

PDF technical sheet 16036



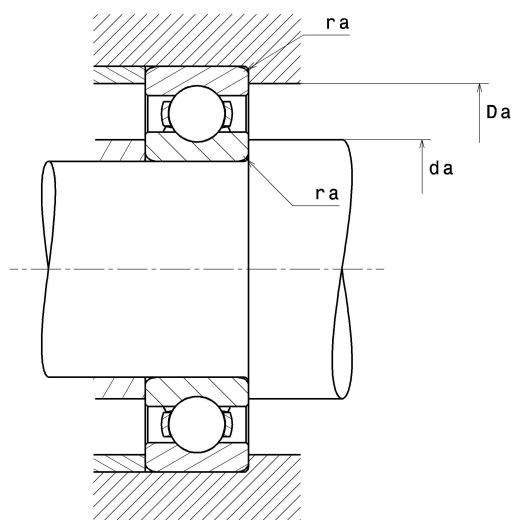
Single row deep groove ball bearings

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

Product definition	
d	7.0866 "
D	11.0236 "
B	1.2205 "
d1	8.3425 "
D1	9.4016 "
rs min	0.0787 "
Radial clearance class	CN
Mass	24.41 oz
Brand	SNR



Product performance	
Dynamic load, C	130 kN
Static load, C0	146 kN
Fatigue limit load, Cu	4.40 kN
f0	16.4
Nref	2,800 RPM
Nlim	3,800 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	10.03 Hz
Characteristic outer ring frequency, BPF0	8.11 Hz
Characteristic inner ring frequency, BPF1	9.89 Hz



Abutment dimensions

da min	7.4409 "
Da max	10.6693 "
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 $P_0 = Fr$