

PDF technical sheet 16040C3



Single row deep groove ball bearings

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

Product definition	
d	200 mm
D	310 mm
B	34 mm
rs min	2 mm
Radial clearance class	C3
Mass	8.68 kg
Brand	NTN



Product performance	
Dynamic load, C	142 kN
Static load, C0	160 kN
Fatigue limit load, Cu	4.55 kN
f0	16.6
Nlim (oil)	2,400 Tr/min
Nlim (grease)	2,000 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	10.62 Hz
Characteristic outer ring frequency, BPF0	7.71 Hz
Characteristic inner ring frequency, BPF1	9.29 Hz



Abutment dimensions

da min	209 mm
Da max	301 mm
ra max	2 mm

Calculation factors

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

$\frac{f_0 F_a}{C_0}$	e	$F_a / F_r \leq e$		$F_a / F_r > e$	
		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 $P_0 = F_r$