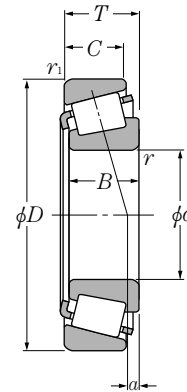


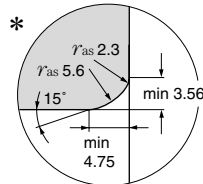
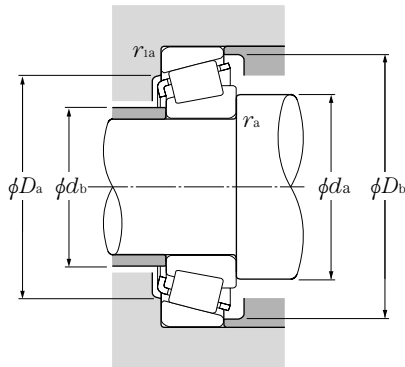
## Inch series J series



### d 34.925 ~ 38.100mm

| d      | Boundary dimensions |        |        |        | dynamic<br>kN  | Basic load ratings |                |                 | Limiting speeds   |       |
|--------|---------------------|--------|--------|--------|----------------|--------------------|----------------|-----------------|-------------------|-------|
|        | D                   | T      | B      | C      |                | static             | dynamic        | static          | grease            | oil   |
|        | mm                  |        |        |        |                |                    | kgf            |                 | min <sup>-1</sup> |       |
|        | D                   | T      | B      | C      | C <sub>r</sub> | C <sub>or</sub>    | C <sub>r</sub> | C <sub>or</sub> | grease            | oil   |
| 34.925 | 76.200              | 23.812 | 25.654 | 19.050 | 73.0           | 90.5               | 7 450          | 9 200           | 5 100             | 6 800 |
|        | 76.200              | 29.370 | 28.575 | 23.020 | 78.0           | 105                | 7 950          | 10 700          | 5 100             | 6 800 |
|        | 76.200              | 29.370 | 28.575 | 23.812 | 80.5           | 97.0               | 8 200          | 9 900           | 5 100             | 6 800 |
|        | 76.200              | 29.370 | 28.575 | 23.812 | 80.5           | 97.0               | 8 200          | 9 900           | 5 100             | 6 800 |
|        | 79.375              | 29.370 | 29.771 | 23.812 | 93.0           | 114                | 9 450          | 11 600          | 4 900             | 6 600 |
|        | 80.167              | 29.370 | 30.391 | 23.812 | 95.0           | 112                | 9 700          | 11 400          | 4 800             | 6 400 |
| 85.725 | 30.162              | 30.162 | 23.812 | 23.812 | 105            | 132                | 10 700         | 13 400          | 4 500             | 6 000 |
| 34.976 | 69.012              | 19.845 | 19.583 | 15.875 | 48.5           | 58.0               | 4 900          | 5 900           | 5 600             | 7 400 |
| 34.988 | 59.974              | 15.875 | 16.764 | 11.938 | 35.5           | 47.5               | 3 600          | 4 850           | 6 100             | 8 100 |
|        | 61.973              | 16.700 | 17.000 | 13.600 | 37.0           | 48.0               | 3 800          | 4 900           | 5 900             | 7 900 |
|        | 61.973              | 18.000 | 17.000 | 15.000 | 37.0           | 48.0               | 3 800          | 4 900           | 5 900             | 7 900 |
| 35.000 | 70.000              | 24.000 | 23.500 | 19.000 | 62.0           | 78.0               | 6 350          | 7 950           | 5 500             | 7 300 |
|        | 79.375              | 23.812 | 25.400 | 19.050 | 76.5           | 97.5               | 7 800          | 9 950           | 4 800             | 6 400 |
|        | 80.000              | 21.000 | 22.403 | 17.826 | 68.0           | 75.0               | 6 950          | 7 650           | 4 700             | 6 300 |
| 35.717 | 72.233              | 25.400 | 25.400 | 19.842 | 65.0           | 84.5               | 6 600          | 8 600           | 5 400             | 7 200 |
|        | 72.626              | 25.400 | 25.400 | 19.842 | 65.0           | 84.5               | 6 600          | 8 600           | 5 400             | 7 200 |
| 36.487 | 73.025              | 23.812 | 24.608 | 19.050 | 71.0           | 85.0               | 7 200          | 8 700           | 5 300             | 7 100 |
|        | 76.200              | 23.812 | 25.654 | 19.050 | 73.0           | 90.5               | 7 450          | 9 200           | 5 100             | 6 800 |
| 36.512 | 76.200              | 29.370 | 28.575 | 23.020 | 78.0           | 105                | 7 950          | 10 700          | 5 100             | 6 800 |
|        | 76.200              | 29.370 | 28.575 | 23.020 | 78.0           | 105                | 7 950          | 10 700          | 5 100             | 6 800 |
|        | 76.200              | 29.370 | 28.575 | 23.812 | 80.5           | 97.0               | 8 200          | 9 900           | 5 100             | 6 800 |
|        | 79.375              | 29.370 | 28.829 | 22.664 | 86.5           | 104                | 8 800          | 10 600          | 5 000             | 6 600 |
|        | 79.375              | 29.370 | 29.771 | 23.812 | 93.0           | 114                | 9 450          | 11 600          | 4 900             | 6 600 |
|        | 88.500              | 25.400 | 23.698 | 17.462 | 70.5           | 78.0               | 7 200          | 7 950           | 4 000             | 5 300 |
| 38.000 | 63.000              | 17.000 | 17.000 | 13.500 | 38.5           | 52.5               | 3 950          | 5 350           | 5 700             | 7 600 |
| 38.100 | 63.500              | 12.700 | 11.908 | 9.525  | 25.9           | 33.5               | 2 640          | 3 400           | 5 500             | 7 300 |
|        | 65.088              | 18.034 | 18.288 | 13.970 | 43.5           | 57.0               | 4 400          | 5 800           | 5 500             | 7 400 |
|        | 69.012              | 19.050 | 19.050 | 15.083 | 47.5           | 59.5               | 4 850          | 6 050           | 5 300             | 7 100 |
|        | 69.012              | 19.050 | 19.050 | 15.083 | 47.5           | 59.5               | 4 850          | 6 050           | 5 300             | 7 100 |
|        | 71.438              | 15.875 | 16.520 | 11.908 | 43.5           | 51.0               | 4 400          | 5 200           | 5 400             | 7 200 |
|        | 72.000              | 19.000 | 20.638 | 14.237 | 48.0           | 58.5               | 4 900          | 5 950           | 5 300             | 7 000 |

