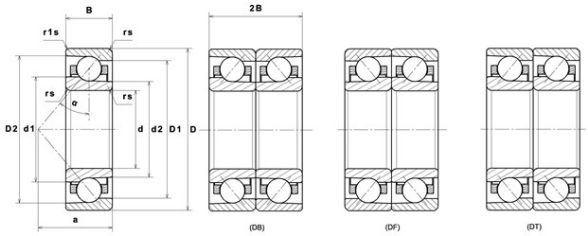
PDF technical sheet
7002UADG/GLP42

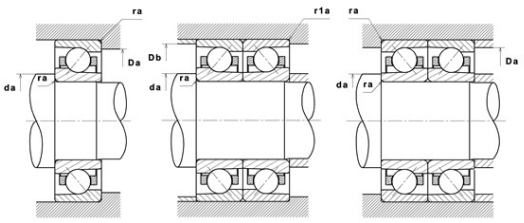
High precision angular contact ball bearings

High precision angular contact ball bearing, moulded polyamide cage centred on balls

Product definition	
d	15 mm
D	32 mm
B	9 mm
d1	20.90 mm
d2	19.70 mm
D1	26.10 mm
D2	28.60 mm
a	10 mm
Contact angle, a	25 °
rs min	0.30 mm
r1s min	0.15 mm
f0	14.4
Precision class	P42
Mass	0.03 kg
Brand	NTN



Product performance	
Dynamic load, C	6.35 kN
Static load, C0	3.55 kN
Nlim (oil)	69,800 Tr/min
Nlim (grease)	43,200 Tr/min
Preload level	GL
Peload value	20 kN
axial rigidity	38.7 N/μm
radial rigidity	85 N/μm
Min operating temperature, Tmin	−20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	4.77 Hz
Characteristic outer ring frequency, BPF0	4.90 Hz
Characteristic inner ring frequency, BPFI	7.10 Hz



NTN-SNR ROULEMENTS – www.ntn-snr.com
1 rue des Usines – 74010 Annecy Cedex – France – Tel. +33 (0)4 50 65 30 00

Abutment dimensions	
da min	17.50 mm
Da max	29.50 mm
Db max	30.80 mm
r1a max	0.15 mm
ra max	0.30 mm
D6	21.30 mm

Calculation factors

Equivalent dynamic radial load

P = X.Fr + Y.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	0.38	1	0	0.44	1.47	1	1.65	0.72	2.39
			0.357	0.4				1.4		1.57		2.28
			0.714	0.43				1.3		1.46		2.11
			1.07	0.46				1.23		1.38		2
			1.43	0.47				1.19		1.34		1.93
			2.14	0.5				1.12		1.26		1.82
			3.57	0.55				1.02		1.14		1.66
			5.35	0.56						1.12		1.63
			7.14	0.56				1		1.12		1.63
		25°		0.68			0.41	0.87		0.92	0.67	1.41
		30°		0.8			0.39	0.76		0.78	0.63	1.24

Equivalent static radial load

$P_o = X_o.Fr + Y_o.Fa$

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
		25°		0.38		0.76
		30°		0.33		0.66

For single or DT bearing arrangement :

If Po <Fr, then use Po = Fr