



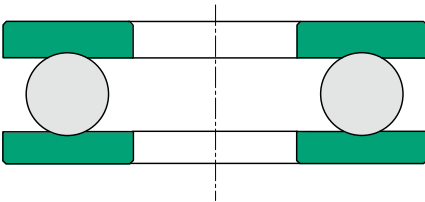
THRUST BALL BEARINGS

Dimensions in accordance with ISO 104-2002

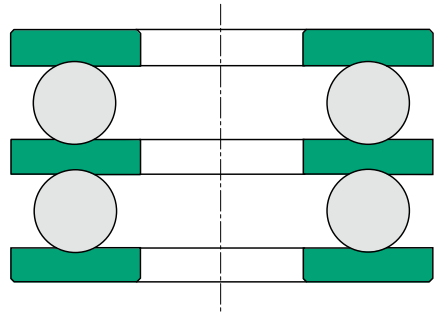
Thrust ball bearings are available in single and double acting versions. They sustain axial loads only, and therefore should not be used where radial loads are present.

The thrust loading should not drop below a minimum axial load, maintaining contact between the balls and the track when centrifugal forces are present.

They are manufactured in the following series: 511, 512, 513, 514, 522, 523 and 524.



511, 512, 513, 514



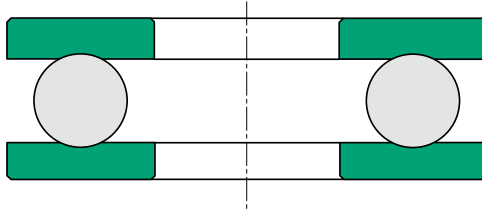
522, 523, 524



THRUST BALL BEARINGS

Single-acting thrust ball bearings

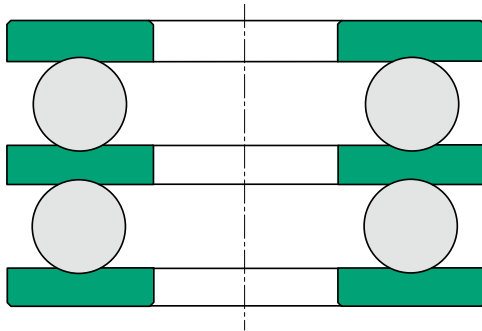
Single acting thrust ball bearings are used to carry thrust loads in only one direction and cannot carry radial loads. They are made up of a shaft washer, a flat housing washer and a ball and cage assembly. These bearings can be easily mounted by separately fitting each washer.



Double-acting thrust ball bearing

These bearings can carry thrust loadings in both directions. They are fitted with an extra thrust washer and two ball and cage assemblies.

See technical section for further information.



Minimum load

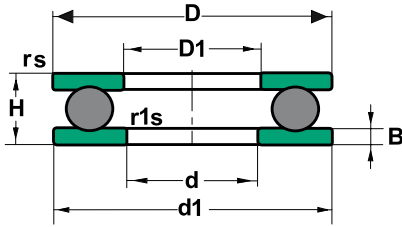
The thrust ball bearing requires a minimum axial load, so that the rolling elements maintain rolling contact and sliding is minimized. "F_{am}" can be obtained from formula:

$$F_{am} = M \left[\frac{n \text{ Max}}{1000} \right]^2 \text{ [N]}$$

where:

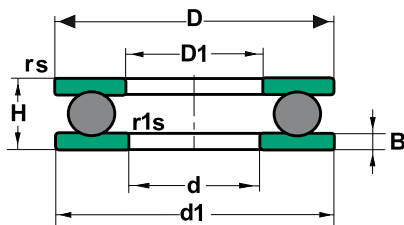
| | | |
|-----------------|---|-------------------------|
| F _{am} | = | minimum thrust load (N) |
| M | = | Factor for minimum load |
| n | = | speed in RPM |

