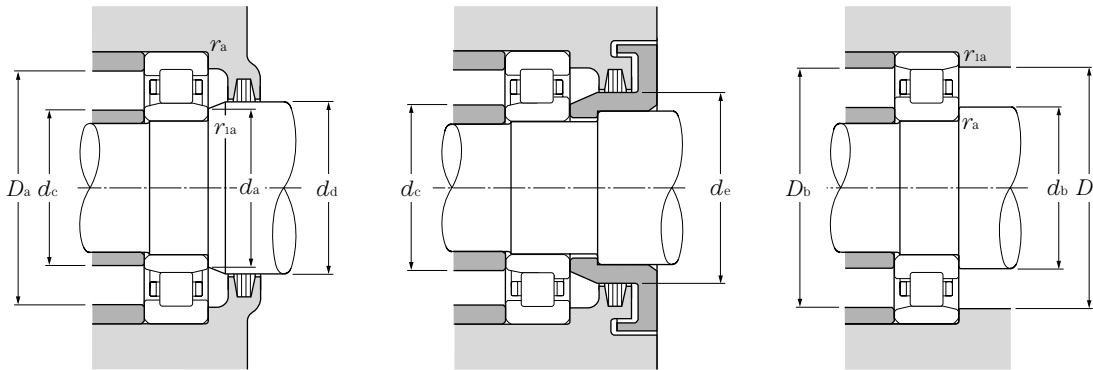


d 35 ~ 55mm

| d | Boundary dimensions | | | | Basic load ratings | | | | Limiting speeds ^① | | Bearing numbers | | | |
|-----|---------------------|-----|---------------------------------|----------------------------------|--------------------|-----------------|----------------|-----------------|------------------------------|--------|-----------------|------|------|------|
| | mm | | | | dynamic | static | dynamic | static | rpm | | type | type | type | type |
| | D | B | r _{s min} ^② | r _{1s min} ^② | C _r | C _{or} | C _r | C _{or} | grease | oil | NU | NJ | NUP | N |
| 45 | 75 | 16 | 1 | 0.6 | 31.0 | 34.0 | 3,200 | 3,450 | 9,900 | 12,000 | NU1009 | NJ | NUP | N |
| | 85 | 19 | 1.1 | 1.1 | 46.0 | 47.0 | 4,700 | 4,800 | 8,400 | 9,900 | NU209 | NJ | NUP | N |
| | 85 | 19 | 1.1 | 1.1 | 63.0 | 66.5 | 6,450 | 6,800 | 7,600 | 9,000 | NU209E | NJ | NUP | |
| | 85 | 23 | 1.1 | 1.1 | 61.5 | 68.0 | 6,250 | 6,900 | 7,600 | 9,000 | NU2209 | NJ | NUP | N |
| | 85 | 23 | 1.1 | 1.1 | 76.0 | 84.5 | 7,750 | 8,600 | 6,800 | 8,000 | NU2209E | NJ | NUP | |
| | 100 | 25 | 1.5 | 1.5 | 74.0 | 71.0 | 7,550 | 7,250 | 7,200 | 8,400 | NU309 | NJ | NUP | N |
| | 100 | 25 | 1.5 | 1.5 | 97.5 | 98.5 | 9,950 | 10,000 | 6,500 | 7,600 | NU309E | NJ | NUP | |
| | 100 | 36 | 1.5 | 1.5 | 99.0 | 104 | 10,100 | 10,600 | 6,300 | 7,400 | NU2309 | NJ | NUP | N |
| | 100 | 36 | 1.5 | 1.5 | 137 | 153 | 14,000 | 15,600 | 5,700 | 6,800 | NU2309E | NJ | NUP | |
| 120 | 29 | 2 | 2 | 107 | 102 | 10,900 | 10,400 | 5,100 | 6,000 | NU409 | NJ | NUP | N | |
| 50 | 80 | 16 | 1 | 0.6 | 32.0 | 36.0 | 3,300 | 3,700 | 8,900 | 11,000 | NU1010 | NJ | NUP | N |
| | 90 | 20 | 1.1 | 1.1 | 48.0 | 51.0 | 4,900 | 5,200 | 7,600 | 9,000 | NU210 | NJ | NUP | N |
| | 90 | 20 | 1.1 | 1.1 | 66.0 | 72.0 | 6,750 | 7,350 | 6,900 | 8,100 | NU210E | NJ | NUP | |
| | 90 | 23 | 1.1 | 1.1 | 64.0 | 73.5 | 6,550 | 7,500 | 6,900 | 8,100 | NU2210 | NJ | NUP | N |
