



Image may differ from product. See technical specification for details.

## NJ 210 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	1.969 in
Outside diameter	3.543 in
Width	0.787 in

## Performance

Basic dynamic load rating	16 523 lbf
Basic static load rating	15 624 lbf
Reference speed	8 500 r/min
Limiting speed	9 000 r/min
SKF performance class	SKF Explorer

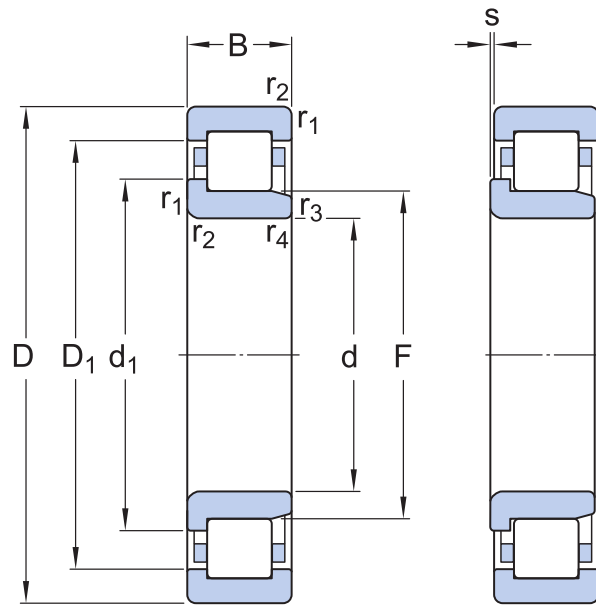
## Properties

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

## Logistics

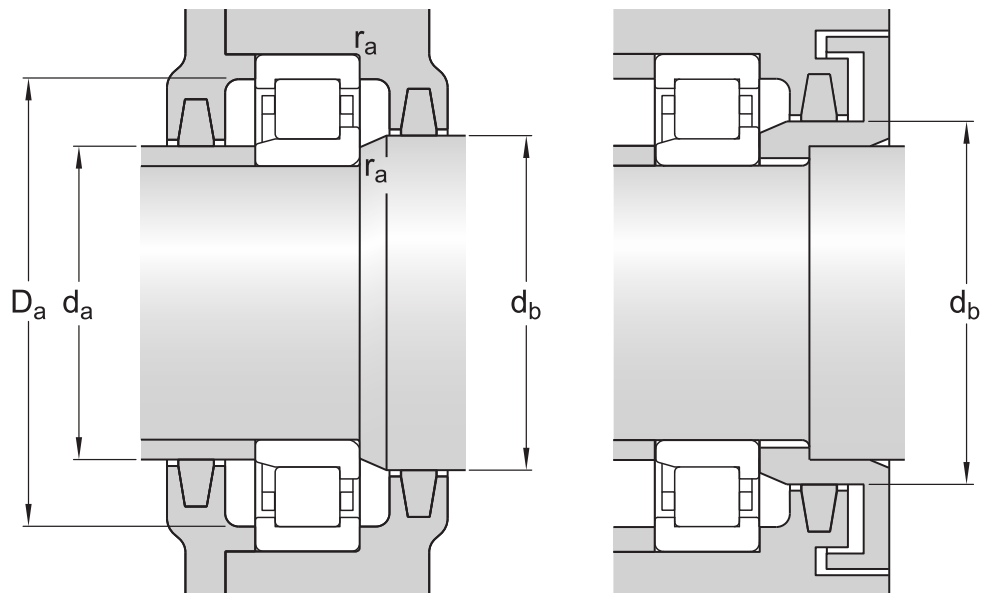
Product net weight	1.089 lb
eClass code	23-05-09-01
UNSPSC code	31171505

## Technical specification



## Dimensions

$d$	1.969 in	Bore diameter
$D$	3.543 in	Outside diameter
$B$	0.787 in	Width
$d_1$	$\approx 2.52$ in	Shoulder diameter of inner ring
$D_1$	$\approx 3.047$ in	Shoulder diameter of outer ring
$F$	2.343 in	Raceway diameter of inner ring
$r_{1,2}$	min. 0.043 in	Chamfer dimension
$r_{3,4}$	min. 0.043 in	Chamfer dimension
$s$	max. 0.059 in	Permissible axial displacement



## Abutment dimensions

$d_a$	min. 2.244 in	Diameter of spacer sleeve
$d_a$	max. 2.264 in	Diameter of spacer sleeve
$d_b$	min. 2.598 in	Diameter of shaft abutment
$D_a$	max. 3.244 in	Diameter of housing abutment
$r_a$	max. 0.039 in	Radius of fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	16 523 lbf
Basic static load rating	$C_0$	15 624 lbf
Fatigue load limit	$P_u$	1 978 lbf
Reference speed		8 500 r/min
Limiting speed		9 000 r/min
Minimum load factor	$k_r$	0.15
Limiting value	e	0.2
Calculation factor	Y	0.6

## Associated products

## Tolerances and clearances

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### GENERAL BEARING SPECIFICATIONS

- **Tolerances:** Normal (metric), P6, Normal (inch)
- **Radial internal clearance:** cylindrical bore, tapered bore
- **Axial internal clearance:** NUP, NJ + HJ

## BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fit](#)

## Compatible products

### Recommended product

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Angle ring (L-shaped thrust collar) for single row cylindrical roller bearings, NU or NJ design

[HJ 210 EC](#)

## More Information

### Product details

[Designs and variants](#)

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[General bearing specifications](#)

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[Loads](#)

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[Temperature limits](#)

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[Permissible speed](#)

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[Design considerations](#)

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[Designation system](#)

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### Engineering information

[Principles of rolling bearing selection](#)

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[General bearing knowledge](#)

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[Bearing selection process](#)

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[Bearing failure and how to prevent it](#)

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### Tools

[SimPro Quick](#)

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[SKF Product select](#)

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[Bearing Frequency Calculator](#)

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[LubeSelect for SKF greases](#)

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[Heater selection tool](#)

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[Oil Injection Method Program](#)

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