



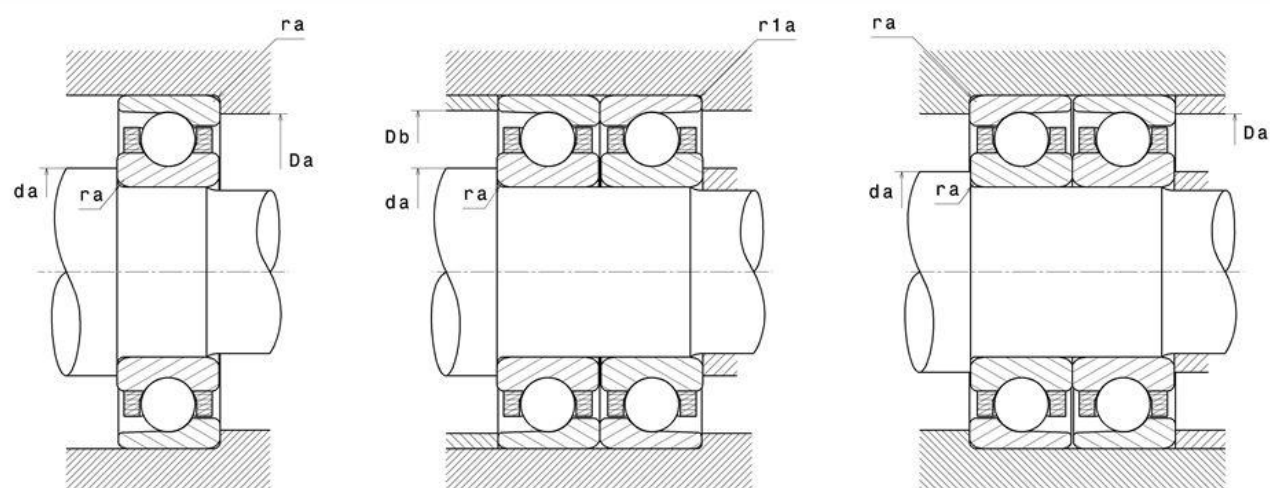
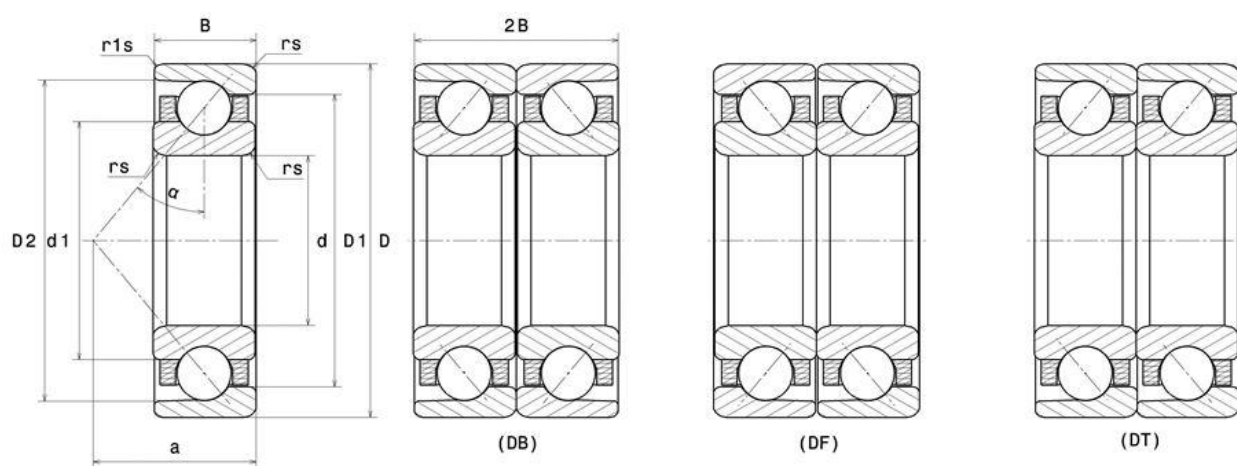
Technical data

7003

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, polyamide cage.

VISUAL (S)



PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	17 mm
D - External diameter	35 mm
B - Bearing/Inner ring width	10 mm
a - Charge load application point	12,5 mm
- Contact angle	30 °
rs - Min fillet radius	0,3 mm
r1s - Min fillet radius	0,15 mm
Radial clearance class	CN
Mass	0,046 kg

PRODUCT PERFORMANCE

C - Dynamic load	7,95 kN
C0 - Static load	3,85 kN
Cu - Fatigue limit load	0,299 kN
N lim - Oil lubrication limit speed	28000 tr/min
N lim - Grease lubrication limit speed	21000 tr/min
Tmin - Min operating temperature	-20 °C
Tmax - Max operating temperature	120 °C

ABUTMENT

da min - Min shoulder diameter IR	19,5 mm
Da max - Max shoulder diameter OR	32,5 mm
Db max - Max OR shoulder diameter	33,8 mm
r1a - Max fillet radius	0,15 mm



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ABUTMENT

ra max - Max shaft & housing fillet radius

0,3 mm

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

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

	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
30°	0.8	1	0	0.9	0.76	1	0.78	0.63	1.24
40°	1.14			0.35	0.57		0.55	0.57	0.93

Equivalent static radial load

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

a	Single or DT bearing arrangement		DB or DF arrangement	
	X ₀	Y ₀	X ₀	Y ₀
30°	0.5	0.33	1	0.66
40°		0.26		0.52

For single or DT bearing arrangement :

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



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