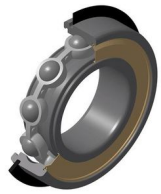
Technical data

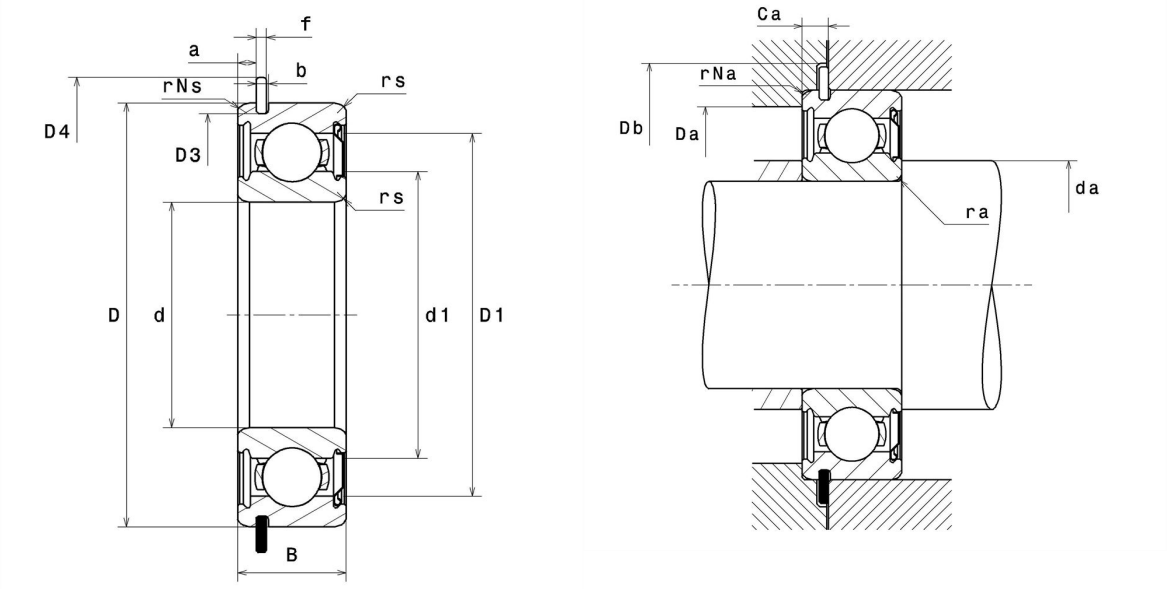
6310ZNR

Single row deep groove ball bearings



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

Visual(s)



Product definition

d	50 mm
D	110 mm
B	27 mm
a min	3.07 mm
a max	3.28 mm
Ca min	5.43 mm
Ca max	5.74 mm
rs min	2 mm
rNs min	0.5 mm
D3 max	106.81 mm
b min	2.7 mm
b max	3 mm
r0 max	0.6 mm
D4 max	116.6 mm
f	2.46 mm
Snap ring reference	R110
Radial clearance class	CN
Mass	1.07 kg
Brand	NTN

Product performance

Dynamic load, C	62 kN
Static load, C0	38.5 kN
Fatigue limit load, Cu	1.75 kN
f0	13.2
Nlim (oil)	7,500 Tr/min
Nlim (grease)	6,400 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	4.07 Hz
Characteristic outer ring frequency, BPF0	3.07 Hz
Characteristic inner ring frequency, BPFI	4.93 Hz

Abutment dimensions

da min	59 mm
Da max	101 mm
ra max	2 mm
rNa max	0.5 mm
Db min	118 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