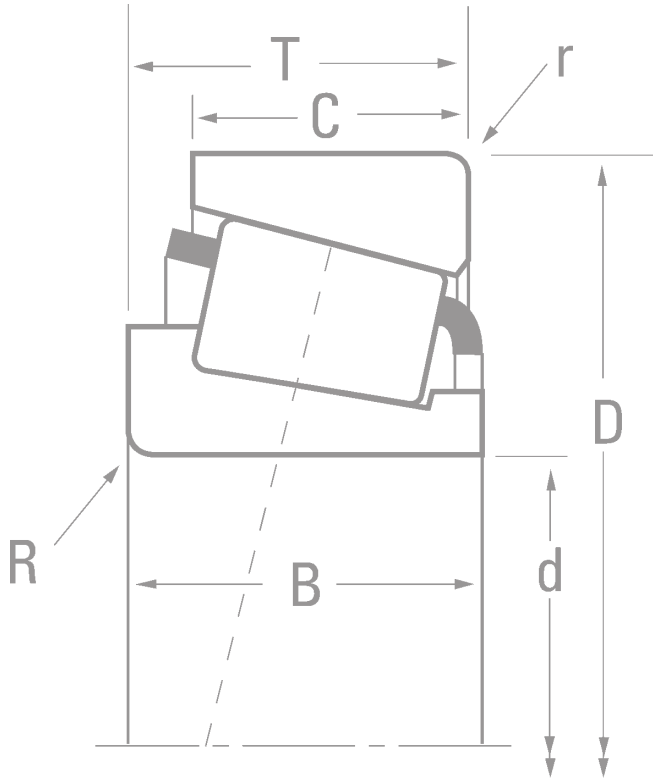


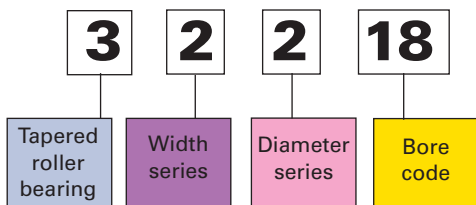
TIMKEN



TIMKEN® METRIC TAPERED ROLLER BEARINGS

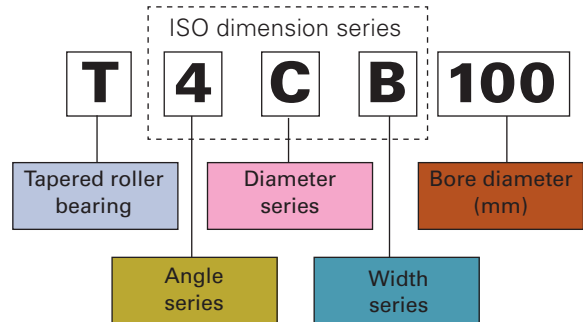
METRIC PART-NUMBERING SYSTEMS

ORIGINAL ISO PART-NUMBERING



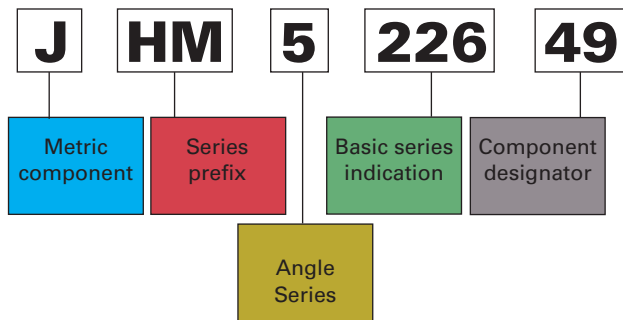
The original metric part-numbering system for tapered roller bearings was based on the ISO 15 dimensional plan for radial bearings.

ISO 355 PART NUMBERING



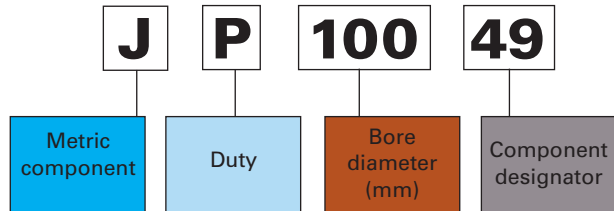
ISO introduced a new numbering system for tapered roller bearings in the ISO 355 plan. This numbering system uses three alphanumeric fields to define a dimension series. The bearing part number is defined by adding the inner ring bore diameter after the dimension series.

J-LINE PART NUMBERS



ABMA (inch) part numbers designed with metric envelope dimensions are identified with a J-prefix. Many of these part numbers have been assigned an ISO dimension series.

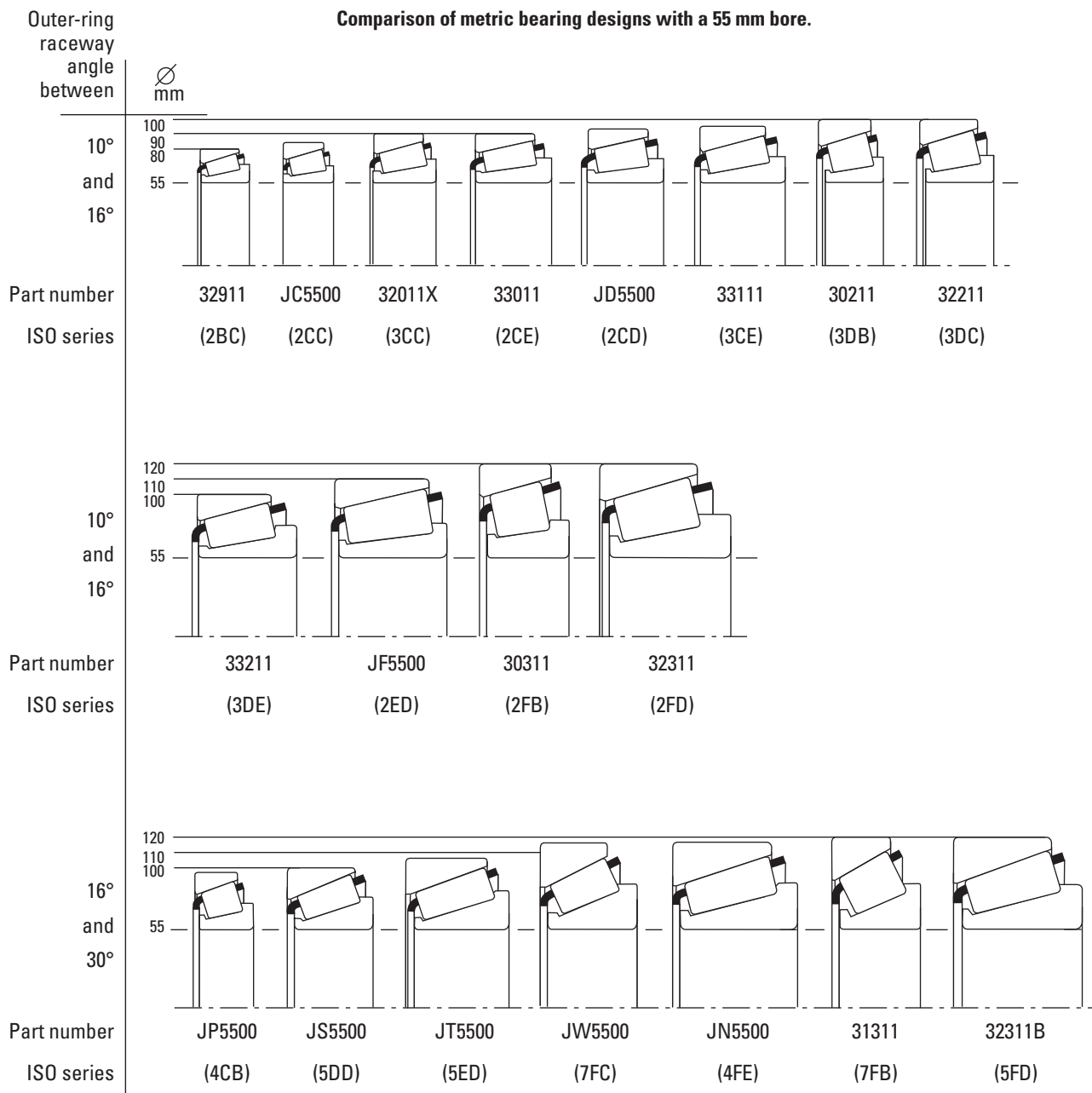
J-PREFIX



The latest ISO 355 plan includes an expanded range of metric bearings originally designed by The Timken Company. These bearings are identified with a J-prefix.

ISO SERIES DESIGNATIONS

Comparison of metric bearing designs with a 55 mm bore.



NOTE

Product performance is affected by many factors beyond the control of Timken. Therefore, the suitability and feasibility of all designs and product selection should be validated by you. This brochure is provided solely to give you, a customer of Timken or its parent or affiliates, analysis tools and data to assist you in your design. No warranty, expressed or implied, including any warranty of fitness for a particular purpose, is made by Timken. Timken products and services are sold subject to a Limited Warranty.

