Technical data

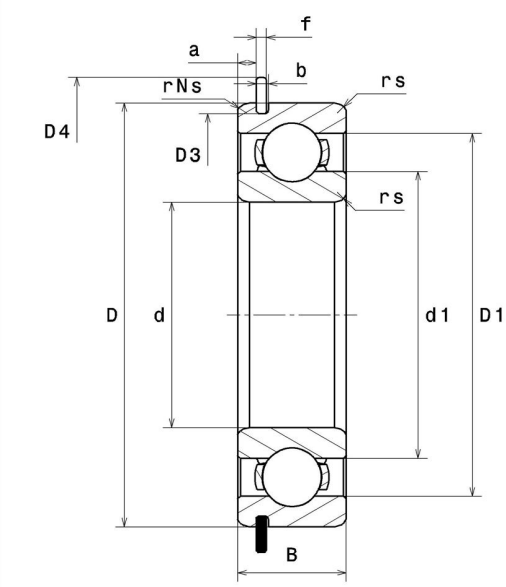
6311.NR

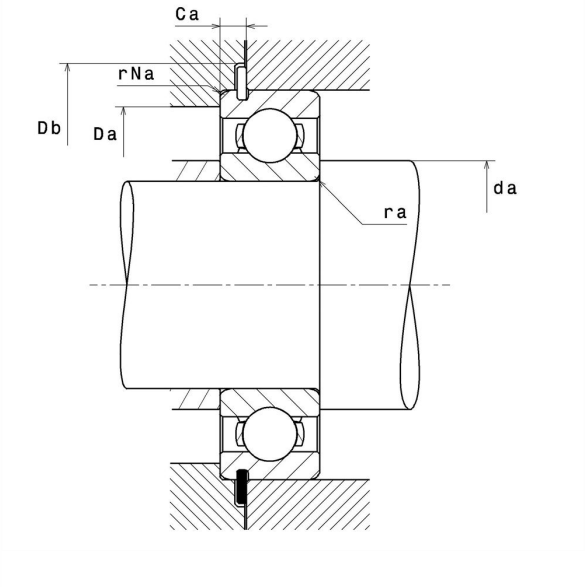
Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, snap ring & groove on outer diameter, open

Visual(s)





Product definition

d	55 mm
D	120 mm
B	29 mm
d1	69 mm
D1	102.3 mm
a min	3.86 mm
a max	4.06 mm
Ca min	6.58 mm
Ca max	6.88 mm
rs min	2 mm
rNs min	0.5 mm
D3 max	115.21 mm
b min	3.1 mm
b max	3.4 mm
r0 max	0.6 mm
D4 max	129.7 mm
f	2.77 mm
Snap ring reference	R120
Radial clearance class	CN
Mass	1.35 kg
Brand	SNR

Product performance

Dynamic load, C	70.7 kN
Static load, C0	44.7 kN
Fatigue limit load, Cu	2.03 kN
f0	13.1
Nref	7,200 Tr/min
Nlim	9,500 Tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.38 Hz
Characteristic rolling element frequency, BSF	4 Hz
Characteristic outer ring frequency, BPF0	3.06 Hz
Characteristic inner ring frequency, BPFI	4.94 Hz

Abutment dimensions

da min	64 mm
Ce min	0 mm
Da max	111 mm
ra max	2 mm
rNa max	0.5 mm
Db min	131.5 mm

Calculation factors

Equivalent dynamic radial load

P = X.Fr + Y.Fa

$\frac{f_0 F_a}{C_0}$	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

Po = Xo.Fr + Yo.Fa

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement :

If Po <Fr, then use Po = Fr