

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

W 638/2-2Z

Stainless steel deep groove ball bearing with integral sealing

Stainless steel single row deep groove ball bearing with seals or shields on both sides, provide greater chemical and corrosion resistance. 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 other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Greater chemical and corrosion resistance
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	2 mm
Outside diameter	5 mm
Width	2.3 mm

Performance

Basic dynamic load rating	0.094 kN
Basic static load rating	0.025 kN
Reference speed	200 000 r/min
Limiting speed	100 000 r/min

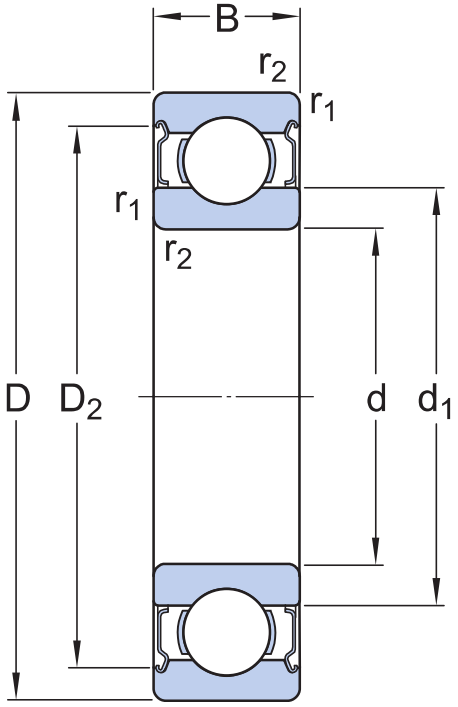
Properties

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	CN
Material, bearing	Stainless steel
Coating	Without
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without

Logistics

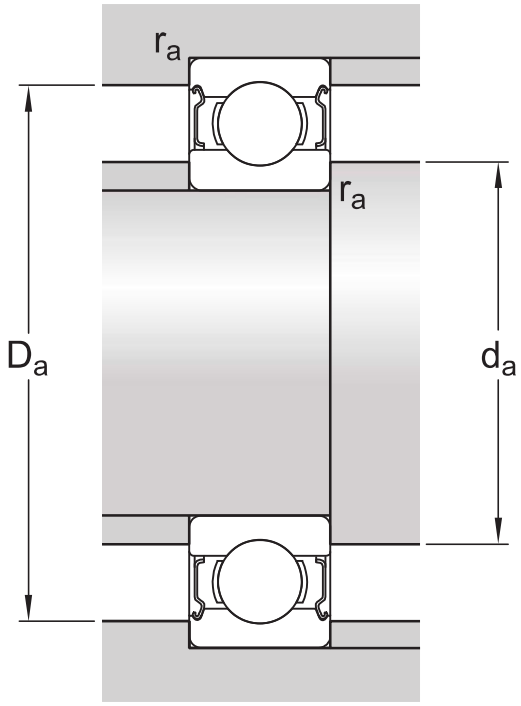
Product net weight	0.0002 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	2 mm	Bore diameter
D	5 mm	Outside diameter
B	2.3 mm	Width
d_1	≈ 2.7 mm	Shoulder diameter
d_2	≈ 2.7 mm	Recess diameter
D_2	≈ 4.4 mm	Recess diameter
$r_{1,2}$	min. 0.08 mm	Chamfer dimension



Abutment dimensions

d_a	min. 2.5 mm	Diameter of shaft abutment
d_a	max. 2.6 mm	Diameter of shaft abutment
D_a	max. 4.5 mm	Diameter of housing abutment
r_a	max. 0.08 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	0.094 kN
Basic static load rating	C_0	0.025 kN
Fatigue load limit	P_u	0.001 kN
Reference speed		200 000 r/min
Limiting speed		100 000 r/min
Minimum load factor	k_r	0.02
Calculation factor	f_0	6.5

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

- Single row deep groove ball bearings
- Stainless steel deep groove ball bearings
- Single row deep groove ball bearings with filling slots
- Double row deep groove ball bearings
- General bearing specifications
- Loads
- Temperature limits
- Permissible speed
- Designation system

Engineering information

- Principles of rolling bearing selection
- General bearing knowledge
- Bearing selection process
- Bearing interfaces
- Seat tolerances for standard conditions
- Selecting internal clearance
- Lubrication
- Sealing, mounting and dismounting
- Bearing failure and how to prevent it

Tools

- SKF Product select
- SimPro Quick
- Bearing Frequency Calculator
- LubeSelect for SKF greases
- Heater selection tool

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