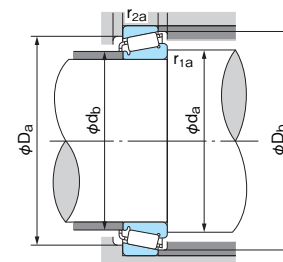
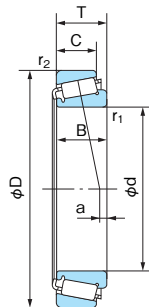


Tapered Roller Bearings

Inch Series

Bore Diameter: 39.688~42.875mm



Dynamic equivalent radial load

$$Pr = XFr + YFa$$

| $\frac{Fa}{Fr} \leq e$ | | $\frac{Fa}{Fr} > e$ | |
|------------------------|---|---------------------|----------------|
| X | Y | X | Y |
| 1 | 0 | 0.4 | Y ₁ |

Values e and Y₁ from table.

Static equivalent radial load

Larger value of following to be used:

$$Por = 0.5Fr + Y_0Fa$$

$$Por = Fr$$

Values Y₀ from table.

1N=0.102kgf

| Boundary dimensions (mm) | | | | | | | Bearing No. | | Basic load rating | | Limiting speed (min ⁻¹) | | Abutment and fillet dimensions (mm) | | | | | | Load center (mm) | Constant | Axial load factor | | Mass(kg) Reference | | Bearing No. | |
|--------------------------|--------|--------|--------|--------|----------------------|----------------------|-------------|------------|-------------------|----------|-------------------------------------|------|-------------------------------------|----------------|----------------|----------------|-----------------|-----------------|------------------|----------|-------------------|----------------|--------------------|-------|-------------|------------|
| d | D | T | B | C | r ₁ (min) | r ₂ (min) | Cone | Cup | Cr (kN) | Cor (kN) | Grease | Oil | d _a | d _b | D _a | D _b | r _{1a} | r _{2a} | a (1) | e | Y ₁ | Y ₀ | Cone | Cup | Cone | Cup |
| 39.688 | 73.025 | 25.654 | 22.098 | 21.336 | 0.80 | 2.40 | H-M201047R | H-M201011 | 68.4 | 90.6 | 5300 | 7100 | 48.0 | 45.5 | 64.0 | 69.0 | 0.80 | 2.40 | 5.8 | 0.33 | 1.80 | 0.99 | 0.278 | 0.167 | H-M201047R | H-M201011 |
| | 76.200 | 23.813 | 25.654 | 19.050 | 3.60 | 3.20 | H-2789R | H-2720 | 74.1 | 92.2 | 5400 | 7200 | 52.0 | 45.0 | 66.0 | 70.0 | 3.60 | 3.20 | 8.1 | 0.30 | 1.98 | 1.09 | 0.289 | 0.185 | H-2789R | H-2720 |
| | 76.200 | 23.813 | 25.654 | 19.050 | 3.60 | 0.80 | H-2789R | H-2729 | 74.1 | 92.2 | 5400 | 7200 | 52.0 | 45.0 | 68.0 | 70.0 | 3.60 | 0.80 | 8.1 | 0.30 | 1.98 | 1.09 | 0.289 | 0.189 | H-2789R | H-2729 |
| 40.000 | 76.200 | 20.638 | 20.940 | 15.507 | 1.60 | 1.20 | 28158 | 28300 | 57.3 | 65.9 | 5300 | 7000 | 47.5 | 45.0 | 68.0 | 71.0 | 1.60 | 1.20 | 4.5 | 0.40 | 1.49 | 0.82 | 0.266 | 0.137 | 28158 | 28300 |
