



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

## 7310 BE-2RZP

**Single row angular contact ball bearing with 40° contact angle and non-contact seals on both sides**

These single row angular contact ball bearings, with 40° contact angle and non-contact seals on both sides, accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They have a ball-centred glass-fibre reinforced PA66 cage. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

- 40° contact angle
- Integral sealing prolongs bearing service life
- Glass-fibre reinforced PA66 cage
- Accommodate relatively high radial loads and large unilateral axial loads

Overview

Dimensions

|                  |        |
|------------------|--------|
| Bore diameter    | 50 mm  |
| Outside diameter | 110 mm |
| Width            | 27 mm  |
| Contact angle    | 40 °   |

Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 68.9 kN     |
| Basic static load rating  | 47.5 kN     |
| Reference speed           | 7 500 r/min |
| Limiting speed            | 6 000 r/min |

Properties

|                                      |                                    |
|--------------------------------------|------------------------------------|
| Contact type                         | Normal contact (two-point contact) |
| Number of rows                       | 1                                  |
| Locating feature, bearing outer ring | None                               |
| Ring type                            | One-piece inner and outer rings    |
| Cage                                 | Non-metallic                       |
| Matched arrangement                  | No                                 |
| Universal matching bearing           | No                                 |
| Axial internal clearance             | Not applicable                     |
| Tolerance class                      | Normal                             |
| Material, bearing                    | Bearing steel                      |
| Coating                              | Without                            |
| Sealing                              | Seal on both sides                 |
| Sealing type                         | Non-contact                        |
| Lubricant                            | Grease                             |
| Relubrication feature                | Without                            |

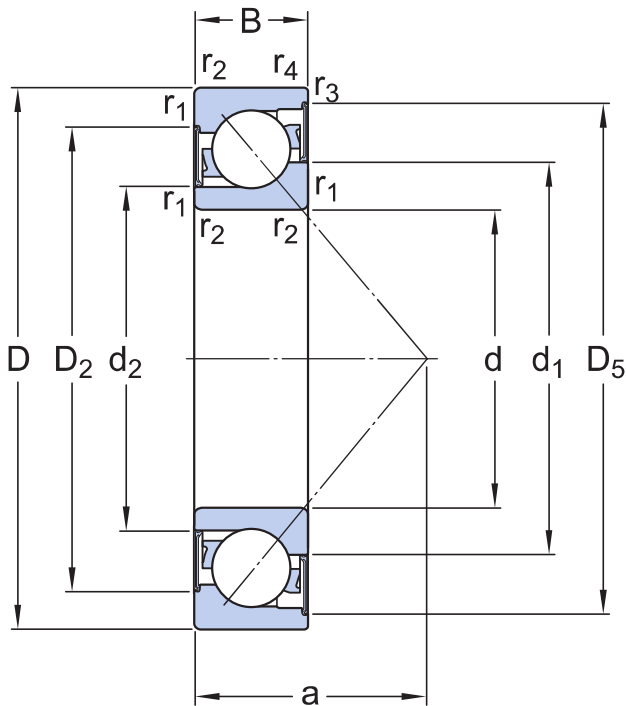
Logistics

|                    |             |
|--------------------|-------------|
| Product net weight | 1.07 kg     |
| eClass code        | 23-05-08-03 |

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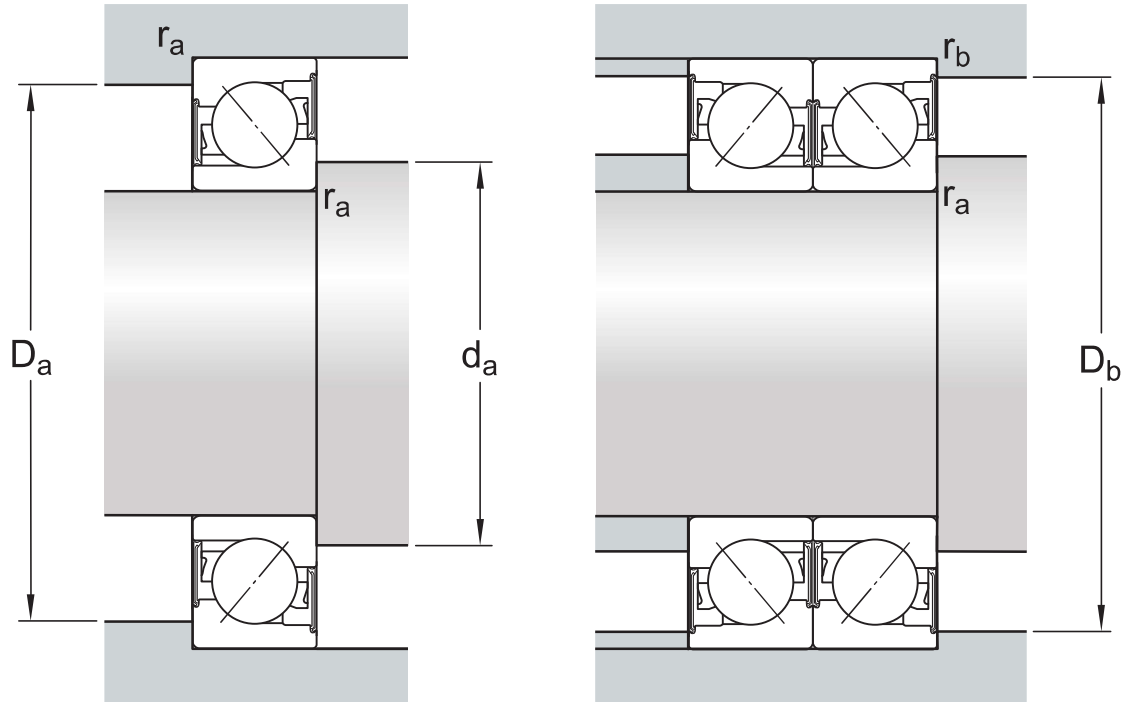
|             |          |
|-------------|----------|
| UNSPSC code | 31171531 |
|-------------|----------|

