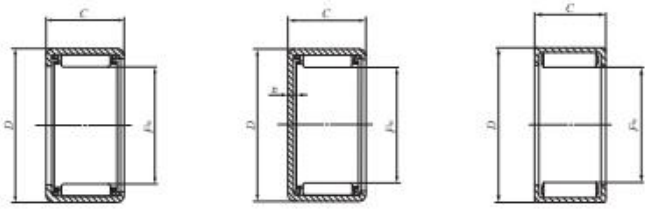
SORUPACHAI



# SHELL TYPE NEEDLE ROLLER BEARINGS





TA···Z TLA···Z TAM TLAM YT YTL

## Shaft dia. 4 — 10mm

| Shaft dia. mm | Identification number | | | | | | | | | | Boundary dimensions mm | | | | Standard mounting dimensions mm | | | | | | Basic dynamic load rating $C$ | Basic static load rating $C_0$ | Allowable rotational speed(1) | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | $F_w$ | $D$ | $C$ | $t_2$ Max. | Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | N | N | min⁻¹ | |
| 4 | — | — | — | — | TLA 48 Z | 1.54 | TLAM 48 | 1.67 | — | — | 4 | 8 | 8 | 1 | 4.000 | 3.992 | — | — | 7.996 | 7.981 | 1 350 | 1 010 | 75 000 | — |
| | — | — | — | — | — | — | — | — | YTL 48 | 1.73 | 4 | 8 | 8 | — | | | | | | | 3 010 | 2 900 | 40 000 | — |
| 5 | — | — | — | — | TLA 59 Z | 1.9 | TLAM 59 | 2 | — | — | 5 | 9 | 9 | 1 | 5.000 | 4.992 | — | — | 8.996 | 8.981 | 1 880 | 1 600 | 65 000 | — |
| | — | — | — | — | — | — | — | — | YTL 59 | 2.4 | 5 | 9 | 9 | — | | | | | | | 4 320 | 4 750 | 30 000 | — |
| 6 | — | — | — | — | TLA 69 Z | 2.2 | TLAM 69 | 2.3 | — | — | 6 | 10 | 9 | 1 | 6.000 | 5.992 | — | — | 9.996 | 9.981 | 2 100 | 1 900 | 55 000 | — |
| 7 | — | — | — | — | TLA 79 Z | 2.5 | TLAM 79 | 2.7 | — | — | 7 | 11 | 9 | 1 | 7.000 | 6.991 | — | — | 10.995 | 10.977 | 2 490 | 2 450 | 50 000 | — |
| 8 | — | — | — | — | TLA 810 Z | 3.1 | TLAM 810 | 3.3 | — | — | 8 | 12 | 10 | 1 | 8.000 | 7.991 | — | — | 11.995 | 11.977 | 3 320 | 3 670 | 45 000 | — |
| | TA 810 Z | 6.7 | TAM 810 | 7.1 | — | — | — | — | — | — | 8 | 15 | 10 | 1.3 | 8.000 | 7.991 | 15.010 | 14.992 | — | — | 3 470 | 2 880 | 45 000 | — |
| | TA 815 Z | 9.7 | TAM 815 | 10.1 | — | — | — | — | — | — | 8 | 15 | 15 | 1.3 | | | | | | | 5 780 | 5 570 | 45 000 | — |
| | TA 820 Z | 12.9 | TAM 820 | 13.3 | — | — | — | — | — | — | 8 | 15 | 20 | 1.3 | | | | | | | 8 340 | 8 920 | 45 000 | — |
| | — | — | — | — | — | — | — | — | YT 810 | 7.7 | 8 | 15 | 10 | — | | | | | | | 7 530 | 7 950 | 19 000 | — |
| 9 | — | — | — | — | TLA 910 Z | 3.4 | TLAM 910 | 3.6 | — | — | 9 | 13 | 10 | 1 | 9.000 | 8.991 | — | — | 12.995 | 12.977 | 3 500 | 4 040 | 45 000 | — |
| | — | — | — | — | TLA 912 Z | 4 | TLAM 912 | 4.3 | — | — | 9 | 13 | 12 | 1 | | | | | | | 4 460 | 5 510 | 45 000 | — |
| | TA 912 Z | 8.7 | TAM 912 | 9.2 | — | — | — | — | — | — | 9 | 16 | 12 | 1.3 | 9.000 | 8.991 | 16.010 | 15.992 | — | — | 5 140 | 4 880 | 45 000 | — |
| | TA 916 Z | 11.4 | TAM 916 | 11.9 | — | — | — | — | — | — | 9 | 16 | 16 | 1.3 | | | | | | | 6 960 | 7 210 | 45 000 | — |
| | — | — | — | — | — | — | — | — | YT 912 | 10.1 | 9 | 16 | 12 | — | | | | | | | 9 690 | 11 200 | 17 000 | — |
| 10 | — | — | — | — | TLA 1010 Z | 3.7 | TLAM 1010 | 4 | — | — | 10 | 14 | 10 | 1 | 10.000 | 9.991 | — | — | 13.995 | 13.977 | 3 870 | 4 740 | 40 000 | IRT 710 |
| | — | — | — | — | TLA 1012 Z | 4.4 | TLAM 1012 | 4.8 | — | — | 10 | 14 | 12 | 1 | | | | | | | 4 920 | 6 460 | 40 000 | IRT 712 |
| | — | — | — | — | TLA 1015 Z | 5.5 | TLAM 1015 | 5.9 | — | — | 10 | 14 | 15 | 1 | | | | | | | 6 390 | 9 040 | 40 000 | IRT 715 |
| | TA 1010 Z | 7.9 | TAM 1010 | 8.5 | — | — | — | — | — | — | 10 | 17 | 10 | 1.3 | 10.000 | 9.991 | 17.010 | 16.992 | — | — | 4 150 | 3 780 | 40 000 | IRT 710 |
| | TA 1012 Z | 9.3 | TAM 1012 | 10 | — | — | — | — | — | — | 10 | 17 | 12 | 1.3 | | | | | | | 5 590 | 5 540 | 40 000 | IRT 712 |
| | TA 1015 Z | 11.5 | TAM 1015 | 12.2 | — | — | — | — | — | — | 10 | 17 | 15 | 1.3 | | | | | | | 6 920 | 7 300 | 40 000 | IRT 715 |
| | TA 1020 Z | 15.4 | TAM 1020 | 16 | — | — | — | — | — | — | 10 | 17 | 20 | 1.3 | | | | | | | 9 990 | 11 700 | 40 000 | — |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remark Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and close end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

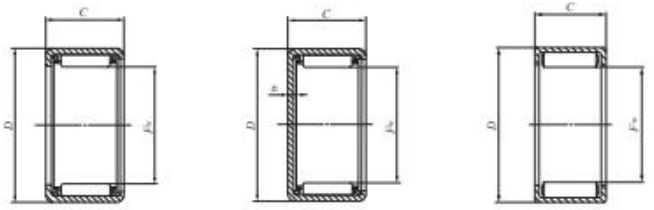
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

