



Brand of NTN corporation

Technical data

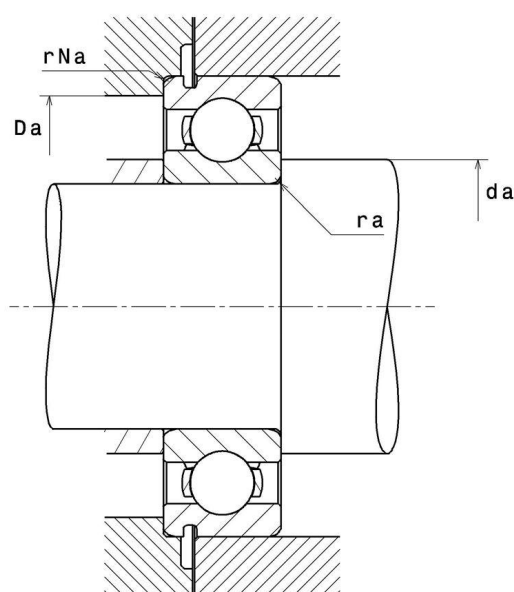
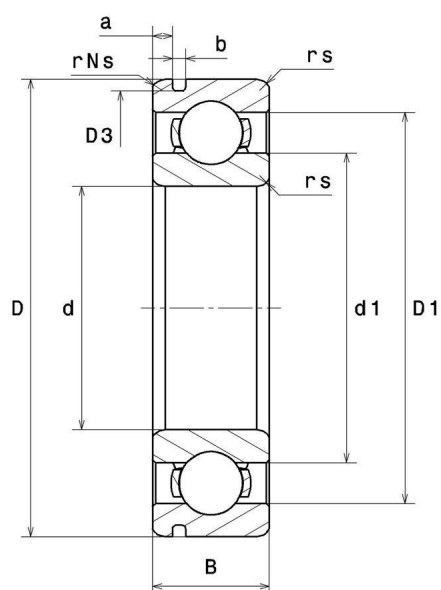
6305N

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

6305N

Single row deep groove ball bearings

PRODUCT DEFINITION	
Brand	SNR
d - Internal diameter	25 mm
D - External diameter	62 mm
B - Bearing/Inner ring width	17 mm
d1 - External diameter inner ring	33,6 mm
D1 - Inner diameter outer ring	52,6 mm
a min - Min position Groove	3,07 mm
a max - Max position groove	3,28 mm
rs - Min fillet radius	1,1 mm
rNs - Min fillet radius	0,5 mm
D3 - Max bottom groove diameter	59,61 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	0,225 kg

PRODUCT PERFORMANCE	
C - Dynamic load	24900000 mN
C0 - Static load	12100000 mN
Cu - Fatigue limit load	550000 mN
f0 - Coefficient	12.2
N ref - Reference thermal speed	72000 °/s
N lim - Mechanical Limit Speed	114000 °/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)	2.542 Hz
BPFI - Over rolling frequency on inner (60 rpm)	4.458 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	3.38 Hz
BRF - Rotational frequency - rolling element (60 rpm)	1.69 Hz
FTF - Rotational frequency - cage (60 rpm)	0.363 Hz

ABUTMENT

da min - Min shoulder diameter IR	31,5 mm
da max - Max shoulder diameter IR	0 mm
Da max - Max shoulder diameter OR	55,5 mm
ra max - Max shaft & housing fillet radius	1 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 P₀ <Fr, then use P₀ = Fr