



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

# K 14X18X13

### Single row needle roller and cage assembly

Needle roller and cage assemblies are self-contained, ready-to-mount bearings without inner and outer rings. In applications where the shaft and housing bore can serve as raceways, the assemblies can be used to create bearing arrangements that require minimal radial space. As the clearance of the bearing arrangement is only affected by the roller sorting and the finish of shaft and housing, very precise bearing arrangements can be achieved.

- High radial load carrying capacity
- High stiffness
- High precision
- Lowest cross-sectional height among rolling bearings
- Accommodate axial displacement in both directions

# **Overview**

## **Dimensions**

| Bore diameter of needle roller complement    | 14 mm |
|--|-------|
| Outside diameter                             | 18 mm |
| Outside diameter of needle roller complement | 18 mm |
| Width  | 13 mm |

# Performance

| Basic dynamic load rating | 7.92 kN      |
|---------------------------|--------------|
| Basic static load rating  | 10.2 kN      |
| Reference speed           | 24 000 r/min |
| Limiting speed            | 28 000 r/min |

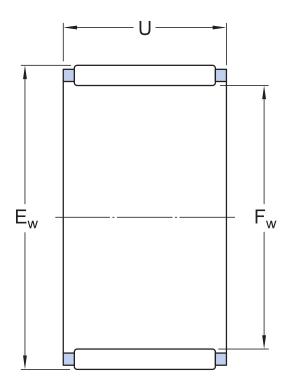
# **Properties**

| Bearing part          | Needle roller and cage assembly |  |
|-----------------------|---------------------------------|--|
| Number of rows        | 1                               |  |
| Outer ring type       | Not applicable                  |  |
| Aligning feature      | Without                         |  |
| Cage                  | Sheet steel                     |  |
| Tolerance class       | Normal                          |  |
| Material, bearing     | Bearing steel                   |  |
| Coating               | Without                         |  |
| Sealing               | Without                         |  |
| Lubricant             | None                            |  |
| Relubrication feature | Without                         |  |

# Logistics

| Product net weight | 0.006 kg    |
|--------------------|-------------|
| eClass code        | 23-05-09-03 |
| UNSPSC code        | 31171512    |

# Technical specification



## **Dimensions**

| F <sub>w</sub> | 14 mm | Diameter under rollers                |
|----------------|-------|---------------------------------------|
| E <sub>w</sub> | 18 mm | Outside diameter roller complement    |
| U              | 13 mm | Width needle roller and cage assembly |

## Calculation data

| Basic dynamic load rating | С           | 7.92 kN      |
|---------------------------|-------------|--------------|
| Basic static load rating  | $C_0$       | 10.2 kN      |
| Fatigue load limit        | $P_{\rm u}$ | 1.18 kN      |
| Reference speed           |             | 24 000 r/min |
| Limiting speed            |             | 28 000 r/min |

## Tolerances and clearances

## GENERAL BEARING SPECIFICATIONS

- Tolerances: gauges
- Radial internal clearance

### **DESIGN CONSIDERATIONS**

• Shaft and housing tolerances

# **More Information**

| Product details                | Engineering information                 | <b>≯</b> Tools             |
|--------------------------------|---|----------------------------|
| Designs and variants           |   | SimPro Quick               |
| General bearing specifications | Principles of rolling bearing selection | Bearing Select             |
| Loads                          | General bearing knowledge               | Engineering Calculator     |
| Temperature limits             | Bearing selection process               | LubeSelect for SKF greases |
| Permissible speed              | Bearing failure and how to prevent it   | Heater Selection Tool      |
| Design considerations          | -                                       |                            |
| Designation system             | -                                       |                            |



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