

# 7300 Series angular contact ball bearings

## Single Row Angular Contact Ball Bearings

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| Bearing Numbers |        |        |        | Principal dimensions(mm) |     |    |        | Basic load ratings(N) |        | Basic load ratings(kgf) |       | Value | Limiting Speed (rpm) | Distance of action point(mm) |       | Abutment and fillet dimensions |         |         | Weight  | Basic load ratings(duplex bearing) (N) |        | Basic load ratings(duplex bearing) (kgf) |       | Limiting Speed(duplex bearing) (rpm) |        | Distance of action point (duplex bearing)(a/b) |                          | Installation dimensions(duplex bearing) |         |         |         |
|-----------------|--------|--------|--------|--------------------------|-----|----|--------|-----------------------|--------|-------------------------|-------|-------|----------------------|------------------------------|-------|--------------------------------|---------|---------|---------|----------------------------------------|--------|------------------------------------------|-------|--------------------------------------|--------|------------------------------------------------|--------------------------|-----------------------------------------|---------|---------|---------|
| Single row      | DB     | DF     | DT     | d                        | D   | B  | r(min) | r1(min)               | Cr     | Cor                     | Cr    | Cor   | fo                   | Grease                       | Oil   | a                              | da(min) | Da(max) | ra(max) | (kg)                                   | Cr     | Cor                                      | Cr    | Cor                                  | Grease | Oil                                            | back-to-back arrangement | face-to-face arrangement                | db(min) | Db(max) | rb(max) |
| 7300A           | 7300DB | 7300DF | 7300DT | 10                       | 35  | 11 | 0.6    | 0.3                   | 9300   | 4300                    | 950   | 440   | 12.2                 | 20000                        | 26000 | 12                             | 15      | 30      | 0.6     | 0.053                                  | 15100  | 8600                                     | 1540  | 880                                  | 16000  | 22000                                          | 24                       | 2                                       | 12.5    | 32.5    | 0.3     |
| 7300B           | 7300DB | 7300DF | 7300DT | 10                       | 35  | 11 | 0.6    | 0.3                   | 8750   | 4050                    | 890   | 410   | 12.9                 | 18000                        | 24000 | 14.9                           | 15      | 30      | 0.6     | 0.054                                  | 14200  | 8100                                     | 1450  | 825                                  | 14000  | 20000                                          | 29.9                     | 7.9                                     | 12.5    | 32.5    | 0.3     |
| 7301A           | 7301DB | 7301DF | 7301DT | 12                       | 37  | 12 | 1      | 0.6                   | 9450   | 4500                    | 965   | 460   | 12.7                 | 18000                        | 24000 | 13.1                           | 18      | 31      | 1       | 0.06                                   | 15400  | 9000                                     | 1570  | 915                                  | 15000  | 20000                                          | 26.1                     | 2.1                                     | 17      | 32      | 0.6     |
| 7301B           | 7301DB | 7301DF | 7301DT | 12                       | 37  | 12 | 1      | 0.6                   | 8850   | 4200                    | 900   | 425   | 13.4                 | 16000                        | 22000 | 16.3                           | 18      | 31      | 1       | 0.061                                  | 14400  | 8400                                     | 1460  | 855                                  | 13000  | 18000                                          | 32.6                     | 8.6                                     | 17      | 32      | 0.6     |
| 7302A           | 7302DB | 7302DF | 7302DT | 15                       | 42  | 13 | 1      | 0.6                   | 13400  | 7100                    | 1370  | 720   | 13                   | 16000                        | 22000 | 14.7                           | 21      | 36      | 1       | 0.084                                  | 21800  | 14200                                    | 2220  | 1440                                 | 13000  | 17000                                          | 29.5                     | 3.5                                     | 20      | 37      | 0.6     |
| 7302B           | 7302DB | 7302DF | 7302DT | 15                       | 42  | 13 | 1      | 0.6                   | 12500  | 6600                    | 1270  | 670   | 13.6                 | 14000                        | 19000 | 18.5                           | 21      | 36      | 1       | 0.086                                  | 20200  | 13200                                    | 2060  | 1340                                 | 11000  | 15000                                          | 36.9                     | 10.9                                    | 20      | 37      | 0.6     |
| 7303A           | 7303DB | 7303DF | 7303DT | 17                       | 47  | 14 | 1      | 0.6                   | 15900  | 8650                    | 1630  | 880   | 13.1                 | 14000                        | 19000 | 16.2                           | 23      | 41      | 1       | 0.116                                  | 25900  | 17300                                    | 2640  | 1760                                 | 11000  | 15000                                          | 32.5                     | 4.5                                     | 22      | 42      | 0.6     |
