



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

215-ZNR

Deep groove ball bearing with filling slots and integral sealing

Single row deep groove ball bearings with filling slots, a snap ring, and shields on one or both sides, accommodate more balls than standard deep groove ball bearings. They are of a simple, yet versatile, design and are robust in operation, requiring little maintenance. They can accommodate radial and axial loads in both directions. They have a higher radial load carrying capacity than the corresponding bearings without filling slots but have a limited axial load carrying capacity due to the filling slots. 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
- Simple, versatile and robust design
- Accommodate higher radial loads than corresponding bearings without filling slots, with limited axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	2.953 in
Outside diameter	5.118 in
Width	0.984 in

Performance

Basic dynamic load rating	16 209 lbf
Basic static load rating	16 186 lbf
Reference speed	9 000 r/min
Limiting speed	5 300 r/min

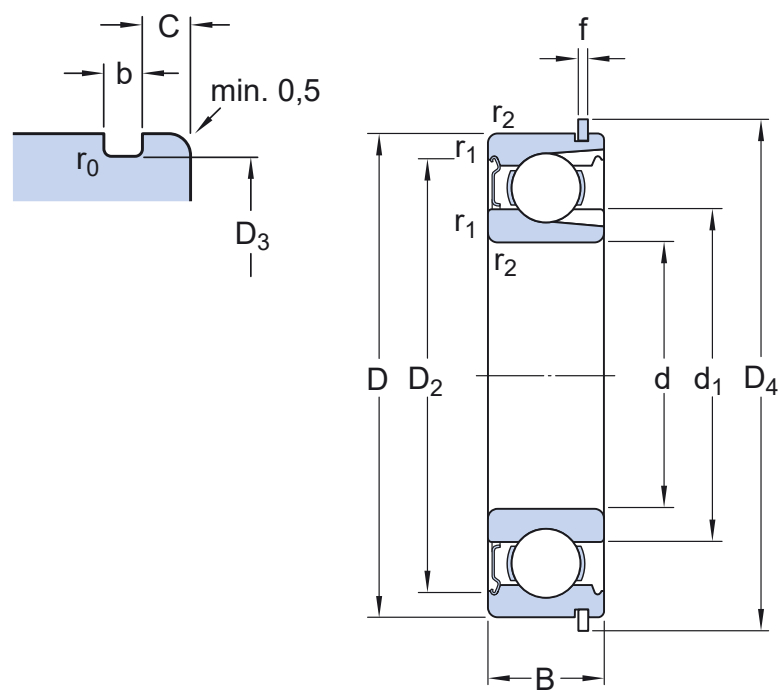
Properties

Filling slots	With
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

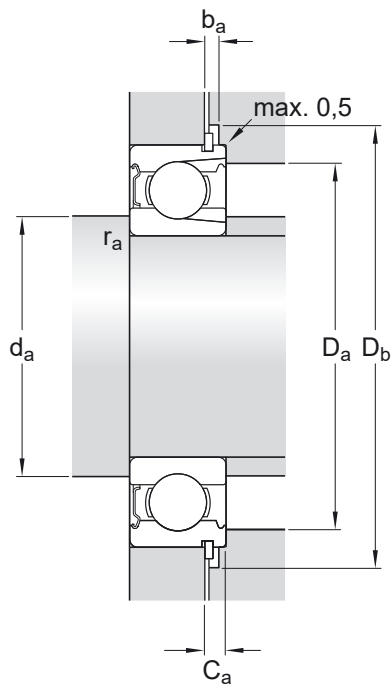
Product net weight	2.822 lb
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	2.953 in	Bore diameter
D	5.118 in	Outside diameter
B	0.984 in	Width
d ₁	≈ 3.624 in	Shoulder diameter
D ₂	≈ 4.587 in	Recess diameter
D ₃	4.93 in	Diameter of snap ring groove
D ₄	5.5 in	Outside diameter of snap ring
b	0.122 in	Width of snap ring groove
C	0.16 in	Distance from outer ring side face to snap ring groove
f	0.111 in	Width of snap ring
r ₀	max. 0.024 in	Bottom radius of snap ring groove
r _{1,2}	min. 0.059 in	Chamfer dimension



Abutment dimensions

d_a	min. 3.307 in	Diameter of shaft abutment
d_a	max. 3.622 in	Diameter of shaft abutment
D_a	max. 4.764 in	Diameter of housing abutment
D_b	min. 5.551 in	Diameter of snap ring recess in the housing
b_a	min. 0.138 in	Width of snap ring recess in the housing
C_a	max. 0.271 in	Distance from outer ring side face to snap ring back face
r_a	max. 0.059 in	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	16 209 lbf
Basic static load rating	C_0	16 186 lbf
Fatigue load limit	P_u	674 lbf
Reference speed		9 000 r/min
Limiting speed		5 300 r/min

Included products

Snap ring

SP 130

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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