# Cylindrical Roller Bearings

## Single row cylindrical roller bearings

**The rollers in a single row cylindrical roller bearing are always guided between the integral flanges on one of the rings. These flanges combined with the special designed and surface finished roller ends, provide improved lubrication, reduced friction and consequently lower operating temperature.**

**Single row cylindrical roller bearing can accommodate heavy radial loads and high speeds. They are manufactured in several different designs, the main difference being in the configuration of the flanges. The most common designs are NU, NJ, NUP and N designs,**

**NU design: The outer ring of an NU design bearing has two integral flanges while inner ring has no flanges. Axial displacement of the shaft with respect to the housing can be accommodated in both directions. NU design bearings are normally selected as locating bearings.**

**N design: The inner ring of an N design bearing has two integral flanges while the outer ring has no flanges. Axial displacement of the shaft with respect to the housing can be accommodated in both directions. N design bearings are normally selected as non-locating bearings.**

**NJ design: The outer ring of an NJ design bearing has two integral flanges and the inner ring has one integral flange. These bearings can locate the shaft axially in one direction.**

**NUP design: The outer ring of an NUP design bearing has two integral flanges and the inner ring has one integral and one non-integral flange and one non-integral flange in the form of a loose flange ring. These bearings can be used as locating bearings to locate the shaft axially in both directions.**

C2 Bearing internal clearance smaller than Normal
C3 Bearing internal clearance greater than Normal
C4 Bearing internal clearance greater than C3
C5 Bearing internal clearance greater than C4
E Modified internal design inlcuding more or bigger rollers with optimized contact surface between rollers and flange
J Press steel cage, Rolling element centered
M Machined brass cage, Rolling element centered
N Snap ring groove in the outer ring
NR Snap ring groove in the outer ring with appropriate snap ring
TN Injection moulded cage of polyamide 66

## Double row cylindrical roller bearing

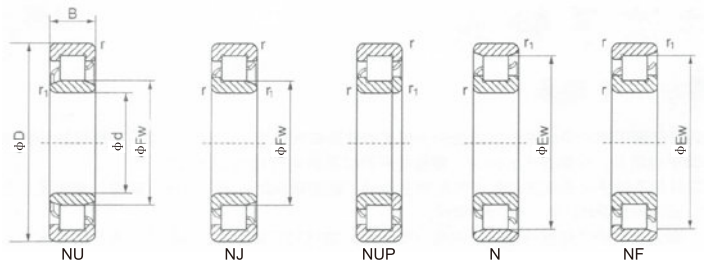
**Double row cylindrical roller bearing have small cross section and can accommodate very heavy radial loads. Those bearings are widely used for machine tools, rolling stations, plastic cylinder cans, grinding machines and large size gearboxes.**

**NNU design and NN design double row cylindrical roller bearings are separable, so their roller and cage assembly can be mounted separately with bearing rings or all bearing components can be mounted separately and thus make the mounting, dismounting and inspection of the bearing very easy.**

**Double row cylindrical roller bearings have cylindrical bore and tapered bore. Normally NN design double row cylindrical bearing has tapered bore and it's possible to achieve certain radial clearance or preload during bearing mounting.**

C1 Bearing internal clearance smaller than C2
C2 Bearing internal clearance smaller than Normal
C3 Bearing internal clearance greater than Normal
C4 Bearing internal clearance greater than C3
C5 Bearing internal clearance greater than C4
K Tapered bore, taper: 1:12
K30 Tapered bore, taper: 1:30
M Machined brass cage, Rolling element centered
TN Injection moulded cage of polyamide 66
W33 Annular groove and 3 lubrication holes in the outer ring

*d*: 17 ~ 35 mm

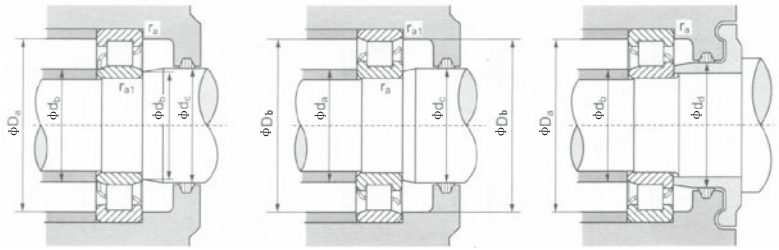



NU NJ NUP N NF

| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor |
| 17 | 40 | 12 | 33.9 | 22.9 | 0.6 | 0.3 | **NU 203** | NJ | NUP | N | NF | 12600 | 7950 |
| 20 | 47 | 14 | 40 | 27 | 1 | 0.6 | **NU 204** | NJ | NUP | N | NF | 15400 | 12700 |
| | 47 | 14 | - | 26.5 | 1 | 0.6 | **NU 204E** | NJ | NUP | - | - | 25700 | 22600 |
| | 47 | 18 | - | 27 | 1 | 0.6 | **NU 2204** | NJ | NUP | - | - | 20600 | 20700 |
| | 47 | 18 | - | 26.5 | 1 | 0.6 | **NU 2204E** | NJ | NUP | - | - | 30500 | 28300 |
| | 52 | 15 | 44.5 | 28.5 | 1.1 | 0.6 | **NU 304** | NJ | NUP | N | NF | 20700 | 19200 |
| | 52 | 15 | - | 27.5 | 1.1 | 0.6 | **NU 304** | NJ | NUP | - | - | 31500 | 26900 |
| | 52 | 21 | - | 28.5 | 1.1 | 0.6 | **NU 2304** | NJ | NUP | - | - | 30500 | 27200 |
| | 52 | 21 | - | 27.5 | 1.1 | 0.6 | **NU 2304E** | NJ | NUP | - | - | 42000 | 38500 |
| 25 | 47 | 12 | 41.5 | 30.5 | 0.6 | 0.3 | **NU 1005** | - | - | N | - | 14300 | 13100 |
| | 52 | 15 | 45 | 32 | 1 | 0.6 | **NU 205** | NJ | NUP | N | NF | 17500 | 15700 |
| | 52 | 15 | - | 31.5 | 1 | 0.6 | **NU 205E** | NJ | NUP | - | - | 29300 | 27700 |
| | 52 | 18 | - | 32 | 1 | 0.6 | **NU 2205** | NJ | NUP | - | - | 24300 | 23500 |
| | 52 | 18 | - | 31.5 | 1 | 0.6 | **NU 2205E** | NJ | NUP | - | - | 35000 | 34500 |
| | 62 | 17 | 53 | 35 | 1.1 | 1.1 | **NU 305** | NJ | NUP | N | NF | 29200 | 25200 |
| | 62 | 17 | - | 34 | 1.1 | 1.1 | **NU 305E** | NJ | NUP | - | - | 41500 | 37500 |
| | 62 | 24 | - | 35 | 1.1 | 1.1 | **NU 2305** | NJ | NUP | - | - | 42500 | 41000 |
| | 62 | 24 | - | 34 | 1.1 | 1.1 | **NU 2305E** | NJ | NUP | - | - | 57000 | 56000 |
| | 80 | 21 | 62.8 | 38.8 | 1.5 | 1.5 | **NU 405** | NJ | NUP | N | NF | 46500 | 40000 |
| 30 | 55 | 13 | 48.5 | 36.5 | 1 | 0.6 | **NU 1006** | - | - | N | - | 18700 | 18400 |
| | 62 | 16 | 53.5 | 38.5 | 1 | 0.6 | **NU 206** | NJ | NUP | N | NF | 23500 | 21500 |
| | 62 | 16 | - | 37.5 | 1 | 0.6 | **NU 206E** | NJ | NUP | - | - | 39000 | 37500 |
| | 62 | 20 | - | 38.5 | 1 | 0.6 | **NU 2206** | NJ | NUP | - | - | 33000 | 33000 |
| | 62 | 20 | - | 37.5 | 1 | 0.6 | **NU 2206E** | NJ | NUP | - | - | 49000 | 50000 |
| | 72 | 19 | 62 | 42 | 1.1 | 1.1 | **NU 306** | NJ | NUP | N | NF | 38500 | 35000 |
| | 72 | 19 | - | 40.5 | 1.1 | 1.1 | **NU 306E** | NJ | NUP | - | - | 53000 | 50000 |
| | 72 | 27 | - | 42 | 1.1 | 1.1 | **NU 2306** | NJ | NUP | - | - | 51500 | 51000 |
| | 72 | 27 | - | 40.5 | 1.1 | 1.1 | **NU 2306E** | NJ | NUP | - | - | 74500 | 77500 |
| | 90 | 23 | 73 | 45 | 1.5 | 1.5 | **NU 406** | NJ | NUP | N | NF | 62500 | 55000 |
| 35 | 62 | 14 | 55 | 42 | 1 | 0.6 | **NU 1007** | - | - | N | - | 21600 | 21800 |
| | 72 | 17 | 61.8 | 43.8 | 1.1 | 0.6 | **NU 207** | NJ | NUP | N | NF | 33500 | 31500 |
| | 72 | 17 | - | 44 | 1.1 | 0.6 | **NU 207E** | NJ | NUP | - | - | 50000 | 50000 |
| | 72 | 23 | - | 43.8 | 1.1 | 0.6 | **NU 2207** | NJ | NUP | - | - | 49000 | 51000 |
| | 72 | 23 | - | 44 | 1.1 | 0.6 | **NU 2207E** | NJ | NUP | - | - | 61500 | 65000 |
| | 80 | 21 | 68.2 | 46.2 | 1.5 | 1.1 | **NU 307** | NJ | NUP | N | NF | 49500 | 47000 |
| | 80 | 21 | - | 46.2 | 1.5 | 1.1 | **NU 307E** | NJ | NUP | - | - | 66500 | 65500 |
| | 80 | 31 | - | 46.2 | 1.5 | 1.1 | **NU 2307** | NJ | NUP | - | - | 60500 | 60000 |
| | 80 | 31 | - | 46.2 | 1.5 | 1.1 | **NU 2307E** | NJ | NUP | - | - | 99000 | 109000 |

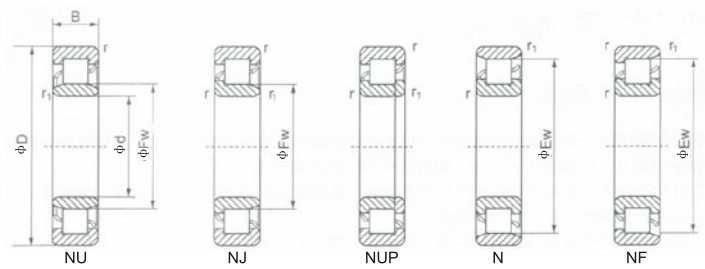







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 16000 | 19000 | 22 | 19 | 22 | 24 | 25 | 35 | 34 | 34 | 0.6 | 0.3 | 0.082 |
| 15000 | 18000 | 26 | 25 | 26 | 29 | 32 | 41 | 42 | 42 | 1 | 0.6 | 0.112 |
| 13000 | 16000 | - | 25 | 26 | 29 | 32 | 41 | - | - | 1 | 0.6 | 0.124 |
| 14000 | 17000 | - | 25 | 26 | 29 | 32 | 41 | - | - | 1 | 0.6 | 0.144 |
| 13000 | 16000 | - | 25 | 26 | 29 | 32 | 41 | - | - | 1 | 0.6 | 0.162 |
| 12000 | 14000 | 27 | 25 | 27 | 30 | 33 | 45 | 47 | 47 | 1 | 0.6 | 0.154 |
| 10000 | 12000 | - | 25 | 27 | 30 | 33 | 45 | - | - | 1 | 0.6 | 0.150 |
| 11000 | 13000 | - | 25 | 27 | 30 | 33 | 45 | - | - | 1 | 0.6 | 0.213 |
| 10000 | 12000 | - | 25 | 27 | 30 | 33 | 45 | - | - | 1 | 0.6 | 0.240 |
| 15000 | 18000 | 29 | 27.5 | 30 | 32 | - | 42 | 45 | 41.8 | 0.6 | 0.3 | 0.086 |
| 12000 | 15000 | 31 | 30 | 31 | 34 | 37 | 46 | 47 | 47 | 1 | 0.6 | 0.133 |
| 10000 | 12000 | - | 30 | 31 | 34 | 37 | 46 | - | - | 1 | 0.6 | 0.140 |
| 11000 | 13000 | - | 30 | 31 | 34 | 37 | 46 | - | - | 1 | 0.6 | 0.163 |
| 10000 | 12000 | - | 30 | 31 | 34 | 37 | 46 | - | - | 1 | 0.6 | 0.185 |
| 9500 | 12000 | 32 | 32 | 33 | 37 | 40 | 55 | 55 | 55 | 1 | 1 | 0.238 |
| 8500 | 10000 | - | 32 | 33 | 37 | 40 | 55 | - | - | 1 | 1 | 0.240 |
| 9300 | 11000 | - | 32 | 33 | 37 | 40 | 55 | - | - | 1 | 1 | 0.340 |
| 8500 | 10000 | - | 32 | 33 | 37 | 40 | 55 | - | - | 1 | 1 | 0.390 |
| 7500 | 9000 | 33.5 | 33.5 | 38 | 41 | 46 | 71.5 | 71.5 | 64 | 1.5 | 1.5 | 0.564 |
| 12000 | 15000 | 35 | 33.5 | 35 | 38 | - | 49 | 52 | 49 | 1 | 0.6 | 0.123 |
| 10000 | 13000 | 36 | 35 | 37 | 40 | 44 | 56 | 57 | 56 | 1 | 0.6 | 0.204 |
| 8500 | 10000 | - | 35 | 37 | 40 | 44 | 56 | - | - | 1 | 0.6 | 0.210 |
| 9200 | 11000 | - | 35 | 37 | 40 | 44 | 56 | - | - | 1 | 0.6 | 0.262 |
| 8500 | 10000 | - | 35 | 37 | 40 | 44 | 56 | - | - | 1 | 0.6 | 0.295 |
| 8500 | 10000 | 37 | 37 | 40 | 44 | 48 | 65 | 65 | 64 | 1 | 1 | 0.357 |
| 7800 | 9400 | - | 37 | 40 | 44 | 48 | 65 | - | - | 1 | 1 | 0.370 |
| 8200 | 9800 | - | 37 | 40 | 44 | 48 | 65 | - | - | 1 | 1 | 0.500 |
| 7800 | 9400 | - | 37 | 40 | 44 | 48 | 65 | - | - | 1 | 1 | 0.585 |
| 7500 | 9000 | 38.5 | 38.5 | 44 | 47 | 52 | 81.5 | 81.5 | 74 | 1.5 | 1.5 | 0.770 |
| 10000 | 13000 | 40 | 38.5 | 41 | 44 | - | 56 | 59 | 55.5 | 1 | 0.6 | 0.185 |
| 9000 | 11000 | 42 | 40 | 43 | 46 | 50 | 65 | 67 | 64 | 1 | 0.6 | 0.295 |
| 8200 | 9800 | - | 40 | 43 | 46 | 50 | 65 | - | - | 1 | 0.6 | 0.300 |
| 8500 | 10000 | - | 40 | 43 | 46 | 50 | 65 | - | - | 1 | 0.6 | 0.402 |
| 8200 | 9800 | - | 40 | 43 | 46 | 50 | 65 | - | - | 1 | 0.6 | 0.446 |
| 8000 | 9500 | 43.5 | 42 | 45 | 48 | 53 | 71.5 | 73 | 71 | 1.5 | 1 | 0.470 |
| 6800 | 8200 | - | 42 | 45 | 48 | 53 | 71.5 | - | - | 1.5 | 1 | 0.490 |
| 7200 | 8600 | - | 42 | 45 | 48 | 53 | 71.5 | - | - | 1.5 | 1 | 0.696 |
| 6800 | 8200 | - | 42 | 45 | 48 | 53 | 71.5 | - | - | 1.5 | 1 | 0.780 |

