

HK 1010 E

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	10 mm
Outside diameter	14 mm
Width	10 mm

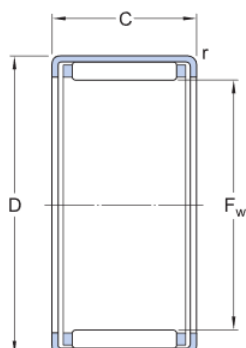
Performance

Basic dynamic load rating	4.57 kN
Basic static load rating	5.7 kN
Limiting speed	20 000 r/min
Reference speed	18 000 r/min

Properties

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

Technical Specification



Dimensions

F_w	0.394 in	Diameter under rollers
D	0.551 in	Outside diameter
C	0.394 in	Width
r	min. 0.016 in	Chamfer dimension drawn cup (outer ring)

Calculation data

Basic dynamic load rating	C	1 027 lbf
Basic static load rating	C_0	1 281 lbf
Fatigue load limit	P_u	142 lbf
Reference speed		18 000 r/min
Limiting speed		20 000 r/min

Mass

Mass bearing	0.009 lb
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Associated products

Inner ring IR series	IR 7x10x10.5
Inner ring LR series	LR 7x10x10.5
Radial shaft seal with a low cross-sectional height, single lip	G 10x14x3

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