

81109 TN Single row cylindrical roller thrust bearing, single direction



Single row cylindrical roller thrust bearing, single direction

Single row cylindrical roller thrust bearings are designed to accommodate heavy axial loads and peak loads in one direction, but not radial loads. They provide a high degree of stiffness and require little axial space. They are mainly used in applications where thrust ball bearings do not have sufficient load carrying capacity. An important feature is the separable design, which facilitates mounting and enables the bearing components to be interchanged.

- High axial load carrying capacity
- High stiffness
- Long service life
- Require little axial space
- Separable design

Overview

Dimensions

Bore diameter	45 mm
Outside diameter	65 mm
Height	14 mm

Performance

Basic dynamic load rating	45 kN
Basic static load rating	153 kN
Reference speed	2 200 r/min
Limiting speed	4 500 r/min

Properties

Bearing part	Complete bearing
Axial load capability	Single-direction
Number of rows	1
Cage	Non-metallic
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without

Technical Specification



Dimensions

d	45 mm	Bore diameter
D	65 mm	Outside diameter
H	14 mm	Height
d ₁	65 mm	Outside diameter shaft washer
D ₁	47 mm	Bore diameter housing washer
B	4 mm	Height shaft washer
r _{1,2}	min. 0.6 mm	Chamfer dimension housing washer

Abutment dimensions

d _a	min. 63 mm	Abutment diameter shaft
D _a	max. 47 mm	Abutment diameter housing
r _a	max. 0.6 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	45 kN
Basic static load rating	C ₀	153 kN
Fatigue load limit	P _u	15.3 kN
Reference speed		2 200 r/min
Limiting speed		4 500 r/min
Minimum axial load factor	A	0.00187

Mass

Mass bearing	0.13 kg
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Included products

Roller and cage thrust assembly	K 81109 TN
Shaft washer	WS 81109
Housing washer	GS 81109

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