Note: 1. Chamfer dimensions on the back face of the inner and outer rings of the bearing are larger than maximum values for installation dimensions  $r_{is}$  and  $r_{ios}$ .  
 2. As for the maximum value for inner and outer ring diameters of bearings whose bearing numbers are marked with "+" (inner ring) and "++" (outer ring), the precision class is an integer for class 4 and class 2 bearings only.



### Equivalent radial load dynamic

$$P_r = XF_r + YF_a$$

| $\frac{F_a}{F_r} \leq e$ |   | $\frac{F_a}{F_r} > e$ |                |
|--------------------------|---|-----------------------|----------------|
| X                        | Y | X                     | Y              |
| 1                        | 0 | 0.4                   | Y <sub>2</sub> |

### static

$$P_{or} = 0.5F_r + Y_0F_a$$

When  $P_{or} < F_r$  use  $P_{or} = F_r$

For values of  $e$ ,  $Y_2$  and  $Y_0$  see the table below.

| Bearing numbers         | Abutment and fillet dimensions |       |       |       |              |               | Load center mm | Constant e | Axial load factors |       | Mass kg (approx.) |
|-------------------------|--------------------------------|-------|-------|-------|--------------|---------------|----------------|------------|--------------------|-------|-------------------|
|                         | $d_a$                          | $d_b$ | $D_a$ | $D_b$ | $r_{as}$ max | $r_{1as}$ max |                |            | $Y_2$              | $Y_0$ |                   |
| 4T-2793/2729            | 42                             | 41    | 68    | 70    | 0.8          | 0.8           | 7.8            | 0.30       | 1.98               | 1.09  | 0.541             |
| 4T-HM89446/HM89410      | 53                             | 44.5  | 62    | 73    | 3.5          | 3.3           | 5.8            | 0.55       | 1.10               | 0.60  | 0.646             |
| 4T-31593/31520          | 50                             | 43.5  | 64    | 72    | 3.5          | 3.3           | 7.8            | 0.40       | 1.49               | 0.82  | 0.625             |
| 4T-31594/31520          | 46                             | 43.5  | 64    | 72    | 1.5          | 3.3           | 7.8            | 0.40       | 1.49               | 0.82  | 0.627             |
| 4T-3478/3420            | 50                             | 43.5  | 67    | 74    | 3.5          | 3.3           | 8.7            | 0.37       | 1.64               | 0.90  | 0.725             |
| 4T-3379/3320            | 48                             | 41.5  | 70    | 75    | 3.5          | 3.3           | 11.2           | 0.27       | 2.20               | 1.21  | 0.732             |
| 4T-3872/3820            | 53                             | 46    | 73    | 81    | 3.5          | 3.3           | 8.1            | 0.40       | 1.49               | 0.82  | 0.897             |
| 4T-14139/14276          | 41.5                           | 40    | 60    | 63    | 1.3          | 1.3           | 4.1            | 0.38       | 1.57               | 0.86  | 0.333             |
| 4T-L68149†/L68111††     | 45.5                           | 39    | 53    | 56    | *            | 1.3           | 2.5            | 0.42       | 1.44               | 0.79  | 0.179             |
| 4T-LM78349A†/LM78310A†† | 42                             | 39.5  | 54    | 59    | 1.5          | 1.5           | 2.4            | 0.44       | 1.35               | 0.74  | 0.209             |
| 4T-LM78349†/LM78310C††  | 46                             | 40    | 56    | 59    | *            | 1.5           | 2.4            | 0.44       | 1.35               | 0.74  | 0.218             |
| # 4T-JS3549A/JS3510     | 47                             | 42    | 60    | 67    | 2            | 1.5           | 3.6            | 0.55       | 1.10               | 0.60  | 0.42              |
