Technical datasheet

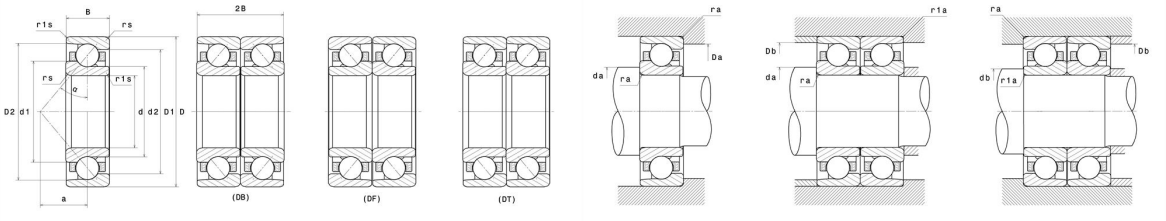
7221BL1G

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, brass cage inner ring guided



Visual(s)



Product definition

d	105 mm
D	190 mm
B	36 mm
a	80 mm
Contact angle α	40 °
rs min	2.1 mm
r1s min	1.1 mm
Radial clearance class	CN
Mass	4.35 kg
Brand	NTN

Product performance

Dynamic load, C	142 kN
Static load, C0	129 kN
Fatigue limit load, Cu	4.85 kN
Nlim (oil)	4,300 rpm
Nlim (grease)	3,200 rpm
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C

Abutment dimensions

da min	117 mm
db min	112 mm
Da max	178 mm
Db max	183 mm
r1a max	1 mm
ra max	2 mm

Calculation factors

Equivalent dynamic radial load

$P = X.Fr + Y.Fa$

	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

$Po = Xo.Fr + Yo.Fa$

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 $P_0 < Fr$, then use $P_0 = Fr$