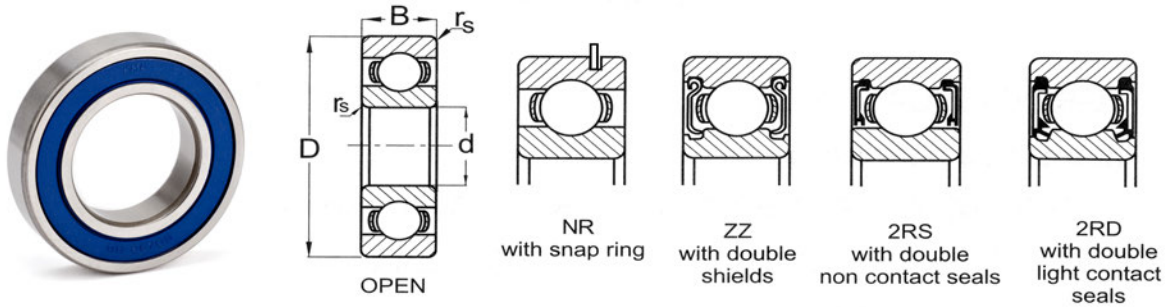




# BALL BEARINGS



DEEP GROOVE BALL BEARINGS  
Metric Size Bearing  
6800, 6900, 6000  
6200, 6300 Series



