

# 61800

# 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

10 mm

19 mm

5 mm

- Accommodate radial and axial loads in both directions
- Require little maintenance

## Overview

#### Dimensions

Bore diameter

Outside diameter

#### Performance

Basic dynamic load rating	1.72 kN
Basic static load rating	0.83 kN
Limiting speed	48 000 r/min
Reference speed	80 000 r/min

#### Properties

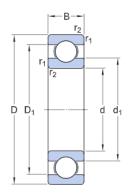
Width

Bore type	Cylindrical
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





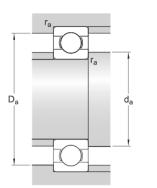
# Technical Specification



#### Dimensions

d	10 mm	Bore diameter
D	19 mm	Outside diameter
В	5 mm	Width
$d_1$	≈ 12.74 mm	Shoulder diameter
D <sub>1</sub>	≈16.26 mm	Shoulder diameter
r <sub>1,2</sub>	min. 0.3 mm	Chamfer dimension

#### Abutment dimensions



$d_a$	min. 12 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 17 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	С	1.72 kN
Basic static load rating	C <sub>O</sub>	0.83 kN
Fatigue load limit	P <sub>u</sub>	0.036 kN
Reference speed		80 000 r/min
Limiting speed		48 000 r/min
Minimum load factor	k <sub>r</sub>	0.015
Calculation factor	f <sub>0</sub>	14.8



#### Mass

Mass bearing

0.0053 kg

#### Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal



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