

PDF technical sheet 6814LU



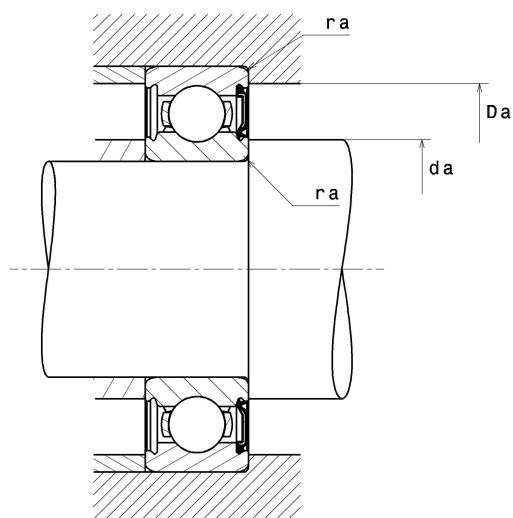
Single row deep groove ball bearings

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

Product definition	
d	70 mm
D	90 mm
B	10 mm
rs min	0.60 mm
Radial clearance class	CN
Mass	0.14 kg
Brand	NTN



Product performance	
Dynamic load, C	12.10 kN
Static load, C0	11.90 kN
Fatigue limit load, Cu	0.54 kN
f0	16.1
Nlim (grease)	3,800 Tr/min
Min operating temperature, Tmin	-25 °C
Max operating temperature, Tmax	110 °C
Characteristic cage frequency, FTF	0.47 Hz
Characteristic rolling element frequency, BSF	14.33 Hz
Characteristic outer ring frequency, BPF0	11.17 Hz
Characteristic inner ring frequency, BPF1	12.83 Hz



Abutment dimensions

da min	74 mm
da max	75.50 mm
Da max	86 mm
ra max	0.60 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 $P_0 = F_r$