



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

## 307 NR

### Deep groove ball bearing with filling slots and snap ring

Single row deep groove ball bearings with filling slots and a snap ring 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 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
- Accommodate higher radial loads than corresponding bearings without filling slots, with limited axial loads in both directions
- Require little maintenance

# Overview

## Dimensions

Bore diameter	35 mm
Outside diameter	80 mm
Width	21 mm

## Performance

Basic dynamic load rating	34.7 kN
Basic static load rating	26.5 kN
Reference speed	16 000 r/min
Limiting speed	9 500 r/min

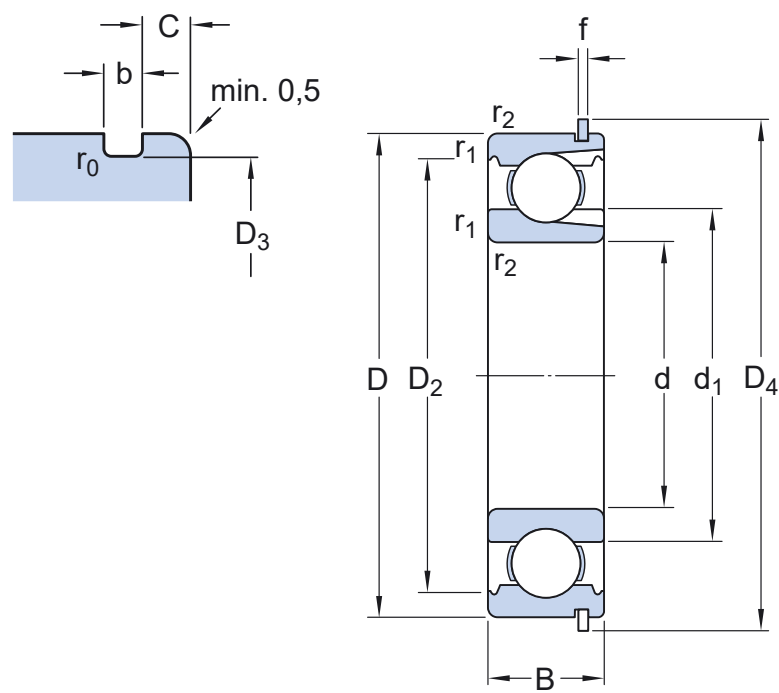
## Properties

Filling slots	With
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

## Logistics

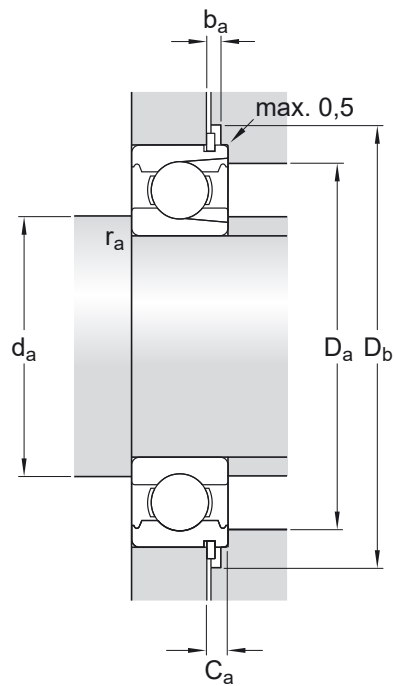
Product net weight	0.49 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	35 mm	Bore diameter
D	80 mm	Outside diameter
B	21 mm	Width
d <sub>1</sub>	≈ 49.56 mm	Shoulder diameter
D <sub>2</sub>	≈ 69.2 mm	Recess diameter
D <sub>3</sub>	76.81 mm	Diameter of snap ring groove
D <sub>4</sub>	86.6 mm	Outside diameter of snap ring
b	1.9 mm	Width of snap ring groove
C	3.28 mm	Distance from outer ring side face to snap ring groove
f	1.7 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

$d_a$	min. 44 mm	Diameter of shaft abutment
$D_a$	max. 71 mm	Diameter of housing abutment
$D_b$	min. 88 mm	Diameter of snap ring recess in the housing
$b_a$	min. 2.2 mm	Width of snap ring recess in the housing
$C_a$	max. 4.98 mm	Distance from outer ring side face to snap ring back face
$r_a$	max. 1.5 mm	Radius of shaft or housing fillet

## Calculation data

Basic dynamic load rating	C	34.7 kN
Basic static load rating	$C_0$	26.5 kN
Fatigue load limit	$P_u$	1.12 kN
Reference speed		16 000 r/min
Limiting speed		9 500 r/min
Minimum load factor	$k_r$	0.05

## Included products

Snap ring

SP 80

## Tolerances and clearances

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### 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

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