


The Timken Company

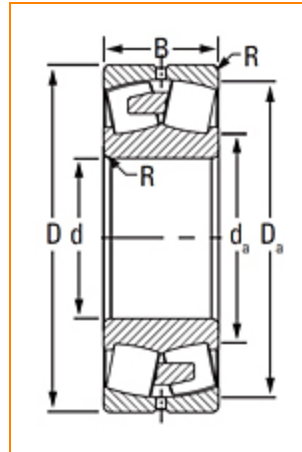
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Part Number 22319EMW33C3, Spherical Roller Bearings - Brass Cage

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	95 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22319YMW33C3

Dimensions

D - Outer Diameter	200 mm 7.874 in
 - Inner Ring Width	67 mm 2.6378 in

B - Outer Ring Width	67 mm 2.6378 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2.5 mm 0.100 in
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r - Outer Ring "To Clear" Radius²	2.5 mm 0.1 in
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da - Inner Ring Backing Diameter	122.0 mm 4.8000 in
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Da - Outer Ring Backing Diameter	180.000 mm 7.1000 in
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Basic Load Ratings

C0 - Static Radial Rating	725000 N 163000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	663000 N 149000 lbf
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Factors

e - ISO Factor³	0.32
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Y0 - ISO Factor⁴	2.05
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Y1 - ISO Factor⁵	2.1
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Y2 - ISO Factor⁶	3.13
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Reference Thermal Speed Rating (Grease)	2600 rpm
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Reference Thermal Speed Rating (Oil)⁷	3100 rpm
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Cg - Geometry Factor⁸	0.0716
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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.

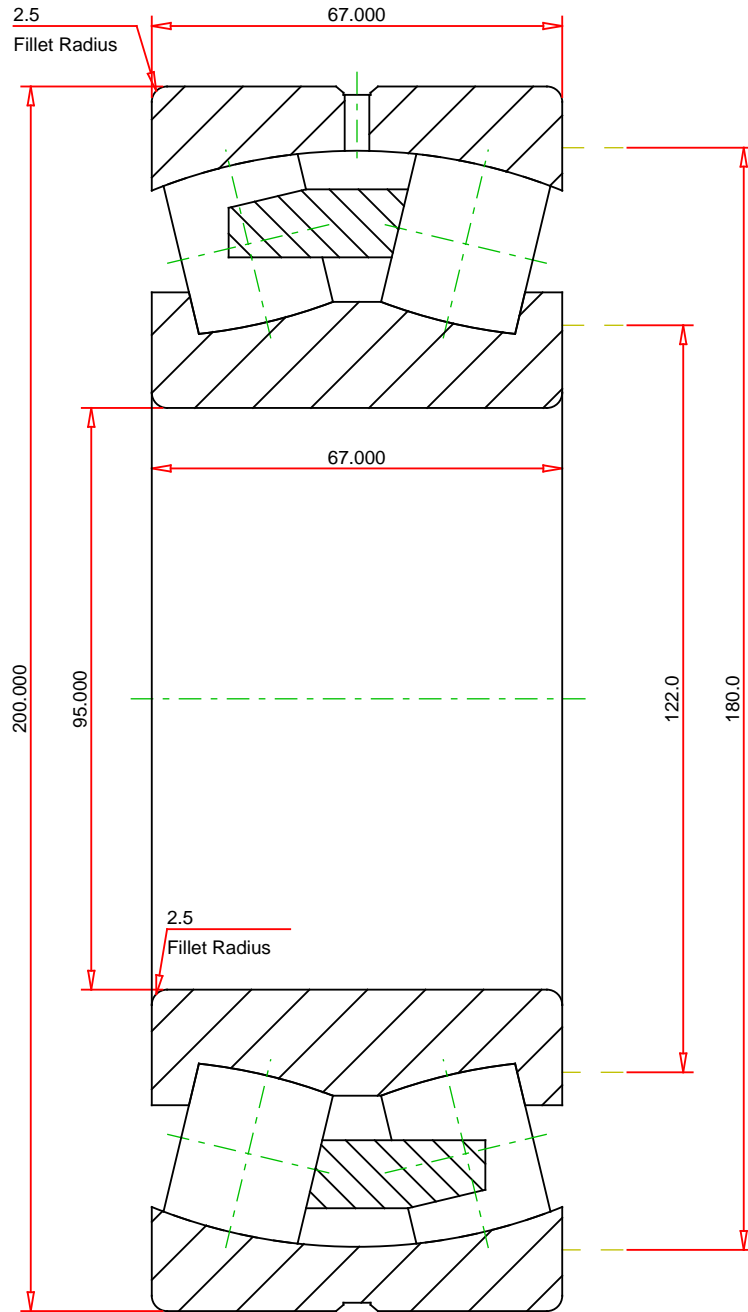
⁴ These factors apply for both inch and metric calculations. See engineering

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	15
ISO Factor e	0.32
ISO Factor Y0	2.05
ISO Factor Y1	2.10
ISO Factor Y2	3.13
Bearing Weight	10.2 kg
Cage Type	EM
Cage Material	Brass

TIMKEN®

22319EMW33C3
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	663000	N
Static Radial Rating	725000	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