Technical data

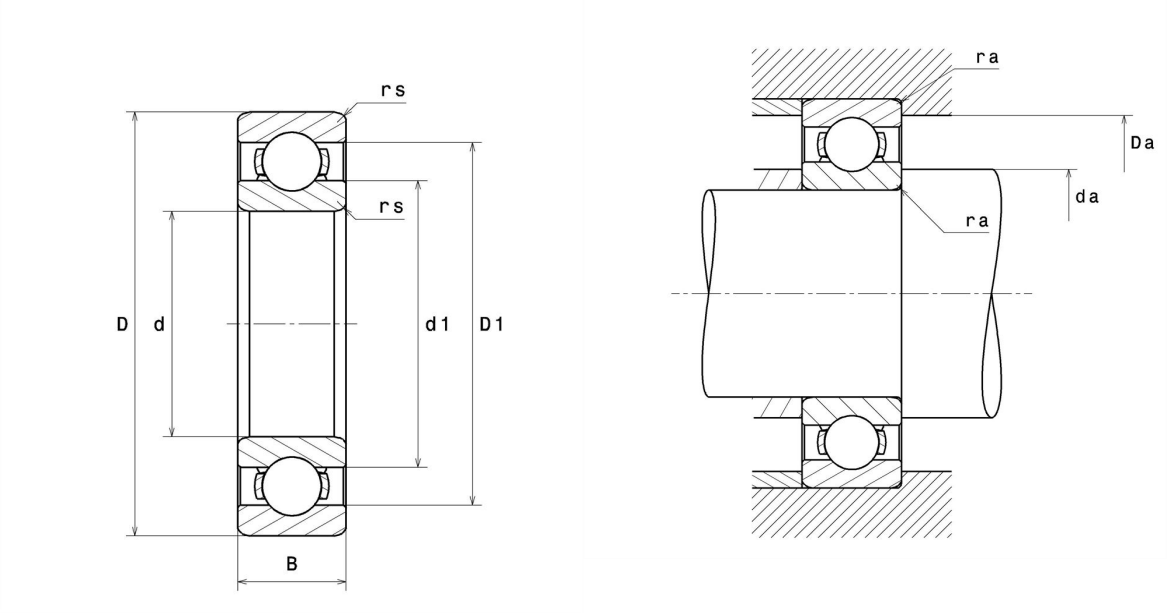
6309.C4

Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, open

Visual(s)



Product definition

d	45 mm
D	100 mm
B	25 mm
d1	59.3 mm
D1	87.1 mm
rs min	1.5 mm
Radial clearance class	C4
Mass	0.82 kg
Brand	SNR

Product performance

Dynamic load, C	52.3 kN
Static load, C0	31.7 kN
Fatigue limit load, Cu	1.44 kN
f0	13
Nref	8,300 Tr/min
Nlim	12,000 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	3.91 Hz
Characteristic outer ring frequency, BPF0	3.04 Hz
Characteristic inner ring frequency, BPFI	4.96 Hz

Abutment dimensions

da min	53 mm
Ce min	0 mm
Da max	92 mm
ra max	1.5 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