Single Row Thrust Ball Bearings



| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Dimensions | | |
|---------|---------|----------------|----|----|--------------|-------|--------------|-----------|--------|------------|----|----------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | d1 | r1,2 min |
| 51100 | | 10 | 24 | 9 | 10,0 | 14,0 | 6300 | 9000 | 0,02 | 11 | 24 | 0,3 |
| 51101 | | 12 | 26 | 9 | 10,2 | 15,2 | 6000 | 8500 | 0,02 | 13 | 26 | 0,3 |
| 51201 | | 12 | 28 | 11 | 13,2 | 19,0 | 5300 | 7500 | 0,03 | 14 | 28 | 0,6 |
| 51102 | | 15 | 28 | 9 | 10,5 | 16,8 | 5600 | 8000 | 0,02 | 16 | 28 | 0,3 |
| 51202 | | 15 | 32 | 12 | 16,5 | 24,8 | 4800 | 6700 | 0,04 | 17 | 32 | 0,6 |
| 51103 | | 17 | 30 | 9 | 10,8 | 18,2 | 5300 | 7500 | 0,02 | 18 | 30 | 0,5 |
| 51203 | | 17 | 35 | 12 | 17,0 | 27,2 | 4500 | 6800 | 0,05 | 19 | 35 | 0,6 |
| 51104 | | 20 | 35 | 10 | 14,2 | 24,5 | 4800 | 6700 | 0,04 | 21 | 35 | 0,3 |
| 51204 | | 20 | 40 | 14 | 22,2 | 37,5 | 3800 | 5300 | 0,08 | 22 | 40 | 0,6 |
| 51105 | | 25 | 42 | 11 | 15,2 | 30,2 | 4300 | 6000 | 0,06 | 26 | 42 | 1,0 |
| 51205 | | 25 | 47 | 15 | 27,8 | 50,5 | 3400 | 4300 | 0,11 | 27 | 47 | 0,6 |
| 51305 | | 25 | 52 | 18 | 35,5 | 61,5 | 3000 | 4300 | 0,17 | 27 | 52 | 1,0 |
| 51106 | | 30 | 47 | 11 | 16,0 | 34,2 | 4000 | 5600 | 0,06 | 32 | 47 | 0,6 |
| 51206 | | 30 | 52 | 16 | 28,0 | 54,2 | 3200 | 4500 | 0,13 | 32 | 52 | 0,6 |
| 51306 | | 30 | 60 | 21 | 42,8 | 78,5 | 2400 | 3600 | 0,26 | 32 | 60 | 1,0 |
| 51107 | | 35 | 52 | 12 | 18,2 | 41,5 | 3800 | 5300 | 0,08 | 37 | 52 | 0,6 |
| 51207 | | 35 | 62 | 18 | 39,2 | 78,2 | 2800 | 4000 | 0,21 | 37 | 62 | 1,0 |
| 51307 | | 35 | 68 | 24 | 55,2 | 105,0 | 2000 | 3200 | 0,37 | 37 | 68 | 1,0 |
| 51108 | | 40 | 60 | 13 | 26,8 | 62,8 | 3400 | 4800 | 0,11 | 42 | 60 | 0,6 |
| 51208 | | 40 | 68 | 19 | 44,8 | 91,8 | 2400 | 3600 | 0,26 | 42 | 68 | 1,5 |
| 51308 | | 40 | 78 | 26 | 69,2 | 135,0 | 1900 | 3000 | 0,53 | 42 | 78 | 1,0 |
| 51109 | | 45 | 65 | 14 | 27,0 | 66,0 | 3200 | 4500 | 0,14 | 47 | 65 | 0,6 |
| 51209 | | 45 | 73 | 20 | 47,8 | 105,0 | 2200 | 3400 | 0,30 | 47 | 73 | 1,0 |
| 51309 | | 45 | 85 | 28 | 75,8 | 150,0 | 1700 | 2600 | 0,66 | 47 | 85 | 1,0 |

