

# 22322 EKJA/VA405 Spherical roller bearing for vibratory applications, with tapered bore and relubrication

## features

Spherical roller bearing for vibratory applications, 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. 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    | 110 mm |
| Outside diameter | 240 mm |
| Width            | 80 mm  |

### Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 989 kN       |
| Basic static load rating  | 1 120 kN     |
| Reference speed           | 2 000 r/min  |
| Limiting speed            | 2 800 r/min  |
| SKF performance class     | SKF Explorer |

### Properties

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

# Technical Specification

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

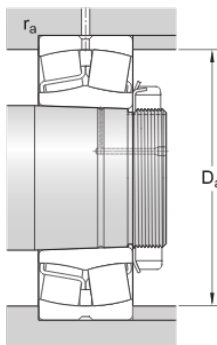


## Dimensions

|           |                  |                                        |
|-----------|------------------|----------------------------------------|
| d         | 110 mm           | Bore diameter                          |
| D         | 240 mm           | Outside diameter                       |
| B         | 80 mm            | Width                                  |
| $d_2$     | $\approx 143$ mm | Shoulder diameter of inner ring        |
| $D_1$     | $\approx 204$ mm | Shoulder/recess diameter of outer ring |
| b         | 13.9 mm          | Width of lubrication groove            |
| K         | 7.5 mm           | Diameter of lubrication hole           |
| $r_{1,2}$ | min. 3 mm        | Chamfer dimension                      |

## Abutment dimensions

|       |             |                              |
|-------|-------------|------------------------------|
| $D_a$ | max. 226 mm | Diameter of housing abutment |
| $r_a$ | max. 2.5 mm | Radius of fillet             |



## Calculation data

|                           |       |          |
|---------------------------|-------|----------|
| Basic dynamic load rating | C     | 989 kN   |
| Basic static load rating  | $C_0$ | 1 120 kN |

|                                                         |       |                      |
|---------------------------------------------------------|-------|----------------------|
| Fatigue load limit                                      | $P_u$ | 100 kN               |
| Reference speed                                         |       | 2 000 r/min          |
| Limiting speed                                          |       | 2 800 r/min          |
| Limiting value                                          | $e$   | 0.33                 |
| Calculation factor                                      | $Y_1$ | 2                    |
| Calculation factor                                      | $Y_2$ | 3                    |
| Calculation factor                                      | $Y_0$ | 2                    |
| Permissible rotational acceleration for oil lubrication |       | 520 m/s <sup>2</sup> |
| Permissible linear acceleration for oil lubrication     |       | 186 m/s <sup>2</sup> |

## Mass

|      |  |         |
|------|--|---------|
| Mass |  | 17.4 kg |
|------|--|---------|

## Tolerance class

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

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