



22308 E/VA405 Spherical roller bearing for vibratory applications, with relubrication features

Spherical roller bearing for vibratory applications, 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. This bearing design offers excellent performance in many types of vibrating machinery. 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
- Accommodate very high vibration levels
- Low friction and long service life
- Increased wear resistance

Overview

Dimensions

| | |
|------------------|-------|
| Bore diameter | 40 mm |
| Outside diameter | 90 mm |
| Width | 33 mm |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 155 kN |
| Basic static load rating | 140 kN |
| Reference speed | 6 000 r/min |
| Limiting speed | 8 000 r/min |
| SKF performance class | SKF Explorer |

Properties

| | |
|--------------------------------------|--------------------------------|
| Number of rows | 2 |
| Locating feature, bearing outer ring | Without |
| Bore type | Cylindrical |
| Cage | Surface-hardened sheet metal |
| Radial internal clearance | C4 |
| Tolerance class | Normal |
| Tolerance class | Normal, bore to P5 and outside |

| | |
|--------------------------------|-------------|
| for dimensions | diameter P6 |
| Tolerance class for run-out | Normal |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | With |

Technical Specification

SKF performance class

SKF Explorer

Bore type

Cylindrical

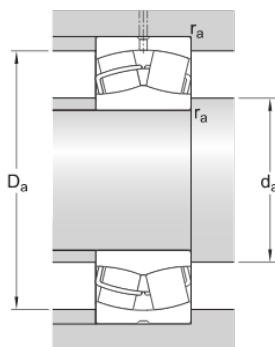


Dimensions

| | | |
|-----------|-------------|--|
| d | 40 mm | Bore diameter |
| D | 90 mm | Outside diameter |
| B | 33 mm | Width |
| d_2 | ≈ 49.9 mm | Shoulder diameter of inner ring |
| D_1 | ≈ 74.3 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 | min. 49 mm | Diameter of shaft abutment |
| D_a | max. 81 mm | Diameter of housing abutment |
| r_a | max. 1.5 mm | Radius of fillet |



Calculation data

| | | |
|---------------------------|-------|--------|
| Basic dynamic load rating | C | 155 kN |
| Basic static load rating | C_0 | 140 kN |

| | | |
|---|-------|------------------------|
| Fatigue load limit | P_u | 15 kN |
| Reference speed | | 6 000 r/min |
| Limiting speed | | 8 000 r/min |
| Limiting value | e | 0.37 |
| Calculation factor | Y_1 | 1.8 |
| Calculation factor | Y_2 | 2.7 |
| Calculation factor | Y_0 | 1.8 |
| Permissible rotational acceleration for oil lubrication | | 1 128 m/s ² |
| Permissible linear acceleration for oil lubrication | | 304 m/s ² |

Mass

| | | |
|------|--|---------|
| Mass | | 1.05 kg |
|------|--|---------|

Tolerance class

| | | |
|------------------------|--|--------|
| Dimensional tolerances | Normal, bore to P5 and outside diameter P6 | |
| Radial run-out | | Normal |

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