


The Timken Company

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Part Number 22222EMW33, 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	110 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22222YMW33

Dimensions

D - Outer Diameter	200 mm 7.874 in
 d' - Inner Ring Width	53 mm 2.0866 in

B - Outer Ring Width	53 mm 2.0866 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2 mm 0.080 in
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r - Outer Ring "To Clear" Radius²	2 mm 0.080 in
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da - Inner Ring Backing Diameter	133.000 mm 5.2000 in
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Da - Outer Ring Backing Diameter	182 mm 7.200 in
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Basic Load Ratings

C0 - Static Radial Rating	653000 N 147000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	555000 N 125000 lbf
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Factors

e - ISO Factor³	0.25
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Y0 - ISO Factor⁴	2.67
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Y1 - ISO Factor⁵	2.73
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Y2 - ISO Factor⁶	4.06
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Reference Thermal Speed Rating (Grease)	2900 rpm
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Reference Thermal Speed Rating (Oil)⁷	3500 rpm
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Cg - Geometry Factor⁸	0.0742
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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.

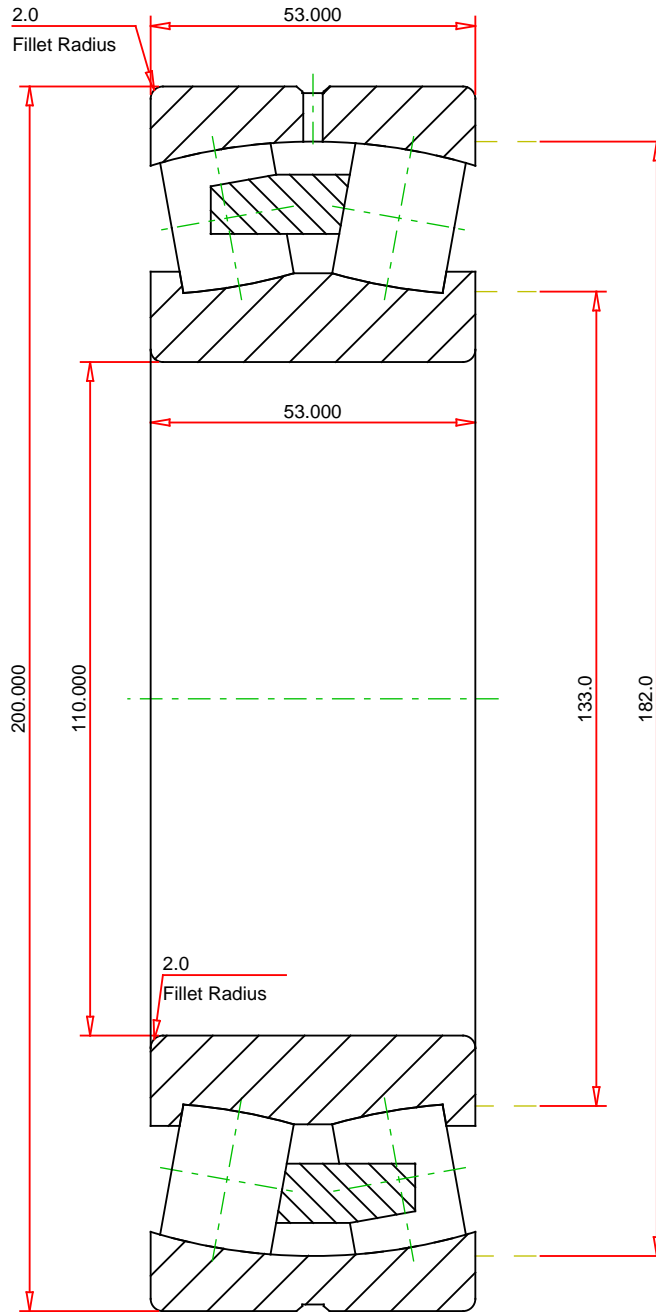
⁴ These factors apply for both inch and metric calculations. See engineering

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	19
ISO Factor e	0.25
ISO Factor Y0	2.67
ISO Factor Y1	2.73
ISO Factor Y2	4.06
Bearing Weight	7.2 kg
Cage Type	EM
Cage Material	Brass

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

22222EMW33 SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	555000 N
Static Radial Rating	653000 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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