

# 22317 E

## 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    | 85 mm  |
| Outside diameter | 180 mm |
| Width            | 60 mm  |

### Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 577 kN       |
| Basic static load rating  | 620 kN       |
| Reference speed           | 2 800 r/min  |
| Limiting speed            | 3 800 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 for dimensions       | Normal      |
| Tolerance class for run-out          | P5          |
| Sealing                              | Without     |
| Lubricant                            | None        |
| Relubrication feature                | With        |

# Technical Specification

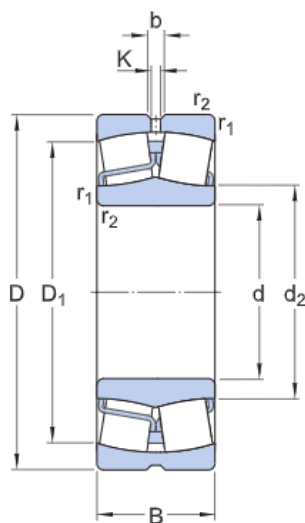
SKF performance class

SKF Explorer

Bore type

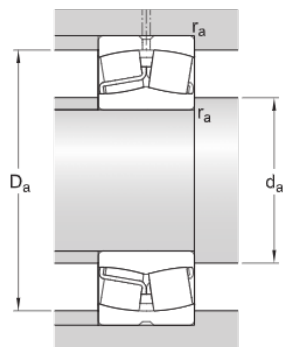
Cylindrical

## Dimensions



|                  |           |                                        |
|------------------|-----------|----------------------------------------|
| d                | 85 mm     | Bore diameter                          |
| D                | 180 mm    | Outside diameter                       |
| B                | 60 mm     | Width                                  |
| d <sub>2</sub>   | ≈ 108 mm  | Shoulder diameter of inner ring        |
| D <sub>1</sub>   | ≈ 154 mm  | Shoulder/recess diameter of outer ring |
| b                | 8.3 mm    | Width of lubrication groove            |
| K                | 4.5 mm    | Diameter of lubrication hole           |
| r <sub>1,2</sub> | min. 3 mm | Chamfer dimension                      |

## Abutment dimensions



|                |             |                              |
|----------------|-------------|------------------------------|
| d <sub>a</sub> | min. 99 mm  | Diameter of shaft abutment   |
| D <sub>a</sub> | max. 166 mm | Diameter of housing abutment |
| r <sub>a</sub> | max. 2.5 mm | Radius of fillet             |

## Calculation data

|                           |                |        |
|---------------------------|----------------|--------|
| Basic dynamic load rating | C              | 577 kN |
| Basic static load rating  | C <sub>0</sub> | 620 kN |

|                    |       |             |
|--------------------|-------|-------------|
| Fatigue load limit | $P_u$ | 61 kN       |
| Reference speed    |       | 2 800 r/min |
| Limiting speed     |       | 3 800 r/min |
| Limiting value     | $e$   | 0.33        |
| Calculation factor | $Y_1$ | 2           |
| Calculation factor | $Y_2$ | 3           |
| Calculation factor | $Y_0$ | 2           |

## Mass

|      |  |        |
|------|--|--------|
| Mass |  | 7.3 kg |
|------|--|--------|

## Tolerance class

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

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