



Image may differ from product. See technical specification for details.

6004-2Z/VA201

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	20 mm
Outside diameter	42 mm
Width	12 mm

Performance

Basic static load rating	5 kN
Limiting speed	140 r/min
Maximum operating temperature	250 °C

Properties

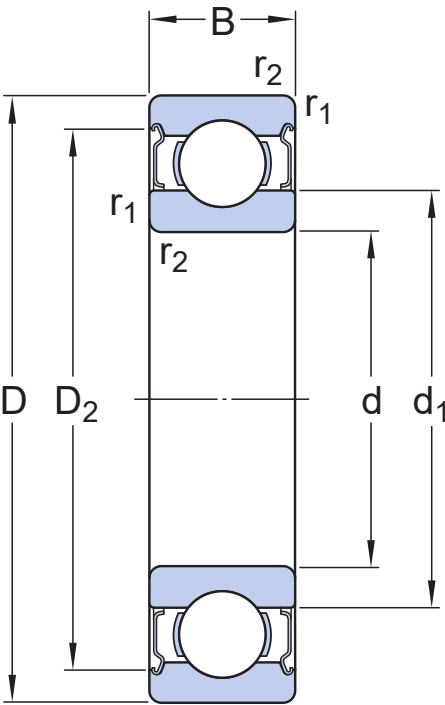
Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	Multiples of C5
Material, bearing	High temperature steel
Coating	Coated
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Solid lubricant
Relubrication feature	Without
Indicative product carbon footprint to manufacture	0.248 kg CO ₂ e

Logistics

Product net weight	0.069 kg
eClass code	23-05-90-90
UNSPSC code	31171504

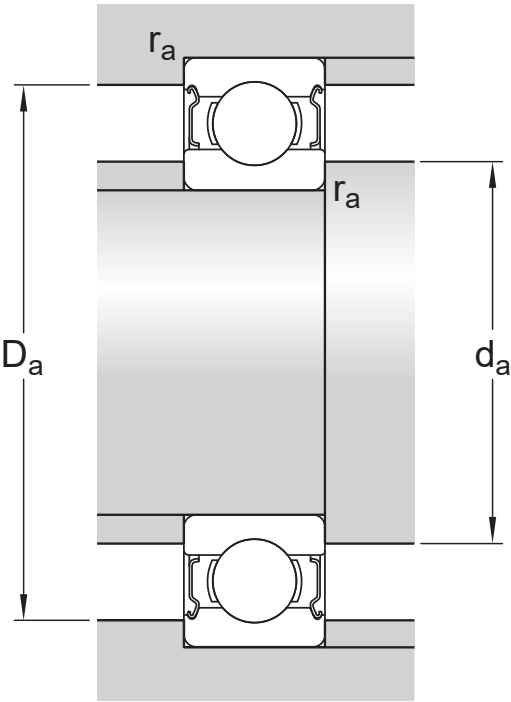
Technical specification

Running in required	Yes
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Dimensions

d	20 mm	Bore diameter
D	42 mm	Outside diameter
B	12 mm	Width
d ₁	≈ 27.13 mm	Shoulder diameter inner ring
D ₂	≈ 37.19 mm	Recess diameter outer ring shoulder
r _{1,2}	min. 0.6 mm	Chamfer dimension



Abutment dimensions

d _a	min. 23.2 mm	Abutment diameter shaft
d _a	max. 27.1 mm	Abutment diameter shaft
D _a	max. 38.8 mm	Abutment diameter housing
r _a	max. 0.6 mm	Fillet radius

Calculation data

Basic static load rating	C ₀	5 kN
Limiting speed		140 r/min
Operating temperature	T	max. 250 °C

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Radial internal clearance: Classes C2 to C5

BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fits](#)

More Information

 Product details	 Engineering information	 Tools
Single row deep groove ball bearings	Principles of rolling bearing selection	SKF Product select
Stainless steel deep groove ball bearings	General bearing knowledge	SimPro Quick
Single row deep groove ball bearings with filling slots	Bearing selection process	Bearing Frequency Calculator
Double row deep groove ball bearings	Bearing interfaces	LubeSelect for SKF greases
General bearing specifications	Seat tolerances for standard conditions	Heater selection tool
Loads	Selecting internal clearance	
Temperature limits	Lubrication	
Permissible speed	Sealing, mounting and dismounting	
Designation system	Bearing failure and how to prevent it	



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