

PDF technical sheet

7026UCG/GNP42U3G



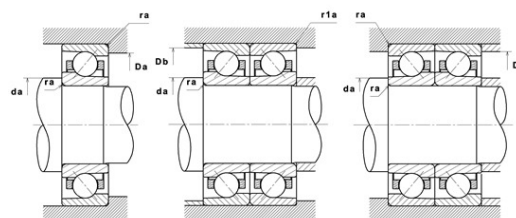
High precision angular contact ball bearings

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

Product definition	
d	130 mm
D	200 mm
B	33 mm
d1	153.90 mm
d2	148.50 mm
D1	176.20 mm
D2	187.10 mm
a	38.70 mm
Contact angle, α	15 °
rs min	2 mm
r1s min	1 mm
f0	15.9
Precision class	P42
Mass	3.25 kg
Brand	NTN



Product performance	
Dynamic load, C	133 kN
Static load, C0	144 kN
Nlim (oil)	11,400 Tr/min
Nlim (grease)	7,100 Tr/min
Preload level	GN
Peload value	800 kN
axial rigidity	163.2 N/ μ m
radial rigidity	945 N/ μ m
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	7.88 Hz
Characteristic outer ring frequency, BPF0	9.67 Hz
Characteristic inner ring frequency, BPF1	12.33 Hz



Abutment dimensions

da min	140 mm
Da max	190 mm
Db max	194.50 mm
r1a max	1 mm
ra max	2 mm
D6	153.90 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			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

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

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
	25°			0.38		0.76
	30°			0.33		0.66

For single or DT bearing arrangement :

If $Po < Fr$, then use $Po = Fr$