


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.



[Key Dimensions](#) | [Dimensions](#) | [Basic Load Ratings](#) | [Key Dimensions](#) | [Factors](#)

Key Dimensions

Design Unit	Metric
Bore (d)	55 mm
O.D. (D)	100 mm 3.937 in
B' - Inner Ring Width	25 mm 0.9843 in
B - Outer Ring Width	25 mm 0.9843 in
Dynamic Radial Load Rating - 1M Revs (C1)	134000 N 30100 lbf
e Factor¹	0.23



Dimensions

R - Inner Ring "To Clear" Radius²	1.50 mm 0.060 in
r - Outer Ring "To Clear" Radius³	1.5 mm 0.06 in
Shaft Backing Shoulder Diameter	66.000 mm 2.600 in
Housing Backing Shoulder Diameter	91.000 mm 3.600 in

Basic Load Ratings

Static Radial Load Rating (C₀)	134000 N 30100 lbf
Thermal Reference Speed - Grease	4700 rpm
Thermal Reference Speed - Oil⁴	5900 rpm

Key Dimensions

Y₀ Factor⁵	2.89
---	------

Factors

Y₁ Factor⁶	2.95
Y₂ Factor⁷	4.4
Geometry Factor (C_g)⁸	0.052

¹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

² Maximum housing fillet radius that bearing corners will clear.

³ Maximum shaft fillet radius that bearing corners will clear.

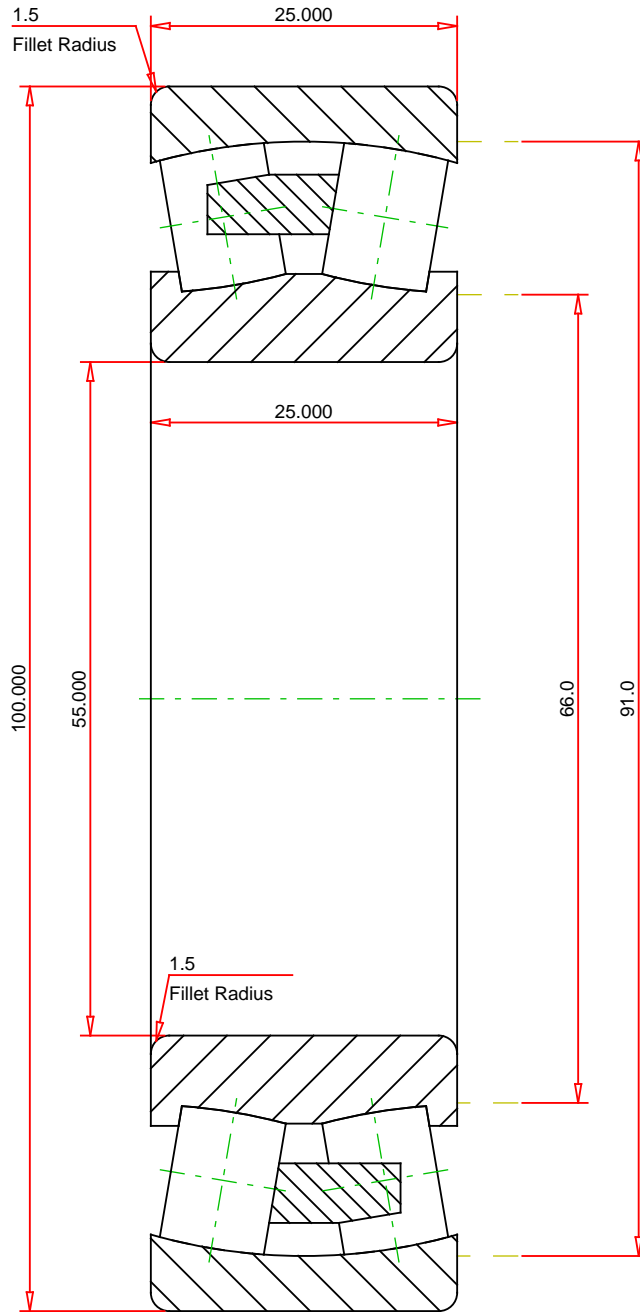
⁴ See thermal speed ratings in the engineering section.

⁵ These factors apply for both inch and metric calculations. See engineering

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

⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁸ Geometry constant for Lubrication Life Adjustment Factor a_3 .



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