


The Timken Company

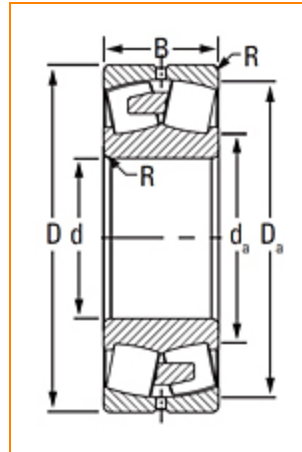
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Part Number 23220EMW33C3, Spherical Roller Bearings - Brass Cage

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

Design Unit	Metric
d - Bore	100 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	23220YMW33C3

Dimensions

D - Outer Diameter	180 mm 7.0866 in
 d' - Inner Ring Width	60.3 mm 2.374 in

B - Outer Ring Width	60.300 mm 2.3740 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2 mm 0.080 in
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r - Outer Ring "To Clear" Radius²	2 mm 0.080 in
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da - Inner Ring Backing Diameter	119.0 mm 4.7000 in
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Da - Outer Ring Backing Diameter	164 mm 6.500 in
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Basic Load Ratings

C0 - Static Radial Rating	678000 N 152000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	554000 N 124000 lbf
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Factors

e - ISO Factor³	0.3
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Y0 - ISO Factor⁴	2.17
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Y1 - ISO Factor⁵	2.22
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Y2 - ISO Factor⁶	3.3
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Reference Thermal Speed Rating (Grease)	2300 rpm
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Reference Thermal Speed Rating (Oil)⁷	2700 rpm
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Cg - Geometry Factor⁸	0.0695
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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.

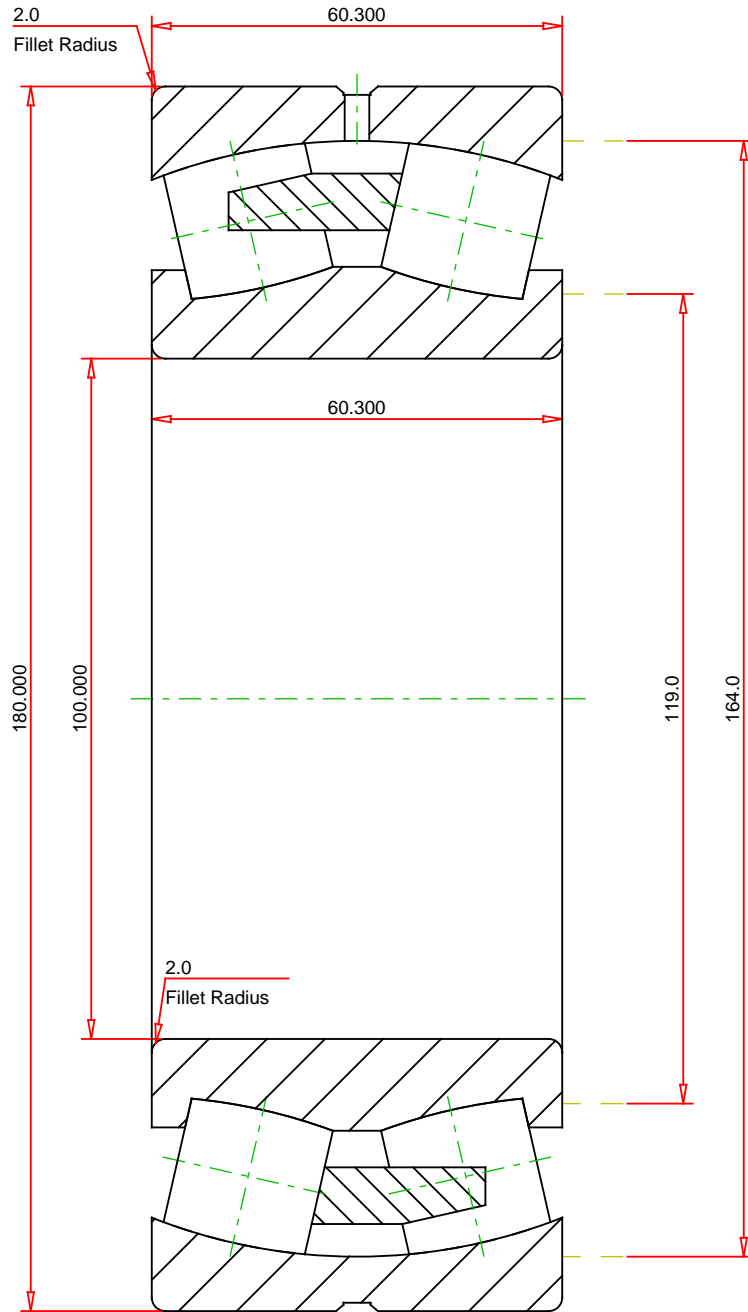
⁴ These factors apply for both inch and metric calculations. See engineering

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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	19
ISO Factor e	0.30
ISO Factor Y0	2.17
ISO Factor Y1	2.22
ISO Factor Y2	3.30
Bearing Weight	6.6 kg
Cage Type	EM
Cage Material	Brass



23220EMW33C3
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	554000	N
Static Radial Rating	678000	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