

PDF technical sheet 6313L1C4

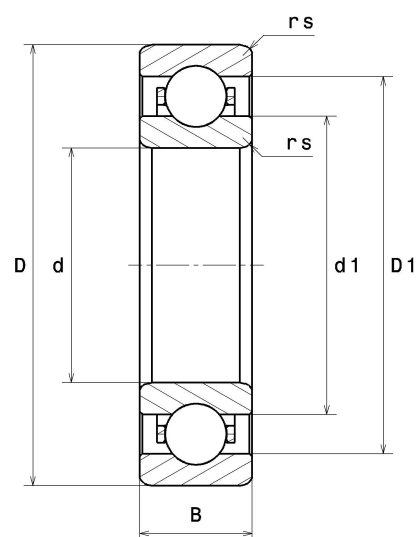


Single row deep groove ball bearings

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

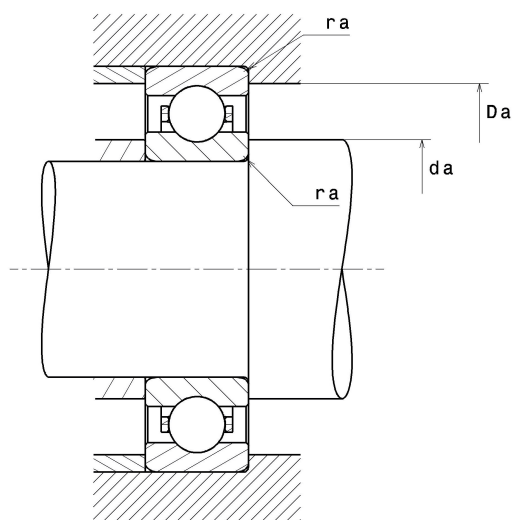
Product definition

d	2.5591 "
D	5.5118 "
B	1.2992 "
rs min	0.0827 "
Radial clearance class	C4
Mass	7.34 oz
Brand	NTN



Product performance

Dynamic load, C	92.50 kN
Static load, C0	60 kN
Fatigue limit load, Cu	2.70 kN
f0	13.2
Nlim (oil)	5,800 RPM
Nlim (grease)	4,900 RPM
Min operating temperature, Tmin	-76 °C
Characteristic cage frequency, FTF	0.38 Hz
Characteristic rolling element frequency, BSF	4.07 Hz
Characteristic outer ring frequency, BPF0	3.07 Hz
Characteristic inner ring frequency, BPF1	4.93 Hz



Abutment dimensions

da min	2.9921 "
Da max	5.0787 "
ra max	0.0787 "

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 $P_0 = Fr$