

PDF technical sheet 52400



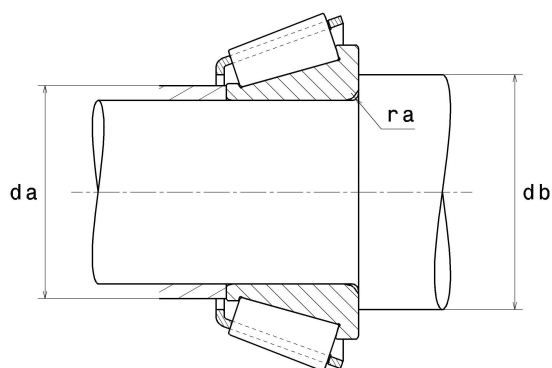
Single row tapered roller bearings

Mounted cone, sheet metal cage

Product definition	
d	4.0000 "
B	1.4219 "
d1	5.1772 "
e	0.47
Y2	1.26
Y0	0.69
Mass	6.29 oz
Brand	BOWER



Product performance	
Dynamic load, C	188 kN
Rating life coefficient, A2	1.4
Static load, C0	305 kN
Fatigue limit load, Cu	34.40 kN
Nlim (oil)	2,900 RPM
Nlim (grease)	2,200 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	9.89 Hz
Characteristic outer ring frequency, BPF0	11.76 Hz
Characteristic inner ring frequency, BPFI	14.24 Hz



Abutment dimensions	
ra max	0.1378 "

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