

NKIA 5912 Combined needle roller / angular contact ball bearing for axial loads in one direction

Combined needle roller / angular contact ball bearing for axial loads in one direction

These bearings consist of a radial needle roller bearing combined with an angular contact ball bearing. Together they can accommodate both heavy radial loads and light axial loads in one direction. In addition, they can operate at high speeds. Their low cross-sectional height makes the bearings particularly suitable for applications where other types of locating bearing arrangements occupy too much space.

- Accommodate radial loads and axial loads in one direction
- High load carrying capacity
- High-speed capability
- Low cross section
- Separable design

Overview

Dimensions

| | |
|------------------|-------|
| Bore diameter | 60 mm |
| Outside diameter | 85 mm |
| Width | 34 mm |

Performance

| | |
|-----------------|-------------|
| Reference speed | 6 000 r/min |
| Limiting speed | 6 700 r/min |

Properties

| | |
|-------------------------------|------------------|
| Bearing part | Complete bearing |
| Thrust part | With cage |
| Radial part | With cage |
| Rolling element (thrust part) | Balls |
| Axial load capability | Single-direction |
| Radial internal clearance | CN |
| Tolerance class | Normal |
| Material, bearing | Bearing steel |
| Coating | Without |
| Lubricant (thrust part) | None |

Technical Specification

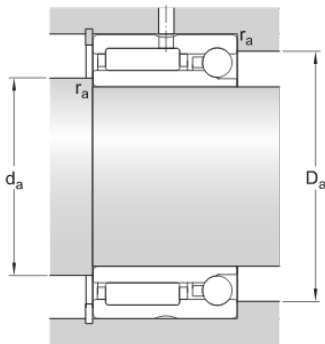


Dimensions

| | | |
|------------------|-----------|--------------------------------|
| d | 60 mm | Bore diameter |
| D | 85 mm | Outside diameter |
| B | 34 mm | Width |
| F | 68 mm | Diameter of inner ring raceway |
| r _{1,2} | min. 1 mm | Chamfer dimension |

Abutment dimensions

| | | |
|----------------|------------|------------------------------|
| d _a | min. 65 mm | Diameter of shaft abutment |
| D _a | max. 80 mm | Diameter of housing abutment |
| r _a | max. 1 mm | Radius of fillet |



Calculation data

| | | |
|-----------------------------------|----------------|-------------|
| Basic dynamic load rating, radial | C | 60.5 kN |
| Basic static load rating, radial | C ₀ | 114 kN |
| Basic dynamic load rating, axial | C | 9.58 kN |
| Basic static load rating, axial | C ₀ | 18 kN |
| Fatigue load limit, radial | P _u | 14.3 kN |
| Fatigue load limit, axial | P _u | 0.77 kN |
| Reference speed | | 6 000 r/min |
| Limiting speed | | 6 700 r/min |

Mass

Mass

0.59 kg

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