

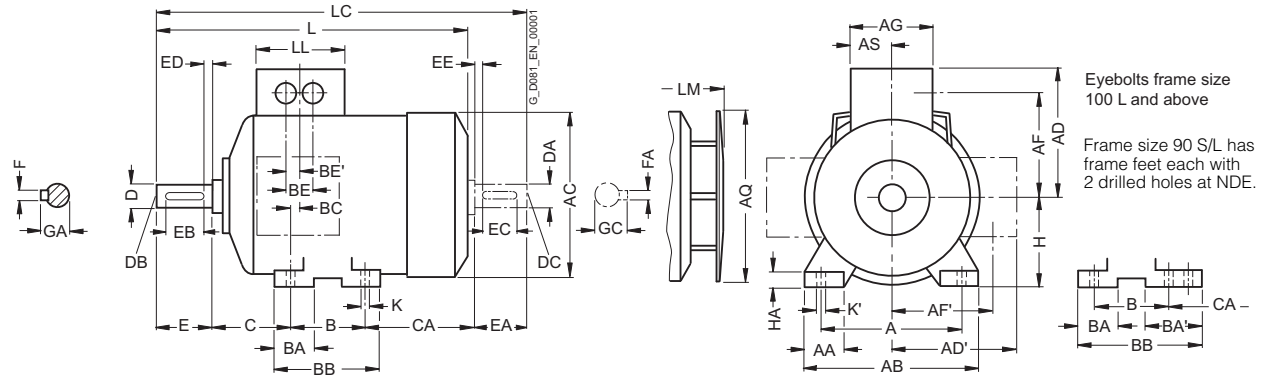
SIMOTICS XP 1MA Explosion-Proof Motors

Dimensions

Aluminum series 1MA7
Frame sizes 63 M to 160 L

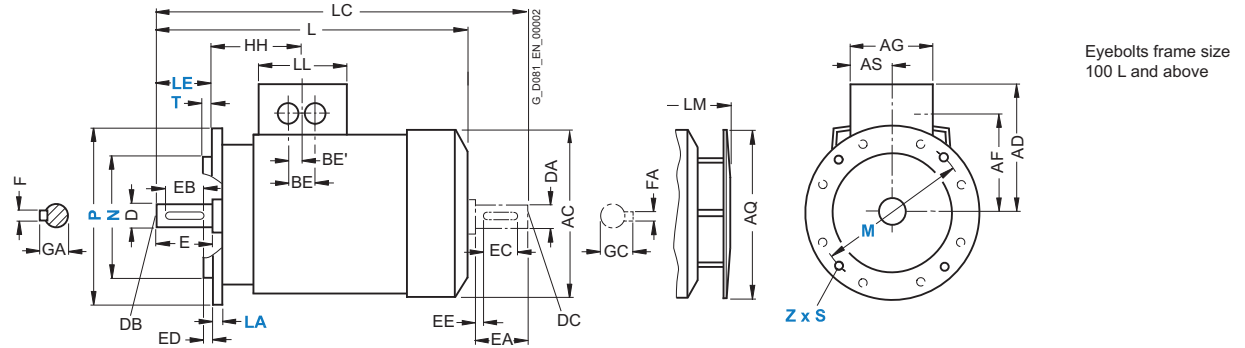
Dimensional drawings

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 | AD' | AF | AF' | AG | AQ | AS | B* | BA | BA' | BB | BC | BE | BE' | C | CA* | H | HA |
| 63 M | 1MA7060 1MA7063 | 2, 4, 6 | 100 | 27 | 120 | 124 | 135 | 101 | 95 | 78 | 120 | 124 | 60 | 80 | 28 | - | 96 | 52.5 | 32 | 16 | 40 | 66 | 63 | 7 |
| 71 M | 1MA7070 1MA7073 | 2, 4, 6, 8 | 112 | 27 | 132 | 145 | 145 | 111 | 105 | 88 | 120 | 124 | 60 | 90 | 27 | - | 106 | 41.5 | 32 | 16 | 45 | 83 | 71 | 7 |
| 80 M | 1MA7080 1MA7083 | 2, 4, 6, 8 | 125 | 30.5 | 150 | 163 | 154 | 154 | 114 | 114 | 120 | 124 | 60 | 100 | 32 | - | 118 | 36 | 32 | 16 | 50 | 94 134 ²⁾ | 80 | 8 |