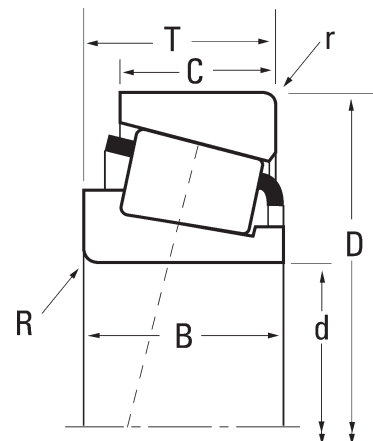
You can see your Timken engineer for more information.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|------|---------------------|----------------------------|--------------------|--------|--------|--------|--------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 15 | 30302 | 2FB | 15.000 | 42.000 | 14.250 | 13.000 | 11.000 |
| 17 | 30203 | 2DB | 17.000 | 40.000 | 13.250 | 12.000 | 11.000 |
| | 30303 | 2FB | 17.000 | 47.000 | 15.250 | 14.000 | 12.000 |
| 20 | 32004X | 3CC | 20.000 | 42.000 | 15.000 | 15.000 | 12.000 |
| | XAA32004X/YAA32004X | - | 20.000 | 42.000 | 15.000 | 15.000 | 12.000 |
| | 30204 | 2DB | 20.000 | 47.000 | 15.250 | 14.000 | 12.000 |
| | 32204 | 2DD | 20.000 | 47.000 | 19.250 | 18.000 | 15.000 |
| | 30304 | 2FB | 20.000 | 52.000 | 16.250 | 15.000 | 13.000 |
| | 32304 | 2FD | 20.000 | 52.000 | 22.250 | 21.000 | 18.000 |
| 25 | 32005X | 4CC | 25.000 | 47.000 | 15.000 | 15.000 | 11.500 |
| | XAA32005X/YAA32005X | - | 25.000 | 47.000 | 15.000 | 15.000 | 11.500 |
| | 30205 | 3CC | 25.000 | 52.000 | 16.250 | 15.000 | 13.000 |
| | 32205 | 2CD | 25.000 | 52.000 | 19.250 | 18.000 | 16.000 |
| | 32205B | 5CD | 25.000 | 52.000 | 19.250 | 18.000 | 15.000 |
| | 33205 | 2DE | 25.000 | 52.000 | 22.000 | 22.000 | 18.000 |
| | 30305 | 2FB | 25.000 | 62.000 | 18.250 | 17.000 | 15.000 |
| | 32305 | 2FD | 25.000 | 62.000 | 25.250 | 24.000 | 20.000 |
| 30 | 32006X | 4CC | 30.000 | 55.000 | 17.000 | 17.000 | 13.000 |
| | 30206 | 3DB | 30.000 | 62.000 | 17.250 | 16.000 | 14.000 |
| | 32206 | 3DC | 30.000 | 62.000 | 21.250 | 20.000 | 17.000 |
| | 32206B | 5DC | 30.000 | 62.000 | 21.250 | 20.000 | 17.000 |
| | 33206 | 2DE | 30.000 | 62.000 | 25.000 | 25.000 | 19.500 |
| | 30306 | 2FB | 30.000 | 72.000 | 20.750 | 19.000 | 16.000 |
| | 32306 | 2FD | 30.000 | 72.000 | 28.750 | 27.000 | 23.000 |
| 35 | 32007X | 4CC | 35.000 | 62.000 | 18.000 | 18.000 | 14.000 |
| | 30207 | 3DB | 35.000 | 72.000 | 18.250 | 17.000 | 15.000 |
| | 32207 | 3DC | 35.000 | 72.000 | 24.250 | 23.000 | 19.000 |
| | 33207 | 2DE | 35.000 | 72.000 | 28.000 | 28.000 | 22.000 |
| | 30307 | 2FB | 35.000 | 80.000 | 22.750 | 21.000 | 18.000 |
| | 31307 | 7FB | 35.000 | 80.000 | 22.750 | 21.000 | 15.000 |
| | 32307 | 2FE | 35.000 | 80.000 | 32.750 | 31.000 | 25.000 |
| 40 | 32008X | 3CD | 40.000 | 68.000 | 19.000 | 19.000 | 14.500 |
| | XAA32008X/Y32008X | - | 40.000 | 68.000 | 19.000 | 19.000 | 14.500 |
| | 33108 | 2CE | 40.000 | 75.000 | 26.000 | 26.000 | 20.500 |
| | XAA33108/Y33108 | - | 40.000 | 75.000 | 26.000 | 26.000 | 20.500 |
| | 30208 | 3DB | 40.000 | 80.000 | 19.750 | 18.000 | 16.000 |
| | 32208 | 3DC | 40.000 | 80.000 | 24.750 | 23.000 | 19.000 |
| | 33208 | 2DE | 40.000 | 80.000 | 32.000 | 32.000 | 25.000 |
| | JF4049/JF4010 | 2EE | 40.000 | 85.000 | 33.000 | 32.500 | 28.000 |
| | 30308 | 2FB | 40.000 | 90.000 | 25.250 | 23.000 | 20.000 |
| | 31308 | 7FB | 40.000 | 90.000 | 25.250 | 23.000 | 17.000 |
| | 32308 | 2FD | 40.000 | 90.000 | 35.250 | 33.000 | 27.000 |
| | 32308B | 5FD | 40.000 | 90.000 | 35.250 | 33.000 | 27.000 |

| Mounting Dimensions | | Load Ratings | | | Weight kg |
|--|--|--|------------------------|------|--------------|
| Max Shaft Fillet Radius R ⁽³⁾ | Max Housing Fillet Radius r ⁽³⁾ | Dynamic Radial ⁽¹⁾ C ₁ | Factors ⁽²⁾ | | |
| mm | mm | N | e | Y | |
| 1.00 | 1.00 | 26000 | 0.29 | 2.11 | 0.11 |
| 1.00 | 1.00 | 21300 | 0.35 | 1.74 | 0.08 |
| 1.00 | 1.00 | 32700 | 0.29 | 2.11 | 0.14 |
| 0.60 | 0.60 | 27700 | 0.37 | 1.60 | 0.10 |
| 2.00 | 1.00 | 27700 | 0.37 | 1.60 | 0.10 |
| 1.00 | 1.00 | 33200 | 0.35 | 1.74 | 0.13 |
| 1.00 | 1.00 | 41800 | 0.33 | 1.81 | 0.16 |
| 1.50 | 1.50 | 38500 | 0.30 | 2.00 | 0.17 |
| 1.50 | 1.50 | 55200 | 0.30 | 2.00 | 0.24 |
| 3.30 | 1.00 | 30800 | 0.43 | 1.39 | 0.11 |
| 3.30 | 1.00 | 30800 | 0.43 | 1.39 | 0.11 |
| 1.00 | 1.00 | 36900 | 0.37 | 1.60 | 0.15 |
| 1.00 | 1.00 | 42000 | 0.36 | 1.67 | 0.18 |
| 1.00 | 2.00 | 39700 | 0.58 | 1.03 | 0.19 |
| 1.00 | 1.00 | 55100 | 0.35 | 1.71 | 0.23 |
| 1.50 | 1.50 | 53800 | 0.30 | 2.00 | 0.26 |
| 1.50 | 1.50 | 72400 | 0.30 | 2.00 | 0.37 |
| 1.00 | 1.00 | 39200 | 0.43 | 1.39 | 0.18 |
| 1.00 | 1.00 | 49300 | 0.37 | 1.60 | 0.23 |
| 1.00 | 1.00 | 55800 | 0.37 | 1.60 | 0.29 |
| 1.00 | 1.00 | 55800 | 0.56 | 1.07 | 0.30 |
| 1.00 | 1.00 | 73900 | 0.34 | 1.76 | 0.35 |
| 1.50 | 1.50 | 67700 | 0.31 | 1.90 | 0.39 |
| 1.50 | 1.50 | 87600 | 0.31 | 1.90 | 0.56 |
| 1.00 | 1.00 | 47700 | 0.45 | 1.32 | 0.22 |
| 1.50 | 1.50 | 57600 | 0.37 | 1.60 | 0.34 |
| 1.50 | 1.50 | 81700 | 0.37 | 1.60 | 0.44 |
| 1.50 | 1.50 | 99900 | 0.35 | 1.70 | 0.52 |
| 2.00 | 1.50 | 87200 | 0.31 | 1.90 | 0.53 |
| 2.00 | 1.50 | 72800 | 0.83 | 0.73 | 0.55 |
| 2.00 | 1.50 | 116000 | 0.31 | 1.90 | 0.76 |
| 1.00 | 1.00 | 53800 | 0.38 | 1.58 | 0.27 |
| 3.50 | 1.00 | 53800 | 0.38 | 1.58 | 0.27 |
| 1.50 | 1.50 | 88000 | 0.36 | 1.69 | 0.50 |
| 3.50 | 1.50 | 88000 | 0.36 | 1.69 | 0.50 |
| 1.50 | 1.50 | 70900 | 0.37 | 1.60 | 0.43 |
| 1.50 | 1.50 | 88300 | 0.37 | 1.60 | 0.53 |
| 1.50 | 1.50 | 121000 | 0.36 | 1.68 | 0.73 |
| 2.50 | 2.00 | 137000 | 0.34 | 1.74 | 0.90 |
| 2.00 | 1.50 | 98700 | 0.35 | 1.74 | 0.73 |
| 2.00 | 1.50 | 85300 | 0.83 | 0.73 | 0.73 |
| 2.00 | 1.50 | 133000 | 0.35 | 1.74 | 1.03 |
| 2.00 | 1.50 | 132000 | 0.55 | 1.10 | 1.10 |



⁽¹⁾ Based on 1 x 10⁶ revolutions L₁₀ life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

