

PDF technical sheet 16032C3



Single row deep groove ball bearings

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

Product definition

d	160 mm
D	240 mm
B	25 mm
rs min	1.50 mm
Radial clearance class	C3
Mass	3.64 kg
Brand	NTN



Product performance

Dynamic load, C	99 kN
Static load, C0	108 kN
Fatigue limit load, Cu	3.45 kN
f0	16.5
Nlim (oil)	3,000 Tr/min
Nlim (grease)	2,600 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	10.40 Hz
Characteristic outer ring frequency, BPF0	8.14 Hz
Characteristic inner ring frequency, BPF1	9.86 Hz



Abutment dimensions

da min	168 mm
Da max	232 mm
ra max	1.50 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 $P_0 = Fr$