

PDF technical sheet 6305NR



Single row deep groove ball bearings

Product definition	
d	25 mm
D	62 mm
B	17 mm
a min	3.07 mm
a max	3.28 mm
Ca min	4.67 mm
Ca max	4.98 mm
rs min	1.10 mm
rNs min	0.50 mm
D3 max	59.61 mm
b min	1.90 mm
b max	2.20 mm
r0 max	0.60 mm
D4 max	67.70 mm
f	1.70 mm
Snap ring reference	R62
Radial clearance class	CN
Mass	0.23 kg
Brand	NTN



Product performance	
Dynamic load, C	21.20 kN
Static load, C0	10.90 kN
Fatigue limit load, Cu	0.50 kN
f0	12.6
Nlim (oil)	14,000 Tr/min
Nlim (grease)	12,000 Tr/min
Min operating temperature, Tmin	-20 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.37 Hz
Characteristic rolling element frequency, BSF	3.66 Hz
Characteristic outer ring frequency, BPF0	2.61 Hz
Characteristic inner ring frequency, BPF1	4.39 Hz



Abutment dimensions

da min	31.50 mm
Da max	55.50 mm
ra max	1 mm
rNa max	0.50 mm
Db min	68.50 mm

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

$\frac{f_0 F_a}{C_0}$	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

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

X_0	Y_0
0.6	0.5

For single or DT bearing arrangement:

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