

# NU 228 ECML Single row cylindrical roller bearing, NU design

## 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    | 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            | 4 800 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

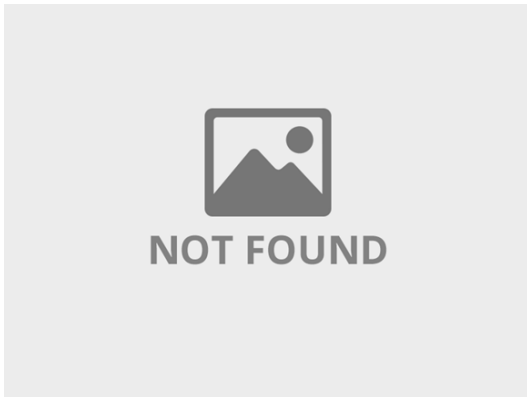
Relubrication feature

Without

# Technical Specification

SKF performance class

SKF Explorer

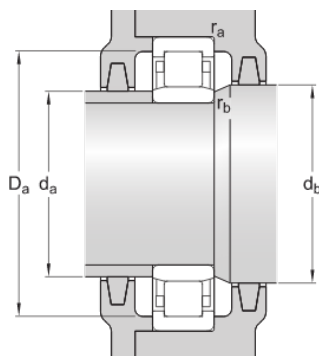


## Dimensions

|           |                    |                                 |
|-----------|--------------------|---------------------------------|
| d         | 140 mm             | Bore diameter                   |
| D         | 250 mm             | Outside diameter                |
| B         | 42 mm              | Width                           |
| $D_1$     | $\approx 216.7$ mm | Shoulder diameter of outer ring |
| F         | 169 mm             | Raceway diameter of inner ring  |
| $r_{1,2}$ | min. 3 mm          | Chamfer dimension               |
| $r_{3,4}$ | min. 3 mm          | Chamfer dimension               |
| s         | max. 2.5 mm        | Permissible axial displacement  |

## Abutment dimensions

|       |             |                              |
|-------|-------------|------------------------------|
| $d_a$ | min. 154 mm | Diameter of spacer sleeve    |
| $d_a$ | max. 165 mm | Diameter of spacer sleeve    |
| $d_b$ | min. 172 mm | Diameter of shaft abutment   |
| $D_a$ | max. 235 mm | Diameter of housing abutment |
| $r_a$ | max. 2.5 mm | Radius of fillet             |
| $r_b$ | max. 2.5 mm | Radius of fillet             |



## Calculation data

|                           |       |        |
|---------------------------|-------|--------|
| Basic dynamic load rating | C     | 450 kN |
| Basic static load rating  | $C_0$ | 510 kN |
| Fatigue load limit        | $P_u$ | 57 kN  |

|                     |          |             |
|---------------------|----------|-------------|
| Reference speed     |          | 2 800 r/min |
| Limiting speed      |          | 4 800 r/min |
| Minimum load factor | $k_r$    | 0.23        |
| Limiting value      | $e$      | 0.2         |
| Calculation factor  | $\gamma$ | 0.6         |

## Mass

|      |  |         |
|------|--|---------|
| Mass |  | 9.24 kg |
|------|--|---------|

## Associated products

|            |  |           |
|------------|--|-----------|
| Angle ring |  | HJ 228 EC |
|------------|--|-----------|

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