Technical datasheet

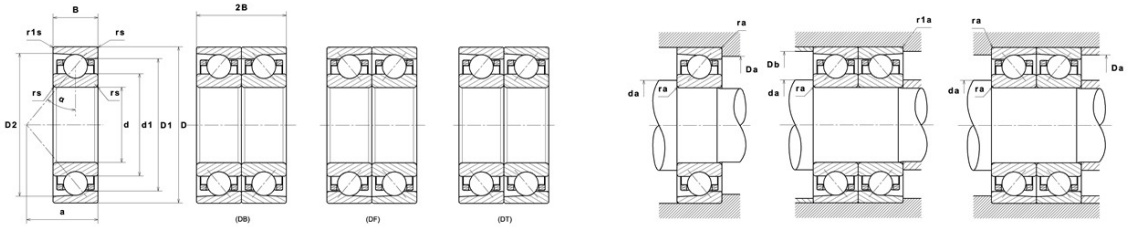
71932.HV.U.J74

High precision angular contact ball bearings



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

Visual(s)



Product definition

d	160 mm
D	220 mm
B	28 mm
d1	180 mm
D1	200.02 mm
D2	207.62 mm
a	58 mm
Contact angle α	25 °
rs min	2 mm
r1s min	1 mm
f0	16.89
Precision class	P4
Mass	2.76 kg
Brand	SNR

Product performance

Dynamic load, C	97.8 kN
Static load, C0	128 kN
Fatigue limit load, Cu	5.2 kN
Nlim (oil)	8,400 rpm
Nlim (grease)	5,500 rpm
Axial displacement K Factor	0.34
Preload level	7
Preload value	1.44 kN
Axial rigidity	479 N/µm
Radial rigidity	1,009 N/µm
Min operating temperature, Tmin	-30 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	11.33 Hz
Characteristic outer ring frequency, BPF0	13.81 Hz
Characteristic inner ring frequency, BPFI	16.19 Hz

Abutment dimensions

da min	170 mm
db min	170 mm
Da max	210 mm
Db max	210 mm
r1a max	1 mm
ra max	2 mm
D6	184 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