

6305/VA201

Deep groove ball bearing for high temperature applications



Single row deep groove ball bearings for high temperature applications are designed for challenging operating conditions, with certain variants being capable of performing at temperatures as high as 350 °C (660 °F). They have increased radial internal clearances and use graphite-based lubricants that are optimized for operation at high temperatures. The entire surface of the bearings 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
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	25 mm
Outside diameter	62 mm
Width	17 mm

Performance

Basic dynamic load rating	23.4 kN
Basic static load rating	11.6 kN
Limiting speed	100 r/min
Maximum operating temperature	250 °C

Properties

Bore type	Cylindrical
Cage	Sheet metal
Coating	Coated
Filling slots	Without
Locating feature, bearing outer ring	None
Lubricant	Solid lubricant
Matched arrangement	No
Material, bearing	High temperature steel
Number of rows	1
Radial internal clearance	Multiples of C5
Relubrication feature	Without

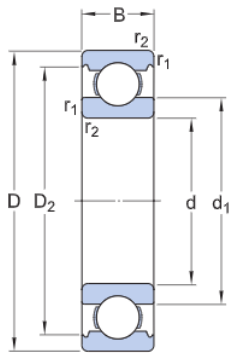
Sealing

Without

Technical Specification

Running in required

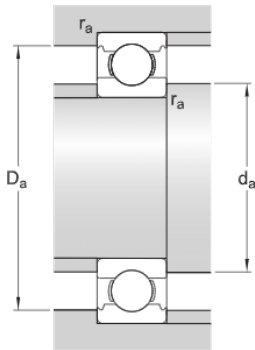
Yes



Dimensions

d	25 mm	Bore diameter
D	62 mm	Outside diameter
B	17 mm	Width
d ₁	≈ 36.6 mm	Shoulder diameter inner ring
D ₂	≈ 52.7 mm	Recess diameter outer ring shoulder
r _{1,2}	min. 1.1 mm	Chamfer dimension

Abutment dimensions



d _a	min. 32 mm	Abutment diameter shaft
D _a	max. 55 mm	Abutment diameter housing
r _a	max. 1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	23.4 kN
Basic static load rating	C ₀	11.6 kN
Limiting speed		100 r/min
Operating temperature	T	max. 250 °C

Mass

Mass bearing

0.23 kg

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