

# 4209 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	45 mm
Outside diameter	85 mm
Width	23 mm

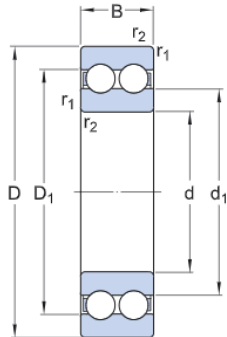
### Performance

Basic dynamic load rating	39 kN
Basic static load rating	36 kN
Reference speed	12 000 r/min
Limiting speed	6 700 r/min

### Properties

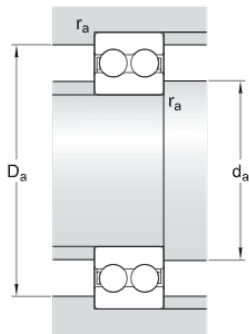
Filling slots	Without
Number of rows	2
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Non-metallic
Matched arrangement	No
Radial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

# Technical Specification



## Dimensions

d	45 mm	Bore diameter
D	85 mm	Outside diameter
B	23 mm	Width
d <sub>1</sub>	≈ 59.5 mm	Shoulder diameter
D <sub>1</sub>	≈ 71.5 mm	Shoulder diameter
r <sub>1,2</sub>	min. 1.1 mm	Chamfer dimension



## Abutment dimensions

d <sub>a</sub>	min. 52 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 78 mm	Diameter of housing abutment
r <sub>a</sub>	max. 1 mm	Radius of shaft or housing fillet

## Calculation data

Basic dynamic load rating	C	39 kN
Basic static load rating	C <sub>0</sub>	36 kN
Fatigue load limit	P <sub>u</sub>	1.53 kN
Reference speed		12 000 r/min
Limiting speed		6 700 r/min
Minimum load factor	k <sub>r</sub>	0.05
Calculation factor	f <sub>0</sub>	15.1

## Mass

Mass bearing	0.54 kg
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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