



Technical data

7309BG

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearings, pressed steel cage

VISUAL (S)



7309BG

Single row or matched pairs of angular contact ball bearings

PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	45 mm
D - External diameter	100 mm
B - Bearing/Inner ring width	25 mm
a - Charge load application point	43 mm
- Contact angle	40 °
rs - Min fillet radius	1,5 mm
r1s - Min fillet radius	1 mm
Radial clearance class	CN
Mass	0,854 kg

PRODUCT PERFORMANCE

C - Dynamic load	64500000 mN
C0 - Static load	40500000 mN
Cu - Fatigue limit load	3150000 mN
N lim - Oil lubrication limit speed	53400 °/s
N lim - Grease lubrication limit speed	39600 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	393,15 °K

ABUTMENT

da min - Min shoulder diameter IR	53,5 mm
db min - Min IR shoulder diameter	50,5 mm
Da max - Max shoulder diameter OR	91,5 mm
Db max - Max OR shoulder diameter	94,5 mm



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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ABUTMENT

r1a - Max fillet radius	1 mm
ra max - Max shaft & housing fillet radius	1,5 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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