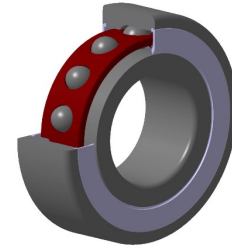


PDF technical sheet MLE71909HVUJ74S

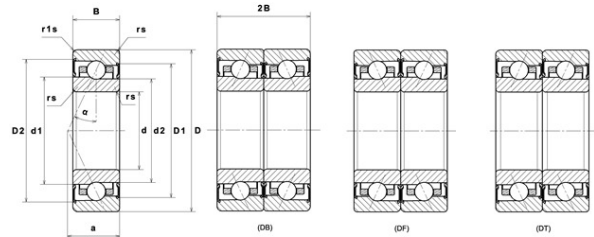


High precision angular contact ball bearings

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

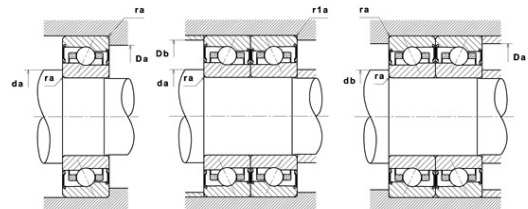
Product definition

d	1.7717 "
D	2.6772 "
B	0.4724 "
d1	2.0591 "
d2	1.9764 "
D1	2.4217 "
D2	2.4807 "
a	0.7480 "
Contact angle, α	25 °
rs min	0.0236 "
r1s min	0.0118 "
f0	8.584
Precision class	P4S
Mass	0.45 oz
Brand	SNR



Product performance

Dynamic load, C	6.90 kN
Static load, C0	4.95 kN
Fatigue limit load, Cu	0.32 kN
Nlim (grease)	24,000 RPM
Axial displacement K Factor	0.64
Preload level	7
Peload value	60 kN
axial rigidity	86 N/ μ m
radial rigidity	192 N/ μ m
Min operating temperature, Tmin	-4 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	11.52 Hz
Characteristic outer ring frequency, BPF0	12.91 Hz
Characteristic inner ring frequency, BPF1	15.10 Hz



Abutment dimensions

da min	1.9488 "
db min	1.9488 "
Da max	2.5000 "
Db max	2.5000 "
r1a max	0.0118 "
ra max	0.0236 "
D6	2.1181 "

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

$$P_o = X_o.Fr + Y_o.Fa$$

Series	e	Single or DT bearing arrangement		DB or DF arrangement	
		X _o	Y _o	X _o	Y _o
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 $P_o < Fr$, then use $P_o = Fr$