

# Technical Data Single Speed Motor – Single Winding



BM series

| Motor type  | Power (kW) | RPM | In 400 V (A) | Power factor Cos φ | Tn (Nm) | Ts/Tn | Is/In | DC brake In (mA) | Z <sub>0</sub> (starts/hour) | Moment of inertia Jx 10 <sup>-4</sup> Kg·m <sup>2</sup> | Max Brake torque (Nm) | A-Sound pressure dB(A) | Weight (Kg) |
|-------------|------------|-----|--------------|--------------------|---------|-------|-------|------------------|------------------------------|---|-----------------------|------------------------|-------------|
| 6 pole      |            |     |              |                    |         |       |       |                  |                              |   |                       | 1000 RPM               |             |
| BM 56 B6    | 0.06       | 850 | 0.45         | 0.71               | 0.67    | 1.9   | 1.5   | 130              | 12000                        | 1.85  | 2                     | 41                     | 4.0         |
| BM 63 C6    | 0.09       | 890 | 0.50         | 0.56               | 0.97    | 2.4   | 1.9   | 200              | 12000                        | 3.55  | 5                     | 42                     | 5.5         |
| BM 63 D6    | 0.12       | 870 | 0.60         | 0.60               | 1.32    | 2.7   | 1.9   | 200              | 12000                        | 3.83  | 5                     | 42                     | 6.0         |
| BM 71 A6    | 0.18       | 875 | 0.60         | 0.71               | 1.96    | 2.0   | 2.6   | 200              | 11500                        | 8.55  | 5                     | 45                     | 7.5         |
| BM 71 B6    | 0.25       | 900 | 0.80         | 0.71               | 2.65    | 2.0   | 2.8   | 200              | 11500                        | 10.01   | 5                     | 45                     | 8.0         |
| BM 80 A6    | 0.37       | 910 | 1.25         | 0.67               | 3.88    | 2.6   | 3.4   | 160              | 9700                         | 19.05   | 10                    | 47                     | 12.0        |
| BM 80 B6    | 0.55       | 900 | 1.80         | 0.68               | 5.84    | 2.2   | 2.8   | 160              | 9250                         | 22.86   | 10                    | 47                     | 13.0        |
| BM 90 SA6   | 0.75       | 910 | 2.30         | 0.68               | 7.87    | 2.1   | 3.5   | 190              | 7300                         | 31.52   | 20                    | 54                     | 16.0        |
| BM 90 LA6   | 1.10       | 910 | 3.20         | 0.68               | 11.54   | 2.2   | 3.6   | 190              | 5400                         | 41.67   | 20                    | 54                     | 18.5        |
| BM 90 LB6*  | 1.30       | 910 | 3.90         | 0.68               | 13.64   | 2.5   | 4.0   | 190              | 4300                         | 48.10   | 20                    | 54                     | 20.5        |
| BM 100 LA6  | 1.50       | 930 | 3.90         | 0.71               | 15.40   | 2.3   | 4.3   | 250              | 3650                         | 80.76   | 40                    | 56                     | 26          |
| BM 100 LB6  | 1.85       | 920 | 5.00         | 0.68               | 19.20   | 2.6   | 4.5   | 250              | 3200                         | 92.55   | 40                    | 56                     | 28          |
| BM 112 MB6  | 2.20       | 945 | 5.20         | 0.79               | 22.23   | 2.0   | 5.3   | 470              | 2100                         | 200.60  | 60                    | 58                     | 39          |
| BM 132 SB6  | 3.00       | 960 | 7.20         | 0.72               | 29.84   | 2.5   | 6.5   | 600              | 650                          | 304.90  | 100                   | 58                     | 66          |
| BM 132 MA6  | 4.00       | 960 | 9.50         | 0.72               | 39.79   | 2.3   | 6.5   | 600              | 550                          | 360.70  | 100                   | 58                     | 71          |
| BM 132 MB6  | 5.50       | 960 | 12.30        | 0.75               | 54.71   | 2.3   | 6.5   | 600              | 550                          | 467.70  | 100                   | 58                     | 82          |
