



The Timken Company

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Part Number 22220KEJW33C3, 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	087796025226
Design Unit	Metric
d - Bore	100 mm
Lubrication Type	Standard Grease
Bore_Taper	1/12
Cage Type	EJ
Cage Material	Steel
Superseded Part	22220KCJW33C3



e - ISO Factor¹	0.24
Y0 - ISO Factor²	2.78
Y1 - ISO Factor³	2.85
Y2 - ISO Factor⁴	4.24
Reference Thermal Speed Rating (Grease)	3100 rpm
Reference Thermal Speed Rating (Oil)⁵	3800 rpm
Cg - Geometry Factor⁶	0.0694

Dimensions

D - Outer Diameter	180 mm 7.0866 in
B' - Inner Ring Width	46 mm 1.811 in
B - Outer Ring Width	46 mm 1.811 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius⁷	2 mm 0.080 in
r - Outer Ring "To Clear" Radius⁸	2 mm 0.080 in
da - Inner Ring Backing Diameter	120 mm 4.7000 in
Da - Outer Ring Backing Diameter	163.000 mm 6.400 in

Basic Load Ratings

C0 - Static Radial Rating	502000 N 113000 lbf
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C1(2) - Dynamic Radial Rating (Two-Rows)	435000 N 97700 lbf
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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.

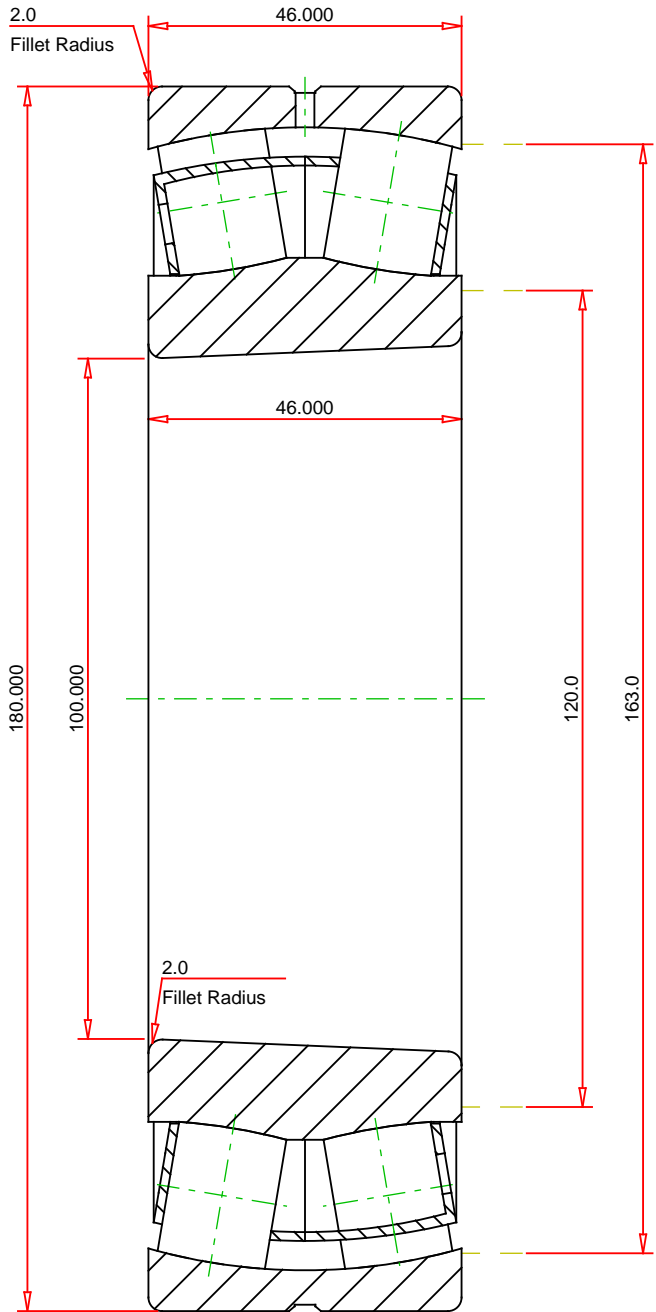
⁴ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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	19
ISO Factor e	0.24
ISO Factor Y0	2.78
ISO Factor Y1	2.85
ISO Factor Y2	4.24
Bearing Weight	kg
Cage Type	EJ
Cage Material	Steel
Bore Taper	1/12

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

2220KEJW33C3	
SRB ASSEMBLY	
Dynamic Radial Rating (Two Rows)	435000 N
Static Radial Rating	502000 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