

53410

Single direction thrust ball bearing with sphered housing washer



Single direction thrust ball bearings, with sphered housing washer, can accommodate axial loads in one direction. They must not be subjected to any radial load. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit. The sphered housing washers can accommodate initial misalignment when configured correctly with a sphered seat washer or a machine component with a sphered surface.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enables interference fit
- Sphered housing washers can accommodate initial misalignment

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	110 mm
Radius of aligning surface	90 mm
Thickness	45.6 mm

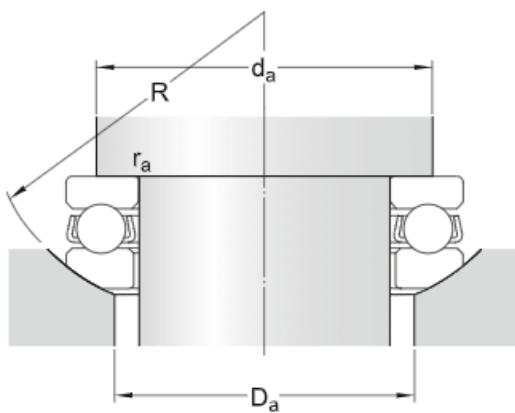
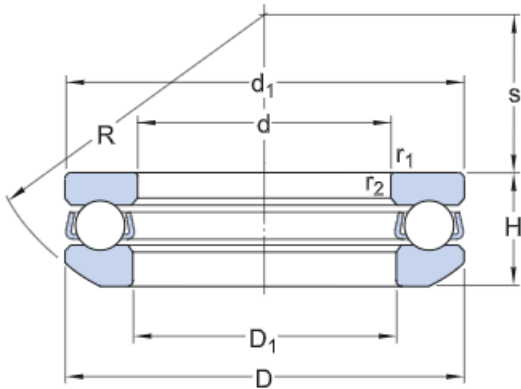
Performance

Basic dynamic load rating	159 kN
Basic static load rating	340 kN
Limiting speed	2 600 r/min
Reference speed	1 900 r/min

Properties

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

Technical Specification



Dimensions

d	50 mm	Bore diameter
D	110 mm	Outside diameter
H	45.6 mm	Height
H ₁	50 mm	Height bearing including seat washer
d ₁	≈ 110 mm	Outside diameter shaft washer
D ₁	≈ 52 mm	Inner diameter housing washer
D ₂	80 mm	Inner diameter sphered seat washer
D ₃	115 mm	Outside diameter sphered housing washer
C	14 mm	Height sphered housing washer
R	90 mm	Radius sphered housing washer
s	35 mm	Centre height housing washer sphere
r _{1,2}	min. 1.5 mm	Chamfer dimension washer

Abutment dimensions

d _a	min. 86 mm	Abutment diameter shaft
D _a	max. 80 mm	Abutment diameter housing
r _a	max. 1.5 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	159 kN
Basic static load rating	C_0	340 kN
Fatigue load limit	P_u	12.5 kN
Reference speed		1 900 r/min
Limiting speed		2 600 r/min
Minimum load factor	A	0.6

Mass

Mass bearing (including seat washer where applicable)	2.31 kg
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Associated products

Seat washer	U 410
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