*d*: 35 ~ 55 mm

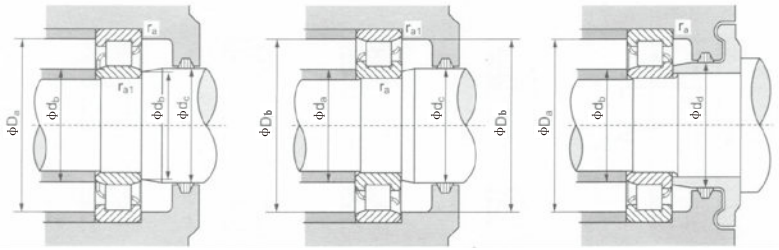



NU NJ NUP N NF

| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor |
| 35 | 100 | 25 | 83 | 53 | 1.5 | 1.5 | **NU 407** | NJ | NUP | N | NF | 75000 | 69000 |
| 40 | 68 | 15 | 61 | 47 | 1 | 0.6 | **NU 1008** | - | - | N | - | 25000 | 25700 |
| | 80 | 18 | 70 | 50 | 1.1 | 1.1 | **NU 208** | NJ | NUP | N | NF | 43500 | 43000 |
| | 80 | 18 | - | 49.5 | 1.1 | 1.1 | **NU 208E** | NJ | NUP | - | - | 55500 | 55500 |
| | 80 | 23 | - | 50 | 1.1 | 1.1 | **NU 2208** | NJ | NUP | - | - | 58000 | 62000 |
| | 80 | 23 | - | 49.5 | 1.1 | 1.1 | **NU 2208E** | NJ | NUP | - | - | 72000 | 77500 |
| | 90 | 23 | 77.5 | 53.5 | 1.5 | 1.5 | **NU 308** | NJ | NUP | N | NF | 58500 | 57000 |
| | 90 | 23 | - | 52 | 1.5 | 1.5 | **NU 308E** | NJ | NUP | - | - | 83000 | 81500 |
| | 90 | 33 | - | 53.5 | 1.5 | 1.5 | **NU 2308** | NJ | NUP | - | - | 82000 | 88000 |
| | 90 | 33 | - | 52 | 1.5 | 1.5 | **NU 2308E** | NJ | NUP | - | - | 114000 | 122000 |
| | 110 | 27 | 92 | 58 | 2 | 2 | **NU 408** | NJ | NUP | N | NF | 95500 | 89000 |
| 45 | 75 | 16 | 67.5 | 52.5 | 1 | 0.6 | **NU 1009** | - | - | N | - | 29700 | 32000 |
| | 85 | 19 | 75 | 55 | 1.1 | 1.1 | **NU 209** | NJ | NUP | N | NF | 46000 | 47000 |
| | 85 | 19 | - | 54.5 | 1.1 | 1.1 | **NU 209E** | NJ | NUP | - | - | 63000 | 66500 |
| | 85 | 23 | - | 55 | 1.1 | 1.1 | **NU 2209** | NJ | NUP | - | - | 61500 | 67500 |
| | 85 | 23 | - | 54.5 | 1.1 | 1.1 | **NU 2209E** | NJ | NUP | - | - | 76000 | 84500 |
| | 100 | 25 | 86.5 | 58.5 | 1.5 | 1.5 | **NU 309** | NJ | NUP | N | NF | 78500 | 77500 |
| | 100 | 25 | - | 58.5 | 1.5 | 1.5 | **NU 309E** | NJ | NUP | - | - | 97500 | 98500 |
| | 100 | 36 | - | 58.5 | 1.5 | 1.5 | **NU 2309** | NJ | NUP | - | - | 99000 | 104000 |
| | 100 | 36 | - | 58.5 | 1.5 | 1.5 | **NU 2309E** | NJ | NUP | - | - | 137000 | 153000 |
| | 120 | 29 | 100.5 | 64.5 | 2 | 2 | **NU 409** | NJ | NUP | N | NF | 107000 | 102000 |
| 50 | 80 | 16 | 72.5 | 57.5 | 1 | 0.6 | **NU 1010** | - | - | N | - | 32000 | 36000 |
| | 90 | 20 | 80.4 | 60.4 | 1.1 | 1.1 | **NU 210** | NJ | NUP | N | NF | 48000 | 51000 |
| | 90 | 20 | - | 59.5 | 1.1 | 1.1 | **NU 210E** | NJ | NUP | - | - | 66000 | 72000 |
| | 90 | 23 | - | 60.4 | 1.1 | 1.1 | **NU 2210** | NJ | NUP | - | - | 64000 | 73500 |
| | 90 | 23 | - | 59.5 | 1.1 | 1.1 | **NU 2210E** | NJ | NUP | - | - | 79500 | 91500 |
| | 110 | 27 | 95 | 65 | 2 | 2 | **NU 310** | NJ | NUP | N | NF | 86500 | 86000 |
| | 110 | 27 | - | 65 | 2 | 2 | **NU 310E** | NJ | NUP | - | - | 110000 | 113000 |
| | 110 | 40 | - | 65 | 2 | 2 | **NU 2310** | NJ | NUP | - | - | 120000 | 131000 |
| | 110 | 40 | - | 65 | 2 | 2 | **NU 2310E** | NJ | NUP | - | - | 162000 | 187000 |
| | 130 | 31 | 110.8 | 70.8 | 2.1 | 2.1 | **NU 410** | NJ | NUP | N | NF | 138000 | 136000 |
| 55 | 90 | 18 | 80.5 | 64.5 | 1.1 | 1 | **NU 1011** | - | - | N | - | 36000 | 41500 |
| | 100 | 21 | 88.5 | 66.5 | 1.5 | 1.1 | **NU 211** | NJ | NUP | N | NF | 58000 | 62000 |
| | 100 | 21 | - | 66 | 1.5 | 1.1 | **NU 211E** | NJ | NUP | - | - | 82500 | 93000 |
| | 100 | 25 | - | 66.5 | 1.5 | 1.1 | **NU 2211** | NJ | NUP | - | - | 75000 | 87000 |
| | 100 | 25 | - | 66 | 1.5 | 1.1 | **NU 2211E** | NJ | NUP | - | - | 97000 | 114000 |
| | 120 | 29 | 104.5 | 70.5 | 2 | 2 | **NU 311** | NJ | NUP | N | NF | 110000 | 111000 |
| | 120 | 29 | - | 70.5 | 2 | 2 | **NU 311E** | NJ | NUP | - | - | 137000 | 143000 |

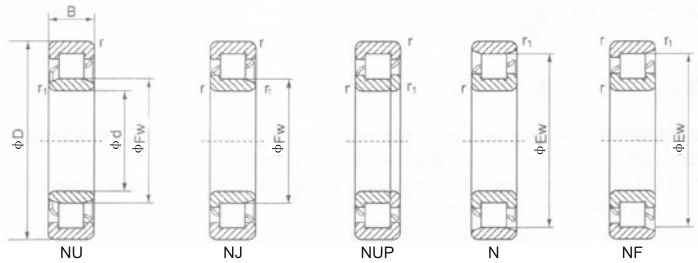







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 6700 | 8000 | 43.5 | 43.5 | 52 | 55 | 61 | 91.5 | 91.5 | 84 | 1.5 | 1.5 | 1.05 |
| 9500 | 12000 | 45 | 45 | 46 | 49 | - | 62 | 64 | 61.5 | 1 | 0.6 | 0.226 |
| 8500 | 10000 | 47 | 47 | 49 | 52 | 56 | 73 | 73 | 72 | 1 | 1 | 0.369 |
| 7200 | 8600 | - | 47 | 49 | 52 | 56 | 73 | - | - | 1 | 1 | 0.380 |
| 7500 | 9000 | - | 47 | 49 | 52 | 56 | 73 | - | - | 1 | 1 | 0.490 |
| 7200 | 8600 | - | 47 | 49 | 52 | 56 | 73 | - | - | 1 | 1 | 0.743 |
| 6700 | 8000 | 48.5 | 48.5 | 51 | 55 | 60 | 81.5 | 81.5 | 80 | 1.5 | 1.5 | 0.665 |
| 6400 | 7700 | - | 48.5 | 51 | 55 | 60 | 81.5 | - | - | 1.5 | 1.5 | 0.670 |
| 6500 | 7800 | - | 48.5 | 51 | 55 | 60 | 81.5 | - | - | 1.5 | 1.5 | 0.956 |
| 6400 | 7700 | - | 48.5 | 51 | 55 | 60 | 81.5 | - | - | 1.5 | 1.5 | 1.050 |
| 6000 | 7000 | 50 | 50 | 57 | 60 | 67 | 100 | 100 | 93 | 2 | 2 | 1.330 |
| 9000 | 11000 | 50 | 50 | 52 | 54 | - | 69 | 71 | 68 | 1 | 0.6 | 0.284 |
| 7500 | 9000 | 52 | 52 | 54 | 57 | 61 | 78 | 78 | 77 | 1 | 1 | 0.430 |
| 7000 | 8500 | - | 52 | 54 | 57 | 61 | 78 | - | - | 1 | 1 | 0.440 |
| 7400 | 8900 | - | 52 | 54 | 57 | 61 | 78 | - | - | 1 | 1 | 0.536 |
| 7000 | 8500 | - | 52 | 54 | 57 | 61 | 78 | - | - | 1 | 1 | 0.593 |
| 6300 | 7500 | 53.5 | 53.5 | 57 | 60 | 66 | 91.5 | 91.5 | 89 | 1.5 | 1.5 | 0.871 |
| 6000 | 7200 | - | 53.5 | 57 | 60 | 66 | 91.5 | - | - | 1.5 | 1.5 | 0.910 |
| 6100 | 7300 | - | 53.5 | 57 | 60 | 66 | 91.5 | - | - | 1.5 | 1.5 | 1.250 |
| 6000 | 7200 | - | 53.5 | 57 | 60 | 66 | 91.5 | - | - | 1.5 | 1.5 | 1.400 |
| 5600 | 6700 | 55 | 55 | 63 | 66 | 74 | 110 | 110 | 102 | 2 | 2 | 1.670 |
| 8500 | 10000 | 53 | 53 | 57 | 59 | - | 74 | 76 | 73 | 1 | 0.6 | 0.310 |
| 7000 | 8500 | 57 | 57 | 58 | 62 | 67 | 83 | 83 | 83 | 1 | 1 | 0.481 |
| 6400 | 7700 | - | 57 | 58 | 62 | 67 | 83 | - | - | 1 | 1 | 0.490 |
| 6500 | 7800 | - | 57 | 58 | 62 | 67 | 83 | - | - | 1 | 1 | 0.580 |
| 6400 | 7700 | - | 57 | 58 | 62 | 67 | 83 | - | - | 1 | 1 | 0.632 |
| 5600 | 6700 | 60 | 60 | 63 | 67 | 73 | 100 | 100 | 98 | 2 | 2 | 1.170 |
| 5400 | 6500 | - | 60 | 63 | 67 | 73 | 100 | - | - | 2 | 2 | 1.170 |
| 5400 | 6500 | - | 60 | 63 | 67 | 73 | 100 | - | - | 2 | 2 | 1.690 |
| 5400 | 6500 | - | 60 | 63 | 67 | 73 | 100 | - | - | 2 | 2 | 1.850 |
| 5000 | 6000 | 62 | 62 | 69 | 73 | 81 | 118 | 118 | 112 | 2 | 2 | 2.050 |
| 7500 | 9000 | 61.5 | 61 | 63 | 66 | - | 83 | 85 | 81.5 | 1 | 1 | 0.449 |
| 6300 | 7500 | 63.5 | 62 | 65 | 68 | 73 | 91.5 | 93 | 91 | 1.5 | 1 | 0.634 |
| 5800 | 7000 | - | 62 | 65 | 68 | 73 | 91.5 | - | - | 1.5 | 1 | 0.670 |
| 6200 | 7400 | - | 62 | 65 | 68 | 73 | 91.5 | - | - | 1.5 | 1 | 0.780 |
| 5800 | 7000 | - | 62 | 65 | 68 | 73 | 91.5 | - | - | 1.5 | 1 | 0.870 |
| 5000 | 6000 | 65 | 65 | 69 | 72 | 80 | 110 | 110 | 107 | 2 | 2 | 1.430 |
| 4800 | 5600 | - | 65 | 69 | 72 | 80 | 110 | - | - | 2 | 2 | 1.500 |

*d*: 55 ~ 75 mm

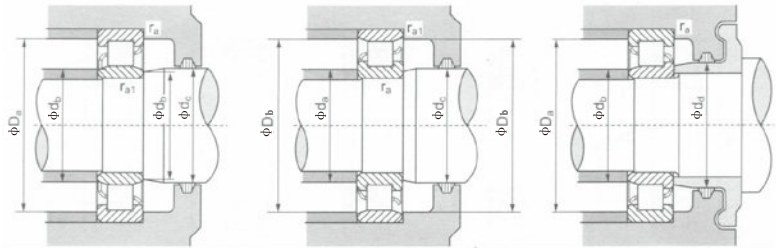



NU NJ NUP N NF

| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor |
| 55 | 120 | 43 | - | 70.5 | 2 | 2 | **NU 2311** | NJ | NUP | - | - | 148000 | 162000 |
| | 120 | 43 | - | 70.5 | 2 | 2 | **NU 2311E** | NJ | NUP | - | - | 201000 | 233000 |
| | 140 | 33 | 117.2 | 77.2 | 2.1 | 2.1 | **NU 411** | NJ | NUP | N | NF | 139000 | 138000 |
| 60 | 95 | 18 | 85.5 | 69.5 | 1.1 | 1 | **NU 1012** | - | - | N | - | 37000 | 44000 |
| | 110 | 22 | 97.5 | 73.5 | 1.5 | 1.5 | **NU 212** | NJ | NUP | N | NF | 68500 | 75000 |
| | 110 | 22 | - | 72 | 1.5 | 1.5 | **NU 212E** | NJ | NUP | - | - | 97500 | 107000 |
| | 110 | 28 | - | 73.5 | 1.5 | 1.5 | **NU 2212** | NJ | NUP | - | - | 96000 | 116000 |
| | 110 | 28 | - | 72 | 1.5 | 1.5 | **NU 2212E** | NJ | NUP | - | - | 131000 | 157000 |
| | 130 | 31 | 113 | 77 | 2.1 | 2.1 | **NU 312** | NJ | NUP | N | NF | 123000 | 126000 |
| | 130 | 31 | - | 77 | 2.1 | 2.1 | **NU 312E** | NJ | NUP | - | - | 150000 | 150000 |
| | 130 | 46 | - | 77 | 2.1 | 2.1 | **NU 2312** | NJ | NUP | - | - | 168000 | 188000 |
| | 130 | 46 | - | 77 | 2.1 | 2.1 | **NU 2312E** | NJ | NUP | - | - | 222000 | 262000 |
| | 150 | 35 | 127 | 83 | 2.1 | 2.1 | **NU 412** | NJ | NUP | N | NF | 167000 | 168000 |
| 65 | 100 | 18 | 90.5 | 74.5 | 1.1 | 1 | **NU 1013** | - | - | N | - | 38000 | 46500 |
| | 120 | 23 | 105.6 | 79.6 | 1.5 | 1.5 | **NU 213** | NJ | NUP | N | NF | 83500 | 94500 |
| | 120 | 23 | - | 78.5 | 1.5 | 1.5 | **NU 213E** | NJ | NUP | - | - | 107000 | 119000 |
| | 120 | 31 | - | 79.6 | 1.5 | 1.5 | **NU 2213** | NJ | NUP | - | - | 120000 | 149000 |
| | 120 | 31 | - | 78.5 | 1.5 | 1.5 | **NU 2213E** | NJ | NUP | - | - | 149000 | 181000 |
| | 140 | 33 | 121.5 | 83.5 | 2.1 | 2.1 | **NU 313** | NJ | NUP | N | NF | 135000 | 139000 |
| | 140 | 33 | - | 82.5 | 2.1 | 2.1 | **NU 313E** | NJ | NUP | - | - | 180000 | 191000 |
| | 140 | 48 | - | 83.5 | 2.1 | 2.1 | **NU 2313** | NJ | NUP | - | - | 187000 | 212000 |
| | 140 | 48 | - | 82.5 | 2.1 | 2.1 | **NU 2313E** | NJ | NUP | - | - | 247000 | 287000 |
| | 160 | 37 | 135.3 | 89.3 | 2.1 | 2.1 | **NU 413** | NJ | NUP | N | NF | 195000 | 203000 |
| 70 | 110 | 20 | 100 | 80 | 1.1 | 1 | **NU 1014** | - | - | N | - | 55500 | 67000 |
| | 125 | 24 | 110.5 | 84.5 | 1.5 | 1.5 | **NU 214** | NJ | NUP | N | NF | 83000 | 95000 |
| | 125 | 24 | - | 83.5 | 1.5 | 1.5 | **NU 214E** | NJ | NUP | - | - | 119000 | 137000 |
| | 125 | 31 | - | 84.5 | 1.5 | 1.5 | **NU 2214** | NJ | NUP | - | - | 119000 | 151000 |
| | 125 | 31 | - | 83.5 | 1.5 | 1.5 | **NU 2214E** | NJ | NUP | - | - | 156000 | 194000 |
| | 150 | 35 | 130 | 90 | 2.1 | 2.1 | **NU 314** | NJ | NUP | N | NF | 158000 | 220000 |
| | 150 | 35 | - | 89 | 2.1 | 2.1 | **NU 314E** | NJ | NUP | - | - | 205000 | 222000 |
| | 150 | 51 | - | 90 | 2.1 | 2.1 | **NU 2314** | NJ | NUP | - | - | 223000 | 262000 |
| | 150 | 51 | - | 89 | 2.1 | 2.1 | **NU 2314E** | NJ | NUP | - | - | 274000 | 320000 |
| | 180 | 42 | 152 | 100 | 3 | 3 | **NU 414** | NJ | NUP | N | NF | 228000 | 235000 |
| 75 | 115 | 20 | 105 | 85 | 1.1 | 1 | **NU 1015** | - | - | N | - | 57500 | 71000 |
| | 130 | 25 | 116.5 | 88.5 | 1.5 | 1.5 | **NU 215** | NJ | NUP | N | NF | 96000 | 111000 |
| | 130 | 25 | - | 88.5 | 1.5 | 1.5 | **NU 215E** | NJ | NUP | - | - | 130000 | 156000 |
| | 130 | 31 | - | 88.5 | 1.5 | 1.5 | **NU 2215** | NJ | NUP | - | - | 129000 | 162000 |
| | 130 | 31 | - | 88.5 | 1.5 | 1.5 | **NU 2215E** | NJ | NUP | - | - | 161000 | 207000 |

