



ISO 9001:2008



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AN ISO 9001:2008 CERTIFIED COMPANY

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## POWERTEK NMRV WORMGEARBOX.CATALOGUE



NMRV WORM GEAR BOXES



WORM GEARED MOTOR FOOT WITH SOLID OUTPUT SHAFT



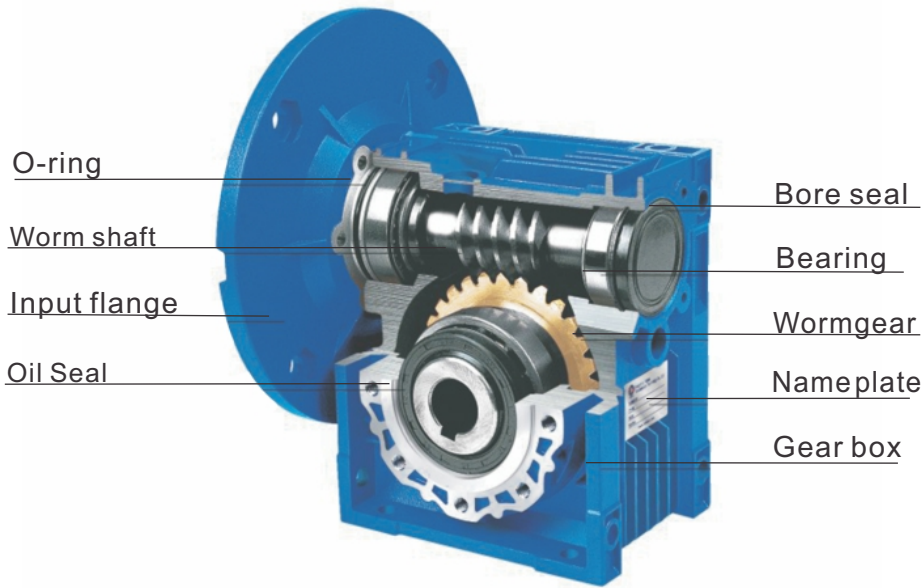
WORM GEARED MOTOR FLANGEMOUNTED



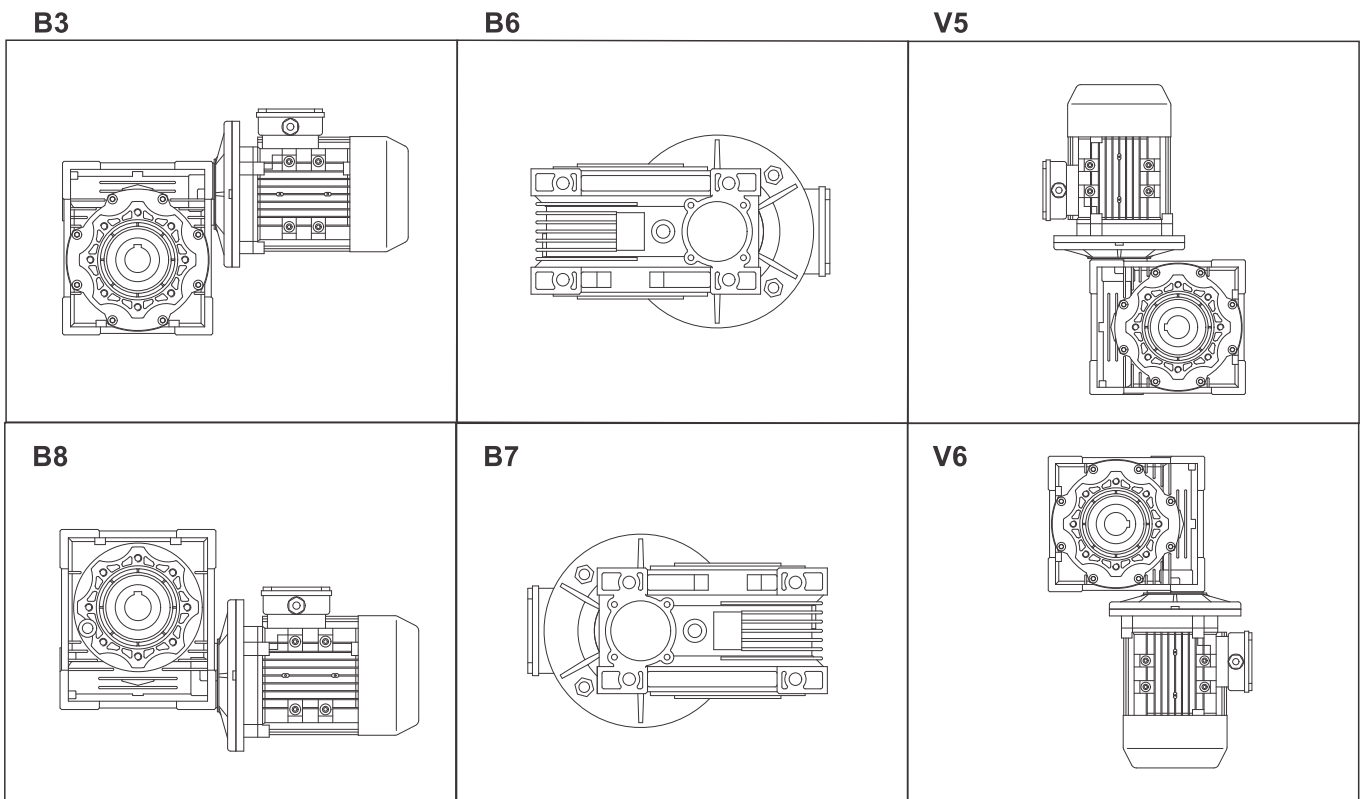
WORM GEAR MOTOR FOOT HOLLOW OUTPUT



## 1. Product Structure



## 2. Single Step Mounting Positions



## Selection chart - Single Reduction

| Input (HP) | MODEL | Ratio | n2 (rpm) | M2 (Nm) | Input (HP) | MODEL | Ratio | n2 (rpm) | M2 (Nm) |
|------------|-------|-------|----------|---------|------------|-------|-------|----------|---------|
| 0.06       | 30    | 7.5   | 187      | 2.6     | 0.25       | 40    | 50    | 28       | 38.0    |
|            | 30    | 10    | 140      | 3.4     |            | 50    | 50    | 28       | 38.0    |
|            | 30    | 15    | 93       | 4.7     |            | 50    | 60    | 23       | 34.0    |
|            | 30    | 20    | 70       | 6.0     |            | 50    | 80    | 18       | 53.0    |
|            | 30    | 25    | 56       | 7.0     |            | 50    | 100   | 14       | 55.0    |
|            | 30    | 30    | 47       | 8.0     |            | 0.33  | 40    | 7.5      | 187     |
|            | 30    | 40    | 35       | 9.7     | 50         |       | 7.5   | 187      | 11.0    |
|            | 30    | 50    | 28       | 11.3    | 40         |       | 10    | 140      | 14.0    |
|            | 40    | 50    | 28       | 12.7    | 50         |       | 10    | 140      | 14.0    |
|            | 30    | 60    | 23       | 12.5    | 40         |       | 15    | 93       | 20.0    |
|            | 40    | 60    | 23       | 14.2    | 50         |       | 15    | 93       | 21.0    |
|            | 30    | 80    | 18       | 12.5    | 40         |       | 20    | 70       | 26.0    |
|            | 40    | 80    | 18       | 17.0    | 50         |       | 20    | 70       | 26.0    |
|            | 40    | 100   | 14       | 19.2    | 40         |       | 25    | 56       | 31.0    |
| 0.12       | 30    | 7.5   | 187      | 3.9     | 50         |       | 25    | 56       | 32.0    |
|            | 30    | 10    | 140      | 5.0     | 40         |       | 30    | 47       | 36.0    |
|            | 30    | 15    | 93       | 7.1     | 50         |       | 30    | 47       | 36.0    |
|            | 30    | 20    | 70       | 9.0     | 40         |       | 40    | 35       | 44.0    |
|            | 30    | 25    | 56       | 10.4    | 50         |       | 40    | 35       | 45.0    |
|            | 30    | 30    | 47       | 12.0    | 50         | 50    | 28    | 53.0     |         |
|            | 30    | 40    | 35       | 14.5    | 50         | 60    | 23    | 60.0     |         |
|            | 30    | 50    | 28       | 16.9    | 50         | 80    | 18    | 65.0     |         |
|            | 40    | 50    | 28       | 19.0    | 63         | 80    | 18    | 77.0     |         |
|            | 30    | 60    | 23       | 16.9    | 63         | 100   | 14    | 85.0     |         |
|            | 40    | 60    | 23       | 21.4    | 0.50       | 40    | 7.5   | 187      | 16.0    |
|            | 40    | 80    | 18       | 25.5    |            | 50    | 7.5   | 187      | 16.0    |
|            | 40    | 100   | 14       | 28.9    |            | 40    | 10    | 140      | 21.0    |
