

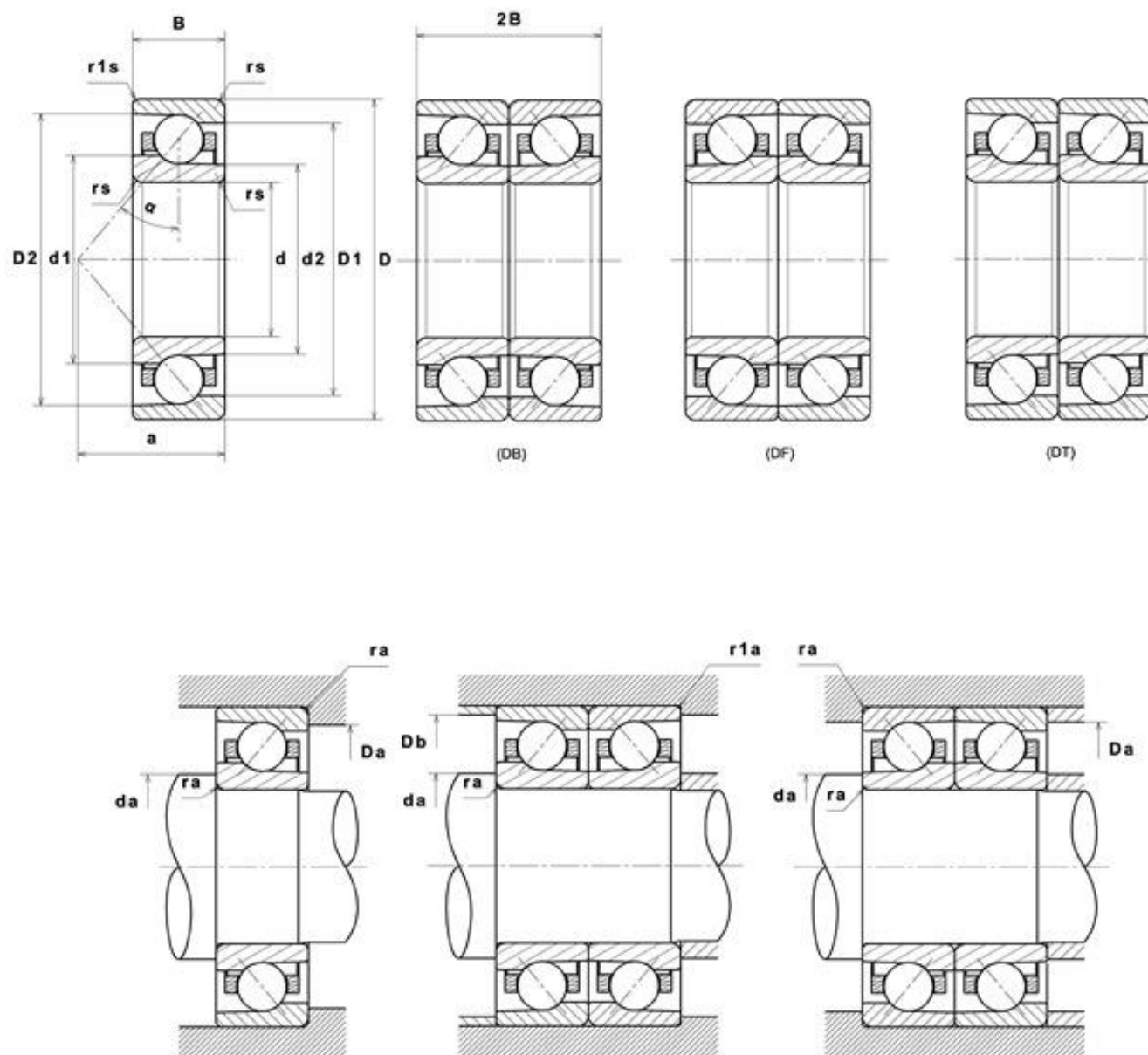


Technical data

7011UADG/GNP42

High precision angular contact ball bearings

VISUAL (S)



7011UADG/GNP42

High precision angular contact ball bearings

PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	55 mm
D - External diameter	90 mm
B - Bearing/Inner ring width	18 mm
d1 - External diameter inner ring	66,9 mm
d2 - External diameter inner ring	64,3 mm
D1 - Inner diameter outer ring	78,1 mm
D2 - Inner diameter outer ring	83,5 mm
a - Charge load application point	26 mm
- Contact angle	25 °
rs - Min fillet radius	1,1 mm
r1s - Min fillet radius	0,6 mm
Precision class	P42
Mass	0,38 kg

PRODUCT PERFORMANCE

C - Dynamic load	37000000 mN
C0 - Static load	28700000 mN
N lim - Oil lubrication limit speed	135600 °/s
N lim - Grease lubrication limit speed	84000 °/s
Preload level	GN
Preload value	335000 mN
Axial rigidity	180.8 N/μm
Radial rigidity	385 N/μm



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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PRODUCT PERFORMANCE

Tmin - Min operating temperature	253,15 °K
Tmax - Max operating temperature	393,15 °K

ABUTMENT

da min - Min shoulder diameter IR	62 mm
Da max - Max shoulder diameter OR	83 mm
Db max - Max OR shoulder diameter	85,5 mm
r1a - Max fillet radius	0,6 mm
ra max - Max shaft & housing fillet radius	1 mm

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load
 $P = X \cdot Fr + Y \cdot Fa$

Series			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
70 (NTN & SNR) 72 (NTN & SNR) 78 (NTN) 79 (NTN) 719 (SNR)	15°		0.178	1	0	0.44	1.47	1	1.65	0.72	2.39
			0.357				1.4		1.57		2.28
			0.714				1.3		1.46		2.11
			1.07				1.23		1.38		2
			1.43				1.19		1.34		1.93
			2.14				1.12		1.26		1.82
			3.57				1.02		1.14		1.66
			5.35						1.12		1.63
			7.14				1		1.12		1.63
	25°		0.68				0.41		0.92		1.41
	30°		0.8				0.39		0.78		1.24

Equivalent static radial load
 $P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$

Series			Single or DT bearing arrangement		DB or DF arrangement	
			X_0	Y_0	X_0	Y_0
70 (NTN & SNR) 72 (NTN & SNR) 78 (NTN) 79 (NTN) 719 (SNR)	15°		0.5	0.46	1	0.92
				0.38		0.76
	25°					
	30°			0.33		0.66

For single or DT bearing arrangement :
 If $P_0 < Fr$, then use $P_0 = Fr$



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