

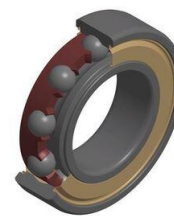


Brand of NTN corporation

Technical data

6009HVZZ

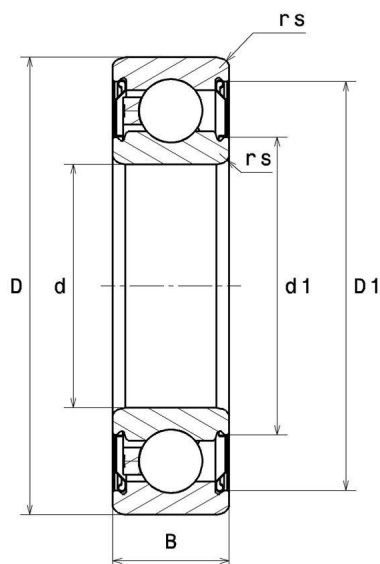
Single row deep groove ball bearings



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

TOPLINE

VISUAL (S)

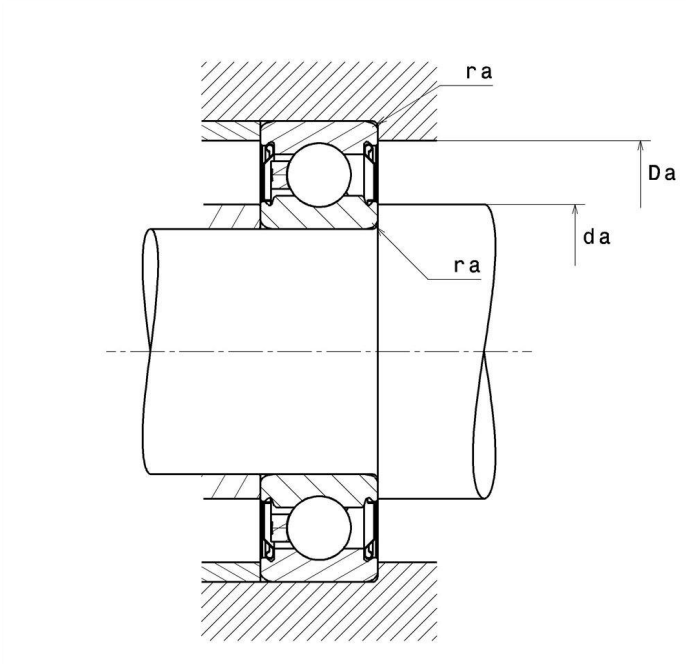


NTN Europe

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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

6009HVZZ

Single row deep groove ball bearings



PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	45 mm
D - External diameter	75 mm
B - Bearing/Inner ring width	16 mm
d1 - External diameter inner ring	54,2 mm
D1 - Inner diameter outer ring	68,4 mm
rs - Min fillet radius	1 mm
Radial clearance class	C3
Mass	0,243 kg

PRODUCT PERFORMANCE

C - Dynamic load	22100000 mN
C0 - Static load	15100000 mN
Cu - Fatigue limit load	690000 mN



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PRODUCT PERFORMANCE

f0 - Coefficient	15.3
N lim - Mechanical Limit Speed	90000 °/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)	5.554 Hz
BPFI - Over rolling frequency on inner (60 rpm)	7.446 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	6.727 Hz
BRF - Rotational frequency - rolling element (60 rpm)	3.364 Hz
FTF - Rotational frequency - cage (60 rpm)	0.427 Hz

ABUTMENT

da min - Min shoulder diameter IR	50 mm
da max - Max shoulder diameter IR	54,2 mm
Da max - Max shoulder diameter OR	70 mm
ra max - Max shaft & housing fillet radius	1 mm



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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 $P_0 = F_r$

