



The Timken Company

4500 Mt Pleasant St. NW

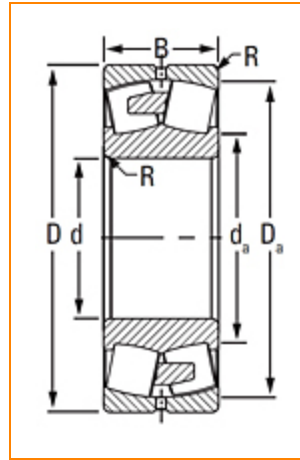
N. Canton, OH 44720

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Part Number 240/500YMBW33W45A, 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
Bearing Weight	290.80 Kg 639.80 lb
Cage Type	YMB
UPC Code	087796210301
Cage Material	Brass

Dimensions

d - Bore	500.000 mm 19.6850 in
D - Outer Diameter	720.000 mm 28.3472 in

28.3470 in

B' - Inner Ring Width	218 mm 8.583 in
B - Outer Ring Width	218.000 mm 8.5830 in

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius¹	5.000 mm 0.200 in
r - Outer Ring "To Clear" Radius²	5.000 mm 0.200 in
da - Inner Ring Backing Diameter	547.000 mm 21.500 in
Da - Outer Ring Backing Diameter	673.000 mm 26.500 in

Basic Load Ratings

C0 - Static Radial Rating	11200000 N 2510000 lbf
C1(2) - Dynamic Radial Rating (Two-Rows)	5510000 N 1240000 lbf

Factors

e - ISO Factor³	0.27
Y0 - ISO Factor⁴	2.45
Y1 - ISO Factor⁵	2.51
Y2 - ISO Factor⁶	3.74
Reference Thermal Speed Rating	250

(Grease)	330
Reference Thermal Speed Rating (Oil) ⁷	390
Cg - Geometry Factor ⁸	0.1036

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.

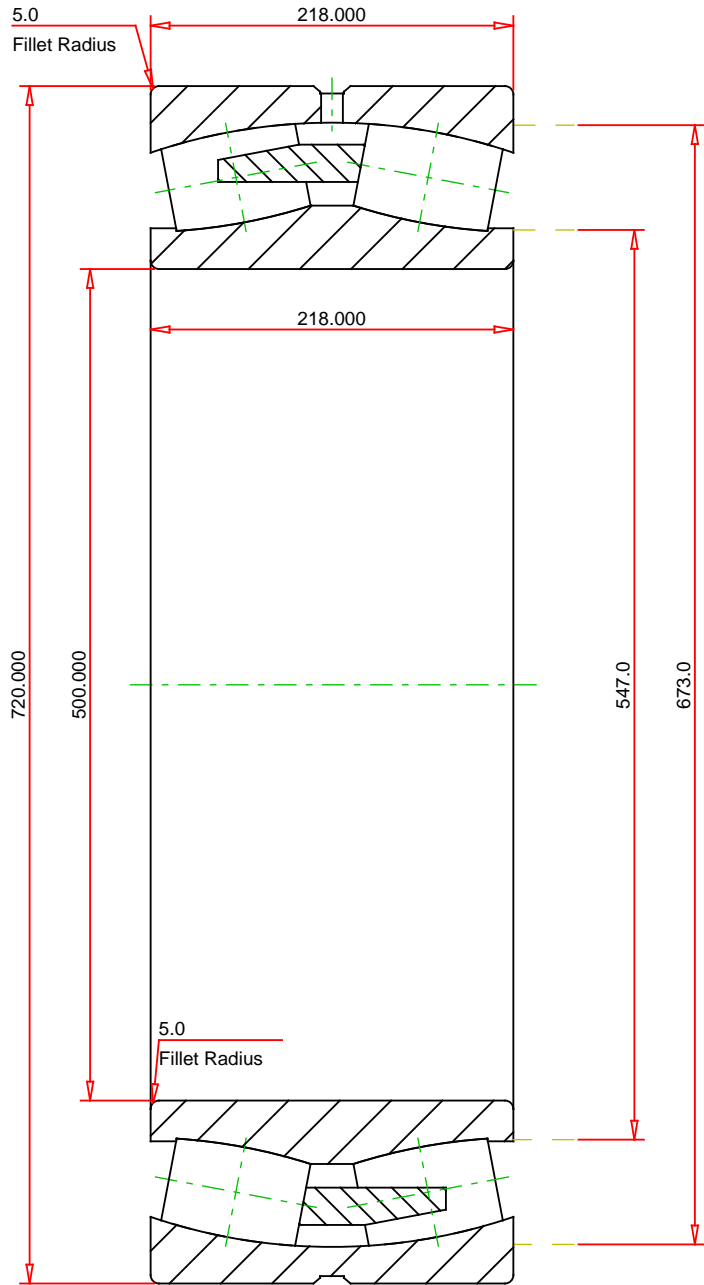
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⁷ See thermal speed ratings in the engineering section.

⁸ Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

Number of Rollers Per Row	29
ISO Factor e	0.27
ISO Factor Y0	2.45
ISO Factor Y1	2.51
ISO Factor Y2	3.74
Bearing Weight	290.8 kg
Cage Type	YMB
Cage Material	Brass



THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

240/500YMBW33W45A SRB ASSEMBLY		
Dynamic Radial Rating (Two Rows)	5510000	N
Static Radial Rating	11200000	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