



Image may differ from product. See specification for details.

Deep groove ball bearing with seals or shields

6310-2RS1

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	50 mm
Outside diameter	110 mm
Width	27 mm

Performance

Basic dynamic load rating	65 kN
Basic static load rating	38 kN
Limiting speed	4 300 r/min
SKF performance class	SKF Explorer

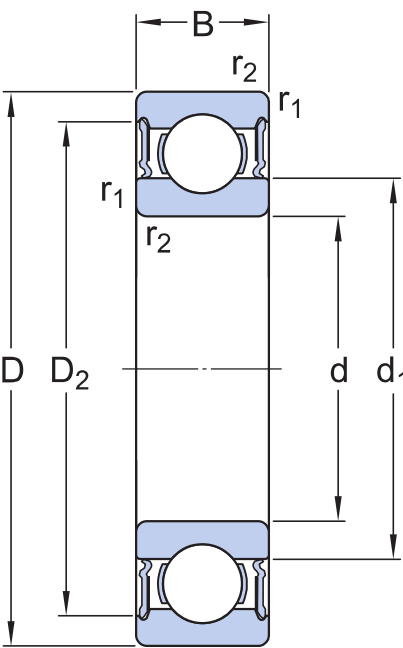
Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	Without
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
Indicative product carbon footprint to manufacture	3.92 kg CO ₂ e

Logistics

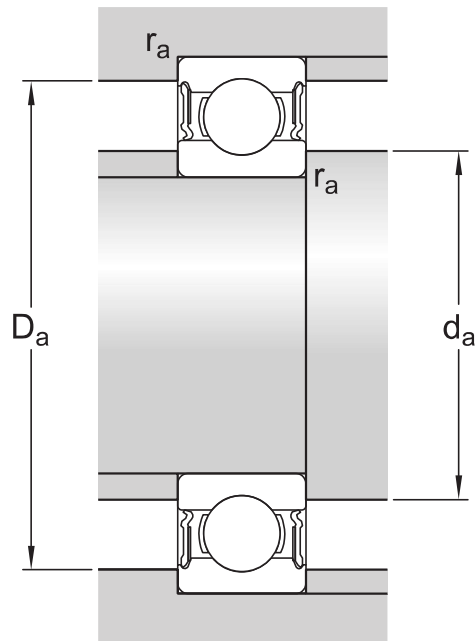
Product net weight	1.09 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	50 mm	Bore diameter
t _{Δdmp}	-0.01 – 0 mm	Deviation limits of mid-range bore diameter
D	110 mm	Outside diameter
t _{ΔDmp}	-0.013 – 0 mm	Deviation limits of mid-range outside diameter
B	27 mm	Width
t _{ΔBs}	-0.06 – 0 mm	Deviation limits of ring width
d ₁	≈ 68.76 mm	Shoulder diameter
D ₂	≈ 95.2 mm	Recess diameter
r _{1,2}	min. 2 mm	Chamfer dimension
	P6 and tighter width tolerance	ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 61 mm	Diameter of shaft abutment
d_a	max. 68.7 mm	Diameter of shaft abutment
D_a	max. 99 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of shaft or housing fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	65 kN
Basic static load rating	C_0	38 kN
Fatigue load limit	P_U	1.6 kN
Limiting speed		4 300 r/min
Minimum load factor	k_r	0.03
Calculation factor	f_0	13

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	10 μ m
Range of section height at outer ring of assembled bearing	t_{Kea}	18 μ m
ISO tolerance class for geometrical tolerances		P6

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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