



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

4304 ATN9

Double row deep groove ball bearing

Double row deep groove ball bearings correspond, in their design and operation, to a pair of single row deep groove ball bearings. They are robust in operation, requiring little maintenance, can operate at high speeds and accommodate radial and axial loads in both directions. They are slightly wider than single row bearings of the same bore and outside diameter but have a considerably higher load carrying capacity.

- Versatile and robust design
- High-speed capability
- Accommodate high axial and radial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	20 mm
Outside diameter	52 mm
Width	21 mm

Performance

Basic dynamic load rating	23.4 kN
Basic static load rating	16 kN
Reference speed	22 000 r/min
Limiting speed	12 000 r/min

Properties

Filling slots	Without
Number of rows	2
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Non-metallic
Matched arrangement	No
Radial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Logistics

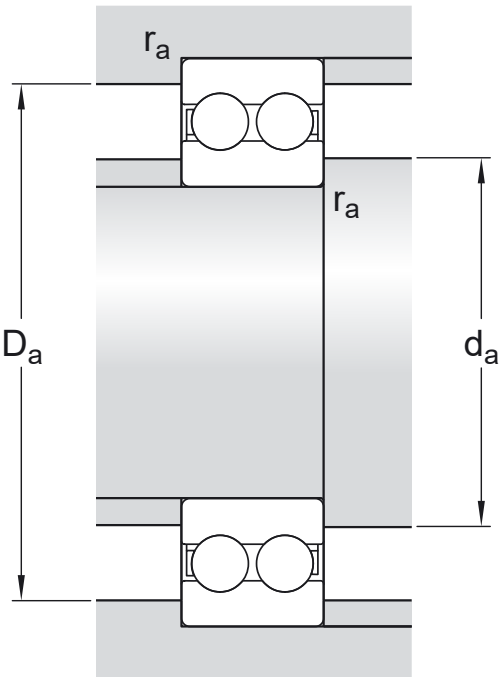
Product net weight	0.204 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification

 Dimensions - 4304 ATN9

Dimensions

d	20 mm	Bore diameter
D	52 mm	Outside diameter
B	21 mm	Width
d ₁	≈ 31.8 mm	Shoulder diameter
D ₁	≈ 42.2 mm	Shoulder diameter
r _{1,2}	min. 1.1 mm	Chamfer dimension



Abutment dimensions

d_a	min. 27 mm	Diameter of shaft abutment
D_a	max. 45 mm	Diameter of housing abutment
r_a	max. 1 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	23.4 kN
Basic static load rating	C_0	16 kN
Fatigue load limit	P_u	0.68 kN
Reference speed		22 000 r/min
Limiting speed		12 000 r/min
Minimum load factor	k_f	0.06
Calculation factor	f_0	13.1

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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