

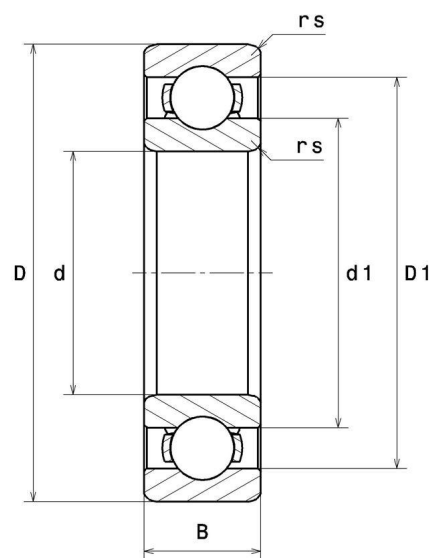
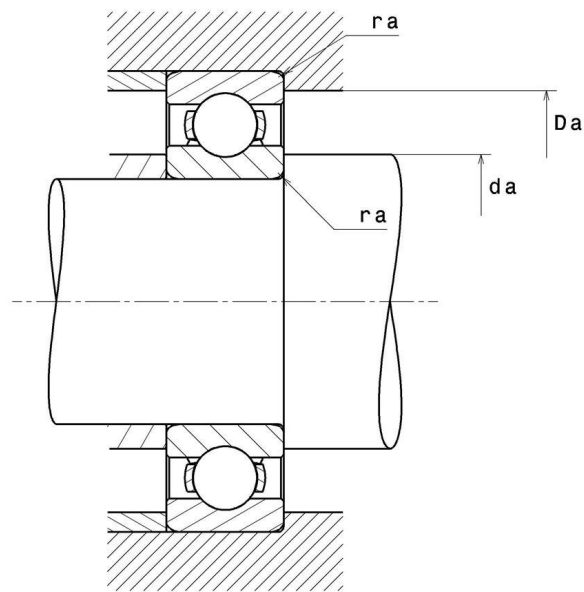
Technical data

6310C3

Single row deep groove ball bearings

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

VISUAL (S)



6310C3

Single row deep groove ball bearings

PRODUCT DIMENSIONS

Internal diameter d	50 mm
External diameter D	110 mm
Bearing/Inner ring width(B)	27 mm
Min fillet radius rs	2 mm
Radial clearance class	C3
Mass	1,07 kg
Brand	NTN

PRODUCT PERFORMANCE

Dynamic load, C	68,5 kN
Static load, C0	38,5 kN
Fatigue limit load, Cu	2,99 kN
Coefficient f0	13.2
Nlim (oil)	7500 tr/min
Nlim (grease)	6400 tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.384 Hz
Characteristic rolling element frequency, BSF	4.072 Hz
Characteristic outer ring frequency, BPF0	3.071 Hz
Characteristic inner ring frequency, BRFI	4.929 Hz

ABUTMENT

Min shoulder diameter IR da min	59 mm
Max shoulder diameter OR Da max	101 mm
Max shaft & housing fillet radius ra max	2 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 $P_0 = F_r$