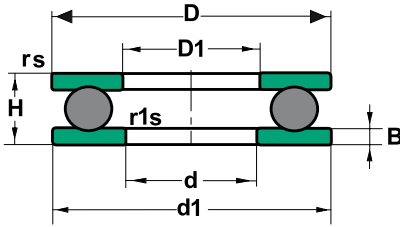
Single Row Thrust Ball Bearings



| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Dimensions | | |
|---------|---------|----------------|-----|----|--------------|----------|-----------------|--------------|--------|------------|-----|-------------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | d1 | r1,2 min |
| 51110 | | 50 | 70 | 14 | 27,2 | 69,2 | 3000 | 4300 | 0,15 | 52 | 70 | 0,6 |
| 51210 | | 50 | 78 | 22 | 48,5 | 112,0 | 2000 | 3200 | 0,37 | 52 | 78 | 1,0 |
| 51310 | | 50 | 95 | 31 | | 202,0 | 1600 | 2400 | 0,92 | 52 | 95 | 1,1 |
| 51111 | | 55 | 78 | 16 | 33,8 | 89,2 | 2800 | 4000 | 0,22 | 57 | 78 | 1,0 |
| 51211 | | 55 | 90 | 25 | 67,5 | 158,0 | 1900 | 3000 | 0,58 | 57 | 90 | 1,0 |
| 51311 | | 55 | 105 | 35 | 115,0 | 242,0 | 1500 | 2200 | 1,28 | 57 | 105 | 1,1 |
| 51112 | | 60 | 85 | 17 | 40,2 | 108,0 | 2600 | 3800 | 0,27 | 62 | 85 | 1,0 |
| 51212 | | 60 | 95 | 26 | 73,5 | 178,0 | 1800 | 2800 | 0,66 | 62 | 95 | 1,0 |
| 51312 | | 60 | 110 | 35 | 118,0 | 262,0 | 1400 | 2000 | 1,37 | 62 | 110 | 1,1 |
| 51113 | | 65 | 90 | 18 | 40,5 | 112,0 | 2400 | 3600 | 0,31 | 67 | 90 | 1,0 |
| 51213 | | 65 | 100 | 27 | 74,8 | 188,0 | 1700 | 2600 | 0,72 | 67 | 100 | 1,0 |
| 51313 | | 65 | 115 | 36 | 115,0 | 262,0 | 1300 | 1900 | 1,18 | 67 | 115 | 1,1 |
| 51114 | | 70 | 95 | 18 | 40,8 | 115,0 | 2200 | 3400 | 0,33 | 72 | 95 | 1,5 |
| 51214 | | 70 | 105 | 27 | 73,5 | 188,0 | 1600 | 2400 | 0,75 | 72 | 105 | 1,0 |
| 51314 | | 70 | 125 | 40 | 148,0 | 340,0 | 1200 | 1800 | 1,98 | 72 | 125 | 1,1 |
| 51115 | | 75 | 100 | 19 | 48,2 | 140,0 | 2000 | 3200 | 0,38 | 77 | 100 | 1,0 |
| 51215 | | 75 | 110 | 27 | 74,8 | 198,0 | 1500 | 2200 | 0,82 | 77 | 110 | 1,0 |
| 51315 | | 75 | 135 | 44 | 162,0 | 380,0 | 1100 | 1700 | 2,58 | 77 | 135 | 1,5 |
| 51116 | | 80 | 105 | 19 | 48,5 | 145,0 | 1900 | 3000 | 0,40 | 82 | 105 | 1,0 |
| 51216 | | 80 | 115 | 28 | 83,8 | 222,0 | 1400 | 2000 | 0,90 | 82 | 115 | 1,0 |
| 51316 | | 80 | 140 | 44 | 160,0 | 380,0 | 1000 | 1600 | 2,69 | 82 | 140 | 1,5 |
| 51117 | | 85 | 110 | 19 | 49,2 | 150,0 | 1800 | 2800 | 0,42 | 87 | 110 | 1,0 |
| 51217 | | 85 | 125 | 31 | 102,0 | 280,0 | 1300 | 1900 | 1,21 | 88 | 125 | 1,0 |
| 51317 | | 85 | 150 | 49 | 208,0 | 495,0 | 950 | 1500 | 3,47 | 88 | 150 | 1,5 |