| 90 S 90 L | 1MA7090 1MA7096 | 2, 4, 6, 8 | 140 | 30.5 | 165 | 180 | 162 | 162 | 122 | 122 | 120 | 170 | 60 | 100 125 | 33 | 54 | 143 | 46 | 32 | 16 | 56 | 143 118 | 90 | 10 |
| 100 L | 1MA7106 1MA7107 | 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 | 100 | 12 |
| 112 M | 1MA7113 | 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 | 1MA7130 1MA7131 | 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 | 1MA7133 1MA7134 | 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 ³⁾ | 132 | 15 |
| 160 M | 1MA7163 1MA7164 | 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 | 1MA7166 | 2, 4, 6, 8 | 254 | 60 | 300 | 320 | 197 | 226 | 127 | 183 | 165 | 250 | 82.5 | 254 | 57 | - | 300 | 52.5 | 54 | 27 | 108 | 139 179 ⁴⁾ | 160 | 18 |

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

¹⁾ Measured across the bolt heads.

²⁾ Only for 1MA7083-6.

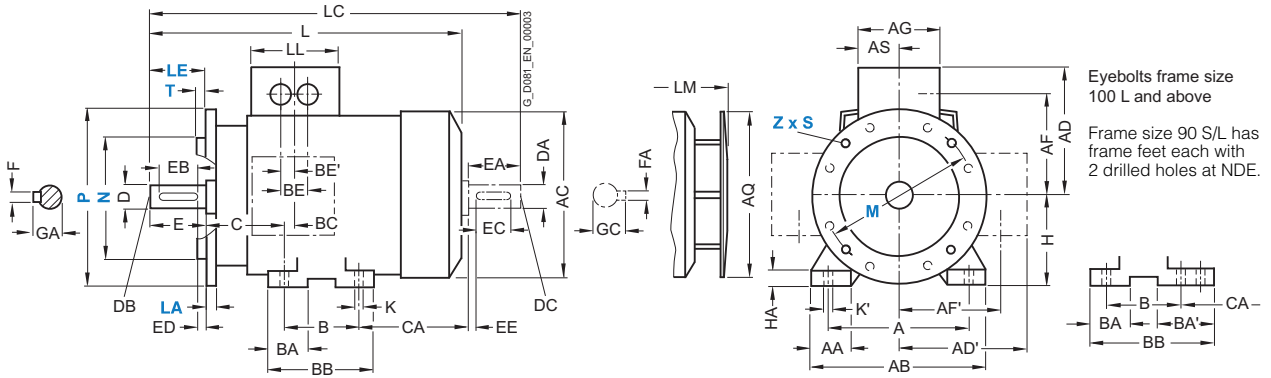
³⁾ Only for 1MA7133-4.

⁴⁾ Only for 1MA7166-4 and 1MA7166-6.

Dimensional drawings (continued)

