


The Timken Company

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Part Number 24072EMBW33W27W45A, 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	360.000 mm
Cage Type	EMB
Cage Material	Brass
Superseded Part	24072YMBW33W27W45A

Dimensions

D - Outer Diameter	540 mm 21.2600 in
 - Inner Ring Width	180 mm 7.087 in

B - Outer Ring Width	180 mm 7.087 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	4 mm 0.160 in
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r - Outer Ring "To Clear" Radius²	4 mm 0.16 in
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da - Inner Ring Backing Diameter	395.000 mm 15.600 in
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Da - Outer Ring Backing Diameter	500.000 mm 19.700 in
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Basic Load Ratings

C0 - Static Radial Rating	6850000 N 1540000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	3920000 N 881000 lbf
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Factors

e - ISO Factor³	0.3
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Y0 - ISO Factor⁴	2.19
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Y1 - ISO Factor⁵	2.24
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Y2 - ISO Factor⁶	3.33
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Reference Thermal Speed Rating (Grease)	540 rpm
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Reference Thermal Speed Rating (Oil)⁷	600 rpm
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Cg - Geometry Factor⁸	0.1377
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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.

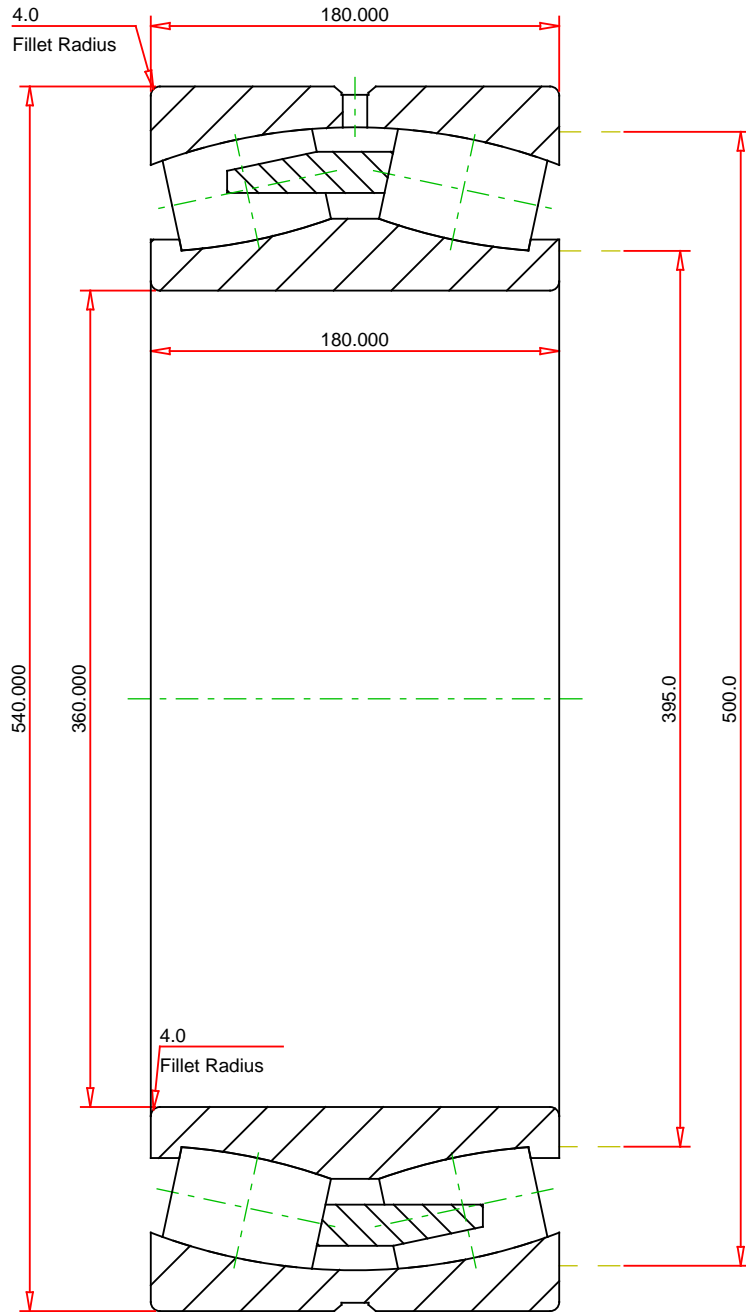
⁴ These factors apply for both inch and metric calculations. See engineering

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

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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	27
ISO Factor e	0.30
ISO Factor Y0	2.19
ISO Factor Y1	2.24
ISO Factor Y2	3.33
Bearing Weight	145.4 kg
Cage Type	EMB
Cage Material	Brass

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

24072EMBW33W27W45A SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	3920000 N
Static Radial Rating	6850000 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