

## Technical data

22212EMW33

Spherical roller bearings



**ULTAGE®**

### VISUAL (S)





PRODUCT DEFINITION

|                                |          |
|--------------------------------|----------|
| Brand                          | NTN      |
| d - Internal diameter          | 60 mm    |
| D - External diameter          | 110 mm   |
| B - Bearing/Inner ring width   | 28 mm    |
| D1 - Inner diameter outer ring | 98,5 mm  |
| rs - Min fillet radius         | 1,5 mm   |
| Number of lubrication holes    | 3        |
| b - Groove width               | 6,9 mm   |
| k - Hole diameter              | 3 mm     |
| Radial clearance class         | CN       |
| Mass                           | 1,147 kg |

PRODUCT PERFORMANCE

|                  |              |
|------------------|--------------|
| C - Dynamic load | 179000000 mN |
|------------------|--------------|



## PRODUCT PERFORMANCE

|                                           |              |
|-------------------------------------------|--------------|
| <b>C0 - Static load</b>                   | 171000000 mN |
| <b>Cu - Fatigue limit load</b>            | 20900000 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>    | 34200 °/s    |
| <b>N lim - Mechanical Limit Speed</b>     | 45000 °/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>              | 69 mm  |
| <b>Da max - Max shoulder diameter OR</b>              | 101 mm |
| <b>ra max - Max shaft &amp; housing fillet radius</b> | 1,5 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 .

