


The Timken Company

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Part Number 23180YMBW507C08, Spherical Roller Bearings - Brass Cage

Spherical bearings are designed to manage high radial loads even when misalignment, poor lubrication, contamination, extreme speeds or critical application stresses are present.



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Specifications

Design Unit	Metric
d - Bore	400 mm
Cage Type	YMB
Cage Material	Brass

Dimensions

D - Outer Diameter	650 mm 25.591 in
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B' - Inner Ring Width 200 mm
7.874 in

B - Outer Ring Width 200 mm
7.874 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹ 5 mm
0.200 in

r - Outer Ring "To Clear" Radius² 5 mm
0.2 in

da - Inner Ring Backing Diameter 454.000 mm
17.900 in

Da - Outer Ring Backing Diameter 594.000 mm
23.4000 in

Basic Load Ratings

C0 - Static Radial Rating 8110000 N
1820000 lbf

C1(2) - Dynamic Radial Rating (Two-Rows) 4770000 N
1070000 lbf

Factors

e - ISO Factor³ 0.29

Y0 - ISO Factor⁴ 2.27

Y1 - ISO Factor⁵ 2.32

Y2 - ISO Factor⁶ 3.46

Reference Thermal Speed Rating (Grease) 480 rpm

Reference Thermal Speed Rating (Oil)⁷	530 rpm
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Cg - Geometry Factor⁸	0.0922
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¹ Maximum housing fillet radius that bearing corners will clear.

² Maximum shaft fillet radius that bearing corners will clear.

³ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

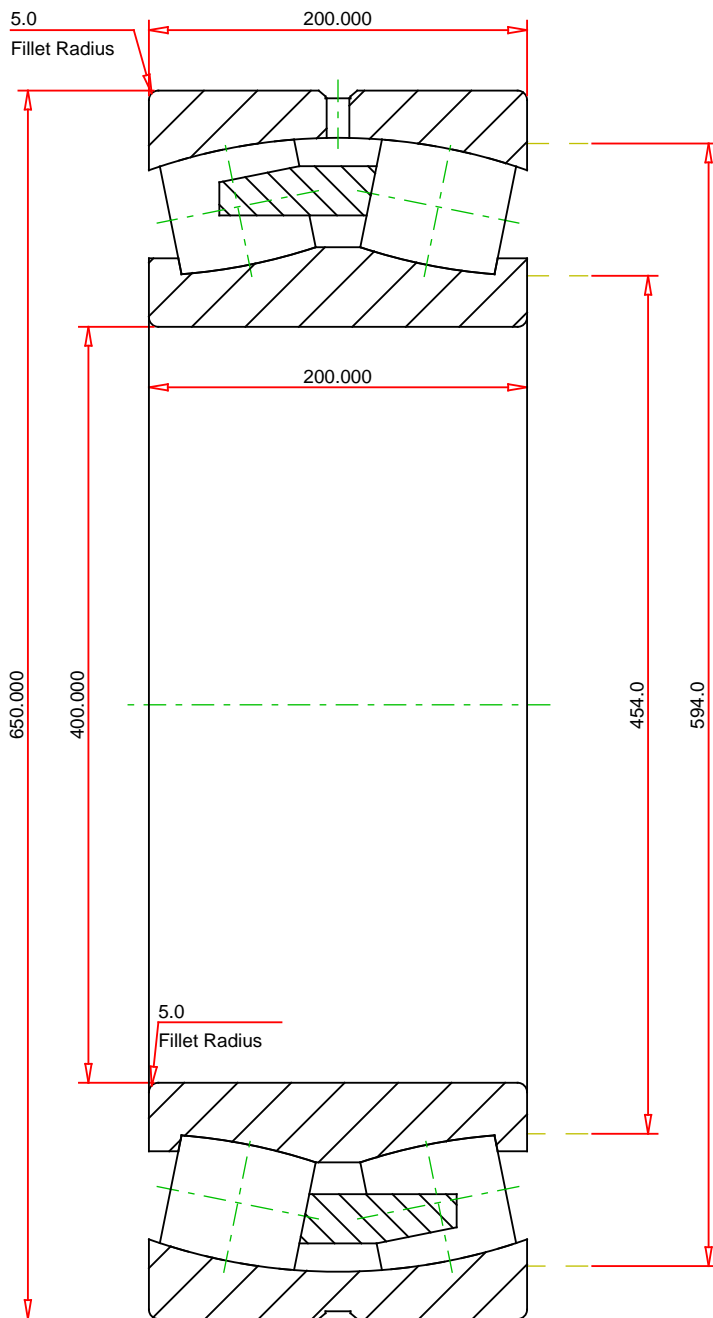
⁴ These factors apply for both inch and metric calculations. See engineering

⁵ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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⁷ See thermal speed ratings in the engineering section.

⁸ Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

Number of Rollers Per Row	22
ISO Factor e	0.29
ISO Factor Y0	2.27
ISO Factor Y1	2.32
ISO Factor Y2	3.46
Bearing Weight	261.6 kg
Cage Type	YMB
Cage Material	Brass

TIMKEN®

23180YMBW507C08
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	4770000	N
Static Radial Rating	8110000	N

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

FOR DISCUSSION ONLY