

PDF technical sheet 6330C3



Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, open

Product definition	
d	5.9055 "
D	12.5984 "
B	2.5591 "
rs min	0.1575 "
Radial clearance class	C3
Mass	77.60 oz
Brand	NTN



Product performance	
Dynamic load, C	274 kN
Static load, C0	284 kN
Fatigue limit load, Cu	8.40 kN
f0	13.9
Nlim (oil)	2,400 RPM
Nlim (grease)	2,100 RPM
Min operating temperature, Tmin	-76 °C
Characteristic cage frequency, FTF	0.40 Hz
Characteristic rolling element frequency, BSF	4.73 Hz
Characteristic outer ring frequency, BPF0	3.59 Hz
Characteristic inner ring frequency, BPF1	5.41 Hz



Abutment dimensions

da min	6.5354 "
Da max	11.9685 "
ra max	0.1181 "

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 $P_0 = Fr$