|            | 0.16  | 30    | 7.5      | 187     |            | 5.2   | 50    | 10       | 140     |
| 40         |       | 7.5   | 187      | 5.3     |            | 40    | 15    | 93       | 30.0    |
| 30         |       | 10    | 140      | 6.7     |            | 50    | 15    | 93       | 31.0    |
| 40         |       | 10    | 140      | 7.0     |            | 40    | 20    | 70       | 39.0    |
| 30         |       | 15    | 93       | 9.5     |            | 50    | 20    | 70       | 39.0    |
| 40         |       | 15    | 93       | 10.1    |            | 50    | 25    | 56       | 47.0    |
| 30         |       | 20    | 70       | 12.0    |            | 50    | 30    | 47       | 54.0    |
| 40         |       | 20    | 70       | 12.8    |            | 50    | 40    | 35       | 66.0    |
| 30         |       | 25    | 56       | 13.9    |            | 63    | 40    | 35       | 70.0    |
| 40         |       | 25    | 56       | 15.3    |            | 50    | 50    | 28       | 73.0    |
| 30         |       | 30    | 47       | 16.0    |            | 63    | 50    | 28       | 83.0    |
| 40         |       | 30    | 47       | 17.2    | 63         | 60    | 23    | 95.0     |         |
| 30         |       | 40    | 35       | 17.0    | 63         | 80    | 18    | 114.0    |         |
| 40         |       | 40    | 35       | 21.3    | 63         | 100   | 14    | 118.0    |         |
| 50         |       | 40    | 35       | 21.9    | 0.75       | 40    | 7.5   | 187      | 24.5    |
| 40         |       | 50    | 28       | 25.4    |            | 50    | 7.5   | 187      | 25.0    |
| 50         |       | 50    | 28       | 25.8    |            | 40    | 10    | 140      | 32.0    |
| 40         |       | 60    | 23       | 28.5    |            | 50    | 10    | 140      | 32.0    |
| 50         | 60    | 23    | 29.0     | 50      |            | 15    | 93    | 46.0     |         |
| 40         | 80    | 18    | 34.1     | 63      |            | 15    | 93    | 46.0     |         |
| 50         | 80    | 18    | 34.7     | 50      |            | 20    | 70    | 59.0     |         |
| 50         | 100   | 14    | 40.1     | 63      |            | 20    | 70    | 60.0     |         |
| 0.25       | 30    | 7.5   | 187      | 8.0     |            | 63    | 25    | 56       | 72.0    |
|            | 40    | 7.5   | 187      | 8.0     |            | 63    | 30    | 47       | 80.0    |
|            | 30    | 10    | 140      | 10.0    |            | 63    | 40    | 35       | 104.0   |
|            | 40    | 10    | 140      | 10.0    |            | 75    | 40    | 35       | 108.0   |
|            | 30    | 15    | 93       | 14.0    |            | 63    | 50    | 28       | 123.0   |
|            | 40    | 15    | 93       | 15.0    |            | 75    | 50    | 28       | 129.0   |
|            | 30    | 20    | 70       | 18.0    | 75         | 60    | 23    | 146.0    |         |
|            | 40    | 20    | 70       | 19.0    | 75         | 80    | 18    | 180.0    |         |
|            | 30    | 25    | 56       | 20.0    | 75         | 100   | 14    | 180.0    |         |
|            | 40    | 25    | 56       | 23.0    | 1.0        | 50    | 7.5   | 187      | 34.0    |
|            | 40    | 30    | 47       | 26.0    |            | 63    | 7.5   | 187      | 33.0    |
|            | 40    | 40    | 35       | 32.0    |            | 50    | 10    | 140      | 44.0    |
|            | 50    | 40    | 35       | 32.0    |            | 63    | 10    | 140      | 44.0    |

