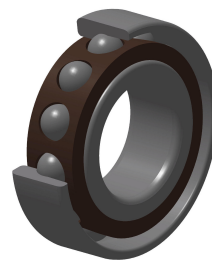


PDF technical sheet 7017B

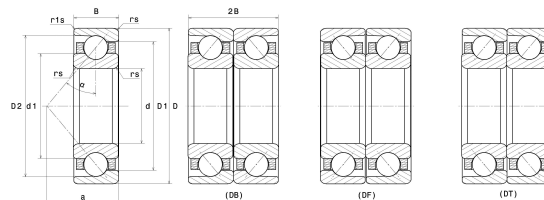


Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, polyamide cage.

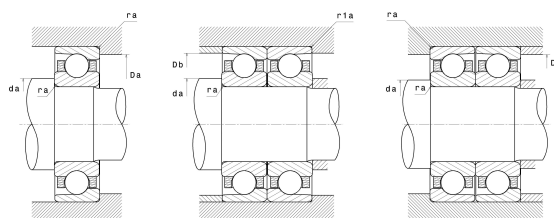
Product definition

d	3.3465 "
D	5.1181 "
B	0.8661 "
Contact angle, α	40 °
rs min	0.0409 "
r1s min	0.0236 "
Mass	3.67 oz
Brand	NTN



Product performance

Dynamic load, C	48.90 kN
Static load, C0	48.30 kN
Fatigue limit load, Cu	2.12 kN
Min operating temperature, Tmin	-4 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	7.90 Hz
Characteristic outer ring frequency, BPF0	9.49 Hz
Characteristic inner ring frequency, BPFI	11.51 Hz



Abutment dimensions

da min	13.0315 "
Da max	4.8425 "
Db max	4.9409 "
r1a max	0.0236 "
ra max	0.0394 "

Calculation 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 $P_0 = F_r$