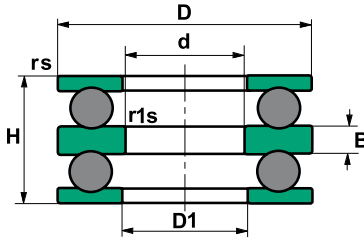
| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Dimensions | | |
|---------|---------|----------------|-----|-----|--------------|----------|-----------------|--------------|--------|------------|-----|-------------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | d1 | r1,2 min |
| 51118 | | 90 | 120 | 22 | 65,0 | 200,0 | 1700 | 2600 | 0,65 | 92 | 120 | 1,0 |
| 51218 | | 90 | 135 | 35 | 115,0 | 315,0 | 1200 | 1800 | 1,65 | 93 | 135 | 1,1 |
| 51318 | | 90 | 155 | 50 | 205,0 | 495,0 | 900 | 1400 | 3,69 | 93 | 155 | 1,5 |
| 51120 | | 100 | 135 | 25 | 85,0 | 268,0 | 1600 | 2400 | 0,95 | 102 | 135 | 1,0 |
| 51220 | | 100 | 150 | 38 | 132,0 | 375,0 | 1100 | 1700 | 2,21 | 103 | 150 | 1,1 |
| 51320 | | 100 | 170 | 55 | 235,0 | 595,0 | 800 | 1200 | 4,86 | 103 | 170 | 1,5 |
| 51122 | | 110 | 145 | 25 | 87,0 | 288 | 2500 | 2200 | 1,03 | 112 | 145 | 1,0 |
| 51222 | | 110 | 160 | 38 | 138,0 | 412 | 2000 | 1600 | 2,39 | 113 | 160 | 1,1 |
| 51224 | | 120 | 170 | 39 | 135,0 | 412 | 950 | 1500 | 2,62 | 123 | 170 | 1,1 |
| 51226 | | 130 | 190 | 45 | 188,0 | 575 | 900 | 1400 | 3,93 | 133 | 187 | 1,5 |
| 51226 | M | 130 | 190 | 45 | 212,0 | 620 | 950 | 1400 | 4,44 | 133 | 187 | 1,5 |
| 51128 | M | 140 | 180 | 31 | 107,0 | 377 | 1300 | 1800 | 0,90 | 142 | 178 | 2,0 |
| 51228 | M | 140 | 200 | 46 | 215,0 | 669 | 950 | 1400 | 2,00 | 143 | 197 | 4,5 |
| 51130 | M | 150 | 190 | 31 | 109,0 | 402 | 1200 | 1700 | 1,00 | 152 | 188 | 2,2 |
| 51230 | M | 150 | 215 | 50 | 257,0 | 795 | 900 | 1300 | 5,21 | 153 | 212 | 5,6 |
| 51330 | M | 150 | 250 | 80 | 377,0 | 1200 | 670 | 900 | 9,00 | 154 | 245 | 15,7 |
| 51430 | M | 150 | 300 | 120 | 668,0 | 2242 | - | 650 | 42,00 | 154 | 295 | 4,0 |
| 51132 | M | 160 | 200 | 31 | 112,0 | 427 | 1200 | 1700 | 1,00 | 162 | 198 | 2,3 |
| 51232 | M | 160 | 225 | 51 | 247,0 | 803 | 850 | 1200 | 3,20 | 163 | 222 | 6,5 |
| 51134 | M | 170 | 215 | 34 | 134,0 | 512 | 1100 | 1600 | 1,40 | 172 | 213 | 3,3 |
| 51234 | M | 170 | 240 | 55 | 269,0 | 874 | 800 | 1100 | 4,50 | 173 | 237 | 8,1 |
| 51334 | M | 170 | 280 | 87 | 463,0 | 1570 | 600 | 800 | 13,00 | 174 | 275 | 22,0 |
| 51136 | M | 180 | 225 | 34 | 135,0 | 528 | 1000 | 1500 | 1,50 | 183 | 222 | 3,4 |
| 51236 | M | 180 | 250 | 56 | 294,0 | 986 | 800 | 1100 | 5,00 | 183 | 247 | 8,7 |

