



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

217 NR

Deep groove ball bearing with filling slots and snap ring

Single row deep groove ball bearings with filling slots and a snap ring 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.

- Snap ring facilitates axial location within housing
- 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	3.346 in
Outside diameter	5.906 in
Width	1.102 in

Performance

Basic dynamic load rating	21 762 lbf
Basic static load rating	22 481 lbf
Reference speed	7 500 r/min
Limiting speed	4 800 r/min

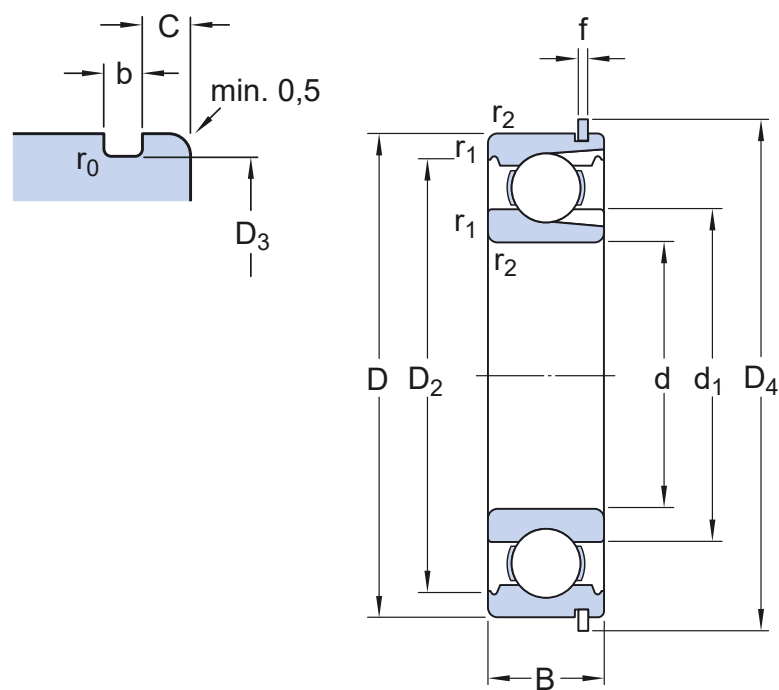
Properties

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	Without
Lubricant	None
Relubrication feature	Without

Logistics

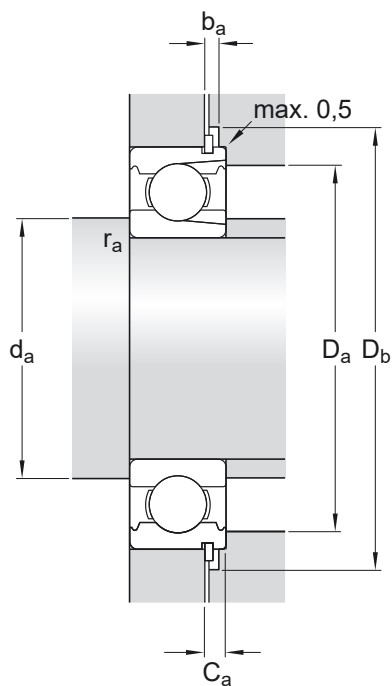
Product net weight	4.109 lb
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	3.346 in	Bore diameter
D	5.906 in	Outside diameter
B	1.102 in	Width
d ₁	≈ 4.107 in	Shoulder diameter
D ₂	≈ 5.287 in	Recess diameter
D ₃	5.718 in	Diameter of snap ring groove
D ₄	6.287 in	Outside diameter of snap ring
b	0.122 in	Width of snap ring groove
C	0.193 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. 0.079 in	Chamfer dimension



Abutment dimensions

d_a	min. 3.78 in	Diameter of shaft abutment
D_a	max. 5.472 in	Diameter of housing abutment
D_b	min. 6.378 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. 0.304 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

Basic dynamic load rating	C	21 762 lbf
Basic static load rating	C_0	22 481 lbf
Fatigue load limit	P_u	877 lbf
Reference speed		7 500 r/min
Limiting speed		4 800 r/min

Included products

Snap ring	SP 150
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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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