

**FAG****23972-MB**

## Spherical Roller Bearing

Spherical roller bearing 239...-MB, symmetric  
3 ribs

## Technical information



## Your current product variant

|                           |              |                           |
|---------------------------|--------------|---------------------------|
| Bore type                 | Z            | Cylindrical               |
| Cage                      | MB           | Solid brass cage          |
| Radial internal clearance | CN (Group N) | Normal internal clearance |
| Relubrication facility    | Standard     |                           |

## Main Dimensions &amp; Performance Data

|             |             |                                   |
|-------------|-------------|-----------------------------------|
| d           | 360 mm      | Bore diameter                     |
| D           | 480 mm      | Outside diameter                  |
| B           | 90 mm       | Width                             |
| $C_r$       | 1.440.000 N | Basic dynamic load rating, radial |
| $C_{0r}$    | 3.200.000 N | Basic static load rating, radial  |
| $C_{ur}$    | 216.000 N   | Fatigue load limit, radial        |
| $n_G$       | 1.540 1/min | Limiting speed                    |
| $n_{gr}$    | 800 1/min   | Reference speed                   |
| $\approx m$ | 45,235 kg   | Weight                            |

## Mounting dimensions

|              |          |                                      |
|--------------|----------|--------------------------------------|
| $d_{a \min}$ | 372,4 mm | Minimum diameter shaft shoulder      |
| $D_{a \max}$ | 467,6 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 2,5 mm   | Maximum recess radius                |



## Dimensions

|            |          |                             |
|------------|----------|-----------------------------|
| $r_{\min}$ | 3 mm     | Minimum chamfer dimension   |
| $D_1$      | 447,1 mm | Bore diameter outer ring    |
| $d_s$      | 9,5 mm   | Diameter lubrication hole   |
| $n_s$      | 17,7 mm  | Width of lubricating groove |

## Temperature range

|            |        |                            |
|------------|--------|----------------------------|
| $T_{\min}$ | -30 °C | Operating temperature min. |
| $T_{\max}$ | 200 °C | Operating temperature max. |

## Calculation factors

|       |      |                                                                                      |
|-------|------|--------------------------------------------------------------------------------------|
| $e$   | 0,17 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 4,05 | Dynamic axial load factor                                                            |
| $Y_2$ | 6,04 | Dynamic axial load factor                                                            |
| $Y_0$ | 3,96 | Static axial load factor                                                             |

## Characteristics

|                                                                                     |                                        |
|-------------------------------------------------------------------------------------|----------------------------------------|
|  | Radial load                            |
|  | Axial load in one direction            |
|  | Axial load in two directions           |
|  | Grease Lubrication                     |
|  | Oil Lubrication                        |
|  | Not sealed                             |
|  | Large bearing                          |
|  | Static angular error and misalignment  |
|  | Dynamic angular error and misalignment |