| | 90 | 23 | 1.1 | 1.1 | 79.5 | 91.5 | 8,100 | 9,350 | 6,200 | 7,300 | NU2210E | NJ | NUP | |
| | 110 | 27 | 2 | 2 | 87.0 | 86.0 | 8,850 | 8,800 | 6,500 | 7,700 | NU310 | NJ | NUP | N |
| | 110 | 27 | 2 | 2 | 110 | 113 | 11,200 | 11,500 | 5,900 | 6,900 | NU310E | NJ | NUP | |
| | 110 | 40 | 2 | 2 | 121 | 131 | 12,300 | 13,400 | 5,700 | 6,700 | NU2310 | NJ | NUP | N |
| | 110 | 40 | 2 | 2 | 163 | 187 | 16,600 | 19,000 | 5,200 | 6,100 | NU2310E | NJ | NUP | |
| 130 | 31 | 2.1 | 2.1 | 129 | 124 | 13,200 | 12,600 | 4,700 | 5,500 | NU410 | NJ | NUP | N | |
| 55 | 90 | 18 | 1.1 | 1 | 37.5 | 44.0 | 3,850 | 4,450 | 8,200 | 9,700 | NU1011 | NJ | NUP | N |
| | 100 | 21 | 1.5 | 1.1 | 58.0 | 62.5 | 5,900 | 6,350 | 6,900 | 8,200 | NU211 | NJ | NUP | N |
| | 100 | 21 | 1.5 | 1.1 | 82.5 | 93.0 | 8,400 | 9,500 | 6,300 | 7,400 | NU211E | NJ | NUP | |
| | 100 | 25 | 1.5 | 1.1 | 75.5 | 87.0 | 7,700 | 8,900 | 6,300 | 7,400 | NU2211 | NJ | NUP | N |
| | 100 | 25 | 1.5 | 1.1 | 97.0 | 114 | 9,900 | 11,700 | 5,600 | 6,600 | NU2211E | NJ | NUP | |
| | 120 | 29 | 2 | 2 | 111 | 111 | 11,300 | 11,400 | 5,900 | 7,000 | NU311 | NJ | NUP | N |
| | 120 | 29 | 2 | 2 | 137 | 143 | 14,000 | 14,600 | 5,300 | 6,300 | NU311E | NJ | NUP | |
| | 120 | 43 | 2 | 2 | 148 | 162 | 15,100 | 16,500 | 5,200 | 6,100 | NU2311 | NJ | NUP | N |
| | 120 | 43 | 2 | 2 | 201 | 233 | 20,500 | 23,800 | 4,700 | 5,600 | NU2311E | NJ | NUP | |
| 140 | 33 | 2.1 | 2.1 | 139 | 138 | 14,200 | 14,100 | 4,300 | 5,000 | NU411 | NJ | NUP | N | |
| 60 | 95 | 18 | 1.1 | 1 | 40.0 | 48.5 | 4,100 | 4,950 | 7,500 | 8,800 | NU1012 | NJ | NUP | N |
| | 110 | 22 | 1.5 | 1.5 | 68.5 | 75.0 | 7,000 | 7,650 | 6,400 | 7,600 | NU212 | NJ | NUP | N |
| | 110 | 22 | 1.5 | 1.5 | 97.5 | 107 | 9,950 | 10,900 | 5,800 | 6,800 | NU212E | NJ | NUP | |
| | 110 | 28 | 1.5 | 1.5 | 96.0 | 116 | 9,800 | 11,800 | 5,800 | 6,800 | NU2212 | NJ | NUP | N |

