

22209 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 | 45 mm |
| Outside diameter | 85 mm |
| Width | 23 mm |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 104 kN |
| Basic static load rating | 100 kN |
| Reference speed | 7 500 r/min |
| Limiting speed | 10 000 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 for dimensions | Normal |
| Tolerance class for run-out | P5 |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | With |

Technical Specification

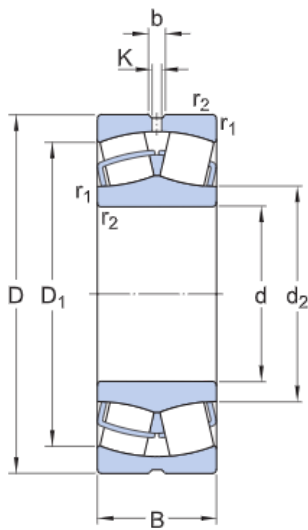
SKF performance class

SKF Explorer

Bore type

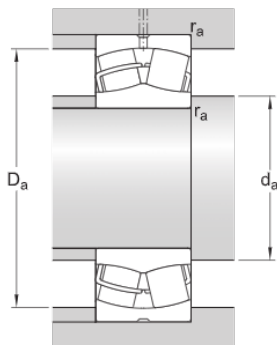
Cylindrical

Dimensions



| | | |
|------------------|-------------|--|
| d | 45 mm | Bore diameter |
| D | 85 mm | Outside diameter |
| B | 23 mm | Width |
| d ₂ | ≈ 54.4 mm | Shoulder diameter of inner ring |
| D ₁ | ≈ 74.4 mm | Shoulder/recess diameter of outer ring |
| b | 5.5 mm | Width of lubrication groove |
| K | 3 mm | Diameter of lubrication hole |
| r _{1,2} | min. 1.1 mm | Chamfer dimension |

Abutment dimensions



| | | |
|----------------|------------|------------------------------|
| d _a | min. 52 mm | Diameter of shaft abutment |
| D _a | max. 78 mm | Diameter of housing abutment |
| r _a | max. 1 mm | Radius of fillet |

Calculation data

| | | |
|---------------------------|----------------|--------|
| Basic dynamic load rating | C | 104 kN |
| Basic static load rating | C ₀ | 100 kN |

| | | |
|--------------------|-------|--------------|
| Fatigue load limit | P_u | 10.8 kN |
| Reference speed | | 7 500 r/min |
| Limiting speed | | 10 000 r/min |
| Limiting value | e | 0.26 |
| Calculation factor | Y_1 | 2.6 |
| Calculation factor | Y_2 | 3.9 |
| Calculation factor | Y_0 | 2.5 |

Mass

| | | |
|------|--|---------|
| Mass | | 0.57 kg |
|------|--|---------|

Tolerance class

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

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