

PDF technical sheet 16030C3



Single row deep groove ball bearings

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

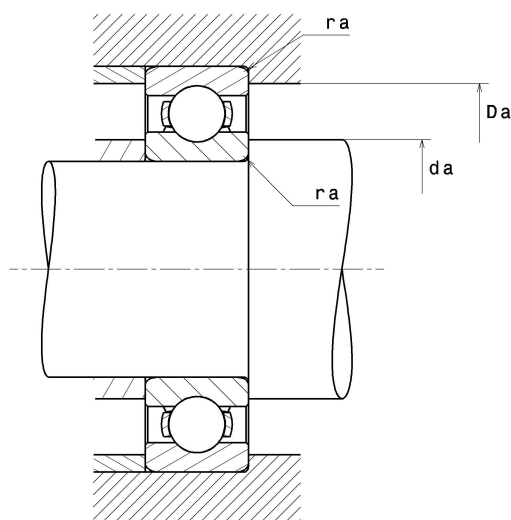
Product definition

d	150 mm
D	225 mm
B	24 mm
rs min	1.10 mm
Radial clearance class	C3
Mass	3.07 kg
Brand	NTN



Product performance

Dynamic load, C	96.50 kN
Static load, C0	101 kN
Fatigue limit load, Cu	3.35 kN
f0	16.4
Nlim (oil)	3,200 Tr/min
Nlim (grease)	2,800 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	9.74 Hz
Characteristic outer ring frequency, BPF0	7.64 Hz
Characteristic inner ring frequency, BPF1	9.36 Hz



Abutment dimensions

da min	156.50 mm
Da max	218.50 mm
ra max	1 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 $P_0 = F_r$