SORUPACHAI



# SHELL TYPE NEEDLE ROLLER BEARINGS





TA···Z TLA···Z TAM TLAM YT YTL

## Shaft dia. 12 — 15mm

| Shaft dia. mm | Identification number | | | | | | | | | | Boundary dimensions mm | | | | Standard mounting dimensions mm | | | | | | Basic dynamic load rating C N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Shaft dia. h6 | | Housing bore dia. J7 | | N7 | | | | | |
| | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | $F_w$ | $D$ | $C$ | $t_2$ Max. | Max. | Min. | Max. | Min. | Max. | Min. | | | | |
| 12 | — | — | — | — | TLA 1210 Z | 4.3 | TLAM 1210 | 4.7 | — | — | 12 | 16 | 10 | 1 | 12.000 | 11.989 | — | — | 15.995 | 15.977 | 4 350 | 5 810 | 35 000 | IRT 810 |
| | — | — | — | — | — | — | — | — | YTL 1210 | 5.1 | 12 | 16 | 10 | — | | | | | | | 7 470 | 11 800 | 13 000 | IRT 810 |
| | — | — | — | — | TLA 1212 Z | 8.6 | TLAM 1212 | 9.4 | — | — | 12 | 18 | 12 | 1.3 | 12.000 | 11.989 | — | — | 17.995 | 17.977 | 6 420 | 7 490 | 35 000 | IRT 812 |
| | TA 1212 Z | 10.5 | TAM 1212 | 11.5 | — | — | — | — | — | — | 12 | 19 | 12 | 1.3 | | | | | | | 6 000 | 6 310 | 35 000 | IRT 812 |
| | TA 1215 Z | 13.1 | TAM 1215 | 14 | — | — | — | — | — | — | 12 | 19 | 15 | 1.3 | | | | | | | 7 440 | 8 320 | 35 000 | IRT 815 |
| | TA 1220 Z | 17.3 | TAM 1220 | 18.3 | — | — | — | — | — | — | 12 | 19 | 20 | 1.3 | 12.000 | 11.989 | 19.012 | 18.991 | — | — | 10 700 | 13 300 | 35 000 | — |
| | TA 1225 Z | 21.5 | TAM 1225 | 22.5 | — | — | — | — | — | — | 12 | 19 | 25 | 1.3 | | | | | | | 13 800 | 18 300 | 35 000 | — |
| | — | — | — | — | — | — | — | — | YT 1212 | 12.8 | 12 | 19 | 12 | — | | | | | | | 11 800 | 15 200 | 13 000 | IRT 812 |
| 13 | — | — | — | — | TLA 1312 Z | 9.2 | TLAM 1312 | 10.1 | — | — | 13 | 19 | 12 | 1.3 | 13.000 | 12.989 | — | — | 18.993 | 18.972 | 6 760 | 8 170 | 30 000 | IRT 1012 |
| 14 | — | — | — | — | TLA 1412 Z | 9.8 | TLAM 1412 | 10.8 | — | — | 14 | 20 | 12 | 1.3 | 14.000 | 13.989 | — | — | 19.993 | 19.972 | 7 080 | 8 840 | 30 000 | IRT 1012-2 |
| | — | — | — | — | TLA 1416 Z | 13.2 | TLAM 1416 | 14.3 | — | — | 14 | 20 | 16 | 1.3 | | | | | | | 8 950 | 12 000 | 30 000 | IRT 1016-2 |
| | TA 1416 Z | 18.4 | TAM 1416 | 19.6 | — | — | — | — | — | — | 14 | 22 | 16 | 1.3 | 14.000 | 13.989 | 22.012 | 21.991 | — | — | 10 500 | 12 000 | 30 000 | IRT 1016-2 |
| | TA 1420 Z | 23 | TAM 1420 | 24 | — | — | — | — | — | — | 14 | 22 | 20 | 1.3 | | | | | | | 13 900 | 17 200 | 30 000 | IRT 1020-2 |
| 15 | — | — | — | — | TLA 1512 Z | 10.4 | TLAM 1512 | 11.5 | — | — | 15 | 21 | 12 | 1.3 | 15.000 | 14.989 | — | — | 20.993 | 20.972 | 7 380 | 9 520 | 25 000 | IRT 1212 |
| | — | — | — | — | TLA 1516 Z | 14 | TLAM 1516 | 15.2 | — | — | 15 | 21 | 16 | 1.3 | | | | | | | 9 330 | 12 900 | 25 000 | IRT 1216 |
| | — | — | — | — | TLA 1522 Z | 19.1 | TLAM 1522 | 20.5 | — | — | 15 | 21 | 22 | 1.3 | | | | | | | 13 600 | 20 900 | 25 000 | IRT 1222 |
| | TA 1510 Z | 10.8 | TAM 1510 | 12.3 | — | — | — | — | — | — | 15 | 22 | 10 | 1.3 | | | | | | | 5 290 | 5 680 | 25 000 | IRT 1010-1 |
| | TA 1512 Z | 12.9 | TAM 1512 | 14.3 | — | — | — | — | — | — | 15 | 22 | 12 | 1.3 | | | | | | | 7 120 | 8 310 | 25 000 | IRT 1012-1 |
| | TA 1515 Z | 15.9 | TAM 1515 | 17.3 | — | — | — | — | — | — | 15 | 22 | 15 | 1.3 | 15.000 | 14.989 | 22.012 | 21.991 | — | — | 8 830 | 11 000 | 25 000 | IRT 1015-1 |
| | TA 1520 Z | 21 | TAM 1520 | 22.5 | — | — | — | — | — | — | 15 | 22 | 20 | 1.3 | | | | | | | 12 700 | 17 600 | 25 000 | IRT 1020-1 |
| | TA 1525 Z | 25 | TAM 1525 | 26.5 | — | — | — | — | — | — | 15 | 22 | 25 | 1.3 | | | | | | | 16 300 | 24 200 | 25 000 | IRT 1025-1 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remark Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and closed end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

