



Brand of NTN corporation

## Technical data

### 22205EAKW33

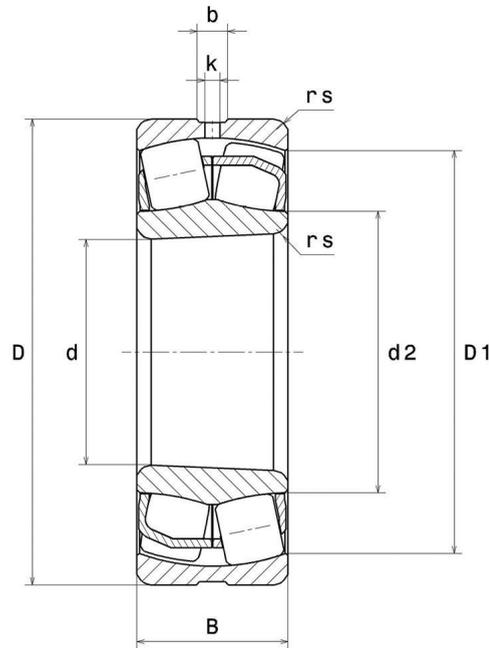
Spherical roller bearings



Spherical roller bearing, pressed steel cage, groove and lubrication holes on outer ring, tapered bore 1:12

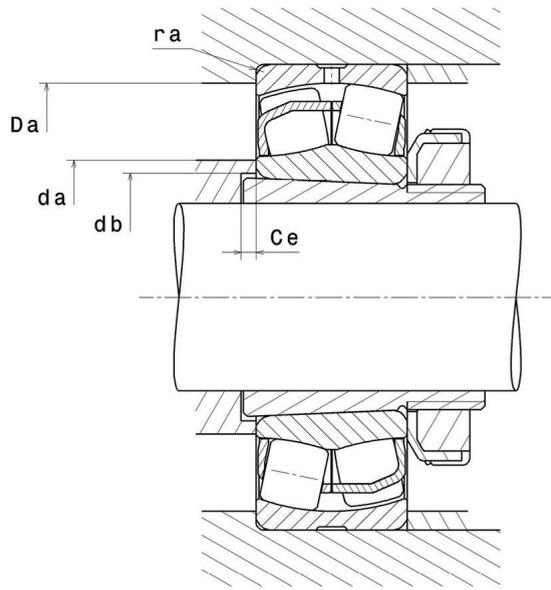
**ULTAGE**

### 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  
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### PRODUCT DEFINITION

<b>Brand</b>	SNR
<b>d - Internal diameter</b>	25 mm
<b>D - External diameter</b>	52 mm
<b>B - Bearing/Inner ring width</b>	18 mm
<b>d2 - External diameter inner ring</b>	30,5 mm
<b>D1 - Inner diameter outer ring</b>	45,5 mm
<b>rs - Min fillet radius</b>	1 mm
<b>Number of lubrication holes</b>	3
<b>b - Groove width</b>	3 mm
<b>k - Hole diameter</b>	1,5 mm
<b>Associated sleeve reference</b>	H305
<b>Radial clearance class</b>	CN
<b>Mass</b>	0,15 kg



### PRODUCT PERFORMANCE

<b>C - Dynamic load</b>	57300000 mN
<b>C0 - Static load</b>	46100000 mN
<b>Cu - Fatigue limit load</b>	5600000 mN
<b>e - Coefficient</b>	0.34
<b>Y0 - Static axial load coefficient</b>	1.96
<b>Y1 - Lower axial load coefficient</b>	2
<b>Y2 - Upper axial load coefficient</b>	2.98
<b>N ref - Reference thermal speed</b>	78000 °/s
<b>N lim - Mechanical Limit Speed</b>	102000 °/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>	5.645 Hz
<b>BPFI - Over rolling frequency on inner (60 rpm)</b>	8.355 Hz
<b>BSF - Over rolling frequency on rolling element (60 rpm)</b>	4.85 Hz
<b>BRF - Rotational frequency - rolling element (60 rpm)</b>	2.425 Hz
<b>FTF - Rotational frequency - cage (60 rpm)</b>	0.403 Hz

### ABUTMENT

<b>da max - Max shoulder diameter IR</b>	0 mm
<b>da min - Min shoulder diameter IR</b>	30,6 mm
<b>db - Min diameter for Sleeve</b>	28 mm
<b>Ce - Min length fro Sleeve</b>	5 mm
<b>Da max - Max shoulder diameter OR</b>	46,4 mm



### ABUTMENT

ra max - Max shaft & housing fillet radius

1 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

$$P_o = X_o.F_r + Y_o.F_a$$

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

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

