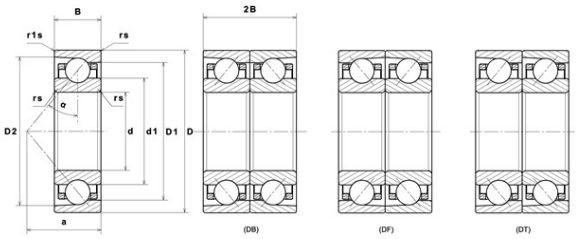
PDF technical sheet
10R71915HVUJ74

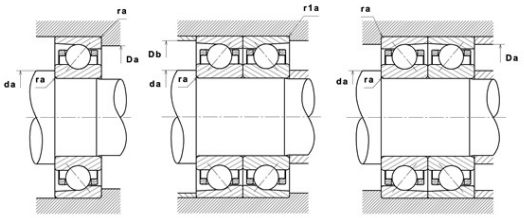
High precision angular contact ball bearings

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

Product definition	
d	2.9528 "
D	4.1339 "
B	0.6299 "
d1	3.3346 "
D1	3.7520 "
D2	3.9425 "
a	1.1417 "
Contact angle, a	25 °
rs min	0.0236 "
r1s min	0.0118 "
f0	16.686
Precision class	P4
Mass	1.23 oz
Brand	SNR



Product performance	
Dynamic load, C	27.20 kN
Static load, C0	28.80 kN
Fatigue limit load, Cu	1.66 kN
Nlim (oil)	18,000 RPM
Nlim (grease)	11,500 RPM
Axial displacement K Factor	0.49
Preload level	7
Peload value	230 kN
axial rigidity	177 N/μm
radial rigidity	381 N/μm
Min operating temperature, Tmin	−22 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	10.23 Hz
Characteristic outer ring frequency, BPF0	11.40 Hz
Characteristic inner ring frequency, BPFI	13.60 Hz



Abutment dimensions	
da min	3.1299 "
db min	3.1299 "
Da max	3.9567 "
Db max	3.9567 "
r1a max	0.0118 "
ra max	0.0236 "
D6	3.4449 "

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