# Selection chart - Single Reduction

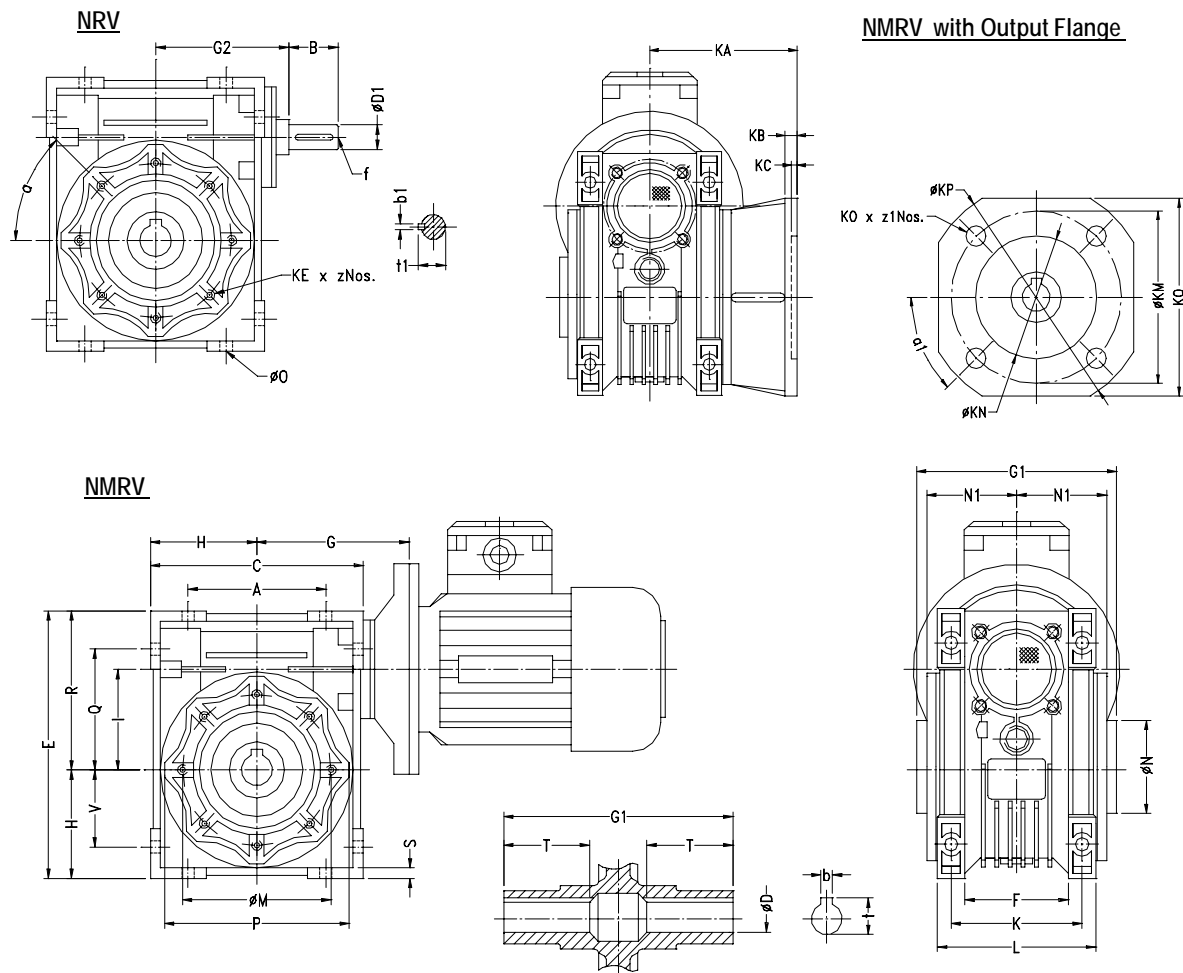
| Input (HP) | MODEL | Ratio | n2 (rpm) | M <sub>2</sub> (Nm) | Input HP) | MODEL | Ratio | n2 (rpm) | M <sub>2</sub> (Nm) |
|------------|-------|-------|----------|---------------------|-----------|-------|-------|----------|---------------------|
| 1.0        | 50    | 15    | 93.3     | 63                  | 3.0       | 130   | 60    | 23.3     | 650                 |
|            | 63    | 15    | 93.3     | 93                  |           | 150   | 60    | 23.3     | 657                 |
|            | 63    | 20    | 70       | 82                  |           | 130   | 80    | 17.5     | 803                 |
|            | 63    | 25    | 56       | 99                  |           | 150   | 80    | 17.5     | 816                 |
|            | 63    | 30    | 46.7     | 109                 |           | 150   | 100   | 14       | 960                 |
|            | 75    | 30    | 46.7     | 116                 |           | 4.0   | 110   | 7.5      | 186.7               |
|            | 63    | 40    | 35       | 143                 | 110       |       | 10    | 140      | 182                 |
|            | 75    | 40    | 35       | 147                 | 110       |       | 15    | 93.3     | 263                 |
|            | 75    | 50    | 28       | 176                 | 110       |       | 20    | 70       | 348                 |
|            | 90    | 50    | 28       | 184                 | 110       |       | 25    | 56       | 430                 |
|            | 75    | 60    | 23.3     | 200                 | 110       |       | 30    | 46.7     | 484                 |
|            | 90    | 60    | 23.3     | 212                 | 110       |       | 40    | 35       | 631                 |
|            | 90    | 80    | 17.5     | 257                 | 130       |       | 40    | 35       | 638                 |
|            | 90    | 100   | 14       | 270                 | 130       |       | 50    | 28       | 767                 |
| 1.5        | 63    | 7.5   | 186.7    | 49                  | 150       |       | 50    | 28       | 778                 |
|            | 75    | 7.5   | 186.7    | 49                  | 130       |       | 60    | 23.3     | 884                 |
|            | 63    | 10    | 140      | 65                  | 150       |       | 60    | 23.3     | 896                 |
|            | 75    | 10    | 140      | 66                  | 150       |       | 80    | 17.5     | 1110                |
|            | 63    | 15    | 93.3     | 93                  | 5.0       |       | 110   | 7.5      | 186.7               |
|            | 75    | 15    | 93.3     | 95                  |           | 130   | 7.5   | 186.7    | 186                 |
|            | 63    | 20    | 70       | 121                 |           | 110   | 10    | 140      | 243                 |
|            | 75    | 20    | 70       | 122                 |           | 130   | 10    | 140      | 243                 |
|            | 75    | 25    | 56       | 149                 |           | 110   | 15    | 93.3     | 352                 |
|            | 75    | 30    | 46.7     | 170                 |           | 130   | 15    | 93.3     | 357                 |
|            | 75    | 40    | 35       | 216                 |           | 110   | 20    | 70       | 464                 |
|            | 90    | 40    | 35       | 225                 |           | 130   | 20    | 70       | 466                 |
|            | 90    | 50    | 28       | 271                 |           | 110   | 25    | 56       | 573                 |
|            | 90    | 60    | 23.3     | 311                 |           | 130   | 25    | 56       | 573                 |
|            | 110   | 60    | 23.3     | 324                 |           | 110   | 30    | 46.7     | 646                 |
|            | 110   | 80    | 17.5     | 410                 |           | 130   | 30    | 46.7     | 655                 |
