

**FAG****231/560-BEA-XL-K-MB1** [↗](#)

Spherical Roller Bearing

Spherical roller bearing 231...-BEA-XL-K-MB1, symmetric 2 outer ribs with rib washer

**X-life**

## Technical information



## Your current product variant

|                           |              |                           |
|---------------------------|--------------|---------------------------|
| Design                    | BEA          | With lose center lip ring |
| Bore type                 | K            | Tapered, taper 1:12       |
| Cage                      | MB1          | Solid brass cage          |
| Radial internal clearance | CN (Group N) | Normal internal clearance |
| Relubrication facility    | Standard     |                           |

## Main Dimensions &amp; Performance Data

|          |              |                                   |
|----------|--------------|-----------------------------------|
| d        | 560 mm       | Bore diameter                     |
| D        | 920 mm       | Outside diameter                  |
| B        | 280 mm       | Width                             |
| $C_r$    | 9.700.000 N  | Basic dynamic load rating, radial |
| $C_{0r}$ | 16.400.000 N | Basic static load rating, radial  |
| $C_{ur}$ | 1.060.000 N  | Fatigue load limit, radial        |
| $n_G$    | 630 1/min    | Limiting speed                    |
| $n_{gr}$ | 300 1/min    | Reference speed                   |
| $m$      | 716 kg       | Weight                            |



### Mounting dimensions

|              |        |                                       |
|--------------|--------|---------------------------------------|
| $d_{a \min}$ | 592 mm | Minimum diameter shaft shoulder       |
| $D_{a \max}$ | 888 mm | Maximum diameter of housing shoulder  |
| $r_{a \max}$ | 6 mm   | Maximum recess radius                 |
| $d_{a \max}$ | 644 mm | Maximum diameter of shaft shoulder    |
| $d_{b \min}$ | 589 mm | Minimum cavity diameter of the sleeve |
| $B_{a \min}$ | 18 mm  | Minimum cavity width of the sleeve    |

### Dimensions

|            |          |                             |
|------------|----------|-----------------------------|
| $r_{\min}$ | 7,5 mm   | Minimum chamfer dimension   |
| $D_1$      | 806,6 mm | Bore diameter outer ring    |
| $d_s$      | 12,5 mm  | Diameter lubrication hole   |
| $n_s$      | 23,5 mm  | Width of lubricating groove |

### Temperature range

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

### Calculation factors

|       |      |  |
|-------|------|--|
| $e$   | 0,29 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 2,32 | Dynamic axial load factor  |
| $Y_2$ | 3,45 | Dynamic axial load factor  |
| $Y_0$ | 2,26 | Static axial load factor   |

### Additional information

|             |                   |
|-------------|-------------------|
| H31/560-HG  | Adapter sleeve    |
| AH31/560A-H | Withdrawal sleeve |



### Characteristics

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-  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