

51105 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	25 mm
Outside diameter	42 mm
Height	11 mm

Performance

Basic dynamic load rating	18.2 kN
Basic static load rating	39 kN
Reference speed	6 300 r/min
Limiting speed	9 000 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	25 mm	Bore diameter
D	42 mm	Outside diameter
H	11 mm	Height
d_1	≈ 42 mm	Outside diameter shaft washer
D_1	≈ 26 mm	Inner diameter housing washer
$r_{1,2}$	min. 0.6 mm	Chamfer dimension washer

Abutment dimensions

d_a	min. 35 mm	Abutment diameter shaft
D_a	max. 32 mm	Abutment diameter housing
r_a	max. 0.6 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	18.2 kN
Basic static load rating	C_0	39 kN
Fatigue load limit	P_u	1.43 kN
Reference speed		6 300 r/min
Limiting speed		9 000 r/min
Minimum load factor	A	0.0079

Mass

Mass bearing (including seat washer where applicable)

0.056 kg

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