| BM 160 MB6  | 7.50       | 965 | 15.90        | 0.79               | 74.22   | 2.2   | 7.1   | 700              | 550                          | 867.00  | 150                   | 59                     | 138         |
| BM 160 LA6* | 9.20       | 970 | 18.30        | 0.81               | 90.58   | 2.2   | 7.1   | 700              | 500                          | 1160.00   | 150                   | 59                     | 156         |
| BM 160 LB6  | 11.00      | 970 | 22.70        | 0.80               | 108.30  | 2.5   | 7.5   | 700              | 440                          | 1160.00   | 150                   | 59                     | 156         |
| 8 pole      |            |     |              |                    |         |       |       |                  |                              |   |                       | 750 RPM                |             |
| BM 63 D8    | 0.07       | 650 | 0.45         | 0.62               | 1.03    | 2.2   | 1.55  | 200              | 15000                        | 3.83  | 5                     | 42                     | 6.0         |
| BM 71 A8    | 0.08       | 660 | 0.60         | 0.53               | 1.16    | 2.0   | 2.0   | 200              | 8750                         | 5.67  | 5                     | 43                     | 7.5         |
| BM 71 B8    | 0.11       | 660 | 0.80         | 0.55               | 1.59    | 2.0   | 2.0   | 200              | 8750                         | 6.57  | 5                     | 43                     | 8.0         |
| BM 80 A8    | 0.18       | 675 | 0.95         | 0.59               | 2.55    | 2.0   | 2.2   | 160              | 8150                         | 19.05   | 10                    | 45                     | 12.0        |
| BM 80 B8    | 0.25       | 675 | 1.25         | 0.62               | 3.54    | 2.0   | 2.2   | 160              | 7250                         | 22.86   | 10                    | 45                     | 13.0        |
| BM 90 SA8   | 0.37       | 690 | 1.50         | 0.60               | 5.12    | 2.1   | 2.9   | 190              | 7000                         | 31.52   | 20                    | 46                     | 16.5        |
| BM 90 LA8   | 0.55       | 690 | 2.20         | 0.56               | 7.61    | 2.1   | 2.8   | 190              | 5400                         | 41.67   | 20                    | 46                     | 19          |
| BM 90 LB8*  | 0.65       | 690 | 2.70         | 0.56               | 9.00    | 2.1   | 2.8   | 190              | 4400                         | 48.00   | 20                    | 46                     | 21          |
| BM 100 LA8  | 0.75       | 700 | 2.75         | 0.58               | 10.23   | 2.1   | 3.0   | 250              | 3850                         | 80.76   | 40                    | 49                     | 26          |
| BM 100 LB8  | 1.1        | 700 | 4.10         | 0.59               | 15.01   | 2.5   | 4.0   | 250              | 3600                         | 92.55   | 40                    | 49                     | 28          |
| BM 112 MB8  | 1.5        | 705 | 4.90         | 0.60               | 20.32   | 2.0   | 4.5   | 470              | 2500                         | 200.60  | 60                    | 52                     | 39          |
| BM 132 SB8  | 2.2        | 700 | 5.20         | 0.75               | 30.01   | 2.1   | 4.7   | 600              | 700                          | 283.90  | 100                   | 55                     | 61          |
| BM 132 MB8  | 3.0        | 700 | 7.10         | 0.75               | 40.93   | 2.1   | 4.7   | 600              | 700                          | 372.70  | 100                   | 55                     | 68          |
| BM 160 MA8  | 4.0        | 725 | 9.60         | 0.72               | 52.69   | 2.3   | 6.5   | 700              | 630                          | 959.00  | 150                   | 58                     | 138         |
| BM 160 MB8  | 5.5        | 725 | 13.60        | 0.70               | 72.45   | 2.3   | 6.1   | 700              | 630                          | 959.00  | 150                   | 58                     | 138         |
| BM 160 LA8  | 7.5        | 725 | 18.60        | 0.70               | 98.79   | 2.3   | 6.1   | 700              | 630                          | 1280.00   | 150                   | 58                     | 156         |

