

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

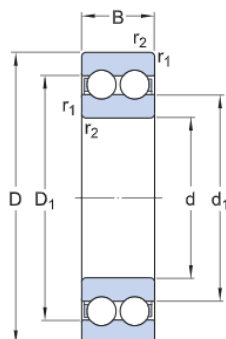
Basic dynamic load rating	23.4 kN
Basic static load rating	16 kN
Reference speed	22 000 r/min
Limiting speed	12 000 r/min

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

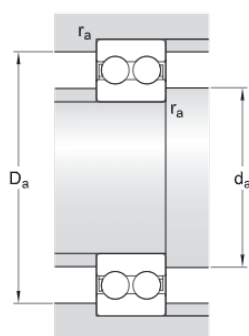
Technical Specification

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 _r	0.06
Calculation factor	f ₀	13.1

Mass

Mass bearing	0.21 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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