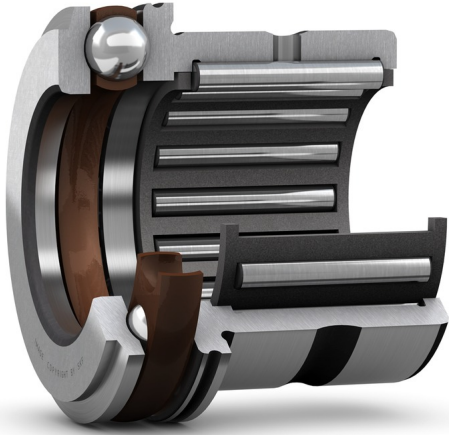


NKX 50 Combined needle roller / thrust ball bearing



Combined needle roller / thrust ball bearing

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.

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

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	62 mm
Width	35 mm

Performance

Reference speed	4 300 r/min
Limiting speed	6 300 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
Lubricant (thrust part)	None

Technical Specification

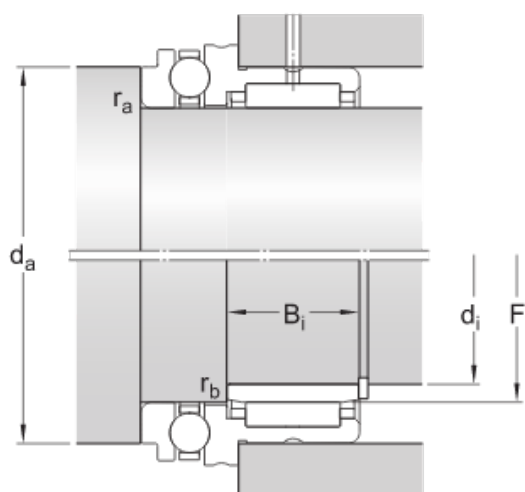


Dimensions

F_w	50 mm	Diameter under rollers
D	62 mm	Outside diameter
C	35 mm	Width
C_1	14 mm	Width of thrust part
C_1	10 mm	Distance side face to lubrication hole
d	50 mm	Bore diameter of thrust part
D_1	70.2 mm	Diameter of flange
$r_{1,2}$	min. 0.6 mm	Chamfer dimension

Abutment dimensions

d_a	min. 65.5 mm	Diameter of shaft abutment
r_a	max. 0.6 mm	Radius of fillet
r_b	max. 0.6 mm	Radius of fillet
d_i	45 mm	Bore diameter of associated inner ring
F	50 mm	Diameter of inner ring raceway
B_i	25 mm	Width of associated inner ring



Calculation data

Basic dynamic load rating, radial	C	38 kN
Basic static load rating, radial	C_0	78 kN
Basic dynamic load rating, axial	C	28.6 kN
Basic static load rating, axial	C_0	81.5 kN
Fatigue load limit, radial	P_u	9.65 kN
Fatigue load limit, axial	P_u	3.05 kN
Minimum axial load factor	A	0.034

Reference speed	4 300 r/min
Limiting speed	6 300 r/min

Mass

Mass	0.28 kg
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Associated products

Inner ring	IR 45x50x25
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