

## Technical data

### 33014U

Single row tapered roller bearings

Tapered roller bearing, pressed steel cage



#### VISUAL (S)



# 33014U

Single row tapered roller bearings

## PRODUCT DEFINITION

|                                          |         |
|------------------------------------------|---------|
| <b>Brand</b>                             | NTN     |
| <b>d - Internal diameter</b>             | 70 mm   |
| <b>D - External diameter</b>             | 110 mm  |
| <b>B - Bearing/Inner ring width</b>      | 31 mm   |
| <b>C - Outer ring width</b>              | 25,5 mm |
| <b>T - Total width</b>                   | 31 mm   |
| <b>d1 - External diameter inner ring</b> | 90,8 mm |
| <b>a - Charge load application point</b> | 22,5 mm |
| <b>rs - Min fillet radius</b>            | 1,5 mm  |
| <b>r1s - Min fillet radius</b>           | 1,5 mm  |
| <b>Mass</b>                              | 1,07 kg |
| <b>ISO 355 reference</b>                 | T2CE070 |

## PRODUCT PERFORMANCE

|                                               |              |
|-----------------------------------------------|--------------|
| <b>C - Dynamic load</b>                       | 140000000 mN |
| <b>C0 - Static load</b>                       | 204000000 mN |
| <b>Cu - Fatigue limit load</b>                | 24900000 mN  |
| <b>A2 - Rating life coefficient</b>           | 1            |
| <b>e - Coefficient</b>                        | 0.28         |
| <b>Y0 - Static axial load coefficient</b>     | 1.16         |
| <b>Y2 - Upper axial load coefficient</b>      | 2.11         |
| <b>N lim - Oil lubrication limit speed</b>    | 25200 °/s    |
| <b>N lim - Grease lubrication limit speed</b> | 19200 °/s    |
| <b>Tmin - Min operating temperature</b>       | 233,15 °K    |



**NTN Europe**

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S.A. au capital de 322 639 919 € · RCS ANNECY B 325 821 072 · Id. Fiscale : FR 48 325 821 072  
SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15

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## PRODUCT PERFORMANCE

|                                         |           |
|-----------------------------------------|-----------|
| <b>Tmax - Max operating temperature</b> | 393,15 °K |
|-----------------------------------------|-----------|

## ABUTMENT

|                                          |          |
|------------------------------------------|----------|
| <b>da max - Max shoulder diameter IR</b> | 79 mm    |
| <b>db min - Min IR shoulder diameter</b> | 78,5 mm  |
| <b>Da min - Min shoulder diameter OR</b> | 99 mm    |
| <b>Da max - Max shoulder diameter OR</b> | 101,5 mm |
| <b>Db min - Min OR shoulder diameter</b> | 105 mm   |
| <b>Ca - Min clearance</b>                | 5 mm     |
| <b>Cb - Min clearance</b>                | 5,5 mm   |
| <b>ra max - Max fillet radius</b>        | 1,5 mm   |
| <b>r1a - Max fillet radius</b>           | 1,5 mm   |



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INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$P = X.F_r + Y.F_a$

| $F_a / F_r \leq e$ |   | $F_a / F_r > e$ |    |
|--------------------|---|-----------------|----|
| X                  | Y | X               | Y  |
| 1                  | 0 | 0.4             | Y2 |

Equivalent static radial load

$P_0 = X_0.F_r + Y_0.F_a$

| $X_0$ | $Y_0$ |
|-------|-------|
| 0.5   | Y0    |

If  $P_0 \leq F_r$ , then use  $P_0 = F_r$

The values for e, Y2 and Y0 are shown in the above table

