

6311

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	55 mm
Outside diameter	120 mm
Width	29 mm

Performance

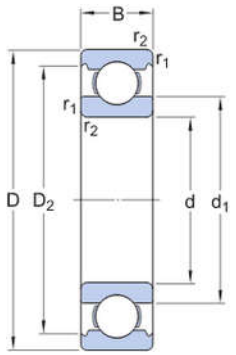
Basic dynamic load rating	74.1 kN
Basic static load rating	45 kN
Limiting speed	8 000 r/min
Reference speed	12 000 r/min
SKF performance class	SKF Explorer

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

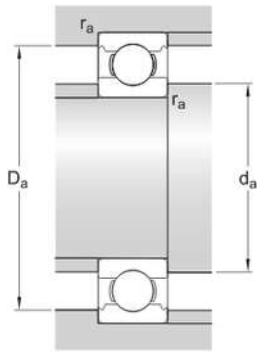
Technical Specification

SKF performance class	SKF Explorer



Dimensions

d	55 mm	Bore diameter
D	120 mm	Outside diameter
B	29 mm	Width
d_1	≈ 75.34 mm	Shoulder diameter
D_2	≈ 103.7 mm	Recess diameter
$r_{1,2}$	min. 2 mm	Chamfer dimension



Abutment dimensions

d_a	min. 66 mm	Diameter of shaft abutment
D_a	max. 109 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	74.1 kN
Basic static load rating	C_0	45 kN
Fatigue load limit	P_u	1.9 kN
Reference speed		12 000 r/min

Limiting speed		8 000 r/min
Minimum load factor	k_r	0.03
Calculation factor	f_0	13.1

Mass

Mass bearing	1.37 kg

Tolerance class

Dimensional tolerances	P6
Radial run-out	Normal

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