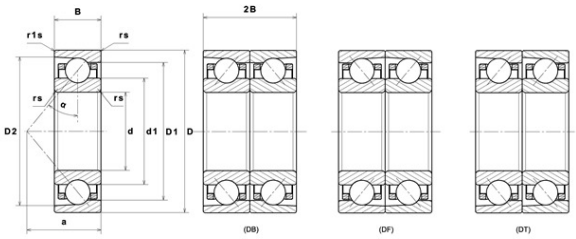
PDF technical sheet
CH7004CVUJ74

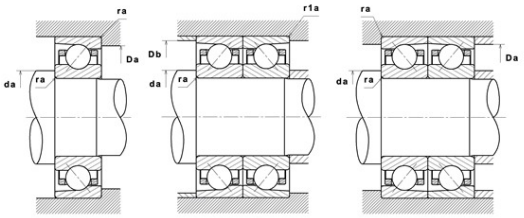
High precision angular contact ball bearings

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

Product definition	
d	20 mm
D	42 mm
B	12 mm
d1	26.60 mm
D1	35.45 mm
D2	37.80 mm
a	10 mm
Contact angle, a	15 °
rs min	0.60 mm
r1s min	0.30 mm
f0	14.013
Precision class	P4
Mass	0.06 kg
Brand	SNR



Product performance	
Dynamic load, C	11.70 kN
Static load, C0	7.10 kN
Fatigue limit load, Cu	0.39 kN
Nlim (oil)	71,000 Tr/min
Nlim (grease)	47,000 Tr/min
Axial displacement K Factor	1.56
Preload level	7
Peload value	60 kN
axial rigidity	37 N/μm
radial rigidity	208 N/μm
Min operating temperature, Tmin	−30 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.40 Hz
Characteristic rolling element frequency, BSF	4.69 Hz
Characteristic outer ring frequency, BPF0	5.21 Hz
Characteristic inner ring frequency, BPFI	7.79 Hz



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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	24.50 mm
db min	24.50 mm
Da max	37.50 mm
Db max	37.50 mm
r1a max	0.30 mm
ra max	0.60 mm
D6	29 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