



## 3205 A-2Z

### Double row angular contact ball bearing with seals on both sides

Double row angular contact ball bearings, with seals on both sides, 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    | 25 mm   |
| Contact angle    | 30 °    |
| Outside diameter | 52 mm   |
| Width            | 20.6 mm |

### Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 22 kN        |
| Basic static load rating  | 15.3 kN      |
| Limiting speed            | 12 000 r/min |
| Reference speed           | 12 000 r/min |
| SKF performance class     | SKF Explorer |

## Properties

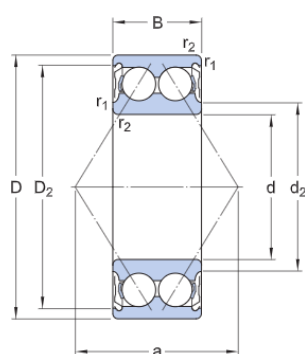
|                                                   |                                    |
|---------------------------------------------------|------------------------------------|
| Arrangement of contact angle (double-row bearing) | Back-to-back (0)                   |
| Axial internal clearance                          | CN                                 |
| Cage                                              | Sheet metal                        |
| Coating                                           | Without                            |
| Contact type                                      | Normal contact (two-point contact) |
| Locating feature, bearing outer ring              | None                               |
| Lubricant                                         | Grease                             |
| Matched arrangement                               | No                                 |

|                            |                                 |
|----------------------------|---------------------------------|
| Material, bearing          | Bearing steel                   |
| Number of rows             | 2                               |
| Relubrication feature      | Without                         |
| Ring type                  | One-piece inner and outer rings |
| Sealing                    | Shield on both sides            |
| Sealing type               | Non-contact                     |
| Universal matching bearing | No                              |

# Technical Specification

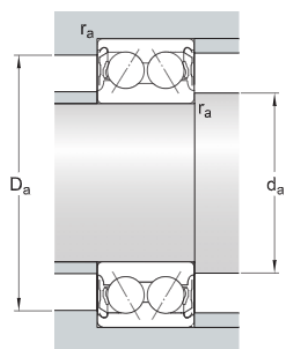
SKF performance class

SKF Explorer



## Dimensions

|                  |           |                                     |
|------------------|-----------|-------------------------------------|
| d                | 25 mm     | Bore diameter                       |
| D                | 52 mm     | Outside diameter                    |
| B                | 20.6 mm   | Width                               |
| d <sub>2</sub>   | ≈ 32.7 mm | Recess diameter inner ring shoulder |
| D <sub>2</sub>   | ≈ 45.9 mm | Recess diameter outer ring shoulder |
| r <sub>1,2</sub> | min. 1 mm | Chamfer dimension inner ring        |
| a                | 30 mm     | Distance pressure point(s)          |



## Abutment dimensions

|                |              |                           |
|----------------|--------------|---------------------------|
| d <sub>a</sub> | min. 30.6 mm | Abutment diameter shaft   |
| d <sub>a</sub> | max. 32.5 mm | Abutment diameter shaft   |
| D <sub>a</sub> | max. 46.4 mm | Abutment diameter housing |
| r <sub>a</sub> | max. 1 mm    | Fillet radius             |

## Calculation data

|                           |                |              |
|---------------------------|----------------|--------------|
| Basic dynamic load rating | C              | 22 kN        |
| Basic static load rating  | C <sub>0</sub> | 15.3 kN      |
| Fatigue load limit        | P <sub>u</sub> | 0.64 kN      |
| Reference speed           |                | 12 000 r/min |

|                    |       |              |
|--------------------|-------|--------------|
| Limiting speed     |       | 12 000 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         |

## Mass

|              |         |
|--------------|---------|
| Mass bearing | 0.18 kg |
|--------------|---------|

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