



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

## C 2314

### CARB toroidal roller bearing

CARB toroidal roller bearings are unique: as well as accommodating misalignment without increased stress levels, they also provide frictionless axial movement within the bearing in the non-locating position in self-aligning bearing arrangements. Being SKF Explorer

bearings, they can accommodate higher load levels and provide significantly extended service life.

- Accommodate misalignment and axial displacement within the bearing
- High radial load carrying capacity
- Provide frictionless axial movement
- Long bearing system life
- Reduce noise and vibration levels

## Overview

### Dimensions

|                  |        |
|------------------|--------|
| Bore diameter    | 70 mm  |
| Outside diameter | 150 mm |
| Width            | 51 mm  |

### Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 405 kN       |
| Basic static load rating  | 430 kN       |
| Reference speed           | 3 800 r/min  |
| Limiting speed            | 5 000 r/min  |
| SKF performance class     | SKF Explorer |

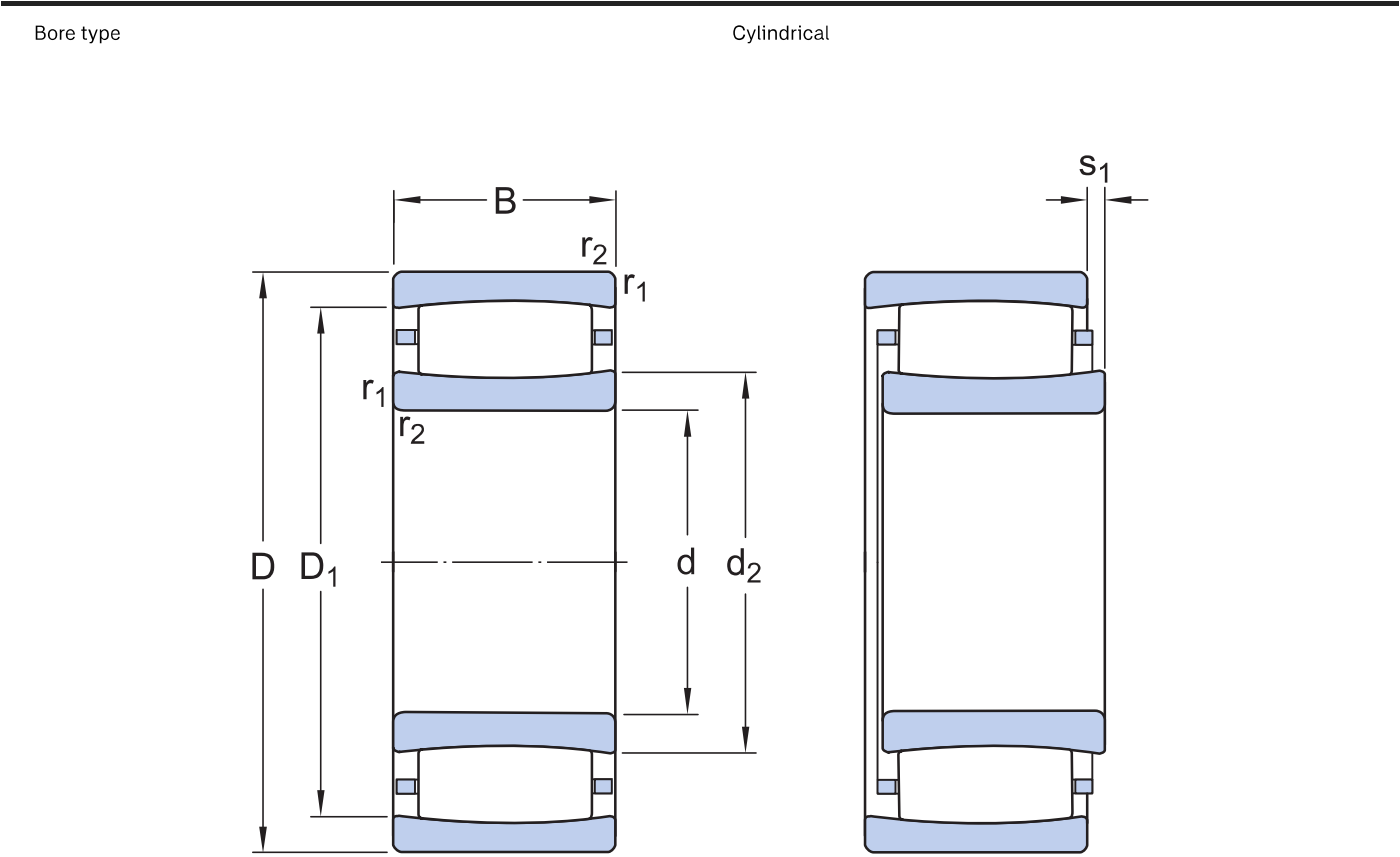
### Properties

|                                      |             |
|--------------------------------------|-------------|
| Number of rows                       | 1           |
| Locating feature, bearing outer ring | Without     |
| Bore type                            | Cylindrical |
| Cage                                 | Sheet metal |
| Radial internal clearance            | CN          |
| Tolerance class                      | Normal      |
| Sealing                              | Without     |
| Lubricant                            | None        |
| Relubrication feature                | Without     |