| 4T-26883/26822          | 42.5                           | 42    | 71    | 74    | 0.8          | 0.8           | 7.4            | 0.32       | 1.88               | 1.04  | 0.61              |
| 4T-339/332              | 42.5                           | 41.5  | 73    | 75    | 0.8          | 1.3           | 6.6            | 0.27       | 2.20               | 1.21  | 0.534             |
| 4T-HM88648/HM88610      | 52                             | 43    | 60    | 69    | 3.5          | 2.3           | 4.6            | 0.55       | 1.10               | 0.60  | 0.478             |
| 4T-HM88648/HM88611AS    | 52                             | 43    | 59    | 69    | 3.5          | 3.3           | 3.0            | 0.55       | 1.10               | 0.60  | 0.482             |
| 4T-25880/25821          | 44                             | 42    | 65    | 68    | 1.5          | 0.8           | 8.1            | 0.29       | 2.07               | 1.14  | 0.457             |
| 4T-2780/2720            | 44.5                           | 42.5  | 66    | 70    | 1.5          | 3.3           | 7.8            | 0.30       | 1.98               | 1.09  | 0.518             |
| 4T-HM89448/HM89410      | 48.5                           | 44.5  | 62    | 73    | 0.8          | 3.3           | 5.8            | 0.55       | 1.10               | 0.60  | 0.629             |
| 4T-HM89449/HM89411      | 54                             | 44.5  | 65    | 73    | 3.5          | 0.8           | 5.8            | 0.55       | 1.10               | 0.60  | 0.631             |
| 4T-31597/31520          | 51                             | 44.5  | 64    | 72    | 3.5          | 3.3           | 7.8            | 0.40       | 1.49               | 0.82  | 0.605             |
| 4T-HM89249/HM89210      | 55                             | 44    | 66    | 75    | 3.5          | 3.3           | 5.8            | 0.55       | 1.10               | 0.60  | 0.686             |
| 4T-3479/3420            | 45.5                           | 44.5  | 67    | 74    | 0.8          | 3.3           | 8.7            | 0.37       | 1.64               | 0.90  | 0.707             |
| 4T-44143/44348          | 54                             | 50    | 75    | 84    | 2.3          | 1.5           | -2.9           | 0.78       | 0.77               | 0.42  | 0.729             |
| # 4T-JL69349/JL69310    | 49                             | 42.5  | 56    | 60    | *            | 1.3           | 2.3            | 0.42       | 1.44               | 0.79  | 0.198             |
| 4T-13889/13830          | 45                             | 42.5  | 59    | 60    | 1.5          | 0.8           | 0.8            | 0.35       | 1.73               | 0.95  | 0.147             |
| 4T-LM29748/LM29710      | 49                             | 42.5  | 59    | 62    | *            | 1.3           | 4.3            | 0.33       | 1.80               | 0.99  | 0.233             |
| 4T-13685/13621          | 49.5                           | 43    | 61    | 65    | 3.5          | 2.3           | 3.0            | 0.40       | 1.49               | 0.82  | 0.293             |
| 4T-13687/13621          | 46.5                           | 43    | 61    | 65    | 2            | 2.3           | 3.0            | 0.40       | 1.49               | 0.82  | 0.296             |
| 4T-19150/19281          | 45                             | 43    | 63    | 66    | 1.5          | 1             | 1.4            | 0.44       | 1.35               | 0.74  | 0.273             |
| 4T-16150/16282          | 49.5                           | 43    | 63    | 67    | 3.5          | 1.5           | 4.2            | 0.40       | 1.49               | 0.82  | 0.331             |

Note: 3. Bearing numbers marked " # " designate **J-series** bearings. The tolerances of these bearings is listed in **Table 6.6** on **page A-42**.

4. Chamfer dimensions of bearings marked " \* " are shown in drawings.