


The Timken Company

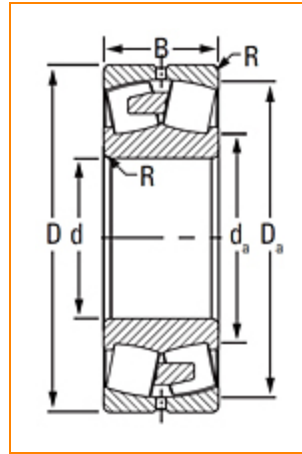
4500 Mt Pleasant St. NW

N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com
Part Number 22211EM, 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	55 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	22211YM

Dimensions

D - Outer Diameter	100 mm 3.937 in
 d' - Inner Ring Width	25 mm 0.9843 in

B - Outer Ring Width	25 mm 0.9843 in
-----------------------------	--------------------

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	1.5 mm 0.060 in
---	--------------------

r - Outer Ring "To Clear" Radius²	1.5 mm 0.06 in
---	-------------------

da - Inner Ring Backing Diameter	66.000 mm 2.600 in
---	-----------------------

Da - Outer Ring Backing Diameter	91.000 mm 3.600 in
---	-----------------------

Basic Load Ratings

C0 - Static Radial Rating	134000 N 30100 lbf
----------------------------------	-----------------------

C1(2) - Dynamic Radial Rating (Two-Rows)	134000 N 30100 lbf
---	-----------------------

Factors

e - ISO Factor³	0.23
-----------------------------------	------

Y0 - ISO Factor⁴	2.89
------------------------------------	------

Y1 - ISO Factor⁵	2.95
------------------------------------	------

Y2 - ISO Factor⁶	4.4
------------------------------------	-----

Reference Thermal Speed Rating (Grease)	4700 rpm
--	----------

Reference Thermal Speed Rating (Oil)⁷	5900 rpm
C_g - Geometry Factor⁸	0.052

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.

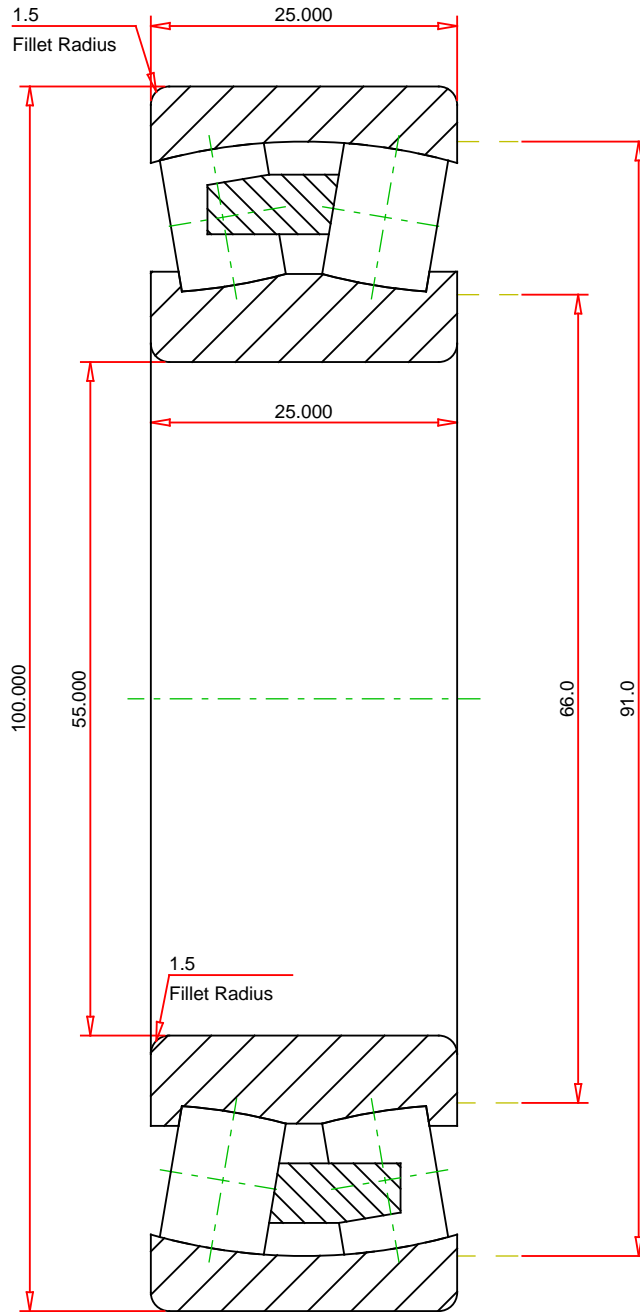
⁴ These factors apply for both inch and metric calculations. See engineering

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 a3l.



METRIC UNITS

Number of Rollers Per Row	17
ISO Factor e	0.23
ISO Factor Y0	2.89
ISO Factor Y1	2.95
ISO Factor Y2	4.40
Bearing Weight	0.9 kg
Cage Type	EM
Cage Material	Brass

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

22211EM SRB ASSEMBLY		
Dynamic Radial Rating (Two Rows)	134000	N
Static Radial Rating	134000	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