


The Timken Company

4500 Mt Pleasant St. NW

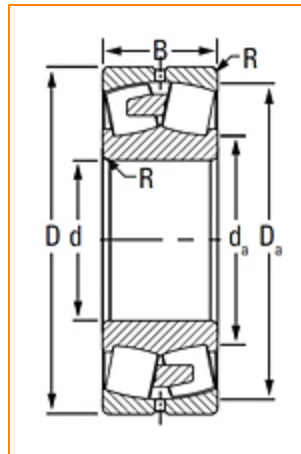
N. Canton, OH 44720

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Part Number 22316EMW33C3, 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	80 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22316YMW33C3

Dimensions

D - Outer Diameter	170 mm 6.6929 in
 - Inner Ring Width	58 mm 2.2835 in

B - Outer Ring Width	58 mm 2.2835 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 0.08 in
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da - Inner Ring Backing Diameter	103 mm 4.1000 in
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Da - Outer Ring Backing Diameter	153.000 mm 6.000 in
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Basic Load Ratings

C0 - Static Radial Rating	534000 N 120000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	499000 N 112000 lbf
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Factors

e - ISO Factor³	0.33
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Y0 - ISO Factor⁴	2.01
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Y1 - ISO Factor⁵	2.06
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Y2 - ISO Factor⁶	3.06
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Reference Thermal Speed Rating (Grease)	3300 rpm
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Reference Thermal Speed Rating (Oil)⁷	3800 rpm
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Cg - Geometry Factor⁸

0.0638

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.

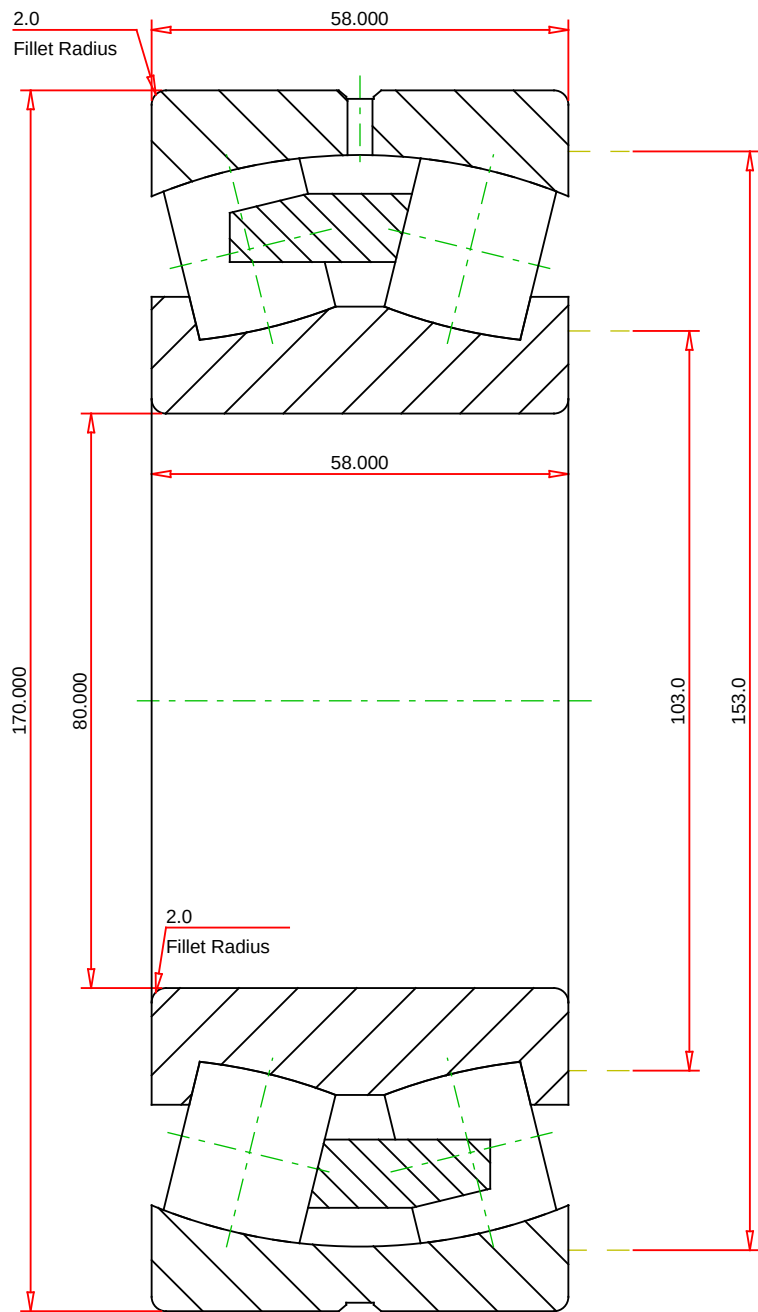
⁴ These factors apply for both inch and metric calculations. See engineering

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⁷ See thermal speed ratings in the engineering section.

⁸ Geometry constant for Lubrication Life Adjustment Factor a_3 .



METRIC UNITS

Number of Rollers Per Row15 ISO Factor e0.33 ISO Factor Y02.01 ISO Factor Y12.06 ISO Factor Y23.06 Bearing Weight6.4 kg Cage TypeEM Cage MaterialBrass		TIMKEN® THE TIMKEN COMPANY NORTH CANTON, OHIO USA	22316EMW33C3 SRB ASSEMBLY Dynamic Radial Rating (Two Rows)499000 N Static Radial Rating534000 N
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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