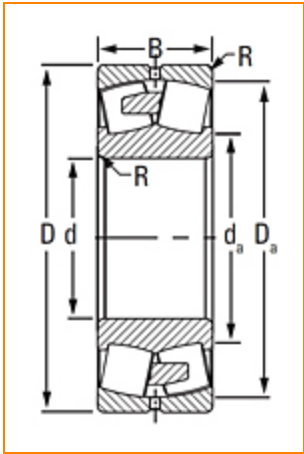




The Timken Company
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Part Number 23088YMBW509C08C3, Spherical Roller Bearings - Brass Cage

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	440 mm
Cage Type	YMB
Cage Material	Brass

Dimensions	
D - Outer Diameter	650 mm 25.591 in



B' - Inner Ring Width 157 mm
6.181 in

B - Outer Ring Width 157 mm
6.1810 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 489.000 mm
19.3000 in

Da - Outer Ring Backing Diameter 603.000 mm
23.700 in

Basic Load Ratings

C0 - Static Radial Rating 6970000 N
1570000 lbf

C1(2) - Dynamic Radial Rating (Two-Rows) 3750000 N
844000 lbf

Factors

e - ISO Factor³ 0.22

Y0 - ISO Factor⁴ 2.97

Y1 - ISO Factor⁵ 3.04

Y2 - ISO Factor⁶ 4.53

Reference Thermal Speed Rating (Grease) 590 rpm

Reference Thermal Speed Rating (Oil)⁷	680 rpm
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Cg - Geometry Factor⁸	0.0963
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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.

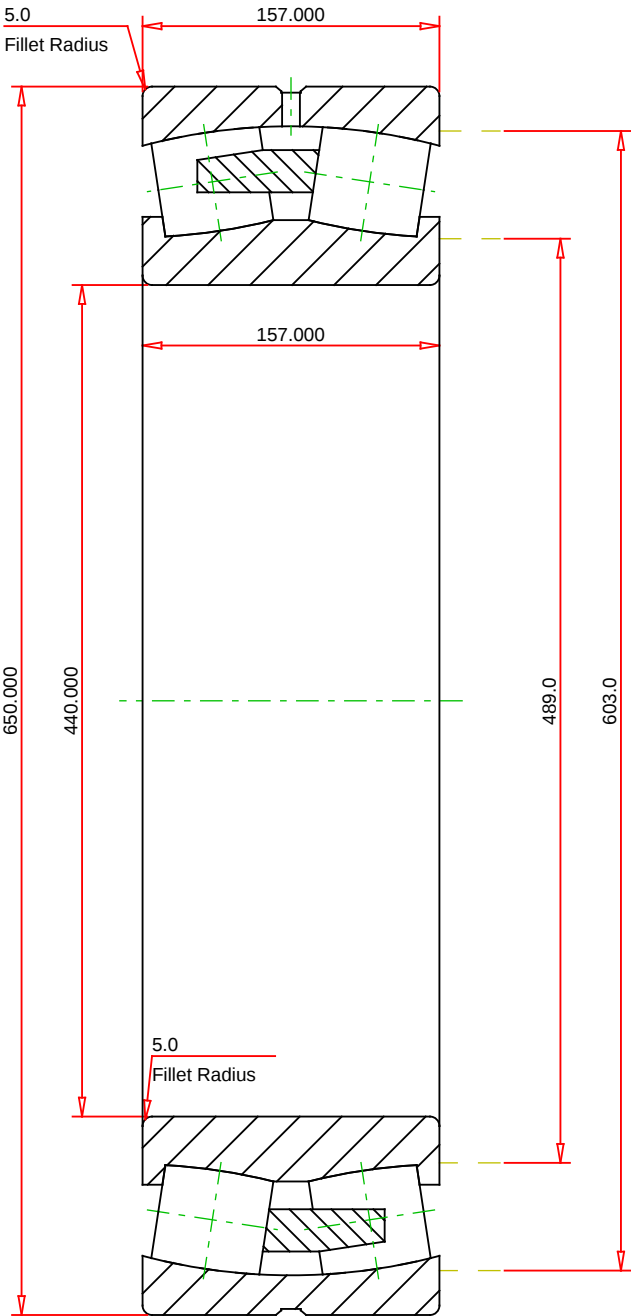
⁴ These factors apply for both inch and metric calculations. See engineering

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

⁶ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

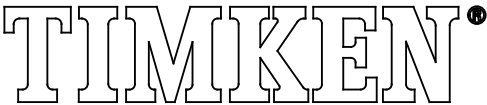
⁷ See thermal speed ratings in the engineering section.

⁸ Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

Number of Rollers Per Row	28
ISO Factor e	0.22
ISO Factor Y0	2.97
ISO Factor Y1	3.04
ISO Factor Y2	4.53
Bearing Weight	180.0 kg
Cage Type	YMB
Cage Material	Brass



THE TIMKEN COMPANY

NORTH CANTON, OHIO USA

23088YMBW509C08C3 SRB ASSEMBLY		
Dynamic Radial Rating (Two Rows)	3750000	N
Static Radial Rating	6970000	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