


The Timken Company

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Part Number 232/500YMBW33W45AC3, 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	500 mm
Cage Type	YMB
Cage Material	Brass

Dimensions

D - Outer Diameter	920 mm 36.221 in
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B' - Inner Ring Width	336 mm 13.228 in
B - Outer Ring Width	336 mm 13.2280 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	6 mm 0.24 in
r - Outer Ring "To Clear" Radius²	6 mm 0.24 in
da - Inner Ring Backing Diameter	585.000 mm 23.0000 in
Da - Outer Ring Backing Diameter	824.000 mm 32.400 in

Basic Load Ratings

C0 - Static Radial Rating	17900000 N 4010000 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	10900000 N 2460000 lbf

Factors

e - ISO Factor³	0.36
Y0 - ISO Factor⁴	1.86
Y1 - ISO Factor⁵	1.9
Y2 - ISO Factor⁶	2.83
Reference Thermal Speed Rating (Grease)	250 rpm

Reference Thermal Speed Rating (Oil)⁷	260 rpm
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C_g - Geometry Factor⁸	0.1100
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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.

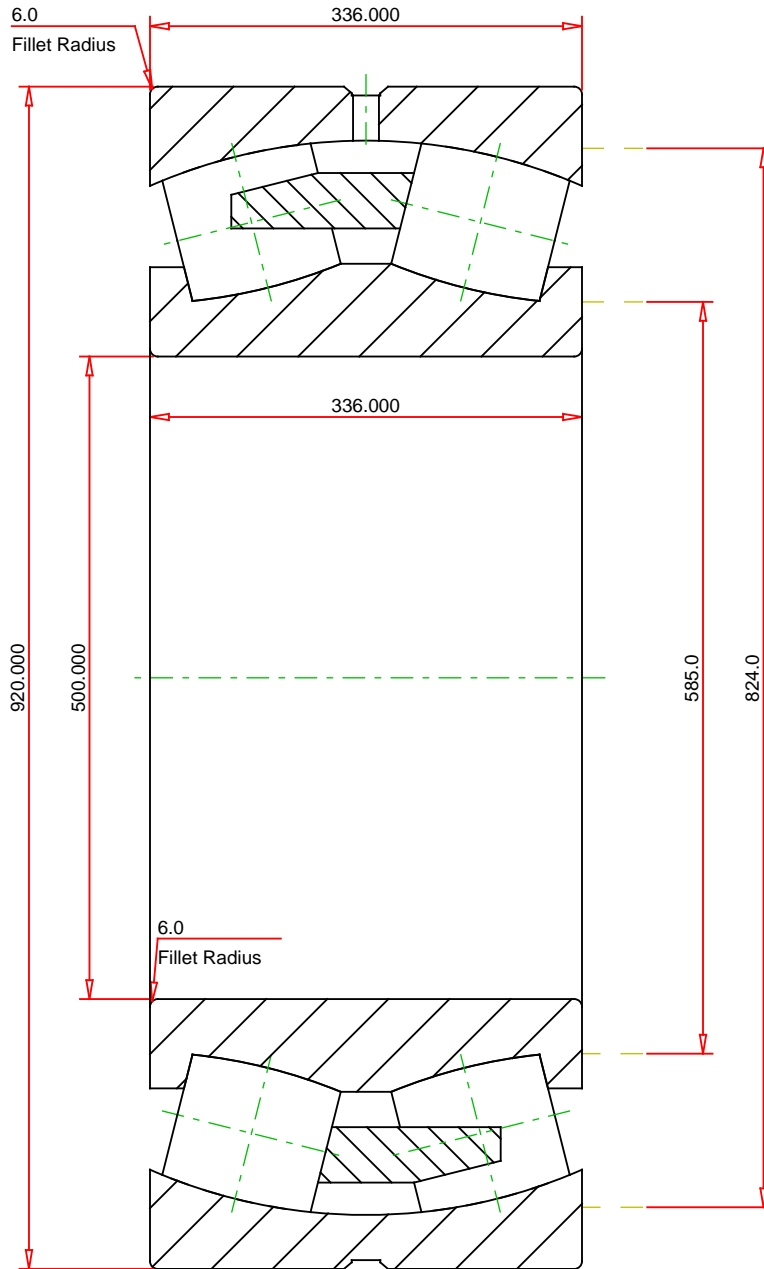
⁴ These factors apply for both inch and metric calculations. See engineering

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

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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	18
ISO Factor e	0.36
ISO Factor Y0	1.86
ISO Factor Y1	1.90
ISO Factor Y2	2.83
Bearing Weight	995.1 kg
Cage Type	YMB
Cage Material	Brass

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

232/500YMBW33W45AC3 SRB ASSEMBLY		
Dynamic Radial Rating (Two Rows)	1090000	N
Static Radial Rating	1790000	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