

NKX 35 ZCombined needle roller / thrust ball bearing with a cover



Combined needle roller / thrust ball bearing with a cover

These bearings consist of a radial needle roller bearing combined with a thrust ball bearing. Together they can accommodate both radial loads and axial loads in one direction. In addition, they can operate at relatively high speeds. Their low cross-sectional height makes the bearings particularly suitable for applications where other types of locating bearing arrangements occupy too much space. The thrust part is capped with a cover that forms a gap-type seal to retain the grease in the bearings.

- Accommodate radial and axial loads in one direction
- High load carrying capacity
- Relatively high-speed capability
- Low cross section
- Non-separable design

Overview

Dimensions

Bore diameter	35 mm
Outside diameter	47 mm
Width	30 mm

Performance

Reference speed	5 600 r/min
Limiting speed	4 500 r/min

Properties

Rolling bearing type	Needle roller / thrust ball bearing
Bearing part	Radial part without inner ring
Thrust part	With cage
Radial part	With cage
Rolling element (thrust part)	Balls
Axial load capability	Single-direction

Tolerance class	Other
Material, bearing	Bearing steel
Coating	Without
Special feature	Thrust part with stamped steel cover without lubrication holes
Lubricant (thrust part)	Grease

Technical Specification

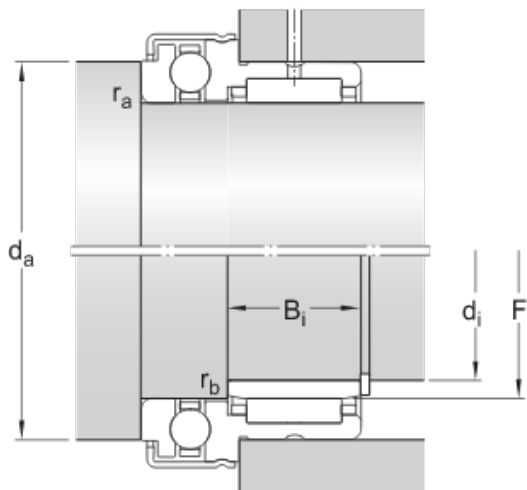


Dimensions

F_w	35 mm	Diameter under rollers
D	47 mm	Outside diameter
C	30 mm	Width
C_1	12 mm	Width of thrust part
C_1	9 mm	Distance side face to lubrication hole
d	35 mm	Bore diameter of thrust part
D_2	53.2 mm	Diameter of stamped steel cover
$r_{1,2}$	min. 0.6 mm	Chamfer dimension

Abutment dimensions

d_a	min. 47.7 mm	Diameter of shaft abutment
r_a	max. 0.6 mm	Radius of fillet
r_b	max. 0.3 mm	Radius of fillet
d_i	30 mm	Bore diameter of associated inner ring
F	35 mm	Diameter of inner ring raceway
B_i	20 mm	Width of associated inner ring



Calculation data

Basic dynamic load rating, radial	C	24.6 kN
Basic static load rating, radial	C_0	45 kN
Basic dynamic load rating, axial	C	21.2 kN
Basic static load rating, axial	C_0	51 kN
Fatigue load limit, radial	P_u	5.6 kN
Fatigue load limit, axial	P_u	1.9 kN
Minimum axial load factor	A	0.013

Reference speed	5 600 r/min
Limiting speed	4 500 r/min

Mass

Mass	0.17 kg
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Associated products

Inner ring	IR 30x35x20
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