① This value achieved with machined cages; when pressed cages are used, 80% of this value is acceptable.
 ② Minimal allowable dimension for chamfer dimension r or r₁.



Equivalent bearing load
dynamic
 $P_r = F_r$
static
 $P_{or} = F_r$

| type | Dimensions | | | Abutment and fillet dimensions | | | | | | | | Mass | | | |
|------|------------|-------|------|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------------|-----------------|------------------|----------------------|--------|
| | mm | | | mm | | | | | | | | kg | | | |
| NF | F_w | E_w | J | d_a min | d_b min | d_c max | d_d min | d_e min | D_a max | D_b max | D_b min ^④ | r_{as} max | r_{ias} max | type NU (approx.) | type N |
| NF | 52.5 | 67.5 | 55.5 | 49 | 50 | 52 | 54 | 56 | 70 | 71 | 68.5 | 1 | 0.6 | 0.28 | 0.276 |
| | 55 | 75 | 59 | 51.5 | 51.5 | 54 | 57 | 61 | 78.5 | 78.5 | 77 | 1 | 1 | 0.432 | 0.423 |
| | 54.5 | | 58.9 | 51.5 | | 54 | 57 | 61 | 78.5 | | | 1 | 1 | 0.495 | |
| NF | 55 | 75 | 59 | 51.5 | 51.5 | 54 | 57 | 61 | 78.5 | 78.5 | 77 | 1 | 1 | 0.53 | 0.52 |
| | 54.5 | | 58.9 | 51.5 | | 54 | 57 | 61 | 78.5 | | | 1 | 1 | 0.6 | |
| | 58.5 | 86.5 | 64 | 53 | 53 | 57 | 60 | 66 | 92 | 92 | 89 | 1.5 | 1.5 | 0.877 | 0.857 |
| NF | 58.5 | | 64.5 | 53 | | 57 | 60 | 66 | 92 | | | 1.5 | 1.5 | 0.996 | |
| | 58.5 | 86.5 | 64 | 53 | 53 | 57 | 60 | 66 | 92 | 92 | 89 | 1.5 | 1.5 | 1.27 | 1.24 |
| | 58.5 | | 64.5 | 53 | | 57 | 60 | 66 | 92 | | | 1.5 | 1.5 | 1.41 | |
| NF | 64.5 | 100.5 | 71.8 | 54 | 54 | 63 | 66 | 74 | 111 | 111 | 102 | 2 | 2 | 1.62 | 1.58 |
| NF | 57.5 | 72.5 | 60.5 | 54 | 55 | 57 | 59 | 61 | 75 | 76 | 73.5 | 1 | 0.6 | 0.295 | 0.291 |
| | 60.4 | 80.4 | 64.6 | 56.5 | 56.5 | 58 | 62 | 67 | 83.5 | 83.5 | 83 | 1 | 1 | 0.47 | 0.46 |
| | 59.5 | | 63.9 | 56.5 | | 58 | 62 | 67 | 83.5 | | | 1 | 1 | 0.54 | |
| | 60.4 | 80.4 | 64.6 | 56.5 | 56.5 | 58 | 62 | 67 | 83.5 | 83.5 | 83 | 1 | 1 | 0.571 | 0.56 |
| NF | 59.5 | | 63.9 | 56.5 | | 58 | 62 | 67 | 83.5 | | | 1 | 1 | 0.652 | |
| | 65 | 95 | 71 | 59 | 59 | 63 | 67 | 73 | 101 | 101 | 98 | 2 | 2 | 1.14 | 1.11 |
| | 65 | | 71.4 | 59 | | 63 | 67 | 73 | 101 | | | 2 | 2 | 1.3 | |
| | 65 | 95 | 71 | 59 | 59 | 63 | 67 | 73 | 101 | 101 | 98 | 2 | 2 | 1.7 | 1.67 |
| NF | 65 | | 71.4 | 59 | | 63 | 67 | 73 | 101 | | | 2 | 2 | 1.9 | |
| | 70.8 | 110.8 | 78.8 | 61 | 61 | 69 | 73 | 81 | 119 | 119 | 112 | 2 | 2 | 2.02 | 1.97 |
| NF | 64.5 | 80.5 | 67.7 | 60 | 61.5 | 63 | 66 | 68.5 | 83.5 | 85 | 81.5 | 1 | 1 | 0.442 | 0.435 |
| | 66.5 | 88.5 | 70.8 | 61.5 | 63 | 65 | 68 | 73 | 92 | 93.5 | 91 | 1.5 | 1 | 0.638 | 0.626 |
| | 66 | | 70.8 | 61.5 | | 65 | 68 | 73 | 92 | | | 1.5 | 1 | 0.718 | |
| | 66.5 | 88.5 | 70.8 | 61.5 | 63 | 65 | 68 | 73 | 92 | 93.5 | 91 | 1.5 | 1 | 0.773 | 0.758 |
| NF | 66 | | 70.8 | 61.5 | | 65 | 68 | 73 | 92 | | | 1.5 | 1 | 0.968 | |
| | 70.5 | 104.5 | 77.2 | 64 | 64 | 69 | 72 | 80 | 111 | 111 | 107 | 2 | 2 | 1.45 | 1.42 |
| | 70.5 | | 77.7 | 64 | | 69 | 72 | 80 | 111 | | | 2 | 2 | 1.65 | |
| | 70.5 | 104.5 | 77.2 | 64 | 64 | 69 | 72 | 80 | 111 | 111 | 107 | 2 | 2 | 2.17 | 2.13 |
| NF | 70.5 | | 77.7 | 64 | | 69 | 72 | 80 | 111 | | | 2 | 2 | 2.37 | |
| | 77.2 | 117.2 | 85.2 | 66 | 66 | 76 | 79 | 87 | 129 | 129 | 119 | 2 | 2 | 2.48 | 2.42 |
| NF | 69.5 | 85.5 | 72.7 | 65 | 66.5 | 68 | 71 | 73.5 | 88.5 | 90 | 86.5 | 1 | 1 | 0.474 | 0.467 |
| | 73.5 | 97.5 | 78.4 | 68 | 68 | 71 | 75 | 80 | 102 | 102 | 100 | 1.5 | 1.5 | 0.818 | 0.802 |
| | 72 | | 77.6 | 68 | | 71 | 75 | 80 | 102 | | | 1.5 | 1.5 | 0.923 | |
| | 73.5 | 97.5 | 78.4 | 68 | 68 | 71 | 75 | 80 | 102 | 102 | 100 | 1.5 | 1.5 | 1.06 | 1.04 |

④ Does not apply to side of the outer ring rib of type NF bearings.