


The Timken Company

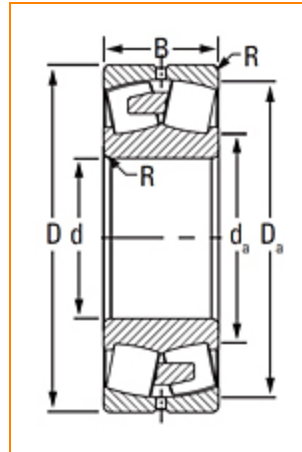
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E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com
Part Number 239/500YMBW509C08C3, Spherical Roller Bearings - Brass Cage

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



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Design Unit	Metric
d - Bore	500 mm
Cage Type	YMB
Cage Material	Brass

Dimensions

D - Outer Diameter	670 mm 26.3780 in
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B' - Inner Ring Width 128 mm
5.039 in

B - Outer Ring Width 128 mm
5.039 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 542.000 mm
21.400 in

Da - Outer Ring Backing Diameter 634.000 mm
25.000 in

Basic Load Ratings

C0 - Static Radial Rating 6060000 N
1360000 lbf

C1(2) - Dynamic Radial Rating (Two-Rows) 2910000 N
653000 lbf

Factors

e - ISO Factor³ 0.16

Y0 - ISO Factor⁴ 4.04

Y1 - ISO Factor⁵ 4.13

Y2 - ISO Factor⁶ 6.15

Reference Thermal Speed Rating (Grease) 520 rpm

Reference Thermal Speed Rating (Oil)⁷	610 rpm
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C_g - Geometry Factor⁸	0.1027
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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.

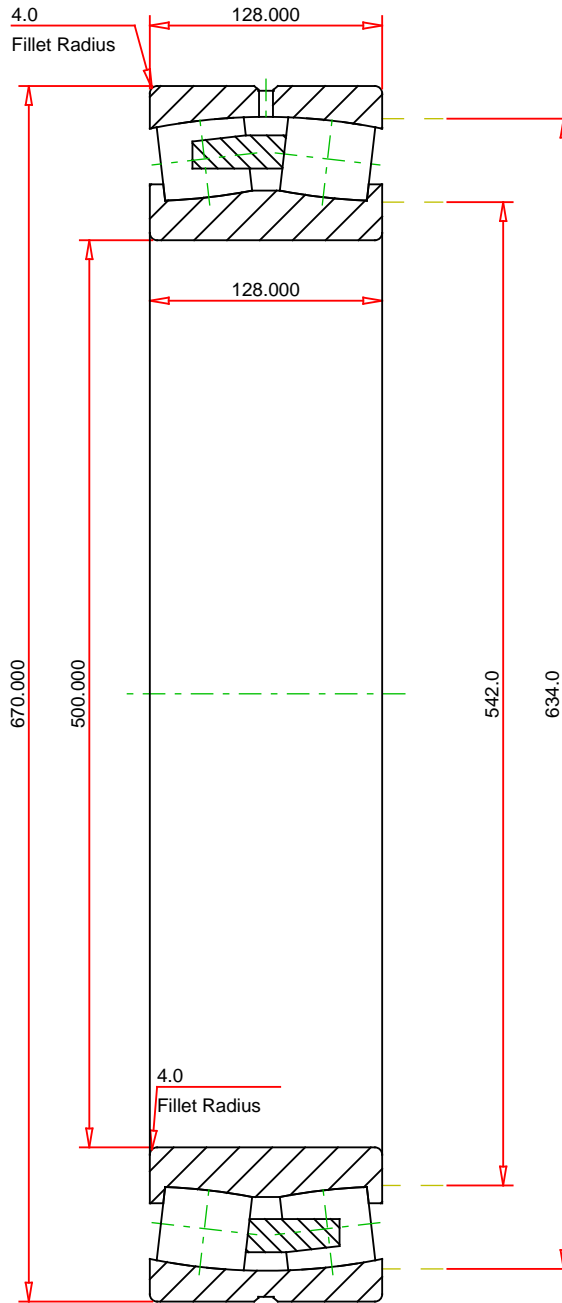
⁴ These factors apply for both inch and metric calculations. See engineering

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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	37
ISO Factor e	0.16
ISO Factor Y0	4.04
ISO Factor Y1	4.13
ISO Factor Y2	6.15
Bearing Weight	125.7 kg
Cage Type	YMB
Cage Material	Brass

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

239/500YMBW509C08C3	
SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	2910000 N
Static Radial Rating	6060000 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