| 110        | 100   | 14    | 460      | 130                 |           | 40    | 35    | 850      |                     |
| 2.0        | 75    | 7.5   | 186.7    | 67                  |           | 130   | 50    | 28       | 1023                |
|            | 75    | 10    | 140      | 90                  | 150       | 50    | 28    | 1037     |                     |
|            | 75    | 15    | 93.3     | 130                 | 150       | 60    | 23.3  | 1195     |                     |
|            | 75    | 20    | 70       | 167                 | 7.5       | 110   | 7.5   | 186.7    | 253                 |
|            | 75    | 25    | 56       | 200                 |           | 130   | 7.5   | 186.7    | 256                 |
|            | 90    | 25    | 56       | 209                 |           | 110   | 10    | 140      | 334                 |
|            | 75    | 30    | 46.7     | 230                 |           | 130   | 10    | 140      | 334                 |
|            | 90    | 30    | 46.7     | 236                 |           | 110   | 15    | 93.3     | 484                 |
|            | 90    | 40    | 35       | 306                 |           | 130   | 15    | 93.3     | 490                 |
|            | 90    | 50    | 28       | 369                 |           | 130   | 20    | 70       | 645                 |
|            | 110   | 50    | 28       | 375                 |           | 150   | 20    | 70       | 645                 |
|            | 110   | 60    | 23.3     | 442                 |           | 130   | 25    | 56       | 788                 |
|            | 110   | 80    | 17.5     | 49                  |           | 150   | 25    | 56       | 788                 |
|            | 130   | 80    | 17.5     | 547                 |           | 130   | 30    | 46.7     | 900                 |
| 130        | 100   | 14    | 652      | 150                 |           | 30    | 46.7  | 934      |                     |
| 3.0        | 90    | 7.5   | 186.7    | 101                 |           | 150   | 40    | 35       | 1171                |
|            | 110   | 7.5   | 186.7    | 101                 |           | 10.0  | 110   | 7.5      | 186.7               |
|            | 90    | 10    | 140      | 133                 | 130       |       | 7.5   | 186.7    | 349                 |
|            | 110   | 15    | 140      | 133                 | 110       |       | 10    | 140      | 455                 |
|            | 90    | 15    | 93.3     | 193                 | 130       |       | 10    | 140      | 455                 |
|            | 110   | 15    | 93.3     | 193                 | 130       |       | 15    | 93.3     | 667                 |
|            | 90    | 20    | 70       | 251                 | 150       |       | 20    | 70       | 880                 |
|            | 110   | 20    | 70       | 256                 | 150       |       | 25    | 56       | 1074                |
|            | 90    | 25    | 56       | 307                 | 15.0      |       | 150   | 7.5      | 186.7               |
|            | 110   | 25    | 56       | 316                 |           | 150   | 10    | 140      | 675                 |
|            | 90    | 30    | 46.7     | 346                 |           | 150   | 15    | 93.3     | 990                 |
|            | 110   | 30    | 46.7     | 355                 |           | 20.0  | 150   | 7.5      | 186.7               |
|            | 110   | 40    | 35       | 462                 | 150       |       | 10    | 140      | 921                 |
|            | 110   | 50    | 28       | 550                 |           |       |       |          |                     |
|            | 130   | 50    | 28       | 566                 |           |       |       |          |                     |
|            | 150   | 50    | 28       | 570                 |           |       |       |          |                     |

