



## Technical data

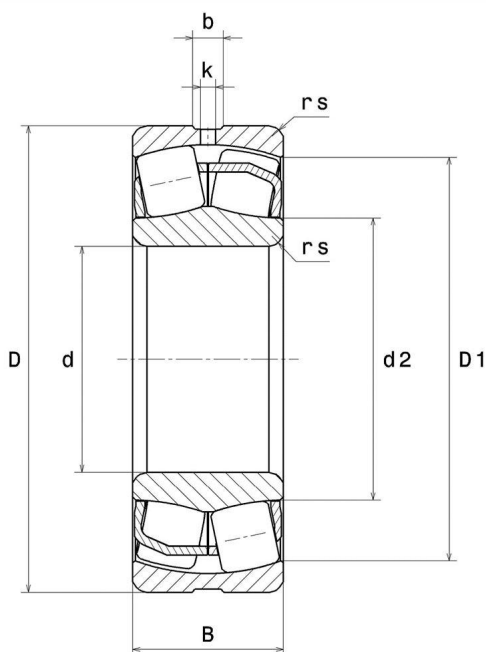
21309EAW33C3

Spherical roller bearings

Spherical roller bearing, pressed steel cage, groove and lubrication holes on outer ring

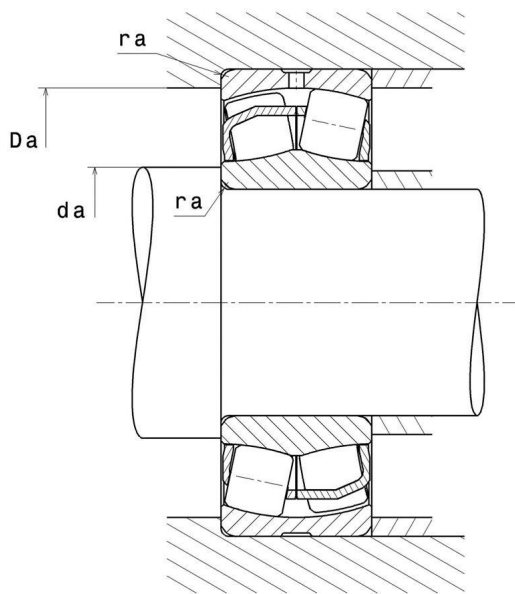
**ULTAGE**

### VISUAL (S)



# 21309EAW33C3

## Spherical roller bearings



### PRODUCT DEFINITION

<b>Brand</b>	SNR
<b>d - Internal diameter</b>	45 mm
<b>D - External diameter</b>	100 mm
<b>B - Bearing/Inner ring width</b>	25 mm
<b>d2 - External diameter inner ring</b>	65 mm
<b>D1 - Inner diameter outer ring</b>	86,7 mm
<b>rs - Min fillet radius</b>	1,5 mm
<b>Number of lubrication holes</b>	3
<b>b - Groove width</b>	6,84 mm
<b>k - Hole diameter</b>	3 mm
<b>Radial clearance class</b>	C3
<b>Mass</b>	0,95 kg

### PRODUCT PERFORMANCE

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<b>C - Dynamic load</b>	138 kN
<b>C0 - Static load</b>	134 kN
<b>Cu - Fatigue limit load</b>	16,3 kN
<b>e - Coefficient</b>	0.23
<b>Y0 - Static axial load coefficient</b>	2.83
<b>Y1 - Lower axial load coefficient</b>	2.9
<b>Y2 - Upper axial load coefficient</b>	4.31
<b>Nref - Reference thermal speed</b>	5600 tr/min
<b>Nlim - Mechanical Limit Speed</b>	8300 tr/min
<b>Tmin - Min operating temperature</b>	-40 °C
<b>Tmax - Max operating temperature</b>	200 °C

### BEARING FREQUENCIES

<b>BPFO - Characteristic outer ring frequency (60 rpm)</b>	7.69 Hz
<b>BPFI - Characteristic inner ring frequency (60 rpm)</b>	10.31 Hz
<b>FTF - Characteristic cage frequency (60 rpm)</b>	0.427 Hz
<b>BSF - Characteristic rolling element frequency (60 rpm)</b>	6.643 Hz

### ABUTMENT

<b>da max - Max shoulder diameter IR</b>	0 mm
<b>da min - Min shoulder diameter IR</b>	54 mm
<b>Da max - Max shoulder diameter OR</b>	91 mm
<b>ra max - Max shaft &amp; housing fillet radius</b>	1,5 mm

**INDUSTRY CALCUL FACTORS**

**Equivalent dynamic radial load**

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

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 .