

6205 NR

Deep groove ball bearing with snap ring



Single row deep groove ball bearings with a snap ring groove 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 snap ring, fitted in an annular groove in the outer ring, facilitates axial location of the bearings within their housings.

- Snap ring facilitates axial location within housing
- 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	25 mm
Outside diameter	52 mm
Width	15 mm

Performance

Basic dynamic load rating	14.8 kN
Basic static load rating	7.8 kN
Limiting speed	18 000 r/min
Reference speed	28 000 r/min
SKF performance class	SKF Explorer

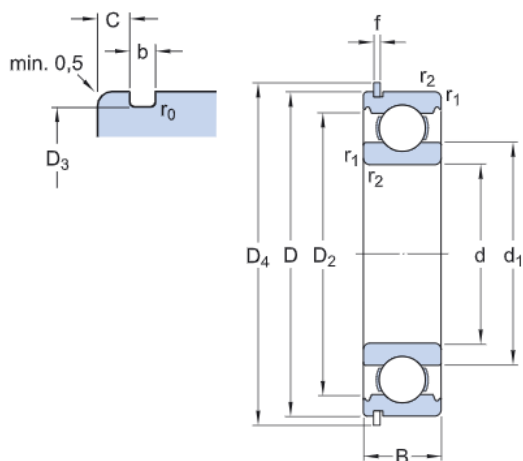
Properties

Bore type	Cylindrical
Cage	Sheet metal
Coating	Without
Filling slots	Without
Locating feature, bearing outer ring	Snap ring (fitted)
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

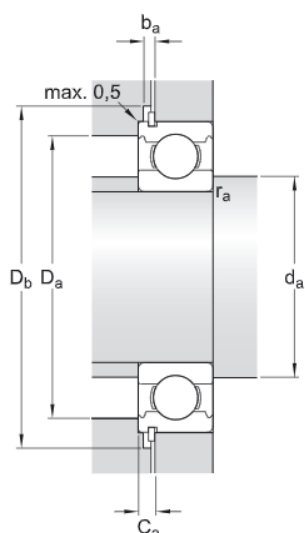
SKF Explorer



Dimensions

d	25 mm	Bore diameter
D	52 mm	Outside diameter
B	15 mm	Width
d ₁	≈ 34.35 mm	Shoulder diameter
D ₂	≈ 46.21 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 outer ring from 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 mm	Chamfer dimension

Abutment dimensions



d _a	min. 30.6 mm	Diameter of shaft abutment
D _ε	max. 46.4 mm	Diameter of housing abutment
D _l	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 _ε	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

Basic dynamic load rating	C	14.8 kN
Basic static load rating	C_0	7.8 kN
Fatigue load limit	P_u	0.335 kN
Reference speed		28 000 r/min
Limiting speed		18 000 r/min
Minimum load factor	k_r	0.025
Calculation factor	f_0	14

Mass

Mass bearing	0.13 kg
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Included products

Snap ring	SP 52
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Tolerance class

Dimensional tolerances	P6
Radial run-out	P5

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