

PDF technical sheet 16016C3

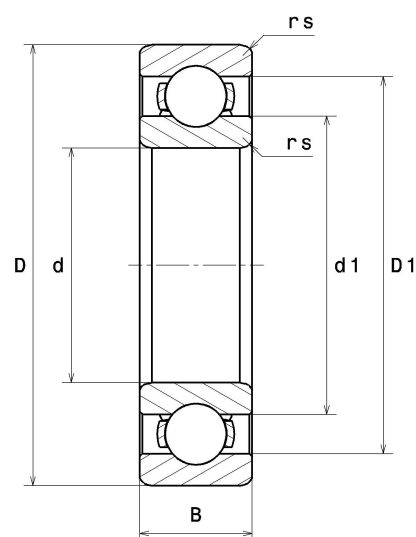


Single row deep groove ball bearings

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

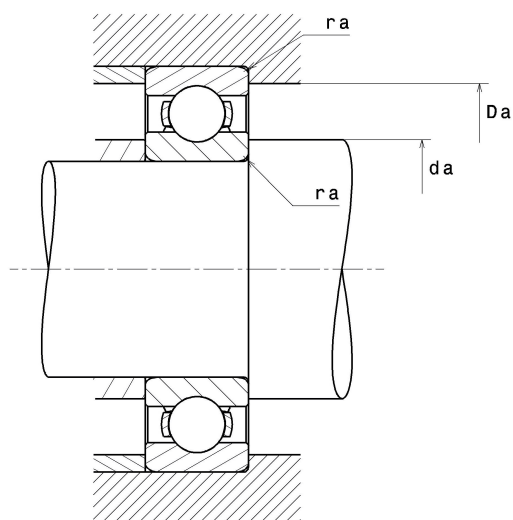
Product definition

d	80 mm
D	125 mm
B	14 mm
rs min	0.60 mm
Radial clearance class	C3
Mass	0.60 kg
Brand	NTN



Product performance

Dynamic load, C	25.40 kN
Static load, C0	25.10 kN
Fatigue limit load, Cu	1.13 kN
f0	16.4
Nlim (oil)	6,200 Tr/min
Nlim (grease)	5,300 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	11.66 Hz
Characteristic outer ring frequency, BPF0	9.15 Hz
Characteristic inner ring frequency, BPF1	10.85 Hz



Abutment dimensions

da min	84 mm
Da max	121 mm
ra max	0.60 mm

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

$\frac{f_0 F_a}{C_0}$	e	$F_a / Fr \leq e$		$F_a / Fr > e$	
		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

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement:

If $P_0 < Fr$, then use $P_0 = Fr$