



Technical data

6909LLU/5K

Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, contact seals on both sides

Visual(s)



Product definition

d	45 mm
D	68 mm
B	12 mm
rs min	0.6 mm
Radial clearance class	CN
Mass	0.13 kg
Brand	NTN

Product performance

Dynamic load, C	13.1 kN
Static load, C0	10.4 kN
Fatigue limit load, Cu	0.47 kN
f0	16.1
Nlim (grease)	5,600 Tr/min
Min operating temperature, Tmin	-25 °C
Max operating temperature, Tmax	110 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	8.78 Hz
Characteristic outer ring frequency, BPF0	7.1 Hz
Characteristic inner ring frequency, BPFI	8.9 Hz

Abutment dimensions

da min	49 mm
da max	51 mm
Da max	64 mm
ra max	0.6 mm

Calculation factors

Equivalent dynamic radial load

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

$\frac{f_0 F_a}{C_0}$	e	Fa / Fr ≤ e		Fa / 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

$$P_0 = X_0.F_r + Y_0.F_a$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement:

If $P_0 < F_r$, then use $P_0 = F_r$