

PDF technical sheet 6972



Single row deep groove ball bearings

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

Product definition

d	14.1732 "
D	18.8976 "
B	2.2047 "
rs min	0.1181 "
Radial clearance class	CN
Mass	97.00 oz
Brand	NTN



Product performance

Dynamic load, C	300 kN
Static load, C0	455 kN
Fatigue limit load, Cu	10.10 kN
f0	16.5
Nlim (oil)	1,300 RPM
Nlim (grease)	1,100 RPM
Min operating temperature, Tmin	-4 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	10.93 Hz
Characteristic outer ring frequency, BPF0	8.64 Hz
Characteristic inner ring frequency, BPF1	10.36 Hz



Abutment dimensions

da min	14.6850 "
Da max	18.3858 "
ra max	0.0984 "

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 $P_0 = F_r$