

HK 3520

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	35 mm
Outside diameter	42 mm
Width	20 mm

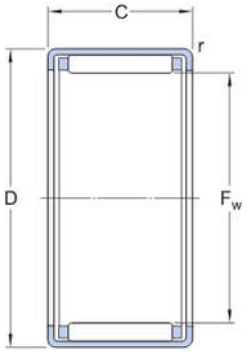
Performance

Basic dynamic load rating	22.9 kN
Basic static load rating	46.5 kN
Limiting speed	8 000 r/min
Reference speed	7 000 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	35	mm	Diameter under rollers
D	42	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	22.9 kN
Basic static load rating	C_0	46.5 kN
Fatigue load limit	P_u	5.6 kN
Reference speed		7 000 r/min
Limiting speed		8 000 r/min

Mass

Mass bearing	0.044 kg

Associated products

Inner ring IR series	IR 30x35x20.5
Inner ring LR series	LR 30x35x20.5
Radial shaft seal with a low cross-sectional height, single lip	G 35x42x4
Radial shaft seal with a low cross-sectional height, double lip	SD 35x42x4

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