



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

6304-2ZNR

Deep groove ball bearing with snap ring and integral sealing

Single row deep groove ball bearing, with snap ring groove and seals or shields on one or both sides, 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 other

bearing types. The snap ring, fitted in an annular groove in the outer ring, facilitates axial location of the bearings within their housings. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Snap ring facilitates axial location within housing
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	20 mm
Outside diameter	52 mm
Width	15 mm

Performance

Basic dynamic load rating	16.8 kN
Basic static load rating	7.8 kN
Reference speed	30 000 r/min
Limiting speed	15 000 r/min
SKF performance class	SKF Explorer

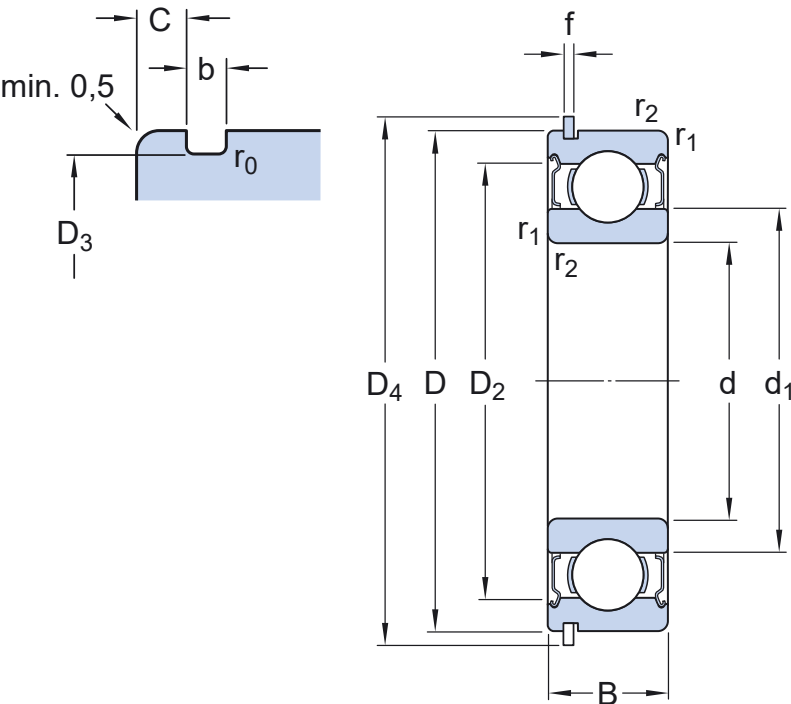
Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	Snap ring (fitted)
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

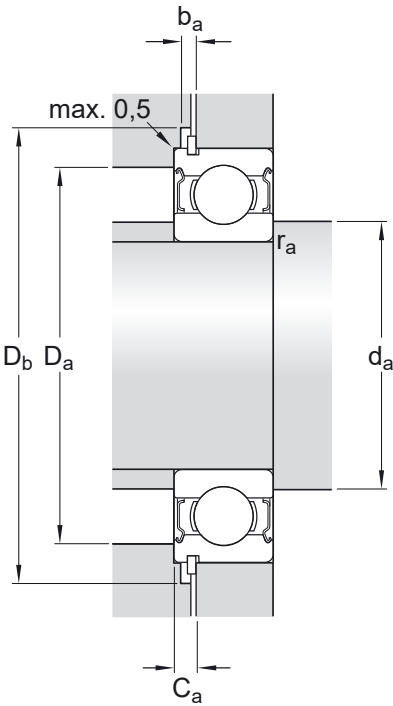
Product net weight	0.149 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	20 mm	Bore diameter
D	52 mm	Outside diameter
B	15 mm	Width
d ₁	≈ 30.35 mm	Shoulder diameter
D ₂	≈ 44.71 mm	Recess diameter
D ₃	49.73 mm	Diameter of snap ring groove
D ₄	57.9 mm	Outside diameter of snap ring
b	1.35 mm	Width of snap ring groove
C	2.46 mm	Distance from outer ring side face to snap ring groove
f	1.12 mm	Width of snap ring
r ₀	max. 0.4 mm	Bottom radius of snap ring groove
r _{1,2}	min. 1.1 mm	Chamfer dimension



Abutment dimensions

d _a	min. 27 mm	Diameter of shaft abutment
d _a	max. 30.3 mm	Diameter of shaft abutment
D _a	max. 45 mm	Diameter of housing abutment
D _b	min. 59 mm	Diameter of snap ring recess in the housing
b _a	min. 1.5 mm	Width of snap ring recess in the housing
C _a	max. 3.58 mm	Distance from outer ring side face to snap ring back face
r _a	max. 1 mm	Radius of shaft or housing fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	16.8 kN
Basic static load rating	C ₀	7.8 kN
Fatigue load limit	P _u	0.335 kN
Reference speed		30 000 r/min
Limiting speed		15 000 r/min
Minimum load factor	k _r	0.03
Calculation factor	f ₀	12

Included products

Snap ring	SP 52
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Tolerance class

Dimensional tolerances	P6
Radial run-out	P5

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