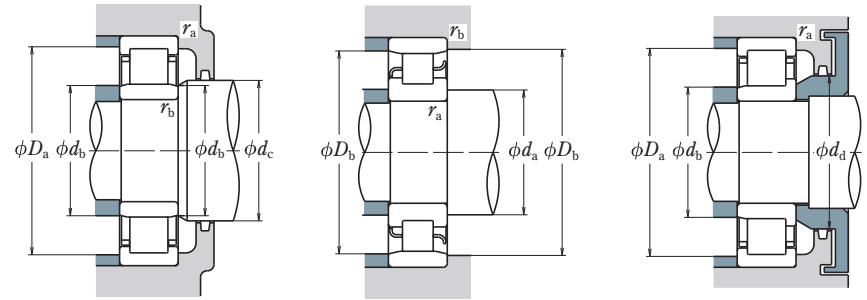
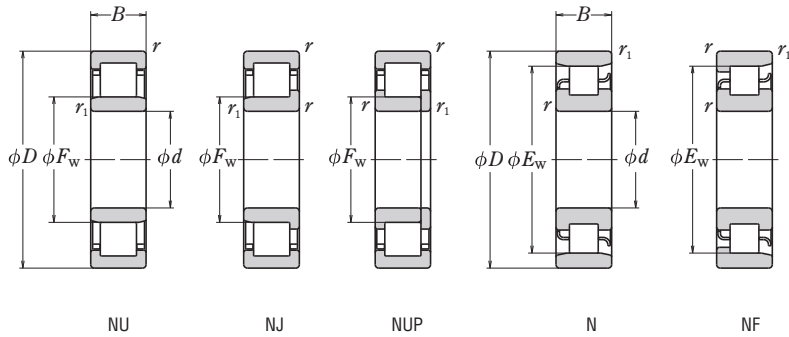


## ■ SINGLE-ROW CYLINDRICAL ROLLER BEARINGS

**Bore Diameter** 55 – 60 mm



| Boundary Dimensions<br>(mm) |          |          |                  |                               |                       |                       | Basic Load Ratings <sup>(6)</sup><br>(N) |                        | Speeds <sup>(3)</sup> (min <sup>-1</sup> )<br>Limiting Speeds |                                           |        |                   |
|-----------------------------|----------|----------|------------------|-------------------------------|-----------------------|-----------------------|------------------------------------------|------------------------|---------------------------------------------------------------|-------------------------------------------|--------|-------------------|
| <i>d</i>                    | <i>D</i> | <i>B</i> | <i>r</i><br>min. | <i>r</i> <sub>1</sub><br>min. | <i>F</i> <sub>W</sub> | <i>E</i> <sub>W</sub> | <i>C</i> <sub>r</sub>                    | <i>C</i> <sub>0r</sub> | Thermal<br>Speed Rating<br>(Oil Bath)                         | Mechanical<br>(Forced Oil<br>Circulation) | Grease | Oil<br>(Oil Bath) |
| 55                          | 90       | 18       | 1.1              | 1                             | 64.5                  | 80.5                  | 46 500                                   | 44 000                 | 8 000                                                         | —                                         | 7 500  | 9 000             |
|                             | 100      | 21       | 1.5              | 1.1                           | —                     | 88.5                  | 71 500                                   | 62 500                 | 7 500                                                         | —                                         | 5 300  | 6 300             |
|                             | 100      | 21       | 1.5              | 1.1                           | 66                    | —                     | 106 000                                  | 98 500                 | 6 700                                                         | 10 000                                    | 5 600  | 7 100             |
|                             | 100      | 25       | 1.5              | 1.1                           | 66                    | —                     | 125 000                                  | 122 000                | 6 700                                                         | 8 500                                     | 5 600  | 7 100             |
|                             | 120      | 29       | 2                | 2                             | —                     | 104.5                 | 136 000                                  | 111 000                | 6 300                                                         | —                                         | 4 000  | 5 000             |
|                             | 120      | 29       | 2                | 2                             | 70.5                  | —                     | 169 000                                  | 143 000                | 6 000                                                         | 9 000                                     | 4 500  | 5 600             |
|                             | 120      | 43       | 2                | 2                             | 70.5                  | —                     | 247 000                                  | 233 000                | 6 000                                                         | 7 500                                     | 4 500  | 5 600             |
|                             | 120      | 43       | 2                | 2                             | 70.5                  | —                     | 247 000                                  | 233 000                | 6 000                                                         | 7 500                                     | 4 500  | 5 600             |
| 60                          | 95       | 18       | 1.1              | 1                             | 69.5                  | 85.5                  | 49 500                                   | 48 500                 | 7 500                                                         | —                                         | 6 700  | 8 500             |
|                             | 110      | 22       | 1.5              | 1.5                           | —                     | 97.5                  | 84 500                                   | 75 000                 | 7 100                                                         | —                                         | 4 800  | 5 600             |
|                             | 110      | 22       | 1.5              | 1.5                           | 72                    | —                     | 120 000                                  | 107 000                | 6 300                                                         | 9 500                                     | 5 300  | 6 300             |
|                             | 110      | 28       | 1.5              | 1.5                           | 72                    | —                     | 161 000                                  | 157 000                | 6 300                                                         | 7 500                                     | 5 300  | 6 300             |
|                             | 130      | 31       | 2.1              | 2.1                           | —                     | 113                   | 152 000                                  | 126 000                | 6 000                                                         | —                                         | 3 800  | 4 500             |
|                             | 130      | 31       | 2.1              | 2.1                           | 77                    | —                     | 152 000                                  | 126 000                | 6 000                                                         | —                                         | 3 800  | 4 500             |
|                             | 130      | 31       | 2.1              | 2.1                           | 77                    | —                     | 184 000                                  | 157 000                | 5 600                                                         | 9 500                                     | 4 800  | 5 600             |
|                             | 130      | 46       | 2.1              | 2.1                           | 77                    | —                     | 274 000                                  | 262 000                | 5 600                                                         | 6 700                                     | 4 300  | 5 300             |
|                             | 130      | 46       | 2.1              | 2.1                           | 77                    | —                     | 274 000                                  | 262 000                | 5 600                                                         | 6 700                                     | 4 300  | 5 300             |
|                             | 130      | 46       | 2.1              | 2.1                           | 77                    | —                     | 274 000                                  | 262 000                | 5 600                                                         | 6 700                                     | 4 300  | 5 300             |

