

# 6036 MDeep groove ball bearing



## Deep groove ball bearing

Single row deep groove ball bearings are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types.

- Simple, versatile and robust design
- Low friction
- High-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

## Overview

### Dimensions

|                  |        |
|------------------|--------|
| Bore diameter    | 180 mm |
| Outside diameter | 280 mm |
| Width            | 46 mm  |

### Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 190 kN      |
| Basic static load rating  | 200 kN      |
| Reference speed           | 4 800 r/min |
| Limiting speed            | 4 000 r/min |

### Properties

|                                      |                |
|--------------------------------------|----------------|
| Filling slots                        | Without        |
| Number of rows                       | 1              |
| Locating feature, bearing outer ring | None           |
| Bore type                            | Cylindrical    |
| Cage                                 | Machined metal |
| Matched arrangement                  | No             |
| Radial internal clearance            | CN             |
| Tolerance class                      | Normal         |
| Material, bearing                    | Bearing steel  |
| Coating                              | Without        |
| Sealing                              | Without        |
| Lubricant                            | None           |
| Relubrication feature                | Without        |

# Technical Specification



## Dimensions

|           |             |                   |
|-----------|-------------|-------------------|
| d         | 180 mm      | Bore diameter     |
| D         | 280 mm      | Outside diameter  |
| B         | 46 mm       | Width             |
| $d_1$     | ≈ 212.05 mm | Shoulder diameter |
| $D_1$     | ≈ 248 mm    | Shoulder diameter |
| $r_{1,2}$ | min. 2.1 mm | Chamfer dimension |

## Abutment dimensions

|       |             |                                   |
|-------|-------------|-----------------------------------|
| $d_a$ | min. 190 mm | Diameter of shaft abutment        |
| $D_a$ | max. 270 mm | Diameter of housing abutment      |
| $r_a$ | max. 2 mm   | Radius of shaft or housing fillet |



## Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 190 kN      |
| Basic static load rating  | $C_0$ | 200 kN      |
| Fatigue load limit        | $P_u$ | 5.6 kN      |
| Reference speed           |       | 4 800 r/min |
| Limiting speed            |       | 4 000 r/min |
| Minimum load factor       | $k_r$ | 0.025       |
| Calculation factor        | $f_0$ | 15.6        |

## Mass

|              |         |
|--------------|---------|
| Mass bearing | 10.3 kg |
|--------------|---------|

## Tolerance class

|                        |        |
|------------------------|--------|
| Dimensional tolerances | Normal |
| Radial run-out         | Normal |

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