

NJ 309 ECP

Single row cylindrical roller bearing, NJ design



Single row cylindrical roller bearings are designed to accommodate high radial loads in combination with high speeds. Having two integral flanges on the outer ring and one on the inner ring, NJ design bearings can accommodate axial displacement in one direction. An important feature is the separable design, which facilitates mounting and enables the bearing components to be interchanged.

- High radial load carrying capacity
- Low friction
- Long service life
- Locate the shaft axially in one direction
- Separable design

Overview

Dimensions

Bore diameter	45 mm
Outside diameter	100 mm
Width	25 mm

Performance

Basic dynamic load rating	112 kN
Basic static load rating	100 kN
Limiting speed	8 500 r/min
Reference speed	7 500 r/min
SKF performance class	SKF Explorer

Properties

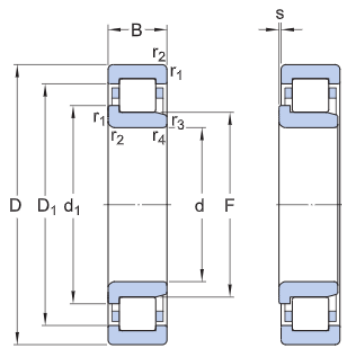
Axial displacement capability	In one direction
Bearing part	Complete bearing
Bore type	Cylindrical
Cage	Non-metallic
Coating	Without
Locating feature, bearing outer ring	None
Loose flange	None
Lubricant	None
Number of flanges, inner ring	1
Number of flanges, outer ring	2
Number of rows	1
Radial internal clearance	CN

Relubrication feature	Without
Sealing	Without

Technical Specification

SKF performance class

SKF Explorer

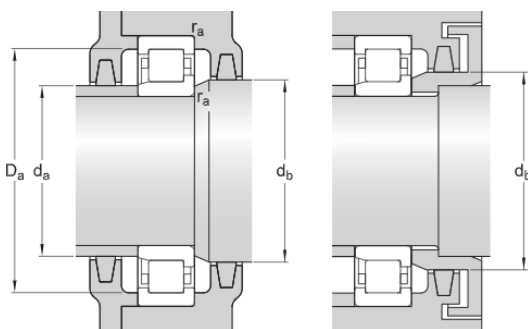


Dimensions

d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width
d ₁	≈ 64.4 mm	Shoulder diameter of inner ring
D ₁	≈ 83.2 mm	Shoulder diameter of outer ring
F	58.5 mm	Raceway diameter of inner ring
r _{1,2}	min. 1.5 mm	Chamfer dimension
r _{3,4}	min. 1.5 mm	Chamfer dimension
s	max. 1.7 mm	Permissible axial displacement

Abutment dimensions

d _a	min. 54 mm	Diameter of spacer sleeve
d _a	max. 56 mm	Diameter of spacer sleeve
d _b	min. 67 mm	Diameter of shaft abutment
D _a	max. 91.4 mm	Diameter of housing abutment
r _a	max. 1.5 mm	Radius of fillet



Calculation data

Basic dynamic load rating	C	112 kN
Basic static load rating	C ₀	100 kN

Fatigue load limit	P_u	12.9 kN
Reference speed		7 500 r/min
Limiting speed		8 500 r/min
Minimum load factor	k_r	0.15
Limiting value	e	0.2
Calculation factor	Y	0.6

Mass

Mass		0.89 kg
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Associated products

Angle ring		HJ 309 EC
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