| Boundary dimensions (mm) |    |    |        | Basic load ratings (N) |              | Limiting speeds RPM |          | Mass (kg)<br>open type | Bearings No.<br>open type |
|--------------------------|----|----|--------|------------------------|--------------|---------------------|----------|------------------------|---------------------------|
| d                        | D  | B  | rs min | dynamic (Cr)           | static (Cor) | Grease (ZZ, 2RS)    | oil open |                        |                           |
| 10                       | 19 | 5  | 0.3    | 1 830                  | 925          | 32 000              | 38 000   | 0.005                  | 6 800                     |
|                          | 22 | 6  | 0.3    | 2 700                  | 1 270        | 30 000              | 36 000   | 0.009                  | 6 900                     |
|                          | 26 | 8  | 0.3    | 4 550                  | 1 960        | 29 000              | 34 000   | 0.019                  | 6 000                     |
|                          | 30 | 9  | 0.6    | 5 100                  | 2 390        | 25 000              | 30 000   | 0.032                  | 6 200                     |
|                          | 35 | 11 | 0.6    | 5 200                  | 3 500        | 23 000              | 27 000   | 0.058                  | 6 300                     |
| 12                       | 21 | 5  | 0.3    | 1 920                  | 1 040        | 29 000              | 35 000   | 0.006                  | 6 801                     |
|                          | 24 | 6  | 0.3    | 2 890                  | 1 460        | 27 000              | 32 000   | 0.011                  | 6 901                     |
|                          | 28 | 8  | 0.3    | 5 100                  | 2 390        | 26 000              | 30 000   | 0.021                  | 6 001                     |
|                          | 32 | 10 | 0.6    | 6 100                  | 2 750        | 22 000              | 26 000   | 0.037                  | 6 201                     |
|                          | 37 | 12 | 1.0    | 9 700                  | 4 200        | 20 000              | 24 000   | 0.060                  | 6 301                     |
| 15                       | 24 | 5  | 0.3    | 2 080                  | 1 260        | 26 000              | 31 000   | 0.007                  | 6 802                     |
|                          | 28 | 7  | 0.3    | 4 100                  | 2 060        | 24 000              | 28 000   | 0.016                  | 6 902                     |
|                          | 32 | 9  | 0.3    | 5 600                  | 2 840        | 22 000              | 26 000   | 0.030                  | 6 002                     |
|                          | 35 | 11 | 0.6    | 7 750                  | 2 600        | 19 000              | 23 000   | 0.045                  | 6 202                     |
|                          | 42 | 13 | 1.0    | 11 400                 | 5 450        | 17 000              | 21 000   | 0.082                  | 6 302                     |
| 17                       | 26 | 5  | 0.3    | 2 810                  | 1 720        | 24 000              | 28 000   | 0.008                  | 6 803                     |
|                          | 30 | 7  | 0.3    | 4 650                  | 2 580        | 22 000              | 26 000   | 0.018                  | 6 903                     |
|                          | 35 | 10 | 0.3    | 6 800                  | 3 350        | 20 000              | 24 000   | 0.039                  | 6 003                     |
|                          | 40 | 12 | 0.3    | 9 600                  | 4 600        | 18 000              | 21 000   | 0.068                  | 6 203                     |
|                          | 47 | 14 | 1.0    | 13 500                 | 6 550        | 16 000              | 19 000   | 0.115                  | 6 303                     |
| 20                       | 32 | 7  | 0.3    | 4 000                  | 2 470        | 21 000              | 25 000   | 0.019                  | 6 804                     |
|                          | 37 | 9  | 0.3    | 6 400                  | 3 700        | 19 000              | 23 000   | 0.038                  | 6 904                     |
|                          | 42 | 12 | 0.6    | 9 400                  | 5 050        | 18 000              | 21 000   | 0.069                  | 6 004                     |
|                          | 47 | 14 | 1.0    | 12 800                 | 6 650        | 16 000              | 18 000   | 0.106                  | 6 204                     |
|                          | 52 | 15 | 1.1    | 15 900                 | 7 900        | 14 000              | 17 000   | 0.144                  | 6 304                     |
| 22                       | 44 | 12 | 0.6    | 9 400                  | 5 150        | 17 000              | 20 000   | 0.074                  | 60/22                     |
|                          | 50 | 14 | 1.0    | 12 900                 | 6 800        | 14 000              | 17 000   | 0.117                  | 62/22                     |
|                          | 56 | 16 | 1.1    | 18 400                 | 9 250        | 13 000              | 15 000   | 0.176                  | 63/22                     |
| 25                       | 37 | 7  | 0.3    | 4 300                  | 2 950        | 18 000              | 21 000   | 0.022                  | 6 805                     |
|                          | 42 | 9  | 0.3    | 7 050                  | 4 550        | 16 000              | 19 000   | 0.042                  | 6 905                     |
|                          | 47 | 12 | 0.6    | 10 400                 | 5 850        | 15 000              | 18 000   | 0.080                  | 6 005                     |
|                          | 52 | 15 | 1.0    | 14 000                 | 7 850        | 13 000              | 15 000   | 0.128                  | 6 205                     |
|                          | 62 | 17 | 1.1    | 21 200                 | 10 900       | 12 000              | 14 000   | 0.232                  | 6 305                     |
| 28                       | 52 | 12 | 0.6    | 12 500                 | 7 400        | 14 000              | 16 000   | 0.098                  | 60/28                     |
|                          | 58 | 16 | 1.0    | 17 900                 | 9 700        | 12 000              | 14 000   | 0.171                  | 62/28                     |
|                          | 68 | 18 | 1.1    | 26 700                 | 14 000       | 11 000              | 13 000   | 0.280                  | 63/28                     |
| 30                       | 42 | 7  | 0.3    | 4 700                  | 3 650        | 15 000              | 18 000   | 0.026                  | 6 806                     |
|                          | 47 | 9  | 0.3    | 7 250                  | 5 000        | 14 000              | 17 000   | 0.046                  | 6 906                     |
|                          | 55 | 13 | 1.0    | 13 200                 | 8 300        | 13 000              | 15 000   | 0.116                  | 6 006                     |
|                          | 62 | 16 | 1.0    | 19 500                 | 11 300       | 11 000              | 13 000   | 0.200                  | 6 206                     |
|                          | 72 | 19 | 1.1    | 26 700                 | 15 000       | 10 000              | 12 000   | 0.360                  | 6 306                     |
| 32                       | 58 | 12 | 1.0    | 15 100                 | 9 150        | 12 000              | 15 000   | 0.129                  | 60/32                     |
|                          | 65 | 17 | 1.0    | 20 700                 | 11 600       | 11 000              | 12 000   | 0.226                  | 62/32                     |
|                          | 75 | 20 | 1.1    | 29 800                 | 16 900       | 9 500               | 11 000   | 0.380                  | 63/32                     |



