



Image may differ from product. See technical specification for details.

61814

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 | 70 mm |
| Outside diameter | 90 mm |
| Width | 10 mm |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 12.4 kN |
| Basic static load rating | 13.2 kN |
| Reference speed | 15 000 r/min |
| Limiting speed | 9 000 r/min |

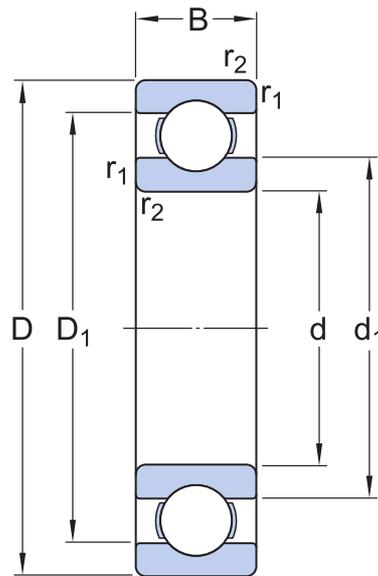
Properties

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

Logistics

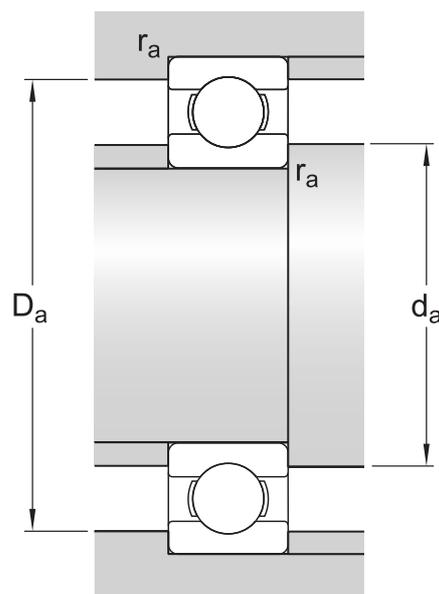
| | |
|--------------------|-------------|
| Product net weight | 0.138 kg |
| eClass code | 23-05-08-01 |
| UNSPSC code | 31171504 |

Technical specification



Dimensions

| | | |
|-----------|-------------------|-------------------|
| d | 70 mm | Bore diameter |
| D | 90 mm | Outside diameter |
| B | 10 mm | Width |
| d_1 | ≈ 76.4 mm | Shoulder diameter |
| D_1 | ≈ 83.9 mm | Shoulder diameter |
| $r_{1,2}$ | min. 0.6 mm | Chamfer dimension |



Abutment dimensions

| | | |
|-------|--------------|-----------------------------------|
| d_a | min. 73.2 mm | Diameter of shaft abutment |
| D_a | max. 86.8 mm | Diameter of housing abutment |
| r_a | max. 0.6 mm | Radius of shaft or housing fillet |

Calculation data

| | | |
|---------------------------|-------|--------------|
| Basic dynamic load rating | C | 12.4 kN |
| Basic static load rating | C_0 | 13.2 kN |
| Fatigue load limit | P_u | 0.56 kN |
| Reference speed | | 15 000 r/min |
| Limiting speed | | 9 000 r/min |
| Minimum load factor | k_r | 0.015 |
| Calculation factor | f_0 | 17.2 |

Mass

| | |
|--------------|---------|
| Mass bearing | 0.14 kg |
|--------------|---------|

Tolerance class

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

More Information

|  Product details |  Engineering information |  Tools |
|---|---|---|
| Single row deep groove ball bearings | Principles of rolling bearing selection | SKF Product select |
| Stainless steel deep groove ball bearings | General bearing knowledge | SimPro Quick |
| Single row deep groove ball bearings with filling slots | Bearing selection process | Bearing Frequency Calculator |
| Double row deep groove ball bearings | Bearing interfaces | LubeSelect for SKF greases |
| General bearing specifications | Seat tolerances for standard conditions | Heater selection tool |
| Loads | Selecting internal clearance | |
| Temperature limits | Lubrication | |
| Permissible speed | Sealing, mounting and dismounting | |
| Designation system | Bearing failure and how to prevent it | |



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