

# 6413 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	65 mm
Outside diameter	160 mm
Width	37 mm

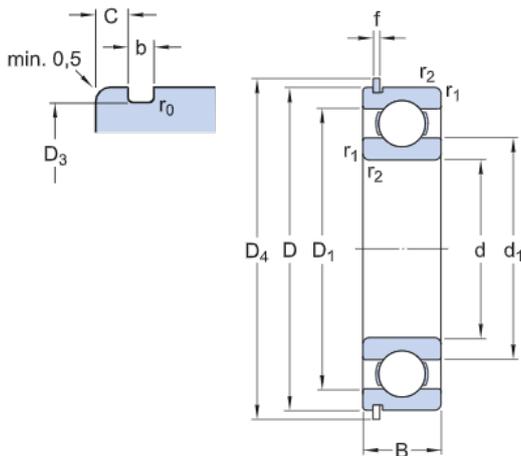
### Performance

Basic dynamic load rating	119 kN
Basic static load rating	78 kN
Reference speed	9 500 r/min
Limiting speed	6 000 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

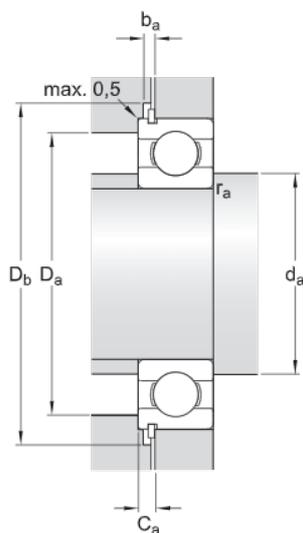
## Technical Specification



### Dimensions

d	65 mm	Bore diameter
D	160 mm	Outside diameter
B	37 mm	Width
d <sub>1</sub>	≈ 94 mm	Shoulder diameter
D <sub>1</sub>	≈ 130.5 mm	Shoulder diameter
D <sub>3</sub>	155.22 mm	Diameter of snap ring groove
D <sub>4</sub>	169.7 mm	Outside diameter of snap ring
b	3.1 mm	Width of snap ring groove
C	4.9 mm	Distance outer ring from side face to snap ring groove
f	2.82 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. 2.1 mm	Chamfer dimension

### Abutment dimensions



d <sub>a</sub>	min. 79 mm	Diameter of shaft abutment
D <sub>i</sub>	max. 146 mm	Diameter of housing abutment
D <sub>f</sub>	min. 172 mm	Diameter of snap ring recess in the housing
b <sub>a</sub>	min. 3.5 mm	Width of snap ring recess in the housing
C <sub>e</sub>	max. 7.72 mm	Distance from outer ring side face to snap ring back face
r <sub>a</sub>	max. 2 mm	Radius of shaft or housing fillet

### Calculation data

Basic dynamic load rating	C	119 kN
Basic static load rating	$C_0$	78 kN
Fatigue load limit	$P_u$	3.15 kN
Reference speed		9 500 r/min
Limiting speed		6 000 r/min
Minimum load factor	$k_r$	0.035
Calculation factor	$f_0$	12

## Mass

Mass bearing	3.42 kg
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## Included products

Snap ring	SP 160
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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