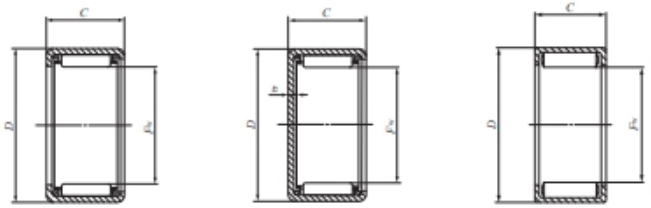
SORUPACHAI



IKO

## SHELL TYPE NEEDLE ROLLER BEARINGS






### Shaft dia. 16 — 19mm

| Shaft dia. mm | Identification number | | | | | | | | | | Boundary dimensions mm | | | | Standard mounting dimensions mm | | | | | | Basic dynamic load rating | Basic static load rating | Allowable rotational speed(1) | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Shaft dia. h6 | | Housing bore dia. J7 | | Housing bore dia. N7 | | | | | |
| | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | $F_w$ | $D$ | $C$ | $t_2$ Max. | Max. | Min. | Max. | Min. | Max. | Min. | $C$ N | $C_0$ N | min⁻¹ | |
| 16 | — | — | — | — | TLA 1612 Z | 10.9 | TLAM 1612 | 12.2 | — | — | 16 | 22 | 12 | 1.3 | | | | | | | 7 670 | 10 200 | 25 000 | IRT 1212-1 |
| | — | — | — | — | TLA 1616 Z | 14.8 | TLAM 1616 | 16.1 | — | — | 16 | 22 | 16 | 1.3 | 16.000 | 15.989 | — | — | 21.993 | 21.972 | 9 700 | 13 800 | 25 000 | IRT 1216-1 |
| | — | — | — | — | TLA 1622 Z | 20 | TLAM 1622 | 21.5 | — | — | 16 | 22 | 22 | 1.3 | | | | | | | 14 200 | 22 400 | 25 000 | IRT 1222-1 |
| | TA 1616 Z | 20 | TAM 1616 | 22 | — | — | — | — | — | — | 16 | 24 | 16 | 1.3 | 16.000 | 15.989 | 24.012 | 23.991 | — | — | 11 100 | 13 300 | 25 000 | IRT 1216-1 |
| | TA 1620 Z | 25 | TAM 1620 | 27 | — | — | — | — | — | — | 16 | 24 | 20 | 1.3 | | | | | | | 14 700 | 19 100 | 25 000 | IRT 1220-1 |
| 17 | — | — | — | — | TLA 1712 Z | 11.5 | TLAM 1712 | 13 | — | — | 17 | 23 | 12 | 1.3 | 17.000 | 16.989 | — | — | 22.993 | 22.972 | 7 960 | 10 900 | 25 000 | — |
| | TA 1715 Z | 17.6 | TAM 1715 | 19.5 | — | — | — | — | — | — | 17 | 24 | 15 | 1.3 | | | | | | | 9 660 | 12 700 | 25 000 | IRT 1215-2 |
| | TA 1720 Z | 23.5 | TAM 1720 | 25 | — | — | — | — | — | — | 17 | 24 | 20 | 1.3 | | | | | | | 13 900 | 20 400 | 25 000 | IRT 1220-2 |
| | TA 1725 Z | 29 | TAM 1725 | 31 | — | — | — | — | — | — | 17 | 24 | 25 | 1.3 | 17.000 | 16.989 | 24.012 | 23.991 | — | — | 17 900 | 28 100 | 25 000 | IRT 1225-2 |
| | — | — | — | — | — | — | — | — | YT 1715 | 20.5 | 17 | 24 | 15 | — | | | | | | | 16 600 | 26 000 | 9 000 | IRT 1215-2 |
| | — | — | — | — | — | — | — | — | YT 1725 | 35.5 | 17 | 24 | 25 | — | | | | | | | 27 200 | 49 000 | 9 000 | IRT 1225-2 |
| 18 | — | — | — | — | TLA 1812 Z | 12 | TLAM 1812 | 13.7 | — | — | 18 | 24 | 12 | 1.3 | 18.000 | 17.989 | — | — | 23.993 | 23.972 | 8 230 | 11 500 | 20 000 | IRT 1512 |
| | — | — | — | — | TLA 1816 Z | 16.2 | TLAM 1816 | 17.9 | — | — | 18 | 24 | 16 | 1.3 | | | | | | | 10 400 | 15 600 | 20 000 | IRT 1516 |
| | TA 1813 Z | 16.4 | TAM 1813 | 18.5 | — | — | — | — | — | — | 18 | 25 | 13 | 1.3 | | | | | | | 9 100 | 12 000 | 20 000 | IRT 1513 |
| | TA 1815 Z | 18.5 | TAM 1815 | 20.5 | — | — | — | — | — | — | 18 | 25 | 15 | 1.3 | | | | | | | 10 100 | 13 600 | 20 000 | IRT 1515 |
| | TA 1817 Z | 21 | TAM 1817 | 23 | — | — | — | — | — | — | 18 | 25 | 17 | 1.3 | | | | | | | 11 900 | 16 900 | 20 000 | IRT 1517 |
| | TA 1819 Z | 23.5 | TAM 1819 | 25.5 | — | — | — | — | — | — | 18 | 25 | 19 | 1.3 | 18.000 | 17.989 | 25.012 | 24.991 | — | — | 13 700 | 20 200 | 20 000 | IRT 1519 |
| | TA 1820 Z | 24.5 | TAM 1820 | 26.5 | — | — | — | — | — | — | 18 | 25 | 20 | 1.3 | | | | | | | 14 500 | 21 800 | 20 000 | IRT 1520 |
| | TA 1825 Z | 30.5 | TAM 1825 | 32.5 | — | — | — | — | — | — | 18 | 25 | 25 | 1.3 | | | | | | | 18 600 | 30 000 | 20 000 | IRT 1525 |
| 19 | TA 1916 Z | 23 | TAM 1916 | 25.5 | — | — | — | — | — | — | 19 | 27 | 16 | 1.3 | 19.000 | 18.987 | 27.012 | 26.991 | — | — | 12 200 | 15 700 | 20 000 | IRT 1516-1 |
| | TA 1920 Z | 29 | TAM 1920 | 31 | — | — | — | — | — | — | 19 | 27 | 20 | 1.3 | | | | | | | 16 100 | 22 600 | 20 000 | IRT 1520-1 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remark Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and closed end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

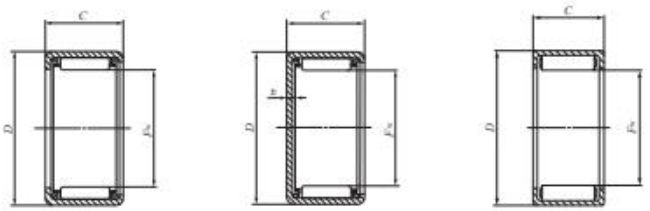
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