**Notes**

- (1) Cage designation (M) is usually omitted from the bearing designation.
- (2) When L-shaped thrust collars (see Pages C156-C157) are used, the bearings are considered the NH type.
- (3) If axial loads are applied, increase  $d_a$  and reduce  $D_a$  from the values listed above.

| Bearing Designations                   |     |                                  |    |    |     |      | Abutment and Fillet Dimensions<br>(mm) |               |                                 |               |               |                                 |               |               |               |               | Mass<br>(kg) |
|----------------------------------------|-----|----------------------------------|----|----|-----|------|----------------------------------------|---------------|---------------------------------|---------------|---------------|---------------------------------|---------------|---------------|---------------|---------------|--------------|
| Cage <sup>(1)</sup><br>Standard Option |     | <sup>(2)</sup><br>NU NJ NUP N NF |    |    |     |      | <sup>(3)</sup><br>$d_a$<br>min.        | $d_b$<br>min. | <sup>(4)</sup><br>$d_b$<br>max. | $d_c$<br>min. | $d_d$<br>min. | <sup>(3)</sup><br>$D_a$<br>max. | $D_b$<br>max. | $D_b$<br>min. | $r_a$<br>max. | $r_b$<br>max. | approx.      |
|                                        |     |                                  |    |    |     |      |                                        |               |                                 |               |               |                                 |               |               |               |               |              |
| NU1011                                 | (M) |                                  | NU | NJ | —   | N    | 61.5                                   | 60            | 63                              | 66            | —             | 83.5                            | 85            | 82            | 1.5           | 1             | 0.445        |
| N 211                                  | W   | M                                | —  | —  | —   | N NF | 63                                     | —             | —                               | —             | —             | —                               | 93.5          | 91            | 1.5           | 1             | 0.634        |
| NU211E                                 | W   | M, T, T7                         | NU | NJ | NUP | —    | 63                                     | 61.5          | 64                              | 68            | 73            | 92                              | —             | —             | 1.5           | 1             | 0.669        |
| NU2211E                                | T   | M, T7                            | NU | NJ | NUP | —    | 63                                     | 61.5          | 64                              | 68            | 73            | 92                              | —             | —             | 1.5           | 1             | 0.783        |
| N 311                                  | W   | M                                | —  | —  | —   | N NF | 64                                     | —             | —                               | —             | —             | —                               | 111           | 107           | 2             | 2             | 1.42         |
| NU311E                                 | W   | M, T, T7                         | NU | NJ | NUP | —    | 64                                     | 64            | 68                              | 72            | 80            | 111                             | —             | —             | 2             | 2             | 1.64         |
| NU2311E                                | T   | M, T7                            | NU | NJ | NUP | —    | 64                                     | 64            | 68                              | 72            | 80            | 111                             | —             | —             | 2             | 2             | 2.18         |
| NU1012                                 | (M) | —                                | NU | NJ | —   | N NF | 66.5                                   | 65            | 68                              | 71            | —             | 88.5                            | 90            | 87            | 1             | 1             | 0.474        |
| N 212                                  | W   | M                                | —  | —  | —   | N NF | 68                                     | —             | —                               | —             | —             | —                               | 102           | 100           | 1.5           | 1.5           | 0.823        |
| NU212E                                 | W   | M, T, T7                         | NU | NJ | NUP | —    | 68                                     | 68            | 70                              | 75            | 80            | 102                             | —             | —             | 1.5           | 1.5           | 0.824        |
| NU2212E                                | T   | M, T7                            | NU | NJ | NUP | —    | 68                                     | 68            | 70                              | 75            | 80            | 102                             | —             | —             | 1.5           | 1.5           | 1.06         |
| N 312                                  | W   | M                                | —  | —  | —   | N NF | 71                                     | —             | —                               | —             | —             | —                               | 119           | 115           | 2             | 2             | 1.78         |
| NU312                                  | W   | —                                | NU | NJ | NUP | —    | 71                                     | 71            | 75                              | 79            | 86            | 119                             | —             | —             | 2             | 2             | 1.82         |
| NU312E                                 | M   | T, T7                            | NU | NJ | NUP | —    | 71                                     | 71            | 75                              | 79            | 86            | 119                             | —             | —             | 2             | 2             | 2.06         |
| NU2312E                                | T   | M, T7                            | NU | NJ | NUP | —    | 71                                     | 71            | 75                              | 79            | 86            | 119                             | —             | —             | 2             | 2             | 2.7          |

**Notes** (4)  $d_b$  (max.) refers to values for adjusting rings for NU and NJ bearings.  
 (5) The limiting speeds in the bearing tables are for standard cages.  
 (6) The basic load ratings in the bearing tables are for standard cages.