



21309 EKSpherical roller bearing with tapered bore and relubrication features

Spherical roller bearing with tapered bore and 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 | 100 mm |
| Width | 25 mm |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 129 kN |
| Basic static load rating | 127 kN |
| Reference speed | 6 300 r/min |
| Limiting speed | 8 500 r/min |
| SKF performance class | SKF Explorer |

Properties

| | |
|--------------------------------------|--------------|
| Number of rows | 2 |
| Locating feature, bearing outer ring | Without |
| Bore type | Tapered 1:12 |
| 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 |

Technical Specification

| | |
|-----------------------|--------------|
| SKF performance class | SKF Explorer |
| Bore type | Tapered 1:12 |

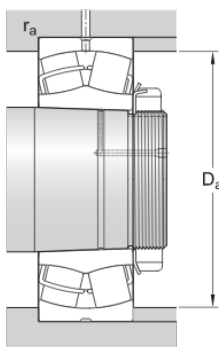


Dimensions

| | | |
|-----------|-------------------|--|
| d | 45 mm | Bore diameter |
| D | 100 mm | Outside diameter |
| B | 25 mm | Width |
| d_2 | ≈ 65.3 mm | Shoulder diameter of inner ring |
| D_1 | ≈ 88 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. 1.5 mm | Chamfer dimension |

Abutment dimensions

| | | |
|-------|-------------|------------------------------|
| D_a | max. 91 mm | Diameter of housing abutment |
| r_a | max. 1.5 mm | Radius of fillet |



Calculation data

| | | |
|---------------------------|-------|--------|
| Basic dynamic load rating | C | 129 kN |
| Basic static load rating | C_0 | 127 kN |

| | | |
|--------------------|-------|-------------|
| Fatigue load limit | P_u | 14 kN |
| Reference speed | | 6 300 r/min |
| Limiting speed | | 8 500 r/min |
| Limiting value | e | 0.24 |
| Calculation factor | Y_1 | 2.8 |
| Calculation factor | Y_2 | 4.2 |
| Calculation factor | Y_0 | 2.8 |

Mass

| | | |
|------|--|---------|
| Mass | | 0.97 kg |
|------|--|---------|

Mounting information

| | | |
|---|----------|-------|
| Recommended tightening angle for lock nut | α | 130 ° |
|---|----------|-------|

Tolerance class

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

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