


The Timken Company

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Part Number 23234EMW33W800, 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 |
| d - Bore | 170 mm |
| Cage Type | EM |
| Cage Material | Brass |
| Superseded Part | 23234YMW33W800 |

Dimensions

| | |
|--|--------------------------|
| D - Outer Diameter | 309.993 mm 12.2044 in |
|  - Inner Ring Width | 110 mm 4.3307 in |

| | |
|-----------------------------|---------------------|
| B - Outer Ring Width | 110 mm 4.3307 in |
|-----------------------------|---------------------|

Abutment and Fillet Dimensions

| | |
|---|------------------|
| R - Inner Ring "To Clear" Radius¹ | 3 mm 0.120 in |
|---|------------------|

| | |
|---|-----------------|
| r - Outer Ring "To Clear" Radius² | 3 mm 0.12 in |
|---|-----------------|

| | |
|---|---------------------|
| da - Inner Ring Backing Diameter | 202 mm 8.0000 in |
|---|---------------------|

| | |
|---|----------------------|
| Da - Outer Ring Backing Diameter | 281 mm 11.1000 in |
|---|----------------------|

Basic Load Ratings

| | |
|----------------------------------|-------------------------|
| C0 - Static Radial Rating | 2200000 N 494000 lbf |
|----------------------------------|-------------------------|

| | |
|---|-------------------------|
| C1(2) - Dynamic Radial Rating (Two-Rows) | 1660000 N 373000 lbf |
|---|-------------------------|

Factors

| | |
|-----------------------------------|------|
| e - ISO Factor³ | 0.33 |
|-----------------------------------|------|

| | |
|------------------------------------|------|
| Y0 - ISO Factor⁴ | 2.03 |
|------------------------------------|------|

| | |
|------------------------------------|------|
| Y1 - ISO Factor⁵ | 2.08 |
|------------------------------------|------|

| | |
|------------------------------------|------|
| Y2 - ISO Factor⁶ | 3.09 |
|------------------------------------|------|

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|--|----------|
| Reference Thermal Speed Rating (Grease) | 1100 rpm |
|--|----------|

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|---|----------|
| Reference Thermal Speed Rating (Oil)⁷ | 1200 rpm |
|---|----------|

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| Cg - Geometry Factor⁸ | 0.0909 |
|---|--------|

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.

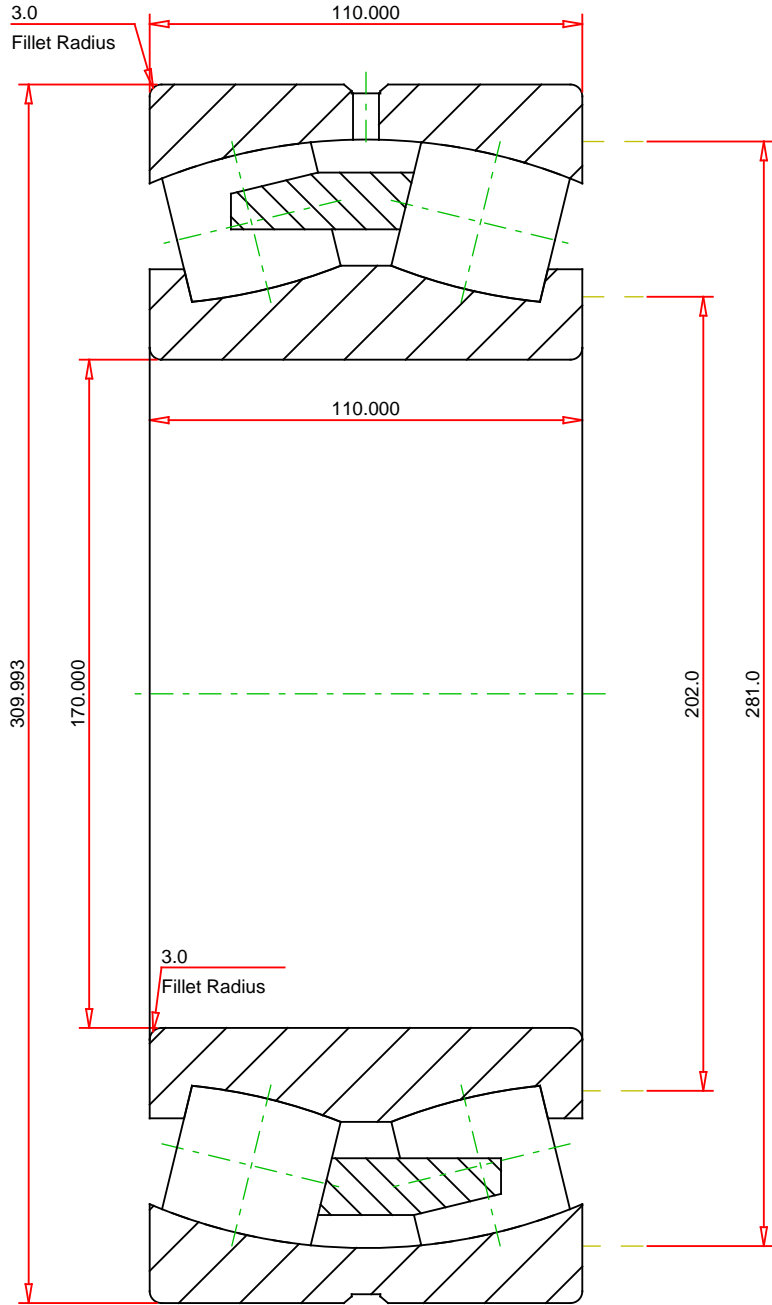
⁴ These factors apply for both inch and metric calculations. See engineering

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

⁶ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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 | 19 |
| ISO Factor e | 0.33 |
| ISO Factor Y0 | 2.03 |
| ISO Factor Y1 | 2.08 |
| ISO Factor Y2 | 3.09 |
| Bearing Weight | 36.6 kg |
| Cage Type | EM |
| Cage Material | Brass |

TIMKEN®

23234EMW33W800
SRB ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

| | | |
|----------------------------------|---------|---|
| Dynamic Radial Rating (Two Rows) | 1660000 | N |
| Static Radial Rating | 2200000 | 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