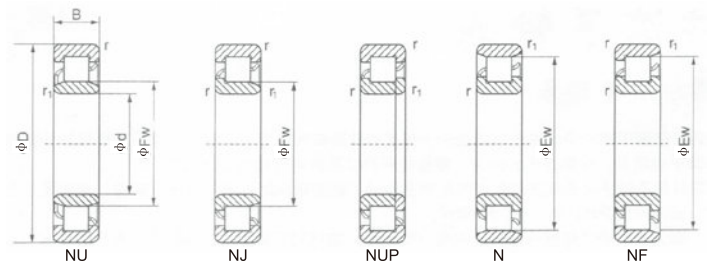







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 4800 | 5600 | - | 65 | 69 | 72 | 80 | 110 | - | - | 2 | 2 | 2.10 |
| 4800 | 5600 | - | 65 | 69 | 72 | 80 | 110 | - | - | 2 | 2 | 2.35 |
| 4800 | 5600 | 67 | 67 | 76 | 79 | 87 | 128 | 128 | 119 | 2 | 2 | 2.54 |
| 6700 | 8000 | 66.5 | 66 | 68 | 71 | - | 88 | 90 | 86.5 | 1 | 1 | 0.484 |
| 5600 | 6700 | 68.5 | 68.5 | 71 | 75 | 80 | 101.5 | 101.5 | 100 | 1.5 | 1.5 | 0.835 |
| 5000 | 6000 | - | 68.5 | 71 | 75 | 80 | 101.5 | - | - | 1.5 | 1.5 | 0.921 |
| 5300 | 6300 | - | 68.5 | 71 | 75 | 80 | 101.5 | - | - | 1.5 | 1.5 | 1.07 |
| 5000 | 6000 | - | 68.5 | 71 | 75 | 80 | 101.5 | - | - | 1.5 | 1.5 | 1.23 |
| 4800 | 5600 | 72 | 72 | 75 | 79 | 86 | 118 | 118 | 116 | 2 | 2 | 1.82 |
| 4200 | 4800 | - | 72 | 75 | 79 | 86 | 118 | - | - | 2 | 2 | 1.87 |
| 4300 | 5000 | - | 72 | 75 | 79 | 86 | 118 | - | - | 2 | 2 | 2.69 |
| 4200 | 4800 | - | 72 | 75 | 79 | 86 | 118 | - | - | 2 | 2 | 3.01 |
| 4300 | 5000 | 72 | 72 | 82 | 85 | 94 | 118 | 118 | 128 | 2 | 2 | 3.05 |
| 6300 | 7500 | 71.5 | 71 | 73 | 75 | - | 93 | 95 | 91.5 | 1 | 1 | 0.514 |
| 5300 | 6300 | 73.5 | 73.5 | 77 | 81 | 87 | 111.5 | 111.5 | 108 | 1.5 | 1.5 | 1.06 |
| 4800 | 5600 | - | 73.5 | 77 | 81 | 87 | 111.5 | - | - | 1.5 | 1.5 | 1.18 |
| 4800 | 5600 | - | 73.5 | 77 | 81 | 87 | 111.5 | - | - | 1.5 | 1.5 | 1.43 |
| 4800 | 5600 | - | 73.5 | 77 | 81 | 87 | 111.5 | - | - | 1.5 | 1.5 | 1.65 |
| 4500 | 5300 | 77 | 77 | 81 | 85 | 93 | 128 | 128 | 125 | 2 | 2 | 2.27 |
| 3800 | 4500 | - | 77 | 81 | 85 | 93 | 128 | - | - | 2 | 2 | 2.55 |
| 4000 | 4800 | - | 77 | 81 | 85 | 93 | 128 | - | - | 2 | 2 | 3.25 |
| 3800 | 4500 | - | 77 | 81 | 85 | 93 | 128 | - | - | 2 | 2 | 3.56 |
| 4000 | 4800 | 77 | 77 | 88 | 91 | 100 | 148 | 148 | 137 | 2 | 2 | 3.68 |
| 6000 | 7000 | 76.5 | 76 | 78 | 82 | - | 103 | 105 | 100.5 | 1 | 1 | 0.712 |
| 5000 | 6000 | 78.5 | 78.5 | 82 | 86 | 92 | 116.5 | 116.5 | 114 | 1.5 | 1.5 | 1.16 |
| 4600 | 5500 | - | 78.5 | 82 | 86 | 92 | 116.5 | - | - | 1.5 | 1.5 | 1.26 |
| 4800 | 5600 | - | 78.5 | 82 | 86 | 92 | 116.5 | - | - | 1.5 | 1.5 | 1.52 |
| 4600 | 5500 | - | 78.5 | 82 | 86 | 92 | 116.5 | - | - | 1.5 | 1.5 | 1.68 |
| 4000 | 4800 | 82 | 82 | 87 | 92 | 100 | 138 | 138 | 134 | 2 | 2 | 2.73 |
| 3600 | 4300 | - | 82 | 87 | 92 | 100 | 138 | - | - | 2 | 2 | 3.15 |
| 3800 | 4500 | - | 82 | 87 | 92 | 100 | 138 | - | - | 2 | 2 | 3.97 |
| 3600 | 4300 | - | 82 | 87 | 92 | 100 | 138 | - | - | 2 | 2 | 4.30 |
| 3600 | 4300 | 84 | 84 | 99 | 102 | 112 | 166 | 166 | 153 | 2.5 | 2.5 | 5.40 |
| 5600 | 6700 | 81.5 | 81 | 83 | 87 | - | 108 | 110 | 105.5 | 1 | 1 | 0.745 |
| 4800 | 5600 | 83.5 | 83.5 | 87 | 90 | 96 | 121.5 | 121.5 | 120 | 1.5 | 1.5 | 1.24 |
| 4300 | 5200 | - | 83.5 | 87 | 90 | 96 | 121.5 | - | - | 1.5 | 1.5 | 1.38 |
| 4500 | 5300 | - | 83.5 | 87 | 90 | 96 | 121.5 | - | - | 1.5 | 1.5 | 1.57 |
| 4300 | 5200 | - | 83.5 | 87 | 90 | 96 | 121.5 | - | - | 1.5 | 1.5 | 1.80 |

*d*: 75 ~ 95 mm

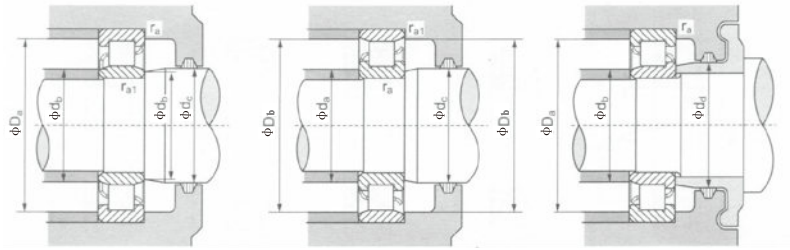



NU NJ NUP N NF

| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor |
| 75 | 160 | 37 | 139.5 | 95.5 | 2.1 | 2.1 | **NU 315** | NJ | NUP | N | NF | 190000 | 205000 |
| | 160 | 37 | - | 95 | 2.1 | 2.1 | **NU 315E** | NJ | NUP | - | - | 240000 | 263000 |
| | 160 | 55 | - | 95.5 | 2.1 | 2.1 | **NU 2315** | NJ | NUP | - | - | 258000 | 300000 |
| | 160 | 55 | - | 95 | 2.1 | 2.1 | **NU 2315E** | NJ | NUP | - | - | 330000 | 395000 |
| | 190 | 45 | 160.5 | 104.5 | 3 | 3 | **NU 415** | NJ | NUP | N | NF | 262000 | 274000 |
| 80 | 125 | 22 | 113.5 | 91.5 | 1.1 | 1 | **NU 1016** | - | - | N | - | 69000 | 86500 |
| | 140 | 26 | 125.3 | 95.3 | 2 | 2 | **NU 216** | NJ | NUP | N | NF | 106000 | 122000 |
| | 140 | 26 | - | 95.3 | 2 | 2 | **NU 216E** | NJ | NUP | - | - | 139000 | 167000 |
| | 140 | 33 | - | 95.3 | 2 | 2 | **NU 2216** | NJ | NUP | - | - | 147000 | 186000 |
| | 140 | 33 | - | 95.3 | 2 | 2 | **NU 2216E** | NJ | NUP | - | - | 186000 | 243000 |
| | 170 | 39 | 147 | 103 | 2.1 | 2.1 | **NU 316** | NJ | NUP | N | NF | 190000 | 207000 |
| | 170 | 39 | - | 101 | 2.1 | 2.1 | **NU 316E** | NJ | NUP | - | - | 256000 | 282000 |
| | 170 | 58 | - | 103 | 2.1 | 2.1 | **NU 2316** | NJ | NUP | - | - | 274000 | 330000 |
| | 170 | 58 | - | 101 | 2.1 | 2.1 | **NU 2316E** | NJ | NUP | - | - | 355000 | 430000 |
| | 200 | 48 | 170 | 110 | 3 | 3 | **NU 416** | NJ | NUP | N | NF | 299000 | 315000 |
| 85 | 130 | 22 | 118.5 | 96.5 | 1.1 | 1 | **NU 1017** | - | - | N | - | 71500 | 91000 |
| | 150 | 28 | 133.8 | 101.8 | 2 | 2 | **NU 217** | NJ | NUP | N | NF | 120000 | 140000 |
| | 150 | 28 | - | 100.5 | 2 | 2 | **NU 217E** | NJ | NUP | - | - | 167000 | 199000 |
| | 150 | 36 | - | 101.8 | 2 | 2 | **NU 2217** | NJ | NUP | - | - | 169000 | 218000 |
| | 150 | 36 | - | 100.5 | 2 | 2 | **NU 2217E** | NJ | NUP | - | - | 217000 | 279000 |
| | 180 | 41 | 156 | 108 | 3 | 3 | **NU 317** | NJ | NUP | N | NF | 224000 | 247000 |
| | 180 | 41 | - | 108 | 3 | 3 | **NU 317E** | NJ | NUP | - | - | 291000 | 330000 |
| | 180 | 60 | - | 108 | 3 | 3 | **NU 2317** | NJ | NUP | - | - | 315000 | 380000 |
| | 180 | 60 | - | 108 | 3 | 3 | **NU 2317E** | NJ | NUP | - | - | 390000 | 485000 |
| | 210 | 52 | 177 | 113 | 4 | 4 | **NU 417** | NJ | NUP | N | NF | 330000 | 350000 |
| 90 | 140 | 24 | 127 | 103 | 1.5 | 1.1 | **NU 1018** | - | - | N | - | 81500 | 104000 |
| | 160 | 30 | 143 | 107 | 2 | 2 | **NU 218** | NJ | NUP | N | NF | 152000 | 178000 |
| | 160 | 30 | - | 107 | 2 | 2 | **NU 218E** | NJ | NUP | - | - | 182000 | 217000 |
| | 160 | 40 | - | 107 | 2 | 2 | **NU 2218** | NJ | NUP | - | - | 207000 | 265000 |
| | 160 | 40 | - | 107 | 2 | 2 | **NU 2218E** | NJ | NUP | - | - | 242000 | 315000 |
| | 190 | 43 | 165 | 115 | 3 | 3 | **NU 318** | NJ | NUP | N | NF | 240000 | 265000 |
| | 190 | 43 | - | 113.5 | 3 | 3 | **NU 318E** | NJ | NUP | - | - | 315000 | 355000 |
| | 190 | 64 | - | 115 | 3 | 3 | **NU 2318** | NJ | NUP | - | - | 325000 | 395000 |
| | 190 | 64 | - | 113.5 | 3 | 3 | **NU 2318E** | NJ | NUP | - | - | 435000 | 535000 |
| | 225 | 54 | 191.5 | 123.5 | 4 | 4 | **NU 418** | NJ | NUP | N | NF | 365000 | 400000 |
| 95 | 145 | 24 | 132 | 108 | 1.5 | 1.1 | **NU 1019** | - | - | N | - | 84000 | 110000 |
| | 170 | 32 | 151.5 | 113.5 | 2.1 | 2.1 | **NU 219** | NJ | NUP | N | NF | 165000 | 195000 |
| | 170 | 32 | - | 112.5 | 2.1 | 2.1 | **NU 219E** | NJ | NUP | - | - | 222000 | 259000 |

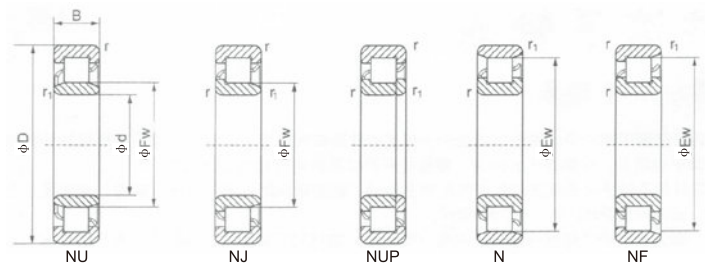







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 3800 | 4500 | 87 | 87 | 93 | 97 | 106 | 148 | 148 | 143 | 2 | 2 | 3.21 |
| 3400 | 4000 | - | 87 | 93 | 97 | 106 | 148 | - | - | 2 | 2 | 3.70 |
| 3400 | 4000 | - | 87 | 93 | 97 | 106 | 148 | - | - | 2 | 2 | 4.84 |
| 3400 | 4000 | - | 87 | 93 | 97 | 106 | 148 | - | - | 2 | 2 | 5.30 |
| 3400 | 4000 | 89 | 89 | 103 | 107 | 118 | 176 | 176 | 162 | 2.5 | 2.5 | 6.40 |
| 5300 | 6300 | 86.5 | 86 | 90 | 94 | - | 118 | 120 | 113.5 | 1 | 1 | 1.03 |
| 4500 | 5300 | 90 | 90 | 94 | 97 | 104 | 130 | 130 | 128 | 2 | 2 | 1.53 |
| 4000 | 4800 | - | 90 | 94 | 97 | 104 | 130 | - | - | 2 | 2 | 1.66 |
| 4000 | 4800 | - | 90 | 94 | 97 | 104 | 130 | - | - | 2 | 2 | 1.96 |
| 4000 | 4800 | - | 90 | 94 | 97 | 104 | 130 | - | - | 2 | 2 | 2.15 |
| 3600 | 4300 | 92 | 92 | 99 | 105 | 114 | 158 | 158 | 151 | 2 | 2 | 3.93 |
| 3200 | 3800 | - | 92 | 99 | 105 | 114 | 158 | - | - | 2 | 2 | 4.38 |
| 3200 | 3800 | - | 92 | 99 | 105 | 114 | 158 | - | - | 2 | 2 | 5.83 |
| 3200 | 3800 | - | 92 | 99 | 105 | 114 | 158 | - | - | 2 | 2 | 6.35 |
| 3200 | 3800 | 94 | 94 | 109 | 112 | 124 | 186 | 186 | 172 | 2.5 | 2.5 | 7.45 |
| 5000 | 6000 | 91.5 | 91 | 95 | 99 | - | 123 | 125 | 118.5 | 1 | 1 | 1.06 |
| 4300 | 5000 | 95 | 95 | 99 | 104 | 110 | 140 | 140 | 137 | 2 | 2 | 1.92 |
| 3800 | 4500 | - | 95 | 99 | 104 | 110 | 140 | - | - | 2 | 2 | 2.10 |
| 3800 | 4500 | - | 95 | 99 | 104 | 110 | 140 | - | - | 2 | 2 | 2.50 |
| 3800 | 4500 | - | 95 | 99 | 104 | 110 | 140 | - | - | 2 | 2 | 2.75 |
| 3400 | 4000 | 99 | 99 | 106 | 110 | 119 | 166 | 166 | 160 | 2.5 | 2.5 | 4.54 |
| 3000 | 3600 | - | 99 | 106 | 110 | 119 | 166 | - | - | 2.5 | 2.5 | 5.12 |
| 3000 | 3600 | - | 99 | 106 | 110 | 119 | 166 | - | - | 2.5 | 2.5 | 6.62 |
| 3000 | 3600 | - | 99 | 106 | 110 | 119 | 166 | - | - | 2.5 | 2.5 | 7.35 |
| 3000 | 3600 | 103 | 103 | 111 | 115 | 128 | 192 | 192 | 179 | 3 | 3 | 9.10 |
| 4800 | 5600 | 98 | 97 | 101 | 106 | - | 131.5 | 133.5 | 127.5 | 1.5 | 1 | 1.36 |
| 3800 | 4500 | 100 | 100 | 105 | 109 | 116 | 150 | 150 | 146 | 2 | 2 | 2.30 |
| 3400 | 4000 | - | 100 | 105 | 109 | 116 | 150 | - | - | 2 | 2 | 2.53 |
| 3600 | 4300 | - | 100 | 105 | 109 | 116 | 150 | - | - | 2 | 2 | 3.10 |
| 3400 | 4000 | - | 100 | 105 | 109 | 116 | 150 | - | - | 2 | 2 | 3.48 |
| 3200 | 3800 | 104 | 104 | 111 | 117 | 127 | 176 | 176 | 169 | 2.5 | 2.5 | 5.37 |
| 2500 | 3200 | - | 104 | 111 | 117 | 127 | 176 | - | - | 2.5 | 2.5 | 5.92 |
| 2800 | 3400 | - | 104 | 111 | 117 | 127 | 176 | - | - | 2.5 | 2.5 | 7.90 |
| 2600 | 3200 | - | 104 | 111 | 117 | 127 | 176 | - | - | 2.5 | 2.5 | 8.72 |
| 2800 | 3400 | 108 | 108 | 122 | 125 | 139 | 207 | 207 | 194 | 3 | 3 | 10.6 |
| 4500 | 5000 | 103 | 102 | 106 | 111 | - | 136.5 | 138.5 | 132.5 | 1.5 | 1 | 1.42 |
| 3600 | 4300 | 107 | 107 | 111 | 116 | 123 | 158 | 158 | 155 | 2 | 2 | 2.81 |
| 3200 | 4000 | - | 107 | 111 | 116 | 123 | 158 | - | - | 2 | 2 | 3.08 |