Input speed considered (n1) = 1400rpm.

## Selection chart - Double Reduction

| Model        | Ratio | n2 (rpm) | kW1 | M2 (Nm) | i1  | i2 |  | Model         | Ratio | n2 (rpm) | kW1  | M2 (Nm) | i1  | i2 |
|--------------|-------|----------|-----|---------|-----|----|--|---------------|-------|----------|------|---------|-----|----|
| <b>40/30</b> | 300   | 4.7.0.   | 09  | 70      | 10  | 30 |  | <b>90/40</b>  | 300   | 4.7      | 0.37 | 402     | 7.5 | 40 |
|              | 400   | 3.5.0.   | 06  | 63      | 10  | 40 |  |               | 400   | 3.5      | 0.37 | 523     | 10  | 40 |
|              | 500   | 2.8.0.   | 06  | 57      | 20  | 25 |  |               | 500   | 2.8      | 0.37 | 550     | 10  | 50 |
|              | 600   | 2.3.0.   | 06  | 72      | 20  | 30 |  |               | 600   | 2.3      | 0.37 | 605     | 15  | 40 |
|              | 750   | 1.9.0.   | 06  | 72      | 25  | 30 |  |               | 750   | 1.9      | 0.25 | 538     | 15  | 50 |
|              | 900   | 1.6.0.   | 06  | 73      | 30  | 30 |  |               | 900   | 1.6      | 0.25 | 533     | 15  | 60 |
|              | 1200  | 1.2.0.   | 06  | 65      | 30  | 40 |  |               | 1200  | 1.2      | 0.18 | 629     | 30  | 40 |
|              | 1500  | 0.9.0.   | 06  | 73      | 50  | 30 |  |               | 1500  | 0.9      | 0.18 | 588     | 30  | 50 |
|              | 1800  | 0.8.0.   | 06  | 73      | 60  | 30 |  |               | 1800  | 0.8      | 0.12 | 492     | 30  | 60 |
|              | 2400  | 0.6.0.   | 06  | 65      | 60  | 40 |  |               | 2400  | 0.6      | 0.12 | 625     | 60  | 40 |
|              | 3000  | 0.4.0.   | 06  | 65      | 80  | 40 |  |               | 3000  | 0.5      | 0.09 | 548     | 60  | 50 |
| <b>50/30</b> | 300   | 4.7.0.   | 18  | 142     | 10  | 30 |  | <b>110/50</b> | 300   | 4.7      | 0.75 | 817     | 10  | 30 |
|              | 400   | 3.5.0.   | 12  | 127     | 10  | 40 |  |               | 400   | 3.7      | 0.75 | 1013    | 10  | 40 |
|              | 500   | 2.8.0.   | 09  | 123     | 10  | 50 |  |               | 500   | 2.8      | 0.55 | 984     | 10  | 50 |
|              | 600   | 2.3.0.   | 09  | 143     | 20  | 30 |  |               | 600   | 2.3      | 0.55 | 1062    | 15  | 40 |
|              | 750   | 1.9.0.   | 09  | 148     | 25  | 30 |  |               | 750   | 1.9      | 0.55 | 1128    | 25  | 30 |
|              | 900   | 1.6.0.   | 06  | 141     | 30  | 30 |  |               | 900   | 1.6      | 0.37 | 1079    | 30  | 30 |
|              | 1200  | 1.2.0.   | 06  | 118     | 30  | 40 |  |               | 1200  | 1.2      | 0.25 | 943     | 30  | 40 |
|              | 1500  | 0.9.0.   | 06  | 139     | 50  | 30 |  |               | 1500  | 0.9      | 0.25 | 1064    | 50  | 30 |
|              | 1800  | 0.8.0.   | 06  | 155     | 60  | 30 |  |               | 1800  | 0.8      | 0.25 | 1075    | 60  | 30 |
|              | 2400  | 0.6.0.   | 06  | 124     | 60  | 40 |  |               | 2400  | 0.6      | 0.18 | 1001    | 60  | 40 |
|              | 3000  | 0.5.0.   | 06  | 120     | 60  | 50 |  |               | 3000  | 0.5      | 0.12 | 884     | 60  | 50 |
| <b>63/30</b> | 300   | 4.7.0.   | 22  | 210     | 7.5 | 40 |  | <b>130/63</b> | 300   | 4.7      | 1.5  | 1789    | 10  | 30 |
|              | 400   | 3.5.0.   | 18  | 222     | 10  | 40 |  |               | 400   | 3.5      | 1.0  | 1519    | 10  | 40 |
|              | 500   | 2.8.0.   | 18  | 205     | 10  | 50 |  |               | 500   | 2.8      | 1.0  | 1629    | 10  | 50 |
|              | 600   | 2.3.0.   | 12  | 208     | 15  | 40 |  |               | 600   | 2.3      | 0.75 | 1631    | 15  | 40 |
|              | 750   | 1.9.0.   | 12  | 216     | 15  | 50 |  |               | 750   | 1.9      | 0.75 | 1804    | 25  | 30 |
|              | 900   | 1.6.0.   | 09  | 200     | 15  | 60 |  |               | 900   | 1.6      | 0.75 | 1826    | 30  | 30 |
|              | 1200  | 1.2.0.   | 09  | 236     | 30  | 40 |  |               | 1200  | 1.2      | 0.55 | 1705    | 30  | 40 |
|              | 1500  | 0.9.0.   | 06  | 204     | 30  | 50 |  |               | 1500  | 0.9      | 0.37 | 1674    | 50  | 30 |
|              | 1800  | 0.8.0.   | 06  | 202     | 30  | 60 |  |               | 1800  | 0.8      | 0.37 | 1698    | 60  | 30 |
|              | 2400  | 0.6.0.   | 06  | 220     | 60  | 40 |  |               | 2400  | 0.6      | 0.25 | 1624    | 60  | 40 |
|              | 3000  | 0.5.0.   | 06  | 223     | 60  | 50 |  |               | 3000  | 0.5      | 0.25 | 1548    | 60  | 50 |
| <b>75/40</b> | 300   | 4.7.0.   | 37  | 405     | 10  | 30 |  | <b>150/63</b> | 300   | 4.7      | 1.5  | 1860    | 10  | 30 |
|              | 400   | 3.5.0.   | 25  | 336     | 10  | 40 |  |               | 400   | 3.5      | 1.5  | 2208    | 10  | 40 |
|              | 500   | 2.8.0.   | 25  | 307     | 10  | 50 |  |               | 500   | 2.8      | 1.1  | 1893    | 20  | 25 |
|              | 600   | 2.3.0.   | 18  | 362     | 20  | 30 |  |               | 600   | 2.3      | 1.1  | 2242    | 20  | 30 |
|              | 750   | 1.9.0.   | 18  | 391     | 25  | 30 |  |               | 750   | 1.9      | 0.75 | 1783    | 25  | 30 |
|              | 900   | 1.6.0.   | 12  | 325     | 30  | 30 |  |               | 900   | 1.6      | 0.75 | 1994    | 30  | 30 |
|              | 1200  | 1.2.0.   | 12  | 359     | 30  | 40 |  |               | 1200  | 1.2      | 0.75 | 2680    | 30  | 40 |
|              | 1500  | 0.9.0.   | 09  | 360     | 50  | 30 |  |               | 1500  | 0.9      | 0.75 | 2700    | 50  | 30 |
|              | 1800  | 0.8.0.   | 09  | 404     | 60  | 30 |  |               | 1800  | 0.8      | 0.37 | 1775    | 60  | 30 |
|              | 2400  | 0.6.0.   | 06  | 330     | 60  | 40 |  |               | 2400  | 0.6      | 0.37 | 2141    | 60  | 40 |
|              | 3000  | 0.5.0.   | 06  | 301     | 60  | 50 |  |               | 3000  | 0.5      | 0.25 | 1713    | 60  | 50 |

