



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

NJ 307 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	1.378 in
Outside diameter	3.15 in
Width	0.827 in

Performance

Basic dynamic load rating	16 861 lbf
Basic static load rating	14 163 lbf
Reference speed	9 500 r/min
Limiting speed	11 000 r/min
SKF performance class	SKF Explorer

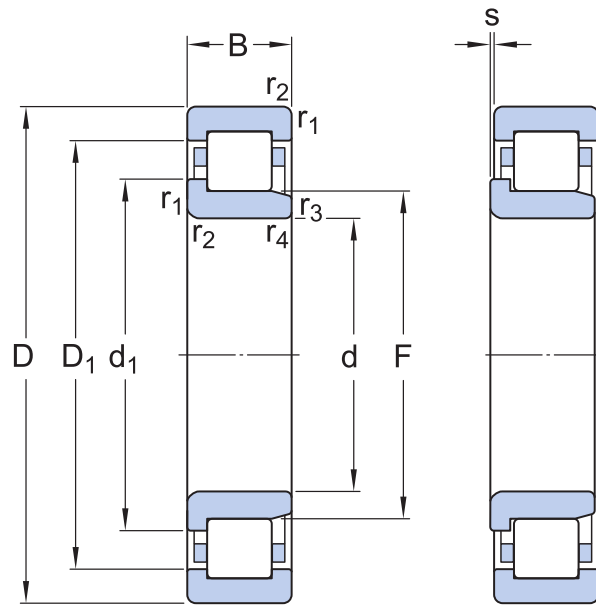
Properties

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

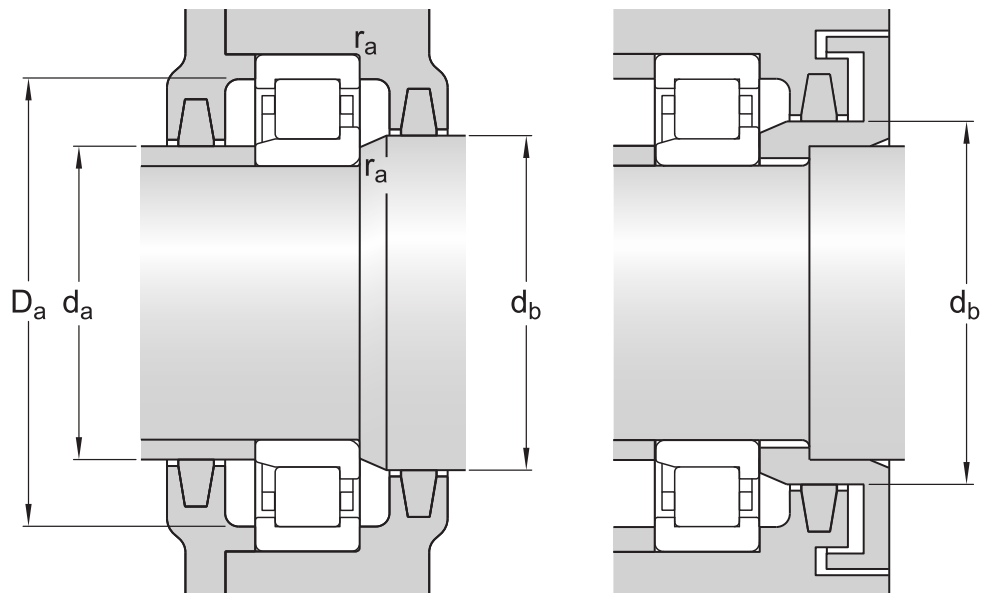
Product net weight	1.089 lb
eClass code	23-05-09-01
UNSPSC code	31171505

Technical specification



Dimensions

d	1.378 in	Bore diameter
D	3.15 in	Outside diameter
B	0.827 in	Width
d_1	≈ 2.008 in	Shoulder diameter of inner ring
D_1	≈ 2.591 in	Shoulder diameter of outer ring
F	1.819 in	Raceway diameter of inner ring
$r_{1,2}$	min. 0.059 in	Chamfer dimension
$r_{3,4}$	min. 0.043 in	Chamfer dimension
s	max. 0.047 in	Permissible axial displacement



Abutment dimensions

d_a	min. 1.693 in	Diameter of spacer sleeve
d_a	max. 1.732 in	Diameter of spacer sleeve
d_b	min. 2.087 in	Diameter of shaft abutment
D_a	max. 2.843 in	Diameter of housing abutment
r_a	max. 0.059 in	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	16 861 lbf
Basic static load rating	C_0	14 163 lbf
Fatigue load limit	P_u	1 832 lbf
Reference speed		9 500 r/min
Limiting speed		11 000 r/min
Minimum load factor	k_r	0.15
Limiting value	e	0.2
Calculation factor	Y	0.6

Associated products

Tolerances and clearances

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

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

[HJ 307 EC](#)

More Information

Product details

[Designs and variants](#)

[General bearing specifications](#)

[Loads](#)

[Temperature limits](#)

[Permissible speed](#)

[Design considerations](#)

[Designation system](#)

Engineering information

[Principles of rolling bearing selection](#)

[General bearing knowledge](#)

[Bearing selection process](#)

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

Tools

[SimPro Quick](#)

[SKF Product select](#)

[Bearing Frequency Calculator](#)

[LubeSelect for SKF greases](#)

[Heater selection tool](#)

[Oil Injection Method Program](#)

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