


The Timken Company

4500 Mt Pleasant St. NW

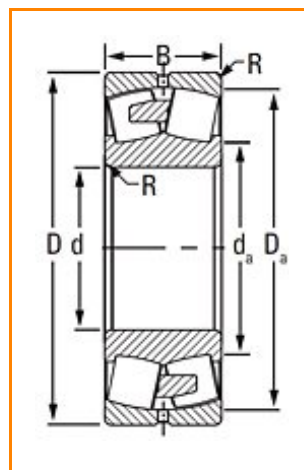
N. Canton, OH 44720

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Timken Part Number 22311EMW33W800C4, 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
Bearing Weight	2.400 Kg 5.30 lb
Cage Type	EM
UPC Code	87796026247
Cage Material	BRASS
Superseded Part	22311YMW33W800C4

Dimensions

d - Bore	55.000 mm 2.1654 in
D - Outer Diameter	119.993 mm 4.7241 in
B' - Inner Ring Width	43 mm 1.6929 in
B - Outer Ring Width	43.000 mm 1.6929 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2.000 mm 0.080 in
r - Outer Ring "To Clear" Radius²	2.000 mm 0.080 in
da - Inner Ring Backing Diameter	69.000 mm 2.700 in
Da - Outer Ring Backing Diameter	106.000 mm 4.200 in

Basic Load Ratings

C0 - Static Radial Rating	265000 N 59500 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	266000 N 59800 lbf

Factors

e - ISO Factor³	0.36
Y0 - ISO Factor⁴	1.89

Y1 - ISO Factor⁵	2.81
Y2 - ISO Factor⁶	1.84
Reference Thermal Speed Rating (Grease)	4400
Reference Thermal Speed Rating (Oil)⁷	5200
Cg - Geometry Factor⁸	0.0499

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.

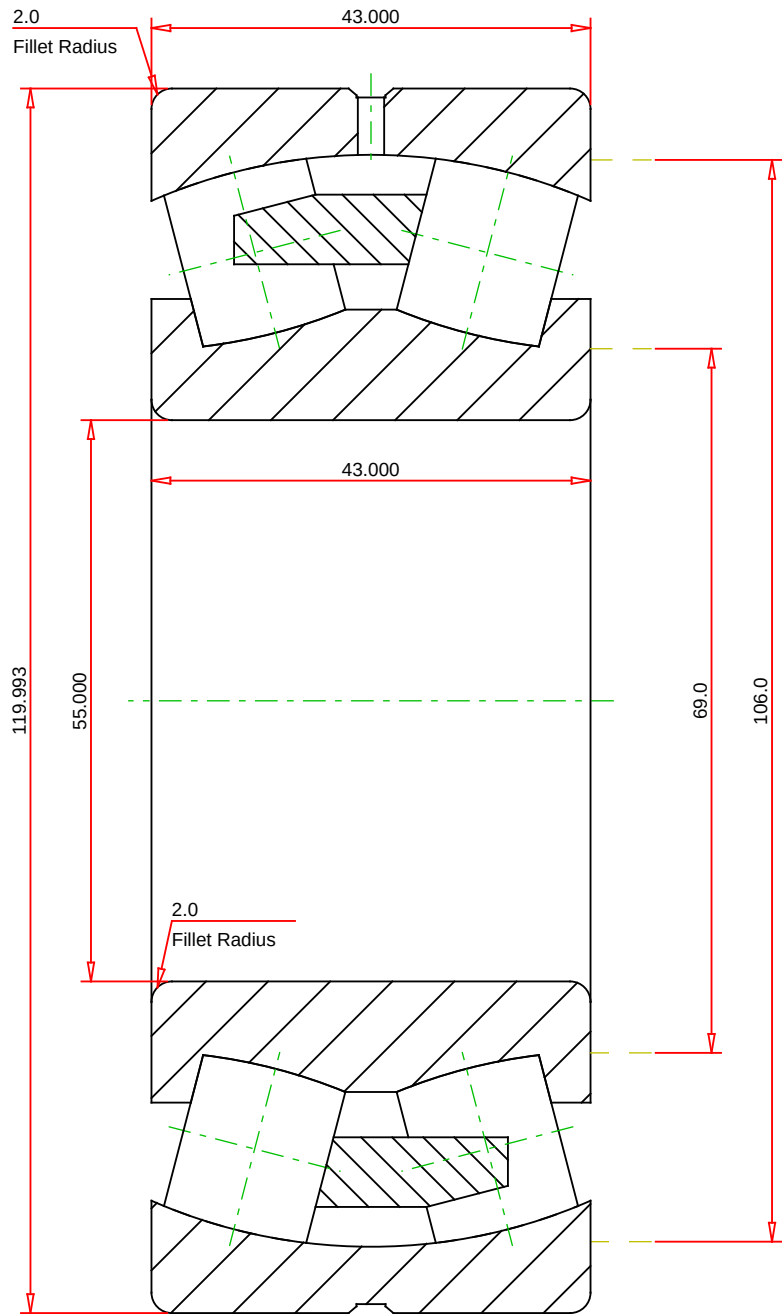
⁴ These factors apply for both inch and metric calculations. See engineering

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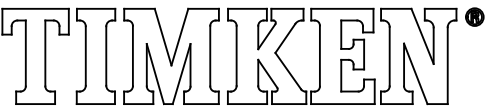
⁷ See thermal speed ratings in the engineering section.

⁸ Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

Number of Rollers Per Row	14
ISO Factor e	0.36
ISO Factor Y0	1.89
ISO Factor Y1	2.81
ISO Factor Y2	1.84
Bearing Weight	2.4 kg
Cage Type	EM
Cage Material	BRASS



THE TIMKEN COMPANY

NORTH CANTON, OHIO USA

22311EMW33W800C4
SRB ASSEMBLY

Dynamic Radial Rating (Two Rows)	266000	N
Static Radial Rating	265000	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