


The Timken Company

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Part Number 23084YMBW509C08C3, 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	420 mm
Cage Type	YMB
Cage Material	Brass

Dimensions

D - Outer Diameter	620 mm 24.409 in
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B' - Inner Ring Width 150 mm
5.906 in

B - Outer Ring Width 150 mm
5.906 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹ 4 mm
0.160 in

r - Outer Ring "To Clear" Radius² 4 mm
0.16 in

da - Inner Ring Backing Diameter 467 mm
18.4000 in

Da - Outer Ring Backing Diameter 576.000 mm
22.700 in

Basic Load Ratings

C0 - Static Radial Rating 6360000 N
1430000 lbf

C1(2) - Dynamic Radial Rating (Two-Rows) 3450000 N
774000 lbf

Factors

e - ISO Factor³ 0.22

Y0 - ISO Factor⁴ 2.98

Y1 - ISO Factor⁵ 3.05

Y2 - ISO Factor⁶ 4.54

Reference Thermal Speed Rating (Grease) 620 rpm

Reference Thermal Speed Rating (Oil)⁷	720 rpm
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C_g - Geometry Factor⁸	0.0935
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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.

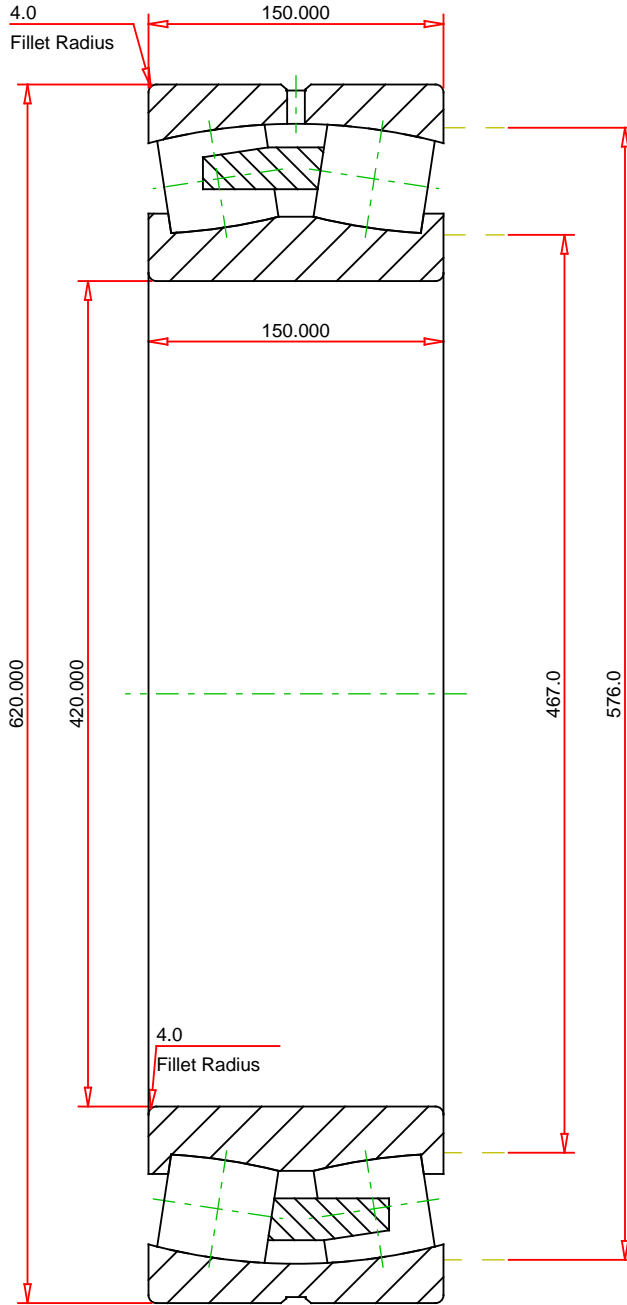
⁴ These factors apply for both inch and metric calculations. See engineering

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 a_{3l}.



METRIC UNITS

Number of Rollers Per Row	28
ISO Factor e	0.22
ISO Factor Y0	2.98
ISO Factor Y1	3.05
ISO Factor Y2	4.54
Bearing Weight	156.0 kg
Cage Type	YMB
Cage Material	Brass

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

23084YMBW509C08C3
SRB ASSEMBLY

Dynamic Radial Rating (Two Rows)	3450000	N
Static Radial Rating	6360000	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.

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