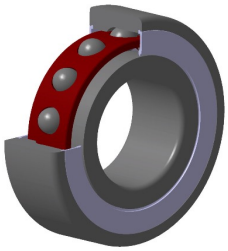
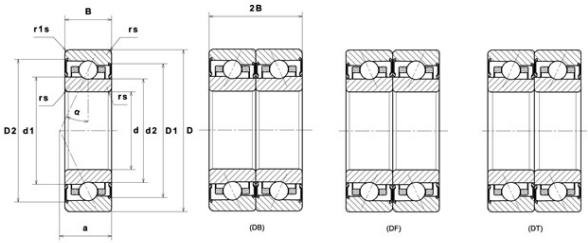
PDF technical sheet
MLE7003HVUJ84S



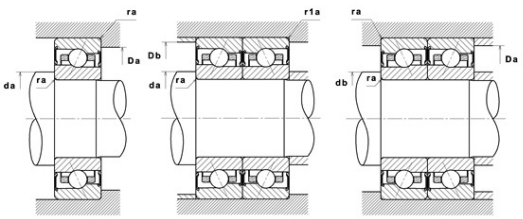
High precision angular contact ball bearings

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

Product definition	
d	0.6693 "
D	1.3780 "
B	0.3937 "
d1	0.8917 "
d2	0.8425 "
D1	1.1988 "
D2	1.2224 "
a	0.4331 "
Contact angle, a	25 °
rs min	0.0118 "
r1s min	0.0118 "
f0	7.824
Precision class	P4S
Mass	0.13 oz
Brand	SNR



Product performance	
Dynamic load, C	3.55 kN
Static load, C0	1.68 kN
Fatigue limit load, Cu	0.10 kN
Nlim (grease)	52,000 RPM
Axial displacement K Factor	1.03
Preload level	8
Peload value	90 kN
axial rigidity	63 N/μm
radial rigidity	133 N/μm
Min operating temperature, Tmin	−4 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	6.31 Hz
Characteristic outer ring frequency, BPF0	6.44 Hz
Characteristic inner ring frequency, BPFI	8.56 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	0.7677 "
db min	0.7677 "
Da max	1.2795 "
Db max	1.2795 "
r1a max	0.0118 "
ra max	0.0118 "
D6	0.9528 "

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°	0.38	1	0	0.44	1.47	1	1.65	0.72	2.39
		0.4				1.4		1.57		2.28
		0.43				1.3		1.46		2.11
		0.46				1.23		1.38		2
		0.47				1.19		1.34		1.93
		0.5				1.12		1.26		1.82
		0.55				1.02		1.14		1.66
		0.56						1.12		1.63
		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