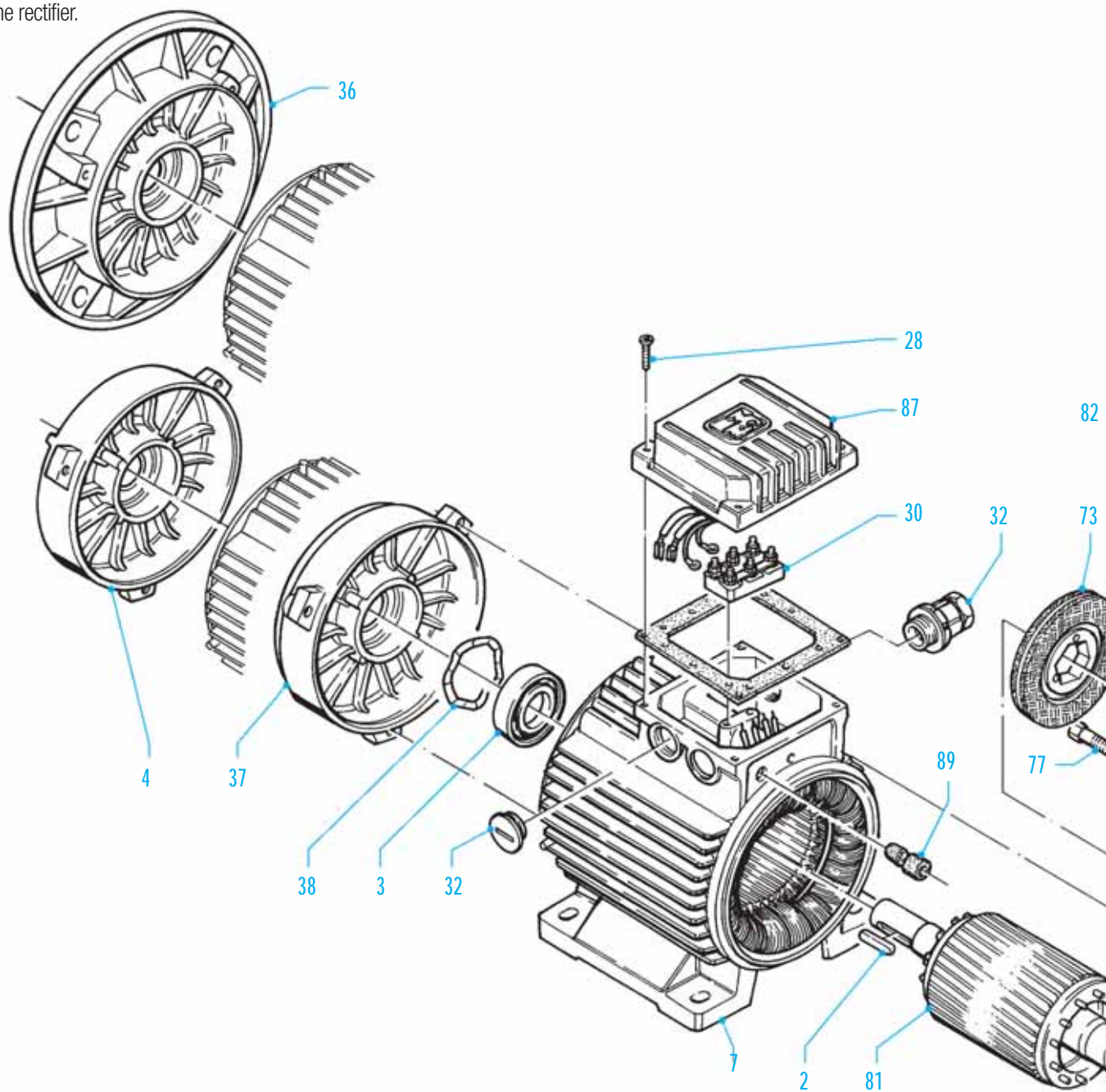
\* Non Standard Power

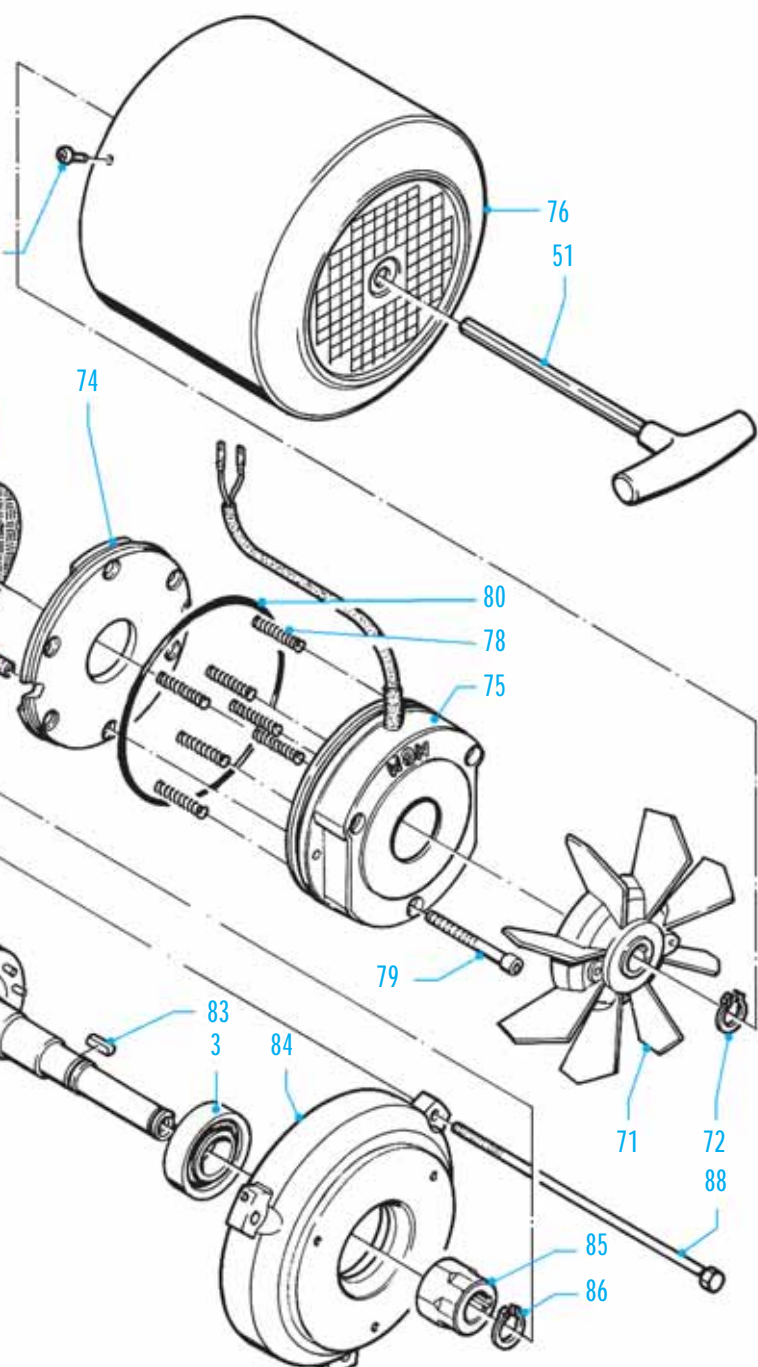
1. Motor characteristic values reported in the tables refer to continuous duty (S1) 50 Hz frequency ambient temperature max. 40 °C altitude

