

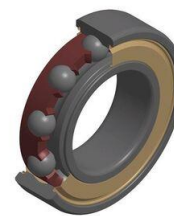


Brand of NTN corporation

Technical data

6205HVZZ

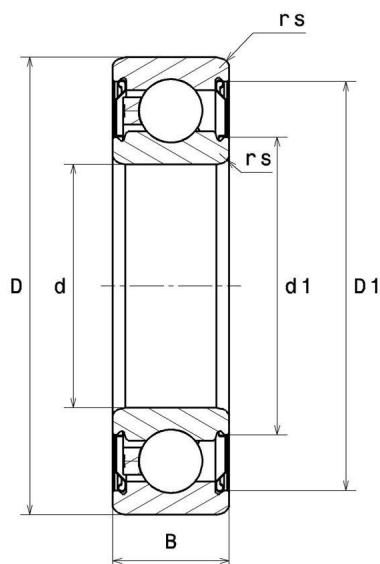
Single row deep groove ball bearings



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

TOPLINE

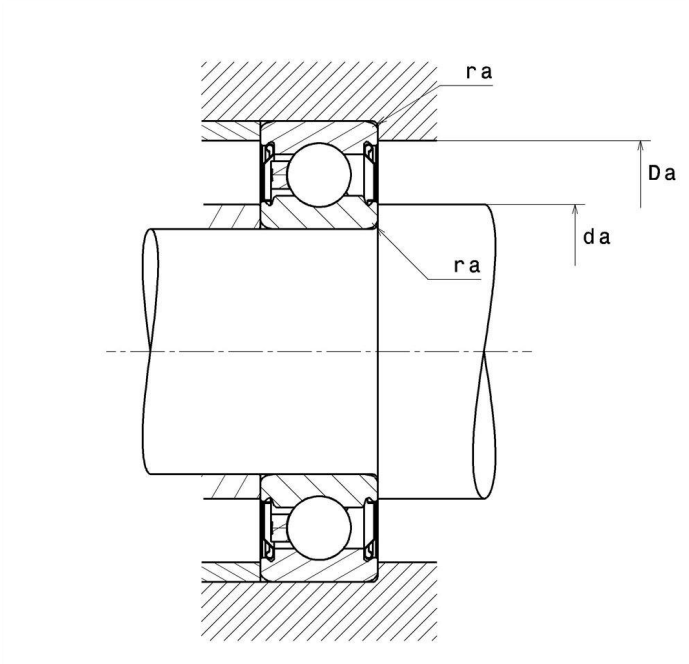
VISUAL (S)



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

6205HVZZ
Single row deep groove ball bearings



PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	25 mm
D - External diameter	52 mm
B - Bearing/Inner ring width	15 mm
d1 - External diameter inner ring	31,8 mm
D1 - Inner diameter outer ring	49,2 mm
rs - Min fillet radius	1 mm
Radial clearance class	C3
Mass	0,128 kg

PRODUCT PERFORMANCE

C - Dynamic load	14800000 mN
C0 - Static load	7900000 mN
Cu - Fatigue limit load	360000 mN



6205HVZZ

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PRODUCT PERFORMANCE

f0 - Coefficient	13.9
N lim - Mechanical Limit Speed	132000 %/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)	3.585 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.415 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	4.715 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.358 Hz
FTF - Rotational frequency - cage (60 rpm)	0.398 Hz

ABUTMENT

da min - Min shoulder diameter IR	30 mm
da max - Max shoulder diameter IR	31,8 mm
Da max - Max shoulder diameter OR	47 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

$P_0 = X_0.Fr + Y_0.Fa$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement :

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