



Technical data

7301B

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearings, pressed steel cage

VISUAL (S)



7301B

Single row or matched pairs of angular contact ball bearings

PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	12 mm
D - External diameter	37 mm
B - Bearing/Inner ring width	12 mm
a - Charge load application point	16,5 mm
- Contact angle	40 °
rs - Min fillet radius	1 mm
r1s - Min fillet radius	0,6 mm
Radial clearance class	CN
Mass	0,045 kg

PRODUCT PERFORMANCE

C - Dynamic load	11700000 mN
C0 - Static load	4950000 mN
Cu - Fatigue limit load	385000 mN
N lim - Oil lubrication limit speed	156000 °/s
N lim - Grease lubrication limit speed	114000 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	393,15 °K

ABUTMENT

da min - Min shoulder diameter IR	17,5 mm
db min - Min IR shoulder diameter	16,5 mm
Da max - Max shoulder diameter OR	31,5 mm
Db max - Max OR shoulder diameter	32,5 mm



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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ABUTMENT

r1a - Max fillet radius	0,6 mm
ra max - Max shaft & housing fillet radius	1 mm

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

	e	Single or DT bearing arrangement				DB or DF arrangement			
		Fa / Fr ≤ e		Fa / Fr > e		Fa / Fr ≤ e		Fa / Fr > e	
		X	Y	X	Y	X	Y	X	Y
30°	0.8	1	0	0.9	0.76	1	0.78	0.63	1.24
40°	1.14			0.35	0.57		0.55	0.57	0.93

Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

a	Single or DT bearing arrangement		DB or DF arrangement	
	X ₀	Y ₀	X ₀	Y ₀
30°	0.5	0.33	1	0.66
40°		0.26		0.52

For single or DT bearing arrangement :

If $P_0 < F_r$, then use $P_0 = F_r$



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