

6317/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 | 85 mm |
| Outside diameter | 180 mm |
| Width | 41 mm |

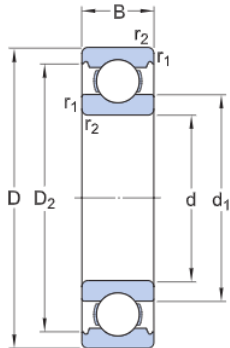
Performance

| | |
|---------------------------|-------------|
| Basic dynamic load rating | 140 kN |
| Basic static load rating | 96.5 kN |
| Reference speed | 8 000 r/min |
| Limiting speed | 5 000 r/min |

Properties

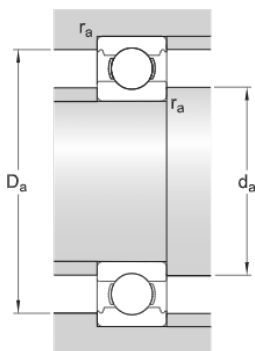
| | |
|--------------------------------------|----------------------------------|
| Filling slots | Without |
| Number of rows | 1 |
| Locating feature, bearing outer ring | None |
| Bore type | Cylindrical |
| Cage | Sheet metal |
| Matched arrangement | No |
| Radial internal clearance | C3 |
| Material,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

Technical Specification



Dimensions

| | | |
|-----------|---------------------|-------------------------------------|
| d | 85 mm | Bore diameter |
| D | 180 mm | Outside diameter |
| B | 41 mm | Width |
| d_1 | ≈ 114.55 mm | Shoulder diameter inner ring |
| D_2 | ≈ 158 mm | Recess diameter outer ring shoulder |
| $r_{1,2}$ | min. 3 mm | Chamfer dimension |



Abutment dimensions

| | | |
|-------|-------------|---------------------------|
| d_a | min. 99 mm | Abutment diameter shaft |
| D_a | min. 163 mm | Abutment diameter shaft |
| D_a | max. 166 mm | Abutment diameter housing |
| r_a | max. 2.5 mm | Fillet radius |

Calculation data

| | | |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C | 140 kN |
| Basic static load rating | C_0 | 96.5 kN |
| Fatigue load limit | P_u | 3.55 kN |
| Reference speed | | 8 000 r/min |
| Limiting speed | | 5 000 r/min |
| Calculation factor | k_r | 0.03 |
| Calculation factor | f_0 | 13.3 |

Mass

Mass bearing

4.1 kg

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