



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

61810

Deep groove ball bearing

Single row deep groove ball bearings 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.

- Simple, versatile and robust design
- Low friction
- High-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	65 mm
Width	7 mm

Performance

Basic dynamic load rating	5.4 kN
Basic static load rating	4.15 kN
Reference speed	20 000 r/min
Limiting speed	13 000 r/min

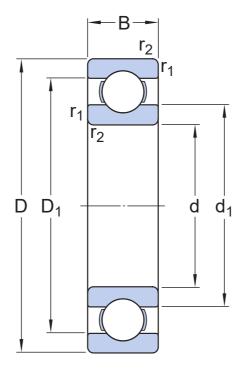
Properties

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	Without
Lubricant	None
Relubrication feature	Without

Logistics

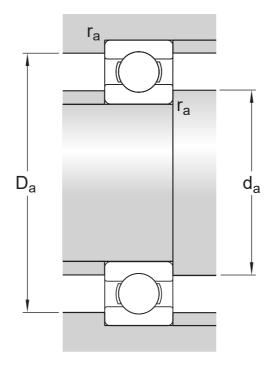
Product net weight	0.052 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	50 mm	Bore diameter
t_{\Deltadmp}	-0.01 – 0 mm	Deviation limits of mid-range bore diameter
D	65 mm	Outside diameter
t_{\DeltaDmp}	-0.011 – 0 mm	Deviation limits of mid-range outside diameter
В	7 mm	Width
t _{ΔBs}	-0.12 - 0 mm	Deviation limits of ring width
d_1	≈ 54.9 mm	Shoulder diameter
D ₁	≈ 60.4 mm	Shoulder diameter
r _{1,2}	min. 0.3 mm	Chamfer dimension
	P6	ISO tolerance class for dimensions



Abutment dimensions

da	min. 52 mm	Diameter of shaft abutment
Da	max. 63 mm	Diameter of housing abutment
r _a	max. 0.3 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	С	5.4 kN
Basic static load rating	C_0	4.15 kN
Fatigue load limit	P_{u}	0.176 kN
Reference speed		20 000 r/min
Limiting speed		13 000 r/min
Minimum load factor	k _r	0.015
Calculation factor	f ₀	11.4

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}	13 μm
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

Engineering Tools Product details information Single row deep groove ball bearings SKF Product select Principles of rolling bearing selection Stainless steel deep groove ball SimPro Quick General bearing knowledge Bearing Frequency Calculator Single row deep groove ball bearings Bearing selection process with filling slots LubeSelect for SKF greases Bearing interfaces Double row deep groove ball bearings Heater selection tool Seat tolerances for standard General bearing specifications conditions 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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