

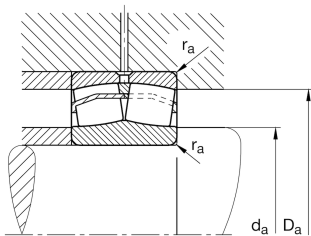
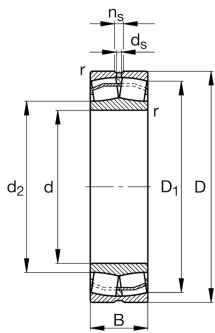
**FAG****22309-E1-XL-C3**

## Spherical Roller Bearing

Spherical roller bearings 223...-E1, main dimensions to DIN 635-2

**X-life**

## Technical information



## Your current product variant

|                           |              |                                   |
|---------------------------|--------------|-----------------------------------|
| Design                    | E1           | Without central rip               |
| Bore type                 | Z            | Cylindrical                       |
| Cage                      | JPA          | Sheet metal cage                  |
| Radial internal clearance | C3 (Group 3) | Internal clearance larger than CN |
| Relubrication             | Standard     |                                   |

## Main Dimensions &amp; Performance Data

|                 |             |                                   |
|-----------------|-------------|-----------------------------------|
| d               | 45 mm       | Bore diameter                     |
| D               | 100 mm      | Outside diameter                  |
| B               | 36 mm       | Width                             |
| C <sub>r</sub>  | 187.000 N   | Basic dynamic load rating, radial |
| C <sub>0r</sub> | 183.000 N   | Basic static load rating, radial  |
| C <sub>ur</sub> | 16.500 N    | Fatigue load limit, radial        |
| n <sub>G</sub>  | 6.800 1/min | Limiting speed                    |
| n <sub>gr</sub> | 5.000 1/min | Reference speed                   |
| ≈m              | 1,368 kg    | Weight                            |

## Mounting dimensions

|                    |        |                                      |
|--------------------|--------|--------------------------------------|
| d <sub>a min</sub> | 54 mm  | Minimum diameter shaft shoulder      |
| D <sub>a max</sub> | 91 mm  | Maximum diameter of housing shoulder |
| r <sub>a max</sub> | 1,5 mm | Maximum recess radius                |



Dimensions

|           |         |                                    |
|-----------|---------|------------------------------------|
| $r_{min}$ | 1,5 mm  | Minimum chamfer dimension          |
| $D_1$     | 84,7 mm | Bore diameter outer ring           |
| $d_2$     | 58,9 mm | Raceway diameter of the inner ring |
| $d_s$     | 3,2 mm  | Diameter lubrication hole          |
| $n_s$     | 6,5 mm  | Width of lubricating groove        |

Temperature range

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

Calculation factors

|       |      |                                                                                      |
|-------|------|--------------------------------------------------------------------------------------|
| $e$   | 0,36 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 1,9  | Dynamic axial load factor                                                            |
| $Y_2$ | 2,83 | Dynamic axial load factor                                                            |
| $Y_0$ | 1,86 | Static axial load factor                                                             |

Characteristics

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