



Brand of NTN Group

Technical data

6002Z

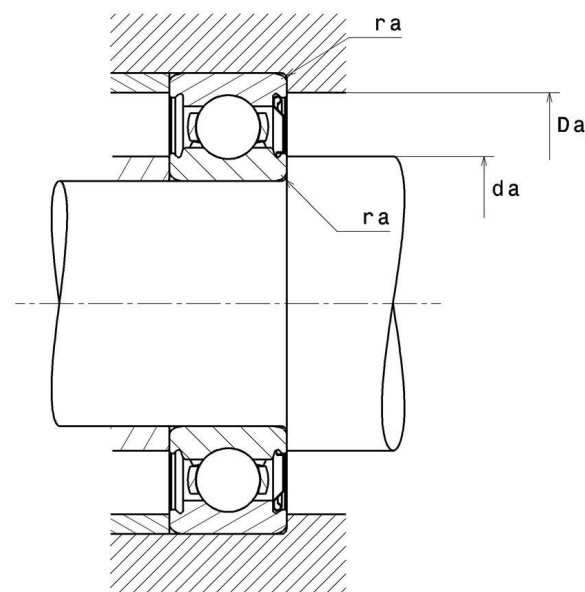
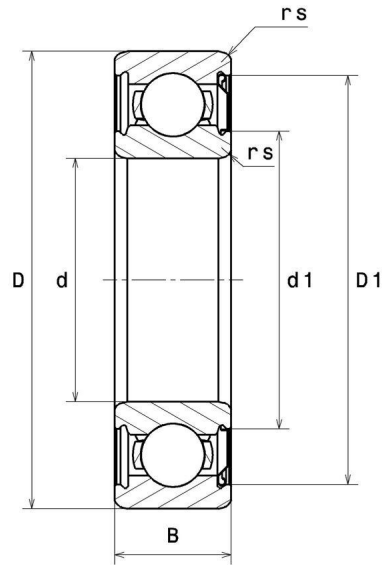
Single row deep groove ball bearings



Non-constructual illustration, image may differ from actual product.

Deep groove ball bearing, radial contact, pressed steel cage, shield on one side

VISUAL (S)



NTN Europe

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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

6002Z

Single row deep groove ball bearings

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
rs - Min fillet radius	0,3 mm
Radial clearance class	CN
Mass	0,03 kg

PRODUCT PERFORMANCE

C - Dynamic load	5,9 kN
C0 - Static load	2,85 kN
Cu - Fatigue limit load	0,13 kN
f0 - Coefficient	13.9
N ref - Reference thermal speed	22000 tr/min
N lim - Mechanical Limit Speed	39000 tr/min
Tmin - Min operating temperature	-40 °C
Tmax - Max operating temperature	120 °C

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



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BEARING FREQUENCIES

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

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

$\frac{f_0 F_a}{C_0}$	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

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

X ₀	Y ₀
0.6	0.5

For single or DT bearing arrangement :

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

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