



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

## 6020

### 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    | 3.937 in  |
| Outside diameter | 5.9055 in |
| Width            | 0.9449 in |

## Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 14 320 lbf   |
| Basic static load rating  | 12 140 lbf   |
| Reference speed           | 9 500 r/min  |
| Limiting speed            | 5 600 r/min  |
| SKF performance class     | SKF Explorer |

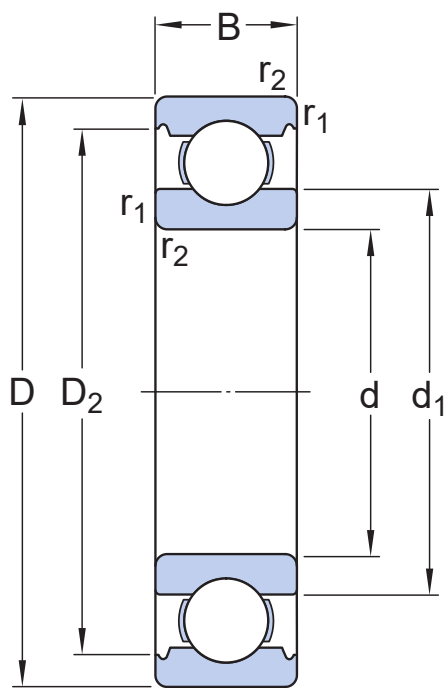
## Properties

|                                                    |                           |
|----------------------------------------------------|---------------------------|
| 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                        |
| Material, bearing                                  | Bearing steel             |
| Coating                                            | Without                   |
| Sealing                                            | Without                   |
| Lubricant                                          | None                      |
| Relubrication feature                              | Without                   |
| Indicative product carbon footprint to manufacture | 9.72 lb CO <sub>2</sub> e |

## Logistics

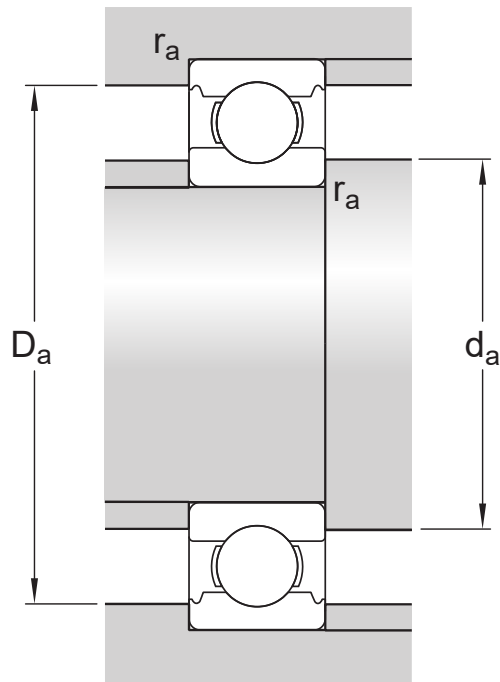
|                    |             |
|--------------------|-------------|
| Product net weight | 2.7 lb      |
| eClass code        | 23-05-08-01 |
| UNSPSC code        | 31171504    |

Technical specification



Dimensions

|                                |                |                                                |
|--------------------------------|----------------|------------------------------------------------|
| d                              | 3.937 in       | Bore diameter                                  |
| t <sub>Δdmp</sub>              | -15 – 0 μm     | Deviation limits of mid-range bore diameter    |
| D                              | 5.9055 in      | Outside diameter                               |
| t <sub>ΔDmp</sub>              | -15 – 0 μm     | Deviation limits of mid-range outside diameter |
| B                              | 0.9449 in      | Width                                          |
| t <sub>ΔBs</sub>               | -100 – 0 μm    | Deviation limits of ring width                 |
| d <sub>1</sub>                 | ≈ 4.565 in     | Shoulder diameter                              |
| D <sub>2</sub>                 | ≈ 5.4449 in    | Recess diameter                                |
| r <sub>1,2</sub>               | min. 0.0591 in | Chamfer dimension                              |
| P6 and tighter width tolerance |                | ISO tolerance class for dimensions             |



## Abutment dimensions

|       |                |                                   |
|-------|----------------|-----------------------------------|
| $d_a$ | min. 4.2126 in | Diameter of shaft abutment        |
| $D_a$ | max. 5.6299 in | Diameter of housing abutment      |
| $r_a$ | max. 0.0591 in | Radius of shaft or housing fillet |

## Calculation data

|                           |       |              |
|---------------------------|-------|--------------|
| SKF performance class     |       | SKF Explorer |
| Basic dynamic load rating | C     | 14 320 lbf   |
| Basic static load rating  | $C_0$ | 12 140 lbf   |
| Fatigue load limit        | $P_u$ | 459 lbf      |
| Reference speed           |       | 9 500 r/min  |
| Limiting speed            |       | 5 600 r/min  |
| Minimum load factor       | $k_r$ | 0.025        |
| Calculation factor        | $f_0$ | 15.9         |

## Tolerances of run-out

|                                                            |           |                  |
|------------------------------------------------------------|-----------|------------------|
| Range of section height at inner ring of assembled bearing | $t_{kia}$ | 25 $\mu\text{m}$ |
| Range of section height at outer ring of assembled bearing | $t_{kea}$ | 40 $\mu\text{m}$ |

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Radial internal clearance: Classes C2 to C5

BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fits](#)

Compatible products

Recommended tool

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Deep groove ball bearing puller kit

[TMMD 100](#)

# More Information

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

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