



Image may differ from product. See technical specification for details.

311-2Z

Deep groove ball bearing with filling slots and integral sealing

Single row deep groove ball bearings with filling slots and shields on one or both sides, accommodate more balls than standard deep groove ball bearings. They are of a simple, yet versatile, design and are robust in operation, requiring little maintenance. They can accommodate radial and axial loads in both directions. They have a higher radial load carrying capacity than the corresponding bearings without filling slots but have a limited axial load carrying capacity due to the filling slots. 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
- Accommodate higher radial loads than corresponding bearings without filling slots, with limited 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	79.2 kN
Basic static load rating	67 kN
Reference speed	10 000 r/min
Limiting speed	5 000 r/min

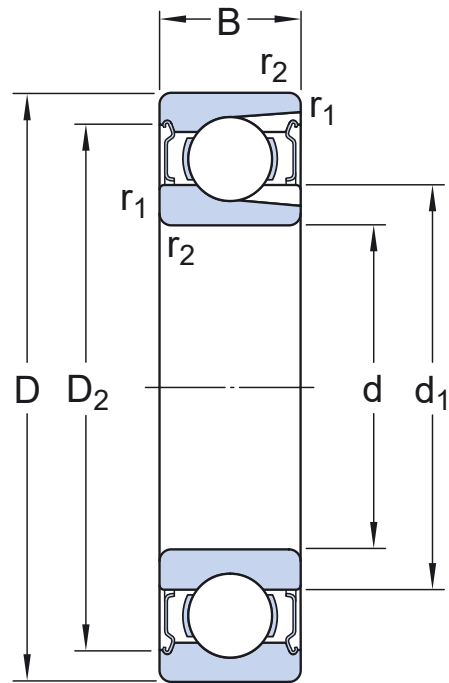
Properties

Filling slots	With
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

Logistics

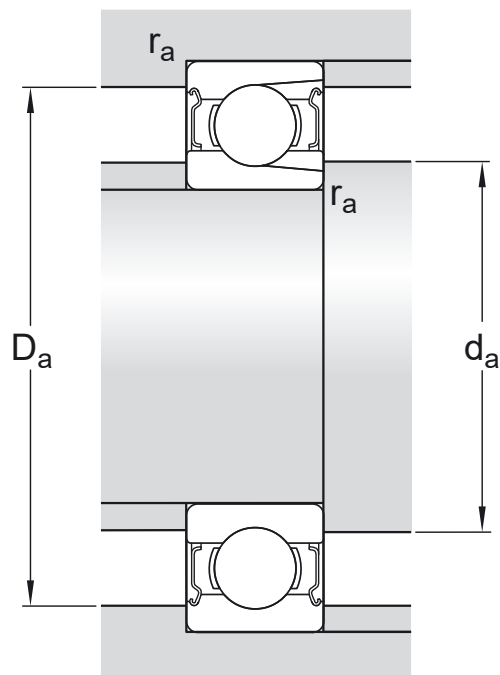
Product net weight	1.54 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



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. 75.2 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	79.2 kN
Basic static load rating	C ₀	67 kN
Fatigue load limit	P _u	2.85 kN
Reference speed		10 000 r/min
Limiting speed		5 000 r/min
Minimum load factor	k _r	0.05

Tolerances and clearances




GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Radial internal clearance: Classes C2 to C5

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits

More Information

 Product details	 Engineering information	 Tools
Single row deep groove ball bearings	Principles of rolling bearing selection	SKF Product select
Stainless steel deep groove ball bearings	General bearing knowledge	SimPro Quick
Single row deep groove ball bearings with filling slots	Bearing selection process	Bearing Frequency Calculator
Double row deep groove ball bearings	Bearing interfaces	LubeSelect for SKF greases
General bearing specifications	Seat tolerances for standard conditions	Heater selection tool
Loads	Selecting internal clearance	
Temperature limits	Lubrication	
Permissible speed	Sealing, mounting and dismounting	
Designation system	Bearing failure and how to prevent it	

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