



7248 BCBM

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 | 9.449 in |
| Outside diameter | 17.323 in |
| Width | 2.835 in |

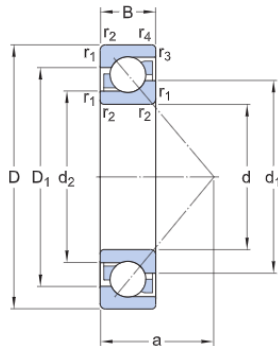
Performance

| | |
|---------------------------|-------------|
| Basic dynamic load rating | 81 830 lbf |
| Basic static load rating | 121 397 lbf |
| Limiting speed | 1 700 r/min |
| Reference speed | 1 600 r/min |

Properties

| | |
|--------------------------------------|------------------------------------|
| Axial internal clearance | Not applicable |
| Cage | Machined 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

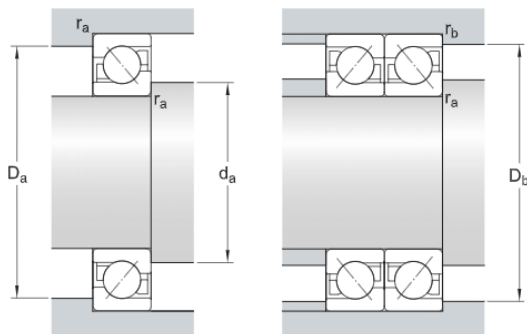


Dimensions

| | | |
|------------------|---------------|---|
| d | 9.449 in | Bore diameter |
| D | 17.323 in | Outside diameter |
| B | 2.835 in | Width |
| d ₁ | ≈ 12.701 in | Shoulder diameter of inner ring (large side face) |
| d ₂ | ≈ 11.52 in | Shoulder diameter of inner ring (small side face) |
| D ₁ | ≈ 14.189 in | Shoulder diameter of outer ring (large side face) |
| a | 7.087 in | Distance side face to pressure point |
| r _{1,2} | min. 0.157 in | Chamfer dimension |
| r _{3,4} | min. 0.059 in | Chamfer dimension |

Abutment dimensions

| | | |
|----------------|----------------|------------------------------|
| d _a | min. 10.118 in | Diameter of shaft abutment |
| D _a | max. 16.654 in | Abutment diameter housing |
| D _b | max. 16.969 in | Diameter of housing abutment |
| r _a | max. 0.157 in | Radius of fillet |
| r _b | max. 0.059 in | Radius of fillet |



Calculation data

| | | |
|---------------------------|----------------|-------------|
| Basic dynamic load rating | C | 81 830 lbf |
| Basic static load rating | C ₀ | 121 397 lbf |
| Fatigue load limit | P _u | 2 810 lbf |
| Reference speed | | 1 600 r/min |

| | | |
|----------------------------|-------|-------------|
| Limiting speed | | 1 700 r/min |
| Minimum axial load factor | A | 5.12 |
| Minimum radial load factor | k_r | 0.08 |
| 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 | 108.027 lb |
|------|------------|

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