


**The Timken Company**

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**Part Number 22218EMW33C3, 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.



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**Specifications**

<b>Design Unit</b>	Metric
<b>d - Bore</b>	90 mm
<b>Cage Type</b>	EM
<b>Cage Material</b>	Brass
<b>Superseded Part</b>	22218YMW33C3

**Dimensions**

<b>D - Outer Diameter</b>	160 mm 6.2992 in
<b>b - Inner Ring Width</b>	40 mm 1.5748 in



<b>B - Outer Ring Width</b>	40 mm 1.5748 in
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## Abutment and Fillet Dimensions

<b>R - Inner Ring "To Clear" Radius<sup>1</sup></b>	2 mm 0.080 in
<b>r - Outer Ring "To Clear" Radius<sup>2</sup></b>	2 mm 0.08 in
<b>da - Inner Ring Backing Diameter</b>	105.000 mm 4.2000 in
<b>Da - Outer Ring Backing Diameter</b>	146.000 mm 5.800 in

## Basic Load Ratings

<b>C0 - Static Radial Rating</b>	388000 N 87200 lbf
<b>C1(2) - Dynamic Radial Rating (Two-Rows)</b>	355000 N 79700 lbf

## Factors

<b>e - ISO Factor<sup>3</sup></b>	0.23
<b>Y0 - ISO Factor<sup>4</sup></b>	2.83
<b>Y1 - ISO Factor<sup>5</sup></b>	2.9
<b>Y2 - ISO Factor<sup>6</sup></b>	4.31
<b>Reference Thermal Speed Rating (Grease)</b>	3500 rpm
<b>Reference Thermal Speed Rating (Oil)<sup>7</sup></b>	4300 rpm

**Cg - Geometry Factor<sup>8</sup>**

0.0638

<sup>1</sup> Maximum housing fillet radius that bearing corners will clear.

<sup>2</sup> Maximum shaft fillet radius that bearing corners will clear.

<sup>3</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

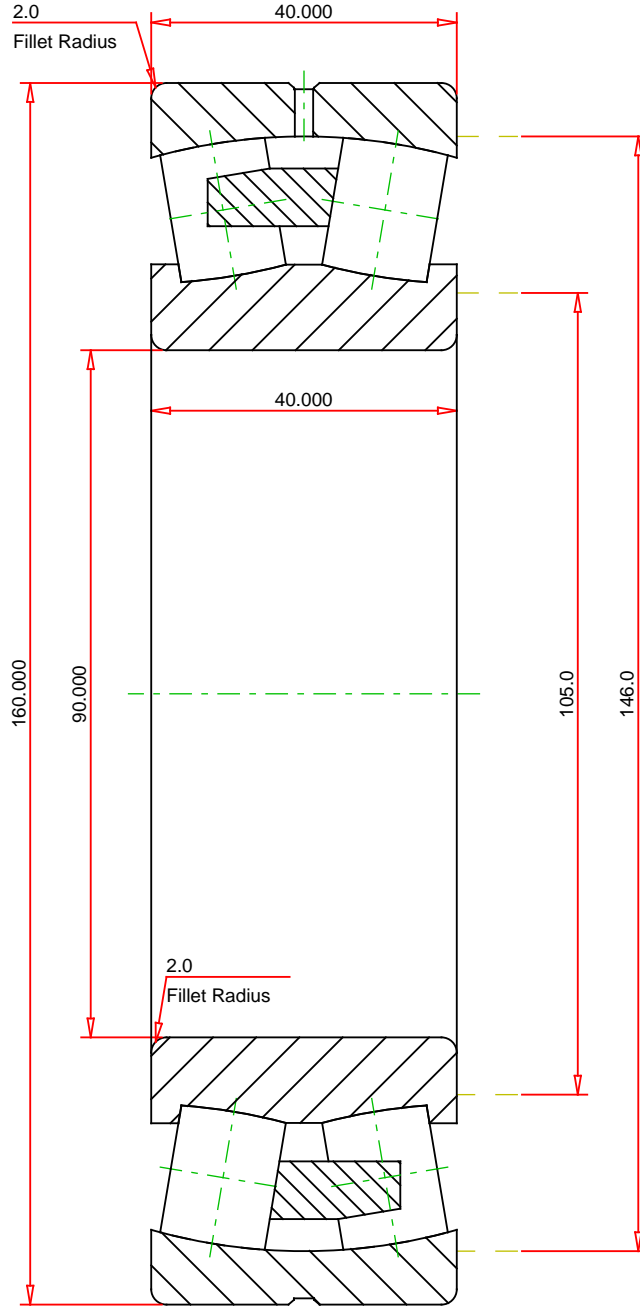
<sup>4</sup> These factors apply for both inch and metric calculations. See engineering

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

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

<sup>7</sup> See thermal speed ratings in the engineering section.

<sup>8</sup> Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

Number of Rollers Per Row	18
ISO Factor e	0.23
ISO Factor Y0	2.83
ISO Factor Y1	2.90
ISO Factor Y2	4.31
Bearing Weight	3.5 kg
Cage Type	EM
Cage Material	Brass

**TIMKEN**®

**22218EMW33C3**  
SRB ASSEMBLY

**THE TIMKEN COMPANY**  
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	355000	N
Static Radial Rating	388000	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**