

Image may differ from product. See technical specification for details.

# 22320 EKJA/VA405

## 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 | 100 mm |
| Outside diameter | 215 mm |
| Width | 73 mm |

## Performance

| | |
|---|---|
| Basic dynamic load rating | 847 kN |
| Basic static load rating | 950 kN |
| Reference speed | 2 400 r/min |
| Limiting speed | 3 000 r/min |
| SKF performance class | SKF Explorer |

## Properties

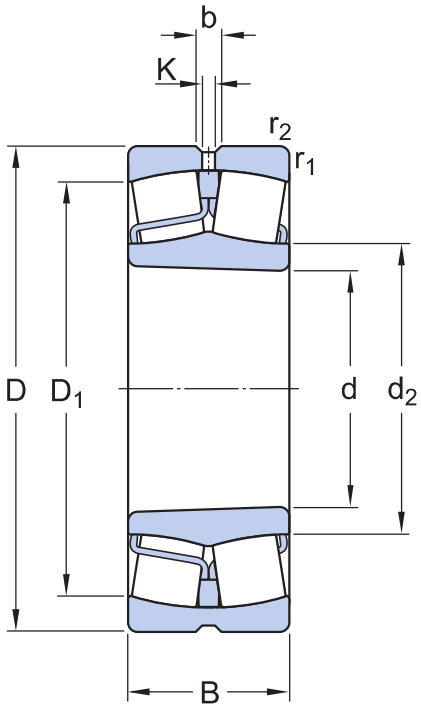
| | |
|---|---|
| Number of rows | 2 |
| Locating feature, bearing outer ring | Without |
| Bore type | Tapered 1:12 |
| Cage | Surface-hardened sheet metal |
| Radial internal clearance | C4 |
| Tolerance class for dimensions | Normal, bore to P5 and outside diameter P6 |
| Tolerance class for run-out | Normal |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | With |
| Candidate for remanufacturing | Yes |

## Logistics

| | |
|---|---|
| Product net weight | 12.9 kg |
| eClass code | 23-05-09-11 |
| UNSPSC code | 31171510 |

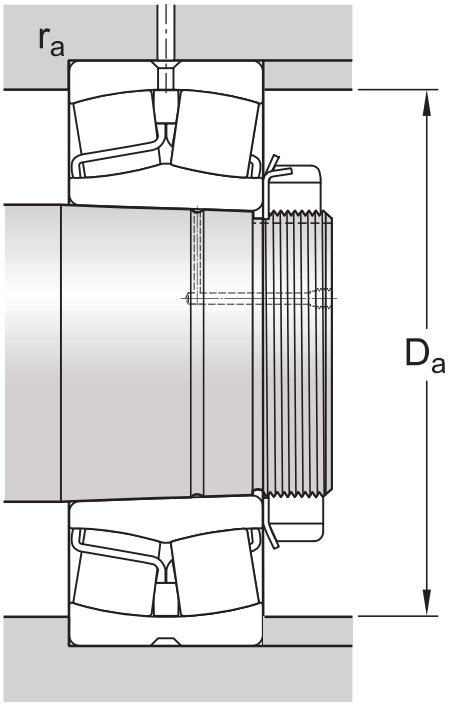
# Technical specification

| | |
|---|---|
| Bore type | Tapered 1:12 |




## Dimensions

| | | |
|---|---|---|
| d | 100 mm | Bore diameter |
| D | 215 mm | Outside diameter |
| B | 73 mm | Width |
| $d_2$ | ≈ 130 mm | Shoulder diameter of inner ring |
| $D_1$ | ≈ 184 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

| | | |
|---|---|---|
| $D_a$ | max. 201 mm | Diameter of housing abutment |
| $r_a$ | max. 2.5 mm | Radius of fillet |

## Calculation data

| | | |
|---|---|---|
| SKF performance class | | SKF Explorer |
| Basic dynamic load rating | C | 847 kN |
| Basic static load rating | $C_0$ | 950 kN |
| Fatigue load limit | $P_u$ | 88 kN |
| Reference speed | | 2 400 r/min |
| Limiting speed | | 3 000 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 | | 549 $m/s^2$ |
| Permissible linear acceleration for oil lubrication | | 196 $m/s^2$ |

## Mounting information

| | | |
|---|---|---|
| Recommended tightening angle for lock nut | α | 150 ° |

## Tolerance class

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

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6, P5,
  tapered bore 1:12, tapered bore 1:30
- Radial internal clearance: cylindrical bore, tapered bore

## BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

# Compatible products

## Recommended product

| | |
|---|---|
| Withdrawal sleeve, basic design, ISO standards | AHX 2320 |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions | H 2320 |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore | HA 2320 |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore | HE 2320 |
| Adapter sleeve with AN or N lock nut and W lock washer, inch dimensions | SNW 120X3.7/16 |

## More Information

### Product details

- Designs and variants
- General bearing specifications
- Loads
- Temperature limits
- Permissible speed
- Design considerations
- Mounting
- Designation system

### Engineering information

- Principles of rolling bearing selection
- General bearing knowledge
- Bearing selection process
- Bearing failure and how to prevent it

### Tools

- SimPro Quick
- SKF Product select - Select and evaluate bearing
- SKF Product select - Combine housing with bearing
- LubeSelect for SKF greases
- Drive-up Method Program
- Heater selection tool
- Oil Injection Method Program
- Tool and Accessory Selector for sleeves and shafts

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