


The Timken Company

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Part Number 22209EJW33C5, Spherical Roller Bearings - Steel 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](#) | [Factors](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#)

Specifications

UPC Code	087796141162
Design Unit	Metric
d - Bore	45 mm
Lubrication Type	Standard Grease
Cage Type	EJ
Cage Material	Steel
Superseded Part	22209CJW33C5

Factors


e - ISO Factor¹	0.26
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Y0 - ISO Factor²	2.58
Y1 - ISO Factor³	2.64
Y2 - ISO Factor⁴	3.93
Reference Thermal Speed Rating (Grease)	5500 rpm
Reference Thermal Speed Rating (Oil)⁵	6800 rpm
Cg - Geometry Factor⁶	0.0462

Dimensions

D - Outer Diameter	85 mm 3.3465 in
B' - Inner Ring Width	23 mm 0.9055 in
B - Outer Ring Width	23 mm 0.9055 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius⁷	1 mm 0.040 in
r - Outer Ring "To Clear" Radius⁸	1 mm 0.04 in
da - Inner Ring Backing Diameter	55.000 mm 2.200 in
Da - Outer Ring Backing Diameter	77.000 mm 3.000 in

Basic Load Ratings

C0 - Static Radial Rating	109000 N 24500 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	108000 N 24200 lbf

¹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

² These factors apply for both inch and metric calculations. See engineering

³ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

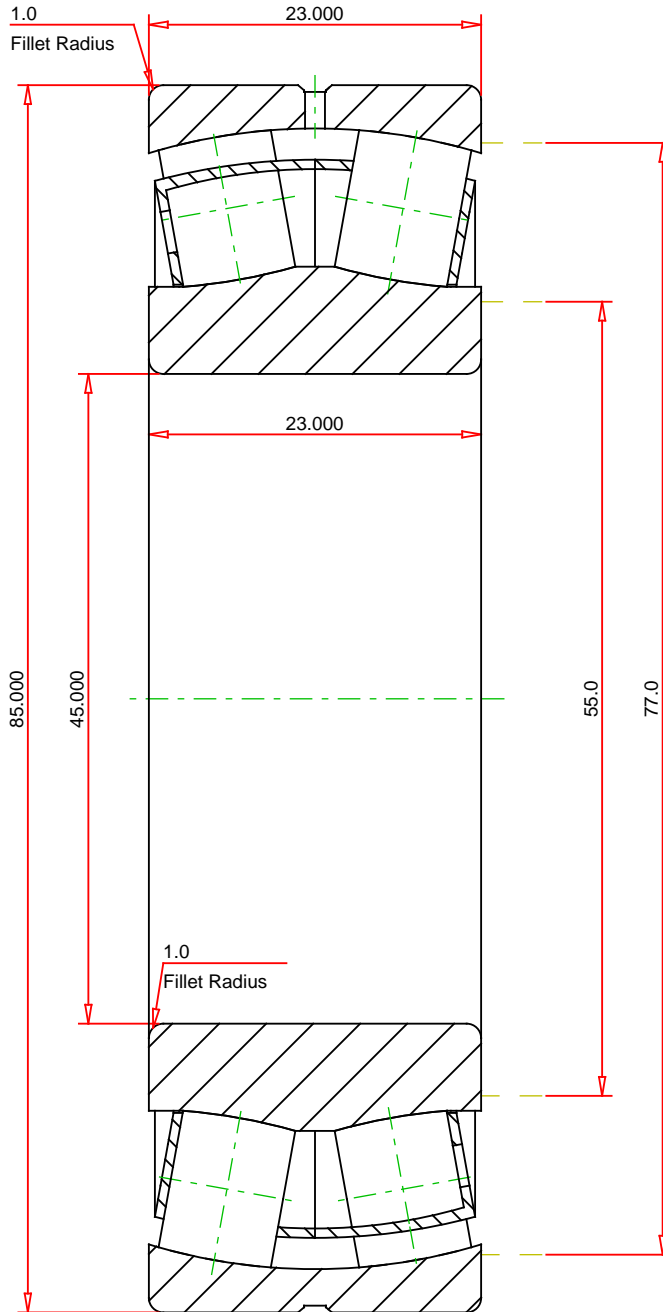
⁴ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁵ See thermal speed ratings in the engineering section.

⁶ Geometry constant for Lubrication Life Adjustment Factor a3l.

⁷ Maximum housing fillet radius that bearing corners will clear.

⁸ These maximum fillet radii will be cleared by the bearing corners.



METRIC UNITS

Number of Rollers Per Row	16
ISO Factor e	0.26
ISO Factor Y0	2.58
ISO Factor Y1	2.64
ISO Factor Y2	3.93
Bearing Weight	kg
Cage Type	EJ
Cage Material	Steel

TIMKEN®

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NORTH CANTON, OHIO USA

22209EJW33C5	
SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	108000 N
Static Radial Rating	109000 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.

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