


The Timken Company

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Part Number 23140KEMBW33, 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	200 mm
Bore_Taper	1/12
Cage Type	EMB
Cage Material	Brass
Superseded Part	23140KYMBW33

Dimensions

D - Outer Diameter

 340 mm
 13.3858 in

B' - Inner Ring Width	112 mm 4.4094 in
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B - Outer Ring Width	112 mm 4.4094 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	230 mm 9.0000 in
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Da - Outer Ring Backing Diameter	308 mm 12.1000 in
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Basic Load Ratings

C0 - Static Radial Rating	2290000 N 514000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	1660000 N 373000 lbf
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Factors

e - ISO Factor³	0.31
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Y0 - ISO Factor⁴	2.1
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Y1 - ISO Factor⁵	2.15
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Y2 - ISO Factor⁶	3.2
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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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C_g - Geometry Factor⁸	0.0978
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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.

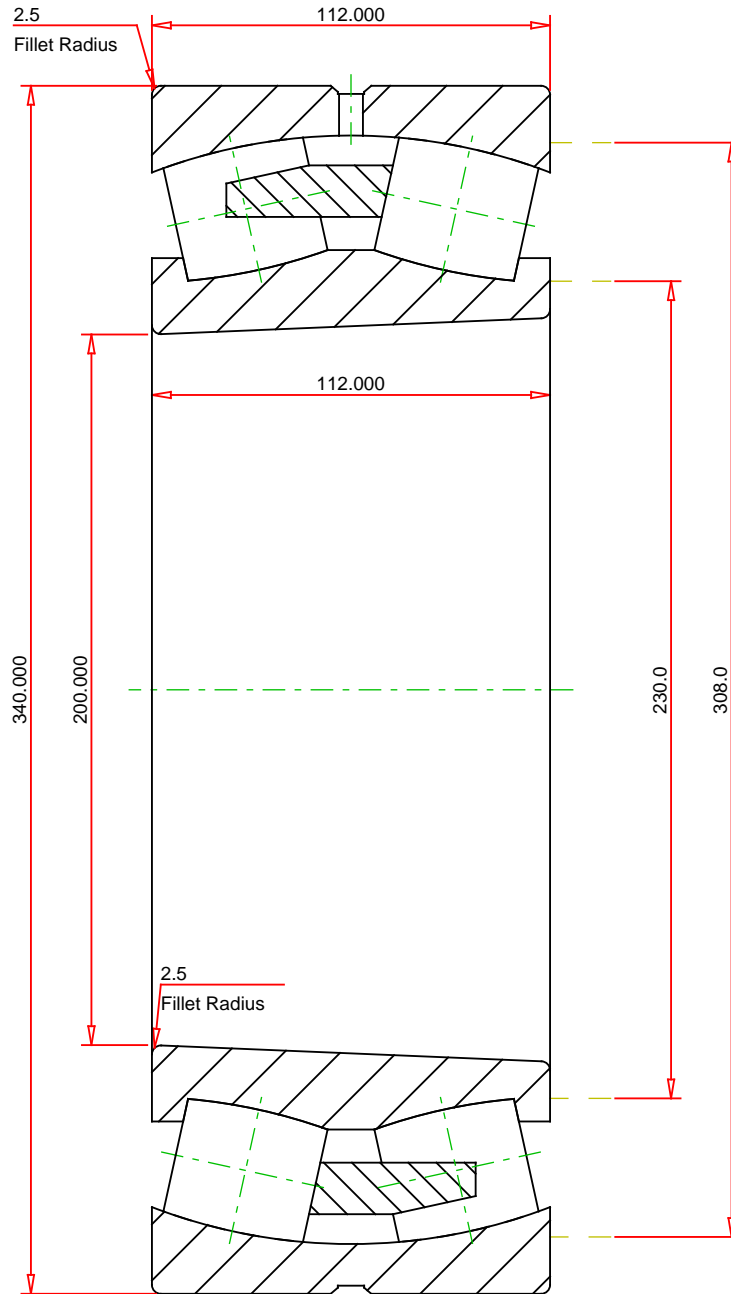
⁴ These factors apply for both inch and metric calculations. See engineering

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 a_{3l}.



METRIC UNITS

Number of Rollers Per Row	20
ISO Factor e	0.31
ISO Factor Y0	2.10
ISO Factor Y1	2.15
ISO Factor Y2	3.20
Bearing Weight	40.7 kg
Cage Type	EMB
Cage Material	Brass
Bore Taper	1/12



23140KEMBW33
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	1660000	N
Static Radial Rating	2290000	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