



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

## 6204 N

### Deep groove ball bearing with snap ring groove

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. An annular groove in the outer ring enables the bearings to retain a snap ring.

- Can accommodate a snap ring
- 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	20 mm
Outside diameter	47 mm
Width	14 mm

## Performance

Basic dynamic load rating	13.5 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

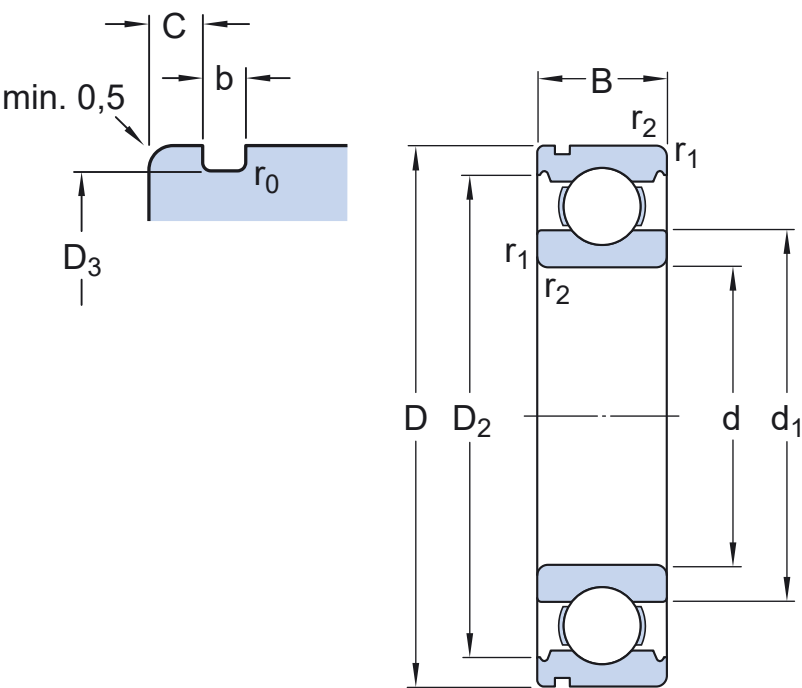
## Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	Snap ring groove
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	C3H
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

## Logistics

Product net weight	0.1 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	20 mm	Bore diameter
t <sub>Δdmp</sub>	-0.008 – 0 mm	Deviation limits of mid-range bore diameter
D	47 mm	Outside diameter
t <sub>ΔDmp</sub>	-0.009 – 0 mm	Deviation limits of mid-range outside diameter
B	14 mm	Width
t <sub>ΔBs</sub>	-0.06 – 0 mm	Deviation limits of ring width
d <sub>1</sub>	≈ 28.8 mm	Shoulder diameter
D <sub>2</sub>	≈ 40.59 mm	Recess diameter
D <sub>3</sub>	44.6 mm	Diameter of snap ring groove
b	1.35 mm	Width of snap ring groove
C	2.46 mm	Distance from outer ring side face to snap ring groove
r <sub>0</sub>	max. 0.4 mm	Bottom radius of snap ring groove
r <sub>1,2</sub>	min. 1 mm	Chamfer dimension
P6 and tighter width tolerance		ISO tolerance class for dimensions



## Abutment dimensions

$d_a$	min. 25.6 mm	Diameter of shaft abutment
$D_a$	max. 41.4 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. 3.58 mm	Distance from outer ring side face to snap ring back face
$r_a$	max. 1 mm	Radius of shaft or housing fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	13.5 kN
Basic static load rating	$C_0$	6.55 kN
Fatigue load limit	$P_u$	0.28 kN
Reference speed		32 000 r/min
Limiting speed		20 000 r/min
Minimum load factor	$k_r$	0.025
Calculation factor	$f_0$	13

## Tolerances of run-out

Range of section height at inner ring of assembled bearing	t <sub>Kia</sub>	4 μm
Maximum run-out of inner ring side face to the bore	t <sub>Sd</sub>	8 μm
Maximum axial run-out of inner ring of assembled bearing	t <sub>Sia</sub>	8 μm
Range of section height at outer ring of assembled bearing	t <sub>Kea</sub>	7 μm
Perpendicularity of outer ring outside surface	t <sub>SD</sub>	4 μm
Maximum axial run-out of outer ring of assembled bearing	t <sub>Sea</sub>	8 μm
ISO tolerance class for geometrical tolerances		P5

## 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

<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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