

# 6318 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	90 mm
Outside diameter	190 mm
Width	43 mm

### Performance

Basic dynamic load rating	151 kN
Basic static load rating	108 kN
Reference speed	7 500 r/min
Limiting speed	7 000 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
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Insulation coating on outer ring
Sealing	Without
Lubricant	None

Relubrication feature

Without

# Technical Specification

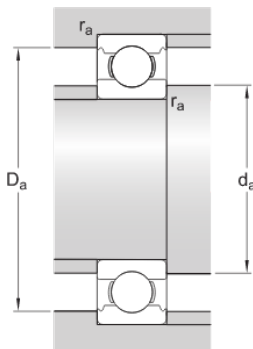


## Dimensions

d	90 mm	Bore diameter
D	190 mm	Outside diameter
B	43 mm	Width
$d_1$	≈ 121.15 mm	Shoulder diameter inner ring
$D_2$	≈ 166 mm	Recess diameter outer ring shoulder
$r_{1,2}$	min. 3 mm	Chamfer dimension

## Abutment dimensions

$d_a$	min. 104 mm	Abutment diameter shaft
$D_a$	min. 171 mm	Abutment diameter shaft
$D_a$	max. 176 mm	Abutment diameter housing
$r_a$	max. 2.5 mm	Fillet radius



## Calculation data

Basic dynamic load rating	C	151 kN
Basic static load rating	$C_0$	108 kN
Fatigue load limit	$P_u$	3.8 kN
Reference speed		7 500 r/min
Limiting speed		7 000 r/min
Calculation factor	$k_r$	0.03
Calculation factor	$f_0$	13.3

## Mass

Mass bearing

5.76 kg

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