

51415 M Single direction thrust ball bearing

bearing

Single direction thrust ball bearing

Single direction thrust ball bearings can accommodate axial loads in one direction. They must not be subjected to any radial load. Their separable components facilitate mounting/dismounting and maintenance inspections. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enable interference fit

Overview

Dimensions

| | |
|------------------|--------|
| Bore diameter | 75 mm |
| Outside diameter | 160 mm |
| Height | 65 mm |

Performance

| | |
|---------------------------|-------------|
| Basic dynamic load rating | 251 kN |
| Basic static load rating | 610 kN |
| Reference speed | 1 300 r/min |
| Limiting speed | 1 800 r/min |

Properties

| | |
|-----------------------|------------------|
| Axial load capability | Single-direction |
| Number of rows | 1 |
| Cage | Machined metal |
| Housing washer type | Flat |
| Tolerance class | Normal |
| Material, bearing | Bearing steel |
| Coating | Without |

Technical Specification



Dimensions

| | | |
|-----------|-----------|-------------------------------|
| d | 75 mm | Bore diameter |
| D | 160 mm | Outside diameter |
| H | 65 mm | Height |
| d_1 | ≈ 160 mm | Outside diameter shaft washer |
| D_1 | ≈ 78 mm | Inner diameter housing washer |
| $r_{1,2}$ | min. 2 mm | Chamfer dimension washer |

Abutment dimensions

| | | |
|-------|-------------|---------------------------|
| d_a | min. 126 mm | Abutment diameter shaft |
| D_a | max. 109 mm | Abutment diameter housing |
| r_a | max. 2 mm | Fillet radius |



Calculation data

| | | |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C | 251 kN |
| Basic static load rating | C_0 | 610 kN |
| Fatigue load limit | P_u | 20.8 kN |
| Reference speed | | 1 300 r/min |
| Limiting speed | | 1 800 r/min |
| Minimum load factor | A | 1.9 |

Mass

Mass bearing (including seat washer where applicable)

6.75 kg

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