

618/8

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	0.315 in
Outside diameter	0.63 in
Width	0.157 in

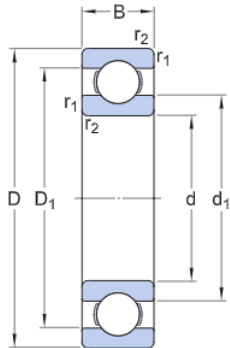
Performance

Basic dynamic load rating	184 lbf
Basic static load rating	67 lbf
Limiting speed	56 000 r/min
Reference speed	90 000 r/min

Properties

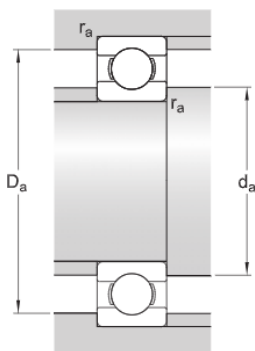
Bore type	Cylindrical
Cage	Sheet metal
Coating	Without
Filling slots	Without
Locating feature, bearing outer ring	None
Lubricant	None
Matched arrangement	No
Material, bearing	Bearing steel
Number of rows	1
Radial internal clearance	CN
Relubrication feature	Without
Sealing	Without

Technical Specification



Dimensions

d	0.315 in	Bore diameter
D	0.63 in	Outside diameter
B	0.157 in	Width
d ₁	≈ 0.413 in	Shoulder diameter
D ₁	≈ 0.531 in	Shoulder diameter
r _{1,2}	min. 0.008 in	Chamfer dimension



Abutment dimensions

d _a	min. 0.37 in	Diameter of shaft abutment
D _a	max. 0.575 in	Diameter of housing abutment
r _a	max. 0.008 in	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	184 lbf
Basic static load rating	C ₀	67 lbf
Fatigue load limit	P _u	2.7 lbf
Reference speed		90 000 r/min
Limiting speed		56 000 r/min
Minimum load factor	k _r	0.015
Calculation factor	f ₀	7.5

Mass

Mass bearing	0.007 lb
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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