# Mounting Dimensions - Single reduction

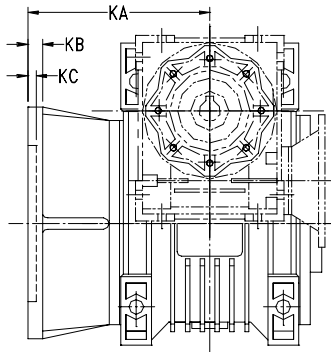
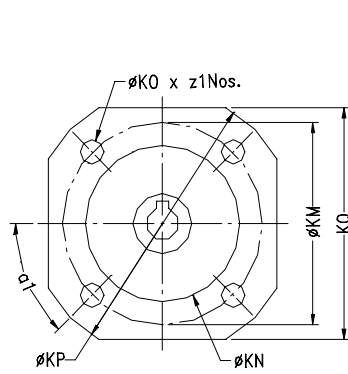


| Size | A   | B  | C   | D (H7) | D1 (J6) | E   | F  | G   | G1  | G2  | H   | I   | L   | M   | N (h8) | N1   | øO  | P   | Q   | R    | S   | T  | V   |
|------|-----|----|-----|--------|---------|-----|----|-----|-----|-----|-----|-----|-----|-----|--------|------|-----|-----|-----|------|-----|----|-----|
| 30   | 54  | 20 | 80  | 14     | 9       | 97  | 32 | 55  | 63  | 51  | 40  | 30  | 56  | 65  | 55     | 29   | 6.5 | 75  | 44  | 57   | 5.5 | 21 | 27  |
| 40   | 70  | 23 | 100 | 18(19) | 11      | 122 | 43 | 70  | 78  | 65  | 50  | 40  | 71  | 75  | 60     | 36.5 | 6.5 | 87  | 55  | 71.5 | 6.5 | 26 | 35  |
| 50   | 80  | 30 | 120 | 25(24) | 14      | 144 | 49 | 80  | 92  | 74  | 60  | 50  | 85  | 85  | 70     | 43.5 | 8.5 | 100 | 64  | 84   | 7   | 30 | 40  |
| 63   | 100 | 40 | 144 | 25(28) | 19      | 174 | 67 | 95  | 112 | 90  | 72  | 63  | 103 | 95  | 80     | 53   | 8.5 | 110 | 80  | 102  | 8   | 36 | 50  |
| 75   | 120 | 50 | 172 | 28(35) | 24      | 205 | 72 | 113 | 120 | 105 | 86  | 75  | 112 | 115 | 95     | 57   | 11  | 140 | 93  | 119  | 10  | 40 | 60  |
| 90   | 140 | 50 | 208 | 35(38) | 24      | 238 | 74 | 130 | 140 | 125 | 103 | 90  | 130 | 130 | 110    | 67   | 13  | 160 | 102 | 135  | 11  | 45 | 70  |
| 110  | 170 | 60 | 253 | 42     | 28      | 295 | -  | 160 | 155 | 142 | 128 | 110 | 144 | 165 | 130    | 74   | 14  | 200 | 125 | 168  | 14  | 50 | 85  |
| 130  | 200 | 80 | 293 | 45     | 30      | 335 | -  | 180 | 170 | 162 | 148 | 130 | 155 | 215 | 180    | 81   | 16  | 250 | 140 | 188  | 15  | 60 | 100 |
| 150  | 240 | 80 | 340 | 50     | 35      | 400 | -  | 210 | 200 | 192 | 170 | 150 | 185 | 215 | 180    | 96   | 18  | 250 | 180 | 230  | 18  | 73 | 120 |

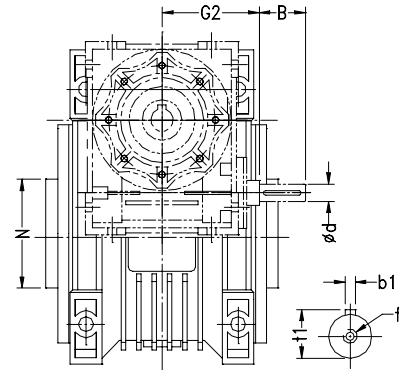
| Size | K   | KA  | KB | KC | KE     | z Nos. | a   | KM  | KN (H8) | KO  | z1 Nos. | a1  | KP  | KQ  | b      | b1 | f   | t          | t1   | kg   |
|------|-----|-----|----|----|--------|--------|-----|-----|---------|-----|---------|-----|-----|-----|--------|----|-----|------------|------|------|
| 30   | 44  | 55  | 6  | 4  | M6x11  | 4      | 10° | 68  | 50      | 6.5 | 4       | 45° | 80  | 70  | 5      | 3  | -   | 16.3       | 10.2 | 1.2  |
| 40   | 60  | 67  | 7  | 4  | M6x14  | 4      | 45° | 87  | 60      | 9   | 4       | 45° | 110 | 95  | 6(6)   | 4  | -   | 20.8(21.8) | 12.5 | 2.3  |
| 50   | 70  | 90  | 9  | 5  | M8x14  | 4      | 45° | 90  | 70      | 11  | 4       | 45° | 125 | 110 | 8(8)   | 5  | M6  | 28.3(27.3) | 16.0 | 3.5  |
| 63   | 85  | 82  | 10 | 6  | M8x14  | 8      | 45° | 150 | 115     | 11  | 4       | 45° | 180 | 142 | 8(8)   | 6  | M6  | 28.3(31.3) | 21.5 | 6.2  |
| 75   | 90  | 111 | 13 | 6  | M8x14  | 8      | 45° | 165 | 130     | 14  | 4       | 45° | 200 | 170 | 8(10)  | 8  | M8  | 31.3(38.3) | 27.0 | 9.4  |
| 90   | 100 | 111 | 13 | 6  | M10x18 | 8      | 45° | 175 | 152     | 14  | 4       | 45° | 210 | 200 | 10(10) | 8  | M8  | 38.3(41.3) | 27.0 | 13   |
| 110  | 115 | 131 | 15 | 6  | M10x18 | 8      | 45° | 230 | 170     | 14  | 4       | 45° | 280 | 260 | 12     | 8  | M10 | 45.3       | 31.0 | 41.5 |
| 130  | 120 | 140 | 15 | 6  | M12x21 | 8      | 45° | 255 | 180     | 16  | 4       | 45° | 320 | 290 | 14     | 8  | M10 | 48.8       | 33.0 | 59   |
| 150  | 145 | 155 | 15 | 6  | M12x21 | 8      | 45° | 255 | 180     | 16  | 8       | 45° | 320 | 290 | 14     | 10 | M12 | 53.8       | 38.0 | 84   |