### Logistics

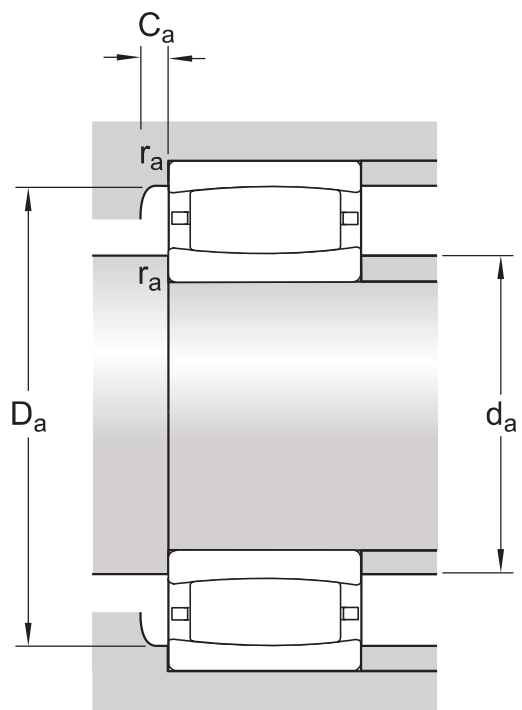
|                    |             |
|--------------------|-------------|
| Product net weight | 4.22 kg     |
| eClass code        | 23-05-09-13 |
| UNSPSC code        | 31171505    |

Technical specification



Dimensions

|                  |             |                                           |
|------------------|-------------|-------------------------------------------|
| d                | 70 mm       | Bore diameter                             |
| D                | 150 mm      | Outside diameter                          |
| B                | 51 mm       | Width                                     |
| d <sub>2</sub>   | ≈ 91.4 mm   | Shoulder diameter of inner ring           |
| D <sub>1</sub>   | ≈ 130 mm    | Shoulder or recess diameter of outer ring |
| s <sub>1</sub>   | max. 9.1 mm | Permissible axial displacement            |
| r <sub>1,2</sub> | min. 2.1 mm | Chamfer dimension                         |



Abutment dimensions

|                                            |             |                                            |
|--------------------------------------------|-------------|--------------------------------------------|
| $d_a$                                      | min. 82 mm  | Diameter of shaft abutment                 |
| $d_a$                                      | max. 106 mm | Diameter of shaft abutment                 |
| $D_a$                                      | min. 119 mm | Diameter of housing abutment               |
| $D_a$                                      | max. 138 mm | Abutment diameter housing                  |
| $C_a$                                      | min. 2.2 mm | Minimum width of space required in housing |
| $r_a$                                      | max. 2 mm   | Radius of fillet                           |
| A negative value for $C_a$ is theoretical. |             | Notes - Bullet list                        |

Calculation data

|                           |       |              |
|---------------------------|-------|--------------|
| SKF performance class     |       | SKF Explorer |
| Basic dynamic load rating | C     | 405 kN       |
| Basic static load rating  | $C_0$ | 430 kN       |
| Fatigue load limit        | $P_u$ | 49 kN        |
| Reference speed           |       | 3 800 r/min  |
| Limiting speed            |       | 5 000 r/min  |
| Misalignment factor       | $k_1$ | 0.11         |
| Internal clearance factor | $k_2$ | 0.099        |

## Tolerances and clearances

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### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, 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](#)

More Information

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <div> <b>Product details</b></div> <div><div><a href="#">Designs and variants</a></div><div><a href="#">General bearing specifications</a></div><div><a href="#">Loads</a></div><div><a href="#">Temperature limits</a></div><div><a href="#">Permissible speed</a></div><div><a href="#">Design considerations</a></div><div><a href="#">Mounting</a></div><div><a href="#">Designation system</a></div></div> | <div><div> <b>Engineering information</b></div><div><div><a href="#">Principles of rolling bearing selection</a></div><div><a href="#">General bearing knowledge</a></div><div><a href="#">Bearing selection process</a></div><div><a href="#">Bearing failure and how to prevent it</a></div></div></div> | <div><div> <b>Tools</b></div><div><div><a href="#">SimPro Quick</a></div><div><a href="#">SKF Product select - Select and evaluate bearing</a></div><div><a href="#">SKF Product select - Combine bearing with housing</a></div><div><a href="#">LubeSelect for SKF greases</a></div><div><a href="#">Drive-up Method Program</a></div><div><a href="#">Heater selection tool</a></div><div><a href="#">Oil Injection Method Program</a></div><div><a href="#">Tool and Accessory Selector for sleeves and shafts</a></div></div></div> |
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