K 30X35X27Single row needle roller and cage assembly

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Needle roller and cage assemblies are self-contained, ready-to-mount bearings without inner and outer rings. In applications where the shaft and housing bore can serve as raceways, the assemblies can be used to create bearing arrangements that require minimal radial space. As the clearance of the bearing arrangement is only affected by the roller sorting and the finish of shaft and housing, very precise bearing arrangements can be achieved.

- High radial load carrying capacity
- High stiffness
- High precision
- Lowest cross-sectional height among rolling bearings
- Accommodate axial displacement in both directions

Overview

Dimensions

Bore diameter of needle roller complement	30 mm
Outside diameter	35 mm
Outside diameter of needle roller complement	35 mm
Width	27 mm

Performance

Basic dynamic load rating	29.2 kN
Basic static load rating	60 kN
Reference speed	13 000 r/min
Limiting speed	15 000 r/min

Properties

Bearing part	Needle roller and cage assembly
Number of rows	1
Outer ring type	Not applicable
Aligning feature	Without
Cage	Sheet steel
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
E_w	35	mm	Outside diameter roller complement
U	27	mm	Width needle roller and cage assembly

Calculation data

Basic dynamic load rating	C	29.2 kN
Basic static load rating	C_0	60 kN
Fatigue load limit	P_u	7.35 kN
Reference speed		13 000 r/min
Limiting speed		15 000 r/min

Mass

Mass needle roller and cage assembly	0.03 kg

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