SORUPACHAI



## SHELL TYPE NEEDLE ROLLER BEARINGS






### Shaft dia. 20 — 21mm

| Shaft dia. mm | Identification number: Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | Boundary dimensions mm: $F_w$ | $D$ | $C$ | $t_2$ Max. | Standard mounting dimensions mm: Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | Basic dynamic load rating $C$ N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | — | — | — | — | TLA 2012 Z | 13.2 | TLAM 2012 | 15.2 | — | — | 20 | 26 | 12 | 1.3 | 20.000 | 19.987 | — | — | 25.993 | 25.972 | 8 740 | 12 900 | 20 000 | — |
| | — | — | — | — | TLA 2016 Z | 17.8 | TLAM 2016 | 19.9 | — | — | 20 | 26 | 16 | 1.3 | | | | | | | 11 100 | 17 500 | 20 000 | IRT 1716 |
| | — | — | — | — | TLA 2020 Z | 22 | TLAM 2020 | 24 | — | — | 20 | 26 | 20 | 1.3 | | | | | | | 14 500 | 24 700 | 20 000 | IRT 1720 |
| | — | — | — | — | TLA 2030 Z | 33 | TLAM 2030 | 35 | — | — | 20 | 26 | 30 | 1.3 | | | | | | | 22 300 | 42 900 | 20 000 | IRT 1730 |
| | TA 2015 Z | 20 | TAM 2015 | 22.5 | — | — | — | — | — | — | 20 | 27 | 15 | 1.3 | 20.000 | 19.987 | 27.012 | 26.991 | — | — | 10 400 | 14 600 | 20 000 | IRT 1515-2 |
| | TA 2020 Z | 26.5 | TAM 2020 | 29 | — | — | — | — | — | — | 20 | 27 | 20 | 1.3 | | | | | | | 15 000 | 23 400 | 20 000 | IRT 1520-2 |
| | TA 2025 Z | 33 | TAM 2025 | 35.5 | — | — | — | — | — | — | 20 | 27 | 25 | 1.3 | | | | | | | 19 200 | 32 200 | 20 000 | IRT 1525-2 |
| | TA 2030 Z | 39.5 | TAM 2030 | 42 | — | — | — | — | — | — | 20 | 27 | 30 | 1.3 | | | | | | | 23 100 | 41 000 | 20 000 | IRT 1530-2 |
| | — | — | — | — | — | — | — | — | YT 2015 | 23.5 | 20 | 27 | 15 | — | | | | | | | 18 400 | 30 900 | 7 500 | IRT 1515-2 |
| | — | — | — | — | — | — | — | — | YT 2025 | 41 | 20 | 27 | 25 | — | | | | | | | 30 000 | 58 300 | 7 500 | IRT 1525-2 |
| | TA 202820 Z | 30 | TAM 202820 | 32.5 | — | — | — | — | — | — | 20 | 28 | 20 | 1.3 | 20.000 | 19.987 | 28.012 | 27.991 | — | — | 16 900 | 24 300 | 20 000 | IRT 1520-2 |
| | — | — | — | — | — | — | — | — | YT 202820 | 37.5 | 20 | 28 | 20 | — | | | | | | | 26 800 | 44 600 | 7 500 | IRT 1520-2 |
| 21 | TA 2116 Z | 25 | TAM 2116 | 28 | — | — | — | — | — | — | 21 | 29 | 16 | 1.3 | 21.000 | 20.987 | 29.012 | 28.991 | — | — | 13 300 | 18 100 | 19 000 | IRT 1716-1 |
| | TA 2120 Z | 31.5 | TAM 2120 | 34.5 | — | — | — | — | — | — | 21 | 29 | 20 | 1.3 | | | | | | | 17 600 | 25 900 | 19 000 | IRT 1720-1 |
| | — | — | — | — | — | — | — | — | YT 2116 | 31 | 21 | 29 | 16 | — | | | | | | | 22 100 | 35 200 | 7 000 | IRT 1716-1 |
| | — | — | — | — | — | — | — | — | YT 2120 | 39 | 21 | 29 | 20 | — | | | | | | | 27 500 | 46 800 | 7 000 | IRT 1720-1 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remark Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and closed end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

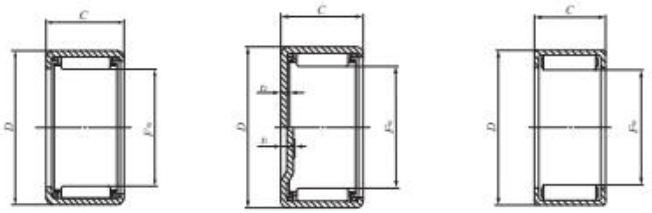
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

SORUPACHAI



## SHELL TYPE NEEDLE ROLLER BEARINGS






Shaft dia. 22 — 24mm

| Shaft dia. mm | Identification number: Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | Boundary dimensions mm: $F_w$ | $D$ | $C$ | $t_1$, $t_2$ Max. | Standard mounting dimensions mm: Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | Basic dynamic load rating $C$ N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | — | — | — | — | TLA 2212 Z | 15.6 | TLAM 2212 | 18.1 | — | — | 22 | 28 | 12 | 1.3 | | | | | | | 9 230 | 14 300 | 18 000 | — |
| | — | — | — | — | TLA 2216 Z | 21.5 | TLAM 2216 | 24 | — | — | 22 | 28 | 16 | 1.3 | 22.000 | 21.987 | — | — | 27.993 | 27.972 | 11 700 | 19 300 | 18 000 | IRT 1716-2 |
| | — | — | — | — | TLA 2220 Z | 26.5 | TLAM 2220 | 29 | — | — | 22 | 28 | 20 | 1.3 | | | | | | | 15 300 | 27 300 | 18 000 | IRT 1720-2 |
| | TA 2210 Z | 15 | TAM 2210 | 18.1 | — | — | — | — | — | — | 22 | 29 | 10 | 1.3 | | | | | | | 6 650 | 8 500 | 18 000 | IRT 1710-2 |
| | TA 2215 Z | 21.5 | TAM 2215 | 24.5 | — | — | — | — | — | — | 22 | 29 | 15 | 1.3 | | | | | | | 11 100 | 16 400 | 18 000 | IRT 1715-2 |
| | TA 2220 Z | 29 | TAM 2220 | 32 | — | — | — | — | — | — | 22 | 29 | 20 | 1.3 | 22.000 | 21.987 | 29.012 | 28.991 | — | — | 16 000 | 26 300 | 18 000 | IRT 1720-2 |
| | TA 2225 Z | 35.5 | TAM 2225 | 38.5 | — | — | — | — | — | — | 22 | 29 | 25 | 1.3 | | | | | | | 19 700 | 34 300 | 18 000 | IRT 1725-2 |
| | TA 2230 Z | 42.5 | TAM 2230 | 45.5 | — | — | — | — | — | — | 22 | 29 | 30 | 1.3 | | | | | | | 23 800 | 43 700 | 18 000 | IRT 1730-2 |
| | TA 223016 Z | 26 | TAM 223016 | 29 | — | — | — | — | — | — | 22 | 30 | 16 | 1.3 | | | | | | | 13 200 | 18 200 | 18 000 | IRT 1716-2 |
| | TA 223020 Z | 32.5 | TAM 223020 | 35.5 | — | — | — | — | — | — | 22 | 30 | 20 | 1.3 | 22.000 | 21.987 | 30.012 | 29.991 | — | — | 17 500 | 26 100 | 18 000 | IRT 1720-2 |
| | — | — | — | — | — | — | — | — | YT 223016 | 32 | 22 | 30 | 16 | — | | | | | | | 22 600 | 36 800 | 7 000 | IRT 1716-2 |
| | — | — | — | — | — | — | — | — | YT 223020 | 40.5 | 22 | 30 | 20 | — | | | | | | | 28 200 | 48 900 | 7 000 | IRT 1720-2 |
| 24 | TA 2420 Z | 31 | TAM 2420 | 35 | — | — | — | — | — | — | 24 | 31 | 20 | 3.4 | | | | | | | 17 000 | 29 200 | 16 000 | IRT 2020 |
| | TA 2428 Z | 43.5 | TAM 2428 | 47 | — | — | — | — | — | — | 24 | 31 | 28 | 3.4 | 24.000 | 23.987 | 31.014 | 30.989 | — | — | 24 500 | 46 700 | 16 000 | IRT 2028 |
| | — | — | — | — | — | — | — | — | YT 2428 | 54 | 24 | 31 | 28 | — | | | | | | | 36 800 | 79 900 | 6 500 | IRT 2028 |
| | TA 243216 Z | 28 | TAM 243216 | 32 | — | — | — | — | — | — | 24 | 32 | 16 | 3.4 | | | | | | | 14 200 | 20 500 | 16 000 | IRT 2016 |
| | TA 243220 Z | 35.5 | TAM 243220 | 39 | — | — | — | — | — | — | 24 | 32 | 20 | 3.4 | 24.000 | 23.987 | 32.014 | 31.989 | — | — | 18 800 | 29 400 | 16 000 | IRT 2020 |
| | — | — | — | — | — | — | — | — | YT 243216 | 34.5 | 24 | 32 | 16 | — | | | | | | | 23 700 | 40 100 | 6 500 | IRT 2016 |
| | — | — | — | — | — | — | — | — | YT 243220 | 43.5 | 24 | 32 | 20 | — | | | | | | | 29 500 | 53 200 | 6 500 | IRT 2020 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remark Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and close end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

