

PDF technical sheet 6312L1C3

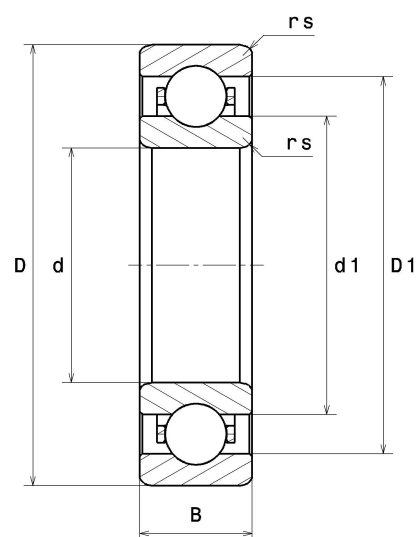


Single row deep groove ball bearings

Deep groove ball bearing, radial contact, machined cage, open

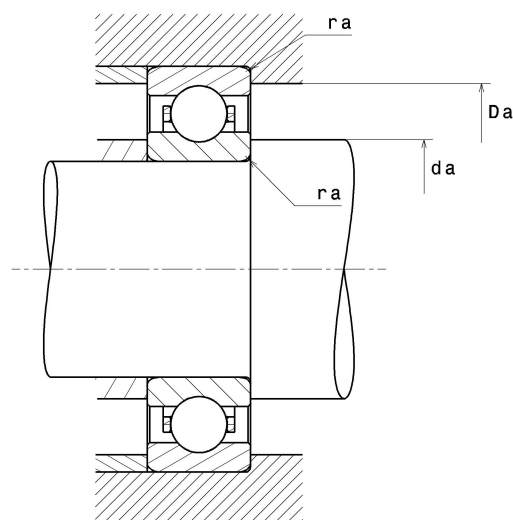
Product definition

d	60 mm
D	130 mm
B	31 mm
rs min	2.10 mm
Radial clearance class	C3
Mass	1.73 kg
Brand	NTN



Product performance

Dynamic load, C	82 kN
Static load, C0	52 kN
Fatigue limit load, Cu	2.36 kN
f0	13.2
Nlim (oil)	6,300 Tr/min
Nlim (grease)	5,400 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.38 Hz
Characteristic rolling element frequency, BSF	4.09 Hz
Characteristic outer ring frequency, BPF0	3.07 Hz
Characteristic inner ring frequency, BPF1	4.93 Hz



Abutment dimensions

da min	71 mm
Da max	119 mm
ra max	2 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 $P_0 = F_r$