# 7307 BEGBP

## Single row angular contact ball bearing

These single row angular contact ball bearings can accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They can operate at high speeds and, depending on the variant, even very high speeds. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

- High-speed capability
- Accommodate relatively high radial loads and large unilateral axial loads

## Overview

### Dimensions

| | |
|---|---|
| Bore diameter | 1.378 in |
| Outside diameter | 3.15 in |
| Width | 0.827 in |

### Performance

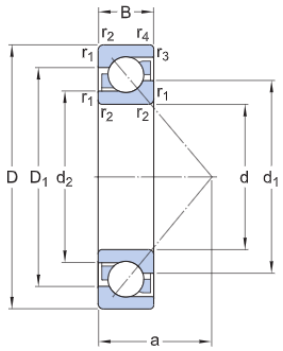
| | |
|---|---|
| Basic dynamic load rating | 9 330 lbf |
| Basic static load rating | 5 957 lbf |
| Limiting speed | 11 000 r/min |
| Reference speed | 11 000 r/min |
| SKF performance class | SKF Explorer |

### Properties

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

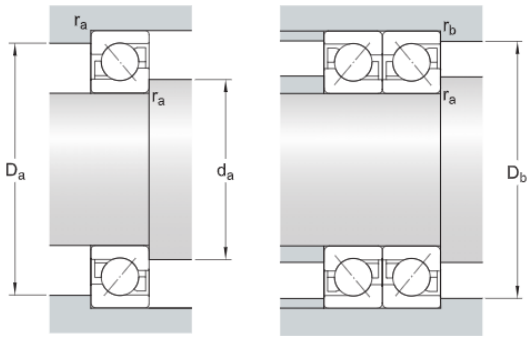
# Technical Specification

| | |
|---|---|
| SKF performance class | SKF Explorer |




## Dimensions

| | | |
|---|---|---|
| d | 1.378 in | Bore diameter |
| D | 3.15 in | Outside diameter |
| B | 0.827 in | Width |
| $d_1$ | ≈ 2.067 in | Shoulder diameter of inner ring (large side face) |
| $d_2$ | ≈ 1.717 in | Shoulder diameter of inner ring (small side face) |
| $D_1$ | ≈ 2.492 in | Shoulder diameter of outer ring (large side face) |
| a | 1.378 in | Distance side face to pressure point |
| $r_{1,2}$ | min. 0.059 in | Chamfer dimension |
| $r_{3,4}$ | min. 0.039 in | Chamfer dimension |




## Abutment dimensions

| | | |
|---|---|---|
| $d_a$ | min. 1.732 in | Diameter of shaft abutment |
| $D_a$ | max. 2.795 in | Abutment diameter housing |
| $D_b$ | max. 2.929 in | Diameter of housing abutment |
| $r_a$ | max. 0.059 in | Radius of fillet |
| $r_b$ | max. 0.039 in | Radius of fillet |

## Calculation data

| | | |
|---|---|---|
| Basic dynamic load rating | C | 9 330 lbf |
| Basic static load rating | $C_0$ | 5 957 lbf |
| Fatigue load limit | $P_u$ | 256 lbf |
| Reference speed | | 11 000 r/min |
| Limiting speed | | 11 000 r/min |
| Minimum axial load factor | A | 0.0111 |
| 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 |

## Mass

| | |
|---|---|
| Mass | 0.992 lb |

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