



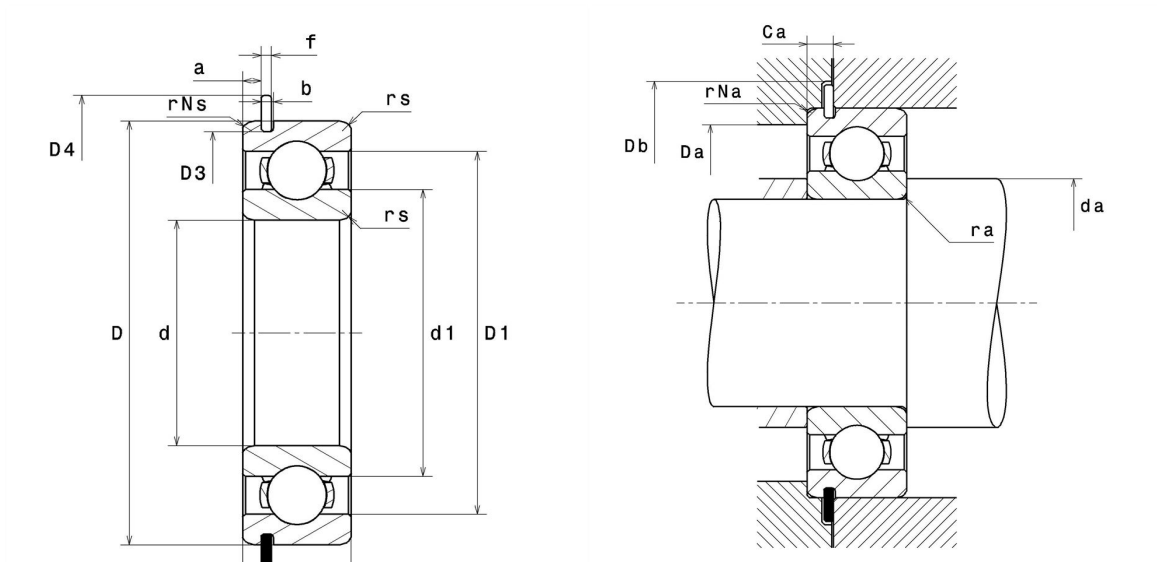
Technical datasheet

63/22NRC3

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	22 mm
D	56 mm
B	16 mm
a min	2.31 mm
a max	2.46 mm
Ca min	3.43 mm
Ca max	3.58 mm
rs min	1.1 mm
rNs min	0.5 mm
D3 max	53.6 mm
b min	1.35 mm
b max	1.65 mm
r0 max	0.4 mm
D4 max	61.7 mm
f	1.12 mm
Snap ring reference	R56
Radial clearance class	C3
Mass	0.18 kg
Brand	NTN

Product performance

Dynamic load, C	18.4 kN
Static load, C₀	9.25 kN
Fatigue limit load, C_u	0.42 kN
f₀	12.4
N_{lim} (oil)	15,000 rpm
N_{lim} (grease)	13,000 rpm
Min operating temperature, T_{min}	-60 °C
Characteristic cage frequency, FTF	0.37 Hz
Characteristic rolling element frequency, BSF	3.52 Hz
Characteristic outer ring frequency, BPF₀	2.57 Hz
Characteristic inner ring frequency, BPF_i	4.43 Hz

Abutment dimensions

da min	28.5 mm
Da max	49.5 mm
ra max	1 mm
rNa max	0.5 mm
Db min	62.5 mm

Calculation factors

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

$\frac{f_0 F_a}{C_0}$	e	F _a / F _r ≤ 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

$$P_0 = X_0.F_r + Y_0.F_a$$

X ₀	Y ₀
0.6	0.5

For single or DT bearing arrangement:

If P₀ < F_r, then use P₀ = F_r