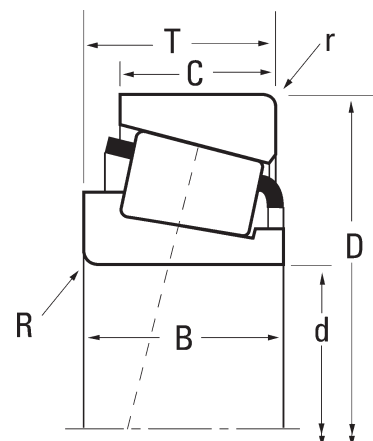
⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|--------|---------------------|----------------------------|--------------------|---------|--------|--------|--------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 45 | 32009X | 3CC | 45.000 | 75.000 | 20.000 | 20.000 | 15.500 |
| | XAA32009X/Y32009X | - | 45.000 | 75.000 | 20.000 | 20.000 | 15.500 |
| | 33109 | 3CE | 45.000 | 80.000 | 26.000 | 26.000 | 20.500 |
| | 30209 | 3DB | 45.000 | 85.000 | 20.750 | 19.000 | 16.000 |
| | 32209 | 3DC | 45.000 | 85.000 | 24.750 | 23.000 | 19.000 |
| | 33209 | 3DE | 45.000 | 85.000 | 32.000 | 32.000 | 25.000 |
| | JW4549/JW4510 | 7FC | 45.000 | 95.000 | 29.000 | 26.500 | 20.000 |
| | 30309 | 2FB | 45.000 | 100.000 | 27.250 | 25.000 | 22.000 |
| | 31309 | 7FB | 45.000 | 100.000 | 27.250 | 25.000 | 18.000 |
| | 32309 | 2FD | 45.000 | 100.000 | 38.250 | 36.000 | 30.000 |
| | 32309B | 5FD | 45.000 | 100.000 | 38.250 | 36.000 | 30.000 |
| 50 | 32010X | 3CC | 50.000 | 80.000 | 20.000 | 20.000 | 15.500 |
| | XAA32010X/Y32010X | - | 50.000 | 80.000 | 20.000 | 20.000 | 15.500 |
| | 33010 | 2CE | 50.000 | 80.000 | 24.000 | 24.000 | 19.000 |
| | XAB32010X/YKB32010X | | 50.000 | 82.000 | 21.500 | 20.000 | 17.000 |
| | JLM104948/JLM104910 | 2CC | 50.000 | 82.000 | 21.500 | 21.500 | 17.000 |
| | JLM704649/JLM704610 | 4CC | 50.000 | 84.000 | 22.000 | 22.000 | 17.500 |
| | 33110 | 3CE | 50.000 | 85.000 | 26.000 | 26.000 | 20.000 |
| | 30210 | 3DB | 50.000 | 90.000 | 21.750 | 20.000 | 17.000 |
| | 32210 | 3DC | 50.000 | 90.000 | 24.750 | 23.000 | 19.000 |
| | JM205149/JM205110 | 2DD | 50.000 | 90.000 | 28.000 | 28.000 | 23.000 |
| | 33210 | 3DE | 50.000 | 90.000 | 32.000 | 32.000 | 24.500 |
| | JW5049/JW5010 | 7FC | 50.000 | 105.000 | 32.000 | 29.000 | 22.000 |
| | JHM807045/JHM807010 | 4FD | 50.000 | 105.000 | 37.000 | 36.000 | 29.000 |
| | 30310 | 2FB | 50.000 | 110.000 | 29.250 | 27.000 | 23.000 |
| | 31310 | 7FB | 50.000 | 110.000 | 29.250 | 27.000 | 19.000 |
| | 32310 | 2FD | 50.000 | 110.000 | 42.250 | 40.000 | 33.000 |
| 32310B | 5FD | 50.000 | 110.000 | 42.250 | 40.000 | 33.000 | |
| 55 | JLM506849/JLM506810 | - | 55.000 | 90.000 | 23.000 | 23.000 | 18.500 |
| | 32011X | 3CC | 55.000 | 90.000 | 23.000 | 23.000 | 17.500 |
| | 33011 | 2CE | 55.000 | 90.000 | 27.000 | 27.000 | 21.000 |
| | JM207049/JM207010 | - | 55.000 | 95.000 | 29.000 | 29.000 | 23.500 |
| | 33111 | 3CE | 55.000 | 95.000 | 30.000 | 30.000 | 23.000 |
| | 30211 | 3DB | 55.000 | 100.000 | 22.750 | 21.000 | 18.000 |
| | 32211 | 3DC | 55.000 | 100.000 | 26.750 | 25.000 | 21.000 |
| | 33211 | 3DE | 55.000 | 100.000 | 35.000 | 35.000 | 27.000 |
| | JW5549/JW5510 | 7FC | 55.000 | 115.000 | 34.000 | 31.000 | 23.500 |
| | 30311 | 2FB | 55.000 | 120.000 | 31.500 | 29.000 | 25.000 |
| | 31311 | 7FB | 55.000 | 120.000 | 31.500 | 29.000 | 21.000 |
| | 32311 | 2FD | 55.000 | 120.000 | 45.500 | 43.000 | 35.000 |
| 32311B | 5FD | 55.000 | 120.000 | 45.500 | 43.000 | 35.000 | |
| 60 | 32012X | 4CC | 60.000 | 95.000 | 23.000 | 23.000 | 17.500 |
| | JLM508748/JLM508710 | 3CD | 60.000 | 95.000 | 24.000 | 24.000 | 19.000 |

| Mounting Dimensions | | Load Ratings | | | Weight kg |
|--------------------------------------|--|--|------------------------|------|--------------|
| Max Shaft Fillet Radius $R^{(3)}$ | Max Housing Fillet Radius $r^{(3)}$ | Dynamic Radial ⁽¹⁾ C_1 | Factors ⁽²⁾ | | |
| mm | mm | N | e | Y | |
| 1.00 | 1.00 | 66400 | 0.39 | 1.53 | 0.34 |
| 3.00 | 1.00 | 66400 | 0.39 | 1.53 | 0.34 |
| 1.50 | 1.50 | 95100 | 0.38 | 1.57 | 0.54 |
| 1.50 | 1.50 | 80000 | 0.40 | 1.48 | 0.49 |
| 1.50 | 1.50 | 87500 | 0.40 | 1.48 | 0.58 |
| 1.50 | 1.50 | 125000 | 0.39 | 1.56 | 0.79 |
| 2.50 | 2.50 | 99900 | 0.87 | 0.69 | 0.90 |
| 2.00 | 1.50 | 129000 | 0.35 | 1.74 | 1.01 |
| 2.00 | 1.50 | 106000 | 0.83 | 0.73 | 0.94 |
| 2.00 | 1.50 | 154000 | 0.35 | 1.74 | 1.36 |
| 2.00 | 1.50 | 159000 | 0.55 | 1.10 | 1.42 |
| 1.00 | 1.00 | 69800 | 0.42 | 1.42 | 0.36 |
| 2.30 | 1.00 | 69800 | 0.42 | 1.42 | 0.36 |
| 1.00 | 1.00 | 80600 | 0.32 | 1.90 | 0.45 |
| 3.00 | 0.5 | 69800 | 0.42 | 1.42 | 0.41 |
| 3.00 | 0.50 | 81300 | 0.31 | 1.97 | 0.42 |
| 3.50 | 1.50 | 81400 | 0.44 | 1.37 | 0.46 |
| 1.50 | 1.50 | 96700 | 0.41 | 1.46 | 0.58 |
| 1.50 | 1.50 | 86000 | 0.42 | 1.43 | 0.54 |
| 1.50 | 1.50 | 99800 | 0.42 | 1.43 | 0.62 |
| 3.00 | 2.50 | 124000 | 0.33 | 1.82 | 0.74 |
| 1.50 | 1.50 | 130000 | 0.41 | 1.45 | 1.03 |
| 3.00 | 3.00 | 119000 | 0.87 | 0.69 | 1.23 |
| 3.00 | 2.50 | 172000 | 0.49 | 1.23 | 1.50 |
| 2.50 | 2.00 | 142000 | 0.35 | 1.74 | 1.25 |
| 2.50 | 2.00 | 124000 | 0.83 | 0.73 | 1.21 |
| 2.50 | 2.00 | 187000 | 0.35 | 1.74 | 1.83 |
| 2.50 | 2.00 | 193000 | 0.55 | 1.10 | 1.94 |
| 1.50 | 0.50 | 84400 | 0.40 | 1.49 | 0.54 |
| 1.50 | 1.50 | 94900 | 0.41 | 1.48 | 0.56 |
| 1.50 | 1.50 | 99500 | 0.31 | 1.92 | 0.66 |
| 1.50 | 2.50 | 131000 | 0.33 | 1.79 | 0.83 |
| 1.50 | 1.50 | 133000 | 0.37 | 1.60 | 0.83 |
| 2.00 | 1.50 | 103000 | 0.40 | 1.48 | 0.72 |
| 2.00 | 1.50 | 121000 | 0.40 | 1.48 | 0.84 |
| 2.00 | 1.50 | 155000 | 0.40 | 1.50 | 1.16 |
| 3.00 | 3.00 | 145000 | 0.87 | 0.69 | 1.57 |
| 2.50 | 2.00 | 174000 | 0.35 | 1.74 | 1.63 |
| 2.50 | 2.00 | 145000 | 0.83 | 0.73 | 1.57 |
| 2.50 | 2.00 | 228000 | 0.35 | 1.74 | 2.32 |
| 2.50 | 2.00 | 223000 | 0.55 | 1.10 | 2.45 |
| 1.50 | 1.50 | 96700 | 0.43 | 1.39 | 0.60 |
| 5.00 | 2.50 | 97600 | 0.40 | 1.49 | 0.59 |