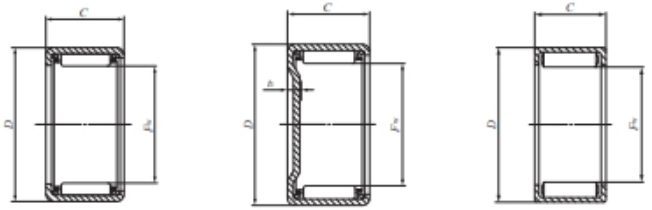
SORUPACHAI



IKO

## SHELL TYPE NEEDLE ROLLER BEARINGS





TA···Z TLA···Z TAM TLAM YT YTL

### Shaft dia. 25 — 28mm

| Shaft dia. mm | Identification number | | | | | | | | | | Boundary dimensions mm | | | | Standard mounting dimensions mm | | | | | | Basic dynamic load rating $C$ N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | $F_w$ | $D$ | $C$ | $t_1$ Max. | Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | | | | |
| 25 | — | — | — | — | TLA 2512 Z | 19.7 | TLAM 2512 | 23.5 | — | — | 25 | 32 | 12 | 2.8 | | | | | | | 9 440 | 13 900 | 15 000 | — |
| | — | — | — | — | TLA 2516 Z | 26 | TLAM 2516 | 29.5 | — | — | 25 | 32 | 16 | 2.8 | | | | | | | 12 800 | 20 500 | 15 000 | — |
| | — | — | — | — | TLA 2520 Z | 32 | TLAM 2520 | 36 | — | — | 25 | 32 | 20 | 2.8 | 25.000 | 24.987 | — | — | 31.992 | 31.967 | 16 900 | 29 300 | 15 000 | IRT 2020-1 |
| | — | — | — | — | TLA 2526 Z | 41.5 | TLAM 2526 | 45.5 | — | — | 25 | 32 | 26 | 2.8 | | | | | | | 22 600 | 42 500 | 15 000 | IRT 2026-1 |
| | — | — | — | — | TLAW2538Z | 58.5 | TLAMW2538 | 62 | — | — | 25 | 32 | 38 | 2.8 | | | | | | | 28 900 | 58 500 | 15 000 | IRT 2038-1 |
| | — | — | — | — | — | — | — | — | YTL 2526 | 51.5 | 25 | 32 | 26 | — | | | | | | | 35 000 | 75 800 | 6 000 | IRT 2026-1 |
| | TA 2510 Z | 19.1 | TAM 2510 | 23 | — | — | — | — | — | — | 25 | 33 | 10 | 3.4 | | | | | | | 7 990 | 9 900 | 15 000 | IRT 2010-1 |
| | TA 2515 Z | 28.5 | TAM 2515 | 32.5 | — | — | — | — | — | — | 25 | 33 | 15 | 3.4 | | | | | | | 13 400 | 19 300 | 15 000 | IRT 2015-1 |
| | TA 2520 Z | 36.5 | TAM 2520 | 40.5 | — | — | — | — | — | — | 25 | 33 | 20 | 3.4 | 25.000 | 24.987 | 33.014 | 32.989 | — | — | 19 500 | 31 100 | 15 000 | IRT 2020-1 |
| | TA 2525 Z | 45.5 | TAM 2525 | 49 | — | — | — | — | — | — | 25 | 33 | 25 | 3.4 | | | | | | | 24 100 | 40 800 | 15 000 | IRT 2025-1 |
| | TA 2530 Z | 54.5 | TAM 2530 | 58.5 | — | — | — | — | — | — | 25 | 33 | 30 | 3.4 | | | | | | | 29 100 | 52 000 | 15 000 | IRT 2030-1 |
| | — | — | — | — | — | — | — | — | YT 2510 | 22.5 | 25 | 33 | 10 | — | | | | | | | 15 500 | 23 600 | 6 000 | IRT 2010-1 |
| | — | — | — | — | — | — | — | — | YT 2515 | 33 | 25 | 33 | 15 | — | | | | | | | 22 700 | 38 300 | 6 000 | IRT 2015-1 |
| | — | — | — | — | — | — | — | — | YT 2520 | 45 | 25 | 33 | 20 | — | 25.000 | 24.987 | 33.014 | 32.989 | — | — | 30 200 | 55 400 | 6 000 | IRT 2020-1 |
| | — | — | — | — | — | — | — | — | YT 2525 | 57 | 25 | 33 | 25 | — | | | | | | | 37 200 | 72 500 | 6 000 | IRT 2025-1 |
| 26 | TA 2616 Z | 30.5 | TAM 2616 | 34.5 | — | — | — | — | — | — | 26 | 34 | 16 | 3.4 | | | | | | | 15 200 | 22 900 | 15 000 | IRT 2216 |
| | TA 2620 Z | 38 | TAM 2620 | 42.5 | — | — | — | — | — | — | 26 | 34 | 20 | 3.4 | | | | | | | 20 100 | 32 800 | 15 000 | IRT 2220 |
| | — | — | — | — | — | — | — | — | YT 2616 | 37 | 26 | 34 | 16 | — | 26.000 | 25.987 | 34.014 | 33.989 | — | — | 24 700 | 43 300 | 6 000 | IRT 2216 |
| | — | — | — | — | — | — | — | — | YT 2620 | 46.5 | 26 | 34 | 20 | — | | | | | | | 30 800 | 57 500 | 6 000 | IRT 2220 |
| 28 | — | — | — | — | TLA 2816 Z | 28.5 | TLAM 2816 | 33.5 | — | — | 28 | 35 | 16 | 2.8 | 28.000 | 27.987 | — | — | 34.992 | 34.967 | 13 800 | 23 500 | 13 000 | — |
| | — | — | — | — | TLA 2820 Z | 35.5 | TLAM 2820 | 40.5 | — | — | 28 | 35 | 20 | 2.8 | | | | | | | 18 300 | 33 600 | 13 000 | IRT 2220-1 |
| | TA 2820 Z | 45 | TAM 2820 | 50 | — | — | — | — | — | — | 28 | 37 | 20 | 3.4 | | | | | | | 21 200 | 32 300 | 13 000 | IRT 2220-1 |
| | TA 2830 Z | 67.5 | TAM 2830 | 72.5 | — | — | — | — | — | — | 28 | 37 | 30 | 3.4 | 28.000 | 27.987 | 37.014 | 36.989 | — | — | 33 000 | 56 900 | 13 000 | IRT 2230-1 |
| | — | — | — | — | — | — | — | — | YT 2820 | 56.5 | 28 | 37 | 20 | — | | | | | | | 34 700 | 61 700 | 5 500 | IRT 2220-1 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.