3. The table shows the sound pressure noise level, measured at one metro range from the motor according to the Acoustic (ISO 1680). The

load according to the formula expressed at page 38. The number of starts with load (Z<sub>0</sub>) is indicative and it has to be operationally tested

M.G.M. motori elettrici S.p.A. is present in more than 40 countries around the world with sales/parts outlets and customer service. Please contact MGM customer assistance to find further information about MGM in the world. To clearly identify a spare part it's necessary to provide the item number (shown on the drawing below), the motor type, the rated voltage and frequency supply for electric parts such as the stator, the brake coil and the rectifier.





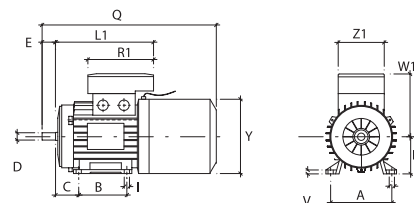
|  |    |
|--|----|
| Key  | 2  |
| Bearing Drive Side   | 3  |
| Endshield Drive End  | 4  |
| Stator Frame   | 7  |
| Terminal Box screws  | 28 |
| Terminal Box (single or double)  | 30 |
| Cable Gland  | 32 |
| Flange B5 (Flange Mounting)  | 36 |
| Flange B14 (Face Mounting)   | 37 |
| Elastic washer   | 38 |
| Allen key for manual shaft rotation (on request only)  | 51 |
| Fan  | 71 |
| Fan Snap Ring  | 72 |
| Brake Disc   | 73 |
| Brake Moving Element   | 74 |
| Brake Coil   | 75 |
| Fan Cover  | 76 |
| Connecting Screw   | 77 |
| Adjustable or Fixed Springs  | 78 |
| Brake Fixing Screw   | 79 |
| Brake Assembly O-ring (BM 80-90-100)   | 80 |
| Complete Rotor   | 81 |
| Fan Cover Screw  | 82 |
| Brake Assembly Key (BM 71-80-90-100)   | 83 |
| Endshield Brake Side (rear cover)  | 84 |
| Hexagonal Hub  | 85 |
| Fixing Hub Snap Ring   | 86 |
| Terminal Box with built-in rectifier   | 87 |
| Tie Rod  | 88 |
| Rubber Sleeve  | 89 |
| Stainless steel plate (this item isn't showed on the drawing and it is used only for some types of motors) | 90 |



