

PDF technical sheet 644



Single row tapered roller bearings

Mounted cone, sheet metal cage

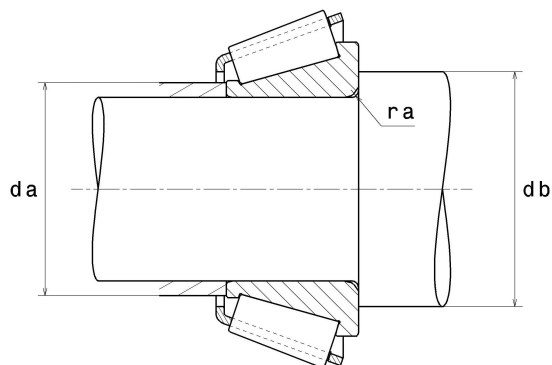
Product definition

d	2.8125 "
B	1.6250 "
d1	3.9094 "
e	0.36
Y2	1.66
Y0	0.91
Mass	5.35 oz
Brand	BOWER



Product performance

Dynamic load, C	194 kN
Rating life coefficient, A2	1.4
Static load, C0	262 kN
Fatigue limit load, Cu	31.90 kN
Nlim (oil)	3,800 RPM
Nlim (grease)	2,800 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	6.57 Hz
Characteristic outer ring frequency, BPF0	7.70 Hz
Characteristic inner ring frequency, BPFI	10.30 Hz



Abutment dimensions

ra max	0.1378 "
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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