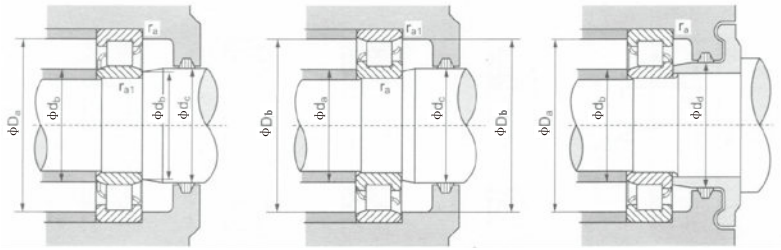
*d*: 95 ~ 120 mm




| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor |
| 95 | 170 | 43 | - | 113.5 | 2.1 | 2.1 | **NU 2219** | NJ | NUP | - | - | 230000 | 298000 |
| | 170 | 43 | - | 112.5 | 2.1 | 2.1 | **NU 2219E** | NJ | NUP | - | - | 286000 | 370000 |
| | 200 | 45 | 173.5 | 121.5 | 3 | 3 | **NU 319** | NJ | NUP | N | NF | 258000 | 289000 |
| | 200 | 45 | - | 121.5 | 3 | 3 | **NU 319E** | NJ | NUP | - | - | 335000 | 385000 |
| | 200 | 67 | - | 121.5 | 3 | 3 | **NU 2319** | NJ | NUP | - | - | 370000 | 460000 |
| | 200 | 67 | - | 121.5 | 3 | 3 | **NU 2319E** | NJ | NUP | - | - | 460000 | 585000 |
| | 240 | 55 | 201.5 | 133.5 | 4 | 4 | **NU 419** | NJ | NUP | N | NF | 400000 | 445000 |
| 100 | 150 | 24 | 137 | 113 | 1.5 | 1.1 | **NU 1020** | - | - | N | - | 87000 | 116000 |
| | 180 | 34 | 160 | 120 | 2.1 | 2.1 | **NU 220** | NJ | NUP | N | NF | 183000 | 217000 |
| | 180 | 34 | - | 119 | 2.1 | 2.1 | **NU 220E** | NJ | NUP | - | - | 250000 | 305000 |
| | 180 | 46 | - | 120 | 2.1 | 2.1 | **NU 2220** | NJ | NUP | - | - | 257000 | 335000 |
| | 180 | 46 | - | 119 | 2.1 | 2.1 | **NU 2220E** | NJ | NUP | - | - | 335000 | 445000 |
| | 215 | 47 | 185.5 | 129.5 | 3 | 3 | **NU 320** | NJ | NUP | N | NF | 300000 | 335000 |
| | 215 | 47 | - | 127.5 | 3 | 3 | **NU 320E** | NJ | NUP | - | - | 380000 | 425000 |
| | 215 | 73 | - | 129.5 | 3 | 3 | **NU 2320** | NJ | NUP | - | - | 435000 | 545000 |
| | 215 | 73 | - | 127.5 | 3 | 3 | **NU 2320E** | NJ | NUP | - | - | 570000 | 715000 |
| | 250 | 58 | 211 | 139 | 4 | 4 | **NU 420** | NJ | NUP | N | NF | 445000 | 500000 |
| 105 | 160 | 26 | 145.5 | 119.5 | 2 | 1.1 | **NU 1021** | - | - | N | - | 101000 | 136000 |
| | 190 | 36 | 168.8 | 126.8 | 2.1 | 2.1 | **NU 221** | NJ | NUP | N | NF | 202000 | 241000 |
| | 225 | 49 | 195 | 135 | 3 | 3 | **NU 321** | NJ | NUP | N | NF | 340000 | 385000 |
| | 260 | 60 | 220.5 | 144.5 | 4 | 4 | **NU 421** | NJ | NUP | N | NF | 495000 | 555000 |
| 110 | 170 | 28 | 155 | 125 | 2 | 1.1 | **NU 1022** | - | - | N | - | 127000 | 166000 |
| | 200 | 38 | 178.5 | 132.5 | 2.1 | 2.1 | **NU 222** | NJ | NUP | N | NF | 240000 | 290000 |
| | 200 | 38 | - | 132.5 | 2.1 | 2.1 | **NU 222E** | NJ | NUP | - | - | 293000 | 365000 |
| | 200 | 53 | - | 132.5 | 2.1 | 2.1 | **NU 2222** | NJ | NUP | - | - | 320000 | 440000 |
| | 200 | 53 | - | 132.5 | 2.1 | 2.1 | **NU 2222E** | NJ | NUP | - | - | 385000 | 515000 |
| | 240 | 50 | 207 | 143 | 3 | 3 | **NU 322** | NJ | NUP | N | NF | 380000 | 435000 |
| | 240 | 50 | - | 143 | 3 | 3 | **NU 322E** | NJ | NUP | - | - | 450000 | 525000 |
| | 240 | 80 | - | 143 | 3 | 3 | **NU 2322** | NJ | NUP | - | - | 570000 | 730000 |
| | 240 | 80 | - | 143 | 3 | 3 | **NU 2322E** | NJ | NUP | - | - | 670000 | 880000 |
| | 280 | 65 | 235 | 155 | 4 | 4 | **NU 422** | NJ | NUP | N | NF | 545000 | 620000 |
| 120 | 180 | 28 | 165 | 135 | 2 | 1.1 | **NU 1024** | - | - | N | - | 131000 | 175000 |
| | 215 | 40 | 191.5 | 143.5 | 2.1 | 2.1 | **NU 224** | NJ | NUP | N | NF | 260000 | 320000 |
| | 215 | 40 | - | 143.5 | 2.1 | 2.1 | **NU 224E** | NJ | NUP | - | - | 335000 | 420000 |
| | 215 | 58 | - | 143.5 | 2.1 | 2.1 | **NU 2224** | NJ | NUP | - | - | 365000 | 490000 |
| | 215 | 58 | - | 143.5 | 2.1 | 2.1 | **NU 2224E** | NJ | NUP | - | - | 450000 | 620000 |
| | 260 | 55 | 226 | 154 | 3 | 3 | **NU 324** | NJ | NUP | N | NF | 445000 | 510000 |
| | 260 | 55 | - | 154 | 3 | 3 | **NU 432E** | NJ | NUP | - | - | 525000 | 610000 |



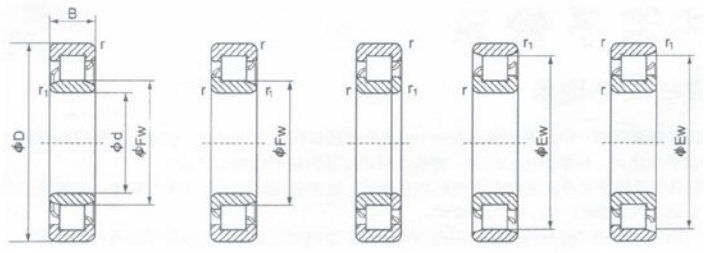




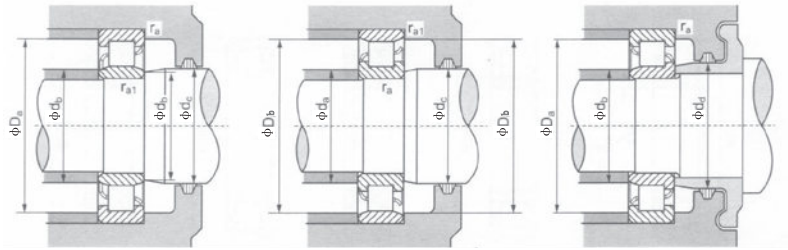

| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 3400 | 4000 | - | 107 | 111 | 116 | 123 | 158 | - | - | 2 | 2 | 3.85 |
| 3200 | 4000 | - | 107 | 111 | 116 | 123 | 158 | - | - | 2 | 2 | 4.23 |
| 3000 | 3600 | 109 | 109 | 119 | 124 | 134 | 186 | 186 | 178 | 2.5 | 2.5 | 6.23 |
| 2400 | 3000 | - | 109 | 119 | 124 | 134 | 186 | - | - | 2.5 | 2.5 | 6.92 |
| 2600 | 3200 | - | 109 | 119 | 124 | 134 | 186 | - | - | 2.5 | 2.5 | 9.39 |
| 2400 | 3000 | - | 109 | 119 | 124 | 134 | 186 | - | - | 2.5 | 2.5 | 10.3 |
| 2600 | 3200 | 113 | 113 | 132 | 136 | 149 | 222 | 222 | 204 | 3 | 3 | 14.0 |
| 4300 | 5000 | 108 | 107 | 111 | 116 | - | 141.5 | 143.5 | 137.5 | 1.5 | 1 | 1.48 |
| 3400 | 4000 | 112 | 112 | 117 | 122 | 130 | 168 | 168 | 164 | 2 | 2 | 3.30 |
| 3200 | 3800 | - | 112 | 117 | 122 | 130 | 168 | - | - | 2 | 2 | 3.73 |
| 3200 | 3800 | - | 112 | 117 | 122 | 130 | 168 | - | - | 2 | 2 | 4.67 |
| 3200 | 3800 | - | 112 | 117 | 122 | 130 | 168 | - | - | 2 | 2 | 5.13 |
| 2800 | 3400 | 114 | 114 | 125 | 132 | 143 | 201 | 201 | 190 | 2.5 | 2.5 | 7.70 |
| 2200 | 2800 | - | 114 | 125 | 132 | 143 | 201 | - | - | 2.5 | 2.5 | 8.45 |
| 2400 | 3000 | - | 114 | 125 | 132 | 143 | 201 | - | - | 2.5 | 2.5 | 11.9 |
| 2200 | 2800 | - | 114 | 125 | 132 | 143 | 201 | - | - | 2.5 | 2.5 | 12.9 |
| 2400 | 3000 | 118 | 118 | 137 | 141 | 156 | 232 | 232 | 213 | 3 | 3 | 14.4 |
| 4000 | 4800 | 114 | 112 | 118 | 122 | - | 150 | 153.5 | 146.5 | 2 | 1 | 1.88 |
| 3200 | 3800 | 117 | 117 | 124 | 129 | 137 | 178 | 178 | 173 | 2 | 2 | 4.03 |
| 2600 | 3200 | 119 | 119 | 132 | 137 | 149 | 211 | 211 | 199 | 2.5 | 2.5 | 8.73 |
| 2200 | 2800 | 123 | 123 | 143 | 147 | 162 | 242 | 242 | 223 | 3 | 3 | 19.5 |
| 3800 | 4500 | 119 | 117 | 124 | 128 | - | 160 | 163.5 | 156 | 2 | 1 | 2.34 |
| 3000 | 3600 | 122 | 122 | 130 | 135 | 144 | 188 | 188 | 182 | 2 | 2 | 4.64 |
| 2600 | 3200 | - | 122 | 130 | 135 | 144 | 188 | - | - | 2 | 2 | 5.17 |
| 2800 | 3400 | - | 122 | 130 | 135 | 144 | 188 | - | - | 2 | 2 | 6.93 |
| 2600 | 3200 | - | 122 | 130 | 135 | 144 | 188 | - | - | 2 | 2 | 7.32 |
| 2400 | 3000 | 124 | 124 | 140 | 145 | 158 | 226 | 226 | 211 | 2.5 | 2.5 | 10.4 |
| 2200 | 2800 | - | 124 | 140 | 145 | 158 | 226 | - | - | 2.5 | 2.5 | 11.1 |
| 2000 | 2600 | - | 124 | 140 | 145 | 158 | 226 | - | - | 2.5 | 2.5 | 18.8 |
| 2000 | 2600 | - | 124 | 140 | 145 | 158 | 226 | - | - | 2.5 | 2.5 | 18.5 |
| 2000 | 2600 | 128 | 128 | 153 | 157 | 173 | 262 | 262 | 237 | 3 | 3 | 20.5 |
| 3400 | 4000 | 129 | 127 | 134 | 138 | - | 170 | 173.5 | 166 | 2 | 1 | 2.51 |
| 2800 | 3400 | 132 | 132 | 141 | 146 | 156 | 203 | 203 | 196 | 2 | 2 | 5.61 |
| 2400 | 3000 | - | 132 | 141 | 146 | 156 | 203 | - | - | 2 | 2 | 6.25 |
| 2600 | 3200 | - | 132 | 141 | 146 | 156 | 203 | - | - | 2 | 2 | 8.56 |
| 2400 | 3000 | - | 132 | 141 | 146 | 156 | 203 | - | - | 2 | 2 | 9.35 |
| 2200 | 2800 | 134 | 134 | 151 | 156 | 171 | 246 | 246 | 230 | 2.5 | 2.5 | 15.4 |
| 1900 | 2400 | - | 134 | 151 | 156 | 171 | 246 | - | - | 2.5 | 2.5 | 15.2 |

Single Row Cylindrical Roller Bearings UBC

*d*: 120 ~ 160 mm



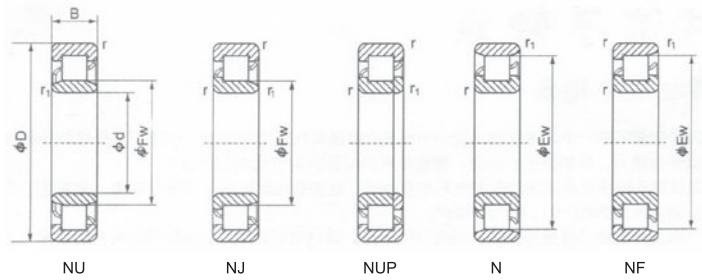

NU NJ NUP N NF



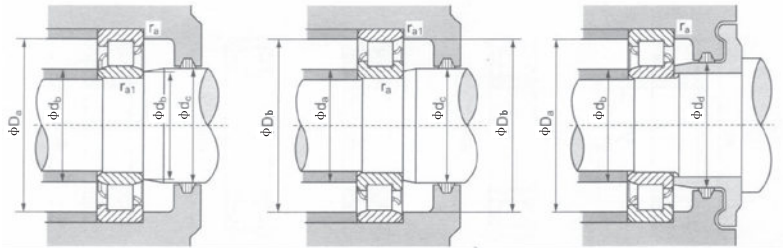

| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor | Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 120 | 260 | 86 | - | 154 | 3 | 3 | **NU 2324** | NJ | NUP | - | - | 710000 | 915000 | 1900 | 2400 | - | 134 | 151 | 156 | 171 | 246 | - | - | 2.5 | 2.5 | 23.1 |
| | 260 | 86 | - | 154 | 3 | 3 | **NU 2324E** | NJ | NUP | - | - | 790000 | 1030000 | 1900 | 2400 | - | 134 | 151 | 156 | 171 | 246 | - | - | 2.5 | 2.5 | 22.9 |
| | 310 | 72 | 260 | 170 | 5 | 5 | **NU 424** | NJ | NUP | N | NF | 670000 | 770000 | 1900 | 2400 | 142 | 142 | 168 | 172 | 190 | 288 | 288 | 262 | 4 | 4 | 28.7 |
| 130 | 200 | 33 | 182 | 148 | 2 | 1.1 | **NU 1026** | - | - | N | - | 160000 | 217000 | 3200 | 3800 | 139 | 137 | 146 | 151 | - | 190 | 193.5 | 183 | 2 | 1 | 3.83 |
| | 230 | 40 | 204 | 156 | 3 | 3 | **NU 226** | NJ | NUP | N | NF | 270000 | 340000 | 2600 | 3200 | 144 | 144 | 151 | 158 | 168 | 216 | 216 | 208 | 2.5 | 2.5 | 7.60 |
| | 230 | 40 | - | 153.5 | 3 | 3 | **NU 226E** | NJ | NUP | - | - | 365000 | 455000 | 2200 | 2800 | - | 144 | 151 | 158 | 168 | 216 | - | - | 2.5 | 2.5 | 7.50 |
| | 230 | 64 | - | 156 | 3 | 3 | **NU 2226** | NJ | NUP | - | - | 380000 | 530000 | 2200 | 2800 | - | 144 | 151 | 158 | 168 | 216 | - | - | 2.5 | 2.5 | 11.2 |
| | 230 | 64 | - | 153.5 | 3 | 3 | **NU 2226E** | NJ | NUP | - | - | 530000 | 735000 | 2200 | 2800 | - | 144 | 151 | 158 | 168 | 216 | - | - | 2.5 | 2.5 | 12.5 |
| | 280 | 58 | 243 | 167 | 4 | 4 | **NU 326** | NJ | NUP | N | NF | 555000 | 665000 | 2000 | 2600 | 148 | 148 | 164 | 169 | 184 | 262 | 262 | 247 | 3 | 3 | 18.2 |
| | 280 | 58 | - | 167 | 4 | 4 | **NU 326E** | NJ | NUP | - | - | 615000 | 735000 | 1800 | 2200 | - | 148 | 164 | 169 | 184 | 262 | - | - | 3 | 3 | 18.5 |
| | 280 | 93 | - | 167 | 4 | 4 | **NU 2326** | NJ | NUP | - | - | 790000 | 1040000 | 1800 | 2200 | - | 148 | 164 | 169 | 184 | 262 | - | - | 3 | 3 | 29.1 |
| | 280 | 93 | - | 167 | 4 | 4 | **NU 2326E** | NJ | NUP | - | - | 920000 | 1230000 | 1800 | 2200 | - | 148 | 164 | 169 | 184 | 262 | - | - | 3 | 3 | 28.5 |
| | 340 | 78 | 285 | 185 | 5 | 5 | **NU 426** | NJ | NUP | N | NF | 820000 | 955000 | 1700 | 2200 | 152 | 152 | 183 | 187 | 208 | 318 | 318 | 287 | 4 | 4 | 36.9 |
| 140 | 210 | 33 | 192 | 158 | 2 | 1.1 | **NU 1028** | - | - | N | - | 170000 | 239000 | 3000 | 3600 | 149 | 147 | 156 | 161 | - | 200 | 203.5 | 193 | 2 | 1 | 4.07 |
| | 250 | 42 | 221 | 169 | 3 | 3 | **NU 228** | NJ | NUP | N | NF | 310000 | 420000 | 2400 | 3000 | 154 | 154 | 166 | 171 | 182 | 236 | 236 | 228 | 2.5 | 2.5 | 9.49 |
| | 250 | 42 | - | 169 | 3 | 3 | **NU 228E** | NJ | NUP | - | - | 390000 | 515000 | 2000 | 2600 | - | 154 | 166 | 171 | 182 | 236 | - | - | 2.5 | 2.5 | 8.90 |
| | 250 | 68 | - | 169 | 3 | 3 | **NU 2228** | NJ | NUP | - | - | 465000 | 670000 | 2000 | 2600 | - | 154 | 166 | 171 | 182 | 236 | - | - | 2.5 | 2.5 | 14.3 |
| | 250 | 68 | - | 169 | 3 | 3 | **NU 2228E** | NJ | NUP | - | - | 570000 | 835000 | 2000 | 2600 | - | 154 | 166 | 171 | 182 | 236 | - | - | 2.5 | 2.5 | 14.9 |
| | 300 | 62 | 260 | 180 | 4 | 4 | **NU 328** | NJ | NUP | N | NF | 595000 | 745000 | 1900 | 2400 | 158 | 158 | 176 | 182 | 198 | 282 | 282 | 268 | 3 | 3 | 22.4 |
| | 300 | 62 | - | 180 | 4 | 4 | **NU 328E** | NJ | NUP | - | - | 660000 | 795000 | 1800 | 2200 | - | 158 | 176 | 182 | 198 | 282 | - | - | 3 | 3 | 21.8 |
| | 300 | 102 | - | 180 | 4 | 4 | **NU 2328** | NJ | NUP | - | - | 920000 | 1250000 | 1800 | 2200 | - | 158 | 176 | 182 | 198 | 282 | - | - | 3 | 3 | 36.8 |
| | 300 | 102 | - | 180 | 4 | 4 | **NU 2328E** | NJ | NUP | - | - | 1020000 | 1380000 | 1800 | 2200 | - | 158 | 176 | 182 | 198 | 282 | - | - | 3 | 3 | 35.9 |
| | 360 | 82 | 302 | 198 | 5 | 5 | **NU 428** | NJ | NUP | N | NF | 875000 | 1020000 | 1500 | 1900 | 162 | 162 | 195 | 200 | 222 | 338 | 338 | 304 | 4 | 4 | 48.0 |
| 150 | 225 | 35 | 205.5 | 169.5 | 2.1 | 1.5 | **NU 1030** | - | - | N | - | 189000 | 270000 | 2600 | 3200 | 161 | 158.5 | 167 | 173 | - | 213 | 217 | 207 | 2 | 1.5 | 4.90 |
| | 270 | 45 | 238 | 182 | 3 | 3 | **NU 230** | NJ | NUP | N | NF | 375000 | 490000 | 2000 | 2600 | 164 | 164 | 179 | 184 | 196 | 256 | 256 | 245 | 2.5 | 2.5 | 11.9 |
| | 270 | 45 | - | 182 | 3 | 3 | **NU 230E** | NJ | NUP | - | - | 445000 | 595000 | 1900 | 2400 | - | 164 | 179 | 184 | 196 | 256 | - | - | 2.5 | 2.5 | 11.5 |
| | 270 | 73 | - | 182 | 3 | 3 | **NU 2230** | NJ | NUP | - | - | 545000 | 800000 | 1900 | 2400 | - | 164 | 179 | 184 | 196 | 256 | - | - | 2.5 | 2.5 | 18.7 |
| | 270 | 73 | - | 182 | 3 | 3 | **NU 2230E** | NJ | NUP | - | - | 660000 | 990000 | 1900 | 2400 | - | 164 | 179 | 184 | 196 | 256 | - | - | 2.5 | 2.5 | 18.5 |
| | 320 | 65 | 277 | 193 | 4 | 4 | **NU 330** | NJ | NUP | N | NF | 660000 | 805000 | 1700 | 2000 | 168 | 168 | 190 | 195 | 213 | 302 | 302 | 287 | 3 | 3 | 26.5 |
| | 320 | 65 | - | 193 | 4 | 4 | **NU 330E** | NJ | NUP | - | - | 755000 | 920000 | 1600 | 1900 | - | 168 | 190 | 195 | 213 | 302 | - | - | 3 | 3 | 28.8 |
| | 320 | 108 | - | 193 | 4 | 4 | **NU 2330** | NJ | NUP | - | - | 1020000 | 1400000 | 1700 | 2000 | - | 168 | 190 | 195 | 213 | 302 | - | - | 3 | 3 | 44.7 |
| | 320 | 108 | - | 193 | 4 | 4 | **NU 2330E** | NJ | NUP | - | - | 1160000 | 1600000 | 1600 | 1900 | - | 168 | 190 | 195 | 213 | 302 | - | - | 3 | 3 | 48.2 |
| | 380 | 85 | 317 | 213 | 5 | 5 | **NU 430** | NJ | NUP | N | NF | 930000 | 1120000 | 1300 | 1600 | 172 | 172 | 210 | 216 | 237 | 358 | 358 | 319 | 4 | 4 | 54.5 |
| 160 | 240 | 38 | 220 | 180 | 2.1 | 1.5 | **NU 1032E** | - | - | N | - | 229000 | 325000 | 2400 | 3000 | 171 | 168.5 | 178 | 184 | - | 228 | 232 | 220 | 2 | 1.5 | 6.01 |
| | 290 | 48 | 255 | 195 | 3 | 3 | **NU 232** | NJ | NUP | N | NF | 425000 | 570000 | 1800 | 2200 | 174 | 174 | 192 | 197 | 210 | 276 | 276 | 262 | 2.5 | 2.5 | 14.5 |
| | 290 | 48 | - | 195 | 3 | 3 | **NU 232E** | NJ | NUP | - | - | 500000 | 665000 | 1700 | 2000 | - | 174 | 192 | 197 | 210 | 276 | - | - | 2.5 | 2.5 | 15.6 |
| | 290 | 80 | - | 195 | 3 | 3 | **NU 2232** | NJ | NUP | - | - | 630000 | 940000 | 1800 | 2200 | - | 174 | 192 | 197 | 210 | 276 | - | - | 2.5 | 2.5 | 24.1 |
| | 290 | 80 | - | 193 | 3 | 3 | **NU 2232E** | NJ | NUP | - | - | 810000 | 1190000 | 1700 | 2000 | - | 174 | 192 | 197 | 210 | 276 | - | - | 2.5 | 2.5 | 25.9 |

