



# 6311

- Popular item  
- SKF Explorer

## Deep groove ball bearings

### Bearing data

[Tolerances](#),

Normal (metric), P6, P5, Normal (inch),

[Radial internal clearance](#),

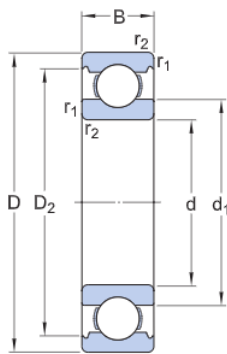
Classes C2 to C5

### Bearing interfaces

[Seat tolerances for standard conditions](#),

[Tolerances and resultant fits](#)

## Technical specification

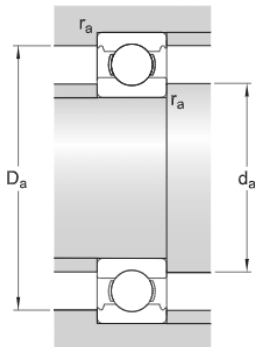


### DIMENSIONS

|                  |            |                   |
|------------------|------------|-------------------|
| d                | 55 mm      | Bore diameter     |
| D                | 120 mm     | Outside diameter  |
| B                | 29 mm      | Width             |
| d <sub>1</sub>   | ≈ 75.34 mm | Shoulder diameter |
| D <sub>2</sub>   | ≈ 103.7 mm | Recess diameter   |
| r <sub>1,2</sub> | min. 2 mm  | Chamfer dimension |

### ABUTMENT DIMENSIONS

|                            |                                   |
|----------------------------|-----------------------------------|
| d <sub>c</sub> min. 66 mm  | Diameter of shaft abutment        |
| D <sub>i</sub> max. 109 mm | Diameter of housing abutment      |
| r <sub>a</sub> max. 2 mm   | Radius of shaft or housing fillet |



## CALCULATION DATA

|                           |                |              |
|---------------------------|----------------|--------------|
| Basic dynamic load rating | C              | 74.1 kN      |
| Basic static load rating  | C <sub>0</sub> | 45 kN        |
| Fatigue load limit        | P <sub>u</sub> | 1.9 kN       |
| Reference speed           |                | 12 000 r/min |
| Limiting speed            |                | 8 000 r/min  |
| Minimum load factor       | k <sub>r</sub> | 0.03         |
| Calculation factor        | f <sub>0</sub> | 13.1         |

## MASS

|              |         |
|--------------|---------|
| Mass bearing | 1.37 kg |
|--------------|---------|

## TOLERANCE CLASS

|                        |        |
|------------------------|--------|
| Dimensional tolerances | P6     |
| Radial run-out         | Normal |

## 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="#">Bearing 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="#">Engineering 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="#">Bearing data</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="#">Rolling bearings mounting and dismounting instructions</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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