# BALL BEARINGS

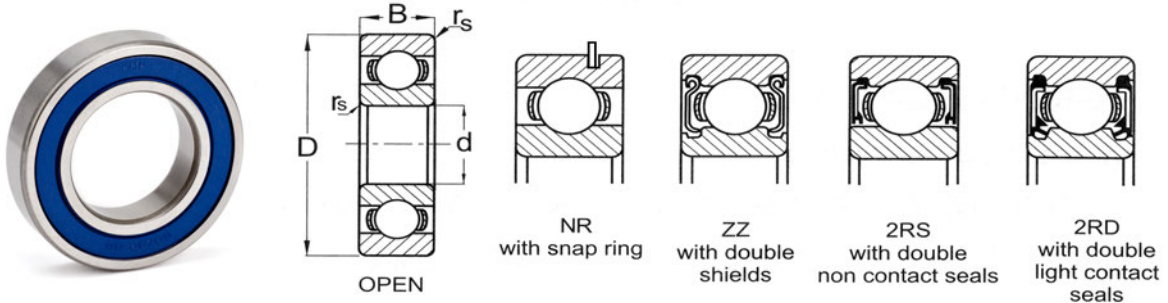


## DEEP GROOVE BALL BEARINGS

Metric Size Bearing

6800, 6900, 6000

6200, 6300 Series



| Boundary dimensions (mm) |     |    |        | Basic load ratings (N) |              | Limiting speeds<br>RPM |          | Mass<br>(kg) | Bearings<br>No. |
|--------------------------|-----|----|--------|------------------------|--------------|------------------------|----------|--------------|-----------------|
| d                        | D   | B  | rs min | dynamic (Cr)           | static (Cor) | Grease (ZZ, 2RS)       | oil open | open type    | open type       |
| 35                       | 47  | 7  | 0.3    | 4 900                  | 4 050        | 13 000                 | 16 000   | 0.029        | 6 807           |
|                          | 55  | 10 | 0.6    | 11 200                 | 7 450        | 12 000                 | 15 000   | 0.074        | 6 907           |
|                          | 62  | 14 | 1.0    | 16 000                 | 10 300       | 12 000                 | 14 000   | 0.155        | 6 007           |
|                          | 72  | 17 | 1.1    | 25 700                 | 15 300       | 9 800                  | 11 000   | 0.290        | 6 207           |
|                          | 80  | 21 | 1.5    | 33 500                 | 19 100       | 8 800                  | 10 000   | 0.460        | 6 307           |
| 40                       | 52  | 7  | 0.3    | 5 100                  | 4 400        | 12 000                 | 14 000   | 0.033        | 6 808           |
|                          | 62  | 12 | 0.6    | 14 600                 | 10 200       | 11 000                 | 13 000   | 0.110        | 6 908           |
|                          | 68  | 15 | 1.0    | 16 800                 | 11 500       | 10 000                 | 12 000   | 0.190        | 6 008           |
|                          | 80  | 18 | 1.1    | 29 100                 | 17 800       | 8 700                  | 10 000   | 0.370        | 6 208           |
|                          | 90  | 23 | 1.5    | 40 500                 | 24 000       | 7 800                  | 9 200    | 0.630        | 6 308           |
| 45                       | 58  | 7  | 0.3    | 6 400                  | 5 650        | 11 000                 | 12 000   | 0.040        | 6 809           |
|                          | 68  | 12 | 0.6    | 15 100                 | 11 200       | 9 800                  | 12 000   | 0.128        | 6 909           |
|                          | 75  | 16 | 1.0    | 21 000                 | 15 100       | 9 200                  | 11 000   | 0.240        | 6 009           |
|                          | 85  | 19 | 1.1    | 32 500                 | 20 400       | 7 800                  | 9 200    | 0.400        | 6 209           |
|                          | 100 | 25 | 1.5    | 53 000                 | 32 000       | 7 000                  | 8 200    | 0.810        | 6 309           |
| 50                       | 65  | 7  | 0.3    | 6 600                  | 6 100        | 9 600                  | 11 000   | 0.050        | 6 810           |
|                          | 72  | 12 | 0.6    | 15 600                 | 12 200       | 8 900                  | 11 000   | 0.130        | 6 910           |
|                          | 80  | 16 | 1.0    | 21 800                 | 16 600       | 8 400                  | 9 800    | 0.260        | 6 010           |
|                          | 90  | 20 | 1.1    | 35 000                 | 23 200       | 7 100                  | 8 300    | 0.450        | 6 210           |
|                          | 110 | 27 | 2.0    | 62 000                 | 38 500       | 6 400                  | 7 500    | 1.070        | 6 310           |
| 55                       | 130 | 31 | 2.1    | 83 000                 | 49 500       | 5 700                  | 6 700    | 1.880        | 6 410           |
|                          | 90  | 18 | 1.1    | 28 300                 | 21 200       | 7 700                  | 9 000    | 0.390        | 6 011           |
|                          | 100 | 21 | 1.5    | 43 500                 | 29 200       | 6 400                  | 7 600    | 0.600        | 6 211           |
|                          | 120 | 29 | 2.0    | 71 500                 | 4 500        | 5 800                  | 6 800    | 1.370        | 6 311           |
|                          | 60  | 95 | 18     | 0.0                    | 29 500       | 23 200                 | 7 000    | 8 300        | 0.000           |
| 110                      |     | 22 | 1.5    | 52 500                 | 36 000       | 6 000                  | 7 000    | 0.000        | 6 212           |
| 130                      |     | 31 | 0.0    | 82 000                 | 52 000       | 5 400                  | 6 300    | 0.000        | 6 312           |
| 65                       | 100 | 18 | 0.0    | 30 500                 | 25 200       | 6 500                  | 7 700    | 0.000        | 6 013           |
|                          | 120 | 23 | 1.5    | 57 500                 | 40 000       | 5 500                  | 6 500    | 0.000        | 6 213           |
|                          | 140 | 33 | 0.0    | 92 500                 | 60 000       | 4 900                  | 5 800    | 0.000        | 6 313           |
| 70                       | 110 | 20 | 0.0    | 38 000                 | 31 000       | 6 100                  | 7 100    | 0.000        | 6 014           |
|                          | 125 | 24 | 1.5    | 62 000                 | 44 000       | 5 100                  | 6 000    | 0.000        | 6 214           |
|                          | 150 | 35 | 0.0    | 10 400                 | 68 000       | 4 600                  | 5 400    | 0.000        | 6 314           |
| 75                       | 115 | 20 | 0.0    | 39 500                 | 33 500       | 5 700                  | 6 700    | 0.000        | 6 015           |
|                          | 130 | 25 | 1.5    | 66 000                 | 48 500       | 4 800                  | 5 600    | 0.000        | 6 215           |
|                          | 160 | 37 | 0.0    | 113 000                | 77 000       | 4 300                  | 5 000    | 3.000        | 6 315           |
| 80                       | 125 | 22 | 0.0    | 47 500                 | 40 000       | 5 300                  | 6 200    | 0.000        | 6 016           |
|                          | 140 | 26 | 2.0    | 72 500                 | 53 000       | 4 500                  | 5 300    | 0.000        | 6 216           |
|                          | 170 | 39 | 0.0    | 123 000                | 86 500       | 4 000                  | 4 700    | 0.000        | 6 316           |



