



## 6003-2Z

- Popular item  
- SKF Explorer

### Deep groove ball bearings

#### Bearing data

[Tolerances](#),

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

[Radial internal clearance](#),

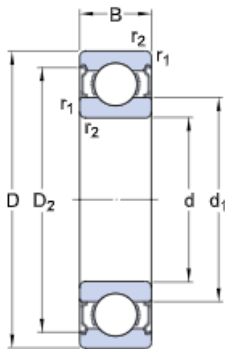
Matched bearing pairs, Stainless steel  
 $d < 10$  mm, Other bearings

#### Bearing interfaces

[Seat tolerances for standard conditions](#),

[Tolerances and resultant fits](#)

### Technical specification



#### DIMENSIONS

|      |            |                   |
|------|------------|-------------------|
| d    | 17 mm      | Bore diameter     |
| D    | 35 mm      | Outside diameter  |
| B    | 10 mm      | Width             |
| d1   | ≈23 mm     | Shoulder diameter |
| D2   | ≈31.2 mm   | Recess diameter   |
| r1,2 | min.0.3 mm | Chamfer dimension |

#### ABUTMENT DIMENSIONS

|    |             |                                   |
|----|-------------|-----------------------------------|
| da | min.19 mm   | Diameter of shaft abutment        |
| da | max.22.9 mm | Diameter of shaft abutment        |
| Da | max.33 mm   | Diameter of housing abutment      |
| ra | max.0.3 mm  | Radius of shaft or housing fillet |



## CALCULATION DATA

|                           |                |              |
|---------------------------|----------------|--------------|
| Basic dynamic load rating | C              | 6.37 kN      |
| Basic static load rating  | C <sub>0</sub> | 3.25 kN      |
| Fatigue load limit        | P <sub>u</sub> | 0.137 kN     |
| Reference speed           |                | 45 000 r/min |
| Limiting speed            |                | 22 000 r/min |
| Minimum load factor       | k <sub>r</sub> | 0.025        |
| Calculation factor        | f <sub>0</sub> | 14           |

## MASS

|              |          |
|--------------|----------|
| Mass bearing | 0.041 kg |
|--------------|----------|

## TOLERANCE CLASS

|                        |    |
|------------------------|----|
| Dimensional tolerances | P6 |
| Radial run-out         | P5 |

## 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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