


The Timken Company

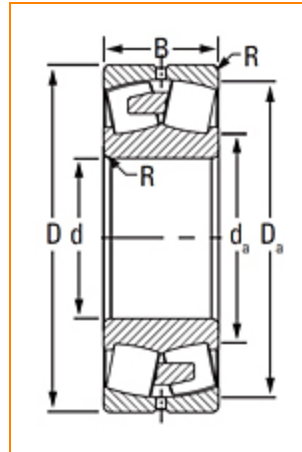
4500 Mt Pleasant St. NW

N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com
Part Number 22317EMW33C3, 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	85 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22317YMW33C3

Dimensions

D - Outer Diameter	180 mm 7.0866 in
 d - Inner Ring Width	60 mm 2.3622 in

B - Outer Ring Width	60 mm 2.3622 in
-----------------------------	--------------------

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2.5 mm 0.100 in
---	--------------------

r - Outer Ring "To Clear" Radius²	2.5 mm 0.1 in
---	------------------

da - Inner Ring Backing Diameter	110.000 mm 4.3000 in
---	-------------------------

Da - Outer Ring Backing Diameter	162.000 mm 6.400 in
---	------------------------

Basic Load Ratings

C0 - Static Radial Rating	584000 N 131000 lbf
----------------------------------	------------------------

C1(2) - Dynamic Radial Rating (Two-Rows)	543000 N 122000 lbf
---	------------------------

Factors

e - ISO Factor³	0.32
-----------------------------------	------

Y0 - ISO Factor⁴	2.06
------------------------------------	------

Y1 - ISO Factor⁵	2.11
------------------------------------	------

Y2 - ISO Factor⁶	3.14
------------------------------------	------

Reference Thermal Speed Rating (Grease)	3000 rpm
--	----------

Reference Thermal Speed Rating (Oil)⁷	3500 rpm
---	----------

C_g - Geometry Factor⁸	0.0662
--	--------

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.

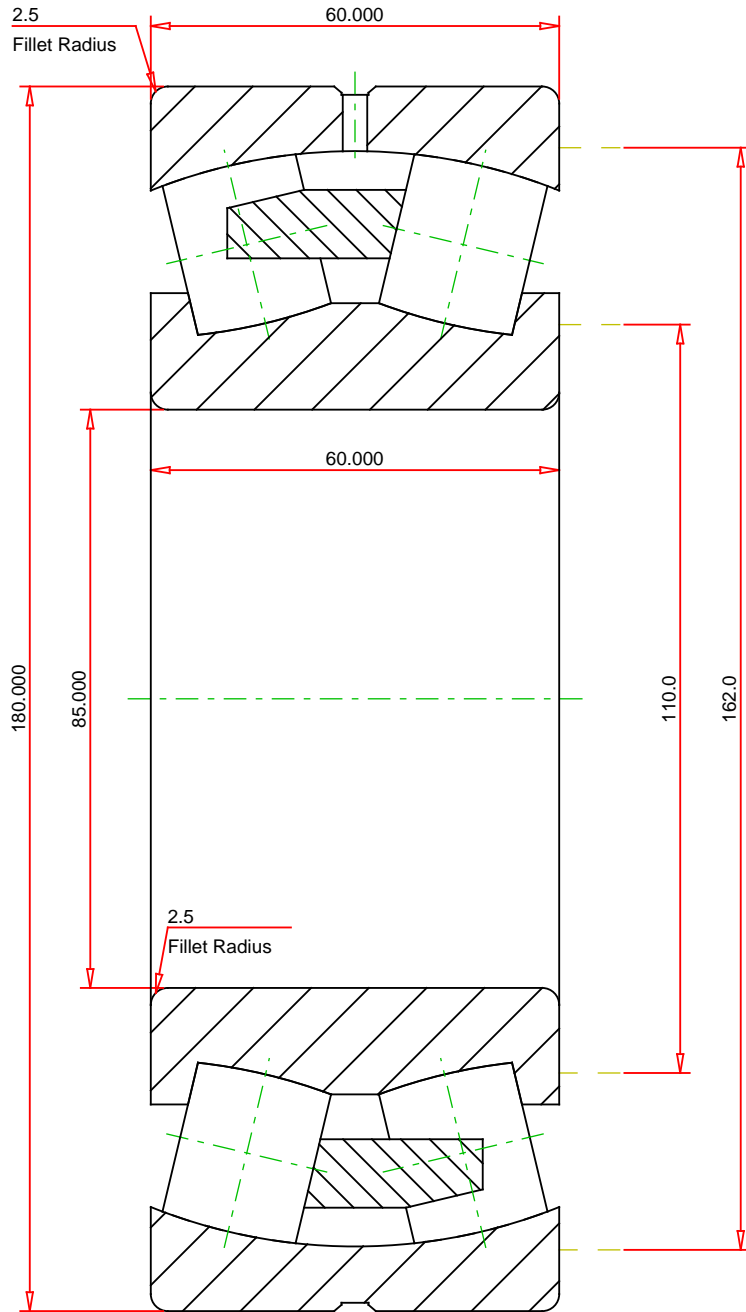
⁴ These factors apply for both inch and metric calculations. See engineering

⁵ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁶ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁷ See thermal speed ratings in the engineering section.

⁸ Geometry constant for Lubrication Life Adjustment Factor a_{3l}.



METRIC UNITS

Number of Rollers Per Row	16
ISO Factor e	0.32
ISO Factor Y0	2.06
ISO Factor Y1	2.11
ISO Factor Y2	3.14
Bearing Weight	7.5 kg
Cage Type	EM
Cage Material	Brass



22317EMW33C3
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	543000	N
Static Radial Rating	584000	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