



# 609

## 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	9 mm
Outside diameter	24 mm
Width	7 mm

### Performance

Basic dynamic load rating	3.9 kN
Basic static load rating	1.66 kN
Limiting speed	43 000 r/min
Reference speed	70 000 r/min
SKF performance class	SKF Explorer

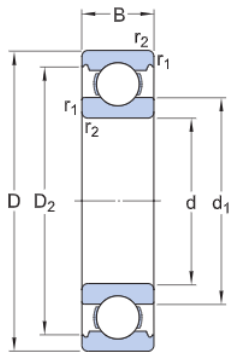
### Properties

Bore type	Cylindrical
Cage	Sheet metal
Coating	Without
Filling slots	Without
Locating feature, bearing outer ring	None
Lubricant	None
Matched arrangement	No
Material, bearing	Bearing steel
Number of rows	1
Radial internal clearance	CN
Relubrication feature	Without
Sealing	Without

# Technical Specification

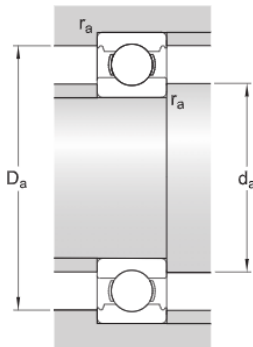
SKF performance class

SKF Explorer



## Dimensions

d	9 mm	Bore diameter
D	24 mm	Outside diameter
B	7 mm	Width
d <sub>1</sub>	≈ 14.45 mm	Shoulder diameter
D <sub>2</sub>	≈ 21.2 mm	Recess diameter
r <sub>1,2</sub>	min. 0.3 mm	Chamfer dimension



## Abutment dimensions

d <sub>a</sub>	min. 11 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 22 mm	Diameter of housing abutment
r <sub>a</sub>	max. 0.3 mm	Radius of shaft or housing fillet

## Calculation data

Basic dynamic load rating	C	3.9 kN
Basic static load rating	C <sub>0</sub>	1.66 kN
Fatigue load limit	P <sub>u</sub>	0.071 kN
Reference speed		70 000 r/min

Limiting speed		43 000 r/min
Minimum load factor	$k_r$	0.025
Calculation factor	$f_0$	13

## Mass

Mass bearing		0.014 kg
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## Tolerance class

Dimensional tolerances		P6
Radial run-out		P5

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