

PDF technical sheet 6316EEC3



Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, contact seals on both sides

Product definition	
d	80 mm
D	170 mm
B	39 mm
d1	104 mm
D1	146.40 mm
rs min	2.10 mm
Radial clearance class	C3
Mass	3.35 kg
Brand	SNR



Product performance	
Dynamic load, C	122 kN
Static load, C0	86.70 kN
Fatigue limit load, Cu	3.50 kN
f0	13.3
Nlim	2,700 Tr/min
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.39 Hz
Characteristic rolling element frequency, BSF	4.15 Hz
Characteristic outer ring frequency, BPF0	3.09 Hz
Characteristic inner ring frequency, BPF1	4.91 Hz



Abutment dimensions

da min	91 mm
da max	104 mm
Da max	159 mm
ra max	2 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 $P_0 = Fr$