



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

6015 NR

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	2.953 in
Outside diameter	4.528 in
Width	0.787 in

Performance

Basic dynamic load rating	9 352 lbf
Basic static load rating	7 531 lbf
Reference speed	12 000 r/min
Limiting speed	7 500 r/min
SKF performance class	SKF Explorer

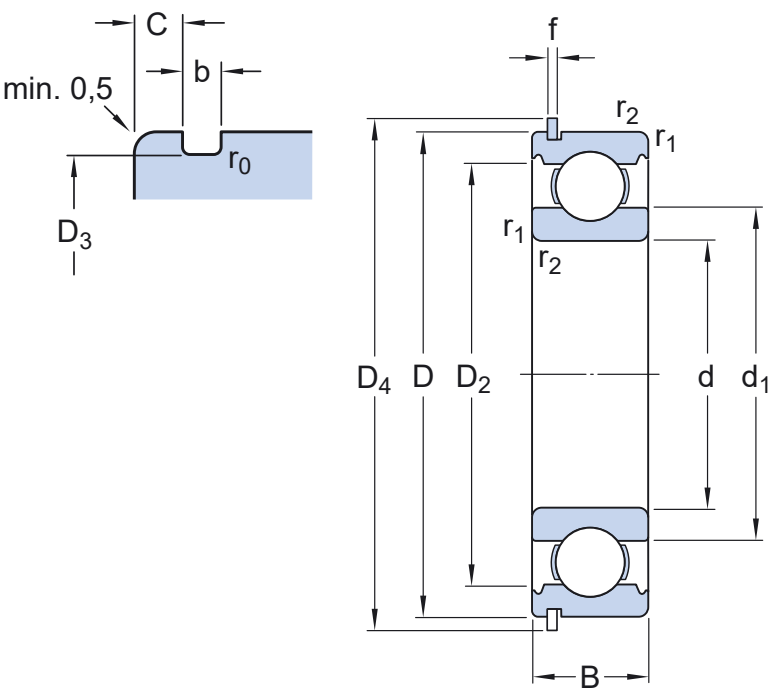
Properties

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	Without
Lubricant	None
Relubrication feature	Without

Logistics

Product net weight	1.453 lb
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	2.953 in	Bore diameter
t _{Δdmp}	-12 – 0 μm	Deviation limits of mid-range bore diameter
D	4.528 in	Outside diameter
t _{ΔDmp}	-13 – 0 μm	Deviation limits of mid-range outside diameter
B	0.787 in	Width
t _{ΔBs}	-100 – 0 μm	Deviation limits of ring width
d ₁	≈ 3.459 in	Shoulder diameter
D ₃	4.402 in	Diameter of snap ring groove
D ₄	4.787 in	Outside diameter of snap ring
b	0.106 in	Width of snap ring groove
C	0.113 in	Distance from outer ring side face to snap ring groove
f	0.097 in	Width of snap ring
r ₀	max. 0.024 in	Bottom radius of snap ring groove
r _{1,2}	min. 0.043 in	Chamfer dimension
P6 and tighter width tolerance		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 3.189 in	Diameter of shaft abutment
D_a	max. 4.291 in	Diameter of housing abutment
D_b	min. 4.843 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. 0.21 in	Distance from outer ring side face to snap ring back face
r_a	max. 0.039 in	Radius of shaft or housing fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	9 352 lbf
Basic static load rating	C_0	7 531 lbf
Fatigue load limit	P_u	321 lbf
Reference speed		12 000 r/min
Limiting speed		7 500 r/min

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{kia}	20 μ m
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Range of section height at outer ring of assembled bearing	$t_{ke a}$	35 μm
ISO tolerance class for geometrical tolerances		Normal

Included products

Snap ring	SP 115
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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
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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