

61814-2RZ Deep groove ball bearing



Deep groove ball bearing

Single row deep groove ball bearings are the most widely used bearing type and are particularly versatile. They have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They can accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types.

- Simple, versatile and robust design
- Low friction
- High-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	70 mm
Outside diameter	90 mm
Width	10 mm

Performance

Basic dynamic load rating	12.4 kN
Basic static load rating	13.2 kN
Reference speed	15 000 r/min
Limiting speed	7 500 r/min

Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without

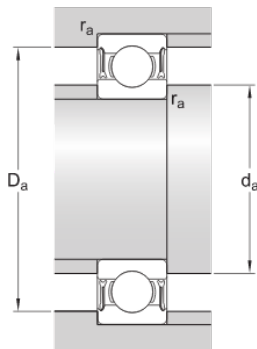
Technical Specification



Dimensions

d	70 mm	Bore diameter
D	90 mm	Outside diameter
B	10 mm	Width
d_1	≈ 76.4 mm	Shoulder diameter
D_2	≈ 85.5 mm	Recess diameter
$r_{1,2}$	min. 0.6 mm	Chamfer dimension

Abutment dimensions



d_a	min. 73.2 mm	Diameter of shaft abutment
d_a	max. 76.5 mm	Diameter of shaft abutment
D_a	max. 86.8 mm	Diameter of housing abutment
r_a	max. 0.6 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	12.4 kN
Basic static load rating	C_0	13.2 kN
Fatigue load limit	P_u	0.56 kN
Reference speed		15 000 r/min
Limiting speed		7 500 r/min
Minimum load factor	k_r	0.015
Calculation factor	f_0	17.2

Mass

Mass bearing	0.14 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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