

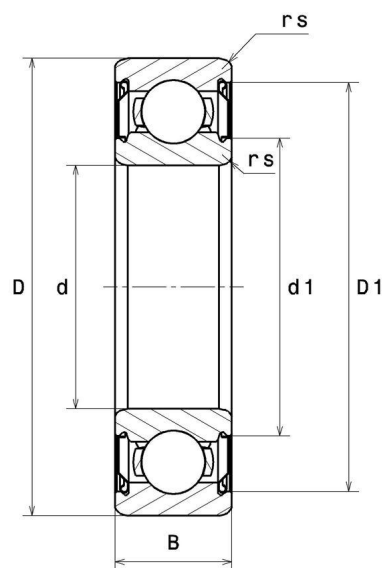
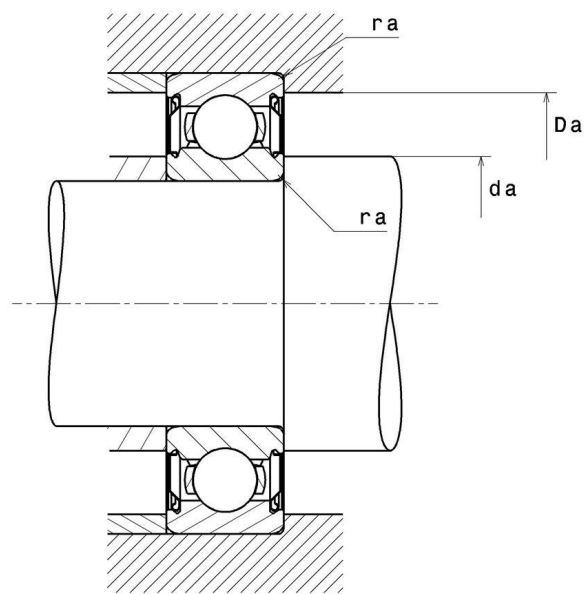
Technical data

6209ZZ

Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, shields on both sides

VISUAL (S)



6209ZZ

Single row deep groove ball bearings

PRODUCT DIMENSIONS

Internal diameter d	45 mm
External diameter D	85 mm
Bearing/Inner ring width(B)	19 mm
External diameter inner ring d1	57 mm
Inner diameter outer ring D1	75,7 mm
Min fillet radius rs	1,1 mm
Radial clearance class	CN
Mass	0,416 kg
Brand	SNR

PRODUCT PERFORMANCE

Dynamic load, C	31,2 kN
Static load, C0	20,7 kN
Fatigue limit load, Cu	0,94 kN
Coefficient f0	14.4
Reference thermal speed (Nref)	8700 tr/min
Mechanical Limit Speed Nlim	10000 tr/min
Min operating temperature, Tmin	-30 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.409 Hz
Characteristic rolling element frequency, BSF	5.318 Hz
Characteristic outer ring frequency, BPF0	4.091 Hz
Characteristic inner ring frequency, BRF0	5.909 Hz

ABUTMENT

Min shoulder diameter IR da min	51,5 mm
Max shoulder diameter IR da max	57 mm
Max shoulder diameter OR Da max	78,5 mm
Max shaft & housing fillet radius ra max	1 mm

INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

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

$\frac{f_0 F_a}{C_0}$	e	Fa / Fr ≤ e		Fa / Fr > e	
		X	Y	X	Y
0.172	0.19	1	0	0.56	2.3
0.345	0.22				1.99
0.689	0.26				1.71
1.03	0.28				1.55
1.38	0.3				1.45
2.07	0.34				1.31
3.45	0.38				1.15
5.17	0.42				1.04
6.89	0.44				1

Equivalent static radial load

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

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement:

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