


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 22236EMW33C3, 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	180 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22236YMW33C3

Dimensions

D - Outer Diameter	320 mm 12.5984 in
 - Inner Ring Width	86 mm 3.3858 in

B - Outer Ring Width	86 mm 3.3858 in
-----------------------------	--------------------

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	3 mm 0.120 in
r - Outer Ring "To Clear" Radius²	3 mm 0.12 in
da - Inner Ring Backing Diameter	215.000 mm 8.5000 in
Da - Outer Ring Backing Diameter	292 mm 11.5000 in

Basic Load Ratings

C0 - Static Radial Rating	1700000 N 382000 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	1340000 N 301000 lbf

Factors

e - ISO Factor³	0.25
Y0 - ISO Factor⁴	2.66
Y1 - ISO Factor⁵	2.72
Y2 - ISO Factor⁶	4.05
Reference Thermal Speed Rating (Grease)	1600 rpm

Reference Thermal Speed Rating (Oil)⁷	1900 rpm
---	----------

C_g - Geometry Factor⁸	0.0937
--	--------

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.

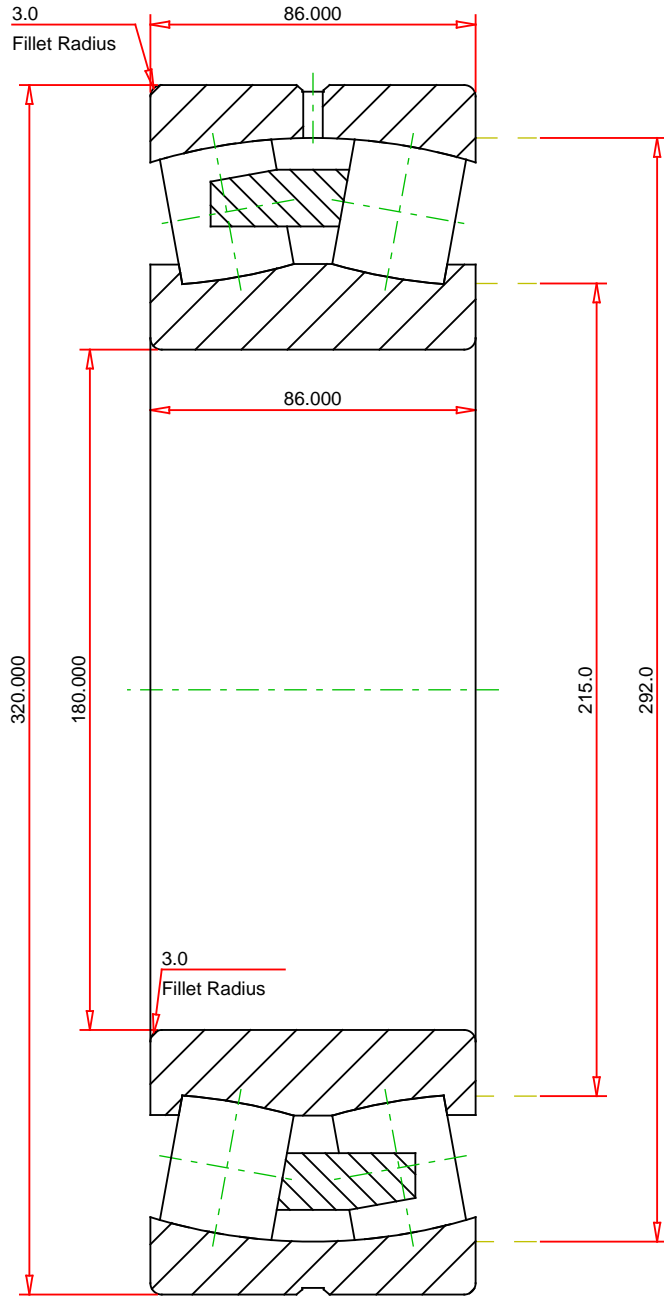
⁴ These factors apply for both inch and metric calculations. See engineering

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.

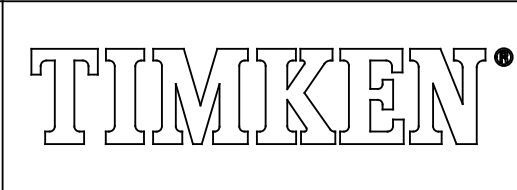
⁷ See thermal speed ratings in the engineering section.

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



METRIC UNITS

Number of Rollers Per Row	19
ISO Factor e	0.25
ISO Factor Y0	2.66
ISO Factor Y1	2.72
ISO Factor Y2	4.05
Bearing Weight	29.4 kg
Cage Type	EM
Cage Material	Brass



THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

22236EMW33C3 SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	1340000 N
Static Radial Rating	1700000 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