

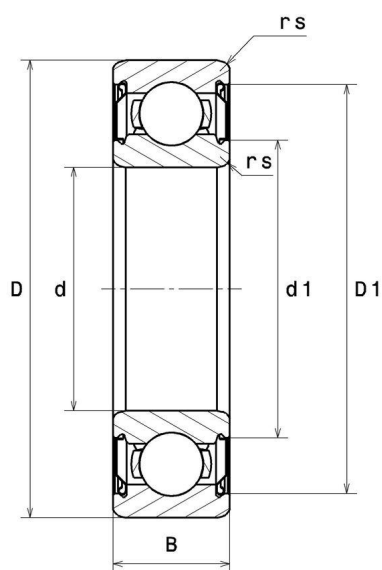
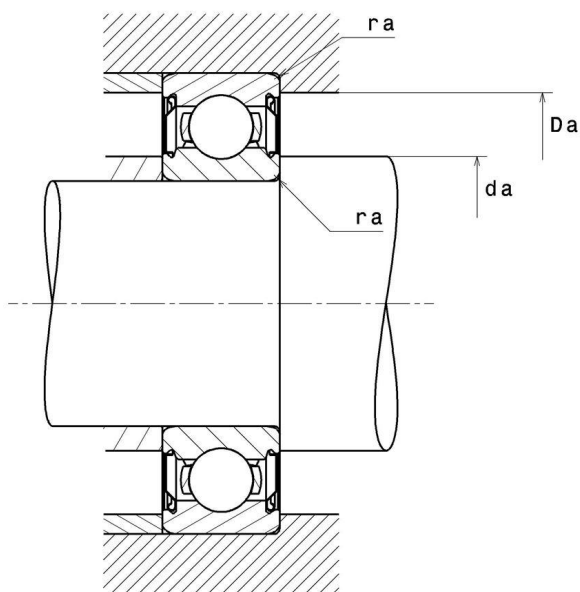
Technical data

6309ZZ/5K

Single row deep groove ball bearings

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

VISUAL (S)



6309ZZ/5K

Single row deep groove ball bearings

PRODUCT DIMENSIONS

Internal diameter d	45 mm
External diameter D	100 mm
Bearing/Inner ring width(B)	25 mm
Min fillet radius rs	1,5 mm
Radial clearance class	CN
Mass	0,814 kg
Brand	NTN

PRODUCT PERFORMANCE

Dynamic load, C	58,5 kN
Static load, C0	32 kN
Fatigue limit load, Cu	2,5 kN
Coefficient f0	13.1
Nlim (grease)	7000 tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	150 °C
Characteristic cage frequency, FTF	0.382 Hz
Characteristic rolling element frequency, BSF	4.002 Hz
Characteristic outer ring frequency, BPF0	3.056 Hz
Characteristic inner ring frequency, BPF1	4.944 Hz

ABUTMENT

Min shoulder diameter IR da min	53 mm
Max shoulder diameter OR Da max	92 mm
Max shaft & housing fillet radius ra max	1,5 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 $P_0 = F_r$