

6316/C3VL0241

INSOCOAT® deep groove ball bearing



INSOCOAT single row deep groove ball bearings feature an electrically insulating coating on the outside surfaces of either the inner or outer bearing ring. This keeps stray electric currents from passing through the bearings, protecting them against electrical erosion damage and helping prevent lubricant degradation resulting from electric current discharge. As with deep groove ball bearings generally, they 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.

- Coating protects against electrical erosion damage
- Reduced lubricant degradation resulting from electric current discharge
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	80 mm
Outside diameter	170 mm
Width	39 mm

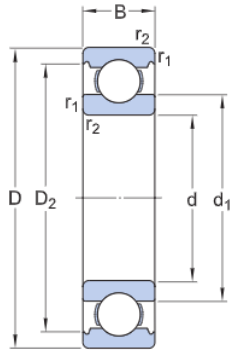
Performance

Basic dynamic load rating	130 kN
Basic static load rating	86.5 kN
Reference speed	8 500 r/min
Limiting speed	5 300 r/min

Properties

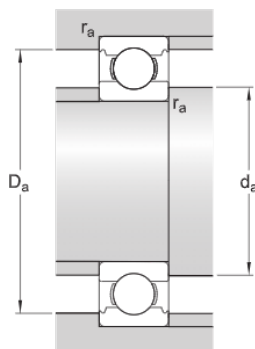
Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	C3
Material, bearing	Bearing steel
Coating	Insulation coating on outer ring
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification



Dimensions

d	80 mm	Bore diameter
D	170 mm	Outside diameter
B	39 mm	Width
d ₁	≈ 108 mm	Shoulder diameter inner ring
D ₂	≈ 149 mm	Recess diameter outer ring shoulder
r _{1,2}	min. 2.1 mm	Chamfer dimension



Abutment dimensions

d _a	min. 92 mm	Abutment diameter shaft
D _a	min. 154 mm	Abutment diameter shaft
D _a	max. 158 mm	Abutment diameter housing
r _a	max. 2 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	130 kN
Basic static load rating	C ₀	86.5 kN
Fatigue load limit	P _u	3.25 kN
Reference speed		8 500 r/min
Limiting speed		5 300 r/min
Calculation factor	k _r	0.03
Calculation factor	f ₀	13.3

Mass

Mass bearing	3.55 kg
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