



Brand of NTN corporation

Technical data

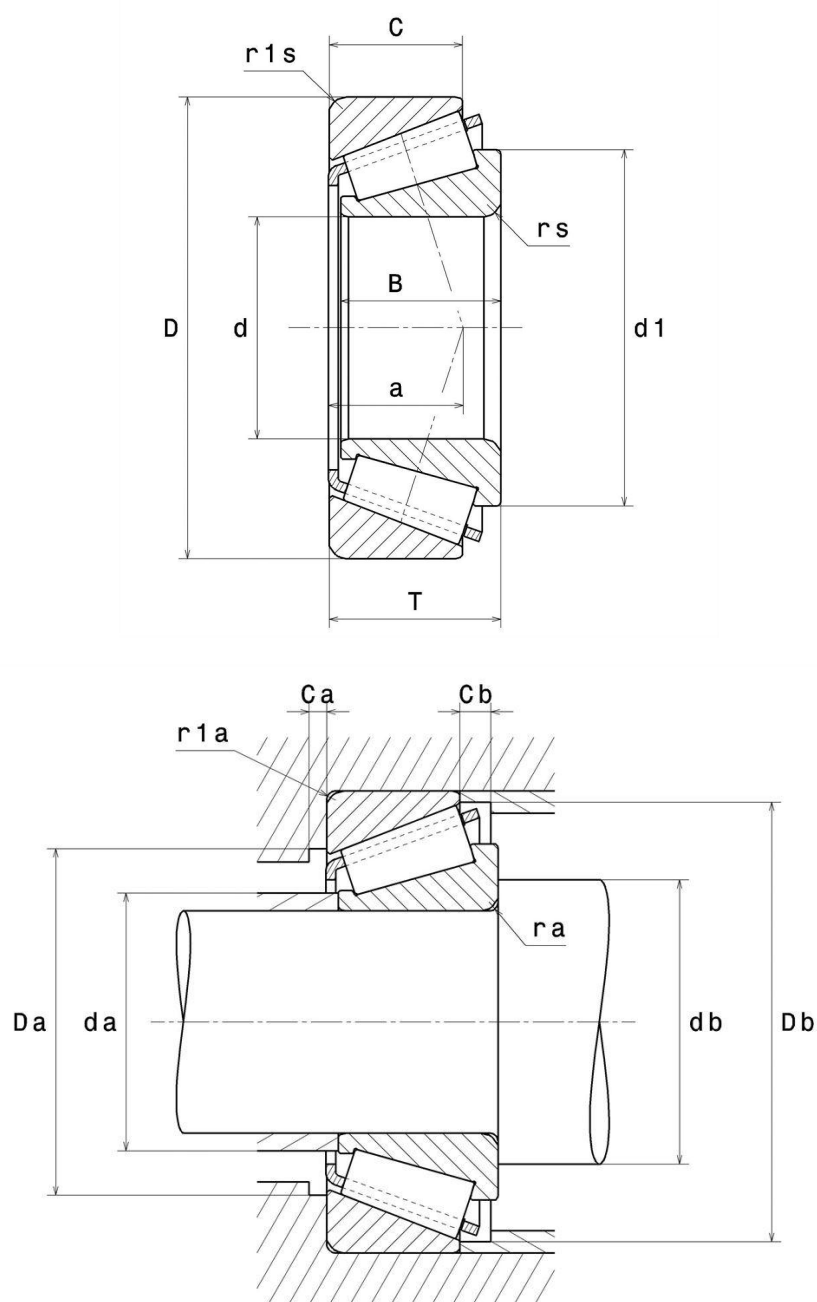
33210A

Single row tapered roller bearings



Tapered roller bearing, pressed steel cage

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

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Single row tapered roller bearings

PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	50 mm
D - External diameter	90 mm
B - Bearing/Inner ring width	32 mm
C - Outer ring width	24,5 mm
T - Total width	32 mm
d1 - External diameter inner ring	70,4 mm
a - Charge load application point	23,3 mm
rs - Min fillet radius	1,5 mm
r1s - Min fillet radius	1,5 mm
Mass	0,825 kg
ISO 355 reference	T3DE050

PRODUCT PERFORMANCE

C - Dynamic load	118 kN
A2 - Rating life coefficient	1
C0 - Static load	155 kN
Cu - Fatigue limit load	18,9 kN
e - Coefficient	0.41
Y0 - Static axial load coefficient	0.8
Y2 - Upper axial load coefficient	1.45
N ref - Reference thermal speed	4800 tr/min
N lim - Mechanical Limit Speed	7700 tr/min
Tmin - Min operating temperature	-40 °C



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PRODUCT PERFORMANCE

Tmax - Max operating temperature	120 °C
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BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	8.187 Hz
BPFI - Over rolling frequency on inner (60 rpm)	10.813 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	6.843 Hz
BRF - Fréquence de rotation : Élément roulant	3.422 Hz
FTF - Rotational frequency - cage (60 rpm)	0.431 Hz

ABUTMENT

da max - Max shoulder diameter IR	57 mm
db min - Min IR shoulder diameter	57 mm
Da min - Min shoulder diameter OR	77 mm
Da max - Max shoulder diameter OR	83 mm
Db min - Min OR shoulder diameter	87 mm
Ca - Min clearance	5 mm
Cb - Min clearance	7,5 mm
ra max - Max fillet radius	1,5 mm
r1a - Max fillet radius	1,5 mm

ESHOPDONOTDISPLAY

Reference	33210A
Image	TRB_1.jpg, TRB_2.jpg, TRB_3.jpg
KIZEI	Non/No
TOPLINE	Non/No
ULTAGE	Non/No



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ESHOPDONOTDISPLAY

Tracepart	Non/No
- Contact angle	15.4166666666667 °

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$P = X.F_r + Y.F_a$

$F_a / F_r \leq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y2

Equivalent static radial load

$P_0 = X_0.F_r + Y_0.F_a$

X_0	Y_0
0.5	Y0

If $P_0 \leq F_r$, then use $P_0 = F_r$

The values for e, Y2 and Y0 are shown in the above table