



6205-2Z/VA201 Deep groove ball bearing for high temperature applications with shields on both sides

Deep groove ball bearing for high temperature applications with shields on both sides

Single row deep groove ball bearings for high temperature applications, with shields on both sides, are designed for challenging operating conditions, with certain variants being capable of performing at temperatures as high as 350 °C (660 °F). They have larger radial internal clearances and use graphite-based lubricants that enable operation at high temperatures. They are lubricated for the life of the bearing and the entire surface of the bearings and shields are manganese phosphate treated, which enhances adhesion of the lubricant to the metal and improves their running-in properties. As with deep groove ball bearings generally, they are particularly versatile, accommodate radial and axial loads in both directions, and are easy to mount.

- Optimized for operation at high temperatures – up to 350 °C (660 °F)
- Easily swapped with grease-lubricated bearings of corresponding ISO dimensions
- Increased reliability, reduced complexity and decreased environmental impact
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

| | |
|------------------|-------|
| Bore diameter | 25 mm |
| Outside diameter | 52 mm |
| Width | 15 mm |

Performance

| | |
|-------------------------------|-----------|
| Basic static load rating | 7.8 kN |
| Limiting speed | 120 r/min |
| Maximum operating temperature | 250 °C |

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 | Multiples of C5 |
| Tolerance class | Normal |
| Material, bearing | High temperature steel |
| Coating | Coated |
| Sealing | Shield on both sides |
| Sealing type | Non-contact |
| Lubricant | Solid lubricant |
| Relubrication feature | Without |

Technical Specification

Running in required

Yes



Dimensions

| | | |
|-----------|--------------------|-------------------------------------|
| d | 25 mm | Bore diameter |
| D | 52 mm | Outside diameter |
| B | 15 mm | Width |
| d_1 | ≈ 34.27 mm | Shoulder diameter inner ring |
| D_2 | ≈ 46.21 mm | Recess diameter outer ring shoulder |
| $r_{1,2}$ | min. 1 mm | Chamfer dimension |

Abutment dimensions

| | | |
|-------|--------------|---------------------------|
| d_a | min. 30.6 mm | Abutment diameter shaft |
| d_a | max. 34.3 mm | Abutment diameter shaft |
| D_a | max. 46.4 mm | Abutment diameter housing |
| r_a | max. 1 mm | Fillet radius |



Calculation data

| | | |
|--------------------------|-------|-------------|
| Basic static load rating | C_0 | 7.8 kN |
| Limiting speed | | 120 r/min |
| Operating temperature | T | max. 250 °C |

Mass

Mass bearing

0.13 kg

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