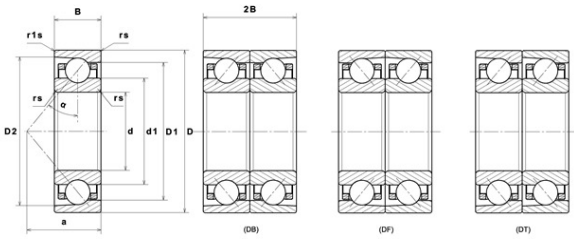
PDF technical sheet
7222CG1UJ74

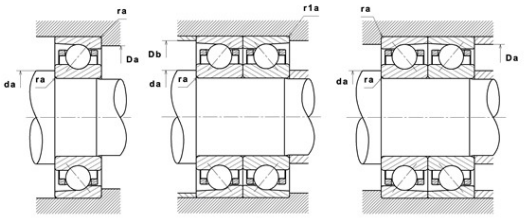
High precision angular contact ball bearings

High precision angular contact ball bearing, laminated resin cage centred on outer ring

Product definition	
d	4.3307 "
D	7.8740 "
B	1.4961 "
d1	5.5394 "
D1	6.6772 "
D2	7.3425 "
a	1.5748 "
Contact angle, a	15 °
rs min	0.0827 "
r1s min	0.0433 "
f0	14.492
Precision class	P4
Mass	15.98 oz
Brand	SNR



Product performance	
Dynamic load, C	174 kN
Static load, C0	160 kN
Fatigue limit load, Cu	6.80 kN
Nlim (oil)	10,500 RPM
Nlim (grease)	6,800 RPM
Axial displacement K Factor	1.03
Preload level	7
Peload value	1,080 kN
axial rigidity	150 N/μm
radial rigidity	861 N/μm
Min operating temperature, Tmin	−22 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	5.25 Hz
Characteristic outer ring frequency, BPF0	5.75 Hz
Characteristic inner ring frequency, BPFI	8.25 Hz



NTN-SNR ROULEMENTS – www.ntn-snr.com
1 rue des Usines – 74010 Annecy Cedex – France – Tel. +33 (0)4 50 65 30 00
S.A. au capital de 123 599 542 € - RCS ANNECY B 325 821 072 – Id. Fiscale : FR 48 325 821 072 – SIRET 325 821 072 00015 –
Code APE 2815 Z – Code NACE 28.15

Abutment dimensions	
da min	4.8031 "
db min	4.8031 "
Da max	7.4016 "
Db max	7.4016 "
r1a max	0.0394 "
ra max	0.0787 "
D6	5.7087 "

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