



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

## 6308-ZNR

### Deep groove ball bearing with snap ring and integral sealing

Single row deep groove ball bearing, with snap ring groove and seals or shields on one or both sides, 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 other bearing types. The snap ring, fitted in an annular groove in the outer ring, facilitates axial location of the bearings within their housings. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Snap ring facilitates axial location within housing
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

# Overview

## Dimensions

Bore diameter	40 mm
Outside diameter	90 mm
Width	23 mm

## Performance

Basic dynamic load rating	42.3 kN
Basic static load rating	24 kN
Reference speed	17 000 r/min
Limiting speed	11 000 r/min
SKF performance class	SKF Explorer

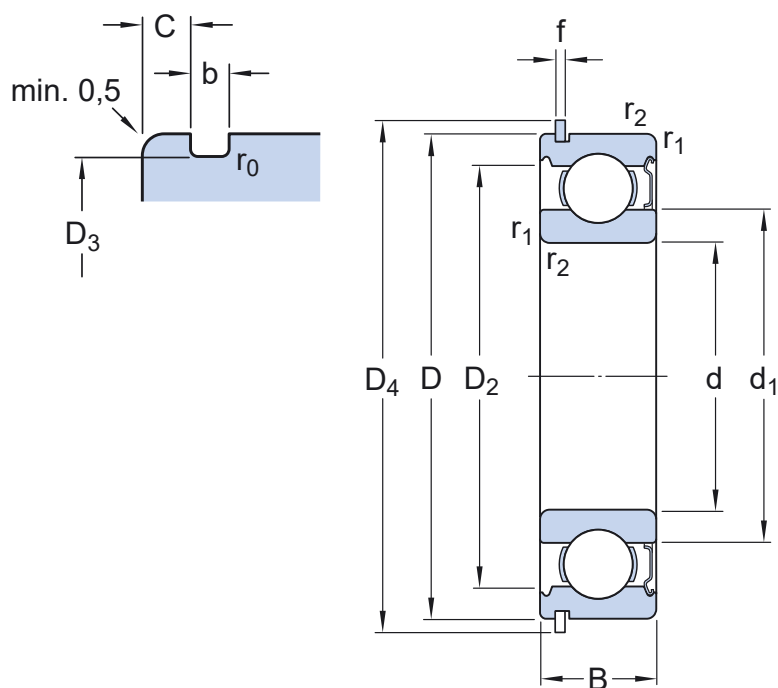
## Properties

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
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on one side
Sealing type	Non-contact
Lubricant	None
Relubrication feature	Without

## Logistics

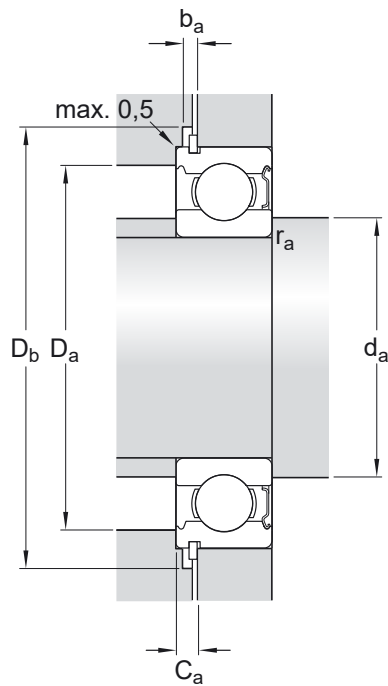
Product net weight	0.634 kg
eClass code	23-05-08-01
UNSPSC code	31171504

## Technical specification



## Dimensions

$d$	40 mm	Bore diameter
$t_{\Delta dmp}$	-0.01 – 0 mm	Deviation limits of mid-range bore diameter
$D$	90 mm	Outside diameter
$t_{\Delta Dmp}$	-0.013 – 0 mm	Deviation limits of mid-range outside diameter
$B$	23 mm	Width
$t_{\Delta Bs}$	-0.06 – 0 mm	Deviation limits of ring width
$d_1$	$\approx 56.11$ mm	Shoulder diameter
$D_2$	$\approx 77.7$ mm	Recess diameter
$D_3$	86.79 mm	Diameter of snap ring groove
$D_4$	96.5 mm	Outside diameter of snap ring
$b$	2.7 mm	Width of snap ring groove
$C$	3.28 mm	Distance from outer ring side face to snap ring groove
$f$	2.46 mm	Width of snap ring
$r_0$	max. 0.6 mm	Bottom radius of snap ring groove
$r_{1,2}$	min. 1.5 mm	Chamfer dimension
P6 and tighter width tolerance		ISO tolerance class for dimensions



## Abutment dimensions

$d_a$	min. 49 mm	Diameter of shaft abutment
$d_a$	max. 56 mm	Diameter of shaft abutment
$D_a$	max. 81 mm	Diameter of housing abutment
$D_b$	min. 98 mm	Diameter of snap ring recess in the housing
$b_a$	min. 3 mm	Width of snap ring recess in the housing
$C_a$	max. 5.74 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

SKF performance class		SKF Explorer
Basic dynamic load rating	C	42.3 kN
Basic static load rating	$C_0$	24 kN
Fatigue load limit	$P_u$	1.02 kN
Reference speed		17 000 r/min
Limiting speed		11 000 r/min
Minimum load factor	$k_r$	0.03
Calculation factor	$f_0$	13

## Tolerances of run-out

Range of section height at inner ring of assembled bearing	$t_{kia}$	10 $\mu\text{m}$
Range of section height at outer ring of assembled bearing	$t_{kea}$	18 $\mu\text{m}$
ISO tolerance class for geometrical tolerances		P6

## Included products

Snap ring	SP 90
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## Tolerances and clearances




### 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

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

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