# Mounting Dimensions - Double reduction

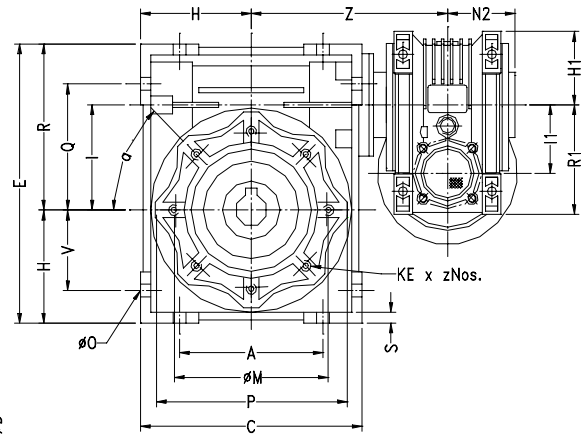
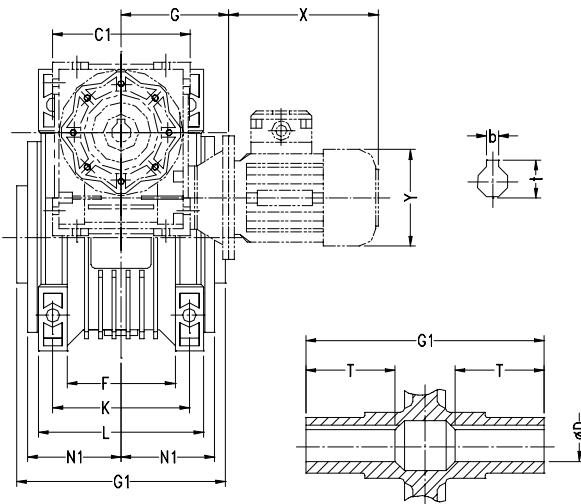
**NMRV with Output Flange - Double reduction**



**NRV - Double reduction**



**NMRV - Double reduction**



| Size   | A   | B  | C   | C1  | D (H7) | D1 (J6) | E   | F  | G  | G1  | G2 | H   | H1 | I   | I1 | L   | M   | N (h8) | N1   | N2   | O   | P   | Q   | R    | R1   | S   |
|--------|-----|----|-----|-----|--------|---------|-----|----|----|-----|----|-----|----|-----|----|-----|-----|--------|------|------|-----|-----|-----|------|------|-----|
| 40/30  | 70  | 20 | 100 | 80  | 18(19) | 9       | 122 | 43 | 55 | 78  | 51 | 50  | 40 | 40  | 30 | 71  | 75  | 60     | 36.5 | 29   | 6.5 | 87  | 55  | 71.5 | 57   | 6.5 |
| 50/30  | 80  | 20 | 120 | 80  | 25(24) | 9       | 144 | 49 | 55 | 92  | 51 | 60  | 40 | 50  | 30 | 85  | 85  | 70     | 43.5 | 29   | 8.5 | 100 | 64  | 84   | 57   | 7   |
| 63/30  | 100 | 20 | 144 | 80  | 25(28) | 9       | 174 | 67 | 5  | 112 | 51 | 72  | 40 | 63  | 30 | 103 | 95  | 80     | 53   | 29   | 8.5 | 110 | 80  | 102  | 57   | 8   |
| 75/40  | 120 | 23 | 172 | 100 | 28(35) | 11      | 205 | 72 | 70 | 120 | 60 | 86  | 50 | 75  | 40 | 112 | 115 | 95     | 57   | 36.5 | 11  | 140 | 93  | 119  | 71.5 | 10  |
| 90/40  | 140 | 23 | 208 | 100 | 35(38) | 11      | 238 | 74 | 70 | 140 | 60 | 103 | 50 | 90  | 40 | 130 | 130 | 110    | 67   | 36.5 | 13  | 160 | 102 | 135  | 71.5 | 11  |
| 110/50 | 170 | 30 | 253 | 120 | 42     | 14      | 295 | -  | 80 | 155 | 74 | 128 | 60 | 110 | 50 | 144 | 165 | 130    | 74   | 43.5 | 14  | 200 | 125 | 168  | 84   | 14  |
| 130/63 | 200 | 40 | 293 | 144 | 45     | 19      | 335 | -  | 95 | 170 | 90 | 148 | 72 | 130 | 63 | 155 | 215 | 180    | 81   | 53   | 16  | 250 | 140 | 188  | 102  | 15  |
| 150/63 | 240 | 40 | 340 | 144 | 50     | 19      | 400 | -  | 95 | 200 | 90 | 170 | 72 | 150 | 63 | 185 | 215 | 180    | 96   | 53   | 18  | 250 | 180 | 230  | 102  | 18  |

