

PDF technical sheet 6896L1

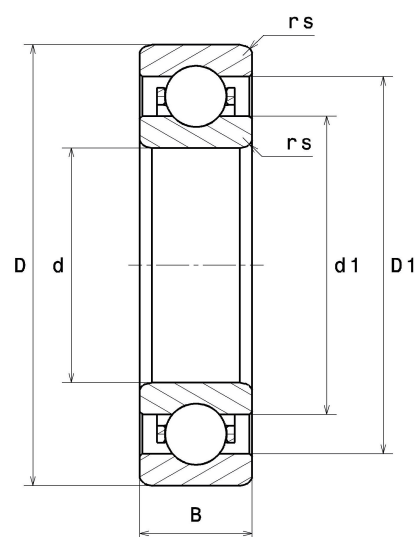


Single row deep groove ball bearings

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

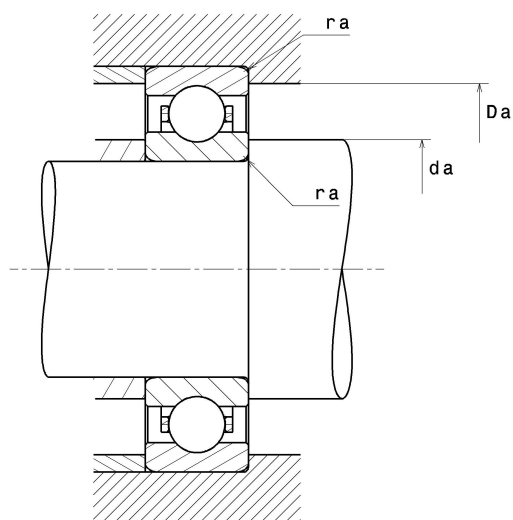
Product definition

d	18.8976 "
D	23.6220 "
B	2.2047 "
rs min	0.1181 "
Radial clearance class	CN
Mass	127.69 oz
Brand	NTN



Product performance

Dynamic load, C	320 kN
Static load, C0	540 kN
Fatigue limit load, Cu	10.60 kN
f0	16.1
Nlim (oil)	1,000 RPM
Nlim (grease)	860 RPM
Min operating temperature, Tmin	-4 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.47 Hz
Characteristic rolling element frequency, BSF	14.10 Hz
Characteristic outer ring frequency, BPF0	10.69 Hz
Characteristic inner ring frequency, BPFI	12.31 Hz



Abutment dimensions

da min	19.4094 "
Da max	23.1102 "
ra max	0.0984 "

Calculation factors

Equivalent dynamic radial load

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

$\frac{f_0 F_a}{C_0}$	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

$$P_0 = X_0.F_r + Y_0.F_a$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement :

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