Technical specification



Dimensions

|                  |             |                                                   |
|------------------|-------------|---------------------------------------------------|
| d                | 50 mm       | Bore diameter                                     |
| D                | 110 mm      | Outside diameter                                  |
| B                | 27 mm       | Width                                             |
| d <sub>1</sub>   | ≈ 73.8 mm   | Shoulder diameter of inner ring (large side face) |
| d <sub>2</sub>   | ≈ 61.13 mm  | Shoulder diameter of inner ring (small side face) |
| D <sub>2</sub>   | ≈ 91.55 mm  | Recess diameter of outer ring (large side face)   |
| D <sub>5</sub>   | ≈ 100.85 mm | Recess diameter of outer ring (small side face)   |
| a                | 47 mm       | Distance side face to pressure point              |
| r <sub>1,2</sub> | min. 2 mm   | Chamfer dimension                                 |
| r <sub>3,4</sub> | min. 1 mm   | Chamfer dimension                                 |



Abutment dimensions

|       |             |                              |
|-------|-------------|------------------------------|
| $d_a$ | min. 61 mm  | Diameter of shaft abutment   |
| $d_a$ | max. 73 mm  | Diameter of shaft abutment   |
| $D_a$ | max. 99 mm  | Abutment diameter housing    |
| $D_b$ | max. 104 mm | Diameter of housing abutment |
| $r_a$ | max. 2 mm   | Radius of fillet             |
| $r_b$ | max. 1 mm   | Radius of fillet             |

Calculation data

|                            |       |             |
|----------------------------|-------|-------------|
| Basic dynamic load rating  | C     | 68.9 kN     |
| Basic static load rating   | $C_0$ | 47.5 kN     |
| Fatigue load limit         | $P_u$ | 2 kN        |
| Reference speed            |       | 7 500 r/min |
| Limiting speed             |       | 6 000 r/min |
| Minimum axial load factor  | A     | 0.0418      |
| Minimum radial load factor | $k_r$ | 0.1         |
| Limiting value             | e     | 1.14        |

## SINGLE BEARING OR BEARING PAIR ARRANGED IN TANDEM

|                                     |       |      |
|-------------------------------------|-------|------|
| Calculation factor (single, tandem) | X     | 0.35 |
| Calculation factor (single, tandem) | $Y_0$ | 0.26 |
| Calculation factor (single, tandem) | $Y_2$ | 0.57 |

## BEARING PAIR ARRANGED BACK-TO-BACK OR FACE-TO-FACE

|                                                 |       |      |
|-------------------------------------------------|-------|------|
| Calculation factor (back-to-back, face-to-face) | X     | 0.57 |
| Calculation factor (back-to-back, face-to-face) | $Y_0$ | 0.52 |
| Calculation factor (back-to-back, face-to-face) | $Y_1$ | 0.55 |
| Calculation factor (back-to-back, face-to-face) | $Y_2$ | 0.93 |

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Internal clearance: CA+CB+CC, G
- Preload: GA+GB+GC

## 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="#">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 interfaces</a></div><div><a href="#">Seat tolerances for standard conditions</a></div><div><a href="#">Selecting internal clearance or preload</a></div><div><a href="#">Lubrication</a></div><div><a href="#">Sealing, mounting and dismounting</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="#">SKF Product select</a></div><div><a href="#">SimPro Quick</a></div><div><a href="#">Bearing Frequency Calculator</a></div><div><a href="#">LubeSelect for SKF greases</a></div><div><a href="#">Heater selection tool</a></div><div><a href="#">SKF mounting and dismounting instructions</a></div></div></div> |
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