



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

## NUP 312 ECP

### Single row cylindrical roller bearing, NUP 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 integral flange and one loose flange ring on the inner ring, NUP design bearings can locate the shaft axially in both directions. 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 both directions
- Separable design

# Overview

## Dimensions

Bore diameter	60 mm
Outside diameter	130 mm
Width	31 mm

## Performance

Basic dynamic load rating	173 kN
Basic static load rating	160 kN
Reference speed	5 600 r/min
Limiting speed	6 700 r/min
SKF performance class	SKF Explorer

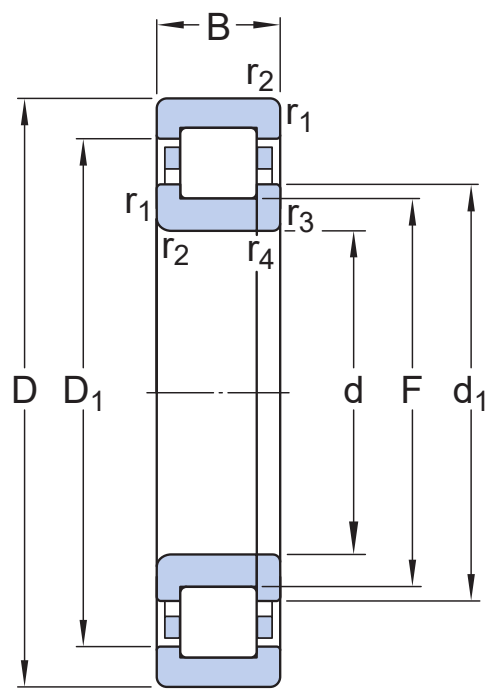
## Properties

Bearing part	Complete bearing
Axial displacement capability	None
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	Inner ring loose flange
Radial internal clearance	CN
Tolerance class	Normal
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

## Logistics

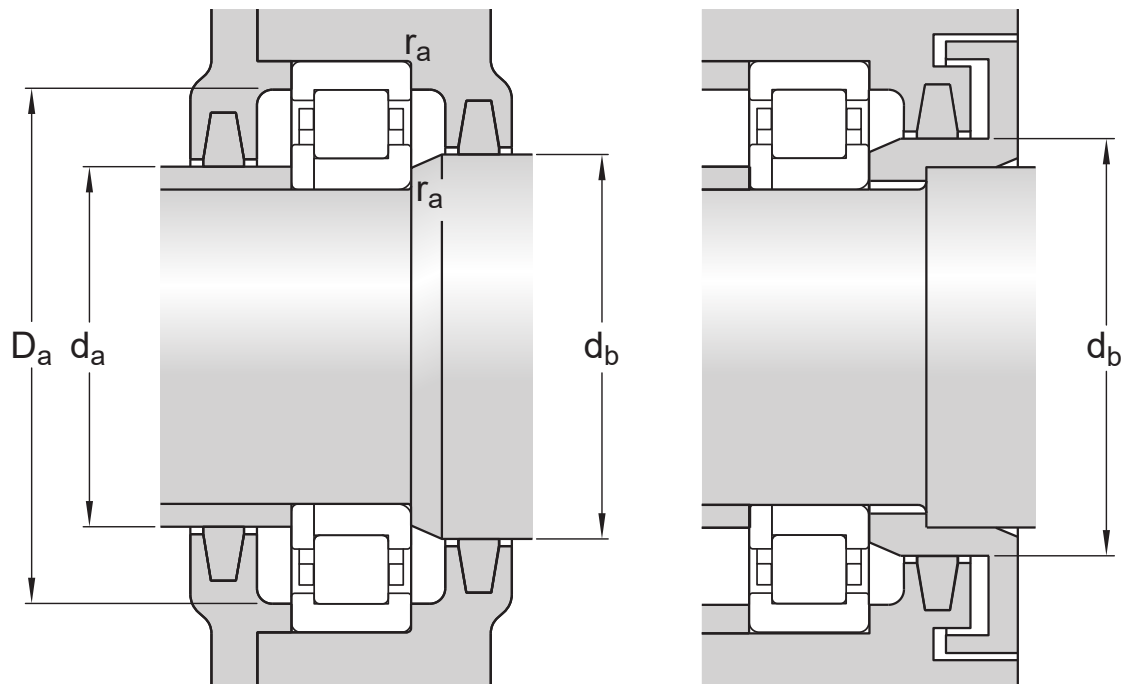
Product net weight	1.91 kg
eClass code	23-05-09-01
UNSPSC code	31171505

Technical specification



Dimensions

d	60 mm	Bore diameter
D	130 mm	Outside diameter
B	31 mm	Width
d <sub>1</sub>	≈ 84.3 mm	Shoulder diameter of inner ring
D <sub>1</sub>	≈ 108.6 mm	Shoulder diameter of outer ring
F	77 mm	Raceway diameter of inner ring
r <sub>1,2</sub>	min. 2.1 mm	Chamfer dimension
r <sub>3,4</sub>	min. 2.1 mm	Chamfer dimension of loose flange ring



## Abutment dimensions

$d_a$	min. 72 mm	Diameter of spacer sleeve
$d_b$	min. 87 mm	Diameter of shaft abutment
$D_a$	max. 118.1 mm	Diameter of housing abutment
$r_a$	max. 2 mm	Radius of fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	173 kN
Basic static load rating	$C_0$	160 kN
Fatigue load limit	$P_u$	21.2 kN
Reference speed		5 600 r/min
Limiting speed		6 700 r/min
Minimum load factor	$k_r$	0.15
Limiting value	e	0.2
Calculation factor	Y	0.6




## Tolerances and clearances

- 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

# More Information

<div> <b>Product details</b></div> <div><div>Designs and variants</div><div>General bearing specifications</div><div>Loads</div><div>Temperature limits</div><div>Permissible speed</div><div>Design considerations</div><div>Designation system</div></div>	<div> <b>Engineering information</b></div> <div><div>Principles of rolling bearing selection</div><div>General bearing knowledge</div><div>Bearing selection process</div><div>Bearing failure and how to prevent it</div></div>	<div> <b>Tools</b></div> <div><div>SimPro Quick</div><div>SKF Product select</div><div>Bearing Frequency Calculator</div><div>LubeSelect for SKF greases</div><div>Heater selection tool</div><div>Oil Injection Method Program</div></div>
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