| 7303B           | 7303DB | 7303DF | 7303DT | 17                       | 47  | 14 | 1      | 0.6                   | 14800  | 8000                    | 1510  | 820   | 13.7                 | 13000                        | 17000 | 20.4                           | 23      | 41      | 1       | 0.118                                  | 24000  | 16000                                    | 2450  | 1640                                 | 10000  | 14000                                          | 40.9                     | 12.9                                    | 22      | 42      | 0.6     |
| 7304A           | 7304DB | 7304DF | 7304DT | 20                       | 52  | 15 | 1.1    | 0.6                   | 18700  | 10400                   | 1910  | 1060  | 13.2                 | 13000                        | 17000 | 17.9                           | 27      | 45      | 1       | 0.146                                  | 30500  | 20800                                    | 3100  | 2130                                 | 10000  | 13000                                          | 35.8                     | 5.8                                     | 25      | 47      | 0.6     |
| 7304B           | 7304DB | 7304DF | 7304DT | 20                       | 52  | 15 | 1.1    | 0.6                   | 17300  | 9650                    | 1770  | 985   | 13.9                 | 11000                        | 15000 | 22.6                           | 27      | 45      | 1       | 0.15                                   | 28200  | 19300                                    | 2870  | 1970                                 | 9000   | 12000                                          | 45.2                     | 15.2                                    | 25      | 47      | 0.6     |
| 7305A           | 7305DB | 7305DF | 7305DT | 25                       | 62  | 17 | 1.1    | 0.6                   | 26400  | 15800                   | 2690  | 1610  | 13.5                 | 10000                        | 14000 | 21.1                           | 32      | 55      | 1       | 0.235                                  | 43000  | 31500                                    | 4400  | 3250                                 | 8500   | 11000                                          | 42.1                     | 8.1                                     | 30      | 57      | 0.6     |
| 7305B           | 7305DB | 7305DF | 7305DT | 25                       | 62  | 17 | 1.1    | 0.6                   | 24400  | 14600                   | 2490  | 1490  | 14.1                 | 9000                         | 13000 | 26.7                           | 32      | 55      | 1       | 0.241                                  | 39500  | 29300                                    | 4050  | 2980                                 | 7500   | 10000                                          | 53.5                     | 19.5                                    | 30      | 57      | 0.6     |
| 7306A           | 7306DB | 7306DF | 7306DT | 30                       | 72  | 19 | 1.1    | 0.6                   | 33500  | 20900                   | 3450  | 2130  | 13.6                 | 9000                         | 12000 | 24.2                           | 37      | 65      | 1       | 0.346                                  | 54500  | 41500                                    | 5600  | 4250                                 | 7100   | 9500                                           | 48.4                     | 10.4                                    | 35      | 67      | 0.6     |
| 7306B           | 7306DB | 7306DF | 7306DT | 30                       | 72  | 19 | 1.1    | 0.6                   | 31000  | 19300                   | 3150  | 1960  | 14.2                 | 8000                         | 11000 | 30.9                           | 37      | 65      | 1       | 0.354                                  | 50500  | 38500                                    | 5150  | 3950                                 | 6300   | 8500                                           | 61.8                     | 23.8                                    | 35      | 67      | 0.6     |
| 7307A           | 7307DB | 7307DF | 7307DT | 35                       | 80  | 21 | 1.5    | 1                     | 40000  | 26300                   | 4050  | 2680  | 13.9                 | 8000                         | 10000 | 27.1                           | 44      | 71      | 1.5     | 0.464                                  | 65000  | 52500                                    | 6600  | 5350                                 | 6300   | 8500                                           | 54.2                     | 12.2                                    | 41      | 74      | 1       |
| 7307B           | 7307DB | 7307DF | 7307DT | 35                       | 80  | 21 | 1.5    | 1                     | 36500  | 24200                   | 3750  | 2460  | 14.7                 | 7100                         | 9500  | 34.6                           | 44      | 71      | 1.5     | 0.474                                  | 59500  | 48500                                    | 6100  | 4950                                 | 5600   | 7500                                           | 69.2                     | 27.2                                    | 41      | 74      | 1       |