Remarks1. "W" in the identification number indicates that rolling elements are arranged in double rows.

2. Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and closed end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

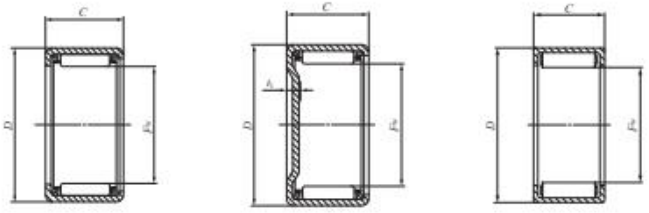
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

SORUPACHAI



## SHELL TYPE NEEDLE ROLLER BEARINGS





TA···Z TLA···Z TAM TLAM YT

### Shaft dia. 29 — 35mm

| Shaft dia. mm | Identification number: Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | Boundary dimensions mm: $F_w$ | $D$ | $C$ | $f_1$ Max. | Standard mounting dimensions mm: Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | Basic dynamic load rating $C$ N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | TA 2920 Z | 47 | TAM 2920 | 52 | — | — | — | — | — | — | 29 | 38 | 20 | 3.4 | | | | | | | 22 000 | 34 200 | 13 000 | IRT 2520 |
| | TA 2930 Z | 70 | TAM 2930 | 75.5 | — | — | — | — | — | — | 29 | 38 | 30 | 3.4 | 29.000 | 28.987 | 38.014 | 37.989 | — | — | 34 200 | 60 300 | 13 000 | IRT 2530 |
| | — | — | — | — | — | — | — | — | YT 2920 | 58.5 | 29 | 38 | 20 | — | | | | | | | 35 500 | 64 100 | 5 000 | IRT 2520 |
| 30 | — | — | — | — | TLA 3012 Z | 23.5 | TLAM 3012 | 29 | — | — | 30 | 37 | 12 | 2.8 | | | | | | | 10 400 | 16 600 | 12 000 | — |
| | — | — | — | — | TLA 3016 Z | 30.5 | TLAM 3016 | 36 | — | — | 30 | 37 | 16 | 2.8 | | | | | | | 14 100 | 24 500 | 12 000 | — |
| | — | — | — | — | TLA 3018 Z | 34.5 | TLAM 3018 | 40 | — | — | 30 | 37 | 18 | 2.8 | 30.000 | 29.987 | — | — | 36.992 | 36.967 | 16 400 | 29 800 | 12 000 | — |
| | — | — | — | — | TLA 3020 Z | 38 | TLAM 3020 | 43.5 | — | — | 30 | 37 | 20 | 2.8 | | | | | | | 18 600 | 35 100 | 12 000 | IRT 2520-1 |
| | — | — | — | — | TLA 3026 Z | 49 | TLAM 3026 | 54.5 | — | — | 30 | 37 | 26 | 2.8 | | | | | | | 24 800 | 50 900 | 12 000 | IRT 2526-1 |
| | — | — | — | — | TLAW3038 Z | 69 | TLAMW3038 | 74.5 | — | — | 30 | 37 | 38 | 2.8 | | | | | | | 31 900 | 70 200 | 12 000 | IRT 2538-1 |
| | TA 3013 Z | 36.5 | TAM 3013 | 42.5 | — | — | — | — | — | — | 30 | 40 | 13 | 3.4 | | | | | | | 13 500 | 16 800 | 12 000 | — |
| | TA 3015 Z | 42 | TAM 3015 | 47.5 | — | — | — | — | — | — | 30 | 40 | 15 | 3.4 | | | | | | | 16 800 | 22 400 | 12 000 | IRT 2515-1 |
| | TA 3020 Z | 54.5 | TAM 3020 | 60 | — | — | — | — | — | — | 30 | 40 | 20 | 3.4 | 30.000 | 29.987 | 40.014 | 39.989 | — | — | 24 500 | 36 300 | 12 000 | IRT 2520-1 |
| | TA 3025 Z | 68 | TAM 3025 | 73.5 | — | — | — | — | — | — | 30 | 40 | 25 | 3.4 | | | | | | | 31 600 | 50 300 | 12 000 | IRT 2525-1 |
| | TA 3030 Z | 80 | TAM 3030 | 85.5 | — | — | — | — | — | — | 30 | 40 | 30 | 3.4 | | | | | | | 36 700 | 60 700 | 12 000 | IRT 2530-1 |
| 32 | TA 3220 Z | 57.5 | TAM 3220 | 63.5 | — | — | — | — | — | — | 32 | 42 | 20 | 3.4 | | | | | | | 25 400 | 38 600 | 11 000 | IRT 2820 |
| | TA 3230 Z | 86 | TAM 3230 | 97.5 | — | — | — | — | — | — | 32 | 42 | 30 | 3.4 | 32.000 | 31.984 | 42.014 | 41.989 | — | — | 39 500 | 68 400 | 11 000 | IRT 2830 |
| | — | — | — | — | — | — | — | — | YT 3220 | 71.5 | 32 | 42 | 20 | — | | | | | | | 39 900 | 70 100 | 4 500 | IRT 2820 |
| 35 | — | — | — | — | TLA 3512 Z | 27 | TLAM 3512 | 34.5 | — | — | 35 | 42 | 12 | 2.8 | | | | | | | 11 600 | 20 000 | 10 000 | IRT 3012 |
| | — | — | — | — | TLA 3516 Z | 35 | TLAM 3516 | 42.5 | — | — | 35 | 42 | 16 | 2.8 | 35.000 | 34.984 | — | — | 41.992 | 41.967 | 15 700 | 29 600 | 10 000 | — |
| | — | — | — | — | TLA 3520 Z | 43.5 | TLAM 3520 | 51 | — | — | 35 | 42 | 20 | 2.8 | | | | | | | 20 700 | 42 300 | 10 000 | IRT 3020 |
| | TA 3512 Z | 38.5 | TAM 3512 | 46 | — | — | — | — | — | — | 35 | 45 | 12 | 3.4 | | | | | | | 14 800 | 19 900 | 10 000 | IRT 3012 |
| | TA 3515 Z | 48 | TAM 3515 | 56 | — | — | — | — | — | — | 35 | 45 | 15 | 3.4 | | | | | | | 18 500 | 26 500 | 10 000 | IRT 3015 |
| | TA 3520 Z | 62.5 | TAM 3520 | 70 | — | — | — | — | — | — | 35 | 45 | 20 | 3.4 | 35.000 | 34.984 | 45.014 | 44.989 | — | — | 27 000 | 43 100 | 10 000 | IRT 3020 |
| | TA 3525 Z | 78 | TAM 3525 | 85.5 | — | — | — | — | — | — | 35 | 45 | 25 | 3.4 | | | | | | | 34 800 | 59 700 | 10 000 | IRT 3025 |
| | TA 3530 Z | 97 | TAM 3530 | 105 | — | — | — | — | — | — | 35 | 45 | 30 | 3.4 | | | | | | | 40 600 | 72 600 | 10 000 | IRT 3030 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.

