

# NJ 2309 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	36 mm

### Performance

Basic dynamic load rating	160 kN
Basic static load rating	153 kN
Limiting speed	8 500 r/min
Reference speed	7 500 r/min
SKF performance class	SKF Explorer

## Properties

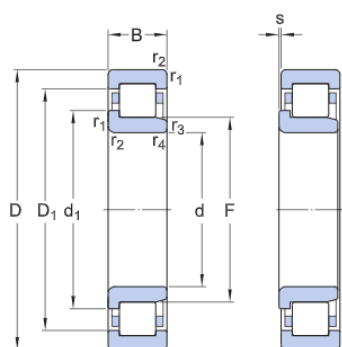
Axial displacement capability	In one direction
Bearing part	Complete bearing
Bore type	Cylindrical
Cage	Non-metallic
Coating	Without
Locating feature, bearing outer ring	None
Loose flange	None
Lubricant	None
Number of flanges, inner ring	1
Number of flanges, outer ring	2
Number of rows	1
Radial internal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

Relubrication feature	Without
Sealing	Without

# Technical Specification

SKF performance class

SKF Explorer

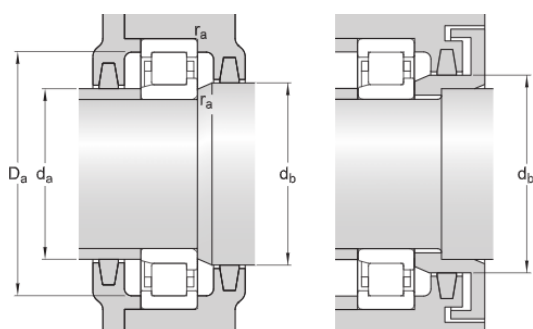


## Dimensions

d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	36 mm	Width
d <sub>1</sub>	≈ 64.4 mm	Shoulder diameter of inner ring
D <sub>1</sub>	≈ 83.2 mm	Shoulder diameter of outer ring
F	58.5 mm	Raceway diameter of inner ring
r <sub>1,2</sub>	min. 1.5 mm	Chamfer dimension
r <sub>3,4</sub>	min. 1.5 mm	Chamfer dimension
s	max. 3.2 mm	Permissible axial displacement

## Abutment dimensions

d <sub>a</sub>	min. 54 mm	Diameter of spacer sleeve
d <sub>a</sub>	max. 56 mm	Diameter of spacer sleeve
d <sub>b</sub>	min. 67 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 91.4 mm	Diameter of housing abutment
r <sub>a</sub>	max. 1.5 mm	Radius of fillet



## Calculation data

Basic dynamic load rating	C	160 kN
Basic static load rating	C <sub>0</sub>	153 kN

Fatigue load limit	$P_u$	20 kN
Reference speed		7 500 r/min
Limiting speed		8 500 r/min
Minimum load factor	$k_r$	0.25
Limiting value	$e$	0.3
Calculation factor	$Y$	0.4

## Mass

Mass		1.33 kg
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