| 7308A           | 7308DB | 7308DF | 7308DT | 40                       | 90  | 23 | 1.5    | 1                     | 45000  | 30500                   | 4550  | 3100  | 14.5                 | 6300                         | 8500  | 38.8                           | 49      | 81      | 1.5     | 0.648                                  | 73000  | 60500                                    | 7400  | 6200                                 | 5000   | 6700                                           | 77.5                     | 31.5                                    | 46      | 84      | 1       |
| 7308B           | 7308DB | 7308DF | 7308DT | 40                       | 90  | 23 | 1.5    | 1                     | 40500  | 27000                   | 4100  | 2750  | 15.3                 | 5500                         | 7500  | 44.5                           | 49      | 81      | 1.5     | 0.658                                  | 65000  | 53500                                    | 6600  | 5350                                 | 4500   | 6000                                           | 70.5                     | 27.5                                    | 46      | 84      | 1       |
| 7309A           | 7309DB | 7309DF | 7309DT | 45                       | 100 | 25 | 1.5    | 1                     | 63500  | 43500                   | 6450  | 4450  | 13.7                 | 6300                         | 8500  | 53.4                           | 54      | 91      | 1.5     | 0.848                                  | 103000 | 87000                                    | 10500 | 8900                                 | 5000   | 6700                                           | 66.9                     | 16.9                                    | 51      | 94      | 1       |
| 7309B           | 7309DB | 7309DF | 7309DT | 45                       | 100 | 25 | 1.5    | 1                     | 58500  | 40000                   | 5950  | 4100  | 14.3                 | 5600                         | 7500  | 62.9                           | 54      | 91      | 1.5     | 0.869                                  | 95000  | 80500                                    | 9650  | 8200                                 | 4500   | 6000                                           | 85.8                     | 35.8                                    | 51      | 94      | 1       |
| 7310A           | 7310DB | 7310DF | 7310DT | 50                       | 110 | 27 | 2      | 1                     | 74000  | 52000                   | 7550  | 5300  | 13.8                 | 5600                         | 7500  | 75.0                           | 60      | 100     | 2       | 1.1                                    | 121000 | 104000                                   | 12300 | 10600                                | 4500   | 6000                                           | 73.2                     | 19.2                                    | 56      | 104     | 1       |
| 7310B           | 7310DB | 7310DF | 7310DT | 50                       | 110 | 27 | 2      | 1                     | 68000  | 48000                   | 6950  | 4900  | 14.4                 | 5000                         | 6700  | 47.1                           | 60      | 100     | 2       | 1.12                                   | 111000 | 96000                                    | 11300 | 9800                                 | 4000   | 5600                                           | 94.1                     | 40.1                                    | 56      | 104     | 1       |
| 7311A           | 7311DB | 7311DF | 7311DT | 55                       | 120 | 29 | 2      | 1                     | 86000  | 61500                   | 8750  | 6250  | 13.9                 | 5000                         | 6700  | 59.8                           | 65      | 110     | 2       | 1.41                                   | 139000 | 123000                                   | 14200 | 12500                                | 4000   | 5600                                           | 79.5                     | 21.5                                    | 61      | 114     | 1       |
| 7311B           | 7311DB | 7311DF | 7311DT | 55                       | 120 | 29 | 2      | 1                     | 79000  | 56500                   | 8050  | 5750  | 14.4                 | 4500                         | 6300  | 51.2                           | 65      | 110     | 2       | 1.45                                   | 128000 | 113000                                   | 13100 | 11500                                | 3600   | 5000                                           | 102.4                    | 44.4                                    | 61      | 114     | 1       |
| 7312A           | 7312DB | 7312DF | 7312DT | 60                       | 130 | 31 | 2.1    | 1.1                   | 99000  | 71500                   | 10000 | 7250  | 13.9                 | 4800                         | 6300  | 42.9                           | 72      | 118     | 2       | 1.74                                   | 159000 | 143000                                   | 16200 | 14500                                | 3800   | 5000                                           | 85.9                     | 23.9                                    | 67      | 123     | 1       |
| 7312B           | 7312DB | 7312DF | 7312DT | 60                       | 130 | 31 | 2.1    | 1.1                   | 90000  | 65500                   | 9200  | 6700  | 14.4                 | 4300                         | 5600  | 55.4                           | 72      | 118     | 2       | 1.78                                   | 146000 | 131000                                   | 14900 | 13400                                | 3400   | 4500                                           | 110.7                    | 48.7                                    | 67      | 123     | 1       |
