

## Technical data

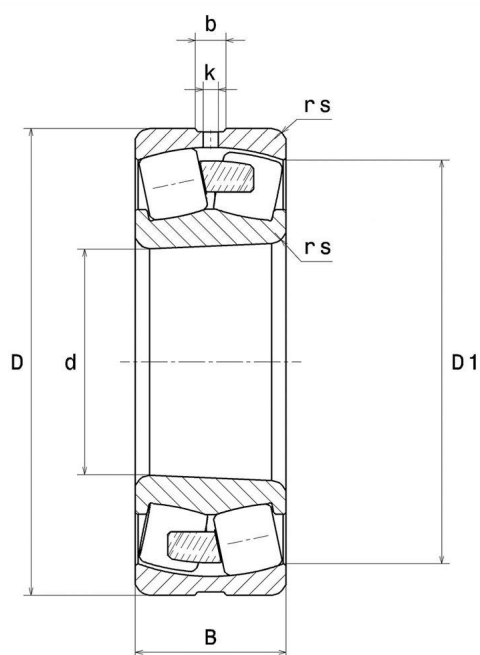
22210EMKW33C3

Spherical roller bearings

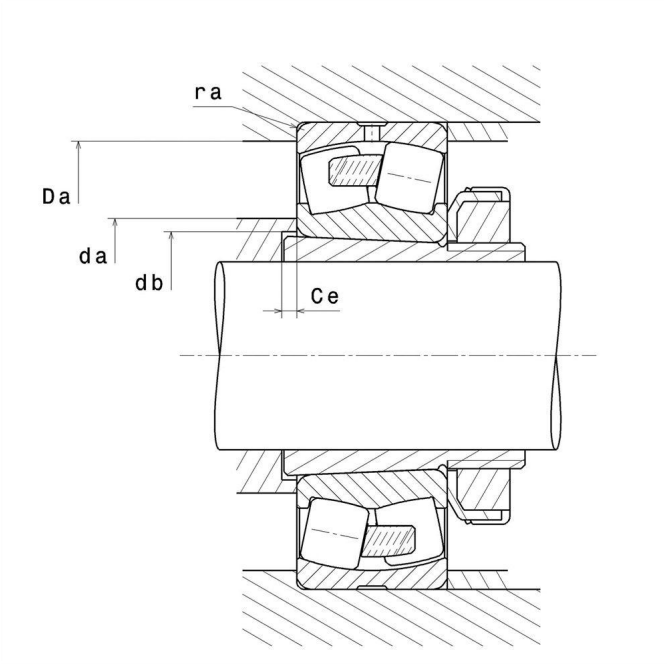


**ULTAGE®**

### VISUAL (S)



22210EMKW33C3  
Spherical roller bearings



PRODUCT DEFINITION

|                                |         |
|--------------------------------|---------|
| Brand                          | NTN     |
| d - Internal diameter          | 50 mm   |
| D - External diameter          | 90 mm   |
| B - Bearing/Inner ring width   | 23 mm   |
| D1 - Inner diameter outer ring | 80,7 mm |
| rs - Min fillet radius         | 1,1 mm  |
| Number of lubrication holes    | 3       |
| b - Groove width               | 5,83 mm |
| k - Hole diameter              | 2,5 mm  |
| Associated sleeve reference    | H310    |
| Radial clearance class         | C3      |
| Mass                           | 0,59 kg |

PRODUCT PERFORMANCE



## PRODUCT PERFORMANCE

|                                           |              |
|-------------------------------------------|--------------|
| <b>C - Dynamic load</b>                   | 125000000 mN |
| <b>C0 - Static load</b>                   | 117000000 mN |
| <b>Cu - Fatigue limit load</b>            | 14300000 mN  |
| <b>e - Coefficient</b>                    | 0.24         |
| <b>Y0 - Static axial load coefficient</b> | 2.78         |
| <b>Y1 - Lower axial load coefficient</b>  | 2.84         |
| <b>Y2 - Upper axial load coefficient</b>  | 4.23         |
| <b>N ref - Reference thermal speed</b>    | 40200 °/s    |
| <b>N lim - Mechanical Limit Speed</b>     | 54600 °/s    |
| <b>Tmin - Min operating temperature</b>   | 233,15 °K    |
| <b>Tmax - Max operating temperature</b>   | 473,15 °K    |

## ABUTMENT

|                                                       |       |
|-------------------------------------------------------|-------|
| <b>da min - Min shoulder diameter IR</b>              | 57 mm |
| <b>db - Min diameter for Sleeve</b>                   | 55 mm |
| <b>Ce - Min length fro Sleeve</b>                     | 9 mm  |
| <b>Da max - Max shoulder diameter OR</b>              | 83 mm |
| <b>ra max - Max shaft &amp; housing fillet radius</b> | 1 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                  | Y1 | 0.67            | Y2 |

### Equivalent static radial load

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

| $X_0$ | $Y_0$ |
|-------|-------|
| 1     | Y0    |

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

