

HK 0509 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	5 mm
Outside diameter	9 mm
Width	9 mm

Performance

Basic dynamic load rating	2.38 kN
Basic static load rating	2.08 kN
Reference speed	22 000 r/min
Limiting speed	24 000 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	5 mm	Diameter under rollers
D	9 mm	Outside diameter
C	9 mm	Width
r	min. 0.4 mm	Chamfer dimension drawn cup (outer ring)

Calculation data

Basic dynamic load rating	C	2.38 kN
Basic static load rating	C_0	2.08 kN
Fatigue load limit	P_u	0.22 kN
Reference speed		22 000 r/min
Limiting speed		24 000 r/min

Mass

Mass bearing	0.002 kg
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Associated products

Radial shaft seal with a low cross-sectional height, single lip	G 5x9x2 S
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