

PDF technical sheet

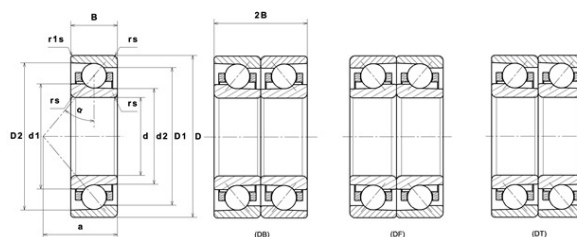
7917UADG/GNP42U3G



High precision angular contact ball bearings

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

Product definition	
d	85 mm
D	120 mm
B	18 mm
d1	96.90 mm
d2	94.30 mm
D1	108.10 mm
D2	113.50 mm
a	33 mm
Contact angle, α	25 °
rs min	1.10 mm
r1s min	0.60 mm
f0	16.6
Precision class	P42
Mass	0.54 kg
Brand	NTN



Product performance	
Dynamic load, C	38.50 kN
Static load, C0	41.50 kN
Nlim (oil)	16,000 Tr/min
Nlim (grease)	9,900 Tr/min
Preload level	GN
Peload value	390 kN
axial rigidity	233.8 N/ μ m
radial rigidity	500 N/ μ m
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	9.85 Hz
Characteristic outer ring frequency, BPF0	11.81 Hz
Characteristic inner ring frequency, BPFI	14.19 Hz



Abutment dimensions

da min	92 mm
Da max	113 mm
Db max	115.50 mm
r1a max	0.60 mm
ra max	1 mm
D6	97.40 mm

Calculation 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	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	1	0	0.41	0.87	1	0.92	0.67	1.41
	30°		0.8								0.78

Equivalent static radial load

$$Po = Xo \cdot Fr + Yo \cdot Fa$$

Series			Single or DT bearing arrangement		DB or DF arrangement	
			Xo	Yo	Xo	Yo
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 $Po = Fr$