


The Timken Company

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Part Number 24056KEMBW33C3, 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	280 mm
Bore_Taper	1/30
Cage Type	EMB
Cage Material	Brass
Superseded Part	24056KYMBW33C3

Dimensions

D - Outer Diameter

 420 mm
 16.535 in

B' - Inner Ring Width	140 mm 5.512 in
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B - Outer Ring Width	140 mm 5.512 in
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Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	3 mm 0.120 in
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r - Outer Ring "To Clear" Radius²	3 mm 0.12 in
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da - Inner Ring Backing Diameter	307.000 mm 12.100 in
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Da - Outer Ring Backing Diameter	388.000 mm 15.300 in
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Basic Load Ratings

C0 - Static Radial Rating	4090000 N 921000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	2420000 N 544000 lbf
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Factors

e - ISO Factor³	0.3
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Y0 - ISO Factor⁴	2.2
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Y1 - ISO Factor⁵	2.25
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Y2 - ISO Factor⁶	3.35
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Reference Thermal Speed Rating (Grease)	760 rpm
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Reference Thermal Speed Rating (Oil)⁷	860 rpm
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C_g - Geometry Factor⁸	0.1173
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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.

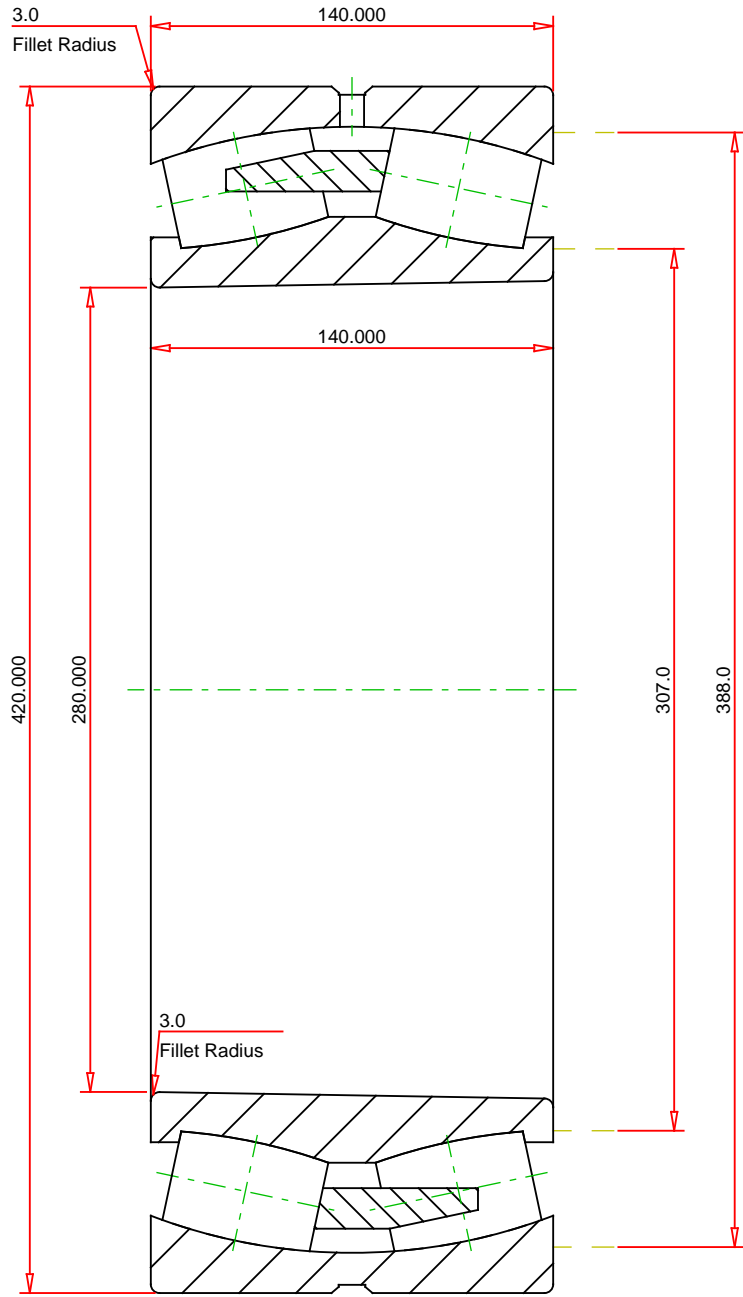
⁴ These factors apply for both inch and metric calculations. See engineering

⁵ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁶ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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	27
ISO Factor e	0.30
ISO Factor Y0	2.20
ISO Factor Y1	2.25
ISO Factor Y2	3.35
Bearing Weight	68.0 kg
Cage Type	EMB
Cage Material	Brass
Bore Taper	1/30



24056KEMBW33C3
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	2420000	N
Static Radial Rating	4090000	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