

# HK 3016 Drawn cup needle roller bearing with open ends



## Drawn cup needle roller bearing with open ends

Drawn cup needle roller bearings are typically used in applications where the housing bore cannot be used as a raceway for a needle roller and cage assembly, but where a very compact and economical bearing arrangement is required. Owing to their large number of rollers, the bearings have a high load carrying capacity and stiffness.

- High radial load carrying capacity
- High stiffness
- Very low cross-sectional height

## Overview

## Dimensions

|   |       |
|---|-------|
| Bore diameter of needle roller complement | 30 mm |
| Outside diameter                          | 37 mm |
| Width                                     | 16 mm |

## Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 16.5 kN     |
| Basic static load rating  | 29 kN       |
| Reference speed           | 8 000 r/min |
| Limiting speed            | 9 000 r/min |

## Properties

|                               |                            |
|-------------------------------|----------------------------|
| Bearing part                  | Bearing without inner ring |
| Number of rows                | 1                          |
| Outer ring type               | Drawn cup with open ends   |
| Aligning feature              | Without                    |
| Cage                          | Sheet steel                |
| Number of flanges, outer ring | 2                          |
| Tolerance class               | Normal                     |
| Material, bearing             | Bearing steel              |
| Coating                       | Without                    |
| Sealing                       | Without                    |
| Lubricant                     | None                       |
| Relubrication feature         | Without                    |

## Technical Specification



### Dimensions

|       |             |  |
|-------|-------------|--|
| $F_w$ | 30 mm       | Diameter under rollers                   |
| D     | 37 mm       | Outside diameter                         |
| C     | 16 mm       | Width                                    |
| r     | min. 0.8 mm | Chamfer dimension drawn cup (outer ring) |

### Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 16.5 kN     |
| Basic static load rating  | $C_0$ | 29 kN       |
| Fatigue load limit        | $P_u$ | 3.4 kN      |
| Reference speed           |       | 8 000 r/min |
| Limiting speed            |       | 9 000 r/min |

### Mass

|              |          |
|--------------|----------|
| Mass bearing | 0.031 kg |
|--------------|----------|

### Associated products

|   |               |
|---|---------------|
| Inner ring IR series  | IR 25x30x17   |
| Inner ring LR series  | LR 25x30x16.5 |
| Radial shaft seal with a low cross-sectional height, single lip | G 30x37x4     |
| Radial shaft seal with a low cross-sectional height, double lip | SD 30x37x4    |

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