6307 NDeep groove ball bearing with snap ring groove

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	35 mm
Outside diameter	80 mm
Width	21 mm

Performance

Basic dynamic load rating	35.1 kN
Basic static load rating	19 kN
Reference speed	19 000 r/min
Limiting speed	12 000 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
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None

Relubrication feature	Without

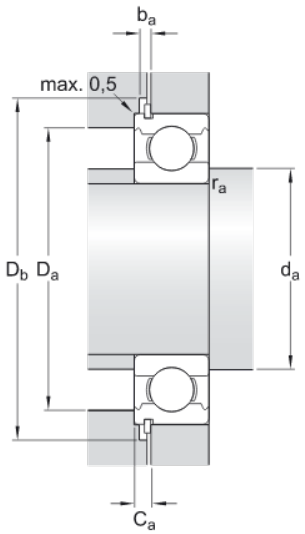
Technical Specification

SKF performance class	SKF Explorer

NOT FOUND

Dimensions

d	35 mm	Bore diameter
D	80 mm	Outside diameter
B	21 mm	Width
d_1	≈ 49.56 mm	Shoulder diameter
D_2	≈ 69.2 mm	Recess diameter
D_3	76.81 mm	Diameter of snap ring groove
b	1.9 mm	Width of snap ring groove
C	3.28 mm	Distance from outer ring side face to snap ring groove
r_0	max. 0.6 mm	Bottom radius of snap ring groove
$r_{1,2}$	min. 1.5 mm	Chamfer dimension



Abutment dimensions

d_a	min. 44 mm	Diameter of shaft abutment
D_a	max. 71 mm	Diameter of housing abutment
D_b	min. 88 mm	Diameter of snap ring recess in the housing
b_a	min. 2.2 mm	Width of snap ring recess in the housing
C_a	max. 4.98 mm	Distance from outer ring side face to snap ring back face
r_a	max. 1.5	Radius of shaft or housing fillet

mm

Calculation data

Basic dynamic load rating	C	35.1 kN
Basic static load rating	C_0	19 kN
Fatigue load limit	P_u	0.815 kN
Reference speed		19 000 r/min
Limiting speed		12 000 r/min
Minimum load factor	k_r	0.03
Calculation factor	f_0	13.1

Mass

Mass bearing	0.45 kg

Tolerance class

Dimensional tolerances	P6
Radial run-out	P6

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