


The Timken Company

4500 Mt Pleasant St. NW

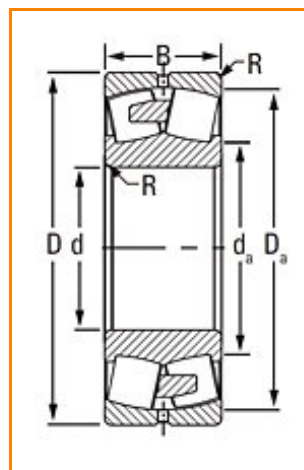
N. Canton, OH 44720

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Timken Part Number 22310EMW33W800C4, 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	1.900 Kg 4.20 lb
Cage Type	EM
UPC Code	87796026209
Cage Material	BRASS
Superseded Part	22310YMW33W800C4

Dimensions

d - Bore	50.000 mm 1.9685 in
D - Outer Diameter	109.993 mm 4.3304 in
B' - Inner Ring Width	40 mm 1.5748 in
B - Outer Ring Width	40.000 mm 1.5748 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	65.000 mm 2.600 in
Da - Outer Ring Backing Diameter	98.000 mm 3.900 in

Basic Load Ratings

C0 - Static Radial Rating	225000 N 50600 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	227000 N 51000 lbf

Factors

e - ISO Factor³	0.36
Y0 - ISO Factor⁴	1.89

Y1 - ISO Factor⁵	2.81
Y2 - ISO Factor⁶	1.85
Reference Thermal Speed Rating (Grease)	4700
Reference Thermal Speed Rating (Oil)⁷	5600
Cg - Geometry Factor⁸	0.0549

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.

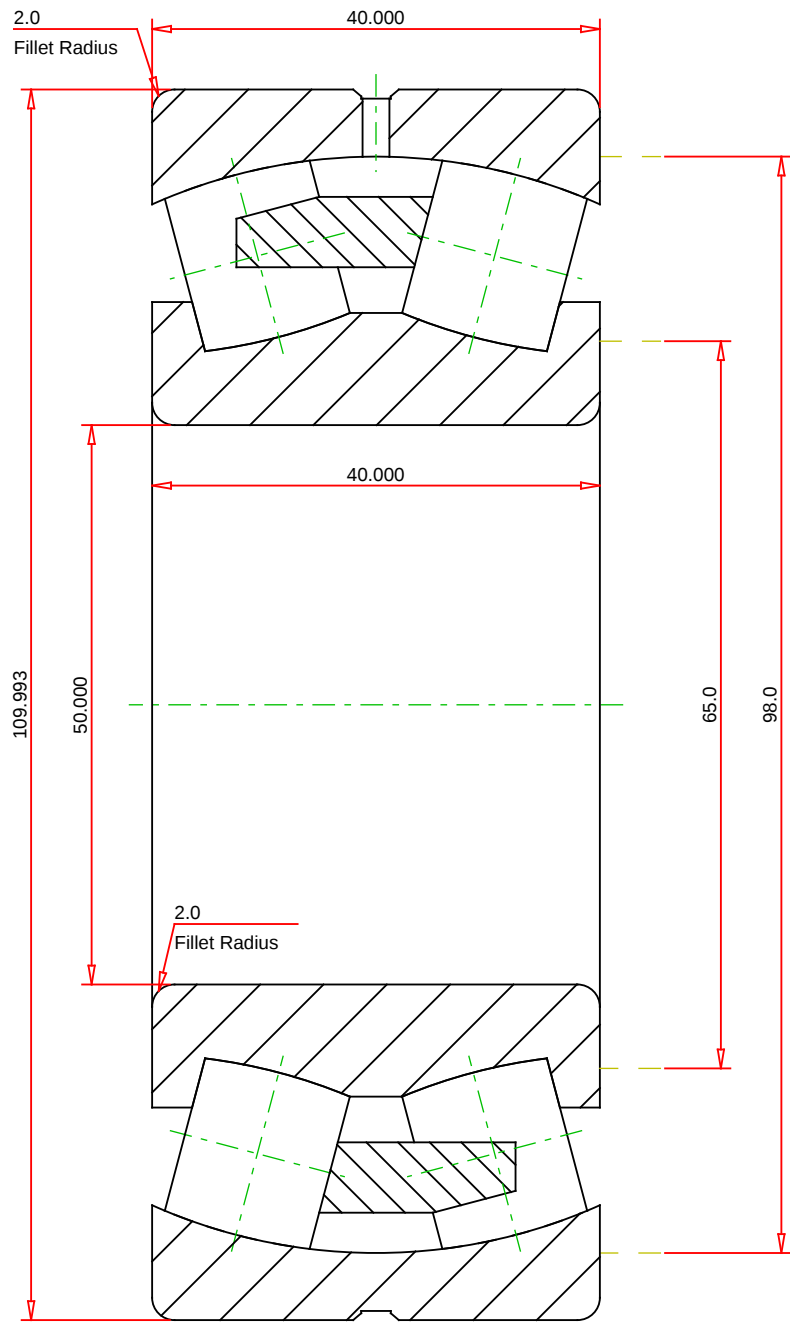
⁴ These factors apply for both inch and metric calculations. See engineering

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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	15
ISO Factor e	0.36
ISO Factor Y0	1.89
ISO Factor Y1	2.81
ISO Factor Y2	1.85
Bearing Weight	1.9 kg
Cage Type	EM
Cage Material	BRASS



THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

22310EMW33W800C4
SRB ASSEMBLY

Dynamic Radial Rating (Two Rows)	227000	N
Static Radial Rating	225000	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