



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

6310 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	1.969 in
Outside diameter	4.331 in
Width	1.063 in

Performance

Basic dynamic load rating	14 613 lbf
Basic static load rating	8 543 lbf
Reference speed	13 000 r/min
Limiting speed	8 500 r/min
SKF performance class	SKF Explorer

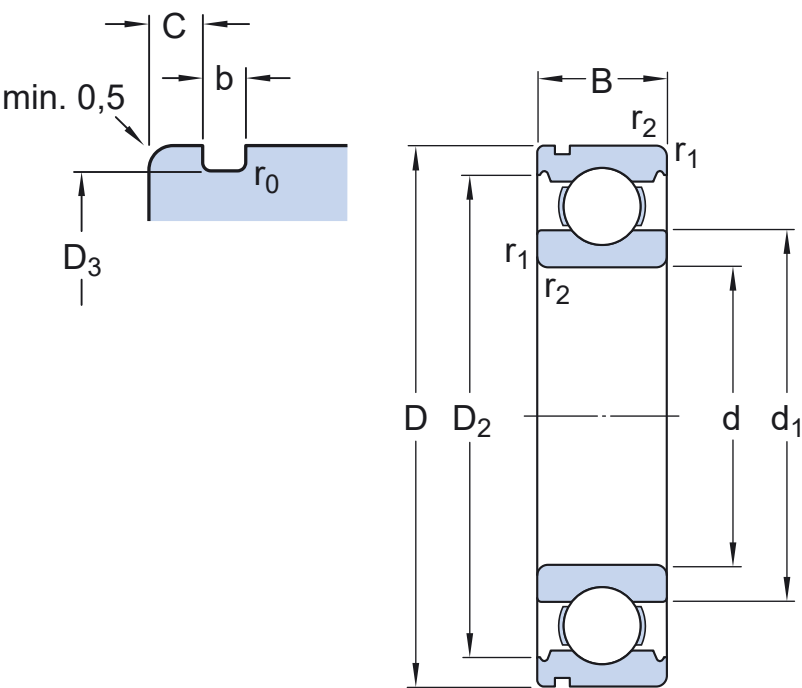
Properties

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	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Logistics

Product net weight	2.227 lb
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	1.969 in	Bore diameter
t _{Δdmp}	-10 – 0 μm	Deviation limits of mid-range bore diameter
D	4.331 in	Outside diameter
t _{ΔDmp}	-13 – 0 μm	Deviation limits of mid-range outside diameter
B	1.063 in	Width
t _{ΔBs}	-60 – 0 μm	Deviation limits of ring width
d ₁	≈ 2.707 in	Shoulder diameter
D ₃	4.205 in	Diameter of snap ring groove
b	0.106 in	Width of snap ring groove
C	0.129 in	Distance from outer ring side face to snap ring groove
r ₀	max. 0.024 in	Bottom radius of snap ring groove
r _{1,2}	min. 0.079 in	Chamfer dimension
P6 and tighter width tolerance		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 2.402 in	Diameter of shaft abutment
D_a	max. 3.898 in	Diameter of housing abutment
D_b	min. 4.646 in	Diameter of snap ring recess in the housing
b_a	min. 0.118 in	Width of snap ring recess in the housing
C_a	max. 0.226 in	Distance from outer ring side face to snap ring back face
r_a	max. 0.079 in	Radius of shaft or housing fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	14 613 lbf
Basic static load rating	C_0	8 543 lbf
Fatigue load limit	P_u	360 lbf
Reference speed		13 000 r/min
Limiting speed		8 500 r/min

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{kia}	10 μ m
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Range of section height at outer ring of assembled bearing	$t_{ke a}$	18 μm
ISO tolerance class for geometrical tolerances		P6

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

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