



Brand of NTN corporation

## Technical data

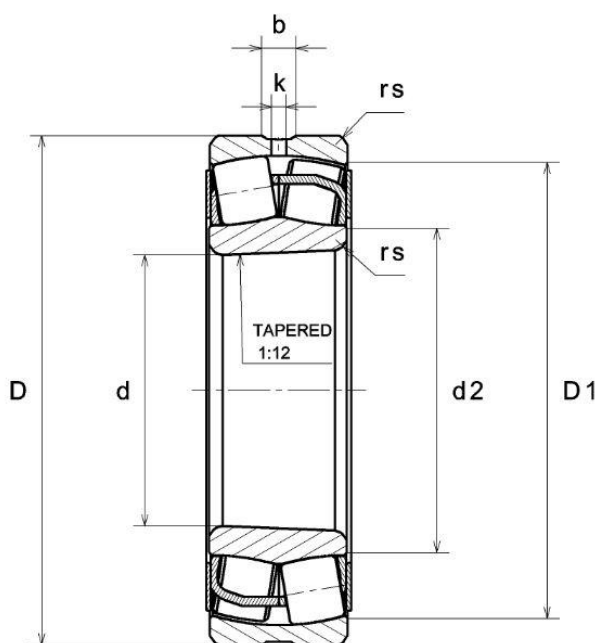
22216EAKW33ZZC3

Spherical roller bearings



[KIZEI] **ULTAGE**

### VISUAL (S)

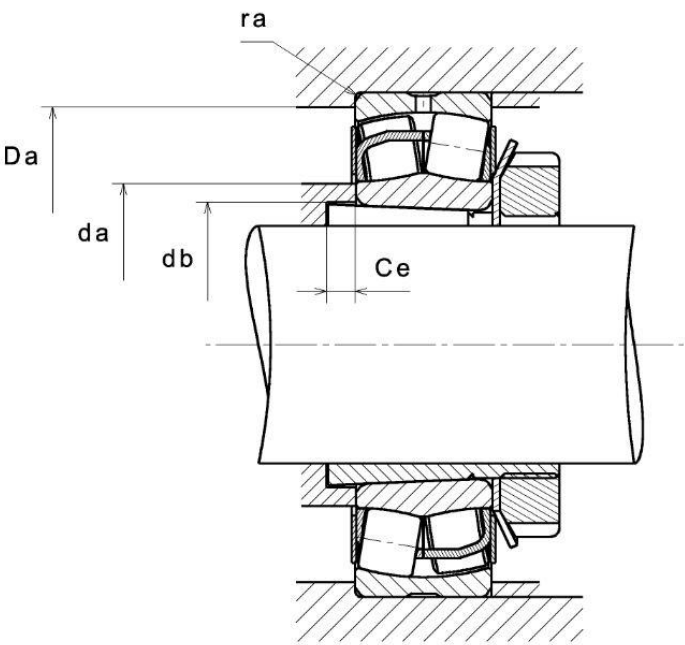


### NTN Europe

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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

22216EAKW33ZZC3

Spherical roller bearings



PRODUCT DEFINITION

|                                   |          |
|-----------------------------------|----------|
| Brand                             | SNR      |
| d - Internal diameter             | 80 mm    |
| D - External diameter             | 140 mm   |
| B - Bearing/Inner ring width      | 33 mm    |
| d2 - External diameter inner ring | 94,9 mm  |
| D1 - Inner diameter outer ring    | 126,7 mm |
| rs - Min fillet radius            | 2 mm     |
| Number of lubrication holes       | 3        |
| b - Groove width                  | 7,87 mm  |
| k - Hole diameter                 | 3,5 mm   |
| Associated sleeve reference       | H316     |
| Radial clearance class            | C3       |
| Mass                              | 2,1 kg   |



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## PRODUCT PERFORMANCE

|                                           |              |
|-------------------------------------------|--------------|
| <b>C - Dynamic load</b>                   | 278000000 mN |
| <b>C0 - Static load</b>                   | 287000000 mN |
| <b>Cu - Fatigue limit load</b>            | 33800000 mN  |
| <b>e - Coefficient</b>                    | 0.22         |
| <b>Y0 - Static axial load coefficient</b> | 3.07         |
| <b>Y1 - Lower axial load coefficient</b>  | 3.14         |
| <b>Y2 - Upper axial load coefficient</b>  | 4.67         |
| <b>N ref - Reference thermal speed</b>    | 25800 °/s    |
| <b>N lim - Mechanical Limit Speed</b>     | 34800 °/s    |
| <b>Tmin - Min operating temperature</b>   | 233,15 °K    |
| <b>Tmax - Max operating temperature</b>   | 473,15 °K    |

## BEARING FREQUENCIES

|                                                                 |           |
|-----------------------------------------------------------------|-----------|
| <b>BPFO - Over rolling frequency on outer ring (60 rpm)</b>     | 8.123 Hz  |
| <b>BPFI - Over rolling frequency on inner (60 rpm)</b>          | 10.877 Hz |
| <b>BSF - Over rolling frequency on rolling element (60 rpm)</b> | 6.684 Hz  |
| <b>BRF - Rotational frequency - rolling element (60 rpm)</b>    | 3.342 Hz  |
| <b>FTF - Rotational frequency - cage (60 rpm)</b>               | 0.428 Hz  |

## ABUTMENT

|                                          |         |
|------------------------------------------|---------|
| <b>da max - Max shoulder diameter IR</b> | 94,9 mm |
| <b>da min - Min shoulder diameter IR</b> | 91 mm   |
| <b>db - Min diameter for Sleeve</b>      | 85 mm   |
| <b>Ce - Min length fro Sleeve</b>        | 12 mm   |
| <b>Da max - Max shoulder diameter OR</b> | 129 mm  |



## ABUTMENT

ra max - Max shaft & housing fillet radius

2 mm

## INDUSTRY CALCUL FACTORS

### Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

| Fa / Fr ≤ e |    | Fa / Fr > e |    |
|-------------|----|-------------|----|
| X           | Y  | X           | Y  |
| 1           | Y1 | 0.67        | Y2 |

### Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

| X <sub>0</sub> | Y <sub>0</sub> |
|----------------|----------------|
| 1              | Y0             |

The values for e, Y1, Y2 and Y0 are shown in the above table .



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