

# 4205 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	25 mm
Outside diameter	52 mm
Width	18 mm

### Performance

Basic dynamic load rating	19 kN
Basic static load rating	14.6 kN
Reference speed	20 000 r/min
Limiting speed	11 000 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

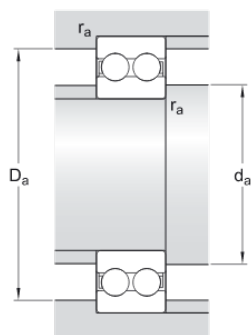


## Dimensions

d	25 mm	Bore diameter
D	52 mm	Outside diameter
B	18 mm	Width
$d_1$	≈ 34.2 mm	Shoulder diameter
$D_1$	≈ 42.8 mm	Shoulder diameter
$r_{1,2}$	min. 1 mm	Chamfer dimension

## Abutment dimensions

$d_a$	min. 30.6 mm	Diameter of shaft abutment
$D_a$	max. 46.4 mm	Diameter of housing abutment
$r_a$	max. 1 mm	Radius of shaft or housing fillet



## Calculation data

Basic dynamic load rating	C	19 kN
Basic static load rating	$C_0$	14.6 kN
Fatigue load limit	$P_u$	0.62 kN
Reference speed		20 000 r/min
Limiting speed		11 000 r/min
Minimum load factor	$k_r$	0.05
Calculation factor	$f_0$	14.3

## Mass

Mass bearing	0.17 kg
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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