

21314 EK



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 | 70 mm |
| Outside diameter | 150 mm |
| Width | 35 mm |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 291 kN |
| Basic static load rating | 325 kN |
| Reference speed | 4 000 r/min |
| Limiting speed | 5 600 r/min |
| SKF performance class | SKF Explorer |

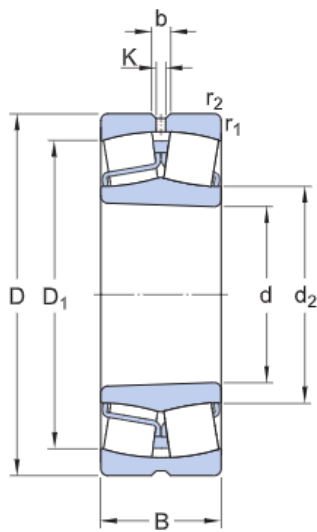
Properties

| | |
|--------------------------------------|--------------|
| Number of rows | 2 |
| Locating feature, bearing outer ring | Without |
| Bore type | Tapered 1:12 |
| Cage | Sheet metal |
| Radial internal clearance | CN |
| Tolerance class for dimensions | Normal |
| Tolerance class for run-out | P5 |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | With |

Technical Specification

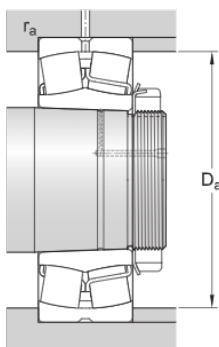
| | |
|-----------------------|--------------|
| SKF performance class | SKF Explorer |
| Bore type | Tapered 1:12 |

Dimensions



| | | |
|------------------|-------------|--|
| d | 70 mm | Bore diameter |
| D | 150 mm | Outside diameter |
| B | 35 mm | Width |
| d ₂ | ≈ 101 mm | Shoulder diameter of inner ring |
| D ₁ | ≈ 133 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. 2.1 mm | Chamfer dimension |

Abutment dimensions



| | | |
|----------------|-------------|------------------------------|
| D _a | max. 138 mm | Diameter of housing abutment |
| r _a | max. 2 mm | Radius of fillet |

Calculation data

| | | |
|---------------------------|----------------|--------|
| Basic dynamic load rating | C | 291 kN |
| Basic static load rating | C ₀ | 325 kN |

| | | |
|--------------------|-------|-------------|
| Fatigue load limit | P_u | 34.5 kN |
| Reference speed | | 4 000 r/min |
| Limiting speed | | 5 600 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 | | 3.1 kg |
|------|--|--------|

Mounting information

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

Tolerance class

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

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