

6309-2Z

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	45 mm
Outside diameter	100 mm
Width	25 mm

Performance

Basic dynamic load rating	55.3 kN
Basic static load rating	31.5 kN
Reference speed	15 000 r/min
Limiting speed	7 500 r/min
SKF performance class	SKF Explorer

Properties

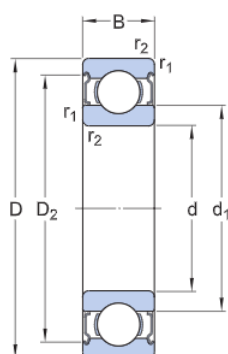
Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication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

Technical Specification

SKF performance class

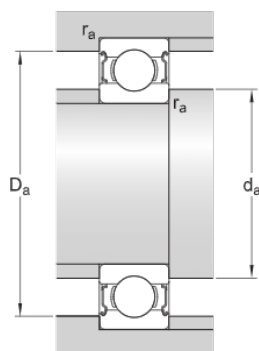
SKF Explorer

Dimensions



d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width
d ₁	≈ 62.18 mm	Shoulder diameter
D ₂	≈ 86.7 mm	Recess diameter
r _{1,2}	min. 1.5 mm	Chamfer dimension

Abutment dimensions



d _a min. 54 mm	Diameter of shaft abutment
d _a max. 62.1 mm	Diameter of shaft abutment
D _a max. 91 mm	Diameter of housing abutment
r _a max. 1.5 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	55.3 kN
Basic static load rating	C ₀	31.5 kN
Fatigue load limit	P _u	1.34 kN
Reference speed		15 000 r/min

Limiting speed		7 500 r/min
Minimum load factor	k_r	0.03
Calculation factor	f_0	13

Mass

Mass bearing	0.87 kg
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Tolerance class

Dimensional tolerances	P6
Radial run-out	P6

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