6316 M/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

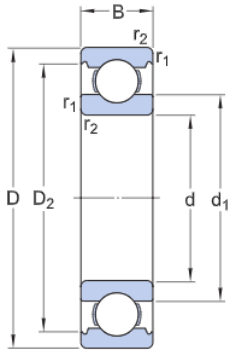
Basic dynamic load rating	130 kN
Basic static load rating	86.5 kN
Reference speed	8 500 r/min
Limiting speed	7 500 r/min

Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Machined 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

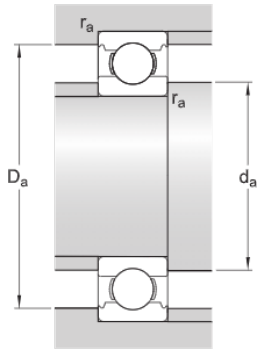
Technical Specification

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		7 500 r/min
Calculation factor	k_r	0.03
Calculation factor	f_0	13.3

Mass

Mass bearing	4.17 kg

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