

PDF technical sheet 7316BGM

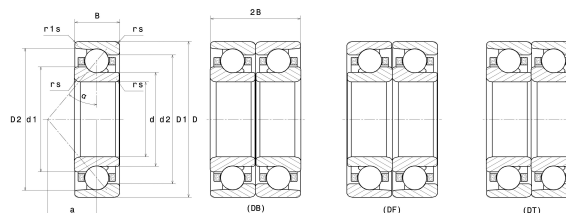


Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, brass cage ball guided

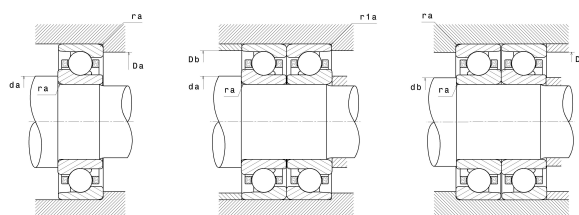
Product definition

d	80 mm
D	170 mm
B	39 mm
d1	115.30 mm
d2	90.20 mm
D1	136 mm
D2	160.10 mm
a	72 mm
Contact angle, α	40 °
rs min	2.10 mm
r1s min	1.10 mm
Radial clearance class	CN
Mass	4.28 kg
Brand	SNR



Product performance

Dynamic load, C	138 kN
Static load, C0	115 kN
Fatigue limit load, Cu	4.70 kN
Nref	4,400 Tr/min
Nlim	5,100 Tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	4.12 Hz
Characteristic outer ring frequency, BPF0	4.92 Hz
Characteristic inner ring frequency, BPF1	7.08 Hz



Abutment dimensions

da min	92 mm
db min	92 mm
Da max	158 mm
Db max	163 mm
r1a max	1 mm
ra max	2 mm

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 $P_0 = F_r$