

6303-2ZNR



Deep groove ball bearing with snap ring and integral sealing

Single row deep groove ball bearing, with snap ring groove and seals or shields on one or both sides, 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 other bearing types. 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
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	17 mm
Outside diameter	47 mm
Width	14 mm

Performance

Basic dynamic load rating	14.3 kN
Basic static load rating	6.55 kN
Limiting speed	17 000 r/min
Reference speed	34 000 r/min
SKF performance class	SKF Explorer

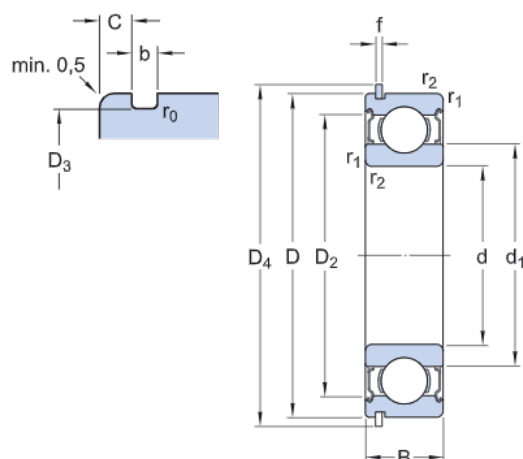
Properties

Bore type	Cylindrical
Cage	Sheet metal
Coating	Without
Filling slots	Without
Locating feature, bearing outer ring	Snap ring (fitted)
Lubricant	Grease
Matched arrangement	No
Material, bearing	Bearing steel
Number of rows	1
Radial internal clearance	CN
Relubrication feature	Without
Sealing	Shield on both sides
Sealing type	Non-contact

Technical Specification

SKF performance class

SKF Explorer

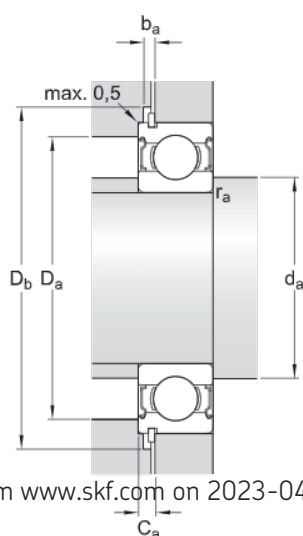


Dimensions

d	17 mm	Bore diameter
D	47 mm	Outside diameter
B	14 mm	Width
d ₁	≈ 26.52 mm	Shoulder diameter
d ₂	≈ 23.4 mm	Recess diameter
D ₂	≈ 39.58 mm	Recess diameter
D ₃	44.6 mm	Diameter of snap ring groove
D ₄	52.7 mm	Outside diameter of snap ring
b	1.35 mm	Width of snap ring groove
C	2.46 mm	Distance outer ring from side face to snap ring groove
f	1.12 mm	Width of snap ring
r ₀	max. 0.4 mm	Bottom radius of snap ring groove
r _{1,2}	min. 1 mm	Chamfer dimension

Abutment dimensions

d _a	min. 22.6 mm	Diameter of shaft abutment
d _a	max. 26.4 mm	Diameter of shaft abutment
D _i	max. 41.4 mm	Diameter of housing abutment
D _t	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_e 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

Basic dynamic load rating	C	14.3 kN
Basic static load rating	C_0	6.55 kN
Fatigue load limit	P_u	0.275 kN
Reference speed		34 000 r/min
Limiting speed		17 000 r/min
Minimum load factor	k_r	0.03
Calculation factor	f_0	12

Mass

Mass bearing	0.12 kg
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Included products

Snap ring	SP 47
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Tolerance class

Dimensional tolerances	P6
Radial run-out	P5

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