

# 6407 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	35 mm
Outside diameter	100 mm
Width	25 mm

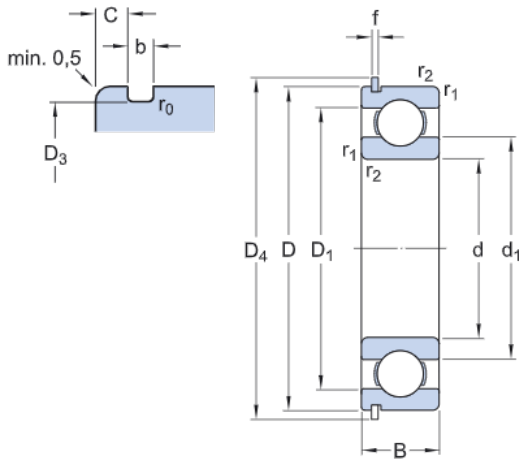
### Performance

Basic dynamic load rating	55.3 kN
Basic static load rating	31 kN
Reference speed	16 000 r/min
Limiting speed	10 000 r/min

### 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	Without
Lubricant	None
Relubrication feature	Without

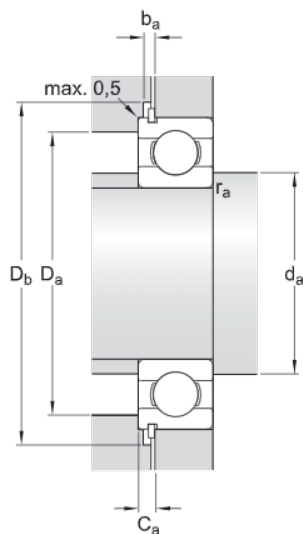
## Technical Specification



### Dimensions

d	35 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width
d <sub>1</sub>	≈ 57.45 mm	Shoulder diameter
D <sub>1</sub>	≈ 79.55 mm	Shoulder diameter
D <sub>3</sub>	96.8 mm	Diameter of snap ring groove
D <sub>4</sub>	106.5 mm	Outside diameter of snap ring
b	2.7 mm	Width of snap ring groove
C	3.28 mm	Distance outer ring from side face to snap ring groove
f	2.46 mm	Width of snap ring
r <sub>0</sub>	max. 0.6 mm	Bottom radius of snap ring groove
r <sub>1,2</sub>	min. 1.5 mm	Chamfer dimension

### Abutment dimensions



d <sub>a</sub>	min. 46 mm	Diameter of shaft abutment
D <sub>i</sub>	max. 89 mm	Diameter of housing abutment
D <sub>f</sub>	min. 108 mm	Diameter of snap ring recess in the housing
b <sub>a</sub>	min. 3 mm	Width of snap ring recess in the housing
C <sub>e</sub>	max. 5.74 mm	Distance from outer ring side face to snap ring back face
r <sub>a</sub>	max. 1.5 mm	Radius of shaft or housing fillet

### Calculation data

Basic dynamic load rating	C	55.3 kN
Basic static load rating	$C_0$	31 kN
Fatigue load limit	$P_u$	1.29 kN
Reference speed		16 000 r/min
Limiting speed		10 000 r/min
Minimum load factor	$k_r$	0.035
Calculation factor	$f_0$	12

## Mass

Mass bearing	0.99 kg
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## Included products

Snap ring	SP 100
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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