



Brand of NTN corporation

Technical data

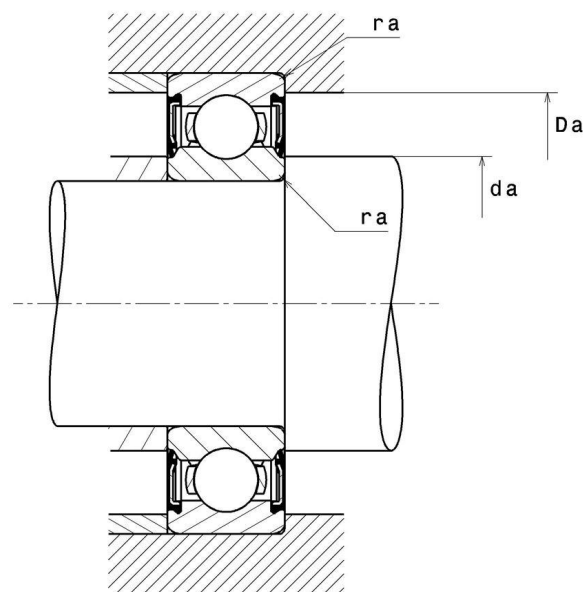
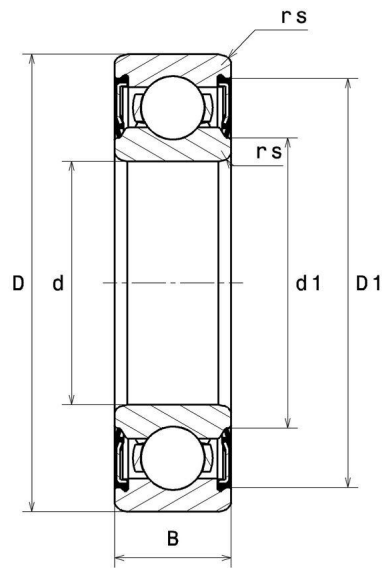
6220EE

Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, contact seals on both sides

VISUAL (S)



NTN Europe

1 rue des Usines · BP 2017 · 74010 Annecy Cedex · France · Tel. +33 (0)4 50 65 30 00
S.A. au capital de 322 639 919 € · RCS ANNECY B 325 821 072 · Id. Fiscale : FR 48 325 821 072
SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15

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PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	100 mm
D - External diameter	180 mm
B - Bearing/Inner ring width	34 mm
d1 - External diameter inner ring	119 mm
D1 - Inner diameter outer ring	162,4 mm
rs - Min fillet radius	2,1 mm
Radial clearance class	CN
Mass	3,17 kg

PRODUCT PERFORMANCE

C - Dynamic load	129000000 mN
C0 - Static load	93200000 mN
Cu - Fatigue limit load	3550000 mN
f0 - Coefficient	14.4
N lim - Mechanical Limit Speed	14400 °/s
Tmin - Min operating temperature	243,15 °K
Tmax - Max operating temperature	393,15 °K

BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	4.099 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.901 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	5.371 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.686 Hz
FTF - Rotational frequency - cage (60 rpm)	0.41 Hz



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ABUTMENT

da min - Min shoulder diameter IR	111 mm
da max - Max shoulder diameter IR	119 mm
Da max - Max shoulder diameter OR	169 mm
ra max - Max shaft & housing fillet radius	2 mm

INDUSTRY CALCUL 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 $P_0 = F_r$



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