



# 23024 CC/W33 Spherical roller bearing with relubrication features

## Spherical roller bearing with relubrication features

Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

- Accommodate misalignment
- High load carrying capacity
- Relubrication features
- Low friction and long service life
- Increased wear resistance

## Overview

### Dimensions

|                  |        |
|------------------|--------|
| Bore diameter    | 120 mm |
| Outside diameter | 180 mm |
| Width            | 46 mm  |

### Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 366 kN       |
| Basic static load rating  | 500 kN       |
| Reference speed           | 3 200 r/min  |
| Limiting speed            | 4 000 r/min  |
| SKF performance class     | SKF Explorer |

### Properties

|                                      |             |
|--------------------------------------|-------------|
| Number of rows                       | 2           |
| Locating feature, bearing outer ring | Without     |
| Bore type                            | Cylindrical |
| Cage                                 | Sheet metal |
| Radial internal clearance            | CN          |
| Tolerance class                      | Normal      |
| Tolerance class for dimensions       | Normal      |
| Tolerance class for run-out          | P5          |
| Sealing                              | Without     |
| Lubricant                            | None        |
| Relubrication feature                | With        |
| Candidate for remanufacturing        | Yes         |

# Technical Specification

SKF performance class

SKF Explorer

Bore type

Cylindrical

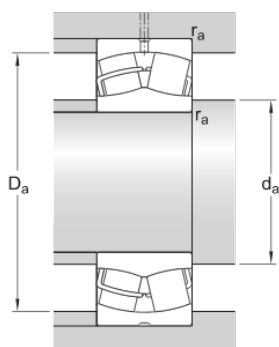


## Dimensions

|           |           |  |
|-----------|-----------|--|
| d         | 120 mm    | Bore diameter                          |
| D         | 180 mm    | Outside diameter                       |
| B         | 46 mm     | Width                                  |
| $d_2$     | ≈ 135 mm  | Shoulder diameter of inner ring        |
| $D_1$     | ≈ 163 mm  | Shoulder/recess diameter of outer ring |
| b         | 6 mm      | Width of lubrication groove            |
| K         | 3 mm      | Diameter of lubrication hole           |
| $r_{1,2}$ | min. 2 mm | Chamfer dimension                      |

## Abutment dimensions

|       |             |                              |
|-------|-------------|------------------------------|
| $d_a$ | min. 129 mm | Diameter of shaft abutment   |
| $D_a$ | max. 171 mm | Diameter of housing abutment |
| $r_a$ | max. 2 mm   | Radius of fillet             |



## Calculation data

|                           |       |        |
|---------------------------|-------|--------|
| Basic dynamic load rating | C     | 366 kN |
| Basic static load rating  | $C_0$ | 500 kN |

|                    |       |             |
|--------------------|-------|-------------|
| Fatigue load limit | $P_u$ | 53 kN       |
| Reference speed    |       | 3 200 r/min |
| Limiting speed     |       | 4 000 r/min |
| Limiting value     | $e$   | 0.22        |
| Calculation factor | $Y_1$ | 3           |
| Calculation factor | $Y_2$ | 4.6         |
| Calculation factor | $Y_0$ | 2.8         |

## Mass

|      |  |         |
|------|--|---------|
| Mass |  | 4.05 kg |
|------|--|---------|

## Tolerance class

|                        |  |        |
|------------------------|--|--------|
| Dimensional tolerances |  | Normal |
| Radial run-out         |  | P5     |

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