| Size   | T    | V   | Z   | K   | KA  | KB | KC   | KE     | Z Nos. | a   | KM  | KN (H8) | KO | z1 Nos. | a1    | KP  | KQ  | b      | b1 | f  | t          | t1   | kg   |
|--------|------|-----|-----|-----|-----|----|------|--------|--------|-----|-----|---------|----|---------|-------|-----|-----|--------|----|----|------------|------|------|
| 40/30  | 26   | 35  | 120 | 60  | 67  | 7  | 4(5) | M6x8   | 4      | 45° | 87  | 60      | 9  | 4       | 90°   | 110 | 110 | 6(6)   | 3  | -  | 20.8(21.8) | 10.2 | 3.9  |
| 50/30  | 30   | 40  | 130 | 70  | 90  | 9  | 5(5) | M8x10  | 4      | 45° | 90  | 70      | 11 | 4       | 90°   | 125 | 110 | 8(8)   | 3  | -  | 28.3(27.3) | 10.2 | 5.0  |
| 63/30  | 36   | 50  | 145 | 85  | 82  | 10 | 6(5) | M8x14  | 8      | 45° | 150 | 115     | 11 | 4       | 90°   | 180 | 142 | 8(8)   | 3  | -  | 28.3(31.3) | 10.2 | 7.8  |
| 75/40  | 40   | 60  | 165 | 90  | 111 | 13 | 6    | M8x14  | 8      | 45° | 165 | 130     | 14 | 4       | 90°   | 200 | 170 | 8(10)  | 4  | -  | 31.3(38.3) | 12.5 | 12.0 |
| 90/40  | 45   | 70  | 182 | 100 | 111 | 13 | 6    | M10x18 | 8      | 45° | 175 | 152     | 14 | 4       | 90°   | 210 | 200 | 10(10) | 4  | -  | 38.3(41.3) | 12.5 | 16.0 |
| 110/50 | 50   | 85  | 225 | 115 | 131 | 15 | 6    | M10x18 | 8      | 45° | 230 | 170     | 14 | 8       | 45°   | 280 | 260 | 12     | 5  | M6 | 45.3       | 16.0 | 39.2 |
| 130/63 | 60   | 100 | 245 | 120 | 140 | 15 | 6    | M12x21 | 8      | 45° | 230 | 180     | 16 | 8       | 22.5° | 320 | 290 | 14     | 6  | M6 | 48.8       | 21.5 | 55.0 |
| 150/63 | 72.5 | 120 | 275 | 145 | 155 | 15 | 6    | M12x21 | 8      | 45° | 255 | 180     | 16 | 8       | 22.5° | 320 | 290 | 14     | 6  | M6 | 53.8       | 21.5 | 93   |

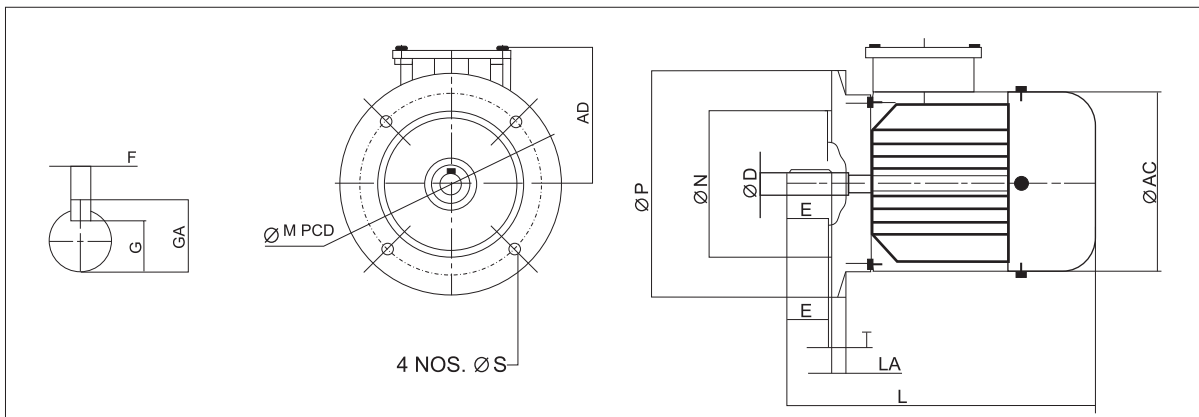
## MFGD. WITH BIS STANDARD SPECIFICATION AS BELOW :

- IS : 325 : Specifications for three phase induction motors.
- IS : 1231 : Dimensions of three phase foot mounted inductions motors.
- IS : 2223 : Dimensions of flange mounted AC induction motors.
- IS : 8789 : Values of performance characteristics for three phase inductions motors.
- IS : 2691 : Degree of protection
- IS : 1271 : Class of Insulation

## FEATURES :

- Voltage Variation  $\pm 10\%$ , Frequency Variation  $\pm 6\%$ , Ambient temperatures higher than 45°C. Class of insulation 'F' or 'H'
- Motors with cooling arrangement as per IS : 4691, Degrees of Protection IP 54 or IP 55
- Motors suitable for varied application in industries like Textiles, Process, Mills, Gear Boxes, Power Generation, Machine Tools, Paper, Steel, Sugar Mills.
- Customise Motors as per specified requirement.
- For special needs, application engineering services for sizing of motor or special torque speed characteristic requirements are available.

## DIMENSIONS OF FLANGE MOUNTED MOTORS (B5)



| FRAME SIZE | B5 FLANGE DETAILS |       |     |    |     |    | SHAFT DETAILS |    |    |      |      |     | OVERALL DETAILS |     |     |
|------------|-------------------|-------|-----|----|-----|----|---------------|----|----|------|------|-----|-----------------|-----|-----|
|            | ØP                | M PCD | ØN  | ØS | T   | LA | ØD            | E  | F  | GA   | G    | CT  | AD              | ACØ | L   |
| 63         | 140               | 115   | 95  | 10 | 3   | 9  | 11            | 23 | 4  | 12.5 | 8.5  | M4  | 104             | 118 | 215 |
| 71         | 160               | 130   | 110 | 10 | 3.5 | 9  | 14            | 30 | 5  | 16   | 11   | M5  | 110             | 140 | 240 |
| 80         | 200               | 165   | 130 | 12 | 3.5 | 10 | 19            | 40 | 6  | 21.5 | 15.5 | M6  | 120             | 160 | 280 |
| 90S        | 200               | 165   | 130 | 12 | 3.5 | 10 | 24            | 50 | 8  | 27   | 20   | M8  | 130             | 176 | 310 |
| 90L        | 200               | 165   | 130 | 12 | 3.5 | 10 | 24            | 50 | 8  | 27   | 20   | M8  | 130             | 176 | 335 |
| 100L       | 250               | 215   | 180 | 15 | 4   | 11 | 28            | 60 | 8  | 31   | 24   | M10 | 140             | 199 | 374 |
| 112M       | 250               | 215   | 180 | 15 | 4   | 11 | 28            | 60 | 8  | 31   | 24   | M10 | 152             | 224 | 380 |
| 132S       | 300               | 265   | 230 | 15 | 4   | 12 | 38            | 80 | 10 | 41   | 33   | M12 | 180             | 262 | 455 |
| 132M       | 300               | 265   | 230 | 15 | 4   | 12 | 38            | 80 | 10 | 41   | 33   | M12 | 180             | 262 | 493 |