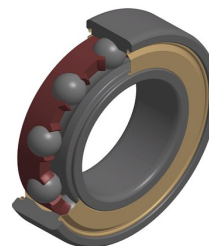


PDF technical sheet 6004HVZZ

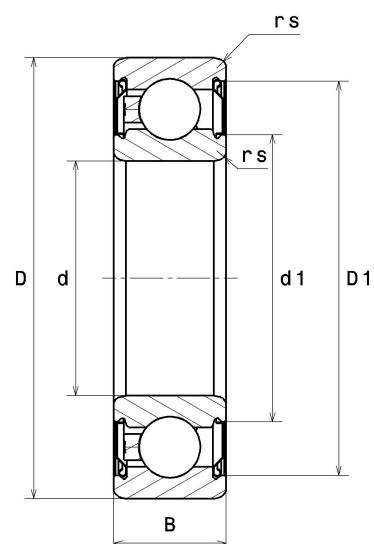


Single row deep groove ball bearings

TOPLINE deep groove ball bearing, radial contact, pressed polyamide cage, shields on both sides, for high speed applications.

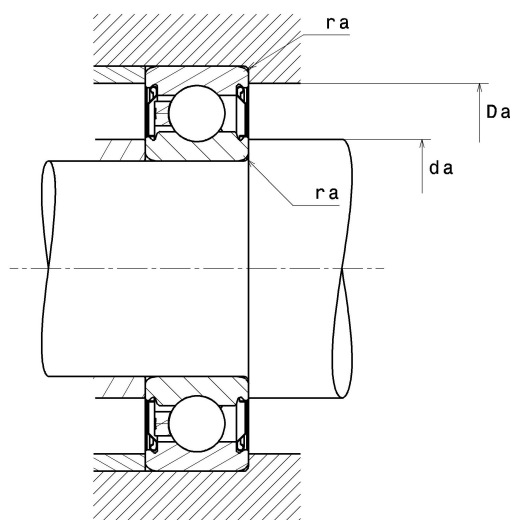
Product definition

d	20 mm
D	42 mm
B	12 mm
d1	27.50 mm
D1	37.60 mm
rs min	0.60 mm
Radial clearance class	C3
Mass	0.07 kg
Brand	SNR



Product performance

Dynamic load, C	9.20 kN
Static load, C0	5 kN
Fatigue limit load, Cu	0.23 kN
f0	13.8
Nref	18,000 Tr/min
Nlim	33,000 Tr/min
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	80 °C
Characteristic cage frequency, FTF	0.40 Hz
Characteristic rolling element frequency, BSF	4.68 Hz
Characteristic outer ring frequency, BPF0	3.58 Hz
Characteristic inner ring frequency, BPF1	5.42 Hz



Abutment dimensions

da min	24 mm
da max	27.50 mm
Da max	38 mm
ra max	0.60 mm

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot F_r + Y \cdot F_a$$

$\frac{f_0 F_a}{C_0}$	e	$F_a / F_r \leq e$		$F_a / F_r > e$	
		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

$$P_0 = X_0 \cdot F_r + Y_0 \cdot F_a$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement:

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