

## Technical data

### 32220U

Single row tapered roller bearings

Tapered roller bearing, pressed steel cage



#### VISUAL (S)



# 32220U

Single row tapered roller bearings

| PRODUCT DEFINITION                |          |
|-----------------------------------|----------|
| Brand                             | NTN      |
| d - Internal diameter             | 100 mm   |
| D - External diameter             | 180 mm   |
| B - Bearing/Inner ring width      | 46 mm    |
| C - Outer ring width              | 39 mm    |
| T - Total width                   | 49 mm    |
| d1 - External diameter inner ring | 137,5 mm |
| a - Charge load application point | 41,5 mm  |
| rs - Min fillet radius            | 3 mm     |
| r1s - Min fillet radius           | 2,5 mm   |
| Mass                              | 5,11 kg  |
| ISO 355 reference                 | T3FC100  |

| PRODUCT PERFORMANCE                    |              |
|----------------------------------------|--------------|
| C - Dynamic load                       | 365000000 mN |
| C0 - Static load                       | 465000000 mN |
| Cu - Fatigue limit load                | 51000000 mN  |
| A2 - Rating life coefficient           | 1            |
| e - Coefficient                        | 0.42         |
| Y0 - Static axial load coefficient     | 0.79         |
| Y2 - Upper axial load coefficient      | 1.43         |
| N lim - Oil lubrication limit speed    | 16200 °/s    |
| N lim - Grease lubrication limit speed | 12000 °/s    |
| Tmin - Min operating temperature       | 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

## PRODUCT PERFORMANCE

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

## ABUTMENT

|                                          |        |
|------------------------------------------|--------|
| <b>da max - Max shoulder diameter IR</b> | 114 mm |
|------------------------------------------|--------|

|                                          |        |
|------------------------------------------|--------|
| <b>db min - Min IR shoulder diameter</b> | 114 mm |
|------------------------------------------|--------|

|                                          |        |
|------------------------------------------|--------|
| <b>Da min - Min shoulder diameter OR</b> | 154 mm |
|------------------------------------------|--------|

|                                          |        |
|------------------------------------------|--------|
| <b>Da max - Max shoulder diameter OR</b> | 168 mm |
|------------------------------------------|--------|

|                                          |        |
|------------------------------------------|--------|
| <b>Db min - Min OR shoulder diameter</b> | 171 mm |
|------------------------------------------|--------|

|                           |      |
|---------------------------|------|
| <b>Ca - Min clearance</b> | 5 mm |
|---------------------------|------|

|                           |       |
|---------------------------|-------|
| <b>Cb - Min clearance</b> | 10 mm |
|---------------------------|-------|

|                                   |        |
|-----------------------------------|--------|
| <b>ra max - Max fillet radius</b> | 2,5 mm |
|-----------------------------------|--------|

|                                |      |
|--------------------------------|------|
| <b>r1a - Max fillet radius</b> | 2 mm |
|--------------------------------|------|



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

