



The Timken Company

4500 Mt Pleasant St. NW

N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 23124KEMW33C3, 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 | 120 mm |
| Bore_Taper | 1/12 |
| Cage Type | EM |
| Cage Material | Brass |
| Superseded Part | 23124KYMW33C3 |

Dimensions



D - Outer Diameter

200 mm

7.874 in

| | |
|------------------------------|--------------------|
| B' - Inner Ring Width | 62 mm 2.4409 in |
|------------------------------|--------------------|

| | |
|-----------------------------|--------------------|
| B - Outer Ring Width | 62 mm 2.4409 in |
|-----------------------------|--------------------|

Abutment and Fillet Dimensions

| | |
|---|------------------|
| R - Inner Ring "To Clear" Radius¹ | 2 mm 0.080 in |
|---|------------------|

| | |
|---|------------------|
| r - Outer Ring "To Clear" Radius² | 2 mm 0.080 in |
|---|------------------|

| | |
|---|---------------------|
| da - Inner Ring Backing Diameter | 138 mm 5.4000 in |
|---|---------------------|

| | |
|---|--------------------|
| Da - Outer Ring Backing Diameter | 182 mm 7.200 in |
|---|--------------------|

Basic Load Ratings

| | |
|----------------------------------|------------------------|
| C0 - Static Radial Rating | 816000 N 183000 lbf |
|----------------------------------|------------------------|

| | |
|---|------------------------|
| C1(2) - Dynamic Radial Rating (Two-Rows) | 621000 N 140000 lbf |
|---|------------------------|

Factors

| | |
|-----------------------------------|------|
| e - ISO Factor³ | 0.28 |
|-----------------------------------|------|

| | |
|------------------------------------|------|
| Y0 - ISO Factor⁴ | 2.32 |
|------------------------------------|------|

| | |
|------------------------------------|------|
| Y1 - ISO Factor⁵ | 2.38 |
|------------------------------------|------|

| | |
|------------------------------------|------|
| Y2 - ISO Factor⁶ | 3.54 |
|------------------------------------|------|

| | |
|--|----------|
| Reference Thermal Speed Rating (Grease) | 2200 rpm |
|--|----------|

| | |
|---|----------|
| Reference Thermal Speed Rating (Oil)⁷ | 2600 rpm |
|---|----------|

| | |
|--|--------|
| C_g - Geometry Factor⁸ | 0.0754 |
|--|--------|

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.

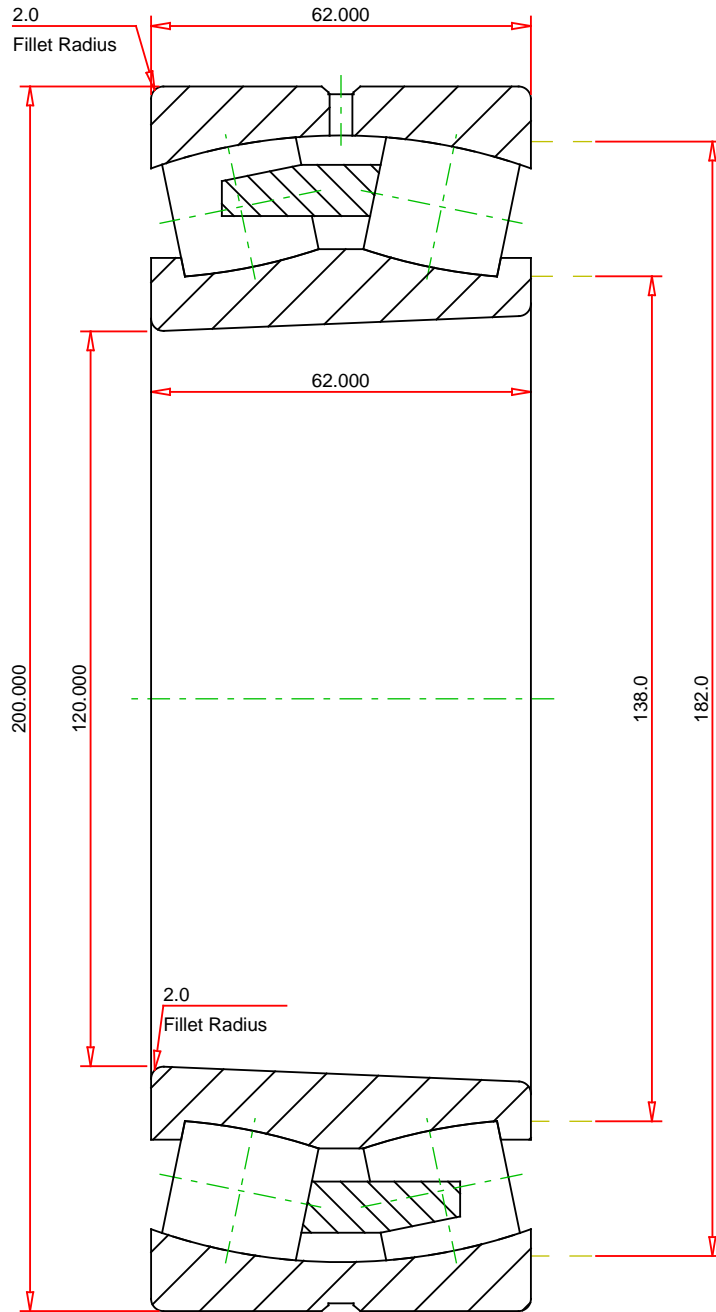
⁴ These factors apply for both inch and metric calculations. See engineering

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 a_{3l}.



METRIC UNITS

| | |
|---------------------------|--------|
| Number of Rollers Per Row | 21 |
| ISO Factor e | 0.28 |
| ISO Factor Y0 | 2.32 |
| ISO Factor Y1 | 2.38 |
| ISO Factor Y2 | 3.54 |
| Bearing Weight | 7.9 kg |
| Cage Type | EM |
| Cage Material | Brass |
| Bore Taper | 1/12 |



THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

23124KEMW33C3
SRB ASSEMBLY

| | | |
|----------------------------------|--------|---|
| Dynamic Radial Rating (Two Rows) | 621000 | N |
| Static Radial Rating | 816000 | 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