Single Row Cylindrical Roller Bearings UBC

*d*: 160 ~ 240 mm

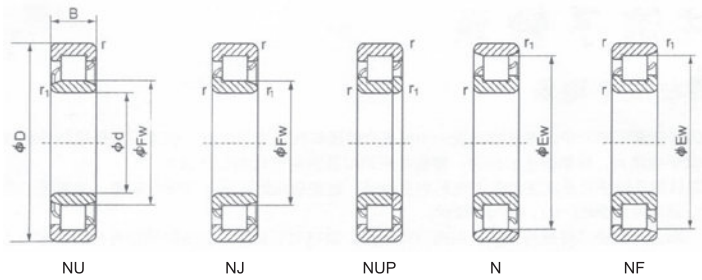



NU NJ NUP N NF




| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor | Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 160 | 340 | 68 | 292 | 208 | 4 | 4 | **NU 332** | NJ | NUP | N | NF | 695000 | 875000 | 1600 | 1900 | 178 | 178 | 200 | 211 | 228 | 322 | 322 | 304 | 3 | 3 | 31.2 |
| | 340 | 68 | - | 204 | 4 | 4 | **NU 332E** | NJ | NUP | - | - | 855000 | 1050000 | 1700 | 2000 | - | 178 | 200 | 211 | 228 | 322 | - | - | 3 | 3 | 34.1 |
| | 340 | 114 | - | 208 | 4 | 4 | **NU 2332** | NJ | NUP | - | - | 1040000 | 1460000 | 1500 | 1800 | - | 178 | 200 | 211 | 228 | 322 | - | - | 3 | 3 | 52.5 |
| | 340 | 114 | - | 204 | 4 | 4 | **NU 2332E** | NJ | NUP | - | - | 1310000 | 1820000 | 1600 | 1900 | - | 178 | 200 | 211 | 228 | 322 | - | - | 3 | 3 | 57.2 |
| 170 | 260 | 42 | 237 | 193 | 2.1 | 2.1 | **NU 1034** | - | - | N | - | 276000 | 400000 | 2200 | 2800 | 181 | 182 | 190 | 197 | - | 248 | 249 | 237 | 2 | 2 | 8.02 |
| | 310 | 52 | 272 | 208 | 4 | 4 | **NU 234** | NJ | NUP | N | NF | 475000 | 635000 | 1800 | 2200 | 188 | 188 | 204 | 211 | 223 | 292 | 292 | 284 | 3 | 3 | 17.9 |
| | 310 | 52 | - | 207 | 4 | 4 | **NU 234E** | NJ | NUP | - | - | 605000 | 800000 | 1900 | 2300 | - | 188 | 204 | 211 | 223 | 292 | - | - | 3 | 3 | 19.3 |
| | 310 | 86 | - | 208 | 4 | 4 | **NU 2234** | NJ | NUP | - | - | 725000 | 1100000 | 1800 | 2200 | - | 188 | 204 | 211 | 223 | 292 | - | - | 3 | 3 | 29.6 |
| | 310 | 86 | - | 205 | 4 | 4 | **NU 2234E** | NJ | NUP | - | - | 970000 | 1400000 | 1900 | 2300 | - | 188 | 204 | 211 | 223 | 292 | - | - | 3 | 3 | 31.9 |
| | 360 | 72 | 310 | 220 | 4 | 4 | **NU 334** | NJ | NUP | N | NF | 795000 | 1010000 | 1600 | 1800 | 188 | 188 | 216 | 223 | 241 | 342 | 342 | 314 | 3 | 3 | 37.1 |
| | 360 | 120 | - | 220 | 4 | 4 | **NU 2334** | NJ | NUP | - | - | 1170000 | 1630000 | 1400 | 1700 | - | 188 | 216 | 223 | 241 | 342 | - | - | 3 | 3 | 62.7 |
| 180 | 280 | 46 | 255 | 205 | 2.1 | 2.1 | **NU 1036** | - | - | N | - | 340000 | 485000 | 2100 | 2600 | 191 | 192 | 203 | 209 | - | 268 | 269 | 256 | 2 | 2 | 10.8 |
| | 320 | 52 | 282 | 218 | 4 | 4 | **NU 236** | NJ | NUP | N | NF | 490000 | 675000 | 1700 | 2000 | 198 | 198 | 214 | 221 | 233 | 302 | 302 | 294 | 3 | 3 | 19.3 |
| | 320 | 52 | - | 217 | 4 | 4 | **NU 236E** | NJ | NUP | - | - | 625000 | 850000 | 1800 | 2200 | - | 198 | 214 | 221 | 233 | 302 | - | - | 3 | 3 | 20.5 |
| | 320 | 86 | - | 218 | 4 | 4 | **NU 2236** | NJ | NUP | - | - | 775000 | 1210000 | 1700 | 2000 | - | 198 | 214 | 221 | 233 | 302 | - | - | 3 | 3 | 30.4 |
| | 320 | 86 | - | 215 | 4 | 4 | **NU 2236E** | NJ | NUP | - | - | 1010000 | 1510000 | 1800 | 2200 | - | 198 | 214 | 221 | 233 | 302 | - | - | 3 | 3 | 34.5 |
| | 380 | 75 | 328 | 232 | 4 | 4 | **NU 336** | NJ | NUP | N | NF | 900000 | 1150000 | 1500 | 1800 | 198 | 198 | 227 | 235 | 255 | 362 | 362 | 332 | 3 | 3 | 42.8 |
| | 380 | 126 | - | 232 | 4 | 4 | **NU 2336** | NJ | NUP | - | - | 1310000 | 1860000 | 1300 | 1600 | - | 198 | 227 | 235 | 255 | 362 | - | - | 3 | 3 | 73.1 |
| 190 | 290 | 46 | 265 | 215 | 2.1 | 2.1 | **NU 1038** | - | - | N | - | 345000 | 510000 | 2000 | 2600 | 201 | 202 | 213 | 219 | - | 278 | 279 | 266 | 2 | 2 | 11.2 |
| | 340 | 55 | 299 | 231 | 4 | 4 | **NU 238** | NJ | NUP | N | NF | 555000 | 770000 | 1600 | 1900 | 208 | 208 | 227 | 234 | 247 | 322 | 322 | 311 | 3 | 3 | 22.6 |
| | 340 | 55 | - | 230 | 4 | 4 | **NU 238E** | NJ | NUP | - | - | 695000 | 955000 | 1700 | 2000 | - | 208 | 227 | 234 | 247 | 322 | - | - | 3 | 3 | 26.0 |
| | 340 | 92 | - | 231 | 4 | 4 | **NU 2238** | NJ | NUP | - | - | 825000 | 1290000 | 1600 | 1900 | - | 208 | 227 | 234 | 247 | 322 | - | - | 3 | 3 | 37.5 |
| | 340 | 92 | - | 228 | 4 | 4 | **NU 2238E** | NJ | NUP | - | - | 1100000 | 1670000 | 1700 | 2000 | - | 208 | 227 | 234 | 247 | 322 | - | - | 3 | 3 | 45.2 |
| | 400 | 78 | 345 | 245 | 5 | 5 | **NU 338** | NJ | NUP | N | NF | 975000 | 1260000 | 1400 | 1700 | 212 | 212 | 240 | 248 | 268 | 378 | 378 | 349 | 4 | 4 | 49.4 |
| | 400 | 132 | - | 245 | 5 | 5 | **NU 2338** | NJ | NUP | - | - | 1440000 | 2070000 | 1200 | 1500 | - | 212 | 240 | 248 | 268 | 378 | - | - | 4 | 4 | 85.0 |
| 200 | 310 | 51 | 281 | 229 | 2.1 | 2.1 | **NU 1040** | - | - | N | - | 375000 | 555000 | 1900 | 2400 | 211 | 212 | 226 | 233 | - | 298 | 299 | 283 | 2 | 2 | 14.4 |
| | 360 | 58 | 316 | 244 | 4 | 4 | **NU 240** | NJ | NUP | N | NF | 615000 | 865000 | 1500 | 1800 | 218 | 218 | 240 | 247 | 261 | 342 | 342 | 328 | 3 | 3 | 26.8 |
| | 360 | 58 | - | 243 | 4 | 4 | **NU 240E** | NJ | NUP | - | - | 765000 | 1060000 | 1600 | 1900 | - | 218 | 240 | 247 | 261 | 342 | - | - | 3 | 3 | 29.5 |
| | 360 | 98 | - | 244 | 4 | 4 | **NU 2240** | NJ | NUP | - | - | 920000 | 1440000 | 1500 | 1800 | - | 218 | 240 | 247 | 261 | 342 | - | - | 3 | 3 | 45.4 |
| | 360 | 98 | - | 241 | 4 | 4 | **NU 2240E** | NJ | NUP | - | - | 1210000 | 1870000 | 1500 | 1700 | - | 218 | 240 | 247 | 261 | 342 | - | - | 3 | 3 | 52.3 |
| | 420 | 80 | 360 | 260 | 5 | 5 | **NU 340** | NJ | NUP | N | NF | 975000 | 1270000 | 1300 | 1600 | 222 | 222 | 254 | 263 | 283 | 398 | 398 | 364 | 4 | 4 | 55.8 |
| | 420 | 138 | - | 260 | 5 | 5 | **NU 2340** | NJ | NUP | - | - | 1440000 | 2090000 | 1100 | 1400 | - | 222 | 254 | 263 | 283 | 398 | - | - | 4 | 4 | 96.8 |
| 220 | 340 | 56 | 310 | 250 | 3 | 3 | **NU 1044** | - | - | N | - | 480000 | 715000 | 1800 | 2300 | 233 | 234 | 248 | 254 | - | 326 | 327 | 311 | 2.5 | 2.5 | 18.8 |
| | 400 | 65 | 350 | 270 | 4 | 4 | **NU 244** | NJ | NUP | N | NF | 760000 | 1080000 | 1500 | 1700 | 238 | 238 | 266 | 273 | 289 | 382 | 382 | 362 | 3 | 3 | 37.8 |
| | 400 | 108 | - | 270 | 4 | 4 | **NU 2244** | NJ | NUP | - | - | 1130000 | 1810000 | 1400 | 1700 | - | 238 | 266 | 273 | 289 | 382 | - | - | 3 | 3 | 61.8 |
| | 460 | 88 | 396 | 284 | 5 | 5 | **NU 344** | NJ | NUP | N | NF | 1200000 | 1570000 | 1200 | 1500 | 242 | 242 | 279 | 287 | 307 | 438 | 438 | 400 | 4 | 4 | 73.6 |
| 240 | 360 | 56 | 330 | 270 | 3 | 3 | **NU 1048** | - | - | N | - | 500000 | 755000 | 1700 | 2100 | 253 | 254 | 268 | 275 | - | 346 | 347 | 331 | 2.5 | 2.5 | 20.4 |
| | 440 | 72 | 385 | 295 | 4 | 4 | **NU 248** | NJ | NUP | N | NF | 935000 | 1340000 | 1400 | 1600 | 258 | 258 | 293 | 298 | 316 | 422 | 422 | 397 | 3 | 3 | 51.1 |

*d*: 240 ~ 500 mm

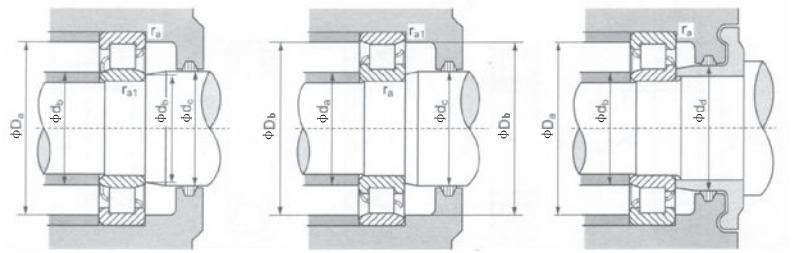



NU NJ NUP N NF

| Principal Dimensions (mm) | | | | | | | Bearing Designations | | | | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | r1 (min) | NU | NJ | NUP | N | NF | Dynamic Cr | Static Cor |
| 240 | 440 | 120 | - | 295 | 4 | 4 | **NU 2248** | NJ | NUP | - | - | 1430000 | 2320000 |
| | 500 | 95 | 430 | 310 | 5 | 5 | **NU 348** | NJ | NUP | N | NF | 1430000 | 1950000 |
| 260 | 400 | 65 | 364 | 296 | 4 | 4 | **NU 1052** | - | - | N | - | 620000 | 955000 |
| | 480 | 80 | 420 | 320 | 5 | 5 | **NU 252** | NJ | NUP | N | NF | 1140000 | 1660000 |
| | 480 | 130 | - | 320 | 5 | 5 | **NU 2252** | NJ | NUP | - | - | 1780000 | 2930000 |
| | 540 | 102 | 464 | 336 | 6 | 6 | **NU 352** | NJ | NUP | N | NF | 1620000 | 2230000 |
| 280 | 420 | 65 | 384 | 316 | 4 | 4 | **NU 1056** | - | - | N | - | 630000 | 1000000 |
| | 500 | 80 | 440 | 340 | 5 | 5 | **NU 256** | NJ | NUP | N | NF | 1140000 | 1680000 |
| 300 | 460 | 74 | 420 | 340 | 4 | 4 | **NU 1060** | - | - | N | - | 845000 | 1340000 |
| | 540 | 85 | 476 | 364 | 5 | 5 | **NU 260** | NJ | NUP | N | NF | 1400000 | 2070000 |
| 320 | 480 | 74 | 440 | 360 | 4 | 4 | **NU 1064** | - | - | N | - | 870000 | 1410000 |
| | 580 | 92 | 510 | 390 | 5 | 5 | **NU 264** | NJ | NUP | N | NF | 1600000 | 2390000 |
| 340 | 520 | 82 | 475 | 385 | 5 | 5 | **NU 1068** | - | - | N | - | 1050000 | 1670000 |
| 360 | 540 | 82 | 495 | 405 | 5 | 5 | **NU 1072** | - | - | N | - | 1070000 | 1750000 |
| 380 | 560 | 82 | 515 | 425 | 5 | 5 | **NU 1076** | - | - | N | - | 1100000 | 1840000 |
| 400 | 600 | 90 | 550 | 450 | 5 | 5 | **NU 1080** | - | - | N | - | 1350000 | 2280000 |
| 420 | 620 | 90 | 570 | 470 | 5 | 5 | **NU 1084** | - | - | N | - | 1390000 | 2380000 |
| 440 | 650 | 94 | 597 | 493 | 6 | 6 | **NU 1088** | - | - | N | - | 1530000 | 2430000 |
| 460 | 680 | 100 | 624 | 516 | 6 | 6 | **NU 1092** | - | - | N | - | 1630000 | 2630000 |
| 480 | 700 | 100 | 644 | 536 | 6 | 6 | **NU 1096** | - | - | N | - | 1590000 | 2750000 |
| 500 | 720 | 100 | 664 | 556 | 6 | 6 | **NU 10/500** | - | - | N | - | 1700000 | 2870000 |

