

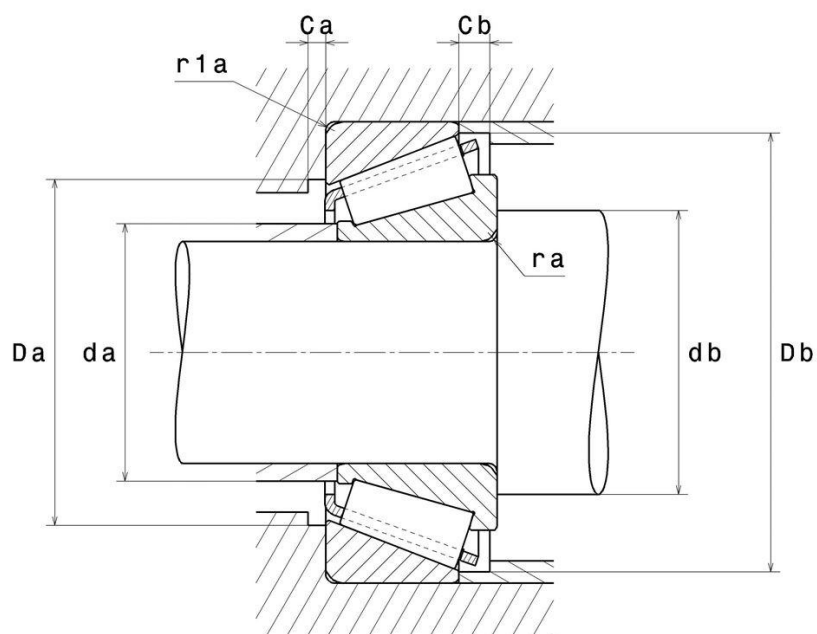
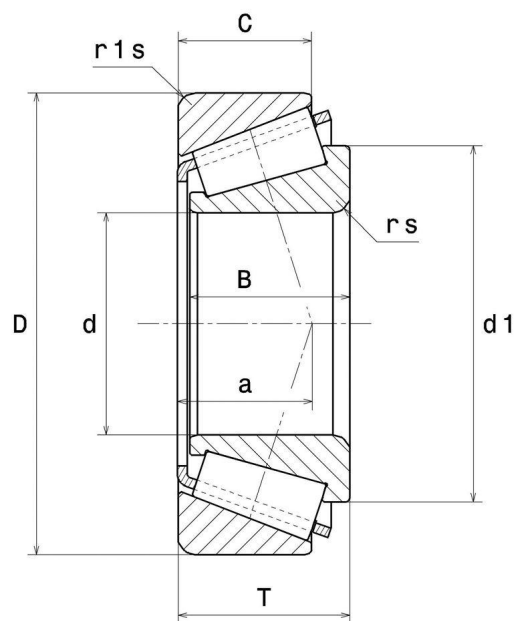
Technical data

30311A

Single row tapered roller bearings



VISUAL (S)



30311A

Single row tapered roller bearings

PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	55 mm
D - External diameter	120 mm
B - Bearing/Inner ring width	29 mm
C - Outer ring width	25 mm
T - Total width	31,5 mm
d1 - External diameter inner ring	85,3 mm
a - Charge load application point	24,9 mm
rs - Min fillet radius	2,5 mm
r1s - Min fillet radius	2 mm
Mass	1,63 kg

PRODUCT PERFORMANCE

C - Dynamic load	161 kN
A2 - Rating life coefficient	1
C0 - Static load	188 kN
Cu - Fatigue limit load	22,9 kN
e - Coefficient	0.35
Y0 - Static axial load coefficient	0.96
Y2 - Upper axial load coefficient	1.74
Nref - Reference thermal speed	4300 tr/min
Nlim - Mechanical Limit Speed	6100 tr/min
Tmin - Min operating temperature	-40 °C
Tmax - Max operating temperature	120 °C



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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BEARING FREQUENCIES

BPFO - Characteristic outer ring frequency (60 rpm)	6.567 Hz
BPFI - Characteristic inner ring frequency (60 rpm)	9.433 Hz
FTF - Characteristic cage frequency (60 rpm)	0.41 Hz
BSF - Characteristic rolling element frequency (60 rpm)	5.266 Hz

ABUTMENT

da max - Max shoulder diameter IR	71 mm
db min - Min IR shoulder diameter	65 mm
Da min - Min shoulder diameter OR	104 mm
Da max - Max shoulder diameter OR	110 mm
Db min - Min OR shoulder diameter	111 mm
Ca - Min clearance	4 mm
Cb - Min clearance	6,5 mm
ra max - Max fillet radius	2,5 mm
r1a - Max fillet radius	2 mm



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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

