

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

# 3207 A-2Z

## Double row angular contact ball bearing with seals or shields

Double row angular contact ball bearings, with seals or shields, correspond to a pair of single row angular contact ball bearings in a back-to-back arrangement, while requiring less axial space. Depending on the sealing execution, they can operate at high speeds and are

more suitable than deep groove ball bearings for supporting large axial forces in both directions.

- High-speed capability
- Accommodate relatively high radial loads, high axial loads in both directions and tilting moments
- Suitable where a stiff bearing arrangement is required
- Require less axial space than equivalent pair of single row angular contact ball bearings
- Integral sealing prolongs bearing service life

# Overview

## Dimensions

| | |
|---|---|
| Bore diameter | 35 mm |
| Outside diameter | 72 mm |
| Width | 27 mm |
| Contact angle | 30 ° |

## Performance

| | |
|---|---|
| Basic dynamic load rating | 40.5 kN |
| Basic static load rating | 30 kN |
| Reference speed | 9 000 r/min |
| Limiting speed | 9 000 r/min |
| SKF performance class | SKF Explorer |

## Properties

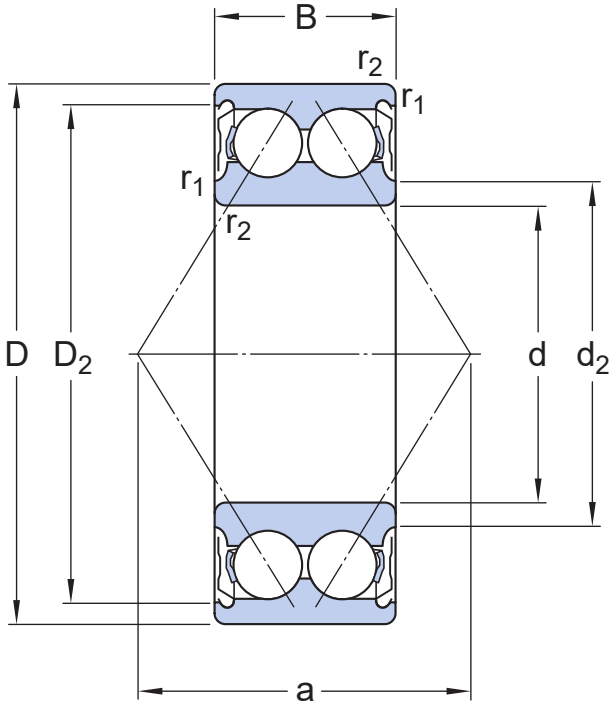
| | |
|---|---|
| Contact type | Normal contact (two-point contact) |
| Number of rows | 2 |
| Locating feature, bearing outer ring | None |
| Ring type | One-piece inner and outer rings |
| Cage | Sheet metal |
| Arrangement of contact angle (double-row bearing) | Back-to-back (O) |
| Matched arrangement | No |
| Universal matching bearing | No |
| Axial internal clearance | CN |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing | Shield on both sides |
| Sealing type | Non-contact |
| Lubricant | Grease |
| Relubrication feature | Without |

## Logistics

| | |
|---|---|
| Product net weight | 0.456 kg |

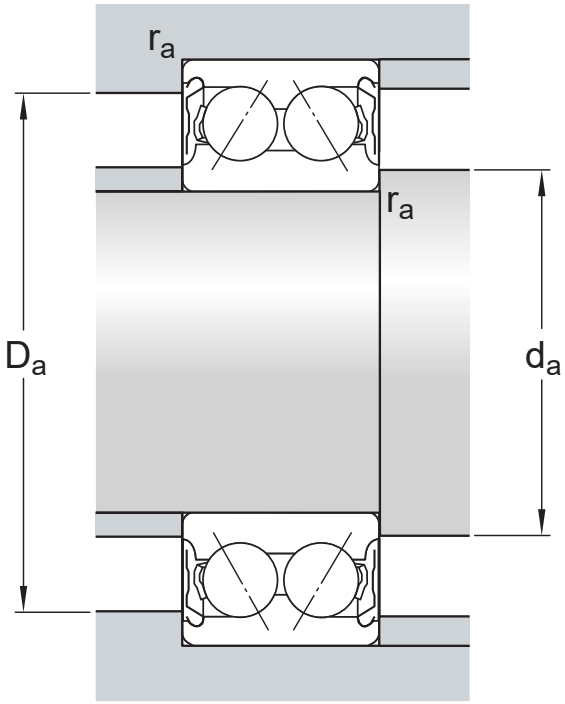
| | |
|---|---|
| eClass code | 23-05-08-03 |
| UNSPSC code | 31171531 |

# Technical specification




## Dimensions

| | | |
|---|---|---|
| d | 35 mm | Bore diameter |
| D | 72 mm | Outside diameter |
| B | 27 mm | Width |
| $d_2$ | ≈ 45.4 mm | Recess diameter inner ring shoulder |
| $D_2$ | ≈ 63.85 mm | Recess diameter outer ring shoulder |
| $r_{1,2}$ | min. 1.1 mm | Chamfer dimension inner ring |
| a | 42 mm | Distance pressure point(s) |




## Abutment dimensions

| | | |
|---|---|---|
| $d_a$ | min. 42 mm | Abutment diameter shaft |
| $d_a$ | max. 45 mm | Abutment diameter shaft |
| $D_a$ | max. 65 mm | Abutment diameter housing |
| $r_a$ | max. 1 mm | Fillet radius |

## Calculation data

| | | |
|---|---|---|
| SKF performance class | | SKF Explorer |
| Basic dynamic load rating | C | 40.5 kN |
| Basic static load rating | $C_0$ | 30 kN |
| Fatigue load limit | $P_u$ | 1.27 kN |
| Reference speed | | 9 000 r/min |
| Limiting speed | | 9 000 r/min |
| Calculation factor | $k_r$ | 0.06 |
| Limiting value | e | 0.8 |
| Calculation factor | X | 0.63 |
| Calculation factor | $Y_0$ | 0.66 |
| Calculation factor | $Y_1$ | 0.78 |

| | | |
|---|---|---|
| Calculation factor | $Y_2$ | 1.24 |

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6, P5
- Internal clearance: table, drawing no

## BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

## More Information

### Product details

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

### Engineering information

- Principles of rolling bearing selection
- General bearing knowledge
- Bearing selection process
- Bearing interfaces
- Seat tolerances for standard conditions
- Selecting internal clearance or preload
- Lubrication
- Sealing, mounting and dismounting
- Bearing failure and how to prevent it

### Tools

- SKF Product select
- SimPro Quick
- Bearing Frequency Calculator
- LubeSelect for SKF greases
- Heater selection tool
- SKF mounting and dismounting instructions

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