



209 Deep groove ball bearing with filling slots

Deep groove ball bearing with filling slots

Single row deep groove ball bearings with filling slots accommodate more balls than standard deep groove ball bearings. They are of a simple, yet versatile, design and are robust in operation, requiring little maintenance. They can accommodate radial and axial loads in both directions. They have a higher radial load carrying capacity than the corresponding bearings without filling slots but have a limited axial load carrying capacity due to the filling slots.

- Simple, versatile and robust design
- Accommodate higher radial loads than corresponding bearings without filling slots, with limited axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	45 mm
Outside diameter	85 mm
Width	19 mm

Performance

Basic dynamic load rating	35.2 kN
Basic static load rating	30 kN
Reference speed	14 000 r/min
Limiting speed	8 500 r/min

Properties

Filling slots	With
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification

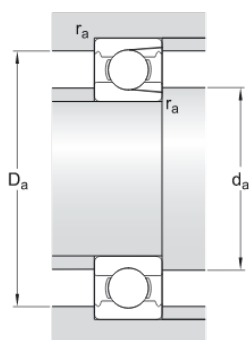


Dimensions

d	45 mm	Bore diameter
D	85 mm	Outside diameter
B	19 mm	Width
d_1	≈ 57.6 mm	Shoulder diameter
D_2	≈ 75.19 mm	Recess diameter
$r_{1,2}$	min. 1.1 mm	Chamfer dimension

Abutment dimensions

d_a	min. 52 mm	Diameter of shaft abutment
D_a	max. 78 mm	Diameter of housing abutment
r_a	max. 1 mm	Radius of shaft or housing fillet



Calculation data

Basic dynamic load rating	C	35.2 kN
Basic static load rating	C_0	30 kN
Fatigue load limit	P_u	1.27 kN
Reference speed		14 000 r/min
Limiting speed		8 500 r/min
Minimum load factor	k_r	0.04
Calculation factor	f_0	14.2

Mass

Mass bearing	0.44 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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