

Technical data

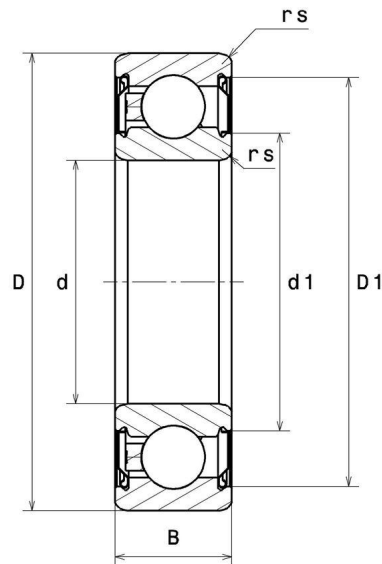
6003HVZZ

Single row deep groove ball bearings

TOPLINE deep groove ball bearing, radial contact, pressed polyamide cage, shields on both sides, for high speed applications

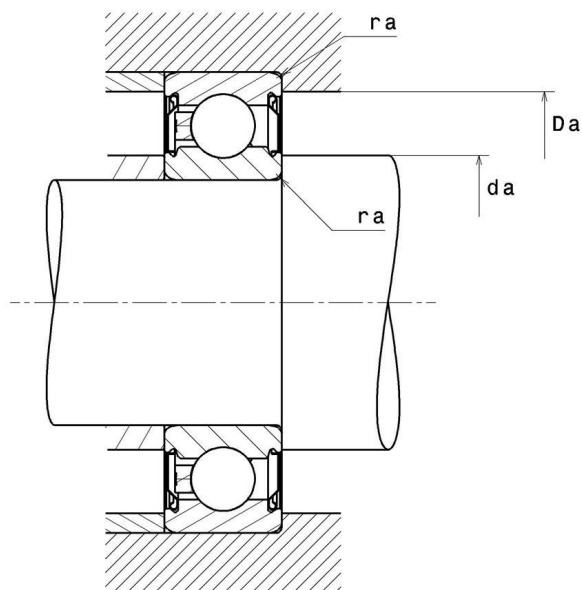
TOPLINE

VISUAL (S)



6003HVZZ

Single row deep groove ball bearings



PRODUCT DIMENSIONS

Internal diameter (d)	17 mm
External diameter (D)	35 mm
Bearing/Inner ring width (B)	10 mm
External diameter inner ring d1	22,8 mm
Inner diameter outer ring (D1)	31,4 mm
Min fillet radius (rs)	0,3 mm
Radial clearance class	C3
Mass	0,04 kg
Brand	SNR

PRODUCT PERFORMANCE

Dynamic load (C)	5,8 kN
Static load (C0)	3,25 kN
Fatigue limit load (Cu)	0,15 kN

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PRODUCT PERFORMANCE

Coefficient f₀	14.4
Reference thermal speed (N_{ref})	20000 tr/min
Mechanical Limit Speed (N_{lim})	35000 tr/min
Min operating temperature (T_{min})	-50 °C
Max operating temperature (T_{max})	120 °C

ABUTMENT

Min shoulder diameter IR (da min)	19 mm
Max shoulder diameter IR (da max)	22,8 mm
Max shoulder diameter OR (Da max)	33 mm
Max shaft & housing fillet radius (ra max)	0,3 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 $P_0 = F_r$