



## 623-Z

### Deep groove ball bearings

#### Bearing data

[Tolerances,](#)

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

[Radial internal clearance,](#)

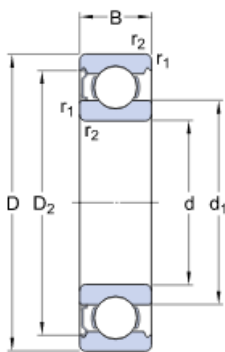
Matched bearing pairs, Stainless steel  
d < 10 mm, Other bearings

#### Bearing interfaces

[Seat tolerances for standard conditions,](#)

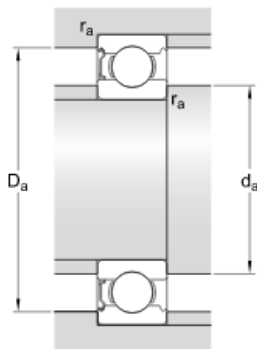
[Tolerances and resultant fits](#)

### Technical specification



#### DIMENSIONS

|                  |              |
|------------------|--------------|
| d                | 3 mm         |
| D                | 10 mm        |
| B                | 4 mm         |
| d <sub>1</sub>   | ≈ 4.8 mm     |
| D <sub>2</sub>   | ≈ 8.2 mm     |
| r <sub>1,2</sub> | min. 0.15 mm |



#### ABUTMENT DIMENSIONS

|                |             |
|----------------|-------------|
| d <sub>a</sub> | min. 4.2 mm |
| d <sub>a</sub> | max. 5.1 mm |
| D <sub>a</sub> | max. 8.8 mm |
| r <sub>a</sub> | max. 0.1 mm |

## CALCULATION DATA

|                           |       |              |
|---------------------------|-------|--------------|
| Basic dynamic load rating | C     | 0.54 kN      |
| Basic static load rating  | $C_0$ | 0.18 kN      |
| Fatigue load limit        | $P_u$ | 0.007 kN     |
| Reference speed           |       | 130000 r/min |
| Limiting speed            |       | 80000 r/min  |
| Calculation factor        | $k_T$ | 0.025        |
| Calculation factor        | $f_0$ | 7.5          |

## MASS

|              |  |           |
|--------------|--|-----------|
| Mass bearing |  | 0.0015 kg |
|--------------|--|-----------|

More information

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

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