# 6309/HC5C3

## Hybrid deep groove ball bearing

Hybrid single row deep groove ball bearings have rings made of bearing steel and rolling elements made of bearing grade silicon nitride (Si3N4), which make the bearings electrically insulating. Deep groove ball bearings are the most widely used bearing type, especially in electric motors. The silicon nitride elements not only provide protection from electric current damage but also, when compared to same-sized bearings with steel rolling elements, provide enhanced bearing performance, extended bearing service life, higher speed capability, high wear-resistance, high bearing stiffness, reduced risk of smearing and false (brinelling, and less sensitivity to temperature gradients. These characteristics make them suitable for use in difficult conditions and contaminated environments.

- Protected against electric current damage
- Especially suited for use in difficult conditions and contaminated environments
- Typical benefits of single row deep groove ball bearings

## Overview

### Dimensions

| | |
|---|---|
| Bore diameter | 45 mm |
| Outside diameter | 100 mm |
| Width | 25 mm |

### Performance

| | |
|---|---|
| Basic dynamic load rating | 52.7 kN |
| Basic static load rating | 31.5 kN |
| Reference speed | 18 000 r/min |
| Limiting speed | 11 000 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 | Hybrid |
| Coating | Without |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | Without |

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