

4301 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	12 mm
Outside diameter	37 mm
Width	17 mm

Performance

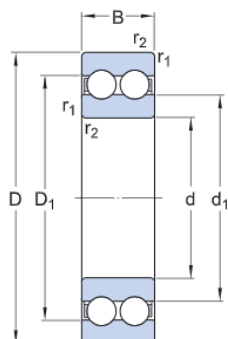
Basic dynamic load rating	13 kN
Basic static load rating	7.8 kN
Reference speed	34 000 r/min
Limiting speed	18 000 r/min

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

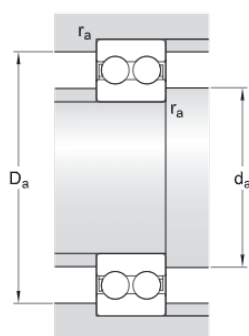
Technical Specification

Dimensions



d	12 mm	Bore diameter
D	37 mm	Outside diameter
B	17 mm	Width
d ₁	≈ 20.5 mm	Shoulder diameter
D ₁	≈ 28.5 mm	Shoulder diameter
r _{1,2}	min. 1 mm	Chamfer dimension

Abutment dimensions



d _a	min. 17.6 mm	Diameter of shaft abutment
D _a	max. 31.4 mm	Diameter of housing abutment
r _a	max. 1 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	13 kN
Basic static load rating	C ₀	7.8 kN
Fatigue load limit	P _u	0.325 kN
Reference speed		34 000 r/min
Limiting speed		18 000 r/min
Minimum load factor	k _r	0.06
Calculation factor	f ₀	12.2

Mass

Mass bearing	0.092 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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