



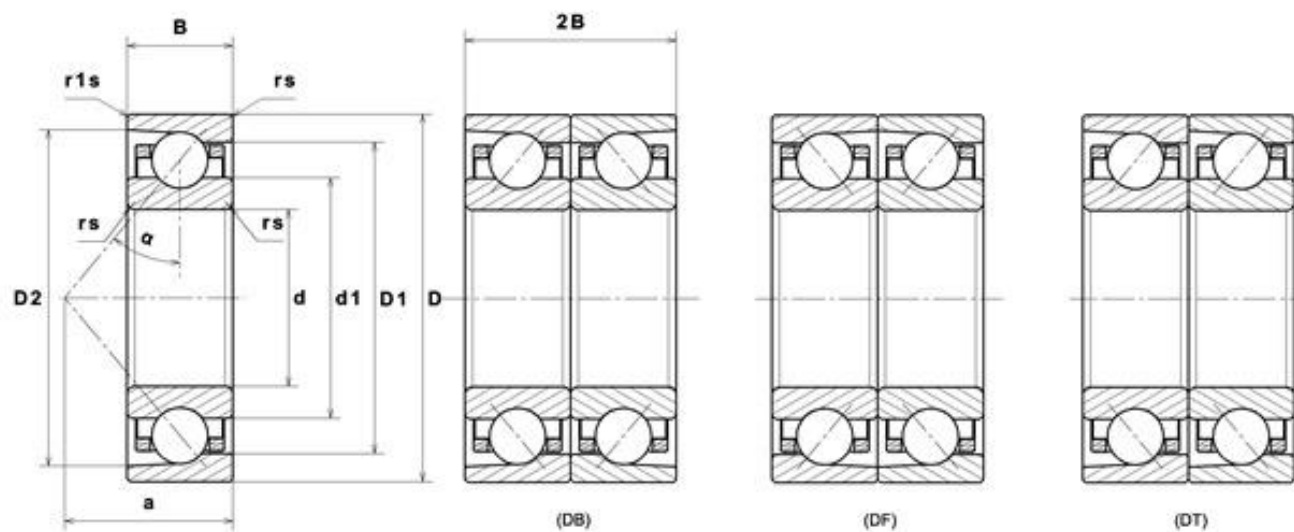
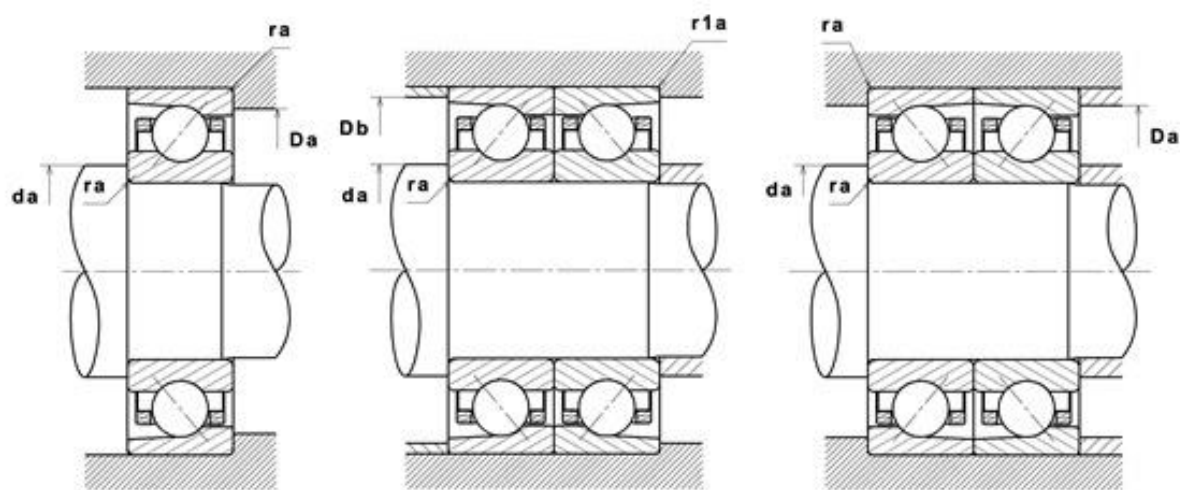
Technical data

7005CVUJ74

High precision angular contact ball bearings

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

VISUAL (S)



PRODUCT DEFINITION

d - Internal diameter	25 mm
D - External diameter	47 mm
B - Bearing/Inner ring width	12 mm
d1 - External diameter inner ring	32,2 mm
D1 - Inner diameter outer ring	40,05 mm
D2 - Inner diameter outer ring	43,05 mm
a - Charge load application point	11 mm
- Contact angle	15 °
rs - Min fillet radius	0,6 mm
r1s - Min fillet radius	0,3 mm
Precision class	P4
Mass	0,076 kg
Brand	SNR

PRODUCT PERFORMANCE

C - Dynamic load	12,8 kN
C0 - Static load	8,6 kN
Cu - Fatigue limit load	0,48 kN
f0 - Coefficient	14.677
Axial displacement K Factor	1.61
Preload level	7
Preload value	0,07 kN
Axial rigidity	39 N/μm
Radial rigidity	217 N/μm

7005CVUJ74

High precision angular contact ball bearings

PRODUCT PERFORMANCE

Tmin - Min operating temperature	-30 °C
Tmax - Max operating temperature	120 °C
Nlim - Oil lubrication limit speed	49000 tr/min
Nlim - Grease lubrication limit speed	32000 tr/min
FTF - Characteristic cage frequency	0.415 Hz
BSF - Characteristic rolling element frequency	5.505 Hz
BPFO - Characteristic outer ring frequency	6.222 Hz
BPFI - Characteristic inner ring frequency	8.778 Hz

ABUTMENT

da min - Min shoulder diameter IR	29,5 mm
db min - Min IR shoulder diameter	29,5 mm
Da max - Max shoulder diameter OR	42,5 mm
Db max - Max OR shoulder diameter	42,5 mm
r1a - Max fillet radius	0,3 mm
ra max - Max shaft & housing fillet radius	0,6 mm

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

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				0.76		0.78		1.24

Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

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 $P_0 < F_r$, then use $P_0 = F_r$