



QJ 320 N2MA Four-point contact ball bearing with locating slots

Four-point contact ball bearing with locating slots

Four-point contact ball bearings with locating slots can accommodate high axial loads in both directions and small radial loads. They can operate at very high speeds and are more suitable than deep groove ball bearings for supporting large axial forces. The outer ring, with ball and cage assembly, can be mounted separately from the two inner ring halves. The locating slots can be used to prevent the outer ring from rotating.

- High-speed capability
- Accommodate high axial loads in both directions and small radial loads
- Require considerably less axial space than double row angular contact ball bearings
- The locating slots can be used to prevent the outer ring from rotating

Overview

Dimensions

| | |
|------------------|--------|
| Bore diameter | 100 mm |
| Outside diameter | 215 mm |
| Width | 47 mm |
| Contact angle | 35 ° |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 345 kN |
| Basic static load rating | 400 kN |
| Limiting speed | 5 600 r/min |
| SKF performance class | SKF Explorer |

Properties

| | |
|--------------------------------------|---|
| Contact type | Four-point contact |
| Number of rows | 1 |
| Locating feature, bearing outer ring | Locating slot |
| Ring type | Two-piece inner ring and one-piece outer ring |
| Cage | Machined metal |
| Matched arrangement | No |
| Universal matching bearing | No |

| | |
|--------------------------|---------------|
| Axial internal clearance | CN |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | Without |

Technical Specification

SKF performance class

SKF Explorer

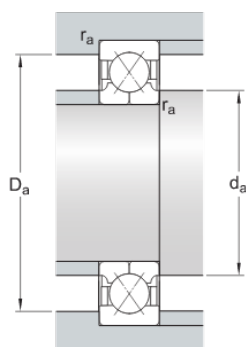


Dimensions

| | | |
|-----------|-----------|---|
| d | 100 mm | Bore diameter |
| D | 215 mm | Outside diameter |
| B | 47 mm | Width |
| d_1 | ≈ 139 mm | Shoulder diameter inner ring |
| D_1 | ≈ 176 mm | Shoulder diameter outer ring/ inner diameter housing washer |
| a | 110 mm | Distance pressure point(s) |
| h | 11.7 mm | Locating slot depth outer ring |
| b | 10.5 mm | Locating slot width outer ring |
| r_0 | 2 mm | Corner radius locating slot |
| $r_{1,2}$ | min. 3 mm | Chamfer dimension inner ring |

Abutment dimensions

| | | |
|-------|-------------|---------------------------|
| d_a | min. 114 mm | Abutment diameter shaft |
| D_a | max. 201 mm | Abutment diameter housing |
| r_a | max. 2 mm | Fillet radius |



Calculation data

| | | |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C | 345 kN |
| Basic static load rating | C_0 | 400 kN |
| Fatigue load limit | P_u | 13.7 kN |
| Limiting speed | | 5 600 r/min |
| Calculation factor | A | 0.442 |
| Limiting value | e | 0.95 |
| Calculation factor | X | 0.6 |
| Calculation factor | Y_0 | 0.58 |
| Calculation factor | Y_1 | 0.66 |
| Calculation factor | Y_2 | 1.07 |

Mass

| | |
|--------------|--------|
| Mass bearing | 9.3 kg |
|--------------|--------|

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