



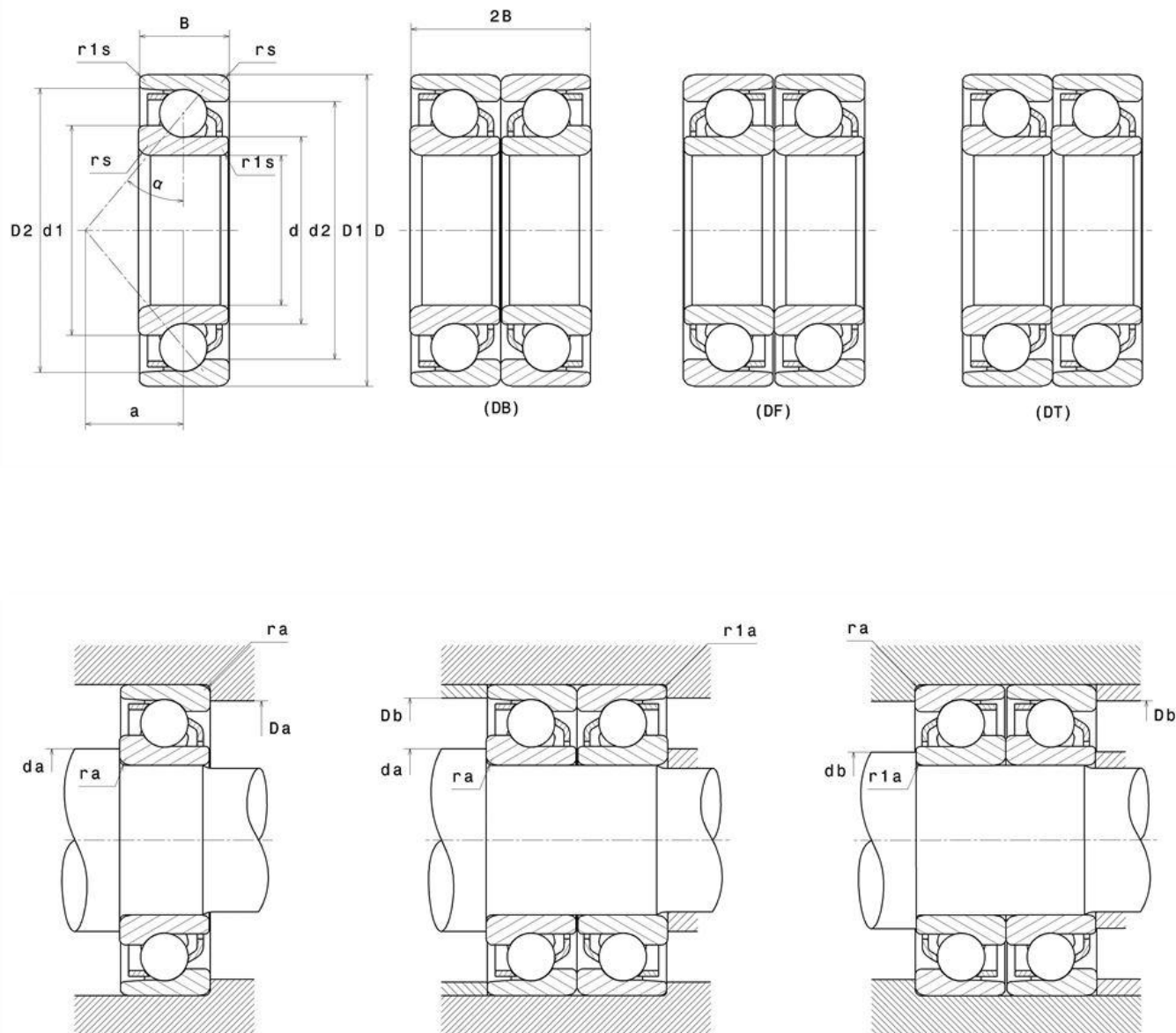
Technical data

7205B

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearings, pressed steel cage

VISUAL (S)



7205B

Single row or matched pairs of angular contact ball bearings

PRODUCT DIMENSIONS

Internal diameter d	25 mm
External diameter D	52 mm
Bearing/Inner ring width(B)	15 mm
Charge load application point a	24 mm
Contact angle	40.0 °
Min fillet radius rs	1 mm
Min fillet radius r1s	0,6 mm
Radial clearance class	CN
Mass	0,129 kg
Brand	NTN

PRODUCT PERFORMANCE

Dynamic load, C	16,4 kN
Static load, C0	9,4 kN
Fatigue limit load, Cu	0,74 kN
Nlim (oil)	16000 tr/min
Nlim (grease)	12000 tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.422 Hz
Characteristic rolling element frequency, BSF	4.799 Hz
Characteristic outer ring frequency, BPF0	5.488 Hz
Characteristic inner ring frequency, BPFI	7.512 Hz

ABUTMENT

Min shoulder diameter IR da min	30,5 mm
Min IR shoulder diameter (db min)	29,5 mm
Max shoulder diameter OR Da max	46,5 mm
Max OR shoulder diameter (Db max)	47,5 mm
Maxi fillet radius r1a	0,6 mm
Max shaft & housing fillet radius ra max	1 mm

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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 $P_0 = F_r$