



The Timken Company

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Part Number 22219KEMW33C3, 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	95 mm
Bore_Taper	1/12
Cage Type	EM
Cage Material	Brass
Superseded Part	22219KYMW33C3

Dimensions



D - Outer Diameter

170 mm
6.6929 in

B' - Inner Ring Width	43 mm 1.6929 in
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B - Outer Ring Width	43 mm 1.6929 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	114.0 mm 4.5000 in
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Da - Outer Ring Backing Diameter	155 mm 6.100 in
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Basic Load Ratings

C0 - Static Radial Rating	441000 N 99000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	385000 N 86600 lbf
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Factors

e - ISO Factor³	0.23
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Y0 - ISO Factor⁴	2.82
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Y1 - ISO Factor⁵	2.88
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Y2 - ISO Factor⁶	4.29
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Reference Thermal Speed Rating (Grease)	3200 rpm
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Reference Thermal Speed Rating (Oil)⁷	3900 rpm
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Cg - Geometry Factor⁸	0.067
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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.

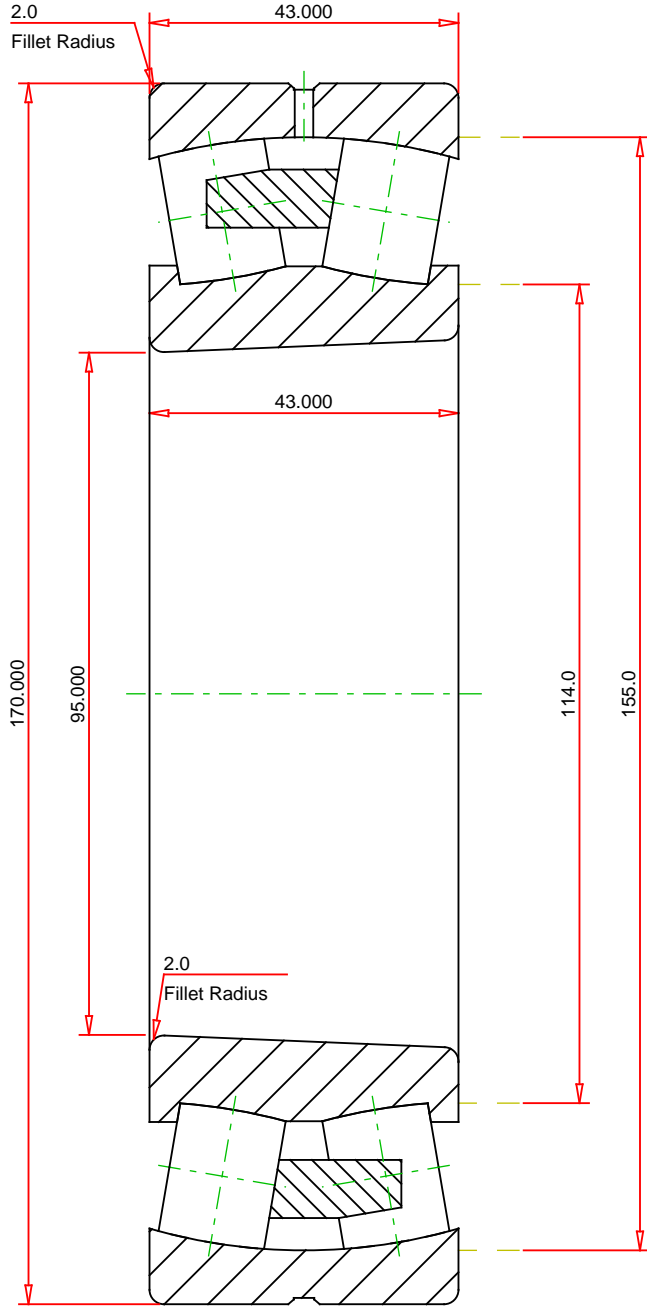
⁴ These factors apply for both inch and metric calculations. See engineering

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 a3l.



METRIC UNITS

Number of Rollers Per Row	19
ISO Factor e	0.23
ISO Factor Y0	2.82
ISO Factor Y1	2.88
ISO Factor Y2	4.29
Bearing Weight	4.2 kg
Cage Type	EM
Cage Material	Brass
Bore Taper	1/12

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

22219KEMW33C3
SRB ASSEMBLY

Dynamic Radial Rating (Two Rows)	385000	N
Static Radial Rating	441000	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