


The Timken Company

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Part Number 23228EMW33C3, 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	140 mm
Cage Type	EM
Cage Material	Brass
Superseded Part	23228YMW33C3

Dimensions

D - Outer Diameter	250 mm 9.8425 in
 d - Inner Ring Width	88 mm 3.4646 in

B - Outer Ring Width	88 mm 3.4646 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	2.5 mm 0.100 in
r - Outer Ring "To Clear" Radius²	2.5 mm 0.1 in
da - Inner Ring Backing Diameter	165 mm 6.5000 in
Da - Outer Ring Backing Diameter	229.000 mm 9.000 in

Basic Load Ratings

C0 - Static Radial Rating	1410000 N 317000 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	1090000 N 246000 lbf

Factors

e - ISO Factor³	0.32
Y0 - ISO Factor⁴	2.06
Y1 - ISO Factor⁵	2.11
Y2 - ISO Factor⁶	3.13
Reference Thermal Speed Rating (Grease)	1500 rpm

Reference Thermal Speed Rating (Oil)⁷	1700 rpm
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Cg - Geometry Factor⁸	0.0859
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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.

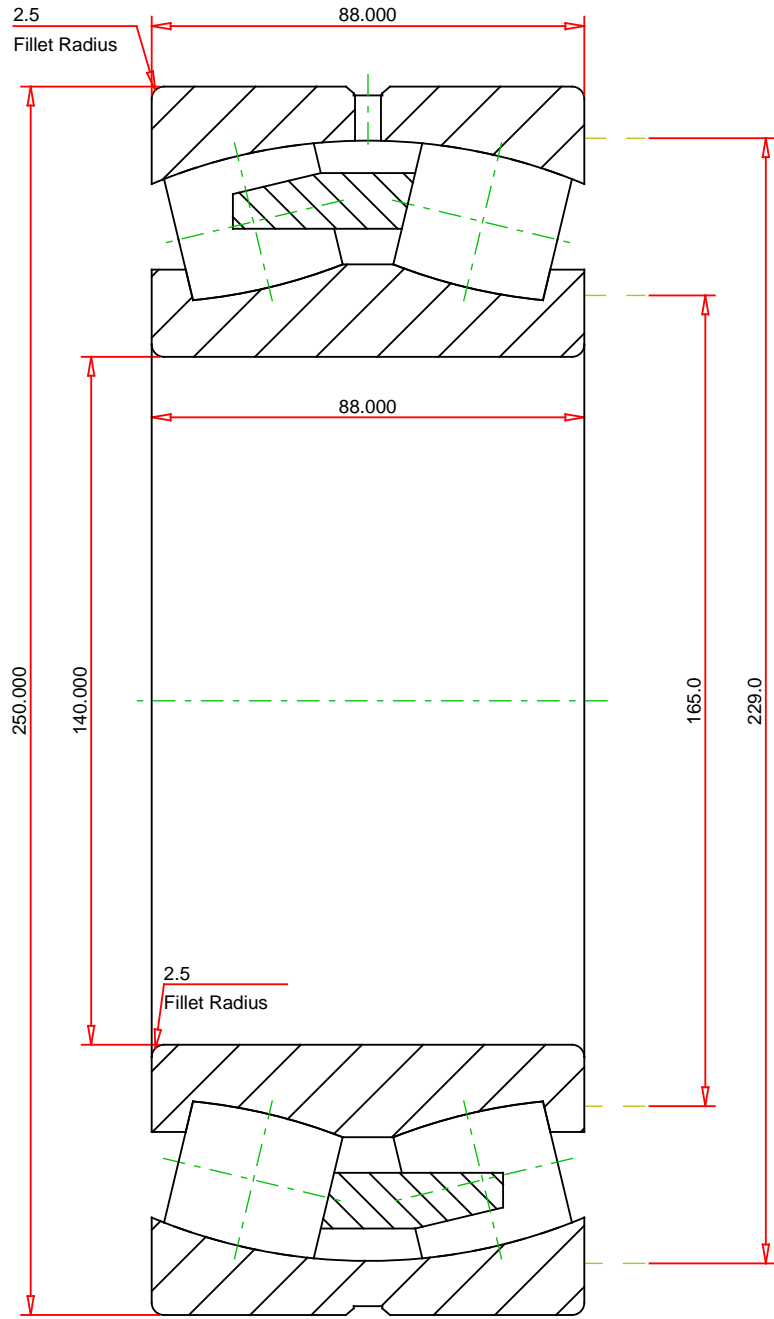
⁴ These factors apply for both inch and metric calculations. See engineering

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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	0.32
ISO Factor Y0	2.06
ISO Factor Y1	2.11
ISO Factor Y2	3.13
Bearing Weight	18.5 kg
Cage Type	EM
Cage Material	Brass



23228EMW33C3
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	1090000	N
Static Radial Rating	1410000	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