



214-Z Deep groove ball bearing with filling slots and integral sealing

Deep groove ball bearing with filling slots and integral sealing

Single row deep groove ball bearings with filling slots and shields on one or both sides, 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. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Integral sealing prolongs bearing service life
- 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	70 mm
Outside diameter	125 mm
Width	24 mm

Performance

Basic dynamic load rating	66 kN
Basic static load rating	65.5 kN
Reference speed	9 500 r/min
Limiting speed	5 600 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	Shield on one side
Sealing type	Non-contact
Lubricant	None
Relubrication feature	Without

Technical Specification

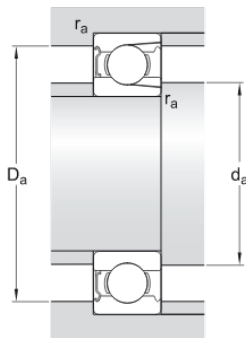


Dimensions

d	70 mm	Bore diameter
D	125 mm	Outside diameter
B	24 mm	Width
d_1	≈ 87.05 mm	Shoulder diameter
D_2	≈ 111 mm	Recess diameter
$r_{1,2}$	min. 1.5 mm	Chamfer dimension

Abutment dimensions

d_a	min. 79 mm	Diameter of shaft abutment
d_a	max. 87 mm	Diameter of shaft abutment
D_a	max. 116 mm	Diameter of housing abutment
r_a	max. 1.5 mm	Radius of shaft or housing fillet



Calculation data

Basic dynamic load rating	C	66 kN
Basic static load rating	C_0	65.5 kN
Fatigue load limit	P_u	2.75 kN
Reference speed		9 500 r/min
Limiting speed		5 600 r/min
Minimum load factor	k_r	0.04

Mass

Mass bearing	1.15 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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