



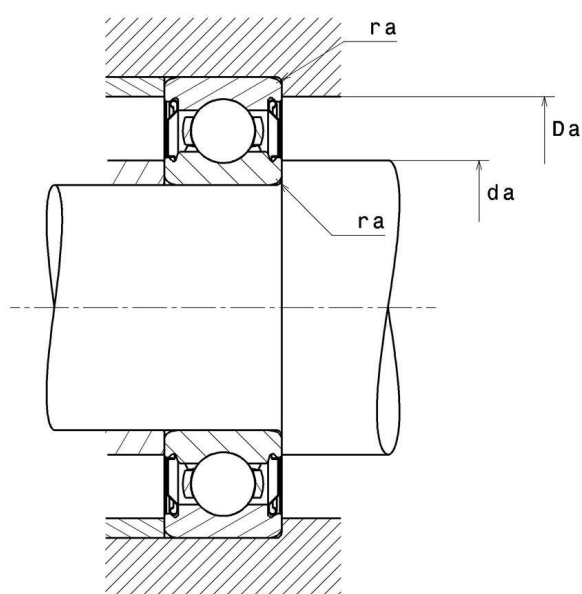
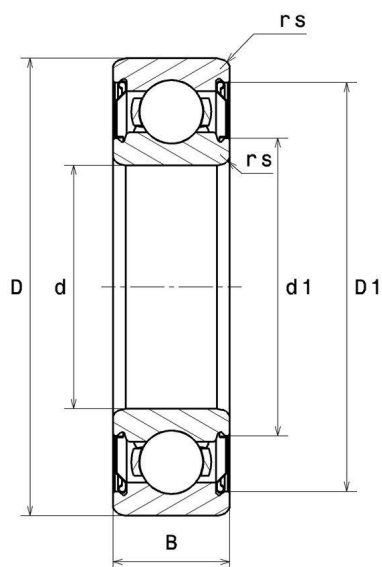
**Technical data**

**6003ZZ**

Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, shields on both sides

**VISUAL (S)**



# 6003ZZ

Single row deep groove ball bearings

## PRODUCT DIMENSIONS

<b>Internal diameter (d)</b>	17 mm
<b>External diameter (D)</b>	35 mm
<b>Bearing/Inner ring width (B)</b>	10 mm
<b>External diameter inner ring d1</b>	21,3 mm
<b>Inner diameter outer ring (D1)</b>	31,3 mm
<b>Min fillet radius (rs)</b>	0,3 mm
<b>Radial clearance class</b>	CN
<b>Mass</b>	0,037 kg
<b>Brand</b>	SNR

## PRODUCT PERFORMANCE

<b>Dynamic load (C)</b>	6 kN
<b>Static load (C0)</b>	3,25 kN
<b>Fatigue limit load (Cu)</b>	0,15 kN
<b>Coefficient f0</b>	14.4
<b>Reference thermal speed (Nref)</b>	20000 tr/min
<b>Mechanical Limit Speed (Nlim)</b>	28000 tr/min
<b>Min operating temperature (Tmin)</b>	-30 °C
<b>Max operating temperature (Tmax)</b>	120 °C

## ABUTMENT

<b>Min shoulder diameter IR (da min)</b>	19 mm
<b>Max shoulder diameter IR (da max)</b>	21,3 mm
<b>Max shoulder diameter OR (Da max)</b>	33 mm
<b>Max shaft &amp; housing fillet radius (ra max)</b>	0,3 mm

## INDUSTRY CALCUL FACTORS

## Equivalent dynamic radial load

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

$\frac{f_0 F_a}{C_0}$	e	Fa / Fr ≤ e		Fa / Fr > e	
		X	Y	X	Y
0.172	0.19	1	0	0.56	2.3
0.345	0.22				1.99
0.689	0.26				1.71
1.03	0.28				1.55
1.38	0.3				1.45
2.07	0.34				1.31
3.45	0.38				1.15
5.17	0.42				1.04
6.89	0.44				1

## Equivalent static radial load

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

$X_0$	$Y_0$
0.6	0.5

For single or DT bearing arrangement:

If  $P_0 < F_r$ , then use  $P_0 = F_r$