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

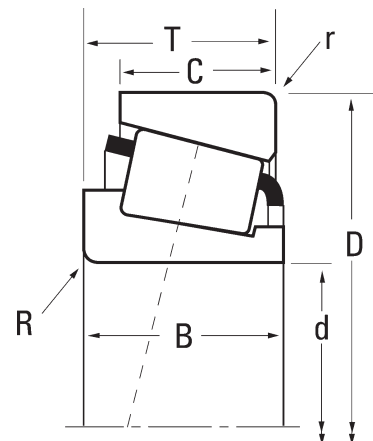
⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|----------------------|---------------------|----------------------------|--------------------|---------|---------|--------|--------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 60 | 33012 | 2CE | 60.000 | 95.000 | 27.000 | 27.000 | 21.000 |
| | JP6049/JP6010 | 4CB | 60.000 | 100.000 | 21.000 | 20.000 | 15.500 |
| | 33112 | 3CE | 60.000 | 100.000 | 30.000 | 30.000 | 23.000 |
| | 30212 | 3EB | 60.000 | 110.000 | 23.750 | 22.000 | 19.000 |
| | 32212 | 3EC | 60.000 | 110.000 | 29.750 | 28.000 | 24.000 |
| | 33212 | 3EE | 60.000 | 110.000 | 38.000 | 38.000 | 29.000 |
| | XAB33212/Y33212 | - | 60.000 | 110.000 | 38.000 | 38.000 | 29.000 |
| | JF6049/JF6010 | 2EE | 60.000 | 115.000 | 40.000 | 39.000 | 33.000 |
| | JW6049/JW6010 | 7FC | 60.000 | 125.000 | 37.000 | 33.500 | 26.000 |
| | 30312 | 2FB | 60.000 | 130.000 | 33.500 | 31.000 | 26.000 |
| | 31312 | 7FB | 60.000 | 130.000 | 33.500 | 31.000 | 22.000 |
| | 32312 | 2FD | 60.000 | 130.000 | 48.500 | 46.000 | 37.000 |
| | 32312B | 5FD | 60.000 | 130.000 | 48.500 | 46.000 | 37.000 |
| | 65 | 32013X | 4CC | 65.000 | 100.000 | 23.000 | 23.000 |
| 33013 | | 2CE | 65.000 | 100.000 | 27.000 | 27.000 | 21.000 |
| JLM710949C/JLM710910 | | - | 65.000 | 105.000 | 24.000 | 23.000 | 18.500 |
| JM511946/JM511910 | | 3DC | 65.000 | 110.000 | 28.000 | 28.000 | 22.500 |
| JD6549/JD6510 | | 2DD | 65.000 | 110.000 | 31.000 | 31.000 | 25.000 |
| 33113 | | 3DE | 65.000 | 110.000 | 34.000 | 34.000 | 26.500 |
| 30213 | | 3EB | 65.000 | 120.000 | 24.750 | 23.000 | 20.000 |
| 32213 | | 3EC | 65.000 | 120.000 | 32.750 | 31.000 | 27.000 |
| JH211749/JH211710 | | 2ED | 65.000 | 120.000 | 39.000 | 38.500 | 32.000 |
| 33213 | | 3EE | 65.000 | 120.000 | 41.000 | 41.000 | 32.000 |
| JW6549/JW6510 | | 7FC | 65.000 | 130.000 | 37.000 | 33.500 | 26.000 |
| 30313 | | 2GB | 65.000 | 140.000 | 36.000 | 33.000 | 28.000 |
| 31313 | | 7GB | 65.000 | 140.000 | 36.000 | 33.000 | 23.000 |
| 32313 | | 2GD | 65.000 | 140.000 | 51.000 | 48.000 | 39.000 |
| 70 | JP7049/JP7010 | 4CB | 70.000 | 110.000 | 21.000 | 20.000 | 15.500 |
| | 32014X | 4CC | 70.000 | 110.000 | 25.000 | 25.000 | 19.000 |
| | JLM813049/JLM813010 | - | 70.000 | 110.000 | 26.000 | 25.000 | 20.500 |
| | 33014 | 2CE | 70.000 | 110.000 | 31.000 | 31.000 | 25.500 |
| | JM612949/JM612910 | - | 70.000 | 115.000 | 29.000 | 29.000 | 23.000 |
| | 33114 | 3DE | 70.000 | 120.000 | 37.000 | 37.000 | 29.000 |
| | 30214 | 3EB | 70.000 | 125.000 | 26.250 | 24.000 | 21.000 |
| | 32214 | 3EC | 70.000 | 125.000 | 33.250 | 31.000 | 27.000 |
| | 33214 | 3EE | 70.000 | 125.000 | 41.000 | 41.000 | 32.000 |
| | JF7049/JF7010 | 2ED | 70.000 | 130.000 | 43.000 | 42.000 | 35.000 |
| | JF7049A/JF7010 | - | 70.000 | 130.000 | 43.000 | 42.000 | 35.000 |
| | JW7049/JW7010 | 7FC | 70.000 | 140.000 | 39.000 | 35.500 | 27.000 |
| | 30314 | 2GB | 70.000 | 150.000 | 38.000 | 35.000 | 30.000 |
| | 31314 | 7GB | 70.000 | 150.000 | 38.000 | 35.000 | 25.000 |
| 32314 | 2GD | 70.000 | 150.000 | 54.000 | 51.000 | 42.000 | |
| 75 | 32015X | 4CC | 75.000 | 115.000 | 25.000 | 25.000 | 19.000 |
| | 33015 | 2CE | 75.000 | 115.000 | 31.000 | 31.000 | 25.500 |

| Mounting Dimensions | | Load Ratings | | | Weight kg |
|--|--|--|------------------------|------|--------------|
| Max Shaft Fillet Radius R ⁽³⁾ | Max Housing Fillet Radius r ⁽³⁾ | Dynamic Radial ⁽¹⁾ C ₁ | Factors ⁽²⁾ | | |
| mm | mm | N | e | Y | |
| 1.50 | 1.50 | 103000 | 0.33 | 1.83 | 0.69 |
| 2.00 | 2.00 | 87300 | 0.47 | 1.27 | 0.59 |
| 1.50 | 1.50 | 137000 | 0.40 | 1.51 | 0.92 |
| 2.00 | 1.50 | 107000 | 0.40 | 1.48 | 0.88 |
| 2.00 | 1.50 | 137000 | 0.40 | 1.48 | 1.14 |
| 2.00 | 1.50 | 198000 | 0.40 | 1.48 | 1.53 |
| 5.00 | 1.50 | 198000 | 0.40 | 1.48 | 1.53 |
| 2.50 | 2.50 | 231000 | 0.33 | 1.80 | 1.86 |
| 3.00 | 3.00 | 172000 | 0.82 | 0.73 | 2.02 |
| 3.00 | 2.50 | 201000 | 0.35 | 1.74 | 1.96 |
| 3.00 | 2.50 | 171000 | 0.83 | 0.73 | 1.97 |
| 3.00 | 2.50 | 264000 | 0.35 | 1.74 | 2.89 |
| 3.00 | 2.50 | 216000 | 0.55 | 1.10 | 3.07 |
| 1.50 | 1.50 | 98000 | 0.46 | 1.31 | 0.64 |
| 1.50 | 1.50 | 107000 | 0.35 | 1.72 | 0.74 |
| 3.00 | 1.00 | 108000 | 0.45 | 1.32 | 0.72 |
| 3.00 | 2.50 | 141000 | 0.40 | 1.49 | 1.06 |
| 2.00 | 2.00 | 163000 | 0.33 | 1.81 | 1.18 |
| 1.50 | 1.50 | 167000 | 0.39 | 1.55 | 1.27 |
| 2.00 | 1.50 | 138000 | 0.40 | 1.48 | 1.14 |
| 2.00 | 1.50 | 160000 | 0.40 | 1.48 | 1.51 |
| 3.00 | 2.50 | 223000 | 0.34 | 1.78 | 1.87 |
| 2.00 | 1.50 | 221000 | 0.39 | 1.54 | 1.97 |
| 3.00 | 3.00 | 175000 | 0.87 | 0.69 | 2.14 |
| 3.00 | 2.50 | 222000 | 0.35 | 1.74 | 2.47 |
| 3.00 | 2.50 | 196000 | 0.83 | 0.73 | 2.39 |
| 3.00 | 2.50 | 320000 | 0.35 | 1.74 | 3.62 |
| 2.00 | 2.00 | 91600 | 0.46 | 1.30 | 0.67 |
| 1.50 | 1.50 | 112000 | 0.43 | 1.38 | 0.86 |
| 1.00 | 2.50 | 115000 | 0.49 | 1.23 | 0.88 |
| 1.50 | 1.50 | 153000 | 0.28 | 2.11 | 1.11 |
| 3.00 | 2.50 | 145000 | 0.43 | 1.39 | 1.12 |
| 2.00 | 1.50 | 198000 | 0.38 | 1.58 | 1.69 |
| 2.00 | 1.50 | 138000 | 0.42 | 1.43 | 1.23 |
| 2.00 | 1.50 | 182000 | 0.42 | 1.43 | 1.63 |
| 2.00 | 1.50 | 238000 | 0.41 | 1.47 | 2.11 |
| 3.00 | 2.50 | 275000 | 0.33 | 1.80 | 2.49 |
| 7.00 | 2.50 | 275000 | 0.33 | 1.80 | 2.46 |
| 3.00 | 3.00 | 204000 | 0.87 | 0.69 | 2.64 |
| 3.00 | 2.50 | 251000 | 0.35 | 1.74 | 2.97 |
| 3.00 | 2.50 | 213000 | 0.83 | 0.73 | 2.92 |
| 3.00 | 2.50 | 366000 | 0.35 | 1.74 | 4.39 |
| 1.50 | 1.50 | 114000 | 0.46 | 1.31 | 0.91 |
| 1.50 | 1.50 | 158000 | 0.30 | 2.01 | 1.15 |



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

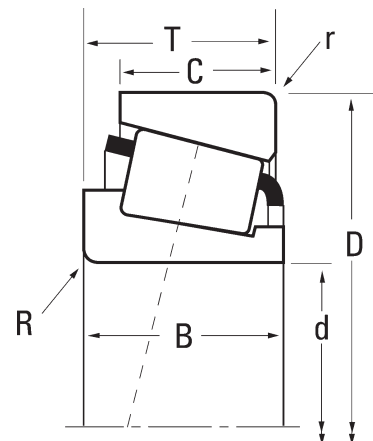
⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|------|---------------------|----------------------------|--------------------|---------|--------|--------|--------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 75 | JM714249/JM714210 | 4CD | 75.000 | 120.000 | 31.000 | 29.500 | 25.000 |
| | 33115 | 3DE | 75.000 | 125.000 | 37.000 | 37.000 | 29.000 |
| | 30215 | 4DB | 75.000 | 130.000 | 27.250 | 25.000 | 22.000 |
| | 32215 | 4DC | 75.000 | 130.000 | 33.250 | 31.000 | 27.000 |
| | 33215 | 3EE | 75.000 | 130.000 | 41.000 | 41.000 | 31.000 |
| | JH415647/JH415610 | 2FE | 75.000 | 145.000 | 51.000 | 51.000 | 42.000 |
| | JW7549/JW7510 | 7FC | 75.000 | 150.000 | 42.000 | 38.000 | 29.000 |
| | 30315 | 2GB | 75.000 | 160.000 | 40.000 | 37.000 | 31.000 |
| | 31315 | 7GB | 75.000 | 160.000 | 40.000 | 37.000 | 26.000 |
| | 32315 | 2GD | 75.000 | 160.000 | 58.000 | 55.000 | 45.000 |
| 80 | 32016X | 3CC | 80.000 | 125.000 | 29.000 | 29.000 | 22.000 |
| | 33016 | 2CE | 80.000 | 125.000 | 36.000 | 36.000 | 29.500 |
| | JM515649/JM515610 | 3DD | 80.000 | 130.000 | 35.000 | 34.000 | 28.500 |
| | 33116 | 3DE | 80.000 | 130.000 | 37.000 | 37.000 | 29.000 |
| | XA33116/Y33116 | - | 80.000 | 130.000 | 37.000 | 37.000 | 29.000 |
| | 30216 | 3EB | 80.000 | 140.000 | 28.250 | 26.000 | 22.000 |
| | 32216 | 3EC | 80.000 | 140.000 | 35.250 | 33.000 | 28.000 |
| | 33216 | 3EE | 80.000 | 140.000 | 46.000 | 46.000 | 35.000 |
| | JW8049/JW8010 | 7FC | 80.000 | 160.000 | 45.000 | 41.000 | 31.000 |
| | 30316 | 2GB | 80.000 | 170.000 | 42.500 | 39.000 | 33.000 |
| | 31316 | 7GB | 80.000 | 170.000 | 42.500 | 39.000 | 27.000 |
| | 32316 | 2GD | 80.000 | 170.000 | 61.500 | 58.000 | 48.000 |
| 85 | 32017X | 4CC | 85.000 | 130.000 | 29.000 | 29.000 | 22.000 |
| | XAA32017X/Y32017X | - | 85.000 | 130.000 | 29.000 | 29.000 | 22.000 |
| | 33017 | 2CE | 85.000 | 130.000 | 36.000 | 36.000 | 29.500 |
| | JHM516849/JHM516810 | 3DD | 85.000 | 140.000 | 39.000 | 38.000 | 31.500 |
| | 33117 | 3DE | 85.000 | 140.000 | 41.000 | 41.000 | 32.000 |
| | 30217 | 3EB | 85.000 | 150.000 | 30.500 | 28.000 | 24.000 |
| | 32217 | 3EC | 85.000 | 150.000 | 38.500 | 36.000 | 30.000 |
| | 33217 | 3EE | 85.000 | 150.000 | 49.000 | 49.000 | 37.000 |
| | 30317 | 2GB | 85.000 | 180.000 | 44.500 | 41.000 | 34.000 |
| | 31317 | 7GB | 85.000 | 180.000 | 44.500 | 41.000 | 28.000 |
| | 32317 | 2GD | 85.000 | 180.000 | 63.500 | 60.000 | 49.000 |
| 90 | 32018X | 3CC | 90.000 | 140.000 | 32.000 | 32.000 | 24.000 |
| | XAA32018X/Y32018X | - | 90.000 | 140.000 | 32.000 | 32.000 | 24.000 |
| | 33018 | 2CE | 90.000 | 140.000 | 39.000 | 39.000 | 32.500 |
| | JM718149/JM718110 | 4DC | 90.000 | 145.000 | 35.000 | 34.000 | 27.000 |
| | JT9049/JT9010 | 5ED | 90.000 | 150.000 | 42.000 | 40.000 | 34.000 |
| | 33118 | 3DE | 90.000 | 150.000 | 45.000 | 45.000 | 35.000 |
| | JHM318448/JHM318410 | - | 90.000 | 155.000 | 44.000 | 44.000 | 35.500 |
| | 30218 | 3FB | 90.000 | 160.000 | 32.500 | 30.000 | 26.000 |
| | 32218 | 3FC | 90.000 | 160.000 | 42.500 | 40.000 | 34.000 |
| | 30318 | 2GB | 90.000 | 190.000 | 46.500 | 43.000 | 36.000 |
| | 31318 | 7GB | 90.000 | 190.000 | 46.500 | 43.000 | 30.000 |

