



The Timken Company

4500 Mt Pleasant St. NW

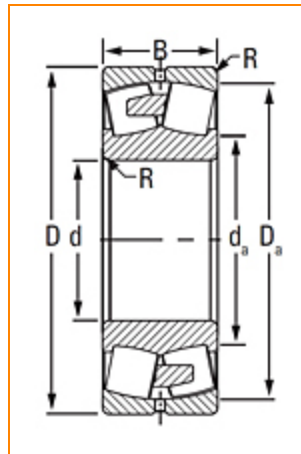
N. Canton, OH 44720

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Part Number 22224KEMW33C3, 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	120 mm
Bore_Taper	1/12
Cage Type	EM
Cage Material	Brass
Superseded Part	22224KYMW33C3

Dimensions



D - Outer Diameter

215 mm

8.4646 in

B' - Inner Ring Width	58 mm 2.2835 in
B - Outer Ring Width	58 mm 2.2835 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2 mm 0.080 in
r - Outer Ring "To Clear" Radius²	2 mm 0.08 in
da - Inner Ring Backing Diameter	143 mm 5.6000 in
Da - Outer Ring Backing Diameter	196 mm 7.700 in

Basic Load Ratings

C0 - Static Radial Rating	772000 N 174000 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	647000 N 145000 lbf

Factors

e - ISO Factor³	0.25
Y0 - ISO Factor⁴	2.64
Y1 - ISO Factor⁵	2.7
Y2 - ISO Factor⁶	4.02
Reference Thermal Speed Rating (Grease)	2600 rpm

Reference Thermal Speed Rating (Oil)⁷	3200 rpm
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Cg - Geometry Factor⁸	0.0778
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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.

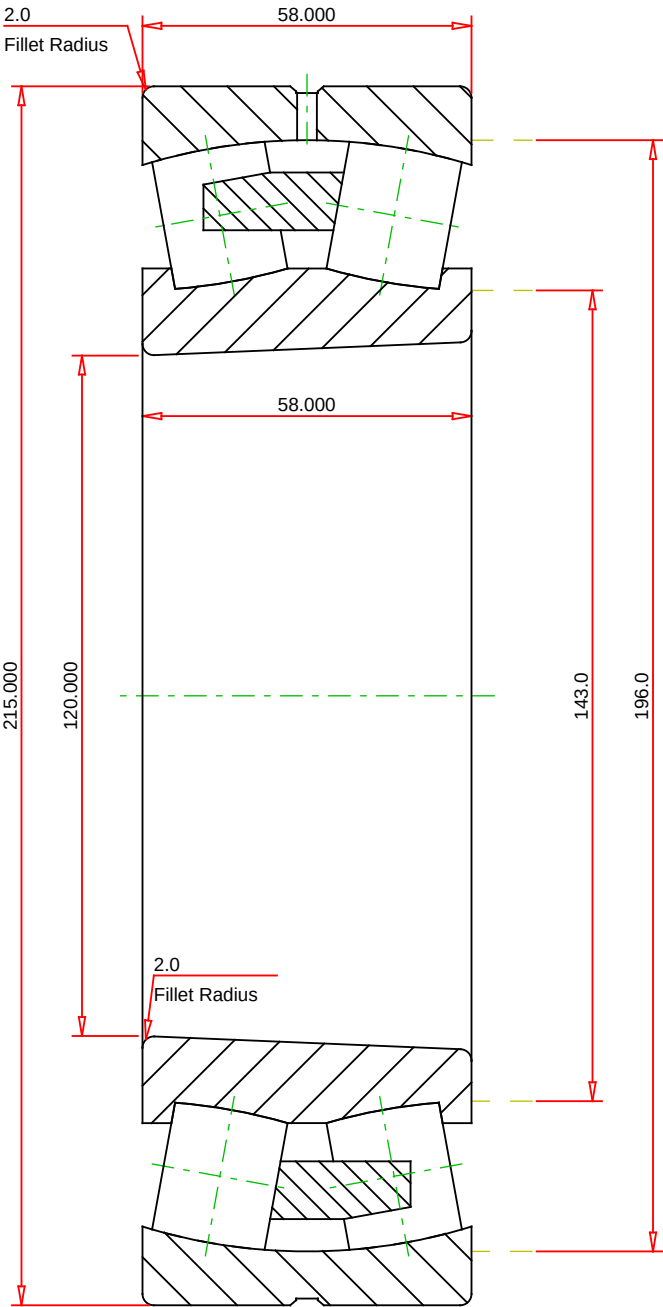
⁴ These factors apply for both inch and metric calculations. See engineering

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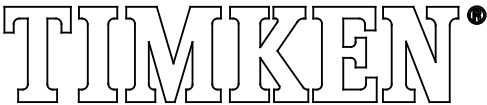
⁷ See thermal speed ratings in the engineering section.

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	2.64
ISO Factor Y1	2.70
ISO Factor Y2	4.02
Bearing Weight	9.0 kg
Cage Type	EM
Cage Material	Brass
Bore Taper	1/12



THE TIMKEN COMPANY

NORTH CANTON, OHIO USA

22224KEMW33C3
SRB ASSEMBLY

Dynamic Radial Rating (Two Rows)	647000	N
Static Radial Rating	772000	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