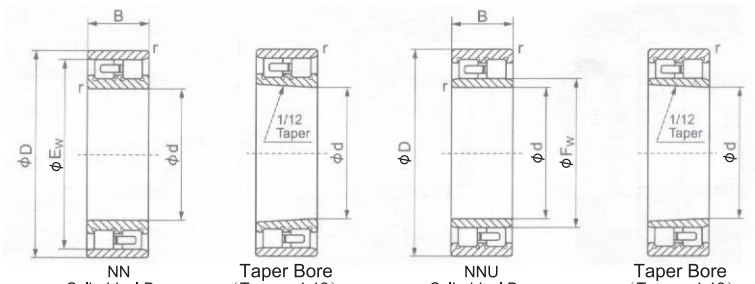







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grease | Oil | $d_a$ (min) | $d_b$ (min) | $d_b$ (max) | $d_c$ (min) | $d_d$ (min) | $D_a$ (max) | $D_b$ (max) | $D_b$ (min) | $r_a$ (max) | $r_{a1}$ (max) | |
| 1300 | 1600 | - | 258 | 293 | 298 | 316 | 422 | - | - | 3 | 3 | 83.5 |
| 1100 | 1300 | 262 | 262 | 305 | 313 | 333 | 478 | 478 | 434 | 4 | 4 | 93.0 |
| 1600 | 1800 | 278 | 278 | 292 | 300 | - | 382 | 382 | 365 | 3 | 3 | 29.6 |
| 1300 | 1500 | 282 | 282 | 318 | 323 | 343 | 458 | 458 | 432 | 4 | 4 | 69.0 |
| 1100 | 1300 | - | 282 | 318 | 323 | 343 | 458 | 458 | - | 4 | 4 | 106 |
| 1000 | 1200 | 288 | 288 | 331 | 339 | 359 | 512 | 512 | 468 | 5 | 5 | 117 |
| 1500 | 1700 | 298 | 298 | 313 | 320 | - | 402 | 402 | 385 | 3 | 3 | 33.0 |
| 1200 | 1400 | 302 | 302 | 336 | 343 | 365 | 478 | 478 | 452 | 4 | 4 | 71.5 |
| 1400 | 1500 | 318 | 318 | 337 | 344 | - | 442 | 442 | 421 | 3 | 3 | 44.7 |
| 1100 | 1300 | 322 | 322 | 361 | 368 | 392 | 518 | 518 | 487 | 4 | 4 | 88.9 |
| 1300 | 1400 | 338 | 338 | 356 | 365 | - | 462 | 462 | 441 | 3 | 3 | 49.3 |
| 1000 | 1200 | 342 | 342 | 386 | 393 | 419 | 558 | 558 | 522 | 4 | 4 | 113 |
| 1200 | 1300 | 362 | 362 | 381 | 390 | - | 498 | 498 | 476 | 4 | 4 | 65.9 |
| 1100 | 1250 | 382 | 382 | 401 | 410 | - | 518 | 518 | 496 | 4 | 4 | 68.8 |
| 1000 | 1200 | 402 | 402 | 421 | 430 | - | 538 | 538 | 516 | 4 | 4 | 72.3 |
| 950 | 1100 | 422 | 422 | 446 | 455 | - | 578 | 578 | 551 | 4 | 4 | 92.5 |
| 900 | 1100 | 422 | 422 | 466 | 475 | - | 598 | 598 | 571 | 4 | 4 | 97.6 |
| 850 | 1050 | 468 | 468 | 489 | 498 | - | 622 | 622 | 598 | 5 | 5 | 112 |
| 800 | 1000 | 488 | 488 | 512 | 520 | - | 652 | 652 | 625 | 5 | 5 | 130 |
| 780 | 950 | 508 | 508 | 532 | 541 | - | 672 | 672 | 645 | 5 | 5 | 135 |
| 750 | 900 | 528 | 528 | 552 | 561 | - | 692 | 692 | 665 | 5 | 5 | 140 |

*d*: 25 ~ 180 mm

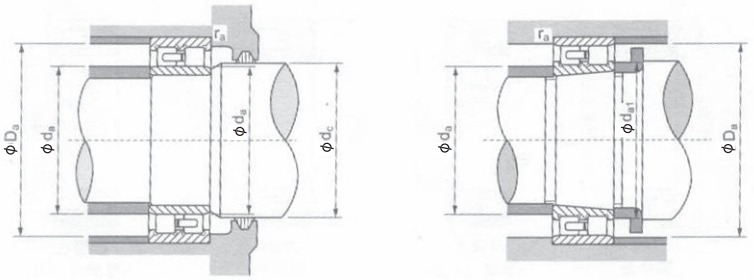



NN Cylindrical Bore | Taper Bore (Taper: 1:12) | NNU Cylindrical Bore | Taper Bore (Taper: 1:12)

| Principal Dimensions (mm) | | | | | | Bearing Designations | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | Cylindrical Bore | Tapered Bore | Dynamic Cr | Static Cor |
| 25 | 47 | 16 | 41.3 | | 0.6 | **NN3005** | **NN3005K** | 25700 | 30000 |
| 30 | 55 | 19 | 48.5 | | 1 | **NN3006** | **NN3006K** | 30500 | 37000 |
| 35 | 62 | 20 | 55 | | 1 | **NN3007** | **NN3007K** | 39000 | 50000 |
| 40 | 68 | 21 | 61 | | 1 | **NN3008** | **NN3008K** | 43000 | 55500 |
| 45 | 75 | 23 | 67.5 | | 1 | **NN3009** | **NN3009K** | 49500 | 65500 |
| 50 | 80 | 23 | 72.5 | | 1 | **NN3010** | **NN3010K** | 52500 | 72500 |
| 55 | 90 | 26 | 81 | | 1.1 | **NN3011** | **NN3011K** | 69000 | 96500 |
| 60 | 95 | 26 | 86.1 | | 1.1 | **NN3012** | **NN3012K** | 73000 | 106000 |
| 65 | 100 | 26 | 91 | | 1.1 | **NN3013** | **NN3013K** | 76500 | 116000 |
| 70 | 110 | 30 | 100 | | 1.1 | **NN3014** | **NN3014K** | 97000 | 148000 |
| 75 | 115 | 30 | 105 | | 1.1 | **NN3015** | **NN3015K** | 96000 | 149000 |
| 80 | 125 | 34 | 113 | | 1.1 | **NN3016** | **NN3016K** | 118000 | 186000 |
| 85 | 130 | 34 | 118 | | 1.1 | **NN3017** | **NN3017K** | 125000 | 201000 |
| 90 | 140 | 37 | 127 | | 1.5 | **NN3018** | **NN3018K** | 142000 | 228000 |
| 95 | 145 | 37 | 132 | | 1.5 | **NN3019** | **NN3019K** | 150000 | 246000 |
| 100 | 140 | 40 | - | 113 | 1.1 | **NNU4920** | **NNU4920K** | 155000 | 305000 |
| | 150 | 37 | 137 | - | 1.5 | **NN3020** | **NN3020K** | 156000 | 265000 |
| 105 | 145 | 40 | - | 118 | 1.1 | **NNU4921** | **NNU4921K** | 161000 | 325000 |
| | 160 | 41 | 146 | - | 2 | **NN3021** | **NN3021K** | 197000 | 320000 |
| 110 | 150 | 40 | - | 123 | 1.1 | **NNU4922** | **NNU4922K** | 165000 | 335000 |
| | 170 | 45 | 155 | - | 2 | **NN3022** | **NN3022K** | 227000 | 375000 |
| 120 | 165 | 45 | - | 134.5 | 1.1 | **NNU4924** | **NNU4924K** | 183000 | 360000 |
| | 180 | 46 | 165 | - | 2 | **NN3024** | **NN3024K** | 238000 | 405000 |
| 130 | 180 | 50 | - | 146 | 1.5 | **NNU4926** | **NNU4926K** | 275000 | 565000 |
| | 200 | 52 | 182 | - | 2 | **NU3026** | **NU3026K** | 283000 | 475000 |
| 140 | 190 | 50 | - | 156 | 1.5 | **NNU4928** | **NNU4928K** | 281000 | 585000 |
| | 210 | 53 | 192 | - | 2 | **NU3028** | **NU3028K** | 297000 | 515000 |
| 150 | 210 | 60 | - | 168.5 | 2 | **NNU4930** | **NNU4930K** | 350000 | 715000 |
| | 225 | 56 | 206 | - | 2.1 | **NU3030** | **NU3030K** | 335000 | 585000 |
| 160 | 220 | 60 | - | 178.5 | 2 | **NNU4932** | **NNU4932K** | 365000 | 760000 |
| | 240 | 60 | 219 | - | 2.1 | **NU3032** | **NU3032K** | 370000 | 660000 |
| 170 | 230 | 60 | - | 188.5 | 2 | **NNU4934** | **NNU4934K** | 375000 | 805000 |
| | 260 | 67 | 236 | - | 2.1 | **NU3034** | **NU3034K** | 450000 | 805000 |
| 180 | 250 | 69 | - | 202 | 2 | **NNU4936** | **NNU4936K** | 480000 | 1020000 |

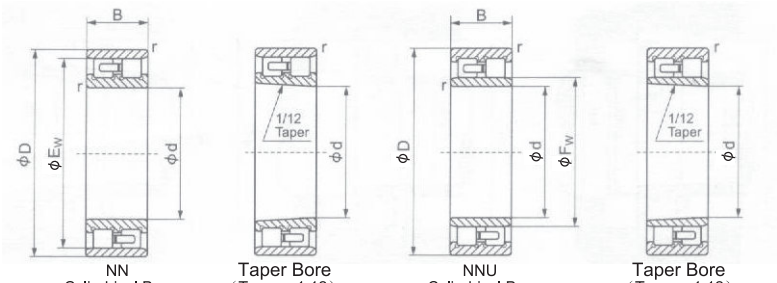







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| | | da | | $d_{a1}$ | $d_c$ | Da | | $r_a$ | |
| Grease | Oil | (min) | (max) | (min) | (min) | (max) | (min) | (max) | |
| 15000 | 17000 | 30 | | 30 | | 42 | 41.8 | 0.6 | 0.123 |
| 12000 | 15000 | 36 | | 37 | | 49 | 49 | 1 | 0.199 |
| 11000 | 13000 | 41 | | 42 | | 56 | 56 | 1 | 0.258 |
| 9800 | 11000 | 46 | | 48 | | 62 | 62 | 1 | 0.312 |
| 8800 | 10000 | 51 | | 52 | | 69 | 69 | 1 | 0.405 |
| 8200 | 9600 | 56 | | 58 | | 74 | 74 | 1 | 0.454 |
| 7300 | 8600 | 62 | | 64 | | 83 | 82 | 1 | 0.651 |
| 6800 | 8000 | 67 | | 68 | | 88 | 87 | 1 | 0.704 |
| 6400 | 7600 | 72 | | 74 | | 93 | 92 | 1 | 0.758 |
| 5700 | 6800 | 77 | | 78 | | 103 | 101 | 1 | 1.04 |
| 5500 | 6400 | 82 | | 84 | | 108 | 106 | 1 | 1.14 |
| 5000 | 6000 | 87 | | 90 | | 118 | 114 | 1 | 1.52 |
| 4800 | 5600 | 92 | | 96 | | 123 | 119 | 1 | 1.61 |
| 4500 | 5200 | 98.5 | | 100 | | 131.5 | 129 | 1.5 | 2.07 |
| 4300 | 5000 | 103.5 | | 106 | | 136.5 | 134 | 1.5 | 2.17 |
| 4200 | 5000 | 106.5 | 111 | 110 | 115 | 133.5 | - | 1 | 1.77 |
| 4000 | 4700 | 108.5 | - | 112 | - | 141.5 | 139 | 1.5 | 2.26 |
| 4000 | 4800 | 111.5 | 116 | 115 | 120 | 138.5 | - | 1 | 1.85 |
| 3800 | 4400 | 115 | - | 116 | - | 150 | 148 | 2 | 2.89 |
| 3900 | 4600 | 116.5 | 121 | 120 | 125 | 143.5 | - | 1 | 1.93 |
| 3600 | 4200 | 120 | - | 122 | - | 160 | 157 | 2 | 3.68 |
| 3500 | 4200 | 126.5 | 133 | 130 | 137 | 158.5 | - | 1 | 2.65 |
| 3300 | 3900 | 130 | - | 132 | - | 170 | 167 | 2 | 3.98 |
| 3200 | 3800 | 138 | 144 | 142 | 148 | 172 | - | 1.5 | 3.55 |
| 3000 | 3500 | 140 | - | 144 | - | 190 | 183 | 2 | 5.92 |
| 3000 | 3600 | 148 | 154 | 151 | 158 | 182 | - | 1.5 | 3.80 |
| 2800 | 3300 | 150 | - | 154 | - | 200 | 194 | 2 | 6.44 |
| 2700 | 3300 | 159 | 166 | 162 | 171 | 201 | - | 2 | 5.95 |
| 2600 | 3100 | 162 | - | 164 | - | 213 | 208 | 2 | 7.81 |
| 2600 | 3100 | 169 | 176 | 172 | 182 | 211 | - | 2 | 6.25 |
| 2500 | 2900 | 172 | - | 174 | - | 228 | 221 | 2 | 8.92 |
| 2400 | 2900 | 179 | 186 | 182 | 192 | 221 | - | 2 | 6.60 |
| 2300 | 2700 | 182 | - | 184 | - | 248 | 238 | 2 | 12.6 |
| 2200 | 2700 | 189 | 199 | 194 | 205 | 241 | - | 2 | 9.50 |

*d*: 180 ~ 320 mm

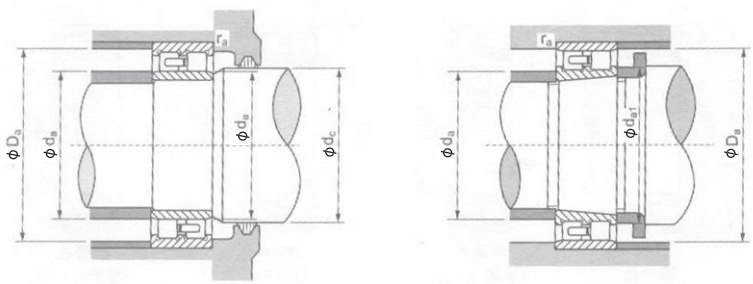



NN Cylindrical Bore | Taper Bore (Taper: 1:12) | NNU Cylindrical Bore | Taper Bore (Taper: 1:12)

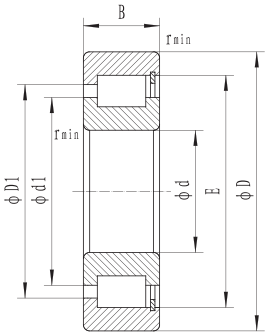
| Principal Dimensions (mm) | | | | | | Bearing Designations | | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Ew | Fw | r (min) | Cylindrical Bore | Tapered Bore | Dynamic Cr | Static Cor |
| 180 | 280 | 74 | 255 | | 2.1 | **NN3036** | **NN3036K** | 560000 | 995000 |
| 190 | 260 | 69 | - | 212 | 2 | **NNU4938** | **NNU4938K** | 485000 | 1060000 |
| | 290 | 75 | 265 | - | 2.1 | **NN3038** | **NN3038K** | 590000 | 1080000 |
| 200 | 280 | 80 | - | 225 | 2.1 | **NNU4940** | **NNU4940K** | 570000 | 1220000 |
| | 310 | 82 | 282 | - | 2.1 | **NN3040** | **NN3040K** | 650000 | 1170000 |
| 220 | 300 | 80 | - | 245 | 2.1 | **NNU4944** | **NNU4944K** | 595000 | 1330000 |
| | 340 | 90 | 310 | - | 3 | **NN3044** | **NN3044K** | 810000 | 1480000 |
| 240 | 320 | 80 | - | 265 | 2.1 | **NNU4948** | **NNU4948K** | 610000 | 1410000 |
| | 360 | 92 | 330 | - | 3 | **NN3048** | **NN3048K** | 850000 | 1600000 |
| 260 | 360 | 100 | - | 292 | 2.1 | **NNU4952** | **NNU4952K** | 925000 | 2100000 |
| | 400 | 104 | 364 | - | 4 | **NN3052** | **NN3052K** | 1080000 | 2070000 |
| 280 | 380 | 100 | - | 312 | 2.1 | **NNU4956** | **NNU4956K** | 950000 | 2230000 |
| | 420 | 106 | 384 | - | 4 | **NN3056** | **NN3056K** | 1080000 | 2080000 |
| 300 | 420 | 118 | - | 339 | 3 | **NNU4960** | **NNU4960K** | 1220000 | 2880000 |
| | 460 | 118 | 418 | - | 4 | **NN3060** | **NN3060K** | 1430000 | 2740000 |
| 320 | 440 | 118 | - | 359 | 3 | **NNU4964** | **NNU4964K** | 1270000 | 3050000 |
| | 480 | 121 | 438 | - | 4 | **NN3064** | **NN3064K** | 1430000 | 2750000 |







