

51420 M 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	100 mm
Outside diameter	210 mm
Height	85 mm

Performance

Basic dynamic load rating	371 kN
Basic static load rating	1 060 kN
Reference speed	950 r/min
Limiting speed	1 400 r/min

Properties

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

Technical Specification



Dimensions

d	100 mm	Bore diameter
D	210 mm	Outside diameter
H	85 mm	Height
d_1	≈ 205 mm	Outside diameter shaft washer
D_1	≈ 103 mm	Inner diameter housing washer
$r_{1,2}$	min. 3 mm	Chamfer dimension washer

Abutment dimensions

d_a	min. 165 mm	Abutment diameter shaft
D_a	max. 145 mm	Abutment diameter housing
r_a	max. 2.5 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	371 kN
Basic static load rating	C_0	1 060 kN
Fatigue load limit	P_u	31.5 kN
Reference speed		950 r/min
Limiting speed		1 400 r/min
Minimum load factor	A	5.8

Mass

Mass bearing (including seat washer where applicable)

15 kg

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