

PDF technical sheet 4T1780



Single row tapered roller bearings

Mounted cone, sheet metal cage

Product definition	
d	1.0000 "
B	0.7810 "
d1	1.5354 "
e	0.31
Y2	1.95
Y0	1.07
Brand	NTN



Product performance	
Dynamic load, C	42.50 kN
Rating life coefficient, A2	1.4
Static load, C0	46.50 kN
Fatigue limit load, Cu	5.70 kN
Nlim (oil)	9,600 RPM
Nlim (grease)	7,200 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	5.30 Hz
Characteristic outer ring frequency, BPF0	6.16 Hz
Characteristic inner ring frequency, BPFI	8.84 Hz



Abutment dimensions	
ra max	0.0315 "

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