Single Row Thrust Ball Bearings



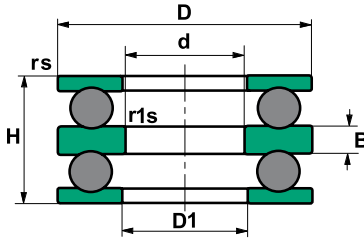
| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Dimensions | | |
|---------|---------|----------------|-----|----|--------------|-------|--------------|-----------|--------|------------|-----|----------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | d1 | r1,2 min |
| 51336 | M | 180 | 300 | 95 | 463,0 | 1580 | 560 | 750 | 28,10 | 184 | 295 | 3,0 |
| 51138 | M | 190 | 240 | 37 | 170,0 | 657 | 950 | 1400 | 2,40 | 193 | 237 | 4,0 |
| 51140 | M | 200 | 250 | 37 | 169,0 | 602 | 950 | 1400 | 2,40 | 203 | 247 | 4,2 |
| 51240 | M | 200 | 280 | 62 | 333,0 | 1207 | 750 | 1000 | 8,00 | 204 | 275 | 12,5 |
| 51144 | M | 220 | 270 | 37 | 177,0 | 739 | 900 | 1300 | 3,00 | 223 | 267 | 4,7 |
| 51244 | M | 220 | 300 | 63 | 342,0 | 1308 | 700 | 950 | 9,50 | 224 | 295 | 13,5 |
| 51148 | M | 240 | 300 | 45 | 230,0 | 91 | 850 | 1200 | 5,00 | 243 | 297 | 7,5 |
| 51248 | M | 240 | 340 | 78 | 463,0 | 1889 | 600 | 800 | 18,00 | 244 | 335 | 23,5 |
| 51152 | M | 260 | 320 | 45 | 236,0 | 984 | 750 | 1000 | 5,60 | 263 | 317 | 8,1 |
| 51252 | M | 260 | 360 | 79 | 473,0 | 1967 | 560 | 750 | 22,00 | 264 | 355 | 25,5 |
| 51156 | M | 280 | 350 | 53 | 337,0 | 1435 | 700 | 950 | 10,00 | 283 | 347 | 12,0 |
| 51256 | M | 280 | 380 | 80 | 506,0 | 2168 | 560 | 750 | 24,00 | 284 | 375 | 27,5 |
| 51160 | M | 300 | 380 | 62 | 400,0 | 1530 | 630 | 850 | 14,00 | 304 | 376 | 17,5 |
| 51260 | M | 300 | 420 | 95 | 625,0 | 2872 | 480 | 630 | 40,00 | 304 | 415 | 43,0 |
| 51164 | M | 320 | 400 | 63 | 390,0 | 1580 | 600 | 800 | 16,00 | 324 | 396 | 19,0 |

