



# NUP 228 ECJSingle row cylindrical roller bearing, NUP design

## 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    | 140 mm |
| Outside diameter | 250 mm |
| Width            | 42 mm  |

## Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 450 kN       |
| Basic static load rating  | 510 kN       |
| Reference speed           | 2 800 r/min  |
| Limiting speed            | 3 200 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                                 | Sheet metal             |
| Number of flanges, outer ring        | 2                       |
| Number of flanges, inner ring        | 1                       |
| Loose flange                         | Inner ring loose flange |
| Radial internal clearance            | CN                      |
| Coating                              | Without                 |

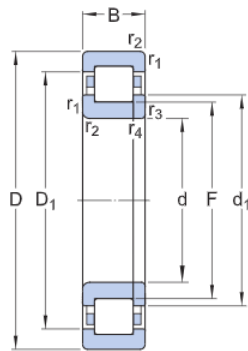
|                       |         |
|-----------------------|---------|
| Sealing               | Without |
| Lubricant             | None    |
| Relubrication feature | Without |

# Technical Specification

SKF performance class

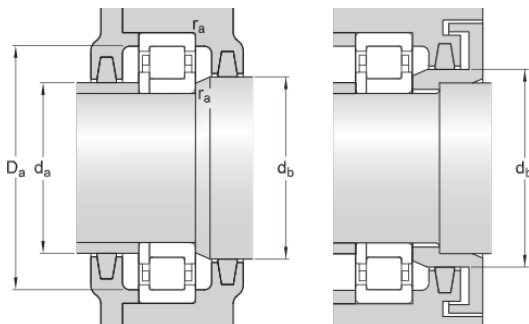
SKF Explorer

## Dimensions



|                  |             |                                        |
|------------------|-------------|----------------------------------------|
| d                | 140 mm      | Bore diameter                          |
| D                | 250 mm      | Outside diameter                       |
| B                | 42 mm       | Width                                  |
| d <sub>1</sub>   | ≈ 179 mm    | Shoulder diameter of inner ring        |
| D <sub>1</sub>   | ≈ 215.78 mm | Shoulder diameter of outer ring        |
| F                | 169 mm      | Raceway diameter of inner ring         |
| r <sub>1,2</sub> | min. 3 mm   | Chamfer dimension                      |
| r <sub>3,4</sub> | min. 3 mm   | Chamfer dimension of loose flange ring |

## Abutment dimensions



|                |             |                              |
|----------------|-------------|------------------------------|
| d <sub>a</sub> | min. 154 mm | Diameter of spacer sleeve    |
| d <sub>t</sub> | min. 182 mm | Diameter of shaft abutment   |
| D <sub>ε</sub> | max. 235 mm | Diameter of housing abutment |
| r <sub>a</sub> | max. 2.5 mm | Radius of fillet             |

## Calculation data

|                           |                |        |
|---------------------------|----------------|--------|
| Basic dynamic load rating | C              | 450 kN |
| Basic static load rating  | C <sub>0</sub> | 510 kN |

|                     |       |             |
|---------------------|-------|-------------|
| Fatigue load limit  | $P_u$ | 57 kN       |
| Reference speed     |       | 2 800 r/min |
| Limiting speed      |       | 3 200 r/min |
| Minimum load factor | $k_r$ | 0.15        |
| Limiting value      | $e$   | 0.2         |
| Calculation factor  | $Y$   | 0.6         |

## Mass

|      |  |         |
|------|--|---------|
| Mass |  | 8.45 kg |
|------|--|---------|

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