

Technical data

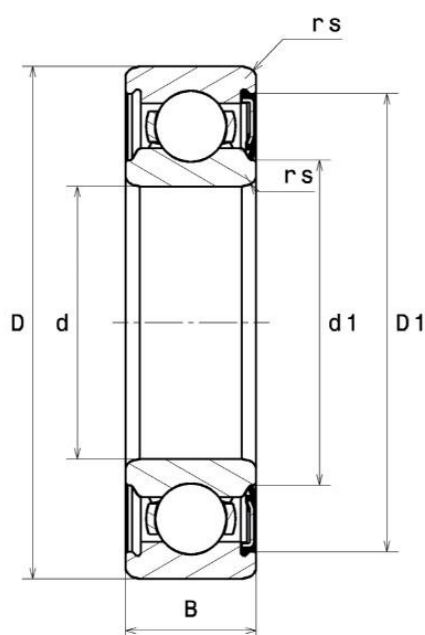
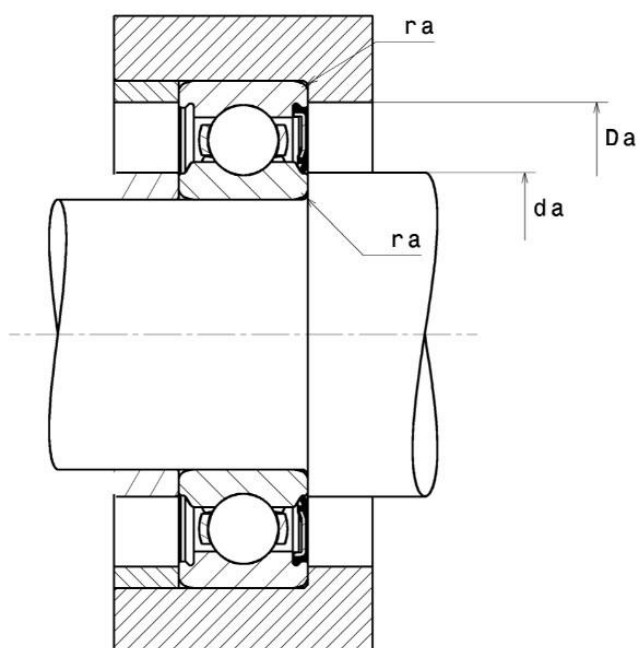
6205E

Single row deep groove ball bearings



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

VISUAL (S)



PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	25 mm
D - External diameter	52 mm
B - Bearing/Inner ring width	15 mm
d1 - External diameter inner ring	31,8 mm
D1 - Inner diameter outer ring	49,2 mm
rs - Min fillet radius	1 mm
Radial clearance class	CN
Mass	0,127 kg

PRODUCT PERFORMANCE

C - Dynamic load	14800000 mN
C0 - Static load	7900000 mN
Cu - Fatigue limit load	360000 mN
f0 - Coefficient	13.9
N lim - Mechanical Limit Speed	54000 °/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)	3.585 Hz
BPFI - Over rolling frequency on inner (60 rpm)	5.415 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	4.715 Hz
BRF - Rotational frequency - rolling element (60 rpm)	2.358 Hz
FTF - Rotational frequency - cage (60 rpm)	0.398 Hz



ABUTMENT

da min - Min shoulder diameter IR	30 mm
da max - Max shoulder diameter IR	9 mm
Da max - Max shoulder diameter OR	47 mm
ra max - Max shaft & housing fillet radius	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 $P_0 = F_r$



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