

RNU 309 ECP



Single row cylindrical roller bearing, NU design, without inner ring

Single row cylindrical roller bearings of the NU design without an inner ring consist of an outer ring with a roller and cage assembly. They are typically used in applications where hardened and ground raceways are provided on the shaft. Without the inner ring, a larger shaft diameter can be used to provide a stronger, stiffer shaft. The bearings can accommodate axial displacement in both directions, limited only by the width of the raceway on the shaft.

- High radial load carrying capacity
- Enable a stronger, stiffer shaft
- Low friction
- Long service life
- Accommodate axial displacement in both directions

Overview

Dimensions

Bore diameter	58.5 mm
Outside diameter	100 mm
Width	25 mm

Performance

Basic dynamic load rating	112 kN
Basic static load rating	100 kN
Limiting speed	8 500 r/min
Reference speed	7 500 r/min
SKF performance class	SKF Explorer

Properties

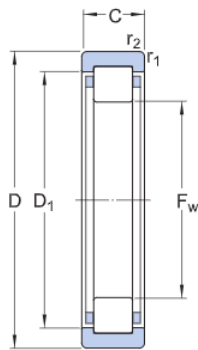
Bearing part	Bearing without inner ring
Bore type	Cylindrical
Cage	Non-metallic
Coating	Without
Locating feature, bearing outer ring	None
Loose flange	None
Lubricant	None
Number of flanges, outer ring	2
Number of rows	1
Relubrication feature	Without
Sealing	Without

Technical Specification

SKF performance class

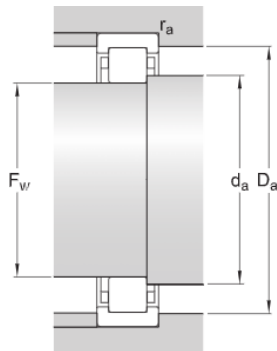
SKF Explorer

Dimensions



F_w	58.5 mm	Diameter under rollers
D	100 mm	Outside diameter
C	25 mm	Width
D_1	≈ 83.2 mm	Shoulder diameter outer ring
$r_{1,2}$	min. 1.5 mm	Corner radius

Abutment dimensions



d_a	max. 64.4 mm	Abutment diameter shaft
D_a	max. 91.4 mm	Abutment diameter housing
r_a	max. 1.5 mm	Fillet radius

Calculation data

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
Calculation factor	k_r	0.15
Limiting value	e	0.2
Calculation factor	Y	0.6

Mass

Mass bearing	0.68 kg
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