

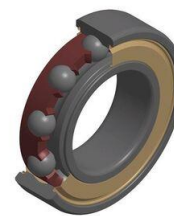


Brand of NTN corporation

Technical data

6004HVZZ

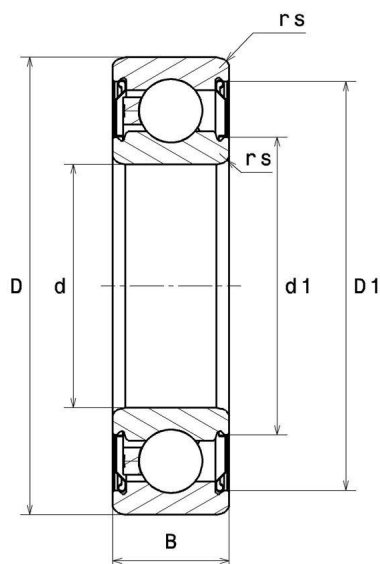
Single row deep groove ball bearings



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

TOPLINE

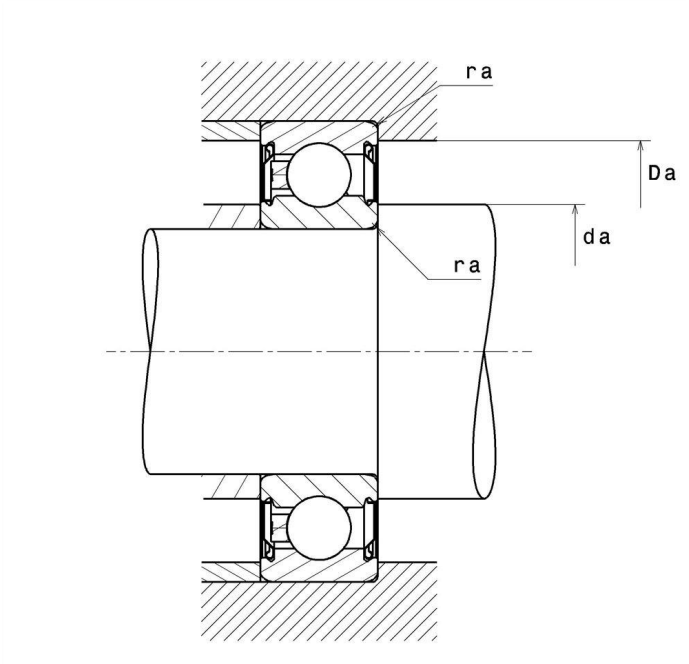
VISUAL (S)



NTN Europe

1 rue des Usines · BP 2017 · 74010 Annecy Cedex · France · Tel. +33 (0)4 50 65 30 00
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

6004HVZZ
Single row deep groove ball bearings



PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	20 mm
D - External diameter	42 mm
B - Bearing/Inner ring width	12 mm
d1 - External diameter inner ring	27,5 mm
D1 - Inner diameter outer ring	37,6 mm
rs - Min fillet radius	0,6 mm
Radial clearance class	C3
Mass	0,068 kg

PRODUCT PERFORMANCE

C - Dynamic load	9900000 mN
C0 - Static load	5000000 mN
Cu - Fatigue limit load	230000 mN



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PRODUCT PERFORMANCE

f0 - Coefficient	13.8
N lim - Mechanical Limit Speed	156000 %/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)	3.578 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.422 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	4.677 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.339 Hz
FTF - Rotational frequency - cage (60 rpm)	0.398 Hz

ABUTMENT

da min - Min shoulder diameter IR	24 mm
da max - Max shoulder diameter IR	27,5 mm
Da max - Max shoulder diameter OR	38 mm
ra max - Max shaft & housing fillet radius	0,6 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 $P_0 = F_r$

