

51116 Single direction thrust ball bearing



Single direction thrust ball bearing

Single direction thrust ball bearings can accommodate axial loads in one direction. They must not be subjected to any radial load. Their separable components facilitate mounting/dismounting and maintenance inspections. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enable interference fit

Overview

Dimensions

Bore diameter	80 mm
Outside diameter	105 mm
Height	19 mm

Performance

Basic dynamic load rating	44.9 kN
Basic static load rating	140 kN
Reference speed	3 000 r/min
Limiting speed	4 300 r/min

Properties

Axial load capability	Single-direction
Number of rows	1
Cage	Sheet metal
Housing washer type	Flat
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without

Technical Specification



Dimensions

d	80 mm	Bore diameter
D	105 mm	Outside diameter
H	19 mm	Height
d_1	≈ 105 mm	Outside diameter shaft washer
D_1	≈ 82 mm	Inner diameter housing washer
$r_{1,2}$	min. 1 mm	Chamfer dimension washer

Abutment dimensions

d_a	min. 95 mm	Abutment diameter shaft
D_a	max. 90 mm	Abutment diameter housing
r_a	max. 1 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	44.9 kN
Basic static load rating	C_0	140 kN
Fatigue load limit	P_u	5.1 kN
Reference speed		3 000 r/min
Limiting speed		4 300 r/min
Minimum load factor	A	0.12

Mass

Mass bearing (including seat washer where applicable)

0.42 kg

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