

# 6005 NRDeep groove ball bearing with snap ring



## 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	47 mm
Width	12 mm

## Performance

Basic dynamic load rating	11.9 kN
Basic static load rating	6.55 kN
Reference speed	32 000 r/min
Limiting speed	20 000 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
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None

Relubrication feature

Without

# Technical Specification

SKF performance class

SKF Explorer

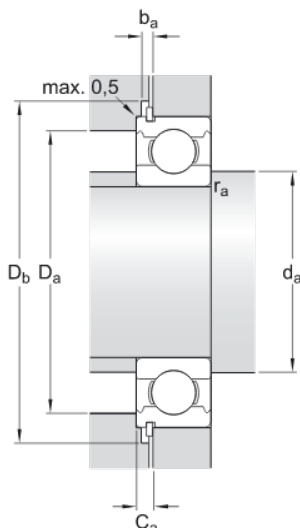


## Dimensions

d	25 mm	Bore diameter
D	47 mm	Outside diameter
B	12 mm	Width
$d_1$	≈ 32 mm	Shoulder diameter
$D_2$	≈ 42.2 mm	Recess diameter
$D_3$	44.6 mm	Diameter of snap ring groove
$D_4$	52.7 mm	Outside diameter of snap ring
b	1.35 mm	Width of snap ring groove
C	2.06 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. 0.6 mm	Chamfer dimension

## Abutment dimensions

$d_a$	min. 28.2 mm	Diameter of shaft abutment
$D_a$	max. 43.8 mm	Diameter of housing abutment
$D_b$	min. 54 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. 3.18 mm	Distance from outer ring side face to snap ring back face



$r_a$  max. 0.6  
mm

Radius of shaft or housing fillet

## Calculation data

Basic dynamic load rating	C	11.9 kN
Basic static load rating	$C_0$	6.55 kN
Fatigue load limit	$P_u$	0.275 kN
Reference speed		32 000 r/min
Limiting speed		20 000 r/min
Minimum load factor	$k_r$	0.025
Calculation factor	$f_0$	14

## Mass

Mass bearing	0.08 kg
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## Included products

Snap ring	SP 47
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## Tolerance class

Dimensional tolerances	P6
Radial run-out	P5

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