

PDF technical sheet 31330XU



Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

Product definition	
d	5.9055 "
D	12.5984 "
B	2.9528 "
C	1.9685 "
T	3.2283 "
d1	9.3504 "
a	3.9567 "
rs min	0.1969 "
r1s min	0.1575 "
e	0.83
Y2	0.73
Y0	0.4
Mass	97.71 oz
ISO 355 reference	T7GB150
Brand	NTN



Product performance	
Dynamic load, C	775 kN
Rating life coefficient, A2	1
Static load, C0	1,030 kN
Fatigue limit load, Cu	97.20 kN
Nlim (oil)	1,600 RPM
Nlim (grease)	1,200 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.42 Hz
Characteristic rolling element frequency, BSF	5.59 Hz
Characteristic outer ring frequency, BPF0	6.78 Hz
Characteristic inner ring frequency, BPFI	9.23 Hz



Abutment dimensions

da max	6.9291 "
db min	6.7717 "
Da min	9.8425 "
Da max	11.8110 "
Db min	11.8110 "
Ca min	0.3543 "
Cb min	1.2598 "
ra max	0.1575 "
r1a max	0.1181 "

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 $P_0 \leq F_r$, then use $P_0 = F_r$

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