



The Timken Company

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Part Number 23138EMW507C08C3, 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	190 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	23138YMW507C08C3

Dimensions

D - Outer Diameter	320 mm 12.5984 in
 d' - Inner Ring Width	104 mm 4.0945 in

B - Outer Ring Width	104 mm 4.0945 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2.5 mm 0.100 in
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r - Outer Ring "To Clear" Radius²	2.5 mm 0.1 in
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da - Inner Ring Backing Diameter	221 mm 8.7000 in
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Da - Outer Ring Backing Diameter	293.000 mm 11.5000 in
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Basic Load Ratings

C0 - Static Radial Rating	2340000 N 525000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	1630000 N 365000 lbf
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Factors

e - ISO Factor³	0.3
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Y0 - ISO Factor⁴	2.21
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Y1 - ISO Factor⁵	2.26
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Y2 - ISO Factor⁶	3.36
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Reference Thermal Speed Rating (Grease)	1200 rpm
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Reference Thermal Speed Rating (Oil)⁷	1400 rpm
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Cg - Geometry Factor⁸	0.0954
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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.

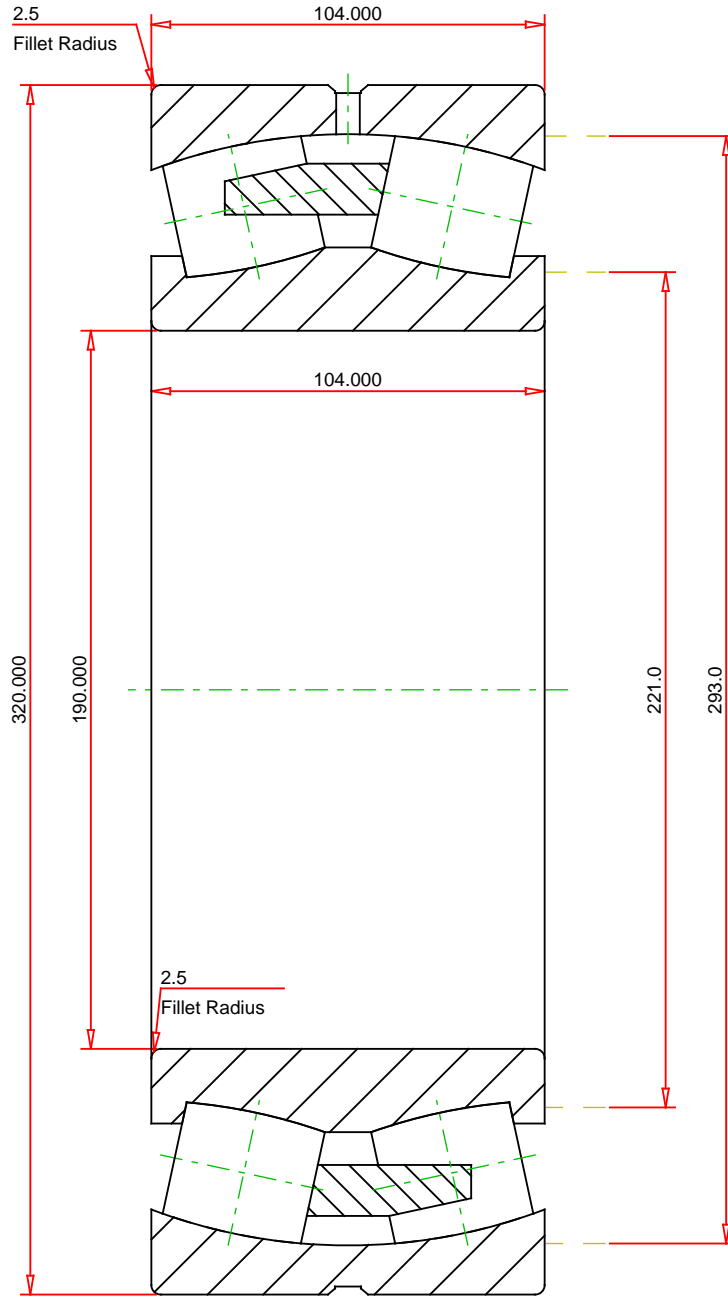
⁴ These factors apply for both inch and metric calculations. See engineering

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	0.30
ISO Factor Y0	2.21
ISO Factor Y1	2.26
ISO Factor Y2	3.36
Bearing Weight	34.7 kg
Cage Type	EM
Cage Material	Brass

TIMKEN®

23138EMW507C08C3
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	1630000	N
Static Radial Rating	2340000	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