



FAG

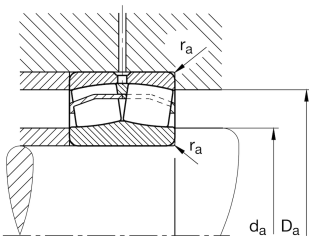
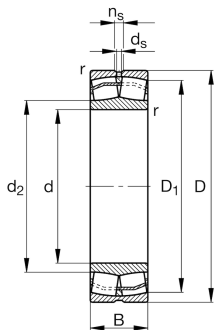
X-life

**22310-E1-XL-C3**

## Spherical Roller Bearing

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

## 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 facility    | Standard     |                                   |

## Main Dimensions &amp; Performance Data

|                 |             |                                   |
|-----------------|-------------|-----------------------------------|
| d               | 50 mm       | Bore diameter                     |
| D               | 110 mm      | Outside diameter                  |
| B               | 40 mm       | Width                             |
| C <sub>r</sub>  | 229.000 N   | Basic dynamic load rating, radial |
| C <sub>0r</sub> | 223.000 N   | Basic static load rating, radial  |
| C <sub>ur</sub> | 20.700 N    | Fatigue load limit, radial        |
| n <sub>G</sub>  | 6.300 1/min | Limiting speed                    |
| n <sub>gr</sub> | 4.800 1/min | Reference speed                   |
| ≈m              | 1,878 kg    | Weight                            |



### Mounting dimensions

|              |       |                                      |
|--------------|-------|--------------------------------------|
| $d_{a\ min}$ | 61 mm | Minimum diameter shaft shoulder      |
| $D_{a\ max}$ | 99 mm | Maximum diameter of housing shoulder |
| $r_{a\ max}$ | 2 mm  | Maximum recess radius                |

### Dimensions

|            |         |                                    |
|------------|---------|------------------------------------|
| $r_{\min}$ | 2 mm    | Minimum chamfer dimension          |
| $D_1$      | 92,6 mm | Bore diameter outer ring           |
| $d_2$      | 63 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 |
| $Y_1$ | 1,86 | Dynamic axial load factor                                                            |
| $Y_2$ | 2,77 | Dynamic axial load factor                                                            |
| $Y_0$ | 1,82 | Static axial load factor                                                             |



## Characteristics

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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