



Image may differ from product. See technical specification for details.

HK 3516

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	16 mm

Performance

Basic dynamic load rating	17.9 kN
Basic static load rating	34 kN
Reference speed	7 000 r/min
Limiting speed	8 000 r/min

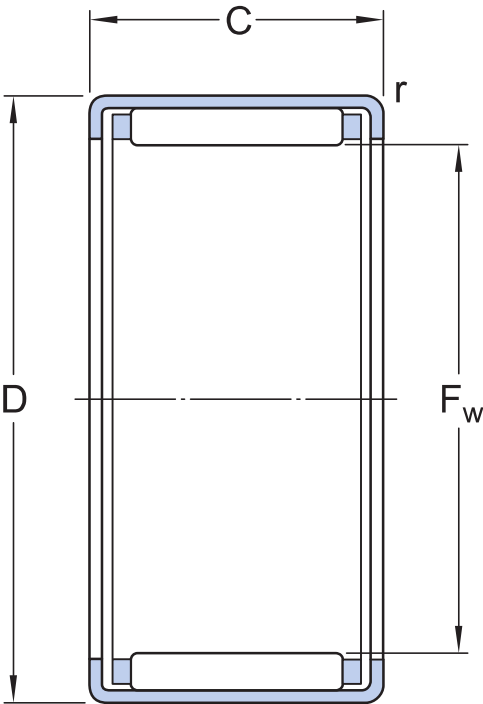
Properties

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

Logistics

Product net weight	0.0348 kg
eClass code	23-05-09-03
UNSPSC code	31171512

Technical specification



Dimensions

F _w	35 mm	Diameter under rollers
D	42 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	17.9 kN
Basic static load rating	C ₀	34 kN
Fatigue load limit	P _u	4 kN
Reference speed		7 000 r/min
Limiting speed		8 000 r/min

Associated products

Inner ring IR series	IR 30x35x17
Inner ring LR series	LR 30x35x16.5

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

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- [Tolerances: table](#)

DESIGN CONSIDERATIONS

- [Shaft and housing tolerances: table](#)

Compatible products

Recommended product

Inner ring for needle roller bearings, IR series	IR 30X35X17
Inner ring for needle roller bearings, LR series	LR 30X35X16.5
Radial shaft seal with low cross-sectional height for needle roller bearings, G design	G 35X42X4
Radial shaft seal with low cross-sectional height for needle roller bearings, SD design	SD 35X42X4

More Information

 Product details Designs and variants General bearing specifications Loads Temperature limits Permissible speed Design considerations Mounting Designation system	 Engineering information Principles of rolling bearing selection General bearing knowledge Bearing selection process Bearing failure and how to prevent it	 Tools SimPro Quick Bearing Select Engineering Calculator LubeSelect for SKF greases Heater Selection Tool skf.com/mount
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