



The Timken Company

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Part Number 22318EMW33, 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	90 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22318YMW33

Dimensions

D - Outer Diameter	190 mm 7.4803 in
 d - Inner Ring Width	64 mm 2.5197 in

B - Outer Ring Width	64 mm 2.5197 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	116 mm 4.6000 in
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Da - Outer Ring Backing Diameter	171.000 mm 6.7000 in
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Basic Load Ratings

C0 - Static Radial Rating	659000 N 148000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	606000 N 136000 lbf
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Factors

e - ISO Factor³	0.32
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Y0 - ISO Factor⁴	2.04
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Y1 - ISO Factor⁵	2.09
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Y2 - ISO Factor⁶	3.11
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Reference Thermal Speed Rating (Grease)	2900 rpm
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Reference Thermal Speed Rating (Oil)⁷	3400 rpm
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Cg - Geometry Factor⁸	0.0685
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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.

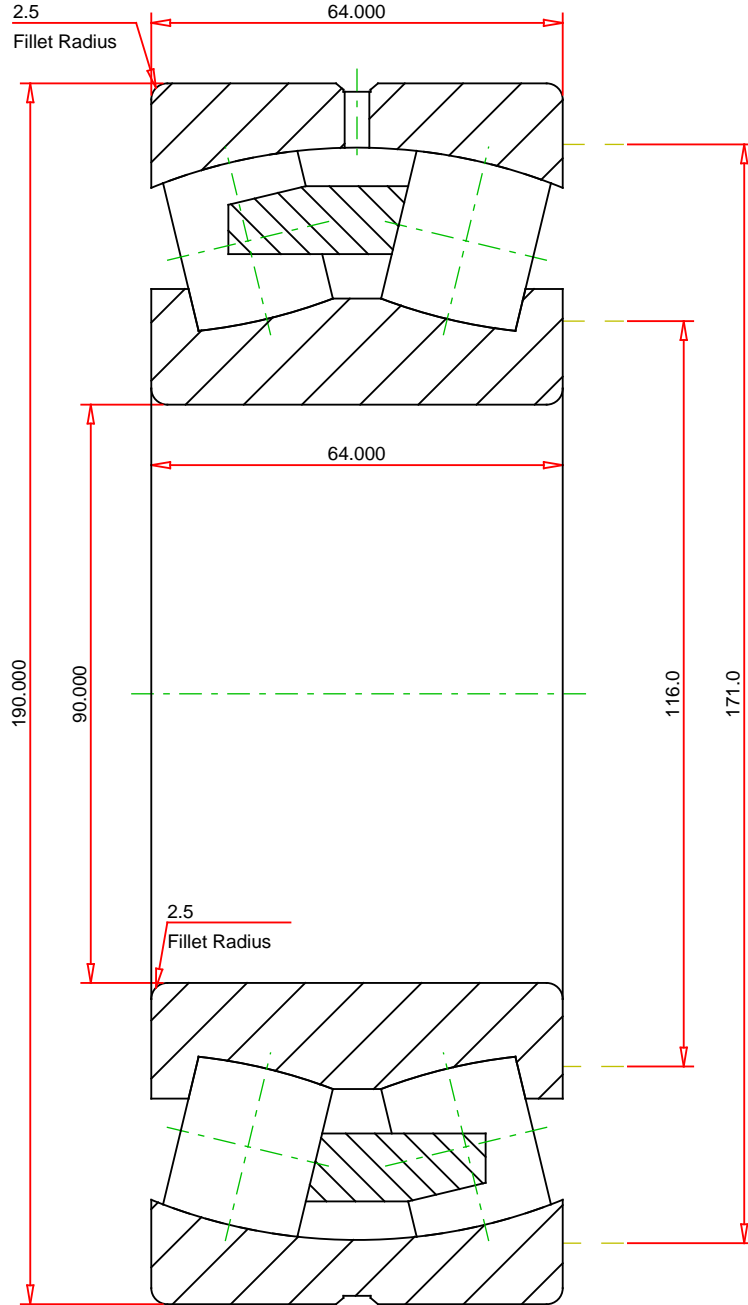
⁴ These factors apply for both inch and metric calculations. See engineering

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	16
ISO Factor e	0.32
ISO Factor Y0	2.04
ISO Factor Y1	2.09
ISO Factor Y2	3.11
Bearing Weight	8.8 kg
Cage Type	EM
Cage Material	Brass

TIMKEN®

22318EMW33
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	606000	N
Static Radial Rating	659000	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