

22318 ESpherical 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 | 90 mm |
| Outside diameter | 190 mm |
| Width | 64 mm |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 637 kN |
| Basic static load rating | 695 kN |
| Reference speed | 2 600 r/min |
| Limiting speed | 3 600 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 |

Technical Specification

SKF performance class

SKF Explorer

Bore type

Cylindrical

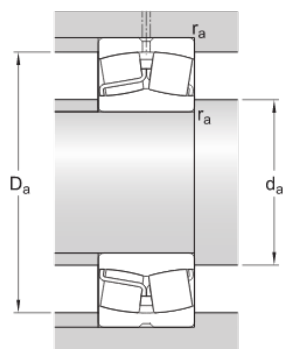


Dimensions

| | | |
|-----------|-----------|--|
| d | 90 mm | Bore diameter |
| D | 190 mm | Outside diameter |
| B | 64 mm | Width |
| d_2 | ≈ 113 mm | Shoulder diameter of inner ring |
| D_1 | ≈ 161 mm | Shoulder/recess diameter of outer ring |
| b | 11.1 mm | Width of lubrication groove |
| K | 6 mm | Diameter of lubrication hole |
| $r_{1,2}$ | min. 3 mm | Chamfer dimension |

Abutment dimensions

| | | |
|-------|-------------|------------------------------|
| d_a | min. 104 mm | Diameter of shaft abutment |
| D_a | max. 176 mm | Diameter of housing abutment |
| r_a | max. 2.5 mm | Radius of fillet |



Calculation data

| | | |
|---------------------------|-------|--------|
| Basic dynamic load rating | C | 637 kN |
| Basic static load rating | C_0 | 695 kN |

| | | |
|--------------------|-------|-------------|
| Fatigue load limit | P_u | 67 kN |
| Reference speed | | 2 600 r/min |
| Limiting speed | | 3 600 r/min |
| Limiting value | e | 0.33 |
| Calculation factor | Y_1 | 2 |
| Calculation factor | Y_2 | 3 |
| Calculation factor | Y_0 | 2 |

Mass

| | | |
|------|--|--------|
| Mass | | 8.7 kg |
|------|--|--------|

Tolerance class

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

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