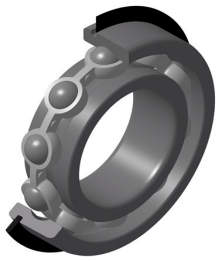
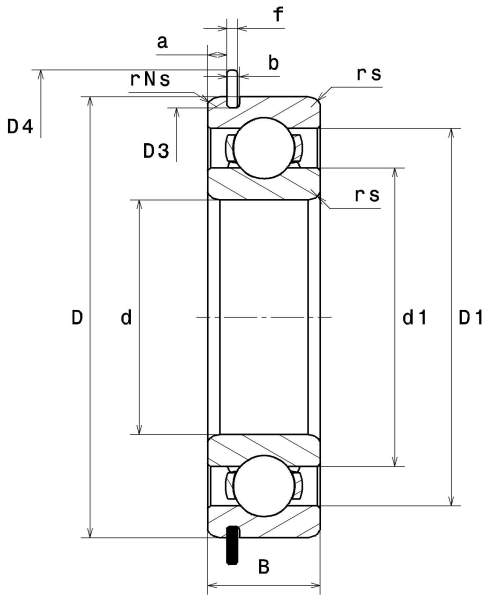
PDF technical sheet
6003NR

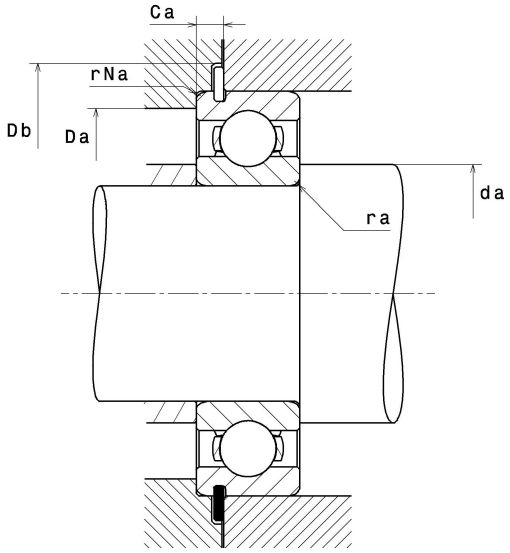


Single row deep groove ball bearings

Product definition	
d	17 mm
D	35 mm
B	10 mm
a min	1.90 mm
a max	2.06 mm
Ca min	2.92 mm
Ca max	3.18 mm
rs min	0.30 mm
rNs min	0.30 mm
D3 max	33.17 mm
b min	1.35 mm
b max	1.65 mm
r0 max	0.40 mm
D4 max	39.70 mm
f	1.12 mm
Snap ring reference	R35
Radial clearance class	CN
Mass	0.04 kg
Brand	NTN



Product performance	
Dynamic load, C	6.80 kN
Static load, C0	3.35 kN
Fatigue limit load, Cu	0.15 kN
f0	13.6
Nlim (oil)	24,000 Tr/min
Nlim (grease)	20,000 Tr/min
Min operating temperature, Tmin	−20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.39 Hz
Characteristic rolling element frequency, BSF	4.47 Hz
Characteristic outer ring frequency, BPF0	3.15 Hz
Characteristic inner ring frequency, BPFI	4.86 Hz



NTN-SNR ROULEMENTS – www.ntn-snr.com
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Abutment dimensions	
da min	19 mm
Da max	33 mm
ra max	0.30 mm
rNa max	0.30 mm
Db min	40.50 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