| Mounting Dimensions | | Load Ratings | | | Weight kg |
|---|---|---|------------------------|------|--------------|
| Max Shaft Fillet Radius R ⁽³⁾ | Max Housing Fillet Radius r ⁽³⁾ | Dynamic Radial ⁽¹⁾ C ₁ | Factors ⁽²⁾ | | |
| mm | mm | N | e | Y | |
| 3.00 | 2.50 | 159000 | 0.44 | 1.35 | 1.27 |
| 2.00 | 1.50 | 205000 | 0.40 | 1.51 | 1.76 |
| 2.00 | 1.50 | 152000 | 0.44 | 1.38 | 1.35 |
| 2.00 | 1.50 | 184000 | 0.44 | 1.38 | 1.69 |
| 2.00 | 1.50 | 236000 | 0.43 | 1.40 | 2.17 |
| 3.00 | 2.50 | 347000 | 0.36 | 1.66 | 3.81 |
| 3.00 | 3.00 | 231000 | 0.87 | 0.69 | 3.22 |
| 3.00 | 2.50 | 299000 | 0.35 | 1.74 | 3.65 |
| 3.00 | 2.50 | 248000 | 0.83 | 0.73 | 3.46 |
| 3.00 | 2.50 | 357000 | 0.35 | 1.74 | 5.06 |
| 1.50 | 1.50 | 166000 | 0.42 | 1.42 | 1.27 |
| 1.50 | 1.50 | 210000 | 0.28 | 2.16 | 1.62 |
| 3.00 | 2.50 | 192000 | 0.39 | 1.54 | 1.71 |
| 2.00 | 1.50 | 209000 | 0.42 | 1.44 | 1.86 |
| 2.00 | 1.50 | 209000 | 0.42 | 1.44 | 1.85 |
| 2.50 | 2.00 | 164000 | 0.42 | 1.43 | 1.63 |
| 2.50 | 2.00 | 206000 | 0.42 | 1.43 | 2.07 |
| 2.50 | 2.00 | 297000 | 0.43 | 1.41 | 2.95 |
| 3.00 | 3.00 | 264000 | 0.87 | 0.69 | 4.04 |
| 3.00 | 2.50 | 334000 | 0.35 | 1.74 | 4.31 |
| 3.00 | 2.50 | 271000 | 0.83 | 0.73 | 4.06 |
| 3.00 | 2.50 | 448000 | 0.35 | 1.74 | 6.34 |
| 1.50 | 1.50 | 163000 | 0.44 | 1.36 | 1.33 |
| 6.50 | 1.50 | 163000 | 0.44 | 1.36 | 1.31 |
| 1.50 | 1.50 | 220000 | 0.29 | 2.06 | 1.72 |
| 3.00 | 2.50 | 238000 | 0.41 | 1.47 | 2.27 |
| 2.50 | 2.00 | 254000 | 0.41 | 1.48 | 2.45 |
| 2.50 | 2.00 | 199000 | 0.42 | 1.43 | 2.07 |
| 2.50 | 2.00 | 245000 | 0.42 | 1.43 | 2.62 |
| 2.50 | 2.00 | 351000 | 0.42 | 1.43 | 3.60 |
| 4.00 | 3.00 | 313000 | 0.35 | 1.74 | 4.78 |
| 4.00 | 3.00 | 284000 | 0.83 | 0.73 | 4.97 |
| 4.00 | 3.00 | 481000 | 0.35 | 1.74 | 7.24 |
| 2.00 | 1.50 | 183000 | 0.42 | 1.42 | 1.70 |
| 6.00 | 1.50 | 183000 | 0.42 | 1.42 | 1.70 |
| 2.00 | 1.50 | 247000 | 0.27 | 2.23 | 2.20 |
| 3.00 | 2.50 | 222000 | 0.44 | 1.35 | 2.14 |
| 5.10 | 3.00 | 252000 | 0.55 | 1.10 | 2.90 |
| 2.50 | 2.00 | 306000 | 0.40 | 1.51 | 3.15 |
| 3.00 | 2.50 | 331000 | 0.34 | 1.76 | 3.33 |
| 2.50 | 2.00 | 240000 | 0.42 | 1.43 | 2.63 |
| 2.50 | 2.00 | 312000 | 0.42 | 1.43 | 3.47 |
| 4.00 | 3.00 | 375000 | 0.35 | 1.74 | 5.56 |
| 4.00 | 3.00 | 324000 | 0.83 | 0.73 | 5.93 |



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

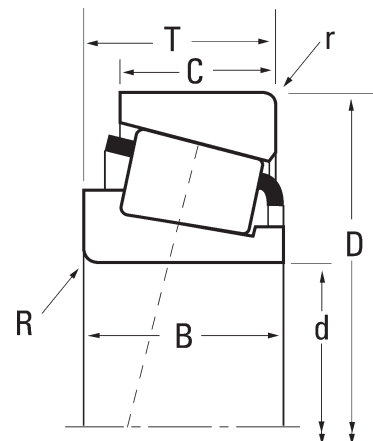
⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|------|---------------------|----------------------------|--------------------|---------|--------|--------|--------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 90 | JHH221436/JHH221413 | 2GC | 90.000 | 190.000 | 57.150 | 57.531 | 46.038 |
| | 32318 | 2GD | 90.000 | 190.000 | 67.500 | 64.000 | 53.000 |
| 95 | 32019X | 4CC | 95.000 | 145.000 | 32.000 | 32.000 | 24.000 |
| | 33019 | 2CE | 95.000 | 145.000 | 39.000 | 39.000 | 32.500 |
| | XAA33019/Y33019 | - | 95.000 | 145.000 | 39.000 | 39.000 | 32.500 |
| | JM719149/JM719113 | 4DC | 95.000 | 150.000 | 35.000 | 34.000 | 27.000 |
| | JF9549/JF9510 | 2ED | 95.000 | 160.000 | 46.000 | 46.000 | 38.000 |
| | 30219 | 3FB | 95.000 | 170.000 | 34.500 | 32.000 | 27.000 |
| | 32219 | 3FC | 95.000 | 170.000 | 45.500 | 43.000 | 37.000 |
| | 30319 | 2GB | 95.000 | 200.000 | 49.500 | 45.000 | 38.000 |
| | 32319 | 2GD | 95.000 | 200.000 | 71.500 | 67.000 | 55.000 |
| 100 | JP10049/JP10010 | 4CB | 100.000 | 145.000 | 24.000 | 22.500 | 17.500 |
| | JP10049A/JP10010A | - | 100.000 | 145.000 | 24.000 | 22.500 | 17.500 |
| | 32020X | 4CC | 100.000 | 150.000 | 32.000 | 32.000 | 24.000 |
| | 33020 | 2CE | 100.000 | 150.000 | 39.000 | 39.000 | 32.500 |
| | JM720249/JM720210 | 4DC | 100.000 | 155.000 | 36.000 | 35.000 | 28.000 |
| | JHM720249/JHM720210 | 4DD | 100.000 | 160.000 | 41.000 | 40.000 | 32.000 |
| | 30220 | 3FB | 100.000 | 180.000 | 37.000 | 34.000 | 29.000 |
| | 32220 | 3FC | 100.000 | 180.000 | 49.000 | 46.000 | 39.000 |
| | 33220 | 3FE | 100.000 | 180.000 | 63.000 | 63.000 | 48.000 |
| | 30320 | 2GB | 100.000 | 215.000 | 51.500 | 47.000 | 39.000 |
| | JHH224333/JHH224315 | 2GC | 100.000 | 215.000 | 66.675 | 66.675 | 53.975 |
| | 32320 | 2GD | 100.000 | 215.000 | 77.500 | 73.000 | 60.000 |
| 105 | 32021X | 4DC | 105.000 | 160.000 | 35.000 | 35.000 | 26.000 |
| | 33021 | 2DE | 105.000 | 160.000 | 43.000 | 43.000 | 34.000 |
| | 30221 | 3FB | 105.000 | 190.000 | 39.000 | 36.000 | 30.000 |
| | 32221 | 3FC | 105.000 | 190.000 | 53.000 | 50.000 | 43.000 |
| | 32321 | 2GD | 105.000 | 225.000 | 81.500 | 77.000 | 63.000 |
| 110 | 32022X | 4DC | 110.000 | 170.000 | 38.000 | 38.000 | 29.000 |
| | 33022 | 2DE | 110.000 | 170.000 | 47.000 | 47.000 | 37.000 |
| | 33122 | 3EE | 110.000 | 180.000 | 56.000 | 56.000 | 43.000 |
| | 30222 | 3FB | 110.000 | 200.000 | 41.000 | 38.000 | 32.000 |
| | 32222 | 3FC | 110.000 | 200.000 | 56.000 | 53.000 | 46.000 |
| | 30322 | 2GB | 110.000 | 240.000 | 54.500 | 50.000 | 42.000 |
| | 31322 | 7GB | 110.000 | 240.000 | 63.000 | 57.000 | 38.000 |
| | 32322 | 2GD | 110.000 | 240.000 | 84.500 | 80.000 | 65.000 |
| 115 | JLM722948/JLM722912 | 4CC | 115.000 | 165.000 | 28.000 | 27.000 | 21.000 |
| 120 | 32924 | 2CC | 120.000 | 165.000 | 29.000 | 29.000 | 23.000 |
| | JP12049/JP12010 | 4CB | 120.000 | 170.000 | 27.000 | 25.000 | 19.500 |
| | JP12049A/JP12010 | - | 120.000 | 170.000 | 27.000 | 25.000 | 19.500 |
| | 32024X | 4DC | 120.000 | 180.000 | 38.000 | 38.000 | 29.000 |
| | XAA32024X/Y32024X | - | 120.000 | 180.000 | 38.000 | 38.000 | 29.000 |
| | 33024 | 2DE | 120.000 | 180.000 | 48.000 | 48.000 | 38.000 |
| | 30224 | 4FB | 120.000 | 215.000 | 43.500 | 40.000 | 34.000 |