| 40.987 | 67.975 | 17.500 | 18.000 | 13.500 | SP | 1.60 | H-LM300849 | H-LM300811 | 44.0 | 59.5 | 5500 | 7400 | 52.0 | 45.0 | 61.0 | 65.0 | SP | 1.60 | 3.6 | 0.35 | 1.72 | 0.95 | 0.157 | 0.081 | H-LM300849 | H-LM300811 |
| 41.275 | 73.025 | 16.667 | 17.463 | 12.700 | 3.60 | 1.60 | H-18590 | H-18520 | 45.9 | 55.8 | 5200 | 6900 | 53.0 | 46.0 | 66.0 | 69.0 | 3.60 | 1.60 | 2.2 | 0.35 | 1.71 | 0.94 | 0.199 | 0.085 | H-18590 | H-18520 |
| | 73.431 | 19.558 | 19.812 | 14.732 | 3.60 | 0.80 | H-LM501349 | H-LM501310 | 57.8 | 73.0 | 5200 | 7000 | 53.0 | 46.5 | 67.0 | 70.0 | 3.60 | 0.80 | 3.5 | 0.40 | 1.50 | 0.83 | 0.227 | 0.167 | H-LM501349 | H-LM501310 |
| | 73.431 | 21.430 | 19.812 | 16.604 | 3.60 | 0.80 | H-LM501349 | H-LM501314 | 57.8 | 73.0 | 5200 | 7000 | 53.0 | 46.5 | 66.0 | 70.0 | 3.60 | 0.80 | 3.5 | 0.40 | 1.50 | 0.83 | 0.227 | 0.126 | H-LM501349 | H-LM501314 |
| | 76.200 | 18.009 | 17.384 | 14.288 | 1.60 | 1.60 | 11162R | 11300 | 51.6 | 63.3 | 5200 | 6900 | 49.0 | 46.5 | 67.0 | 72.0 | 1.60 | 1.60 | 0.5 | 0.49 | 1.23 | 0.68 | 0.221 | 0.127 | 11162R | 11300 |
| | 76.200 | 22.225 | 23.020 | 17.463 | 3.60 | 0.80 | 24780R | 24720 | 66.3 | 83.3 | 5200 | 6900 | 54.0 | 47.0 | 68.0 | 72.0 | 3.60 | 0.80 | 4.8 | 0.39 | 1.53 | 0.84 | 0.275 | 0.148 | 24780R | 24720 |
| | 76.200 | 25.400 | 23.020 | 20.638 | 3.60 | 2.40 | 24780R | 24721 | 66.3 | 83.3 | 5200 | 6900 | 54.0 | 47.0 | 72.0 | 66.0 | 3.60 | 2.40 | 4.8 | 0.39 | 1.53 | 0.84 | 0.275 | 0.186 | 24780R | 24721 |
| | 79.375 | 23.813 | 25.400 | 19.050 | 3.60 | 0.80 | H-26882R. | H-26822. | 81.1 | 105 | 5000 | 6700 | 54.0 | 47.0 | 71.0 | 74.0 | 3.60 | 0.80 | 7.5 | 0.32 | 1.88 | 1.04 | 0.355 | 0.186 | H-26882R. | H-26822. |
| | 80.167 | 25.400 | 25.400 | 20.638 | 3.60 | 3.20 | H-26882R. | H-26820. | 81.1 | 105 | 5000 | 6700 | 54.0 | 47.0 | 70.0 | 74.0 | 3.60 | 3.20 | 7.5 | 0.32 | 1.88 | 1.04 | 0.355 | 0.217 | H-26882R. | H-26820. |
| | 80.167 | 29.370 | 30.391 | 23.813 | 3.60 | 3.20 | 3383 | 3320 | 91 | 106 | 5000 | 6700 | 53.0 | 46.5 | 70.0 | 75.0 | 3.60 | 3.20 | 10.7 | 0.27 | 2.20 | 1.21 | 0.419 | 0.217 | 3383 | 3320 |
| | 80.167 | 29.370 | 30.391 | 23.813 | 0.80 | 3.20 | 3384 | 3320 | 91 | 106 | 5000 | 6700 | 47.0 | 46.5 | 70.0 | 75.0 | 0.80 | 3.20 | 10.7 | 0.27 | 2.20 | 1.21 | 0.421 | 0.217 | 3384 | 3320 |