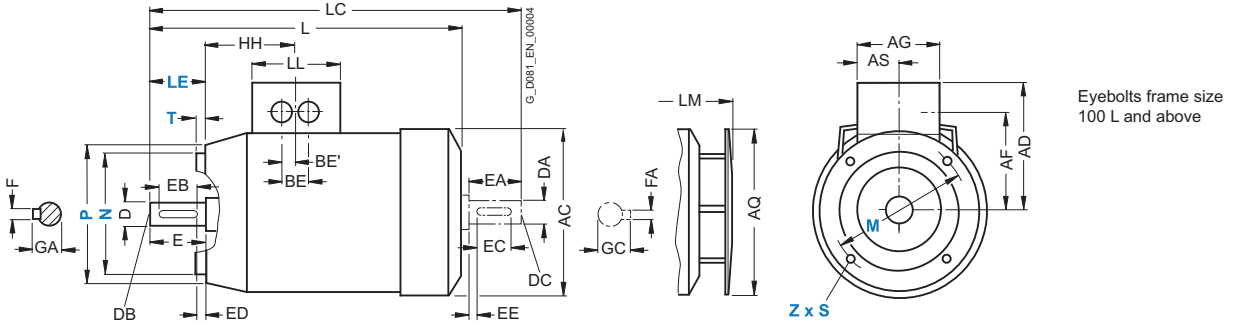
Type of construction IM B35

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



Type of construction IM B14

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



| For motor Frame size | Type | Number of poles | Dimension designation acc. to IEC | | | | | DE shaft extension | | | | | NDE shaft extension | | | | | | | | | | |
|-------------------------|-------------------------|--------------------|-----------------------------------|-----|------|--|------------------------------|--------------------|--|----|-----|-----|---------------------|-----|----|------|----|-----|-----|----|-----|----|------|
| | | | HH | K | K' | L | LC | LL | LM | D | DB | E | EB | ED | F | GA | DA | DC | EA | EC | EE | FA | GC |
| 63 M | 1MA7060 1MA7063 | 2, 4, 6 | 92.5 | 7 | 10 | 202.5 ¹⁾ | 232 ¹⁾ | 120 | 231.5 ¹⁾ | 11 | M4 | 23 | 16 | 3.5 | 4 | 12.5 | 11 | M4 | 23 | 16 | 3.5 | 4 | 12.5 |
| 71 M | 1MA7070 1MA7073 | 2, 4, 6, 8 | 86.5 | 7 | 10 | 240 | 278 | 120 | 268 | 14 | M5 | 30 | 22 | 4 | 5 | 16 | 14 | M5 | 30 | 22 | 4 | 5 | 16 |
| 80 M | 1MA7080 1MA7083 | 2, 4, 6, 8 | 86 | 9.5 | 13.5 | 273.5 308.5 ²⁾ | 324 364 | 120 | 299.5 334.5 ²⁾ | 19 | M6 | 40 | 32 | 4 | 6 | 21.5 | 19 | M6 | 40 | 32 | 4 | 6 | 21.5 |
| 90 S 90 L | 1MA7090 1MA7096 | 2, 4, 6, 8 | 101.5 | 10 | 14 | 331 | 389 | 120 | 382.5 | 24 | M8 | 50 | 40 | 5 | 8 | 27 | 19 | M6 | 40 | 32 | 4 | 6 | 21.5 |
| 100 L | 1MA7106 1MA7107 | 2, 4, 6, 8 4, 8 | 102 | 12 | 16 | 372 | 438 | 120 | 423.5 | 28 | M10 | 60 | 50 | 5 | 8 | 31 | 24 | M8 | 50 | 40 | 5 | 8 | 27 |
| 112 M | 1MA7113 | 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 | 1MA7130 1MA7131 2 | 2, 4, 6, 8 | 128 | 12 | 16 | 452.5 ³⁾ | 551.5 | 140 | 505 ³⁾ | 38 | M12 | 80 | 70 | 5 | 10 | 41 | 38 | M12 | 80 | 70 | 5 | 10 | 41 |
| 132 M | 1MA7133 1MA7134 | 4, 6, 8 6 | 128 | 12 | 16 | 452.5 ³⁾ 490.5 ⁴⁾ | 551.5 589.5 ⁴⁾ | 140 | 505 ³⁾ 543 ⁴⁾ | 38 | M12 | 80 | 70 | 5 | 10 | 41 | 38 | M12 | 80 | 70 | 5 | 10 | 41 |
| 160 M | 1MA7163 1MA7164 | 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 | 1MA7166 | 2, 4, 6, 8 | 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 |

1) For 1MA7063 in the case of type of construction code 1 (IM B5, IM V3), dimensions L, LC and LM are 26 mm longer.

2) Only for 1MA7083-6.

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

4) Only for 1MA7133-4.

5) Only for 1MA7166-4 and 1MA7166-6.