| Mounting Dimensions | | Load Ratings | | | Weight kg |
|---|---|---|------------------------|------|--------------|
| Max Shaft Fillet Radius R ⁽³⁾ | Max Housing Fillet Radius r ⁽³⁾ | Dynamic Radial ⁽¹⁾ C ₁ | Factors ⁽²⁾ | | |
| mm | mm | N | e | Y | |
| 8.00 | 3.30 | 508000 | 0.33 | 1.79 | 7.65 |
| 4.00 | 3.00 | 575000 | 0.35 | 1.74 | 8.51 |
| 2.00 | 1.50 | 186000 | 0.44 | 1.36 | 1.78 |
| 2.00 | 1.50 | 246000 | 0.28 | 2.16 | 2.23 |
| 6.00 | 1.50 | 246000 | 0.28 | 2.16 | 2.23 |
| 3.00 | 2.50 | 215000 | 0.44 | 1.36 | 2.15 |
| 3.00 | 3.00 | 354000 | 0.34 | 1.77 | 3.74 |
| 3.00 | 2.50 | 220500 | 0.42 | 1.43 | 3.02 |
| 3.00 | 2.50 | 316000 | 0.42 | 1.43 | 4.06 |
| 4.00 | 3.00 | 428000 | 0.35 | 1.74 | 6.65 |
| 4.00 | 3.00 | 578000 | 0.35 | 1.74 | 9.74 |
| 3.00 | 0.80 | 125000 | 0.47 | 1.27 | 1.15 |
| 5.00 | 3.00 | 125000 | 0.47 | 1.27 | 1.13 |
| 2.00 | 1.50 | 195000 | 0.46 | 1.31 | 1.89 |
| 2.00 | 1.50 | 251000 | 0.29 | 2.09 | 2.36 |
| 3.00 | 2.50 | 231000 | 0.47 | 1.27 | 2.36 |
| 3.00 | 2.50 | 279000 | 0.47 | 1.28 | 3.00 |
| 3.00 | 2.50 | 301000 | 0.42 | 1.43 | 3.76 |
| 3.00 | 2.50 | 319000 | 0.42 | 1.43 | 4.92 |
| 3.00 | 2.50 | 488000 | 0.40 | 1.48 | 6.59 |
| 4.00 | 3.00 | 448000 | 0.35 | 1.74 | 8.36 |
| 7.00 | 3.30 | 615000 | 0.33 | 1.84 | 11.52 |
| 4.00 | 3.00 | 586000 | 0.35 | 1.74 | 12.92 |
| 2.50 | 2.00 | 227000 | 0.44 | 1.35 | 2.40 |
| 2.50 | 2.00 | 291000 | 0.28 | 2.12 | 2.94 |
| 3.00 | 2.50 | 325000 | 0.42 | 1.43 | 4.47 |
| 3.00 | 2.50 | 398000 | 0.42 | 1.43 | 5.94 |
| 4.00 | 3.00 | 726000 | 0.35 | 1.74 | 14.00 |
| 2.50 | 2.00 | 282000 | 0.43 | 1.39 | 3.06 |
| 2.50 | 2.00 | 341000 | 0.29 | 2.09 | 3.81 |
| 2.50 | 2.00 | 412000 | 0.42 | 1.43 | 5.38 |
| 3.00 | 2.50 | 374000 | 0.42 | 1.43 | 5.24 |
| 3.00 | 2.50 | 493000 | 0.42 | 1.43 | 7.28 |
| 4.00 | 3.00 | 502000 | 0.35 | 1.74 | 11.50 |
| 4.00 | 3.00 | 523000 | 0.83 | 0.73 | 12.13 |
| 4.00 | 3.00 | 760000 | 0.35 | 1.74 | 16.99 |
| 3.30 | 3.00 | 160000 | 0.46 | 1.31 | 1.75 |
| 1.50 | 1.50 | 149000 | 0.35 | 1.72 | 1.78 |
| 3.00 | 3.00 | 165000 | 0.47 | 1.27 | 1.70 |
| 6.00 | 3.00 | 165000 | 0.47 | 1.27 | 1.69 |
| 2.50 | 2.00 | 292000 | 0.46 | 1.31 | 3.27 |
| 5.00 | 2.00 | 292000 | 0.46 | 1.31 | 3.25 |
| 2.50 | 2.00 | 352000 | 0.31 | 1.97 | 4.19 |
| 3.00 | 2.50 | 374000 | 0.44 | 1.38 | 6.24 |



⁽¹⁾ Based on 1 x 10⁶ revolutions L₁₀ life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

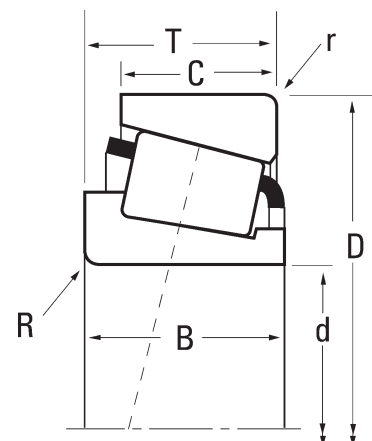
⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|------|---------------------|----------------------------|--------------------|---------|--------|--------|--------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 120 | 32224 | 4FD | 120.000 | 215.000 | 61.500 | 58.000 | 50.000 |
| | 30324 | 2GB | 120.000 | 260.000 | 59.500 | 55.000 | 46.000 |
| | 31324X | 7GB | 120.000 | 260.000 | 68.000 | 62.000 | 42.000 |
| | 32324 | 2GD | 120.000 | 260.000 | 90.500 | 86.000 | 69.000 |
| 130 | 32926 | 2CC | 130.000 | 180.000 | 32.000 | 32.000 | 25.000 |
| | JP13049/JP13010 | 4CB | 130.000 | 185.000 | 29.000 | 27.000 | 21.000 |
| | JP13049A/JP13010 | - | 130.000 | 185.000 | 29.000 | 27.000 | 21.000 |
| | 32026X | 4EC | 130.000 | 200.000 | 45.000 | 45.000 | 34.000 |
| | 30226 | 4FB | 130.000 | 230.000 | 43.750 | 40.000 | 34.000 |
| | 32226 | 4FD | 130.000 | 230.000 | 67.750 | 64.000 | 54.000 |
| | 31326 | 7GB | 130.000 | 280.000 | 72.000 | 66.000 | 44.000 |
| | 32326 | - | 130.000 | 280.000 | 98.750 | 93.000 | 78.000 |
| 140 | 32928 | 2CC | 140.000 | 190.000 | 32.000 | 32.000 | 25.000 |
| | JP14049/JP14010 | 4CB | 140.000 | 195.000 | 29.000 | 27.000 | 21.000 |
| | XAA32028X/Y32028X | - | 140.000 | 210.000 | 45.000 | 45.000 | 34.000 |
| | 32028X | 4DC | 140.000 | 210.000 | 45.000 | 45.000 | 34.000 |
| | 30228 | 4FB | 140.000 | 250.000 | 45.750 | 42.000 | 36.000 |
| | 32228 | 4FD | 140.000 | 250.000 | 71.750 | 68.000 | 58.000 |
| 150 | 32930 | 2DC | 150.000 | 210.000 | 38.000 | 38.000 | 30.000 |
| | 32030X | 4EC | 150.000 | 225.000 | 48.000 | 48.000 | 36.000 |
| | 33030 | 2EE | 150.000 | 225.000 | 59.000 | 59.000 | 46.000 |
| | 30230 | 4GB | 150.000 | 270.000 | 49.000 | 45.000 | 38.000 |
| | 32230 | 4GD | 150.000 | 270.000 | 77.000 | 73.000 | 60.000 |
| | 31330 | 7GB | 150.000 | 320.000 | 82.000 | 75.000 | 50.000 |
| 160 | JP16049/JP16010 | 4DB | 160.000 | 220.000 | 32.000 | 30.000 | 23.000 |
| | JM734445/JM734410 | - | 160.000 | 240.000 | 46.000 | 44.500 | 37.000 |
| | 32032X | 4EC | 160.000 | 240.000 | 51.000 | 51.000 | 38.000 |
| | 32232 | 4GD | 160.000 | 290.000 | 84.000 | 80.000 | 67.000 |
| 170 | JP17049/JP17010 | 4DB | 170.000 | 230.000 | 32.000 | 30.000 | 23.000 |
| | 32934 | 3DC | 170.000 | 230.000 | 38.000 | 38.000 | 30.000 |
| | JHM534149/JHM534110 | - | 170.000 | 230.000 | 39.000 | 38.000 | 31.000 |
| | JM734449/JM734410 | 4DD | 170.000 | 240.000 | 46.000 | 44.500 | 37.000 |
| | 32034X | 4EC | 170.000 | 260.000 | 57.000 | 57.000 | 43.000 |
| | 32234 | 4GD | 170.000 | 310.000 | 91.000 | 86.000 | 71.000 |
| 180 | 32936 | 4DC | 180.000 | 250.000 | 45.000 | 45.000 | 34.000 |
| | JM736149/JM736110 | 4DD | 180.000 | 250.000 | 47.000 | 45.000 | 37.000 |
| | 32036X | 3FD | 180.000 | 280.000 | 64.000 | 64.000 | 48.000 |
| | 30236 | 4GB | 180.000 | 320.000 | 57.000 | 52.000 | 43.000 |
| | 32236 | 4GD | 180.000 | 320.000 | 91.000 | 86.000 | 71.000 |
| 190 | 32938 | 4DC | 190.000 | 260.000 | 45.000 | 45.000 | 34.000 |
| | JM738249/JM738210 | 4DD | 190.000 | 260.000 | 46.000 | 44.000 | 36.500 |
| | 32038X | 4FD | 190.000 | 290.000 | 64.000 | 64.000 | 48.000 |
| | 30238 | 4GB | 190.000 | 340.000 | 60.000 | 55.000 | 46.000 |