# BALL BEARINGS

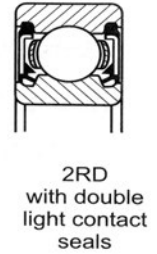
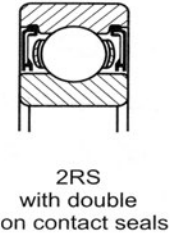
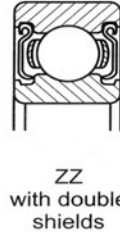
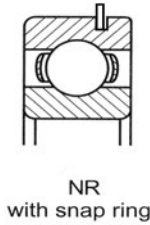
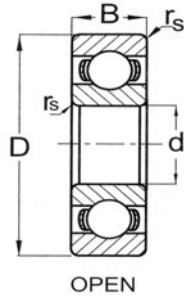


## DEEP GROOVE BALL BEARINGS

Metric Size Bearing

6800, 6900, 6000

6200, 6300 Series



| Boundary dimensions (mm) |     |    |        | Basic load ratings (N) |              | Limiting speeds<br>RPM |          | Mass<br>(kg)<br>open type | Bearings<br>No.<br>open type |
|--------------------------|-----|----|--------|------------------------|--------------|------------------------|----------|---------------------------|------------------------------|
| d                        | D   | B  | rs min | dynamic (Cr)           | static (Cor) | Grease (ZZ, 2RS)       | oil open |                           |                              |
| 85                       | 130 | 22 | 0.0    | 49 500                 | 43 000       | 5 000                  | 5 900    | 0.000                     | 6 017                        |
|                          | 150 | 28 | 2.0    | 83 500                 | 64 000       | 4 200                  | 5 000    | 0.000                     | 6 217                        |
|                          | 180 | 41 | 3.0    | 133 000                | 97 000       | 3 800                  | 4 500    | 0.000                     | 6 317                        |
| 90                       | 140 | 24 | 1.5    | 58 000                 | 49 500       | 4 700                  | 5 600    | 0.000                     | 6018                         |
|                          | 160 | 30 | 2.0    | 96 000                 | 71 500       | 4 000                  | 4 700    | 0.000                     | 6218                         |
| 95                       | 145 | 24 | 1.5    | 60 500                 | 54 000       | 4 500                  | 5 300    | 0.000                     | 6019                         |
|                          | 170 | 32 | 0.0    | 109 000                | 82 000       | 3 700                  | 4 400    | 0.000                     | 6219                         |
| 100                      | 150 | 24 | 1.5    | 60 000                 | 54 000       | 4 200                  | 5 000    | 0.000                     | 6020                         |
|                          | 180 | 34 | 0.0    | 122 000                | 93 000       | 3 500                  | 4 200    | 0.000                     | 6220                         |
| 105                      | 160 | 26 | 2.0    | 72 500                 | 65 500       | 4 000                  | 4 700    | 0.000                     | 6021                         |
| 110                      | 170 | 28 | 2.0    | 82 000                 | 73 000       | 3 800                  | 4 500    | 1.960                     | 6022                         |