



Brand of NTN corporation

Technical data

6309FT150ZZ

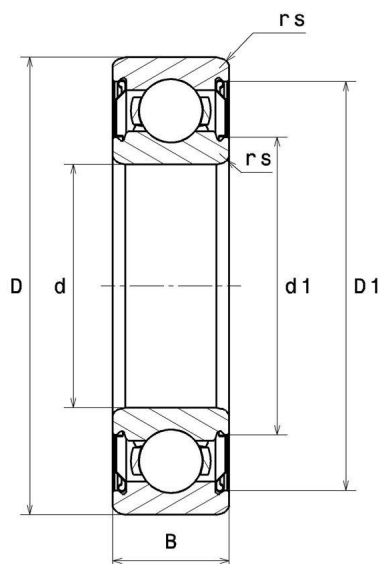
Single row deep groove ball bearings



TOPLINE deep groove ball bearing, radial contact, pressed steel cage, shields on both sides, applications up to 150°C.

TOPLINE

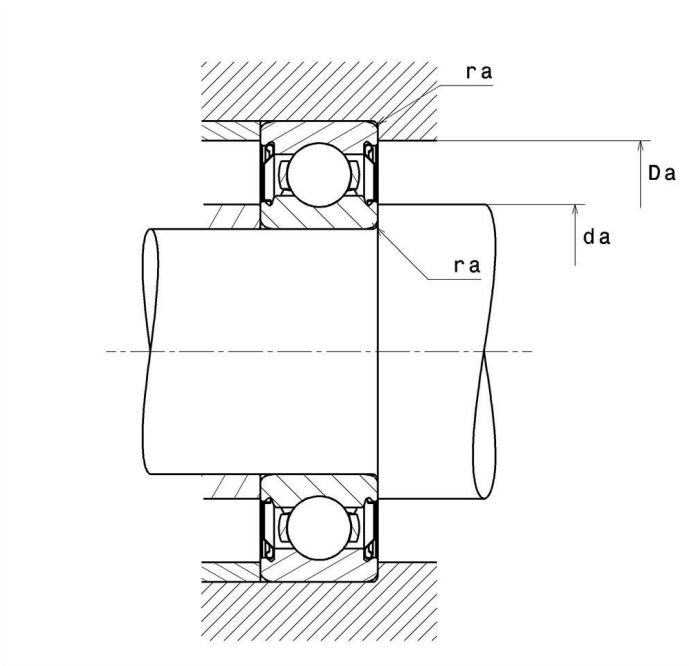
VISUAL (S)



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

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Single row deep groove ball bearings



PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	45 mm
D - External diameter	100 mm
B - Bearing/Inner ring width	25 mm
d1 - External diameter inner ring	59,3 mm
D1 - Inner diameter outer ring	87,1 mm
rs - Min fillet radius	1,5 mm
Radial clearance class	C3
Mass	0,825 kg

PRODUCT PERFORMANCE

C - Dynamic load	55600000 mN
C0 - Static load	31700000 mN
Cu - Fatigue limit load	1440000 mN



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PRODUCT PERFORMANCE

f0 - Coefficient	13
N lim - Mechanical Limit Speed	40800 °/s
Tmin - Min operating temperature	243,15 °K
Tmax - Max operating temperature	423,15 °K

BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	3.037 Hz
BPFI - Over rolling frequency on inner (60 rpm)	4.963 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	3.911 Hz
BRF - Rotational frequency - rolling element (60 rpm)	1.956 Hz
FTF - Rotational frequency - cage (60 rpm)	0.38 Hz

ABUTMENT

da min - Min shoulder diameter IR	53 mm
da max - Max shoulder diameter IR	59,3 mm
Da max - Max shoulder diameter OR	92 mm
ra max - Max shaft & housing fillet radius	1,5 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 $P_0 = Fr$