| Mounting Dimensions | | Load Ratings | | | Weight kg |
|---|---|---|------------------------|------|--------------|
| Max Shaft Fillet Radius R ⁽³⁾ | Max Housing Fillet Radius r ⁽³⁾ | Dynamic Radial ⁽¹⁾ C ₁ | Factors ⁽²⁾ | | |
| mm | mm | N | e | Y | |
| 3.00 | 2.50 | 553000 | 0.44 | 1.38 | 9.27 |
| 4.00 | 3.00 | 624000 | 0.35 | 1.74 | 14.17 |
| 4.00 | 3.00 | 606000 | 0.83 | 0.73 | 15.37 |
| 4.00 | 3.00 | 908000 | 0.35 | 1.74 | 21.53 |
| 2.00 | 1.50 | 210000 | 0.34 | 1.77 | 2.36 |
| 3.00 | 3.00 | 196000 | 0.47 | 1.27 | 2.16 |
| 3.00 | 3.00 | 196000 | 0.47 | 1.27 | 2.15 |
| 2.50 | 2.00 | 386000 | 0.43 | 1.38 | 4.98 |
| 4.00 | 3.00 | 407000 | 0.44 | 1.38 | 7.06 |
| 4.00 | 3.00 | 644000 | 0.44 | 1.38 | 11.39 |
| 5.10 | 4.00 | 691000 | 0.83 | 0.73 | 19.13 |
| 5.00 | 5.00 | 1120000 | 0.35 | 1.74 | 26.98 |
| 2.00 | 1.50 | 224000 | 0.36 | 1.67 | 2.50 |
| 3.00 | 3.00 | 203000 | 0.50 | 1.19 | 2.29 |
| 6.50 | 2.00 | 371000 | 0.46 | 1.31 | 5.23 |
| 6.50 | 2.00 | 393000 | 0.46 | 1.31 | 5.23 |
| 4.00 | 3.00 | 474000 | 0.44 | 1.38 | 8.92 |
| 4.00 | 3.00 | 707000 | 0.44 | 1.38 | 14.33 |
| 2.50 | 2.00 | 306000 | 0.33 | 1.83 | 3.99 |
| 3.00 | 2.50 | 418000 | 0.46 | 1.31 | 6.38 |
| 3.00 | 2.50 | 530000 | 0.36 | 1.65 | 8.00 |
| 4.00 | 3.00 | 533000 | 0.44 | 1.38 | 11.03 |
| 4.00 | 3.00 | 804000 | 0.44 | 1.38 | 17.70 |
| 5.00 | 4.00 | 862000 | 0.83 | 0.73 | 28.17 |
| 3.00 | 3.00 | 229000 | 0.49 | 1.23 | 3.17 |
| 3.00 | 2.50 | 383000 | 0.44 | 1.37 | 7.14 |
| 3.00 | 2.50 | 480000 | 0.46 | 1.31 | 7.81 |
| 4.00 | 3.00 | 984000 | 0.44 | 1.38 | 23.41 |
| 3.00 | 3.00 | 237000 | 0.46 | 1.30 | 3.39 |
| 2.50 | 2.00 | 335000 | 0.38 | 1.57 | 4.40 |
| 3.00 | 2.50 | 316000 | 0.38 | 1.57 | 4.30 |
| 3.00 | 2.50 | 383000 | 0.44 | 1.37 | 6.25 |
| 3.00 | 2.50 | 576000 | 0.44 | 1.35 | 10.52 |
| 5.00 | 4.00 | 1110000 | 0.44 | 1.38 | 28.37 |
| 2.50 | 2.00 | 403000 | 0.48 | 1.25 | 6.47 |
| 3.00 | 2.50 | 409000 | 0.48 | 1.25 | 6.67 |
| 3.00 | 2.50 | 707000 | 0.42 | 1.42 | 13.98 |
| 5.00 | 4.00 | 690000 | 0.45 | 1.33 | 17.95 |
| 5.00 | 4.00 | 1140000 | 0.45 | 1.33 | 30.25 |
| 2.50 | 2.00 | 398000 | 0.48 | 1.26 | 6.90 |
| 3.00 | 2.50 | 407000 | 0.48 | 1.26 | 6.85 |
| 3.00 | 2.50 | 719000 | 0.44 | 1.36 | 14.60 |
| 5.00 | 4.00 | 839000 | 0.44 | 1.38 | 22.48 |



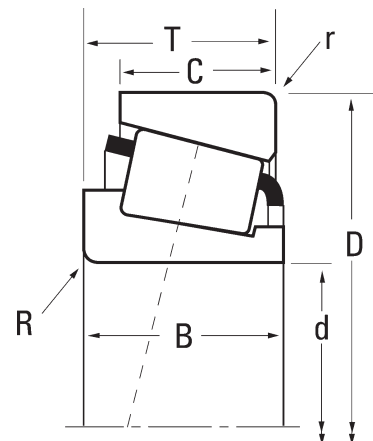
⁽¹⁾ Based on 1 x 10⁶ revolutions L₁₀ life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

| Bore | Part Number | Dimension Series (ISO 355) | Bearing Dimensions | | | | |
|------|-----------------|----------------------------|--------------------|---------|---------|---------|---------|
| | | | Bore | O.D. | Width | Width | Width |
| | | | d | D | T | B | C |
| | | mm | mm | mm | mm | mm | mm |
| 190 | 32238 | 4GD | 190.000 | 340.000 | 97.000 | 92.000 | 75.000 |
| 200 | 32940 | 3EC | 200.000 | 280.000 | 51.000 | 51.000 | 39.000 |
| | 32040X | 4FD | 200.000 | 310.000 | 70.000 | 70.000 | 53.000 |
| | 30240 | 4GB | 200.000 | 360.000 | 64.000 | 58.000 | 48.000 |
| | 32240 | 3GD | 200.000 | 360.000 | 104.000 | 98.000 | 82.000 |
| 220 | 32944 | 3EC | 220.000 | 300.000 | 51.000 | 51.000 | 39.000 |
| | 32044X | 4FD | 220.000 | 340.000 | 76.000 | 76.000 | 57.000 |
| | 30244 | - | 220.000 | 400.000 | 72.000 | 65.000 | 54.000 |
| | 32244 | - | 220.000 | 400.000 | 114.000 | 108.000 | 90.000 |
| 240 | JP24049/JP24010 | 4EB | 240.000 | 320.000 | 42.000 | 39.000 | 30.000 |
| | 32948 | 4EC | 240.000 | 320.000 | 51.000 | 51.000 | 39.000 |
| | 32048X | 4FD | 240.000 | 360.000 | 76.000 | 76.000 | 57.000 |
| 260 | 32952 | 3EC | 260.000 | 360.000 | 63.500 | 63.500 | 48.000 |
| | 32052X | 4FC | 260.000 | 400.000 | 87.000 | 87.000 | 65.000 |
| | 32252 | - | 260.000 | 480.000 | 137.000 | 130.000 | 106.000 |
| 280 | 32956 | 4EC | 280.000 | 380.000 | 63.500 | 63.500 | 48.000 |
| | 32056X | 4FC | 280.000 | 420.000 | 87.000 | 87.000 | 65.000 |
| 300 | 32960 | 3FD | 300.000 | 420.000 | 76.000 | 76.000 | 57.000 |
| | 32060X | 4GD | 300.000 | 460.000 | 100.000 | 100.000 | 74.000 |
| 320 | 32064X | 4GD | 320.000 | 480.000 | 100.000 | 100.000 | 74.000 |
| 340 | 32968 | 4FD | 340.000 | 460.000 | 76.000 | 76.000 | 57.000 |
| 360 | 32972 | 4FD | 360.000 | 480.000 | 76.000 | 76.000 | 57.000 |









