

**FAG****23138-E1A-XL-K-M-C4**

## Spherical Roller Bearing

Spherical roller bearings 231...E1A-K, main dimensions to DIN 635-2, with tapered bore, taper 1:12

**X-life**

## Technical information



## Your current product variant

|                           |              |                                   |
|---------------------------|--------------|-----------------------------------|
| Design                    | E1A          | Without central rip               |
| Bore type                 | K            | Tapered, taper 1:12               |
| Cage                      | M            | Brass Cage                        |
| Radial internal clearance | C4 (Group 4) | Internal clearance larger than C3 |
| Relubrication             | Standard     |                                   |
| Special material          | Standard     |                                   |

## Main Dimensions &amp; Performance Data

|                 |             |                                   |
|-----------------|-------------|-----------------------------------|
| d               | 190 mm      | Bore diameter                     |
| D               | 320 mm      | Outside diameter                  |
| B               | 104 mm      | Width                             |
| C <sub>r</sub>  | 1.610.000 N | Basic dynamic load rating, radial |
| C <sub>0r</sub> | 2.220.000 N | Basic static load rating, radial  |
| C <sub>ur</sub> | 222.000 N   | Fatigue load limit, radial        |
| n <sub>G</sub>  | 2.070 1/min | Limiting speed                    |
| n <sub>gr</sub> | 1.260 1/min | Reference speed                   |
| ≈m              | 32,723 kg   | Weight                            |



### Mounting dimensions

|              |        |                                       |
|--------------|--------|---------------------------------------|
| $d_{a \min}$ | 204 mm | Minimum diameter shaft shoulder       |
| $D_{a \max}$ | 306 mm | Maximum diameter of housing shoulder  |
| $r_{a \max}$ | 2,5 mm | Maximum recess radius                 |
| $d_{a \max}$ | 216 mm | Maximum diameter of shaft shoulder    |
| $d_{b \min}$ | 202 mm | Minimum cavity diameter of the sleeve |
| $B_{a \min}$ | 9 mm   | Minimum cavity width of the sleeve    |

### Dimensions

|            |          |                             |
|------------|----------|-----------------------------|
| $r_{\min}$ | 3 mm     | Minimum chamfer dimension   |
| $D_1$      | 281,6 mm | Bore diameter outer ring    |
| $d_s$      | 8 mm     | Diameter lubrication hole   |
| $n_s$      | 15 mm    | Width of lubricating groove |

### Temperature range

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

### Calculation factors

|       |      |  |
|-------|------|--|
| $e$   | 0,3  | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 2,28 | Dynamic axial load factor  |
| $Y_2$ | 3,39 | Dynamic axial load factor  |
| $Y_0$ | 2,23 | Static axial load factor   |

### Additional information

|         |                   |
|---------|-------------------|
| H3138   | Adapter sleeve    |
| AH3138G | 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