



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

6314

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. Also available on request with special sized bore and/or outside diameters, suitable for reworked shafts and housings.

- 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	2.7559 in
Outside diameter	5.9055 in
Width	1.378 in

Performance

Basic dynamic load rating	24 954 lbf
Basic static load rating	15 287 lbf
Reference speed	9 500 r/min
Limiting speed	6 300 r/min
SKF performance class	SKF Explorer

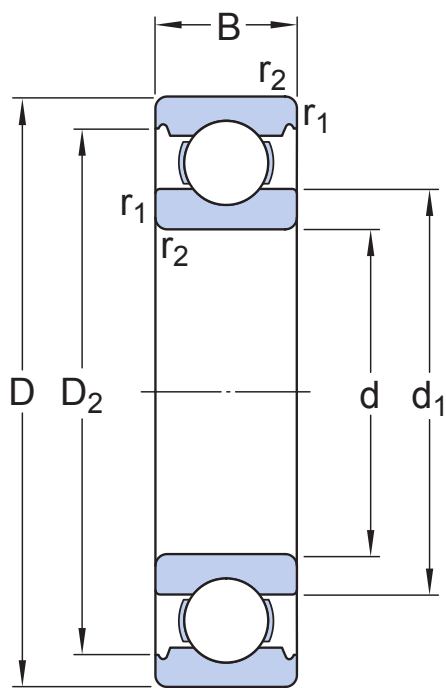
Properties

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	Without
Lubricant	None
Relubrication feature	Without
Indicative carbon footprint for new product	20.3 lb CO ₂ e

Logistics

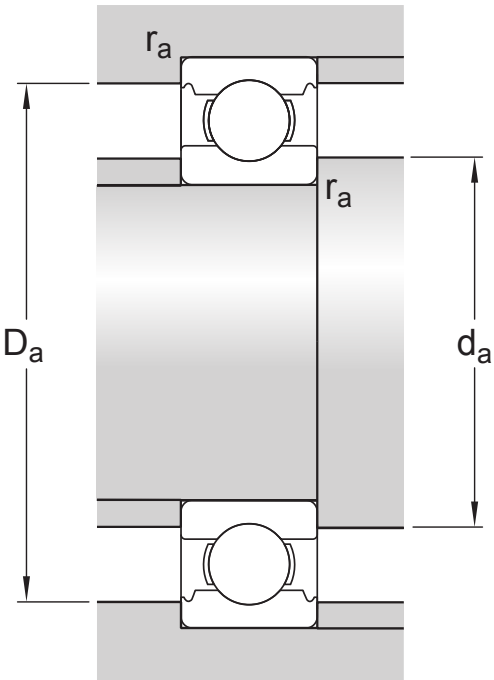
Product net weight	5.48 lb
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	2.7559 in	Bore diameter
t _{Δdmp}	-12 – 0 μm	Deviation limits of mid-range bore diameter
D	5.9055 in	Outside diameter
t _{ΔDmp}	-15 – 0 μm	Deviation limits of mid-range outside diameter
B	1.378 in	Width
t _{ΔBs}	-100 – 0 μm	Deviation limits of ring width
d ₁	≈ 3.7382 in	Shoulder diameter
D ₂	≈ 5.1142 in	Recess diameter
r _{1,2}	min. 0.0827 in	Chamfer dimension
P6 and tighter width tolerance		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 3.2283 in	Diameter of shaft abutment
D_a	max. 5.4331 in	Diameter of housing abutment
r_a	max. 0.0787 in	Radius of shaft or housing fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	24 954 lbf
Basic static load rating	C_0	15 287 lbf
Fatigue load limit	P_u	618 lbf
Reference speed		9 500 r/min
Limiting speed		6 300 r/min
Minimum load factor	k_r	0.03
Calculation factor	f_0	13.2

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{kia}	20 μ m
Range of section height at outer ring of assembled bearing	t_{kea}	40 μ m

ISO tolerance class for geometrical tolerances	Normal
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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	LubeSelect for SKF greases
Single row deep groove ball bearings with filling slots	Bearing selection process	Heater selection tool
Double row deep groove ball bearings	Bearing interfaces	
General bearing specifications	Seat tolerances for standard 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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