| Mounting Dimensions | | Load Ratings | | | Weight kg |
|--|--|--|------------------------|------|--------------|
| Max Shaft Fillet Radius R ⁽³⁾ | Max Housing Fillet Radius r ⁽³⁾ | Dynamic Radial ⁽¹⁾ C ₁ | Factors ⁽²⁾ | | |
| | | | e | Y | |
| mm | mm | N | | | |
| 5.00 | 4.00 | 1360000 | 0.44 | 1.38 | 36.36 |
| 3.00 | 2.50 | 530000 | 0.39 | 1.52 | 9.45 |
| 3.00 | 2.50 | 847000 | 0.43 | 1.39 | 18.70 |
| 5.00 | 4.00 | 891000 | 0.44 | 1.38 | 25.67 |
| 5.00 | 4.00 | 1390000 | 0.41 | 1.48 | 42.56 |
| 3.00 | 2.50 | 561000 | 0.43 | 1.41 | 9.90 |
| 4.00 | 3.00 | 994000 | 0.43 | 1.39 | 23.97 |
| 5.10 | 4.00 | 1100000 | 0.42 | 1.43 | 35.25 |
| 5.00 | 4.00 | 1850000 | 0.44 | 1.38 | 59.41 |
| 3.00 | 3.00 | 440000 | 0.46 | 1.31 | 8.24 |
| 3.00 | 2.50 | 571000 | 0.46 | 1.31 | 10.35 |
| 4.00 | 3.00 | 1030000 | 0.46 | 1.31 | 25.73 |
| 3.00 | 2.50 | 829000 | 0.41 | 1.48 | 18.60 |
| 5.00 | 4.00 | 1320000 | 0.43 | 1.38 | 37.84 |
| 6.00 | 5.00 | 2490000 | 0.43 | 1.39 | 103.96 |
| 3.00 | 2.50 | 850000 | 0.43 | 1.39 | 19.81 |
| 5.00 | 4.00 | 1380000 | 0.46 | 1.31 | 40.30 |
| 4.00 | 3.00 | 1180000 | 0.39 | 1.52 | 31.23 |
| 5.00 | 4.00 | 1730000 | 0.43 | 1.38 | 56.32 |
| 5.00 | 4.00 | 1800000 | 0.46 | 1.31 | 59.62 |
| 4.00 | 3.00 | 1220000 | 0.44 | 1.37 | 34.46 |
| 4.00 | 3.00 | 1250000 | 0.46 | 1.31 | 45.22 |



⁽¹⁾ Based on 1 x 10⁶ revolutions L₁₀ life, for the ISO life-calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.





⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

|   | | DE  | ES  | FR  | IT  | PT  | SE  |
|---|----------------------|--|--|--|---|--|--|
| Part number | | Teilenummer | Referencia | Référence | Codice articolo | Designação | Artikelnummer |
| Bore diameter | d | Bohrungsdurchmesser | Diámetro interior | Alésage | Alesaggio | Diâmetro do furo | Lagrets innerdiameter |
| Outside diameter | D | Außendurchmesser | Diámetro exterior | Diamètre extérieur | Diametro esterno | Diâmetro externo | Lagrets ytterdiameter |
| Width | T | Breite | Ancho total | Largeur | Larghezza | Largura | Lagerbredd |
| Inner ring width | B | Breite des Innenrings | Ancho de la pista interior | Largeur de la bague intérieure | Larghezza anello interno | Largura do anel interno | Innringens bredd |
| Outer ring width | C | Breite des Außenrings | Ancho de la pista exterior | Largeur de la bague extérieure | Larghezza anello esterno | Largura do anel externo | Ytterringens bredd |
| Max shaft fillet radius ⁽³⁾ | R | Wellenabrundungsradius (Max.) | Radíos de acuerdo en eje (max) | Rayon d'arrondi d'arbre max | Raggio massimo di filettatura dell'albero | Raio máximo do encosto do eixo | Max axelradie |
| Max housing fillet radius ⁽³⁾ | r | Gehäuseabrundungsradius (Max.) | Radíos de acuerdo en alojamiento (max) | Rayon d'arrondi de logement max | Raggio massimo di filettatura dell'alloggiamento | Raio máximo do mancal | Max husradie |
| Dynamic load rating ⁽¹⁾ | C₁ | Dynamische Tragzahl | Capacidad de carga dinámica | Capacité de charge dynamique | Coefficiente di carico dinamico | Capacidade de carga dinâmica | Dynamiskt bärighetstal |
| Factor ⁽²⁾ | e | Faktor | Factor | Facteur | Fattore | Fator | Faktor |
| Factor ⁽²⁾ | Y | Faktor | Factor | Facteur | Fattore | Fator | Faktor |
| Weight | | Gewicht | Peso | Poids | Peso | Peso | Vikt |
| Tapered roller bearing | | Kegelrollenlager | Rodamiento de rodillos cónicos | Roulement à rouleaux cóniques | Cuscinetto a rulli conici | Rolamento de rolo cónico | Koniskt rullager |
| Width series | | Breitenreihe | Serías de anchura | Séries de largeur | Serie relativa alla larghezza | Largura da série | Breddseriebeteckning |
| Diameter series | | Durchmesserreihe | Serías de diámetro | Séries de diamètre | Serie relativa al diametro | Diâmetro da série | Diameterseriebeteckning |
| Bore code | | Bezeichnung der Innenringbohrung | Código para la designación del diámetro interior | Code d'alésage du cône | Designazione dell'alesaggio dell'anello interno | Código do furo | Beteckning för innerdiameter |
| Angle series | | Bezeichnung für Winkelbaureihe | Serías de angularidad | Désignation de la série d'angle | Designazione serie angolare | Ângulo do furo | Kod för konvinkelsérie |
| Bore diameter | | Bohrungsdurchmesser | Diámetro interior | Diamètre d'alésage | Alesaggio | Diâmetro do Furo | Lagrets innerdiameter |
| Metric component | | Metrische Bezeichnung | Referencia métrica | Composant métrique | Identifica le dimensioni d'ingombro metriche | Componente métrico | Metrisk komponent |
| Duty | | Verwendungsklasse | Indica a grandes rasgos las características | Usage | Tipo di utilizzo | Pesado | Applikationsklass |
| Component designator | | Komponentenbezeichnung | Número de referencia | Désignation du composant | Designazione del componente | Designação do componente | Komponentnummer |
| Series prefix | | Präfix der Baureihe | Características | Préfixe de la série | Prefisso di identificazione della serie | Prefixo da série | Serieprefix |
| Basic series indication | | Angabe der Basisbaureihe | Indicativo básico de la serie | Série de base | Indicazione delle serie di base | Indicador básico da série | Basserienummer |

⁽¹⁾ Based on 1 x 10⁶ revolutions L10 life for the ISO life calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

|  |  |  |  |  |  |  | |
|---|---|---|---|--|---|---|-------------------------------|
| Part number | | Označení ložiska | Oznaczenie | Simbol | Обозначение | Parça numarası | 内径 |
| Bore diameter | d | Průměr díry | Średnica otworu | Alezaj | Диаметр внутреннего отверстия | Delik çapı | 外径 |
| Outside diameter | D | Vnější průměr | Średnica zewnętrzna | Diametrul exterior | Наружный диаметр | Dış çap | 幅 |
| Width | T | Šířka | Szerokość | Lățime | Ширина | Genişlik | 型番 |
| Inner ring width | B | Šířka vnitřního kroužku | Szerokość pierścienia wewnętrznego | Lățimea inelului interior | Ширина внутреннего кольца | İç bilezik genişliği (mm) | 内輪幅 |
| Outer ring width | C | Šířka vnějšího kroužku | Szerokość pierścienia zewnętrznego | Lățimea inelului exterior | Ширина наружного кольца | Dış bilezik genişliği (mm) | 外輪幅 |
| Max shaft fillet radius ⁽³⁾ | R | Max. poloměr zaoblení hřídele | Wał - ściepnie montażowe (maks.) | Raza max. de racordare a umărului arborelui | Макс. радиус галтели вала | Maks. mil köşe radyüsü | 軸面取り (上限値) ⁽³⁾ |
| Max housing fillet radius ⁽³⁾ | r | Max. poloměr zaoblení skříně | Obudowa - ściepnie montażowe (maks.) | Raza max. de racordare a umărului carcasei | Макс. радиус галтели корпуса | Maks. yatak köşe radyüsü | ハウジング面取り (上限値) ⁽³⁾ |
| Dynamic load rating ⁽¹⁾ | C₁ | Dynamická únosnost | Nośność dynamiczna | Capacitatea de încărcare dinamică | Базовая динамическая осевая грузоподъемность | Dinamik yük değeri | 動定格荷重 |
| Factor ⁽²⁾ | e | Součinitel | Współczynnik | Factor | Кoeffициент | Faktör | 係数 |
| Factor ⁽²⁾ | Y | Součinitel | Współczynnik | Factor | Кoeffициент | Faktör | 係数 |
| Weight | | Hmotnost | Masa | Masa | Масса | Ağırlık | 重量 |
| Tapered roller bearing | | Kuželkové ložisko | Łożysko stożkowe | Rulment cu role conice | Конический роликовый подшипник | Konik makaralı rulman | テーパローラベアリング |
| Width series | | Šířková řada | Seria szerokości | Serie lățimi | Серия ширин | Genişlik serisi göstergesi | 幅シリーズ |
| Diameter series | | Průměrová řada | Seria średnic | Serie diametre | Серия диаметров | Dış çap serisi göstergesi | 直径シリーズ |
| Bore code | | Kód díry vnitřního kroužku | Oznaczenie średnicy otworu pierścienia wewnętrznego | Indicativul alezajului inelului interior | Код отверстия | Delik çapı numarası | 内径コード |
| Angle series | | Úhlová řada | Seria kątów | Serie unghiuri | Серия углов наклона роликов | Açı serisi göstergesi | 角度シリーズ |
| Bore diameter | | Průměr díry | Średnica otworu | Alezaj | Диаметр внутреннего отверстия | Delik çapı | 内径 |
| Metric component | | Indikace metrické součásti | Łożysko w systemie metrycznym | Component metric | Указатель метрической серии | Metrik rulman göstergesi | メートル系部品 |
| Duty | | Provozní podmínky | Podzaj zastosowania | Încarcare | Назначение подшипника | Yük/Hizmet sınıfı | 负荷 |
| Component designator | | Indikace komponentu | Wyróżnik elementu | Indicativ component | Тип компонента | Rulman bileşenleri göstergesi | 部品識別子 |
| Series prefix | | Předpona řady | Klasa obciążenia (przedrostek) | Prefixul seriei | Класс нагружения | Yük/Hizmet sınıfı | シリーズ先頭コード |
| Basic series indication | | Základní značení řady | Oznaczenie podstawowe serii | Indicativul seriei de bază | Основная серия | Rulman tipi göstergesi | 基本シリーズコード |

⁽¹⁾ Based on 1 x 10⁶ revolutions L10 life for the ISO life calculation method.

⁽²⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

⁽³⁾ These maximum fillet radii will be cleared by the bearing corners.

TIMKEN

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