

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

# 23234-2CS5K/VT143

## Spherical roller bearing with tapered bore, integral sealing 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. Under normal operating conditions, sealed bearings are almost maintenance-free, keeping service costs and grease consumption low. The design includes tapered bore and features to facilitate relubrication. Also available on request with special sized bore and/or outside diameters, suitable for reworked shafts and housings.

- Accommodate misalignment up to 0.5 degree
- High load carrying capacity
- Sealed for increased reliability, with relubrication features
- Low friction and long service life
- Increased wear resistance

# Overview

## Dimensions

| | |
|---|---|
| Bore diameter | 170 mm |
| Outside diameter | 310 mm |
| Width | 110 mm |

## Performance

| | |
|---|---|
| Basic dynamic load rating | 1 476 kN |
| Basic static load rating | 1 960 kN |
| Limiting speed | 670 r/min |
| SKF performance class | SKF Explorer |

## Properties

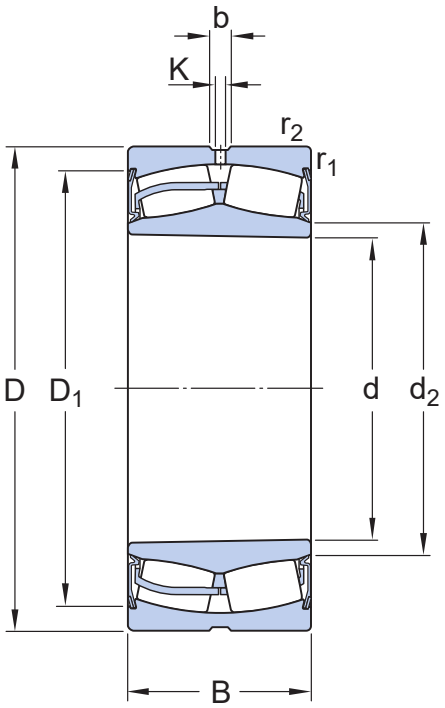
| | |
|---|---|
| Number of rows | 2 |
| Locating feature, bearing outer ring | Without |
| Bore type | Tapered 1:12 |
| Cage | Sheet metal |
| Radial internal clearance | CN |
| Tolerance class for dimensions | Normal |
| Tolerance class for run-out | P5 |
| Sealing | Seal on both sides |
| Sealing type | Contact |
| Lubricant | Grease |
| Relubrication feature | With |
| Candidate for remanufacturing | Yes |
| Indicative carbon footprint for new product | 130 kg $CO_2e$ |
| Indicative carbon footprint for remanufactured product | 43.1 kg $CO_2e$ |

## Logistics

| | |
|---|---|
| Product net weight | 35 kg |
| eClass code | 23-05-09-11 |
| UNSPSC code | 31171510 |

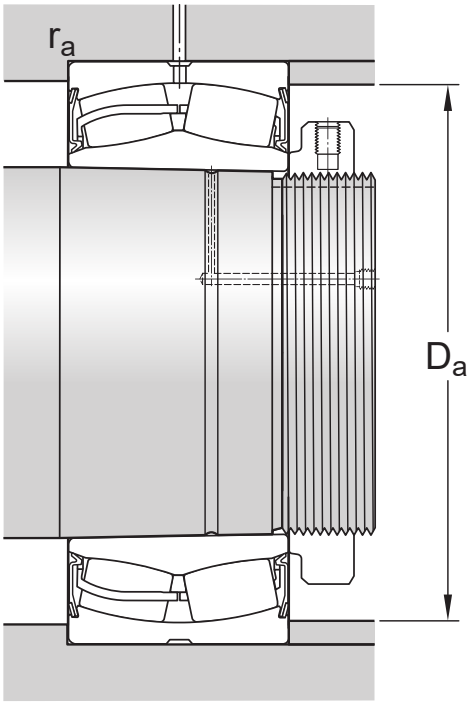
# Technical specification

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




## Dimensions

| | | |
|---|---|---|
| d | 170 mm | Bore diameter |
| $t_{\Delta dmp}$ | 0 – 0.04 mm | Deviation limits of mid-range bore diameter |
| $t_{\Delta SL}$ | 0 – 0.04 mm | Deviation limits of tapered slope |
| D | 310 mm | Outside diameter |
| $t_{\Delta Dmp}$ | -0.035 – 0 mm | Deviation limits of mid-range outside diameter |
| B | 110 mm | Width |
| $t_{\Delta Bs}$ | -0.08 – 0 mm | Deviation limits of ring width |
| $d_2$ | ≈ 195 mm | Shoulder diameter of inner ring |
| $D_1$ | ≈ 275 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. 4 mm | Chamfer dimension |
| | Normal | ISO tolerance class for dimensions |




## Abutment dimensions

| | | |
|---|---|---|
| $D_a$ | max. 293 mm | Diameter of housing abutment |
| $r_a$ | max. 3 mm | Radius of fillet |

## Calculation data

| | | |
|---|---|---|
| SKF performance class | | SKF Explorer |
| Basic dynamic load rating | C | 1 476 kN |
| Basic static load rating | $C_0$ | 1 960 kN |
| Fatigue load limit | $P_u$ | 173 kN |
| Limiting speed | | 670 r/min |
| Limiting value | e | 0.33 |
| Calculation factor | $Y_1$ | 2 |
| Calculation factor | $Y_2$ | 3 |
| Calculation factor | $Y_0$ | 2 |

## Tolerances of run-out

| | | |
|---|---|---|
| Range of section height at inner ring of assembled bearing | $t_{Kia}$ | 8 µm |
| Maximum run-out of inner ring side face to the bore | $t_{Sd}$ | 10 µm |

| | | |
|---|---|---|
| Range of section height at outer ring of assembled bearing | $t_{Kea}$ | 18 µm |
| Perpendicularity of outer ring outside surface | $t_{SD}$ | 6.5 µm |
| ISO tolerance class for geometrical tolerances | | P5 |

## Radial internal clearance

| | |
|---|---|
| Minimum initial clearance | 140 µm |
| Maximum initial clearance | 200 µm |

## 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 | AH 3234 G |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions | H 2334 |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore | HA 2334 |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore | HE 2334 |
| Adapter sleeve with AN or N lock nut and W lock washer, inch dimensions | SNW 134X5.15/16 |

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