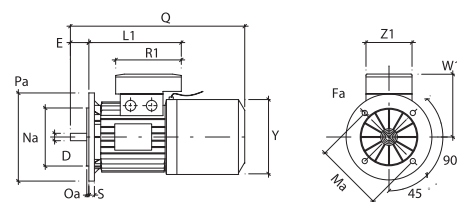
## BMEAV Series Dimensions

| Size | 63   | 71   | 80   | 90S  | 90L  | 100L | 112M  | 132S | 132M | 160M | 160L |
|------|------|------|------|------|------|------|-------|------|------|------|------|
| A    | 100  | 112  | 125  | 140  | 140  | 160  | 190   | 216  | 216  | 254  | 254  |
| B    | 80   | 90   | 100  | 100  | 125  | 140  | 140   | 140  | 178  | 210  | 254  |
| C    | 40   | 45   | 50   | 56   | 56   | 63   | 70    | 89   | 89   | 108  | 108  |
| D    | 11   | 14   | 19   | 24   | 24   | 28   | 28    | 38   | 38   | 42   | 42   |
| d    | M4   | M5   | M6   | M8   | M8   | M10  | M10   | M12  | M12  | M16  | M16  |
| E    | 23   | 30   | 40   | 50   | 50   | 60   | 60    | 80   | 80   | 110  | 110  |
| Fa   | 9.5  | 9.5  | 11.5 | 11.5 | 11.5 | 14.5 | 14.5  | 14.5 | 14.5 | 18.5 | 18.5 |
| Fb   | M5   | M6   | M6   | M8   | M8   | M8   | M8    | M10  | M10  |      |      |
| f    | 4    | 5    | 6    | 8    | 8    | 8    | 8     | 10   | 10   | 12   | 12   |
| g    | 8.5  | 11   | 15.5 | 20   | 20   | 24   | 24    | 33   | 33   | 37   | 37   |
| H    | 63   | 71   | 80   | 90   | 90   | 100  | 112   | 132  | 132  | 160  | 160  |
| h    | 4    | 5    | 6    | 7    | 7    | 7    | 7     | 8    | 8    | 8    | 8    |
| I    | 7    | 7    | 10   | 10   | 10   | 12   | 12    | 12   | 12   | 14.5 | 14.5 |
| K    | 10.5 | 10.5 | 14   | 14   | 14   | 16   | 16    | 22   | 22   | 24   | 24   |
| L1   | 166  | 184  | 194  | 207  | 232  | 254  | 262   | 294  | 339  | 373  | 395  |
| Ma   | 115  | 130  | 165  | 165  | 165  | 215  | 215   | 265  | 265  | 300  | 300  |
| Mb   | 75   | 85   | 100  | 115  | 115  | 130  | 130   | 165  | 165  |      |      |
| Na   | 95   | 110  | 130  | 130  | 130  | 180  | 180   | 230  | 230  | 250  | 250  |
| Nb   | 60   | 70   | 80   | 95   | 95   | 110  | 110   | 130  | 130  |      |      |
| Oa   | 3    | 3.5  | 3.5  | 3.5  | 3.5  | 4    | 4     | 4    | 4    | 5    | 5    |
| Ob   | 2.5  | 2.5  | 3    | 3    | 3    | 3.5  | 3.5   | 3.5  | 3.5  |      |      |
| Pa   | 140  | 160  | 200  | 200  | 200  | 250  | 250   | 300  | 300  | 350  | 350  |
| Pb   | 90   | 105  | 120  | 140  | 140  | 160  | 160   | 200  | 200  |      |      |
| Q    | 310  | 345  | 384  | 410  | 435  | 485  | 520   | 625  | 664  | 690  | 734  |
| R1   | 135  | 135  | 135  | 170  | 170  | 170  | 170   | 199  | 199  | 268  | 268  |
| S    | 10   | 10   | 12   | 12   | 12   | 14   | 14    | 15   | 15   | 15   | 15   |
| V    | 7    | 8    | 9.5  | 10.5 | 10.5 | 12.5 | 13.5  | 16   | 16   | 21   | 21   |
| W    |      |      |      |      |      |      |       |      |      | 155  | 155  |
| W1   | 111  | 121  | 130  | 148  | 148  | 162  | 176   | 210  | 210  | 246  | 246  |
| Y    | 121  | 136  | 153  | 178  | 178  | 198  | 219.5 | 255  | 255  | 310  | 310  |
| Z1   | 86   | 86   | 86   | 112  | 112  | 112  | 112   | 151  | 151  | 167  | 167  |

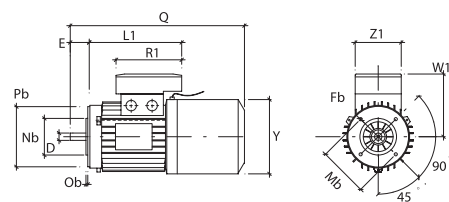
### B3 (Foot Mounting)



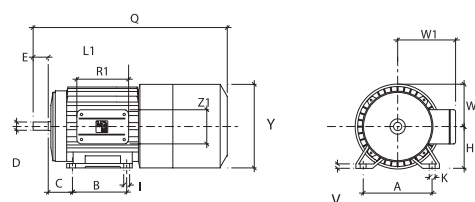
### B5 (Flange Mounting)



### B14 (Face Mounting)



### Size 160 B3 (Foot Mounting)



### Shaft End