Double Rows Thrust Ball Bearings



| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Calculation factors | | | |
|---------|---------|----------------|-----|----|--------------|----------|-----------------|--------------|--------|---------------------|----|-----------|------------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | B | rs min | r1s min |
| 52202 | | 10 | 32 | 22 | 17 | 25 | 5000 | 6700 | 0,09 | 17 | 5 | 0,6 | 0,3 |
| 52204 | | 15 | 40 | 26 | 22 | 38 | 4300 | 5600 | 0,15 | 22 | 6 | 0,6 | 0,3 |
| 52405 | | 15 | 60 | 45 | 56 | 89 | 2600 | 3600 | 0,63 | 27 | 11 | 1,0 | 0,3 |
| 52205 | | 20 | 47 | 28 | 28 | 50 | 3800 | 5000 | 0,23 | 27 | 7 | 0,6 | 0,3 |
| 52305 | | 20 | 52 | 34 | 36 | 61 | 3200 | 4300 | 0,33 | 27 | 8 | 1,0 | 0,3 |
| 52406 | | 20 | 70 | 52 | 73 | 126 | 2000 | 3000 | 1,00 | 32 | 12 | 1,0 | 0,6 |
| 52206 | | 25 | 52 | 29 | 28 | 54 | 3600 | 4800 | 0,27 | 32 | 7 | 0,6 | 0,3 |
| 52306 | | 25 | 60 | 38 | 43 | 79 | 2800 | 3800 | 0,49 | 32 | 9 | 1,0 | 0,3 |
| 52407 | | 25 | 80 | 59 | 87 | 155 | 1800 | 2600 | 1,44 | 37 | 14 | 1,1 | 0,6 |
| 52207 | | 30 | 62 | 34 | 41 | 84 | 3000 | 4000 | 0,42 | 37 | 8 | 1,0 | 0,3 |
| 52208 | | 30 | 68 | 36 | 47 | 98 | 2800 | 3800 | 0,54 | 42 | 9 | 1,0 | 0,6 |
| 52307 | | 30 | 68 | 44 | 56 | 105 | 2400 | 3400 | 0,71 | 37 | 10 | 1,0 | 0,3 |
| 52308 | | 30 | 78 | 49 | 69 | 135 | 2000 | 3000 | 1,06 | 42 | 12 | 1,0 | 0,6 |
| 52408 | | 30 | 90 | 65 | 113 | 205 | 1700 | 2400 | 2,08 | 42 | 15 | 1,1 | 0,6 |
| 52209 | | 35 | 73 | 37 | 48 | 105 | 2600 | 3600 | 0,62 | 47 | 9 | 1,0 | 0,6 |
| 52309 | | 35 | 85 | 52 | 81 | 163 | 1900 | 2800 | 1,29 | 47 | 12 | 1,0 | 0,6 |
| 52409 | | 35 | 100 | 72 | 130 | 242 | 1600 | 2200 | 2,71 | 47 | 17 | 1,1 | 0,6 |
| 52210 | | 40 | 78 | 39 | 49 | 111 | 2400 | 3400 | 0,71 | 52 | 9 | 1,0 | 0,6 |
| 52310 | | 40 | 95 | 58 | 92 | 186 | 1800 | 2600 | 1,86 | 52 | 14 | 1,1 | 0,6 |
| 52410 | | 40 | 110 | 78 | 148 | 283 | 1500 | 2000 | 3,56 | 52 | 18 | 1,5 | 0,6 |
| 52211 | | 45 | 90 | 45 | 69 | 159 | 1900 | 2800 | 1,12 | 57 | 10 | 1,0 | 0,6 |
| 52311 | | 45 | 105 | 64 | 119 | 246 | 1600 | 2200 | 2,51 | 57 | 15 | 1,1 | 0,6 |
| 52411 | | 45 | 120 | 87 | 178 | 359 | 1300 | 1800 | 4,70 | 57 | 20 | 1,5 | 0,6 |
| 52212 | | 50 | 95 | 46 | 74 | 179 | 1900 | 2800 | 1,25 | 62 | 10 | 1,0 | 0,6 |

