


The Timken Company

4500 Mt Pleasant St. NW

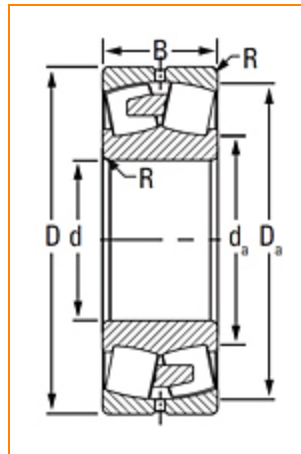
N. Canton, OH 44720

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Part Number 22216EMW33C3, 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Superseded Part	22216YMW33C3

Dimensions

D - Outer Diameter	140 mm 5.5118 in
 - Inner Ring Width	33 mm 1.2992 in

B - Outer Ring Width	33 mm 1.2992 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	95 mm 3.700 in
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Da - Outer Ring Backing Diameter	129 mm 5.100 in
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Basic Load Ratings

C0 - Static Radial Rating	263000 N 59200 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	245000 N 55100 lbf
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Factors

e - ISO Factor³	0.22
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Y0 - ISO Factor⁴	3.07
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Y1 - ISO Factor⁵	3.14
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Y2 - ISO Factor⁶	4.67
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Reference Thermal Speed Rating (Grease)	3600 rpm
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Reference Thermal Speed Rating (Oil)⁷	4400 rpm
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Cg - Geometry Factor⁸

0.0573

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.

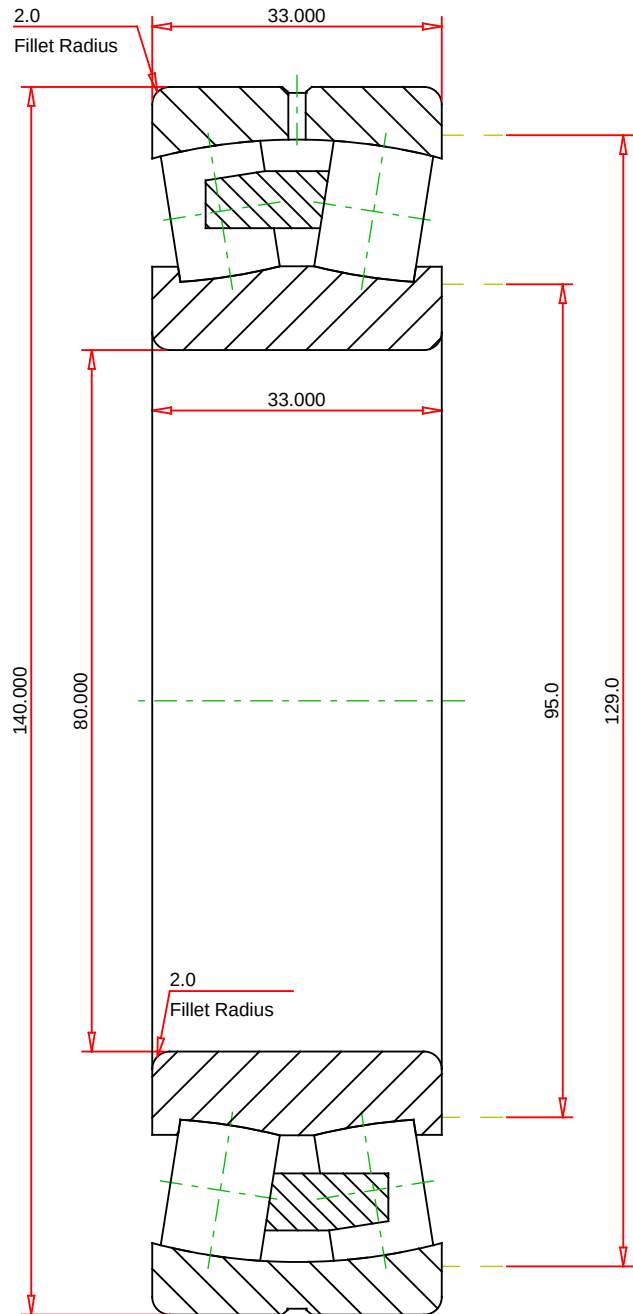
⁴ These factors apply for both inch and metric calculations. See engineering

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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 Row	18
ISO Factor e	0.22
ISO Factor Y0	3.07
ISO Factor Y1	3.14
ISO Factor Y2	4.67
Bearing Weight	2.1 kg
Cage Type	EM
Cage Material	Brass



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NORTH CANTON, OHIO USA

22216EMW33C3 SRB ASSEMBLY		
Dynamic Radial Rating (Two Rows)	245000	N
Static Radial Rating	263000	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