

618/9 Deep groove ball bearing



Deep groove ball bearing

Single row deep groove ball bearings are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They 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	9 mm
Outside diameter	17 mm
Width	4 mm

Performance

Basic dynamic load rating	0.871 kN
Basic static load rating	0.34 kN
Reference speed	85 000 r/min
Limiting speed	53 000 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	Without
Lubricant	None
Relubrication feature	Without

Technical Specification



Dimensions

d	9 mm	Bore diameter
D	17 mm	Outside diameter
B	4 mm	Width
d ₁	≈ 11.5 mm	Shoulder diameter
D ₁	≈ 14.5 mm	Shoulder diameter
r _{1,2}	min. 0.2 mm	Chamfer dimension

Abutment dimensions

d _a	min. 10.4 mm	Diameter of shaft abutment
D _a	max. 15.6 mm	Diameter of housing abutment
r _a	max. 0.2 mm	Radius of shaft or housing fillet



Calculation data

Basic dynamic load rating	C	0.871 kN
Basic static load rating	C ₀	0.34 kN
Fatigue load limit	P _u	0.014 kN
Reference speed		85 000 r/min
Limiting speed		53 000 r/min
Minimum load factor	k _r	0.015
Calculation factor	f ₀	7.7

Mass

Mass bearing	0.0035 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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