

HK 3020 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	20 mm

Performance

Basic dynamic load rating	20.9 kN
Basic static load rating	40 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	20 mm	Width
r	min. 0.8 mm	Chamfer dimension drawn cup (outer ring)

Calculation data

Basic dynamic load rating	C	20.9 kN
Basic static load rating	C_0	40 kN
Fatigue load limit	P_u	4.75 kN
Reference speed		8 000 r/min
Limiting speed		9 000 r/min

Mass

Mass bearing	0.038 kg
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Associated products

Inner ring IR series	IR 25x30x20.5
Inner ring LR series	LR 25x30x20.5
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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