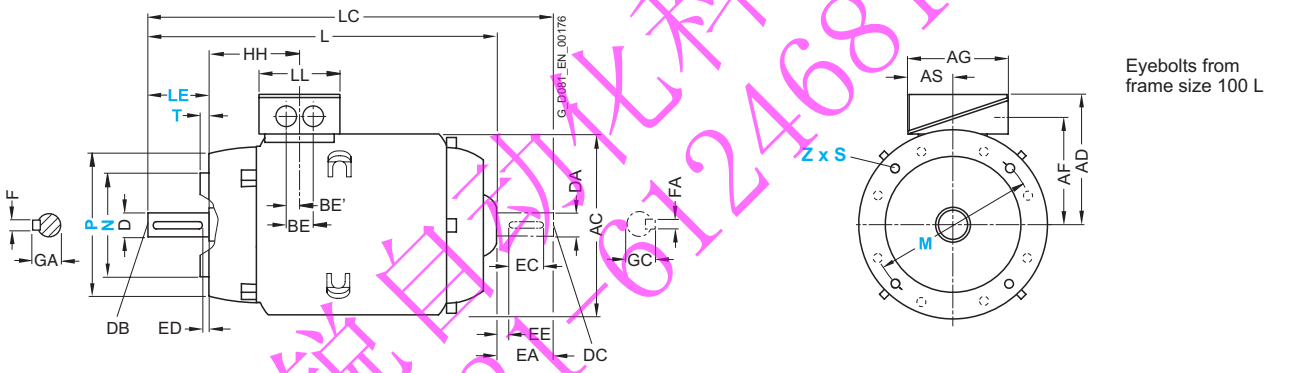
Type of construction IM B35

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see Page 1/98 (Z = the number of retaining holes)



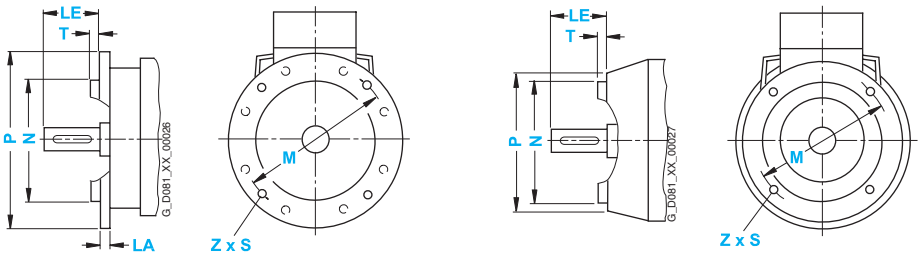
For motor		Dimension designation acc. to **IEC**					DE shaft extension							NDE shaft extension						
Frame size	Number of poles	HH	K	K	L	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
100 L	2, 4, 6, 8	96.5	12	16	321.5	–	112	28	M10	60	50	5	8	31	–	–	–	–	–	–	–
112 M	2, 4, 6, 8	96	12	16	311	–	112	28	M10	60	50	5	8	31	–	–	–	–	–	–	–
132 S	2, 4, 6, 8	115.5	12	16	380.5	–	130	38	M12	80	70	5	10	41	–	–	–	–	–	–	–
132 M	2, 4, 6, 8	115.5	12	16	380.5	–	130	38	M12	80	70	5	10	41	–	–	–	–	–	–	–
160 M	2, 4, 6, 8	155	15	19	510	–	145	42	M16	110	90	10	12	45	–	–	–	–	–	–	–
160 L	2, 4, 6, 8	155	15	19	510	–	145	42	M16	110	90	10	12	45	–	–	–	–	–	–	–

Dimensions

1

Dimensional drawings (continued)

Flange dimensions



In DIN EN 50347, flanges FF with through holes and flanges FT with tapped holes are assigned to frame sizes. The designation of flange A and C according to DIN 42948 (invalid since 09/2003) are also listed for information purposes. See the table below. (Z = the number of retaining holes)

Frame size	Type of construction	Flange type	Flange with Through holes (**FF**/A) Tapped holes (**FT**/C) According to DIN EN 50347	Acc. to DIN 42948	Dimension designation acc. to **IEC** LA	LE	M	N	P	S	T	Z
100 L	IM B5, IM B35, IM V1, IM V3	Flange	**FF 215**	A 250	11	60	215	180	250	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	**FT 130**	C 160	–	60	130	110	160	M8	3.5	4
112 M	IM B5, IM B35, IM V1, IM V3	Flange	**FF 215**	A 250	11	60	215	180	250	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	**FT 130**	C 160	–	60	130	110	160	M8	3.5	4
132 S, 132 M	IM B5, IM B35, IM V1, IM V3	Flange	**FF 265**	A 300	12	80	265	230	300	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	**FT 165**	C 200	–	80	165	130	200	M10	3.5	4
160 M, 160 L	IM B5, IM B35, IM V1, IM V3	Flange	**FF 300**	A 350	13	110	300	250	350	18.5	5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	**FT 215**	C 250	–	110	215	180	250	M12	4	4