

PDF technical sheet 4T99550/99100



Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

Product definition	
d	5.5000 "
D	10.0000 "
B	2.6250 "
C	1.8750 "
T	2.6250 "
d1	7.8937 "
a	2.1486 "
e	0.41
Y2	1.47
Y0	0.81
Mass	50.44 oz
Brand	NTN



Product performance	
Dynamic load, C	550 kN
Rating life coefficient, A2	1.4
Static load, C0	910 kN
Fatigue limit load, Cu	90 kN
Nlim (oil)	1,800 RPM
Nlim (grease)	1,400 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	8.42 Hz
Characteristic outer ring frequency, BPF0	10.20 Hz
Characteristic inner ring frequency, BPFI	12.80 Hz



Abutment dimensions	
ra max	0.2756 "
r1a max	0.1299 "

Calculation factors

Equivalent dynamic radial load

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

$F_a / F_r \leq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y2

Equivalent static radial load

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

X_0	Y_0
0.5	Y0

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

The values for e, Y2 and Y0 are shown in the above table