Remarks 1. "W" in the identification number indicates that rolling elements are arranged in double rows.

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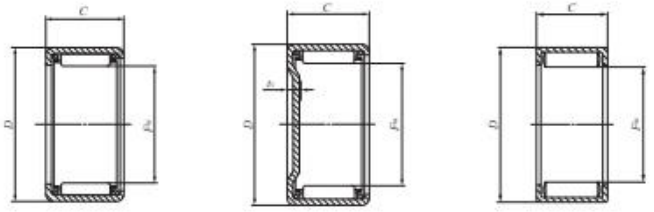
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

SORUPACHAI



# SHELL TYPE NEEDLE ROLLER BEARINGS





TA···Z TLA···Z TAM TLAM YT

## Shaft dia. 37 — 45mm

| Shaft dia. mm | Identification number: Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | Boundary dimensions mm $F_w$ | $D$ | $C$ | $f_1$ Max. | Standard mounting dimensions mm: Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | Basic dynamic load rating $C$ N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | TA 3720 Z | 64.5 | TAM 3720 | 73 | — | — | — | — | — | — | 37 | 47 | 20 | 3.4 | | | | | | | 27 800 | 45 400 | 9 500 | IRT 3220 |
| | TA 3730 Z | 101 | TAM 3730 | 110 | — | — | — | — | — | — | 37 | 47 | 30 | 3.4 | 37.000 | 36.984 | 47.014 | 46.989 | — | — | 41 800 | 76 700 | 9 500 | IRT 3230 |
| | — | — | — | — | — | — | — | — | YT 3720 | 81 | 37 | 47 | 20 | — | | | | | | | 43 300 | 81 300 | 4 000 | IRT 3220 |
| 38 | TA 3815 Z | 51 | TAM 3815 | 60 | — | — | — | — | — | — | 38 | 48 | 15 | 3.4 | | | | | | | 19 000 | 28 000 | 9 000 | IRT 3215-1 |
| | TA 3820 Z | 65.5 | TAM 3820 | 74.5 | — | — | — | — | — | — | 38 | 48 | 20 | 3.4 | | | | | | | 27 700 | 45 600 | 9 000 | IRT 3220-1 |
| | TA 3825 Z | 82.5 | TAM 3825 | 96 | — | — | — | — | — | — | 38 | 48 | 25 | 3.4 | 38.000 | 37.984 | 48.014 | 47.989 | — | — | 35 600 | 63 100 | 9 000 | IRT 3225-1 |
| | TA 3830 Z | 104 | TAM 3830 | 114 | — | — | — | — | — | — | 38 | 48 | 30 | 3.4 | | | | | | | 43 100 | 80 600 | 9 000 | IRT 3230-1 |
| | TAW 3845 Z | 149 | TAMW 3845 | 159 | — | — | — | — | — | — | 38 | 48 | 45 | 3.4 | | | | | | | 55 700 | 112 000 | 9 000 | IRT 3245-1 |
| 40 | — | — | — | — | TLA 4012 Z | 30 | TLAM 4012 | 40 | — | — | 40 | 47 | 12 | 2.8 | | | | | | | 12 400 | 22 800 | 8 500 | — |
| | — | — | — | — | TLA 4016 Z | 39 | TLAM 4016 | 49 | — | — | 40 | 47 | 16 | 2.8 | 40.000 | 39.984 | — | — | 46.992 | 46.967 | 16 700 | 33 700 | 8 500 | — |
| | — | — | — | — | TLA 4020 Z | 49 | TLAM 4020 | 58.5 | — | — | 40 | 47 | 20 | 2.8 | | | | | | | 22 100 | 48 200 | 8 500 | IRT 3520 |
| | TA 4015 Z | 54 | TAM 4015 | 63.5 | — | — | — | — | — | — | 40 | 50 | 15 | 3.4 | | | | | | | 19 500 | 29 400 | 8 500 | IRT 3515 |
| | TA 4020 Z | 69.5 | TAM 4020 | 79 | — | — | — | — | — | — | 40 | 50 | 20 | 3.4 | | | | | | | 28 400 | 47 800 | 8 500 | IRT 3520 |
| | TA 4025 Z | 86.5 | TAM 4025 | 102 | — | — | — | — | — | — | 40 | 50 | 25 | 3.4 | | | | | | | 36 600 | 66 200 | 8 500 | IRT 3525 |
| | TA 4030 Z | 110 | TAM 4030 | 120 | — | — | — | — | — | — | 40 | 50 | 30 | 3.4 | 40.000 | 39.984 | 50.014 | 49.989 | — | — | 44 300 | 84 600 | 8 500 | IRT 3530 |
| | TA 4040 Z | 144 | TAM 4040 | 154 | — | — | — | — | — | — | 40 | 50 | 40 | 3.4 | | | | | | | 56 700 | 116 000 | 8 500 | IRT 3540 |
| | — | — | — | — | — | — | — | — | YT 4015 | 63.5 | 40 | 50 | 15 | — | | | | | | | 33 400 | 59 800 | 4 000 | IRT 3515 |
| | — | — | — | — | — | — | — | — | YT 4025 | 109 | 40 | 50 | 25 | — | | | | | | | 55 300 | 114 000 | 4 000 | IRT 3525 |
| 45 | — | — | — | — | TLA 4516 Z | 43.5 | TLAM 4516 | 56 | — | — | 45 | 52 | 16 | 2.8 | 45.000 | 44.984 | — | — | 51.991 | 51.961 | 17 800 | 37 800 | 7 500 | — |
| | — | — | — | — | TLA 4520 Z | 54.5 | TLAM 4520 | 67 | — | — | 45 | 52 | 20 | 2.8 | | | | | | | 23 400 | 54 000 | 7 500 | IRT 4020 |
| | TA 4520 Z | 77 | TAM 4520 | 90 | — | — | — | — | — | — | 45 | 55 | 20 | 3.4 | | | | | | | 30 600 | 54 600 | 7 500 | IRT 4020 |
| | TA 4525 Z | 102 | TAM 4525 | 115 | — | — | — | — | — | — | 45 | 55 | 25 | 3.4 | | | | | | | 39 400 | 75 600 | 7 500 | IRT 4025 |
| | TA 4530 Z | 122 | TAM 4530 | 135 | — | — | — | — | — | — | 45 | 55 | 30 | 3.4 | 45.000 | 44.984 | 55.018 | 54.988 | — | — | 47 700 | 96 600 | 7 500 | IRT 4030 |
| | TA 4540 Z | 161 | TAM 4540 | 174 | — | — | — | — | — | — | 45 | 55 | 40 | 3.4 | | | | | | | 61 300 | 133 000 | 7 500 | IRT 4040 |
| | — | — | — | — | — | — | — | — | YT 4520 | 96 | 45 | 55 | 20 | — | | | | | | | 47 800 | 98 200 | 3 500 | IRT 4020 |
| | — | — | — | — | — | — | — | — | YT 4525 | 122 | 45 | 55 | 25 | — | | | | | | | 59 100 | 129 000 | 3 500 | IRT 4025 |

