

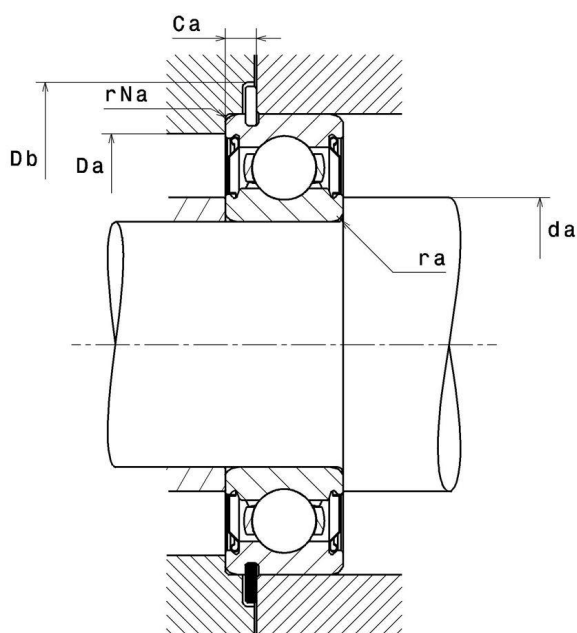
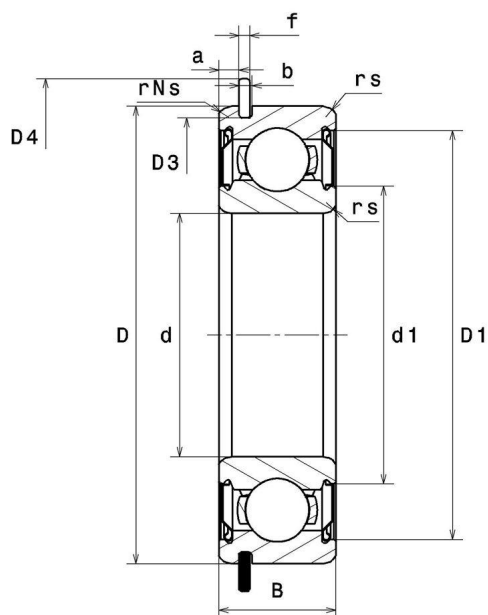
Technical data

6309ZZNR/2AS

Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, snap ring & groove on outer diameter, shields on both sides

VISUAL (S)



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PRODUCT DIMENSIONS

Internal diameter d	45 mm
External diameter D	100 mm
Bearing/Inner ring width(B)	25 mm
Min position Groove a min	3,07 mm
Max position groove a max	3,28 mm
Mini segment position Ca min	5,43 mm
Max segment position Ca max	5,74 mm
Min fillet radius rs	1,5 mm
Min fillet radius rNs	0,5 mm
Max bottom groove diameter D3	96,8 mm
Min groove width b min	2,7 mm
Max groove width b max	3 mm
Max bottom groove radius r0 max	0,6 mm
Max outside diameter of assembled stop ring D4 max	106,5 mm
Stop ring thickness f	2,46 mm
Snap ring reference	R100
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	-25 °C
Max operating temperature, Tmax	120 °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, BPFI	4.944 Hz

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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
Max fillet radius on segment side rNa max	0,5 mm
Min stop ring position diameter Db min	108 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 $P_0 = F_r$