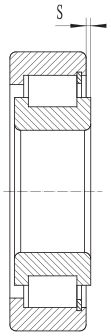

| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| | | da | | $d_{a1}$ | $d_c$ | Da | | $r_a$ | |
| Grease | Oil | (min) | (max) | (min) | (min) | (max) | (min) | (max) | |
| 2100 | 2500 | 192 | - | 196 | - | 268 | 257 | 2 | 16.6 |
| 2100 | 2600 | 199 | 209 | 204 | 215 | 251 | - | 2 | 10.0 |
| 2000 | 2400 | 202 | - | 206 | - | 278 | 267 | 2 | 17.5 |
| 2000 | 2400 | 211 | 222 | 214 | 228 | 269 | - | 2 | 10.1 |
| 1900 | 2200 | 212 | - | 216 | - | 298 | 285 | 2 | 21.6 |
| 1800 | 2200 | 231 | 242 | 234 | 248 | 289 | - | 2 | 15.5 |
| 1700 | 2000 | 234 | - | 238 | - | 326 | 313 | 2.5 | 28.4 |
| 1700 | 2000 | 251 | 262 | 254 | 269 | 309 | - | 2 | 17.0 |
| 1600 | 1900 | 254 | - | 256 | - | 346 | 333 | 2.5 | 31.8 |
| 1500 | 1800 | 271 | 288 | 276 | 296 | 349 | - | 2 | 28.3 |
| 1400 | 1700 | 278 | - | 280 | - | 382 | 367 | 3 | 46.0 |
| 1400 | 1700 | 291 | 308 | 296 | 316 | 369 | - | 2.5 | 30.3 |
| 1300 | 1600 | 298 | - | 300 | - | 402 | 387 | 3 | 49.6 |
| 1300 | 1500 | 313 | 335 | 320 | 343 | 407 | - | 2.5 | 46.7 |
| 1200 | 1400 | 318 | - | 325 | - | 442 | 421 | 3 | 68.7 |
| 1200 | 1400 | 333 | 335 | 340 | 363 | 427 | - | 2.5 | 49.6 |
| 1200 | 1400 | 338 | - | 345 | - | 462 | 442 | 3 | 74.0 |



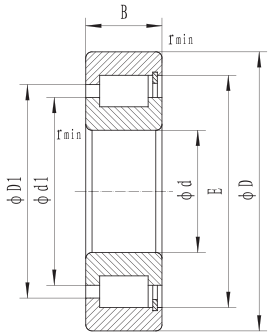

| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor | Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | |
| 150 | 190 | 20 | 1.1 | **NCF1830-VX** | 115 | 220 | 700 | 1500 | 177 | -- | 163 | 176 | 1.5 | 1.3 |
| 160 | 200 | 20 | 1.1 | **NCF1832-VX** | 120 | 230 | 670 | 1400 | 186.8 | -- | 173 | 185 | 1.5 | 1.45 |
| 170 | 215 | 22 | 1.1 | **NCF1834-VX** | 145 | 260 | 630 | 1300 | 210.7 | -- | 185 | 200 | 1.5 | 1.85 |
| 180 | 225 | 22 | 1.1 | **NCF1836-VX** | 153 | 282 | 600 | 1200 | 210 | -- | 196 | 211 | 1.5 | 1.95 |
| 190 | 240 | 24 | 1.5 | **NCF1838-VX** | 175 | 320 | 560 | 1100 | 225 | -- | 208 | 224 | 2 | 2.4 |
| 200 | 250 | 24 | 1.5 | **NCF1840-VX** | 180 | 335 | 560 | 1100 | 237.6 | -- | 216.6 | 231.6 | 2 | 2.57 |
| 220 | 270 | 24 | 1.5 | **NCF1844-VX** | 187 | 365 | 530 | 1000 | 258.5 | -- | 237.3 | 252.3 | 2 | 2.8 |
| 240 | 300 | 28 | 2 | **NCF1848-VX** | 268 | 500 | 480 | 900 | 287 | -- | 260.5 | 281 | 2 | 4.29 |
| 260 | 320 | 28 | 2 | **NCF1852-VX** | 280 | 540 | 430 | 800 | 308 | -- | 281 | 301.5 | 2 | 4.61 |
| 280 | 350 | 33 | 2 | **NCF1856-VX** | 360 | 680 | 400 | 750 | 334 | -- | 304 | 327 | 2.5 | 6.89 |
| 300 | 380 | 38 | 2.1 | **NCF1860-VX** | 460 | 850 | 360 | 670 | 363 | -- | 323.5 | 350.5 | 3 | 9.79 |
| 320 | 400 | 38 | 2.1 | **NCF1864-VX** | 475 | 910 | 340 | 630 | 383 | -- | 344.5 | 371.5 | 3 | 10.36 |
| 340 | 420 | 38 | 2.1 | **NCF1868-VX** | 490 | 970 | 320 | 600 | 403 | -- | 365.5 | 392.5 | 3 | 10.93 |
| 360 | 440 | 38 | 2.1 | **NCF1872-VX** | 510 | 1030 | 300 | 560 | 418.9 | -- | 387 | 413,5 | 3 | 11.49 |
| 380 | 480 | 46 | 2.1 | **NCF1876-VX** | 660 | 1300 | 280 | 530 | 458 | -- | 415.5 | 448 | 4 | 18.87 |
| 400 | 500 | 46 | 2.1 | **NCF1880-VX** | 670 | 1360 | 260 | 500 | 475 | -- | 432 | 464.5 | 4 | 19.81 |
| 420 | 520 | 46 | 2.1 | **NCF1884-VX** | 690 | 1500 | 240 | 480 | 499 | -- | 457 | 489.5 | 4 | 20.6 |
| 440 | 540 | 46 | 2.1 | **NCF1888-VX** | 705 | 1510 | 220 | 450 | 516 | -- | 473.5 | 506 | 4 | 21.54 |
| 460 | 580 | 56 | 3 | **NCF1892-VX** | 945 | 1900 | 200 | 430 | 551 | -- | 501.5 | 541 | 5 | 33.21 |
| 480 | 600 | 56 | 3 | **NCF1896-VX** | 970 | 1990 | 190 | 400 | 573.5 | -- | 522 | 561 | 5 | 34.53 |
| 500 | 620 | 56 | 3 | **NCF18/500-VX** | 1000 | 2080 | 180 | 380 | 594 | -- | 542 | 581.5 | 5 | 35.73 |
| 530 | 650 | 56 | 3 | **NCF18/530-VX** | 1130 | 2240 | 170 | 360 | 624.5 | -- | 572 | 614 | 5 | 37.5 |
| 560 | 680 | 56 | 3 | **NCF18/560-VX** | 1190 | 2400 | 160 | 340 | 655 | -- | 603 | 645 | 5 | 40.5 |
| 600 | 730 | 60 | 3 | **NCF18/600-VX** | 1220 | 2550 | 150 | 320 | 696 | -- | 644 | 686 | 7 | 49.5 |
| 630 | 780 | 69 | 4 | **NCF18/630-VX** | 1280 | 2950 | 140 | 300 | 739 | -- | 680 | 728 | 8 | 70 |
| 670 | 820 | 69 | 4 | **NCF18/670-VX** | 1320 | 3180 | 130 | 280 | 783 | -- | 724 | 772 | 8 | 74 |

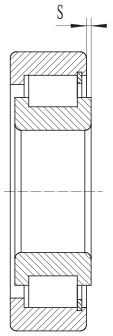


Single Row Full Complement Cylindrical Roller Bearings



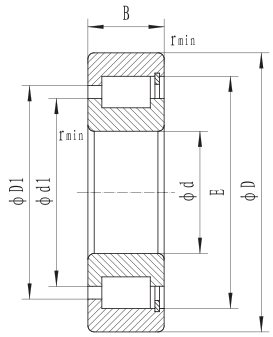
Single Row Full Complement Cylindrical Roller Bearings UBC

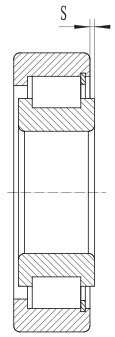



| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor | Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | | |
| 710 | 870 | 74 | 4 | **NCF18/710-VX** | 1560 | 3780 | 120 | 260 | 831 | -- | 766 | 818 | 8 | | 90 |
| 750 | 920 | 78 | 5 | **NCF18/750-VX** | 1790 | 4350 | 110 | 240 | 880 | -- | 810 | 867 | 8 | | 110 |
| 25 | 52 | 18 | 1 | **NCF2205-VX** | 51 | 45 | 2850 | 5800 | 46.52 | -- | 35.5 | 41.9 | 1 | | 0.18 |
| 30 | 62 | 20 | 1 | **NCF2206-VX** | 70 | 65 | 2600 | 5000 | 55.19 | -- | 42 | 50.6 | 1 | | 0.3 |
| 35 | 72 | 23 | 1.1 | **NCF2207-VX** | 88 | 79 | 2350 | 4300 | 63.97 | -- | 47 | 59.3 | 1 | | 0.44 |
| 40 | 80 | 23 | 1.1 | **NCF2208-VX** | 97 | 93 | 2100 | 3900 | 70.94 | -- | 54 | 66.3 | 1 | | 0.55 |
| 45 | 85 | 23 | 1.1 | **NCF2209-VX** | 103 | 99,9 | 1850 | 3600 | 74.43 | -- | 57.5 | 69.8 | 1 | | 0.59 |
| 50 | 90 | 23 | 1.1 | **NCF2210-VX** | 109 | 113 | 1700 | 3300 | 81.4 | -- | 64.4 | 76.7 | 1 | | 0.64 |
| 55 | 100 | 25 | 1.5 | **NCF2211-VX** | 140 | 150 | 1550 | 3000 | 88.81 | -- | 70 | 84.1 | 1 | | 0.87 |
| 60 | 110 | 28 | 1.5 | **NCF2212-VX** | 169 | 180 | 1450 | 2700 | 99.17 | -- | 76.8 | 93.9 | 1.5 | | 1.18 |
| 65 | 120 | 31 | 1.5 | **NCF2213-VX** | 198 | 214 | 1350 | 2550 | 106.25 | -- | 82.3 | 100.7 | 1.5 | | 1.57 |
| 70 | 125 | 31 | 1.5 | **NCF2214-VX** | 184 | 227 | 1250 | 2400 | 111.45 | -- | 87 | 105.2 | 1.5 | | 1.66 |
| 75 | 130 | 31 | 1.5 | **NCF2215-VX** | 190 | 241 | 1150 | 2250 | 116.2 | -- | 91.8 | 110 | 1.5 | | 1.75 |
| 80 | 140 | 33 | 2 | **NCF2216-VX** | 226 | 285 | 1050 | 2100 | 126.3 | -- | 98.6 | 119.3 | 1.5 | | 2.15 |
| 85 | 150 | 36 | 2 | **NCF2217-VX** | 255 | 325 | 980 | 1950 | 133.75 | -- | 104.4 | 126.3 | 1.5 | | 2.74 |
| 90 | 160 | 40 | 2 | **NCF2218-VX** | 290 | 370 | 920 | 1800 | 141.15 | -- | 110.2 | 133.3 | 2,5 | | 3.48 |
| 95 | 170 | 43 | 2.1 | **NCF2219-VX** | 340 | 435 | 860 | 1700 | 155.95 | -- | 122 | 147.3 | 2,5 | | 4.17 |
| 100 | 180 | 46 | 2.1 | **NCF2220-VX** | 395 | 520 | 800 | 1600 | 163.35 | -- | 127.5 | 154.3 | 2,5 | | 5.13 |
| 110 | 200 | 53 | 2.1 | **NCF2222-VX** | 455 | 590 | 750 | 1500 | 177.6 | -- | 137 | 168 | 4 | | 7.24 |
| 120 | 215 | 58 | 2.1 | **NCF2224-VX** | 540 | 730 | 700 | 1500 | 192.9 | -- | 150.7 | 183 | 4 | | 9.08 |
| 130 | 230 | 64 | 3 | **NCF2226-VX** | 630 | 860 | 650 | 1300 | 207.75 | -- | 162.3 | 197 | 5 | | 11.25 |
| 140 | 250 | 68 | 3 | **NCF2228-VX** | 720 | 1020 | 600 | 1200 | 222.55 | -- | 173.9 | 211.1 | 5 | | 14.47 |
| 150 | 270 | 73 | 3 | **NCF2230-VX** | 830 | 1180 | 550 | 1100 | 237.35 | -- | 185.5 | 225.2 | 6 | | 18.43 |
| 160 | 290 | 80 | 3 | **NCF2232-VX** | 1030 | 1490 | 500 | 1000 | 267.1 | -- | 208.7 | 253.4 | 6 | | 23 |
| 170 | 310 | 86 | 4 | **NCF2234-VX** | 1150 | 1680 | 470 | 950 | 281.9 | -- | 220.3 | 267.4 | 7 | | 28.65 |
| 180 | 320 | 86 | 4 | **NCF2236-vx** | 1190 | 1780 | 450 | 900 | 294 | -- | 232.4 | 279.5 | 7 | | 29.8 |

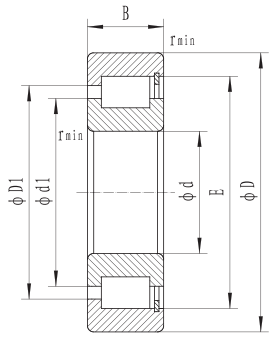
Single Row Full Complement Cylindrical Roller Bearings UBC

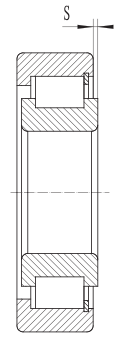


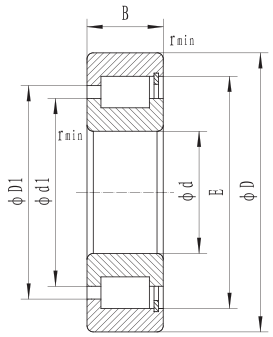

| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor | Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | |
| 190 | 340 | 92 | 4 | **NCF2238-VX** | 1310 | 1920 | 420 | 850 | 311.5 | -- | 243.5 | 295.5 | 9 | 35.65 |
| 200 | 360 | 98 | 4 | **NCF2240-VX** | 1420 | 2040 | 400 | 800 | 319.4 | -- | 246.6 | 302.4 | 9 | 43.12 |
| 220 | 400 | 108 | 4 | **NCF2244-VX** | 1850 | 2750 | 370 | 760 | 366 | -- | 277 | 349 | 9 | 59.5 |
| 60 | 85 | 16 | 1 | **NCF2912-VX** | 64 | 78 | 4800 | 9000 | 78.55 | -- | 69 | 74.4 | 1 | 0.29 |
| 65 | 90 | 16 | 1 | **NCF2913-VX** | 68 | 84 | 4000 | 7500 | 85.24 | -- | 75.7 | 81 | 1 | 0.31 |
| 70 | 100 | 19 | 1 | **NCF2914-VX** | 90 | 115 | 3600 | 6700 | 92.31 | -- | 81.2 | 87.8 | 1 | 0.49 |
| 75 | 105 | 19 | 1 | **NCF2915-VX** | 91.5 | 120 | 3000 | 5600 | 97.41 | -- | 86.3 | 92.8 | 1 | 0.52 |
| 80 | 110 | 19 | 1 | **NCF2916-VX** | 94.5 | 128 | 2600 | 5000 | 102.51 | -- | 91.4 | 98 | 1 | 0.55 |
| 85 | 120 | 22 | 1.1 | **NCF2917-VX** | 120 | 160 | 2200 | 4500 | 109.58 | -- | 96.4 | 105 | 1 | 0.81 |
| 90 | 125 | 22 | 1.1 | **NCF2918-VX** | 123 | 170 | 1900 | 4000 | 115.75 | -- | 102 | 110.7 | 1 | 0.84 |
| 95 | 130 | 22 | 1.1 | **NCF2919-VX** | 135 | 180 | 1800 | 3800 | 122.25 | -- | 106.7 | 117 | 1 | 0.86 |
| 100 | 140 | 24 | 1.1 | **NCF2920-VX** | 155 | 205 | 1600 | 3400 | 130.95 | -- | 113.4 | 125.7 | 1.5 | 1.14 |
| 110 | 150 | 24 | 1.1 | **NCF2922-VX** | 158 | 215 | 1600 | 3400 | 141.5 | -- | 124 | 136.2 | 1.5 | 1.23 |
| 120 | 165 | 27 | 1.1 | **NCF2924-VX** | 200 | 290 | 1400 | 3000 | 154.3 | -- | 134.8 | 149 | 1.5 | 1.73 |
| 130 | 180 | 30 | 1.5 | **NCF2926-VX** | 240 | 355 | 1300 | 2800 | 167.15 | -- | 146 | 161.1 | 2 | 2.33 |
| 140 | 190 | 30 | 1.5 | **NCF2928-VX** | 265 | 380 | 1200 | 2600 | 180 | -- | 157 | 174 | 2 | 2.42 |
| 150 | 210 | 36 | 2 | **NCF2930-VX** | 345 | 490 | 1100 | 2400 | 196.75 | -- | 169 | 189.6 | 2.5 | 3.77 |
| 160 | 220 | 36 | 2 | **NCF2932-VX** | 354 | 511 | 1100 | 2400 | 207.6 | -- | 179.7 | 200.5 | 2.5 | 4 |
| 170 | 230 | 36 | 2 | **NCF2934-VX** | 365 | 540 | 1000 | 2200 | 218.45 | -- | 190.6 | 211.3 | 2.5 | 4.3 |
| 180 | 250 | 42 | 2 | **NCF2936-VX** | 459 | 683 | 1000 | 2200 | 231.85 | -- | 200.7 | 224 | 2.5 | 6.2 |
| 190 | 260 | 42 | 2 | **NCF2938-VX** | 511 | 775 | 900 | 1900 | 244.15 | -- | 211.5 | 238.5 | 2 | 6.5 |
| 200 | 280 | 48 | 2.1 | **NCF2940-VX** | 613 | 945 | 850 | 1800 | 261.6 | -- | 225.5 | 252.4 | 3 | 9.1 |
| 220 | 300 | 48 | 2.1 | **NCF2944-VX** | 655 | 1030 | 750 | 1600 | 282.44 | -- | 246.3 | 273.2 | 3 | 9.9 |
| 240 | 320 | 48 | 2.1 | **NCF2948-VX** | 600 | 1120 | 700 | 1500 | 303.7 | -- | 267.5 | 294.4 | 3 | 10.6 |
| 260 | 360 | 60 | 2.1 | **NCF2952-VX** | 780 | 1460 | 670 | 1400 | 333.7 | -- | 291.5 | 323.4 | 5 | 18.5 |
| 280 | 380 | 60 | 2.1 | **NCF2956-VX** | 910 | 1750 | 630 | 1300 | 359.5 | -- | 314 | 348.5 | 3.5 | 19.7 |

