



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

63003-2RS1

Deep groove ball bearing with seals or shields

Single row deep groove ball bearings with seals or shields 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 many other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Low friction and high-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	0.669 in
Outside diameter	1.378 in
Width	0.551 in

Performance

Basic dynamic load rating	1 360 lbf
Basic static load rating	731 lbf
Limiting speed	13 000 r/min

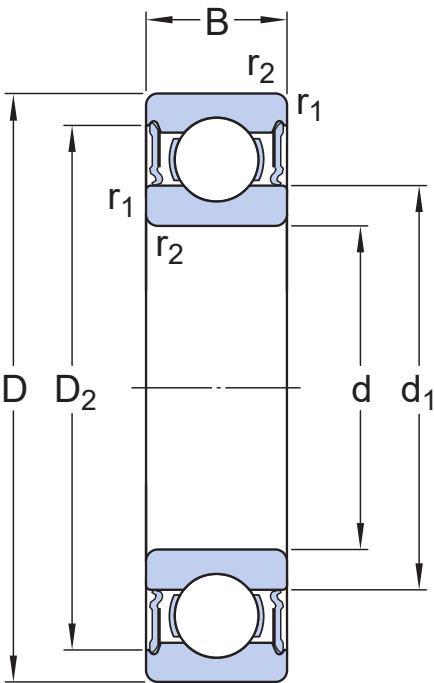
Properties

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	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Contact
Lubricant	Grease
Relubrication feature	Without

Logistics

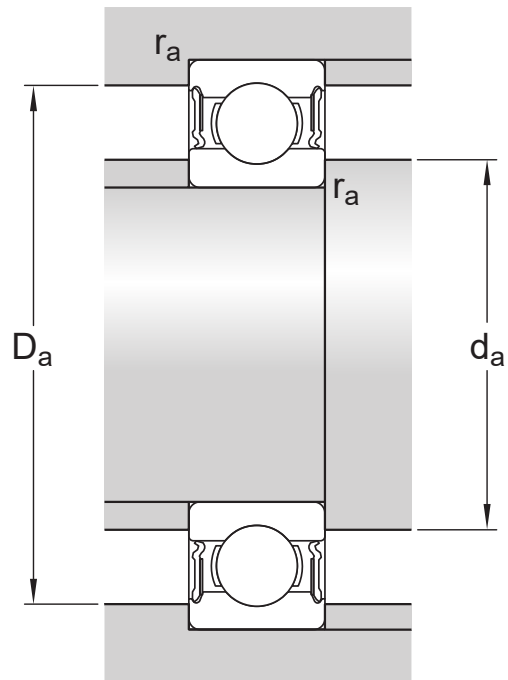
Product net weight	0.1177 lb
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	0.669 in	Bore diameter
t _{Δdmp}	-8 – 0 μm	Deviation limits of mid-range bore diameter
D	1.378 in	Outside diameter
t _{ΔDmp}	-11 – 0 μm	Deviation limits of mid-range outside diameter
B	0.551 in	Width
t _{ΔBs}	-120 – 0 μm	Deviation limits of ring width
d ₁	≈ 0.906 in	Shoulder diameter
D ₂	≈ 1.228 in	Recess diameter
r _{1,2}	min. 0.012 in	Chamfer dimension
	Normal	ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 0.748 in	Diameter of shaft abutment
d_a	max. 0.902 in	Diameter of shaft abutment
D_a	max. 1.299 in	Diameter of housing abutment
r_a	max. 0.012 in	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	1 360 lbf
Basic static load rating	C_0	731 lbf
Fatigue load limit	P_u	31 lbf
Limiting speed		13 000 r/min

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{kia}	10 μm
Range of section height at outer ring of assembled bearing	t_{kea}	20 μm
ISO tolerance class for geometrical tolerances		Normal

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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