

4200 ATN9 Double row deep groove ball bearing



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	10 mm
Outside diameter	30 mm
Width	14 mm

Performance

Basic dynamic load rating	9.23 kN
Basic static load rating	5.2 kN
Reference speed	40 000 r/min
Limiting speed	22 000 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
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification

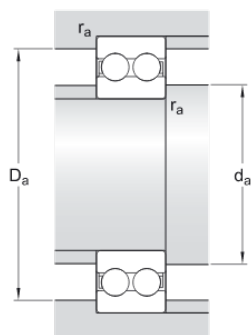


Dimensions

d	10 mm	Bore diameter
D	30 mm	Outside diameter
B	14 mm	Width
d ₁	≈ 16.7 mm	Shoulder diameter
D ₁	≈ 23.3 mm	Shoulder diameter
r _{1,2}	min. 0.6 mm	Chamfer dimension

Abutment dimensions

d _a	min. 14.2 mm	Diameter of shaft abutment
D _a	max. 25.8 mm	Diameter of housing abutment
r _a	max. 0.6 mm	Radius of shaft or housing fillet



Calculation data

Basic dynamic load rating	C	9.23 kN
Basic static load rating	C ₀	5.2 kN
Fatigue load limit	P _u	0.224 kN
Reference speed		40 000 r/min
Limiting speed		22 000 r/min
Minimum load factor	k _r	0.05
Calculation factor	f ₀	12.1

Mass

Mass bearing	0.049 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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