


**The Timken Company**

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**Part Number 232/500YMBW33W45A, 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>	500 mm
<b>Cage Type</b>	YMB
<b>Cage Material</b>	Brass

**Dimensions**

<b>D - Outer Diameter</b>	920 mm 36.221 in
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<b>B' - Inner Ring Width</b>	336 mm 13.228 in
<b>B - Outer Ring Width</b>	336 mm 13.2280 in

### Abutment and Fillet Dimensions

<b>R - Inner Ring "To Clear" Radius<sup>1</sup></b>	6 mm 0.24 in
<b>r - Outer Ring "To Clear" Radius<sup>2</sup></b>	6 mm 0.24 in
<b>da - Inner Ring Backing Diameter</b>	585.000 mm 23.0000 in
<b>Da - Outer Ring Backing Diameter</b>	824.000 mm 32.400 in

### Basic Load Ratings

<b>C0 - Static Radial Rating</b>	17900000 N 4010000 lbf
<b>C1(2) - Dynamic Radial Rating (Two-Rows)</b>	10900000 N 2460000 lbf

### Factors

<b>e - ISO Factor<sup>3</sup></b>	0.36
<b>Y0 - ISO Factor<sup>4</sup></b>	1.86
<b>Y1 - ISO Factor<sup>5</sup></b>	1.9
<b>Y2 - ISO Factor<sup>6</sup></b>	2.83
<b>Reference Thermal Speed Rating (Grease)</b>	250 rpm

<b>Reference Thermal Speed Rating (Oil)<sup>7</sup></b>	260 rpm
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<b>C<sub>g</sub> - Geometry Factor<sup>8</sup></b>	0.1100
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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.

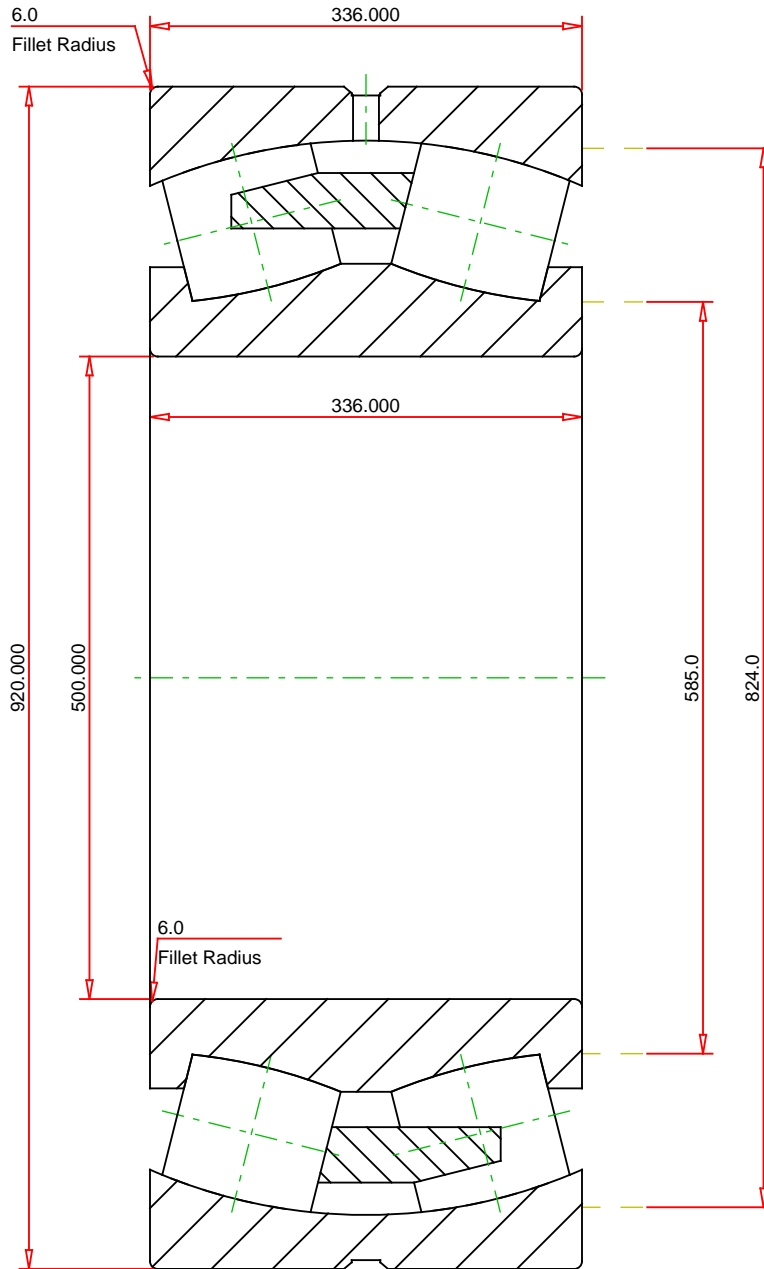
<sup>4</sup> These factors apply for both inch and metric calculations. See engineering

<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 a<sub>3l</sub>.



METRIC UNITS

Number of Rollers Per Row	18
ISO Factor e	0.36
ISO Factor Y0	1.86
ISO Factor Y1	1.90
ISO Factor Y2	2.83
Bearing Weight	995.1 kg
Cage Type	YMB
Cage Material	Brass

**TIMKEN**®

**232/500YMBW33W45A**  
SRB ASSEMBLY

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

Dynamic Radial Rating (Two Rows)	10900000	N
Static Radial Rating	17900000	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**