

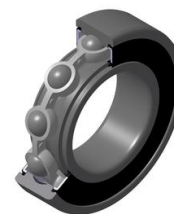


Brand of NTN corporation

Technical data

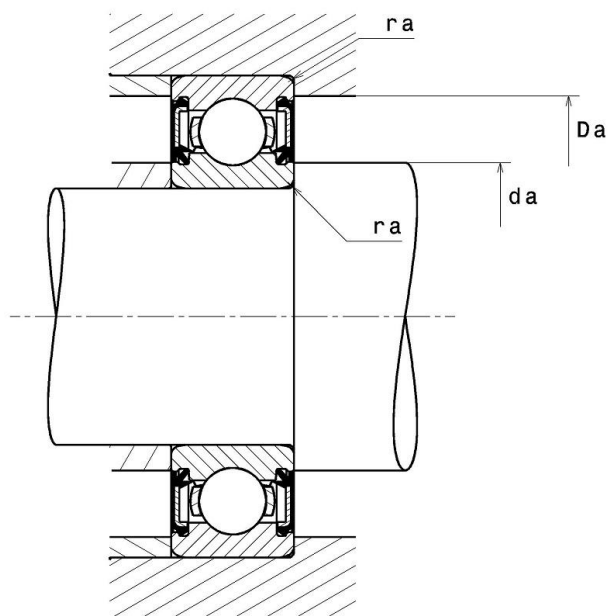
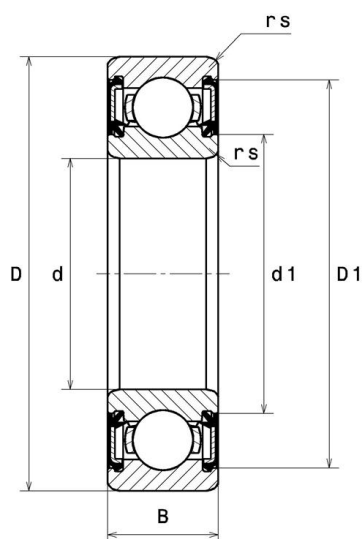
6311.EE

Single row deep groove ball bearings



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

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

PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	55 mm
D - External diameter	120 mm
B - Bearing/Inner ring width	29 mm
d1 - External diameter inner ring	71 mm
D1 - Inner diameter outer ring	104,4 mm
rs - Min fillet radius	2 mm
Radial clearance class	CN
Mass	1,34 kg

PRODUCT PERFORMANCE

C - Dynamic load	75300000 mN
C0 - Static load	44700000 mN
Cu - Fatigue limit load	2030000 mN
f0 - Coefficient	13.1
N lim - Mechanical Limit Speed	24600 °/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)	3.057 Hz
BPFI - Over rolling frequency on inner (60 rpm)	4.943 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	4.004 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.002 Hz
FTF - Rotational frequency - cage (60 rpm)	0.382 Hz



ABUTMENT

da min - Min shoulder diameter IR	64 mm
Da max - Max shoulder diameter OR	111 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 $P_0 = F_r$

