



Brand of NTN corporation

Technical data

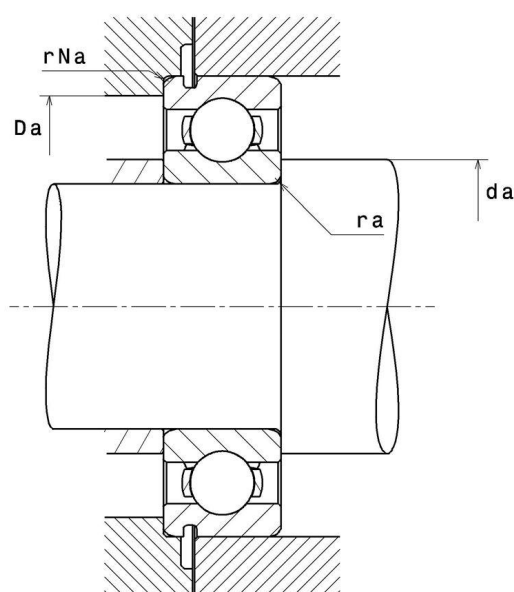
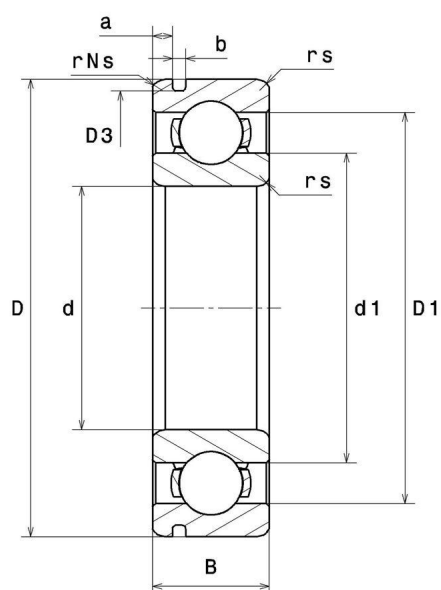
6307N

Single row deep groove ball bearings



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

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	35 mm
D - External diameter	80 mm
B - Bearing/Inner ring width	21 mm
d1 - External diameter inner ring	46,2 mm
D1 - Inner diameter outer ring	70,1 mm
a min - Min position Groove	3,07 mm
a max - Max position groove	3,28 mm
rs - Min fillet radius	1,5 mm
rNs - Min fillet radius	0,5 mm
D3 - Max bottom groove diameter	76,81 mm
b min - Min groove width	1,9 mm
b max - Max groove width	2,2 mm
r0 max - Max bottom groove radius	0,6 mm
Radial clearance class	CN
Mass	0,446 kg

PRODUCT PERFORMANCE

C - Dynamic load	35100000 mN
C0 - Static load	19200000 mN
Cu - Fatigue limit load	870000 mN
f0 - Coefficient	13.2
N ref - Reference thermal speed	59400 °/s
N lim - Mechanical Limit Speed	84000 °/s



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PRODUCT PERFORMANCE

Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	393,15 °K

BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	3.069 Hz
BPFI - Over rolling frequency on inner (60 rpm)	4.931 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	4.066 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.033 Hz
FTF - Rotational frequency - cage (60 rpm)	0.384 Hz

ABUTMENT

da min - Min shoulder diameter IR	43 mm
da max - Max shoulder diameter IR	0 mm
Da max - Max shoulder diameter OR	72 mm
ra max - Max shaft & housing fillet radius	1,5 mm
rNa max - Max fillet radius on segment side	0,5 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

$P_0 = X_0.Fr + Y_0.Fa$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement :

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

