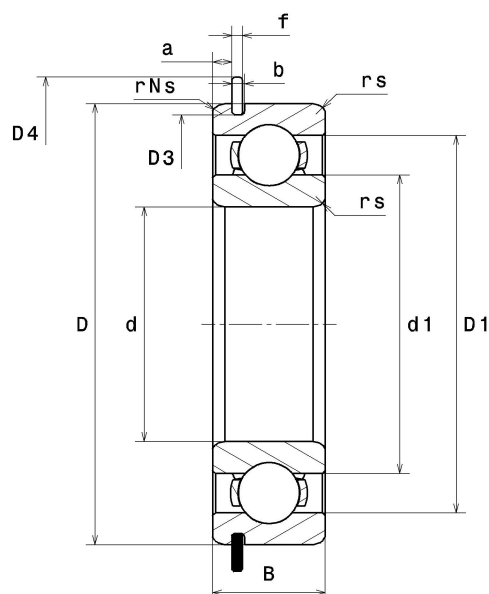


PDF technical sheet 6219NR

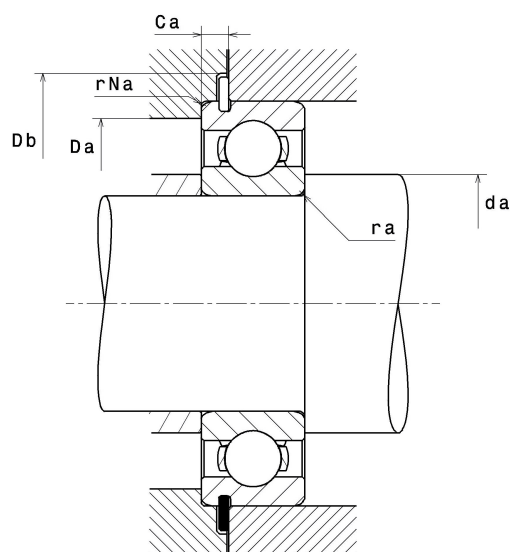


Single row deep groove ball bearings

Product definition	
d	95 mm
D	170 mm
B	32 mm
a min	5.44 mm
a max	5.69 mm
Ca min	8.54 mm
Ca max	8.79 mm
rs min	2.10 mm
rNs min	0.50 mm
D3 max	163.65 mm
b min	3.50 mm
b max	3.80 mm
r0 max	0.60 mm
D4 max	182.90 mm
f	3.10 mm
Snap ring reference	R170
Radial clearance class	CN
Mass	2.62 kg
Brand	NTN



Product performance	
Dynamic load, C	109 kN
Static load, C0	82 kN
Fatigue limit load, Cu	3.25 kN
f0	14.4
Nlim (oil)	4,400 Tr/min
Nlim (grease)	3,700 Tr/min
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	5.38 Hz
Characteristic outer ring frequency, BPF0	4.10 Hz
Characteristic inner ring frequency, BPF1	5.90 Hz



Abutment dimensions

da min	106 mm
Da max	159 mm
ra max	2 mm
rNa max	0.50 mm
Db min	185 mm

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

$\frac{f_0 F_a}{C_0}$	e	$F_a / Fr \leq e$		$F_a / Fr > e$	
		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

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement:

If $P_0 < Fr$, then use $P_0 = Fr$