| | 82.550 | 26.543 | 25.654 | 20.193 | 3.60 | 3.30 | H-M802048 | H-M802011 | 83.7 | 105 | 4900 | 6500 | 57.0 | 50.6 | 70.0 | 79.0 | 3.60 | 3.30 | 3.3 | 0.55 | 1.10 | 0.60 | 0.403 | 0.227 | H-M802048 | H-M802011 |
| | 84.138 | 30.163 | 30.886 | 23.813 | 3.60 | 3.20 | 3577R | 3520 | 95.8 | 120 | 4600 | 6200 | 54.0 | 48.0 | 74.0 | 79.5 | 3.60 | 3.20 | 9.7 | 0.31 | 1.96 | 1.08 | 0.532 | 0.221 | 3577R | 3520 |
| | 85.725 | 30.162 | 30.162 | 23.812 | 3.60 | 3.20 | 3877 | 3820 | 108 | 136 | 4800 | 6400 | 57.0 | 50.3 | 73.0 | 81.0 | 3.60 | 3.20 | 8.4 | 0.40 | 1.49 | 0.82 | 0.525 | 0.285 | 3877 | 3820 |
| | 87.313 | 30.163 | 30.886 | 23.813 | 3.60 | 3.20 | 3577R | 3525 | 95.8 | 120 | 4600 | 6200 | 54.0 | 48.0 | 75.0 | 81.0 | 3.60 | 3.20 | 9.7 | 0.31 | 1.96 | 1.08 | 0.532 | 0.3 | 3577R | 3525 |
| | 87.313 | 30.163 | 30.886 | 23.813 | 1.60 | 3.20 | H-3585R | H-3525 | 95.8 | 120 | 4600 | 6200 | 50.0 | 48.0 | 75.0 | 81.0 | 1.60 | 3.20 | 9.7 | 0.31 | 1.96 | 1.08 | 0.537 | 0.3 | H-3585R | H-3525 |
| | 88.900 | 30.163 | 29.370 | 23.020 | 0.80 | 3.30 | HM803145 | HM803110 | 99.6 | 125 | 4600 | 6100 | 54.0 | 53.0 | 74.0 | 85.0 | 0.80 | 3.30 | 4.1 | 0.55 | 1.10 | 0.60 | 0.577 | 0.318 | HM803145 | HM803110 |
| | 88.900 | 30.163 | 29.370 | 23.020 | 3.60 | 3.30 | HM803146 | HM803110 | 99.6 | 125 | 4600 | 6100 | 60.0 | 53.0 | 74.0 | 85.0 | 3.60 | 3.30 | 4.1 | 0.55 | 1.10 | 0.60 | 0.574 | 0.318 | HM803146 | HM803110 |
| 90.488 | 39.688 | 40.386 | 33.338 | 3.60 | 3.20 | 4388 | 4335 | 132 | 169 | 4500 | 6000 | 57.0 | 51.0 | 77.0 | 85.0 | 3.60 | 3.20 | 14.1 | 0.28 | 2.11 | 1.16 | 0.775 | 0.454 | 4388 | 4335 | |
| 42.863 | 87.313 | 30.163 | 30.886 | 23.813 | 3.60 | 3.20 | H-3579R | H-3525 | 95.8 | 120 | 4600 | 6200 | 56.0 | 49.5 | 75.0 | 81.0 | 3.60 | 3.20 | 9.7 | 0.31 | 1.96 | 1.08 | 0.507 | 0.3 | H-3579R | H-3525 |
| 42.875 | 82.931 | 26.988 | 25.400 | 22.225 | 3.60 | 2.40 | H-25577 | H-25523 | 77.3 | 100 | 4800 | 6300 | 55.0 | 49.0 | 77.0 | 72.0 | 3.60 | 2.40 | 6.3 | 0.33 | 1.79 | 0.99 | 0.383 | 0.246 | H-25577 | H-25523 |
| | 83.058 | 23.876 | 25.400 | 19.114 | 3.60 | 2.00 | H-25577 | H-25522 | 77.3 | 100 | 4800 | 6300 | 55.0 | 49.0 | 73.0 | 77.0 | 3.60 | 2.00 | 6.3 | 0.33 | 1.79 | 0.99 | 0.383 | 0.203 | H-25577 | H-25522 |

Notes: (1) Minus value of load center "a" indicates that the center is located outside of cone backface.

(2) SP indicates special surface handling configurations.