


**The Timken Company**

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**Part Number 23964EMBW33C3, 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>	320.000 mm
<b>Cage Type</b>	EMB
<b>Cage Material</b>	Brass
<b>Superseded Part</b>	23964YMBW33C3

**Dimensions**

<b>D - Outer Diameter</b>	440 mm 17.323 in
 <b>d' - Inner Ring Width</b>	90 mm 3.543 in

<b>B - Outer Ring Width</b>	90 mm 3.543 in
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## Abutment and Fillet Dimensions

<b>R - Inner Ring "To Clear" Radius<sup>1</sup></b>	2.5 mm 0.100 in
<b>r - Outer Ring "To Clear" Radius<sup>2</sup></b>	2.5 mm 0.1 in
<b>da - Inner Ring Backing Diameter</b>	349.000 mm 13.800 in
<b>Da - Outer Ring Backing Diameter</b>	414.000 mm 16.300 in

## Basic Load Ratings

<b>C0 - Static Radial Rating</b>	2780000 N 625000 lbf
<b>C1(2) - Dynamic Radial Rating (Two-Rows)</b>	1600000 N 359000 lbf

## Factors

<b>e - ISO Factor<sup>3</sup></b>	0.18
<b>Y0 - ISO Factor<sup>4</sup></b>	3.71
<b>Y1 - ISO Factor<sup>5</sup></b>	3.79
<b>Y2 - ISO Factor<sup>6</sup></b>	5.65
<b>Reference Thermal Speed Rating (Grease)</b>	900 rpm

<b>Reference Thermal Speed Rating (Oil)<sup>7</sup></b>	1100 rpm
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<b>Cg - Geometry Factor<sup>8</sup></b>	0.1258
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<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.

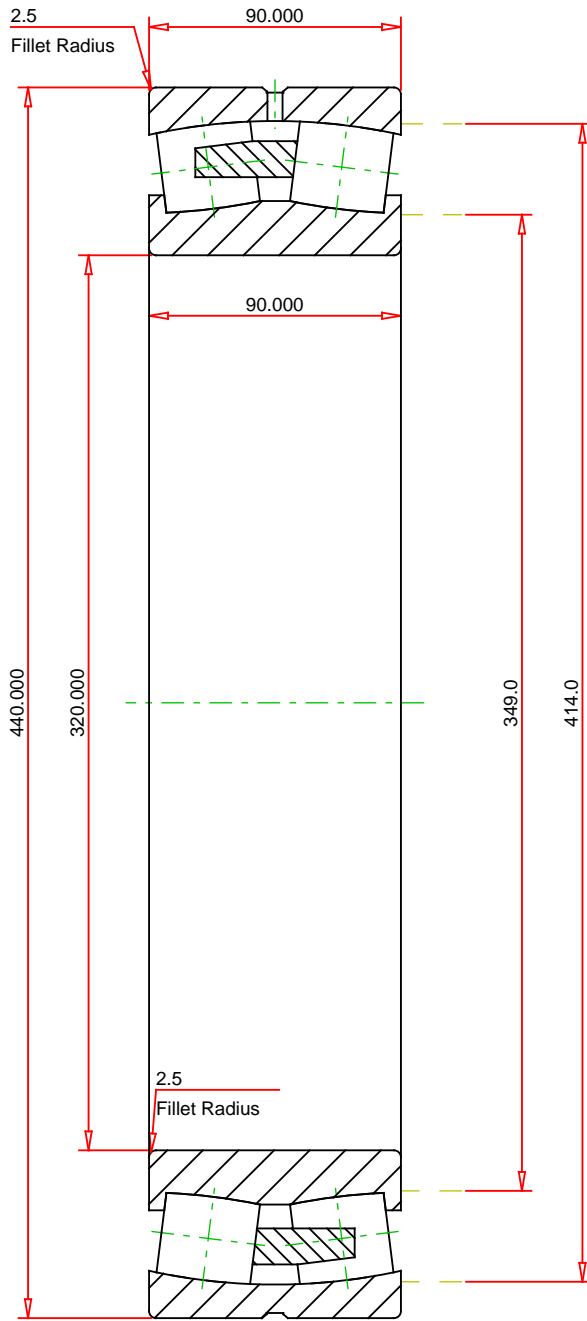
<sup>4</sup> These factors apply for both inch and metric calculations. See engineering

<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	34
ISO Factor e	0.18
ISO Factor Y0	3.71
ISO Factor Y1	3.79
ISO Factor Y2	5.65
Bearing Weight	40.6 kg
Cage Type	EMB
Cage Material	Brass



23964EMBW33C3  
SRB ASSEMBLY

THE TIMKEN COMPANY  
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	1600000	N
Static Radial Rating	2780000	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