

PDF technical sheet 6213Z



Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, shield on one side

Product definition	
d	65 mm
D	120 mm
B	23 mm
rs min	1.50 mm
Radial clearance class	CN
Mass	0.99 kg
Brand	NTN



Product performance	
Dynamic load, C	57.50 kN
Static load, C0	40 kN
Fatigue limit load, Cu	1.82 kN
f0	14.4
Nlim (oil)	6,500 Tr/min
Nlim (grease)	5,500 Tr/min
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	5.37 Hz
Characteristic outer ring frequency, BPF0	4.10 Hz
Characteristic inner ring frequency, BPFI	5.90 Hz



Abutment dimensions

da min	73 mm
Da max	112 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 $P_0 = Fr$