Double Rows Thrust Ball Bearings



| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Calculation factors | | | |
|---------|---------|----------------|-----|-----|--------------|-------|--------------|-----------|--------|---------------------|----|--------|---------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | B | rs min | r1s min |
| 52312 | | 50 | 110 | 64 | 124 | 267 | 1600 | 2200 | 2,68 | 62 | 15 | 1,1 | 0,6 |
| 52412 | | 50 | 130 | 93 | 201 | 397 | 1100 | 1600 | 6,33 | 62 | 21 | 1,5 | 0,6 |
| 52413 | | 50 | 140 | 101 | 232 | 493 | 1000 | 1500 | 8,03 | 68 | 23 | 2,0 | 1,0 |
| 52213 | | 55 | 100 | 47 | 75 | 189 | 1800 | 2600 | 1,36 | 67 | 10 | 1,0 | 0,6 |
| 52214 | | 55 | 105 | 47 | 74 | 189 | 1800 | 2600 | 1,48 | 72 | 10 | 1,0 | 1,0 |
| 52313 | | 55 | 115 | 65 | 128 | 287 | 1500 | 2000 | 2,90 | 67 | 15 | 1,1 | 0,6 |
| 52314 | | 55 | 125 | 72 | 148 | 339 | 1400 | 1900 | 3,90 | 72 | 16 | 1,1 | 1,0 |
| 52215 | | 60 | 110 | 47 | 77 | 209 | 1700 | 2400 | 1,57 | 77 | 10 | 1,0 | 1,0 |
| 52315 | | 60 | 135 | 79 | 171 | 396 | 1200 | 1700 | 4,83 | 77 | 18 | 1,5 | 1,0 |
| 52216 | | 65 | 115 | 48 | 79 | 218 | 1700 | 2400 | 1,69 | 82 | 10 | 1,0 | 1,0 |
| 52316 | | 65 | 140 | 79 | 176 | 424 | 1200 | 1700 | 5,06 | 82 | 18 | 1,5 | 1,0 |
| 52217 | | 70 | 125 | 55 | 92 | 251 | 1600 | 2200 | 2,34 | 88 | 12 | 1,0 | 1,0 |
| 52317 | | 70 | 150 | 87 | 206 | 489 | 1100 | 1600 | 6,43 | 88 | 19 | 1,5 | 1,0 |
| 52218 | | 75 | 135 | 62 | 117 | 326 | 1500 | 2000 | 3,22 | 93 | 14 | 1,1 | 1,0 |
| 52318 | | 75 | 155 | 88 | 213 | 524 | 1000 | 1500 | 6,60 | 93 | 19 | 1,5 | 1,0 |
| 52420 | | 80 | 210 | 150 | 368 | 983 | 700 | 950 | 26,60 | 103 | 33 | 2,0 | 1,0 |
| 52220 | | 85 | 150 | 67 | 147 | 410 | 1300 | 1800 | 4,29 | 103 | 15 | 1,1 | 1,0 |
| 52320 | | 85 | 170 | 97 | 236 | 596 | 950 | 1400 | 8,90 | 103 | 21 | 1,5 | 1,0 |
| 52222 | | 95 | 160 | 67 | 148 | 431 | 1200 | 1700 | 4,68 | 113 | 15 | 1,1 | 1,0 |
| 52322 | | 95 | 90 | 110 | 280 | 754 | 850 | 1200 | 13,80 | 113 | 24 | 2,0 | 1,0 |
| 52224 | | 100 | 170 | 68 | 154 | 472 | 1100 | 1600 | 5,24 | 123 | 15 | 1,1 | 1,1 |
| 52324 | | 100 | 210 | 123 | 325 | 931 | 800 | 1100 | 17,20 | 123 | 27 | 2,1 | 1,1 |
| 52226 | | 110 | 190 | 80 | 203 | 622 | 950 | 1400 | 7,74 | 133 | 18 | 1,5 | 1,1 |
| 52228 | | 120 | 200 | 81 | 215 | 669 | 950 | 1400 | 8,95 | 143 | 18 | 1,5 | 1,1 |

| Bearing | | ISO dimensions | | | Load ratings | | Speed limits | | Weight | Calculation factors | | | |
|---------|---------|----------------|-----|-----|--------------|----------|-----------------|--------------|--------|---------------------|----|-----------|------------|
| Type | Version | d mm | D | H | C kN | Co kN | Grease r/min | Oil r/min | kg | D1 | B | rs min | r1s min |
| 52230 | | 130 | 215 | 89 | 244 | 768 | 900 | 1300 | 10,60 | 153 | 20 | 1,5 | 1,1 |
| 52330 | | 130 | 250 | 140 | 377 | 1200 | 670 | 900 | 27,10 | 154 | 31 | 2,1 | 1,1 |
| 52232 | | 140 | 225 | 90 | 247 | 803 | 850 | 1200 | 12,20 | 163 | 20 | 1,5 | 1,1 |
| 62332 | | 140 | 250 | 140 | 470 | 1570 | 630 | 850 | 26,20 | 154 | 31 | 2,1 | 1,1 |
| 52234 | | 150 | 240 | 97 | 269 | 874 | 800 | 1100 | 15,20 | 173 | 21 | 1,5 | 1,1 |

