



# 623-2RS1 Deep groove ball bearing with seals or shields

## Deep groove ball bearing with seals or shields

Single row deep groove ball bearings with seals or shields 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. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Low friction and high-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

## Overview

### Dimensions

Bore diameter	3 mm
Outside diameter	10 mm
Width	4 mm

### Performance

Basic dynamic load rating	0.54 kN
Basic static load rating	0.18 kN
Limiting speed	40 000 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	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Contact

Lubricant

Grease

Relubrication feature

Without

# Technical Specification



## Dimensions

d	3 mm	Bore diameter
D	10 mm	Outside diameter
B	4 mm	Width
d <sub>1</sub>	≈ 4.8 mm	Shoulder diameter
D <sub>2</sub>	≈ 8.2 mm	Recess diameter
r <sub>1,2</sub>	min. 0.15 mm	Chamfer dimension

## Abutment dimensions

d <sub>a</sub>	min. 4.2 mm	Diameter of shaft abutment
d <sub>a</sub>	max. 5.1 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 8.8 mm	Diameter of housing abutment
r <sub>a</sub>	max. 0.1 mm	Radius of shaft or housing fillet



## Calculation data

Basic dynamic load rating	C	0.54 kN
Basic static load rating	C <sub>0</sub>	0.18 kN
Fatigue load limit	P <sub>u</sub>	0.007 kN
Limiting speed		40 000 r/min
Minimum load factor	k <sub>r</sub>	0.025
Calculation factor	f <sub>0</sub>	7.5

## Mass

Mass bearing	0.0015 kg
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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