

# 6311-2Z



## 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	55 mm
Outside diameter	120 mm
Width	29 mm

### Performance

Basic dynamic load rating	74.1 kN
Basic static load rating	45 kN
Reference speed	12 000 r/min
Limiting speed	6 300 r/min
SKF performance class	SKF Explorer

### Properties

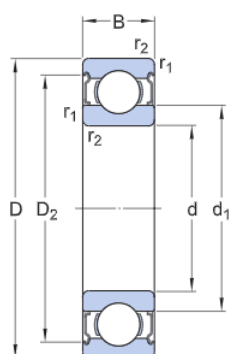
Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication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

# Technical Specification

SKF performance class

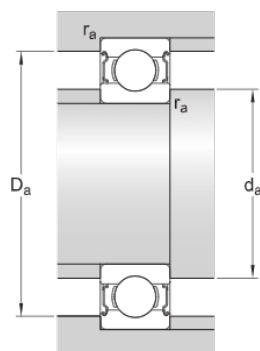
SKF Explorer

## Dimensions



d	55 mm	Bore diameter
D	120 mm	Outside diameter
B	29 mm	Width
d <sub>1</sub>	≈ 75.34 mm	Shoulder diameter
D <sub>2</sub>	≈ 103.7 mm	Recess diameter
r <sub>1,2</sub>	min. 2 mm	Chamfer dimension

## Abutment dimensions



d <sub>a</sub> min.	66 mm	Diameter of shaft abutment
d <sub>a</sub> max.	75.2 mm	Diameter of shaft abutment
D <sub>a</sub> max.	109 mm	Diameter of housing abutment
r <sub>a</sub> max.	2 mm	Radius of shaft or housing fillet

## Calculation data

Basic dynamic load rating	C	74.1 kN
Basic static load rating	C <sub>0</sub>	45 kN
Fatigue load limit	P <sub>u</sub>	1.9 kN
Reference speed		12 000 r/min

Limiting speed		6 300 r/min
Minimum load factor	$k_r$	0.03
Calculation factor	$f_0$	13.1

## Mass

Mass bearing		1.42 kg
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## Tolerance class

Dimensional tolerances		P6
Radial run-out		Normal

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