



## Technical data

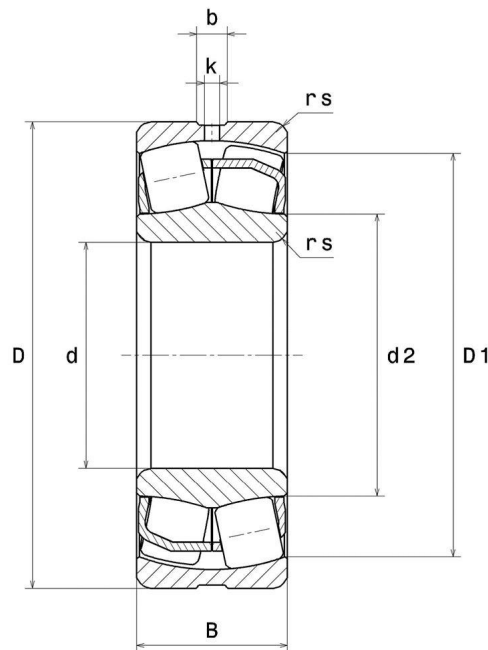
22310EAW33

Spherical roller bearings

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

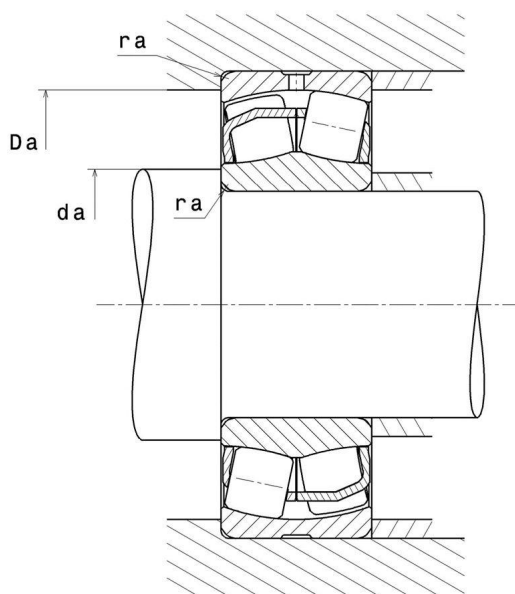
**ULTAGE**®

### VISUAL (S)



# 22310EAW33

## Spherical roller bearings



### PRODUCT DIMENSIONS

<b>Internal diameter d</b>	50 mm
<b>External diameter D</b>	110 mm
<b>Bearing/Inner ring width(B)</b>	40 mm
<b>External diameter inner ring d2</b>	63,8 mm
<b>Inner diameter outer ring D1</b>	93,2 mm
<b>Min fillet radius rs</b>	2 mm
<b>Number of lubrication holes</b>	3 or 4
<b>Groove width (b)</b>	7 mm
<b>Hole diameter (k)</b>	3,5 mm
<b>Coef e</b>	0.36
<b>Lower axial load coef (Y1)</b>	1.87
<b>Upper axial load coef (Y2)</b>	2.79
<b>Static axial load coef (Y0)</b>	1.83
<b>Radial clearance class</b>	CN
<b>Mass</b>	1,81 kg
<b>Brand</b>	SNR

### PRODUCT PERFORMANCE

<b>Dynamic load, C</b>	250 kN
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### PRODUCT PERFORMANCE

<b>Static load, C<sub>0</sub></b>	232 kN
<b>Fatigue limit load, C<sub>u</sub></b>	28,3 kN
<b>Reference thermal speed (N<sub>ref</sub>)</b>	4900 tr/min
<b>Mechanical Limit Speed N<sub>lim</sub></b>	6100 tr/min
<b>Min operating temperature, T<sub>min</sub></b>	-40 °C
<b>Max operating temperature, T<sub>max</sub></b>	200 °C
<b>Characteristic cage frequency, FTF</b>	0.404 Hz
<b>Characteristic rolling element frequency, BSF</b>	4.901 Hz
<b>Characteristic outer ring frequency, BPF<sub>0</sub></b>	5.662 Hz
<b>Characteristic inner ring frequency, BPF<sub>I</sub></b>	8.338 Hz

### ABUTMENT

<b>Max shoulder diameter IR da max</b>	0 mm
<b>Min shoulder diameter IR da min</b>	61 mm
<b>Max shoulder diameter OR Da max</b>	99 mm
<b>Max shaft &amp; housing fillet radius ra max</b>	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 .