



SKF 309 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.

Technical specifications

Dimensions	
Bore diameter	45 mm
Outside diameter	100 mm
Width	25 mm
Shoulder diameter	62.18 mm
Recess diameter	86.7 mm
Diameter of snap ring groove	96.8 mm
Outside diameter of snap ring	106.5 mm
Width of snap ring groove	2.7 mm
Distance from outer ring side face to snap ring groove	3.28 mm
Width of snap ring	2.46 mm
Bottom radius of snap ring groove	0.6 mm
Chamfer dimension	1.5 mm

Abutment dimensions	
Diameter of shaft abutment	54 mm
Diameter of housing abutment	91 mm
Diameter of snap ring recess in the housing	108 mm
Width of snap ring recess in the housing	3 mm
Distance from outer ring side face to snap ring back face	5.74 mm
Radius of shaft or housing fillet	1.5 mm

Calculation data	
Basic dynamic load rating	55 kN
Basic static load rating	44 kN
Fatigue load limit	1.86 kN
Reference speed	13000 r/min
Limiting speed	7500 r/min
Minimum load factor	0.05

Included products	
Snap ring	SP 100

Performance	
Basic dynamic load rating	55 kN
Basic static load rating	44 kN
Reference speed	13000 r/min
Limiting speed	7500 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
Indicative carbon footprint for new product	3.3 kg CO ₂ e

Logistics	
Product net weight	0.903 kg
eClass code	23-05-08-01
UNSPSC code	31171504

SKF drawings

