



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

NU 309 ECM

Single row cylindrical roller bearing, NU 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 no flanges on the inner ring, NU design bearings can accommodate axial displacement 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
- Accommodate axial displacement in both directions
- 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
Reference speed	7 500 r/min
Limiting speed	8 500 r/min
SKF performance class	SKF Explorer

Properties

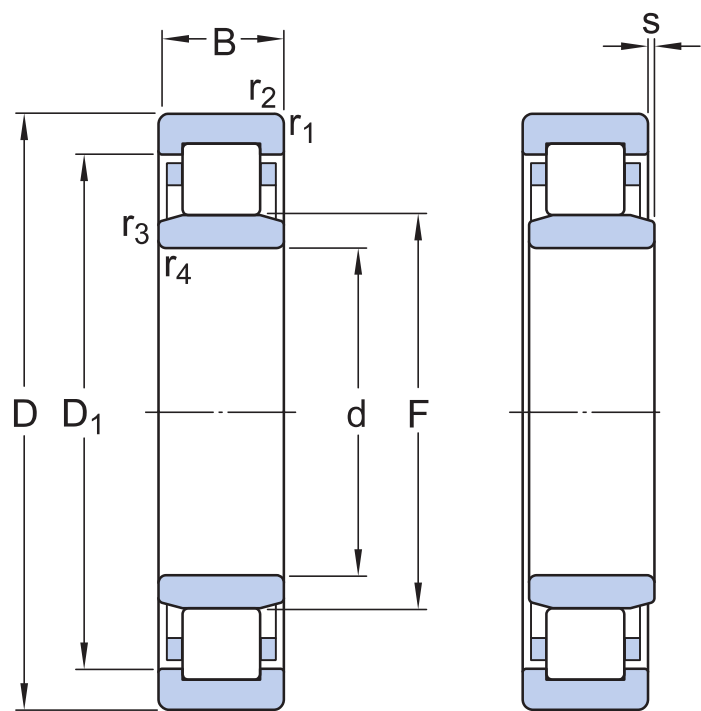
Bearing part	Complete bearing
Axial displacement capability	In both directions
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Machined metal
Number of flanges, outer ring	2
Number of flanges, inner ring	0
Loose flange	None
Radial internal clearance	CN
Tolerance class	Normal
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Logistics

Product net weight	0.998 kg
eClass code	23-05-09-01

UNSPSC code	31171505
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Technical specification



Dimensions

d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width
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. 60 mm	Diameter of shaft abutment
D _a	max. 91.4 mm	Diameter of housing abutment
r _a	max. 1.5 mm	Radius of fillet
r _b	max. 1.5 mm	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
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

Associated products

Angle ring	HJ 309 EC
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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 309 EC
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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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