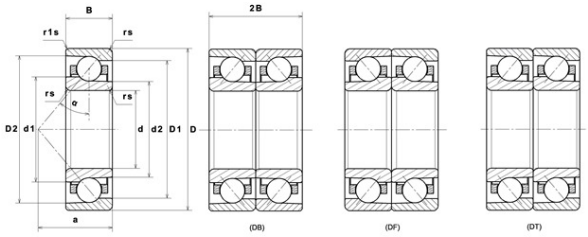
PDF technical sheet
7900UADG/GLP42U3G

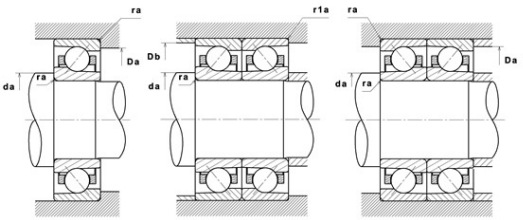
High precision angular contact ball bearings

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

Product definition	
d	10 mm
D	22 mm
B	6 mm
d1	14.30 mm
d2	13.50 mm
D1	17.70 mm
D2	19.40 mm
a	6.80 mm
Contact angle, a	25 °
rs min	0.30 mm
r1s min	0.15 mm
f0	14.5
Precision class	P42
Mass	0.01 kg
Brand	NTN



Product performance	
Dynamic load, C	3.05 kN
Static load, C0	1.58 kN
Nlim (oil)	102,500 Tr/min
Nlim (grease)	63,400 Tr/min
Preload level	GL
Min operating temperature, Tmin	−20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	4.88 Hz
Characteristic outer ring frequency, BPF0	4.92 Hz
Characteristic inner ring frequency, BPFI	7.08 Hz



Abutment dimensions	
da min	12.50 mm
Da max	19.50 mm
Db max	20.80 mm
r1a max	0.15 mm
ra max	0.30 mm
D6	14.60 mm

NTN-SNR ROULEMENTS – www.ntn-snr.com
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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

Po = Xo.Fr + Yo.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