


The Timken Company

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Part Number 24172EMBW33W45AC3, 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Superseded Part	24172YMBW33W45AC3

Dimensions

D - Outer Diameter	600 mm 23.6220 in
 - Inner Ring Width	243 mm 9.567 in

B - Outer Ring Width	243 mm 9.5670 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	406.000 mm 16.000 in
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Da - Outer Ring Backing Diameter	545 mm 21.400 in
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Basic Load Ratings

C0 - Static Radial Rating	9550000 N 2150000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	5900000 N 1330000 lbf
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Factors

e - ISO Factor³	0.38
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Y0 - ISO Factor⁴	1.75
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Y1 - ISO Factor⁵	1.79
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Y2 - ISO Factor⁶	2.67
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Reference Thermal Speed Rating (Grease)	320 rpm
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Reference Thermal Speed Rating (Oil)⁷	340 rpm
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Cg - Geometry Factor⁸	0.1415
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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.

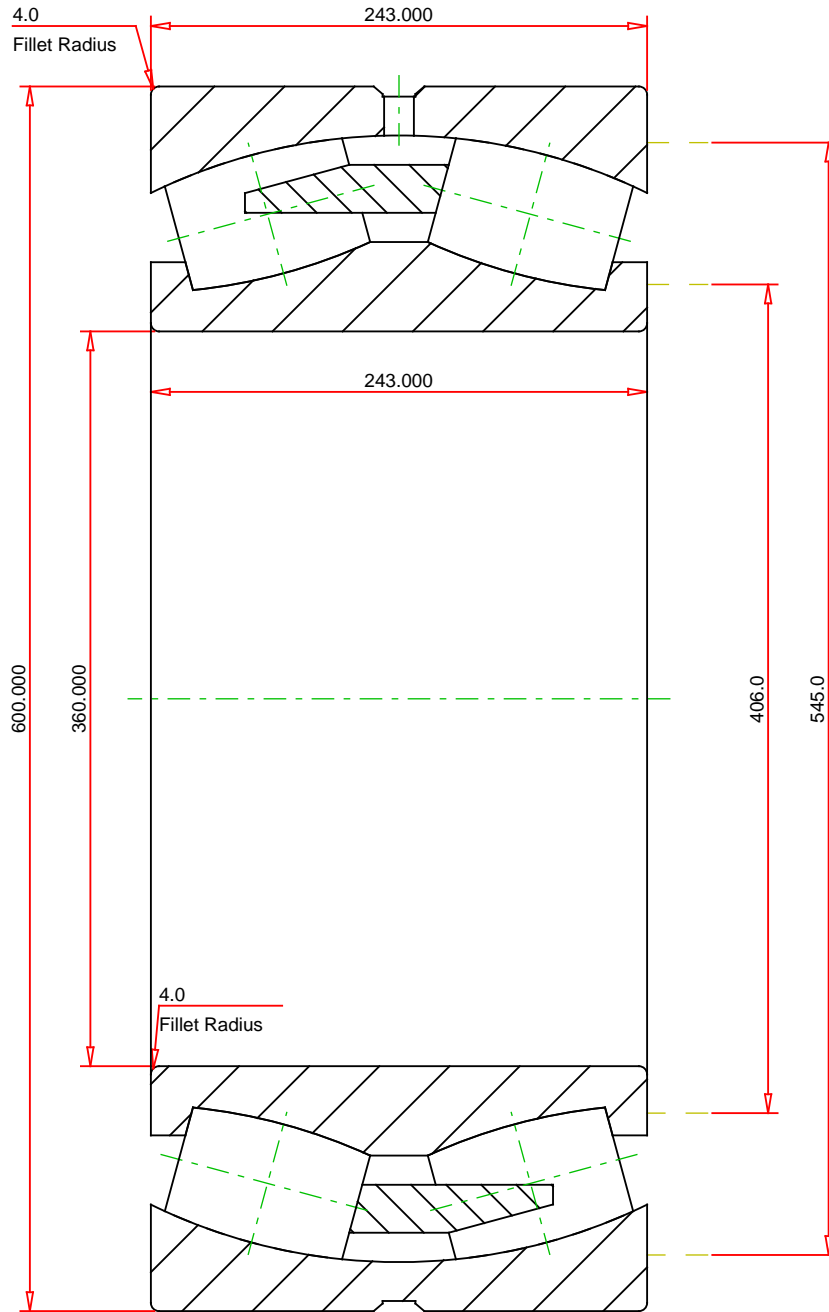
⁴ These factors apply for both inch and metric calculations. See engineering

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	22
ISO Factor e	0.38
ISO Factor Y0	1.75
ISO Factor Y1	1.79
ISO Factor Y2	2.67
Bearing Weight	279.5 kg
Cage Type	EMB
Cage Material	Brass



THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

24172EMBW33W45AC3	
SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	5900000 N
Static Radial Rating	9550000 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