Single Row Full Complement Cylindrical Roller Bearings UBC



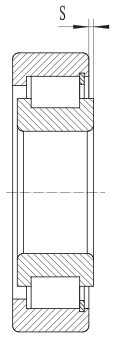

| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor | Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | |
| 300 | 420 | 72 | 3 | **NCF2960-VX** | 1120 | 2170 | 600 | 1200 | 389.45 | -- | 338 | 376.9 | 5 | 31.2 |
| 320 | 440 | 72 | 3 | **NCF2964-VX** | 1250 | 2300 | 560 | 1100 | 409.85 | -- | 358.5 | 397.4 | 5 | 32.9 |
| 340 | 460 | 72 | 3 | **NCF2968-VX** | 1300 | 2490 | 560 | 1100 | 430.2 | -- | 379 | 418.7 | 5 | 34.7 |
| 360 | 480 | 72 | 3 | **NCF2972-VX** | 1285 | 2655 | 530 | 1000 | 450.6 | -- | 399.5 | 438.6 | 5 | 36.4 |
| 380 | 520 | 82 | 4 | **NCF2976-VX** | 1660 | 3315 | 480 | 900 | 486.7 | -- | 426 | 472.1 | 5 | 52.1 |
| 400 | 540 | 82 | 4 | **NCF2980-VX** | 1720 | 3500 | 450 | 850 | 510.85 | -- | 450 | 496.1 | 5 | 54.3 |
| 420 | 560 | 82 | 4 | **NCF2984-VX** | 1750 | 3600 | 400 | 750 | 522.95 | -- | 462 | 509 | 5 | 56.9 |
| 440 | 600 | 95 | 4 | **NCF2988-VX** | 2100 | 4105 | 380 | 700 | 562 | -- | 490 | 544.6 | 7 | 78.1 |
| 460 | 620 | 95 | 4 | **NCF2992-VX** | 2150 | 4250 | 340 | 630 | 576.3 | -- | 504 | 559.6 | 7 | 81.1 |
| 480 | 650 | 100 | 5 | **NCF2996-VX** | 2400 | 4800 | 320 | 600 | 614.75 | -- | 538 | 596.6 | 7 | 94.7 |
| 500 | 670 | 100 | 5 | **NCF29/500-VX** | 2450 | 5000 | 300 | 560 | 630 | -- | 553 | 612.7 | 7 | 98.3 |
| 530 | 710 | 106 | 5 | **NCF29/530-VX** | 2700 | 6050 | 280 | 530 | 673 | -- | 598 | 648 | 7 | 1.20 |
| 560 | 750 | 112 | 2 | **NCF29/560-VX** | 3050 | 6720 | 260 | 500 | 709 | -- | 628 | 682 | 7 | 1.40 |
| 600 | 800 | 118 | 5 | **NCF29/600-VX** | 3400 | 7555 | 240 | 480 | – | -- | 670 | 762 | 7 | 1.70 |
| 630 | 850 | 128 | 6 | **NCF29/630-VX** | 3750 | 8700 | 220 | 450 | 807 | -- | 709 | 788 | 8 | 2.05 |
| 670 | 900 | 136 | 6 | **NCF29/670-VX** | 3900 | 8750 | 200 | 430 | 846 | -- | 748 | 827 | 10 | 2.45 |
| 710 | 950 | 140 | 6 | **NCF29/710-VX** | 4000 | 9200 | 190 | 400 | – | -- | 790 | 876 | 10 | 2.75 |
| 750 | 1000 | 145 | 6 | **NCF29/750-VX** | 4500 | 1700 | 180 | 380 | 938 | -- | 832 | 918 | 11 | 3.15 |
| 25 | 47 | 16 | 0.6 | **NCF3005-VX** | 37.4 | 46.9 | 3600 | 7000 | 42.51 | -- | 34.6 | 38.5 | 1.5 | 0.12 |
| 30 | 55 | 19 | 1 | **NCF3006-VX** | 49 | 63 | 3200 | 5600 | 49.6 | -- | 40 | 45.4 | 2 | 0.2 |
| 35 | 62 | 20 | 1 | **NCF3007-VX** | 55 | 71.5 | 2800 | 5300 | 55.52 | -- | 44.9 | 51.3 | 2 | 0.26 |
| 40 | 68 | 21 | 1 | **NCF3008-VX** | 66 | 83 | 2400 | 4500 | 61.74 | -- | 50.5 | 57.1 | 2 | 0.31 |
| 45 | 75 | 23 | 1 | **NCF3009-VX** | 81 | 110 | 2000 | 4300 | 66.85 | -- | 55.3 | 62.2 | 2 | 0.4 |
| 50 | 80 | 23 | 1 | **NCF3010-VX** | 86 | 120 | 1900 | 4000 | 72.33 | -- | 59.1 | 67.7 | 2 | 0.43 |
| 55 | 90 | 26 | 1.1 | **NCF3011-VX** | 121 | 152 | 1600 | 3400 | 83.54 | -- | 68.5 | 78.8 | 2 | 0.64 |
| 60 | 95 | 26 | 1.1 | **NCF3012-VX** | 125 | 156 | 1600 | 3200 | 78.55 | -- | 71.7 | 82.1 | 2 | 0.69 |



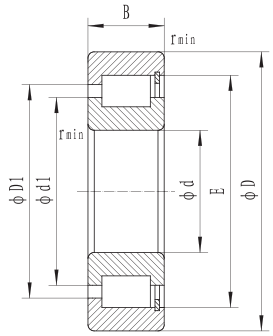

| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor |
| 65 | 100 | 26 | 1.1 | **NCF3013-VX** | 131 | 162 |
| 70 | 110 | 30 | 1.1 | **NCF3014-VX** | 155 | 176 |
| 75 | 115 | 30 | 1.1 | **NCF3015-VX** | 165 | 195 |
| 80 | 125 | 34 | 1.1 | **NCF3016-VX** | 173 | 225 |
| 85 | 130 | 34 | 1.1 | **NCF3017-VX** | 179 | 235 |
| 90 | 140 | 37 | 1.5 | **NCF3018-VX** | 210 | 285 |
| 100 | 150 | 37 | 1.5 | **NCF3020-VX** | 219 | 300 |
| 110 | 170 | 46 | 2 | **NCF3022-VX** | 284 | 390 |
| 120 | 180 | 46 | 2 | **NCF3024-VX** | 299 | 430 |
| 130 | 200 | 52 | 2 | **NCF3026-VX** | 425 | 610 |
| 140 | 210 | 53 | 2 | **NCF3028-VX** | 454 | 670 |
| 150 | 225 | 56 | 2. 1 | **NCF3030-VX** | 479 | 705 |
| 160 | 240 | 60 | 2. 1 | **NCF3032-VX** | 550 | 810 |
| 170 | 260 | 67 | 2. 1 | **NCF3034-VX** | 705 | 1100 |
| 180 | 280 | 74 | 2. 1 | **NCF3036-VX** | 820 | 1250 |
| 190 | 290 | 75 | 2. 1 | **NCF3038-VX** | 850 | 1340 |
| 200 | 310 | 82 | 2. 1 | **NCF3040-VX** | 960 | 1650 |
| 220 | 340 | 90 | 3 | **NCF3044-VX** | 1200 | 1910 |
| 240 | 360 | 92 | 3 | **NCF3048-VX** | 1250 | 2000 |
| 260 | 400 | 104 | 4 | **NCF3052-VX** | 1650 | 2540 |
| 280 | 420 | 106 | 4 | **NCF3056-VX** | 1710 | 3000 |
| 300 | 460 | 118 | 4 | **NCF3060-VX** | 2050 | 3370 |
| 320 | 480 | 121 | 4 | **NCF3064-VX** | 2090 | 3500 |
| 340 | 520 | 133 | 5 | **NCF3068-VX** | 2500 | 4200 |
| 360 | 540 | 134 | 5 | **NCF3072-VX** | 2600 | 4450 |
| 380 | 560 | 135 | 5 | **NCF3076-VX** | 2650 | 4500 |

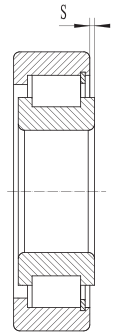







| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|
| Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | |
| 1400 | 3000 | 85.24 | – | 78.1 | 88.4 | 2 | 0.73 |
| 1300 | 2800 | 100.28 | – | 81.5 | 95.6 | 3 | 1.02 |
| 1200 | 2600 | 107.9 | – | 89 | 103.2 | 3 | 1.06 |
| 1100 | 2400 | 117.4 | – | 95 | 111.7 | 4 | 1.43 |
| 1100 | 2200 | 121.95 | – | 99.4 | 116.1 | 4 | 1.51 |
| 1000 | 2200 | 130.65 | - | 106.1 | 124.5 | 4 | 1.97 |
| 950 | 2000 | 140.2 | – | 115.7 | 134 | 4 | 2.15 |
| 950 | 2000 | 156.7 | – | 127.3 | 149.3 | 5.5 | 3.5 |
| 850 | 1800 | -- | -- | 138.8 | 1607 | 5.5 | 3.8 |
| 800 | 1700 | -- | -- | 148.6 | 175.5 | 5.5 | 5.65 |
| 700 | 1500 | -- | -- | 162.2 | 189.5 | 5.5 | 6.04 |
| 670 | 1400 | -- | -- | 170 | 198 | 7 | 7.33 |
| 630 | 1300 | -- | -- | 184.8 | 215.8 | 7 | 8.8 |
| 600 | 1100 | -- | -- | 198.1 | 232.7 | 7 | 12 2 |
| 560 | 1000 | -- | -- | 212.2 | 249.4 | 7 | 16.1 |
| 560 | 1100 | -- | -- | 221.8 | 259 | 9 | 17 |
| 530 | 1000 | -- | -- | 236.6 | 276.2 | 9 | 21.8 |
| 450 | 800 | -- | -- | 254.6 | 299.2 | 9 | 28.4 |
| 430 | 850 | -- | -- | 277.5 | 322.1 | 11 | 30.9 |
| 430 | 800 | -- | -- | 304 | 358.4 | 11 | 44.5 |
| 380 | 700 | -- | -- | 319.5 | 372.9 | 11 | 48 |
| 320 | 560 | -- | -- | 353.6 | 415.6 | 14 | 66.6 |
| 300 | 560 | -- | -- | 369.5 | 430.1 | 14 | 72 |
| 280 | 530 | -- | -- | 396.1 | 463.9 | 15 | 96 |
| 260 | 500 | 503.45 | -- | 414 | 481.6 | 15 | 101 |
| 240 | 480 | 521.25 | -- | 431.7 | 499.5 | 15 | 106 |

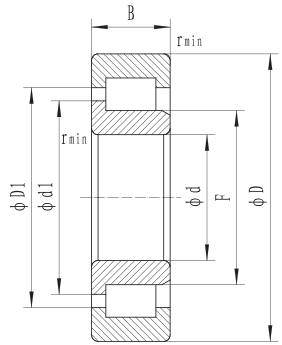



| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | | Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor | Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | |
| 400 | 600 | 148 | 5 | **NCF3080-VX** | 3100 | 5500 | 220 | 450 | 558.52 | -- | 462.5 | 535.1 | 16 | 145 |
| 420 | 650 | 150 | 5 | **NCF3084-VX** | 3300 | 6300 | 200 | 430 | 577.6 | -- | 482 | 555 | 16 | 150 |
| 440 | 650 | 157 | 6 | **NCF3088-VX** | 3740 | 7400 | 190 | 400 | 590 | -- | 507 | 582 | 16 | 175 |
| 460 | 680 | 163 | 6 | **NCF3092-VX** | 4150 | 8050 | 180 | 380 | 632.97 | -- | 526 | 608 | 16 | 195 |
| 480 | 700 | 165 | 6 | **NCF3096-VX** | 4200 | 8500 | 170 | 360 | 654 | -- | 546 | 628 | 16 | 205 |
| 500 | 720 | 167 | 6 | **NCF30/500-VX** | 4300 | 8700 | 170 | 360 | 676 | -- | 568 | 650 | 16 | 215 |
| 530 | 780 | 185 | 6 | **NCF30/530-VX** | 5300 | 10600 | 150 | 320 | 732 | -- | 610 | 702 | 16 | 300 |
| 560 | 820 | 195 | 6 | **NCF30/560-VX** | 5900 | 12000 | 140 | 300 | 770 | -- | 642 | 738 | 16 | 345 |



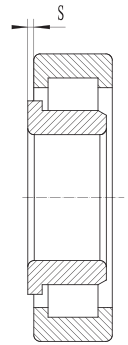
Single Row Full Complement Cylindrical Roller Bearings




| Principal Dimensions (mm) | | | | Bearing Designations | Basic Load Ratings (N) | |
|---|---|---|---|---|---|---|
| d | D | B | $r_{min}$ | | Dynamic Cr | Static Cor |
| 25 | 62 | 24 | 1.1 | **NJG2305-VX-H** | 73 | 59 |
| 30 | 72 | 27 | 1.1 | **NJG2306-VX-H** | 100 | 88 |
| 35 | 80 | 31 | 1.5 | **NJG2307-VX-H** | 127 | 111 |
| 40 | 90 | 33 | 1.5 | **NJG2308-VX-H** | 175 | 155 |
| 45 | 100 | 36 | 1.5 | **NJG2309-VX-H** | 181.5 | 164 |
| 50 | 110 | 40 | 2 | **NJG2310-VX-H** | 235 | 220 |
| 55 | 120 | 43 | 2 | **NJG2311-VX-H** | 273 | 255 |
| 60 | 130 | 46 | 2.1 | **NJG2312-VX-H** | 285 | 275 |
| 65 | 140 | 48 | 2.1 | **NJG2313-VX-H** | 355 | 350 |
| 70 | 150 | 51 | 2.1 | **NJG2314-VX-H** | 390 | 390 |
| 75 | 160 | 55 | 2.1 | **NJG231 5-VX-H** | 465 | 480 |
| 80 | 170 | 58 | 2.1 | **NJG2316-VX-H** | 544 | 565 |
| 85 | 180 | 60 | 3 | **NJG2317-VX-H** | 573 | 615 |
| 90 | 190 | 64 | 3 | **NJG2318-VX-H** | 620 | 650 |
| 100 | 215 | 73 | 3 | **NJG2320-VX-H** | 800 | 850 |
| 110 | 240 | 80 | 3 | **NJG2322-VX-H** | 955 | 980 |
| 120 | 260 | 86 | 3 | **NJG2324-VX-H** | 1150 | 1270 |
| 130 | 280 | 93 | 4 | **NJG2326-VX-H** | 1300 | 1420 |
| 140 | 300 | 102 | 4 | **NJG2328-VX-H** | 1450 | 1600 |
| 150 | 320 | 108 | 4 | **NJG2330-VX-H** | 1685 | 1950 |
| 160 | 340 | 114 | 4 | **NJG2332-VX-H** | 1900 | 2200 |
| 170 | 360 | 120 | 4 | **NJG2334-VX-H** | 2100 | 2400 |
| 180 | 380 | 126 | 4 | **NJG2336-VX-H** | 2200 | 2650 |
| 190 | 400 | 132 | 5 | **NJG2338-VX-H** | 2500 | 3000 |
| 200 | 420 | 138 | 5 | **NJG2340-VX-H** | 2850 | 3400 |
| 220 | 460 | 145 | 5 | **NJG2344-VX-H** | 3050 | 3500 |
| 240 | 500 | 155 | 5 | **NJG2348-VX-H** | 3350 | 3900 |
| 260 | 540 | 165 | 6 | **NJG2352-VX-H** | 4100 | 4850 |








| Limiting Speed (rpm) | | Abutment and Fillet Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|
| Grease $min^{-1}$ | Oil $min^{-1}$ | E* | F | $d_1$ | $D_1$ | S** | |
| 3000 | 5300 | -- | 31.74 | 36.7 | 47.5 | 2 | 0.37 |
| 1900 | 4000 | -- | 38.36 | 43.5 | 56 | 2 | 0.56 |
| 1600 | 3400 | -- | 44.75 | 50.7 | 65.8 | 2 | 0.74 |
| 1400 | 3000 | -- | 51.15 | 57.5 | 75.2 | 2 | 1.01 |
| 1300 | 2800 | -- | 56.14 | 62.5 | 80.3 | 3 | 1.37 |
| 1100 | 2400 | -- | 60.72 | 68.3 | 89.7 | 3 | 1.81 |
| 1000 | 2200 | -- | 67.14 | 75.5 | 99.3 | 3 | 2.28 |
| 950 | 2000 | -- | 86.7 | 82 | 105.8 | 3 | 2.88 |
| 900 | 1900 | -- | 80.71 | 90 | 116.5 | 3.5 | 3.52 |
| 850 | 1800 | -- | 84.22 | 93.5 | 121.6 | 3.5 | 4.33 |
| 750 | 1600 | -- | 91.24 | 101.6 | 131.5 | 3.5 | 5.3 |
| 700 | 1500 | -- | 98.26 | 109.5 | 142.1 | 3.5 | 6.32 |
| 670 | 1400 | -- | 107 | 118.2 | 150.9 | 4 | 7.34 |
| 670 | 1400 | -- | 105.3 | 117.5 | 152.5 | 4 | 8.83 |
| 600 | 1200 | -- | 119.3 | 132.7 | 172.8 | 4 | 13 |
| 560 | 1100 | -- | 134.3 | 151.1 | 199.9 | 5 | 17 |
| 530 | 1000 | -- | 147.4 | 164.2 | 213.1 | 5 | 22.3 |
| 500 | 950 | -- | 157.9 | 176 | 227.9 | 5 | 27.95 |
| 450 | 850 | -- | 168.5 | 187.8 | 243.4 | 7 | 34.9 |
| 430 | 800 | -- | 182.5 | 203.3 | 263.5 | 7 | 42.1 |
| 400 | 750 | -- | 266.4 | 219 | 284.4 | 7 | 49.7 |
| 450 | 800 | -- | 203.55 | 226.6 | 295 | 7 | 59.2 |
| 400 | 700 | -- | 221.7 | 245 | 312.9 | 7 | 69.1 |
| 400 | 700 | -- | 224.5 | 250 | 326.8 | 7 | 80.3 |
| 320 | 600 | -- | 238.6 | 265.7 | 347.2 | 7 | 92.1 |
| 300 | 570 | -- | 266.7 | 297 | 388.3 | 7 | 111.2 |
| 300 | 570 | -- | 280.6 | 312.5 | 408.5 | 10 | 142.3 |
| 270 | 550 | -- | 315.6 | 351.6 | 459.6 | 10 | 173.2 |