| 7313A           | 7313DB | 7313DF | 7313DT | 65                       | 140 | 33 | 2.1    | 1.1                   | 110000 | 82000                   | 11300 | 8350  | 14                   | 4300                         | 6000  | 46.1                           | 77      | 128     | 2       | 2.12                                   | 180000 | 164000                                   | 18400 | 16700                                | 3600   | 4800                                           | 92.2                     | 26.2                                    | 72      | 133     | 1       |
| 7313B           | 7313DB | 7313DF | 7313DT | 65                       | 140 | 33 | 2.1    | 1.1                   | 102000 | 75500                   | 10400 | 7700  | 14.5                 | 3800                         | 5300  | 59.5                           | 77      | 128     | 2       | 2.17                                   | 166000 | 151000                                   | 16900 | 15400                                | 3200   | 4300                                           | 119                      | 53                                      | 72      | 133     | 1       |
| 7314A           | 7314DB | 7314DF | 7314DT | 70                       | 150 | 35 | 2.1    | 1.1                   | 125000 | 93500                   | 12700 | 9550  | 14.2                 | 4000                         | 5300  | 49.3                           | 82      | 138     | 2       | 2.6                                    | 203000 | 187000                                   | 20700 | 19100                                | 3200   | 4300                                           | 98.5                     | 28.5                                    | 77      | 143     | 1       |
| 7314B           | 7314DB | 7314DF | 7314DT | 70                       | 150 | 35 | 2.1    | 1.1                   | 114000 | 86000                   | 11700 | 8750  | 14.5                 | 3600                         | 5000  | 63.6                           | 82      | 138     | 2       | 2.65                                   | 186000 | 172000                                   | 19000 | 17500                                | 1800   | 4000                                           | 127.3                    | 57.3                                    | 77      | 143     | 1       |
| 7315A           | 7315DB | 7315DF | 7315DT | 75                       | 160 | 37 | 2.1    | 1.1                   | 136000 | 106000                  | 13800 | 10800 | 14                   | 3800                         | 5000  | 52.4                           | 87      | 148     | 2       | 3.13                                   | 221000 | 212000                                   | 22500 | 21600                                | 3000   | 4000                                           | 104.8                    | 30.8                                    | 82      | 153     | 1       |
| 7315B           | 7315DB | 7315DF | 7315DT | 75                       | 160 | 37 | 2.1    | 1.1                   | 125000 | 97500                   | 12700 | 9900  | 14.5                 | 3400                         | 4800  | 67.8                           | 87      | 148     | 2       | 3.19                                   | 202000 | 195000                                   | 20600 | 19800                                | 2800   | 3800                                           | 135.6                    | 61.6                                    | 82      | 153     | 1       |
| 7316A           | 7316DB | 7316DF | 7316DT | 80                       | 170 | 39 | 2.1    | 1.1                   | 159000 | 122000                  | 14800 | 12400 | 14.6                 | 3000                         | 4000  | 76.1                           | 99      | 166     | 2.5     | 4.33                                   | 258000 | 265000                                   | 26300 | 27000                                | 2600   | 3400                                           | 117.5                    | 35.5                                    | 92      | 173     | 1       |
| 7316B           | 7316DB | 7316DF | 7316DT | 80                       | 170 | 39 | 2.1    | 1.1                   | 135000 | 109000                  | 13800 | 11100 | 14.5                 | 3200                         | 4300  | 71.9                           | 92      | 158     | 2       | 3.79                                   | 219000 | 218000                                   | 22400 | 22300                                | 2600   | 3400                                           | 143.9                    | 65.9                                    | 87      | 163     | 1       |
| 7317A           | 7317DB | 7317DF | 7317DT | 85                       | 180 | 41 | 3      | 1.1                   | 159000 | 133000                  | 16200 | 13500 | 14.1                 | 3400                         | 4500  | 58.8                           | 99      | 166     | 2.5     | 4.33                                   | 258000 | 265000                                   | 26300 | 27000                                | 2600   | 3600                                           | 117.5                    | 35.5                                    | 92      | 173     | 1       |
| 7317B           | 7317DB | 7317DF | 7317DT | 85                       | 180 | 41 | 3      | 1.1                   |        |                         |       |       |                      |                              |       |                                |         |         |         |                                        |        |                                          |       |                                      |        |                                                |                          |                                         |         |         |         |