



FAG

**23024-E1A-XL-M-C2**

Spherical Roller Bearing

Spherical roller bearings 230...-E1A, main dimensions to DIN 635-2

X-life

## Technical information



## Your current product variant

|                           |              |                                    |
|---------------------------|--------------|------------------------------------|
| Design                    | E1A          | Without central rip                |
| Bore type                 | Z            | Cylindrical                        |
| Cage                      | M            | Brass Cage                         |
| Radial internal clearance | C2 (Group 2) | Internal clearance smaller than CN |
| Relubrication facility    | Standard     |                                    |

## Main Dimensions &amp; Performance Data

|             |             |                                   |
|-------------|-------------|-----------------------------------|
| d           | 120 mm      | Bore diameter                     |
| D           | 180 mm      | Outside diameter                  |
| B           | 46 mm       | Width                             |
| $C_r$       | 430.000 N   | Basic dynamic load rating, radial |
| $C_{0r}$    | 580.000 N   | Basic static load rating, radial  |
| $C_{ur}$    | 60.000 N    | Fatigue load limit, radial        |
| $n_G$       | 3.950 1/min | Limiting speed                    |
| $n_{gr}$    | 2.800 1/min | Reference speed                   |
| $\approx m$ | 4,026 kg    | Weight                            |

## Mounting dimensions

|              |          |                                      |
|--------------|----------|--------------------------------------|
| $d_{a \min}$ | 128,8 mm | Minimum diameter shaft shoulder      |
| $D_{a \max}$ | 171,2 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 2 mm     | Maximum recess radius                |



## Dimensions

|            |          |                             |
|------------|----------|-----------------------------|
| $r_{\min}$ | 2 mm     | Minimum chamfer dimension   |
| $D_1$      | 164,7 mm | Bore diameter outer 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

|       |      |  |
|-------|------|--|
| $e$   | 0,22 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 3,04 | Dynamic axial load factor  |
| $Y_2$ | 4,53 | Dynamic axial load factor  |
| $Y_0$ | 2,97 | 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 |