



7312 BEGAY

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 | 2.362 in |
| Outside diameter | 5.118 in |
| Width | 1.22 in |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 23 380 lbf |
| Basic static load rating | 17 198 lbf |
| Limiting speed | 6 700 r/min |
| Reference speed | 6 300 r/min |
| SKF performance class | SKF Explorer |

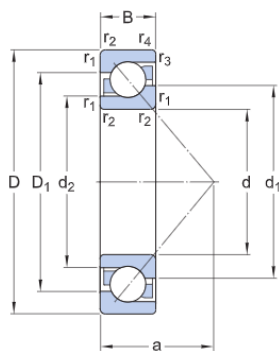
Properties

| | |
|--------------------------------------|------------------------------------|
| Axial internal clearance | Not applicable |
| Cage | Sheet metal |
| 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

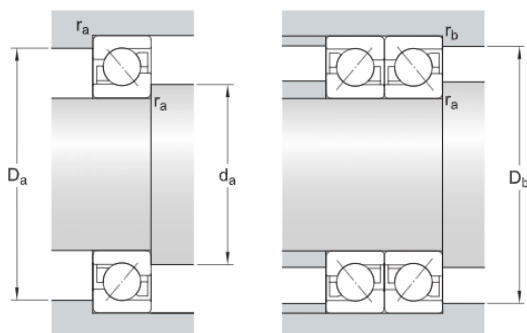


Dimensions

| | | |
|------------------|---------------|---|
| d | 2.362 in | Bore diameter |
| D | 5.118 in | Outside diameter |
| B | 1.22 in | Width |
| d ₁ | ≈ 3.435 in | Shoulder diameter of inner ring (large side face) |
| d ₂ | ≈ 2.858 in | Shoulder diameter of inner ring (small side face) |
| D ₁ | ≈ 4.126 in | Shoulder diameter of outer ring (large side face) |
| a | 2.165 in | Distance side face to pressure point |
| r _{1,2} | min. 0.083 in | Chamfer dimension |
| r _{3,4} | min. 0.043 in | Chamfer dimension |

Abutment dimensions

| | | |
|----------------|---------------|------------------------------|
| d _a | min. 2.835 in | Diameter of shaft abutment |
| D _a | max. 4.646 in | Abutment diameter housing |
| D _b | max. 4.843 in | Diameter of housing abutment |
| r _a | max. 0.079 in | Radius of fillet |
| r _b | max. 0.039 in | Radius of fillet |



Calculation data

| | | |
|----------------------------|----------------|-------------|
| Basic dynamic load rating | C | 23 380 lbf |
| Basic static load rating | C ₀ | 17 198 lbf |
| Fatigue load limit | P _u | 719 lbf |
| Reference speed | | 6 300 r/min |
| Limiting speed | | 6 700 r/min |
| Minimum axial load factor | A | 0.0846 |
| 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 | 3.858 lb |
|------|----------|

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