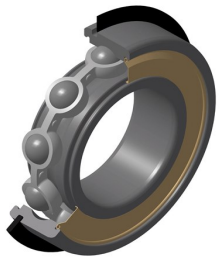
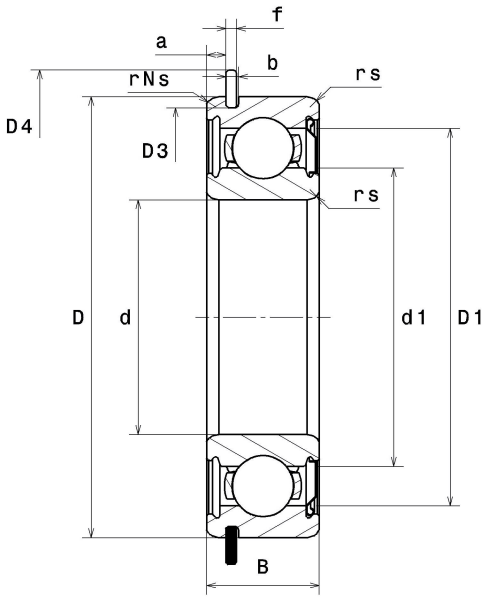
PDF technical sheet
6013ZNR

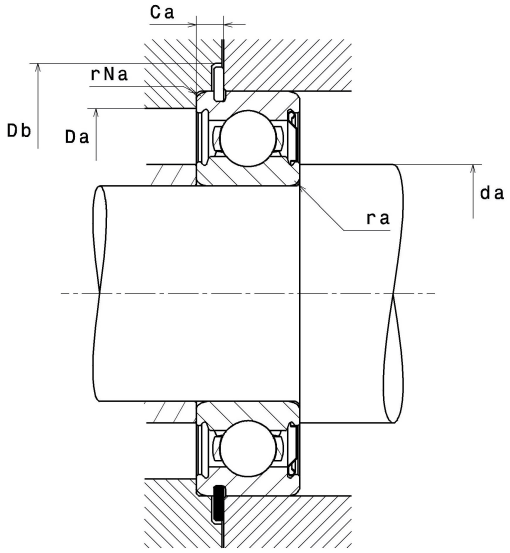


Single row deep groove ball bearings

Product definition	
d	65 mm
D	100 mm
B	18 mm
a min	2.67 mm
a max	2.87 mm
Ca min	5.03 mm
Ca max	5.33 mm
rs min	1.10 mm
rNs min	0.50 mm
D3 max	96.80 mm
b min	2.70 mm
b max	3 mm
r0 max	0.60 mm
D4 max	106.50 mm
f	2.46 mm
Snap ring reference	R100
Radial clearance class	CN
Mass	0.42 kg
Brand	NTN



Product performance	
Dynamic load, C	30.50 kN
Static load, C0	25.20 kN
Fatigue limit load, Cu	1.15 kN
f0	15.8
Nlim (oil)	7,700 Tr/min
Nlim (grease)	6,500 Tr/min
Min operating temperature, Tmin	−20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	7.87 Hz
Characteristic outer ring frequency, BPF0	6.56 Hz
Characteristic inner ring frequency, BPFI	8.44 Hz



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Code APE 2815 Z – Code NACE 28.15

Abutment dimensions	
da min	71.50 mm
Da max	93.50 mm
ra max	1 mm
rNa max	0.50 mm
Db min	108 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