

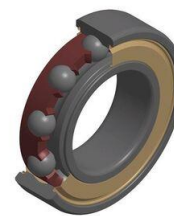


Brand of NTN corporation

Technical data

6210HVZZ

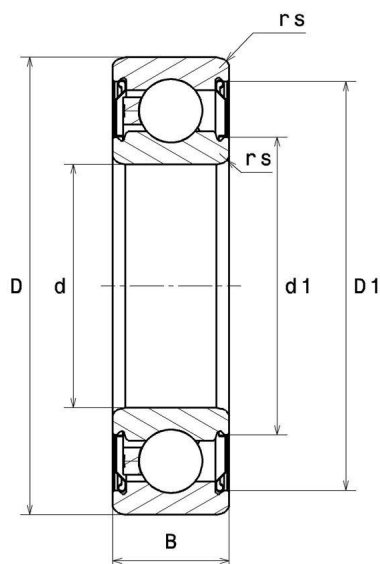
Single row deep groove ball bearings



TOPLINE deep groove ball bearing, radial contact, pressed polyamide cage, shields on both sides, for high speed applications

TOPLINE

VISUAL (S)

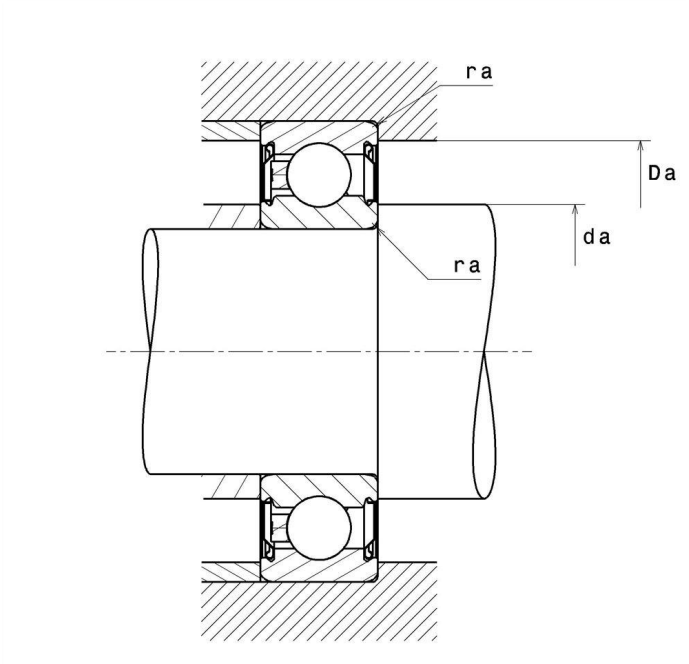


NTN Europe

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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

6210HVZZ

Single row deep groove ball bearings



PRODUCT DEFINITION	
Brand	SNR
d - Internal diameter	50 mm
D - External diameter	90 mm
B - Bearing/Inner ring width	20 mm
d1 - External diameter inner ring	59,6 mm
D1 - Inner diameter outer ring	80,8 mm
rs - Min fillet radius	1,1 mm
Radial clearance class	C3
Mass	0,453 kg

PRODUCT PERFORMANCE	
C - Dynamic load	37000000 mN
C0 - Static load	23200000 mN
Cu - Fatigue limit load	1050000 mN

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PRODUCT PERFORMANCE

f0 - Coefficient	14.4
N lim - Mechanical Limit Speed	60000 °/s
Tmin - Min operating temperature	223,15 °K
Tmax - Max operating temperature	393,15 °K

BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	4.093 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.907 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	5.33 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.665 Hz
FTF - Rotational frequency - cage (60 rpm)	0.409 Hz

ABUTMENT

da min - Min shoulder diameter IR	56,5 mm
da max - Max shoulder diameter IR	59,6 mm
Da max - Max shoulder diameter OR	83,5 mm
ra max - Max shaft & housing fillet radius	1 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