

PDF technical sheet 6824C3

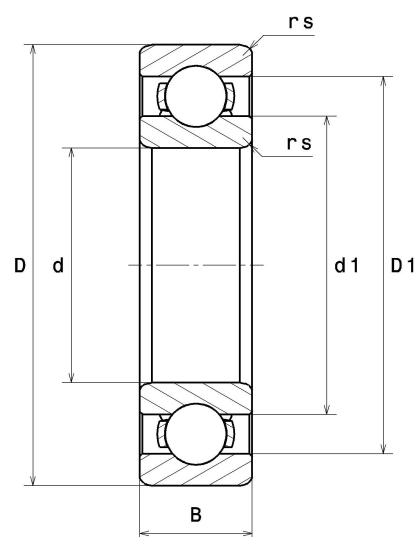


Single row deep groove ball bearings

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

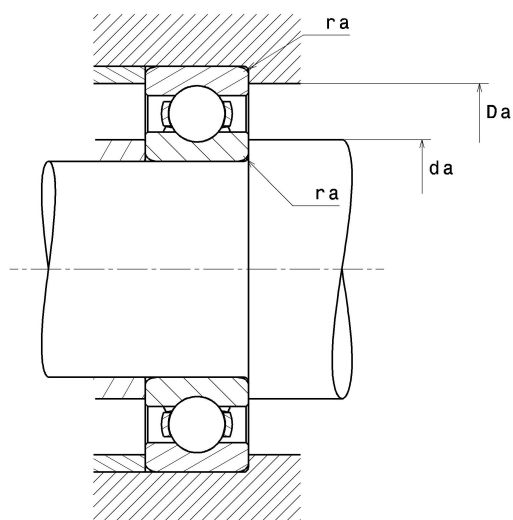
Product definition

d	120 mm
D	150 mm
B	16 mm
rs min	1 mm
Radial clearance class	C3
Mass	0.56 kg
Brand	NTN



Product performance

Dynamic load, C	28.90 kN
Static load, C0	33 kN
Fatigue limit load, Cu	1.29 kN
f0	16
Nlim (oil)	4,700 Tr/min
Nlim (grease)	4,000 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.47 Hz
Characteristic rolling element frequency, BSF	15.40 Hz
Characteristic outer ring frequency, BPF0	12.63 Hz
Characteristic inner ring frequency, BPF1	14.37 Hz



Abutment dimensions

da min	125 mm
Da max	145 mm
ra max	1 mm

Calculation factors

Equivalent dynamic radial load

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

$\frac{f_0 F_a}{C_0}$	e	$F_a / F_r \leq e$		$F_a / F_r > e$	
		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 $P_0 < F_r$, then use $P_0 = F_r$