



The Timken Company

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Part Number 22309EJW33C2, 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	087796030862
Design Unit	Metric
d - Bore	45 mm
Lubrication Type	Standard Grease
Cage Type	EJ
Cage Material	Steel
Superseded Part	22309CJW33C2

Factors



e - ISO Factor¹	0.36
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Y0 - ISO Factor²	1.86
Y1 - ISO Factor³	1.9
Y2 - ISO Factor⁴	2.83
Reference Thermal Speed Rating (Grease)	5100 rpm
Reference Thermal Speed Rating (Oil)⁵	6100 rpm
Cg - Geometry Factor⁶	0.049

Dimensions

D - Outer Diameter	100 mm 3.937 in
B' - Inner Ring Width	36 mm 1.4173 in
B - Outer Ring Width	36 mm 1.4173 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius⁷	1.5 mm 0.060 in
r - Outer Ring "To Clear" Radius⁸	1.5 mm 0.06 in
da - Inner Ring Backing Diameter	58.000 mm 2.300 in
Da - Outer Ring Backing Diameter	90.000 mm 3.500 in

Basic Load Ratings

C0 - Static Radial Rating	190000 N 42700 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	182000 N 40800 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.

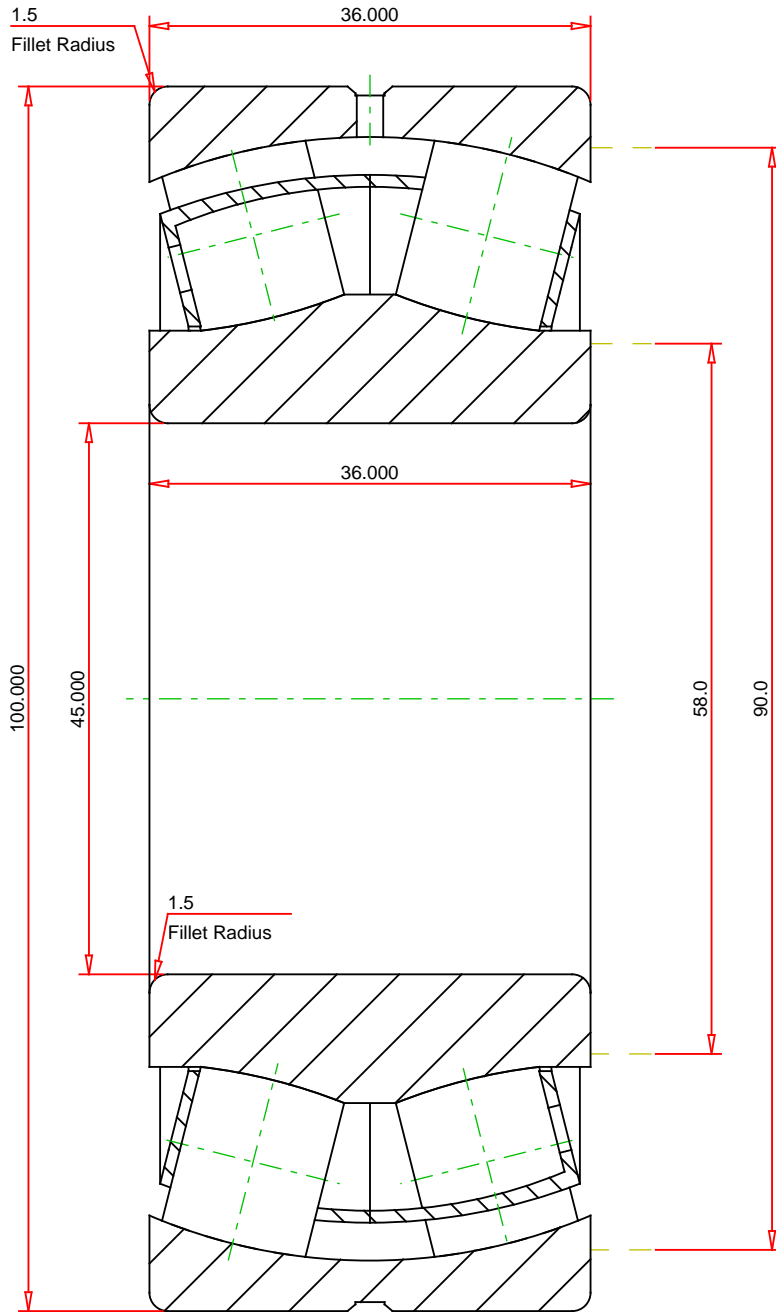
⁴ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁵ See thermal speed ratings in the engineering section.

⁶ Geometry constant for Lubrication Life Adjustment Factor a_3 .

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	14
ISO Factor e	0.36
ISO Factor Y0	1.86
ISO Factor Y1	1.90
ISO Factor Y2	2.83
Bearing Weight	kg
Cage Type	EJ
Cage Material	Steel

TIMKEN®

22309EJW33C2
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

Dynamic Radial Rating (Two Rows)	182000	N
Static Radial Rating	190000	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