



Brand of NTN corporation

Technical data

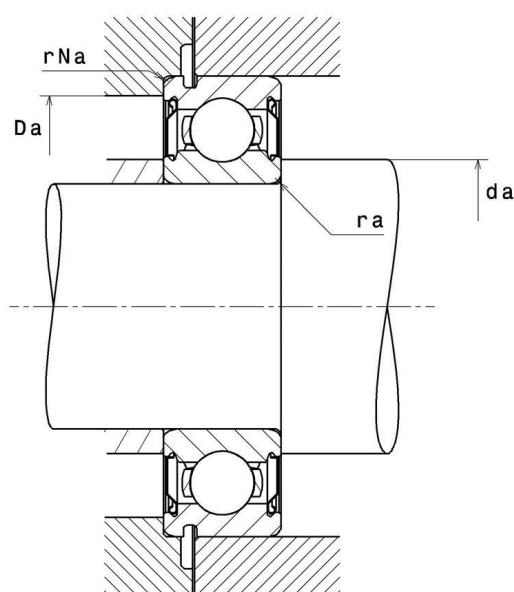
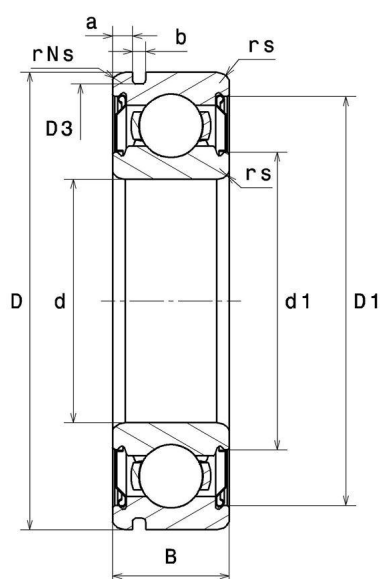
6002NZZ

Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, snap ring groove on outer diameter, shields 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

PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	15 mm
D - External diameter	32 mm
B - Bearing/Inner ring width	9 mm
d1 - External diameter inner ring	20,5 mm
D1 - Inner diameter outer ring	28,8 mm
a min - Min position Groove	2,06 mm
a max - Max position groove	1,9 mm
rs - Min fillet radius	0,3 mm
rNs - Min fillet radius	0,3 mm
D3 - Max bottom groove diameter	30,15 mm
b min - Min groove width	1,35 mm
b max - Max groove width	1,65 mm
r0 max - Max bottom groove radius	0,4 mm
Radial clearance class	CN
Mass	0,03 kg

PRODUCT PERFORMANCE

C - Dynamic load	5900000 mN
C0 - Static load	2850000 mN
Cu - Fatigue limit load	130000 mN
f0 - Coefficient	13.9
N ref - Reference thermal speed	132000 °/s
N lim - Mechanical Limit Speed	186000 °/s



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PRODUCT PERFORMANCE

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)	3.588 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.412 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	4.731 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.366 Hz
FTF - Rotational frequency - cage (60 rpm)	0.399 Hz

ABUTMENT

da min - Min shoulder diameter IR	17 mm
da max - Max shoulder diameter IR	20,5 mm
Da max - Max shoulder diameter OR	30 mm
ra max - Max shaft & housing fillet radius	0,3 mm
rNa max - Max fillet radius on segment side	0,3 mm
Db min - Min stop ring position diameter	0 mm



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INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$$P = X.Fr + Y.Fa$$

$\frac{f_0 F_a}{C_0}$	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

$$Po = X_0.Fr + Y_0.Fa$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement :

If Po ≤Fr, then use Po = Fr