Technical datasheet

7922UCG/GNP42U3G

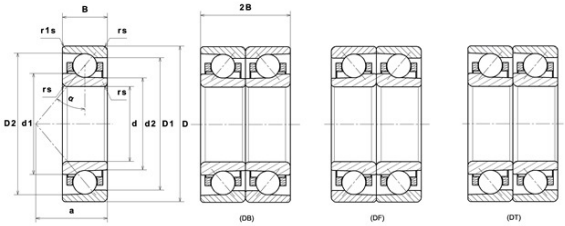
High precision angular contact ball bearings

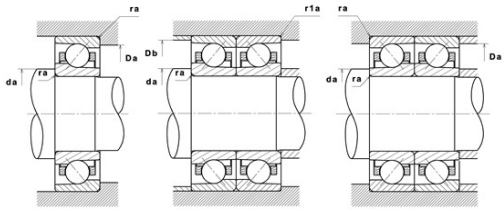


High precision angular contact ball bearing, moulded polyamide cage centred on balls

ULTAGE

Visual(s)





Product definition

d	110 mm
D	150 mm
B	20 mm
d1	123.6 mm
d2	120.5 mm
D1	136.4 mm
D2	142.7 mm
a	27.5 mm
Contact angle α	15 °
rs min	1.1 mm
r1s min	0.6 mm
f0	16.5
Precision class	P42
Mass	0.87 kg
Brand	NTN

Product performance

Dynamic load, C	56 kN
Static load, C0	65.5 kN
Nlim (oil)	14,400 rpm
Nlim (grease)	9,000 rpm
Preload level	GN
Preload value	0.335 kN
Axial rigidity	124.9 N/µm
Radial rigidity	720 N/µm
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	10.84 Hz
Characteristic outer ring frequency, BPF0	13.22 Hz
Characteristic inner ring frequency, BPFI	15.78 Hz

Abutment dimensions

da min	117 mm
Da max	143 mm
Db max	145.5 mm
r1a max	0.6 mm
ra max	1 mm
D6	123.9 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

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