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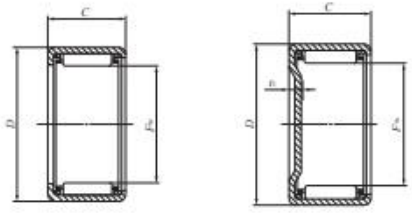
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

SORUPACHAI



# SHELL TYPE NEEDLE ROLLER BEARINGS





TA···Z TLA···Z

TAM TLAM

## Shaft dia. 50 — 62mm

| Shaft dia. mm | Identification number: Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Standard | Mass (Ref.) g | Closed end | Mass (Ref.) g | Grease retained | Mass (Ref.) g | Boundary dimensions mm: $F_w$ | $D$ | $C$ | $l_1$ Max. | Standard mounting dimensions mm: Shaft dia. h6 Max. | Shaft dia. h6 Min. | Housing bore dia. J7 Max. | Housing bore dia. J7 Min. | Housing bore dia. N7 Max. | Housing bore dia. N7 Min. | Basic dynamic load rating $C$ N | Basic static load rating $C_0$ N | Allowable rotational speed(1) min⁻¹ | Assembled inner ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50 | — | — | — | — | TLA 5020 Z | 69 | TLAM 5020 | 84.5 | — | — | 50 | 58 | 20 | 2.8 | 50.000 | 49.984 | — | — | 57.991 | 57.961 | 28 800 | 64 100 | 6 500 | IRT 4520 |
| | — | — | — | — | TLA 5025 Z | 86 | TLAM 5025 | 107 | — | — | 50 | 58 | 25 | 2.8 | | | | | | | 36 900 | 88 400 | 6 500 | IRT 4525 |
| | TA 5012 Z | 62.5 | TAM 5012 | 78 | — | — | — | — | — | — | 50 | 62 | 12 | 3.4 | | | | | | | 17 700 | 24 000 | 6 500 | IRT 4512 |
| | TA 5015 Z | 78 | TAM 5015 | 98.5 | — | — | — | — | — | — | 50 | 62 | 15 | 3.4 | | | | | | | 25 800 | 39 000 | 6 500 | IRT 4515 |
| | TA 5020 Z | 107 | TAM 5020 | 123 | — | — | — | — | — | — | 50 | 62 | 20 | 3.4 | | | | | | | 38 000 | 64 000 | 6 500 | IRT 4520 |
| | TA 5025 Z | 134 | TAM 5025 | 150 | — | — | — | — | — | — | 50 | 62 | 25 | 3.4 | 50.000 | 49.984 | 62.018 | 61.988 | — | — | 49 100 | 89 000 | 6 500 | IRT 4525 |
| | TA 5030 Z | 161 | TAM 5030 | 178 | — | — | — | — | — | — | 50 | 62 | 30 | 3.4 | | | | | | | 59 500 | 114 000 | 6 500 | IRT 4530 |
| | TA 5040 Z | 210 | TAM 5040 | 230 | — | — | — | — | — | — | 50 | 62 | 40 | 3.4 | | | | | | | 76 500 | 157 000 | 6 500 | IRT 4540 |
| | TAW 5045 Z | 230 | TAMW 5045 | 245 | — | — | — | — | — | — | 50 | 62 | 45 | 3.4 | | | | | | | 76 700 | 158 000 | 6 500 | IRT 4545 |
| 55 | — | — | — | — | TLA 5520 Z | 75 | TLAM 5520 | 98.5 | — | — | 55 | 63 | 20 | 2.8 | 55.000 | 54.981 | — | — | 62.991 | 62.961 | 29 800 | 69 400 | 5 500 | IRT 5020-1 |
| | — | — | — | — | TLA 5525 Z | 98.5 | TLAM 5525 | 118 | — | — | 55 | 63 | 25 | 2.8 | | | | | | | 38 300 | 95 700 | 5 500 | IRT 5025-1 |
| | TA 5520 Z | 116 | TAM 5520 | 136 | — | — | — | — | — | — | 55 | 67 | 20 | 3.4 | | | | | | | 39 600 | 69 700 | 5 500 | IRT 5020-1 |
| | TA 5525 Z | 145 | TAM 5525 | 165 | — | — | — | — | — | — | 55 | 67 | 25 | 3.4 | | | | | | | 51 200 | 97 000 | 5 500 | IRT 5025-1 |
| | TA 5530 Z | 175 | TAM 5530 | 195 | — | — | — | — | — | — | 55 | 67 | 30 | 3.4 | | | | | | | 62 000 | 124 000 | 5 500 | IRT 5030-1 |
| | TA 5540 Z | 230 | TAM 5540 | 250 | — | — | — | — | — | — | 55 | 67 | 40 | 3.4 | 55.000 | 54.981 | 67.018 | 66.988 | — | — | 80 000 | 172 000 | 5 500 | IRT 5040-1 |
| | TAW 5545 Z | 250 | TAMW 5545 | 270 | — | — | — | — | — | — | 55 | 67 | 45 | 3.4 | | | | | | | 79 900 | 172 000 | 5 500 | IRT 5045-1 |
| | TAW 5550 Z | 280 | TAMW 5550 | 300 | — | — | — | — | — | — | 55 | 67 | 50 | 3.4 | | | | | | | 91 500 | 205 000 | 5 500 | IRT 5050-1 |
| 60 | TA 6025 Z | 158 | TAM 6025 | 182 | — | — | — | — | — | — | 60 | 72 | 25 | 3.4 | | | | | | | 54 700 | 108 000 | 5 000 | IRT 5025 |
| | TA 6030 Z | 191 | TAM 6030 | 215 | — | — | — | — | — | — | 60 | 72 | 30 | 3.4 | | | | | | | 66 300 | 139 000 | 5 000 | IRT 5030 |
| | TA 6040 Z | 250 | TAM 6040 | 275 | — | — | — | — | — | — | 60 | 72 | 40 | 3.4 | 60.000 | 59.981 | 72.018 | 71.988 | — | — | 85 700 | 193 000 | 5 000 | IRT 5040 |
| | TAW 6045 Z | 270 | TAMW 6045 | 295 | — | — | — | — | — | — | 60 | 72 | 45 | 3.4 | | | | | | | 85 400 | 193 000 | 5 000 | IRT 5045 |
| | TAW 6050 Z | 305 | TAMW 6050 | 330 | — | — | — | — | — | — | 60 | 72 | 50 | 3.4 | | | | | | | 97 800 | 229 000 | 5 000 | IRT 5050 |
| 62 | TA 6212 Z | 78 | TAM 6212 | 107 | — | — | — | — | — | — | 62 | 74 | 12 | 3.4 | 62.000 | 61.981 | 74.018 | 73.988 | — | — | 20 100 | 30 300 | 4 500 | IRT 5212 |

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.

Remarks 1. "W" in the identification number indicates that rolling elements are arranged in double rows.

2. Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and closed end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch