

Technical data

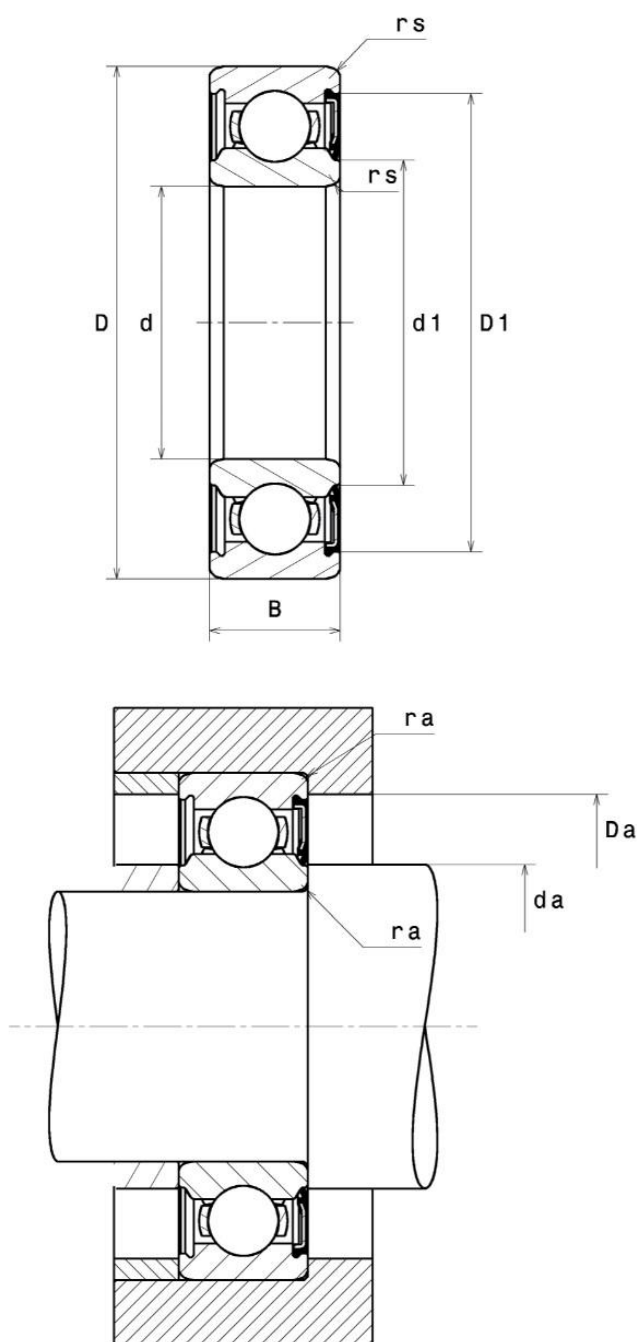
6005E

Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, contact seal on one side

VISUAL (S)



6005E

Single row deep groove ball bearings

PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	25 mm
D - External diameter	47 mm
B - Bearing/Inner ring width	12 mm
d1 - External diameter inner ring	31,6 mm
D1 - Inner diameter outer ring	42,8 mm
rs - Min fillet radius	0,6 mm
Radial clearance class	CN
Mass	0,08 kg

PRODUCT PERFORMANCE

C - Dynamic load	10600000 mN
C0 - Static load	5800000 mN
Cu - Fatigue limit load	260000 mN
f0 - Coefficient	14.5
N lim - Mechanical Limit Speed	54600 °/s
Tmin - Min operating temperature	243,15 °K
Tmax - Max operating temperature	393,15 °K

BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	4.111 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.889 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	5.444 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.722 Hz
FTF - Rotational frequency - cage (60 rpm)	0.411 Hz



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ABUTMENT

da min - Min shoulder diameter IR	29 mm
da max - Max shoulder diameter IR	31,6 mm
Da max - Max shoulder diameter OR	43 mm
ra max - Max shaft & housing fillet radius	0,6 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 $P_0 = F_r$

