

C 2214 TN9CARB toroidal roller bearing



CARB toroidal roller bearing

CARB toroidal roller bearings are unique: as well as accommodating misalignment without increased stress levels, they also provide frictionless axial movement within the bearing in the non-locating position in self-aligning bearing arrangements. Being SKF Explorer bearings, they can accommodate higher load levels and provide significantly extended service life.

- Accommodate misalignment and axial displacement within the bearing
- High radial load carrying capacity
- Provide frictionless axial movement
- Long bearing system life
- Reduce noise and vibration levels

Overview

Dimensions

Bore diameter	70 mm
Outside diameter	125 mm
Width	31 mm

Performance

Basic dynamic load rating	186 kN
Basic static load rating	196 kN
Reference speed	5 000 r/min
Limiting speed	7 000 r/min
SKF performance class	SKF Explorer

Properties

Number of rows	1
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Non-metallic
Radial internal clearance	CN
Tolerance class	Normal
Sealing	Without
Lubricant	None
Relubrication feature	Without

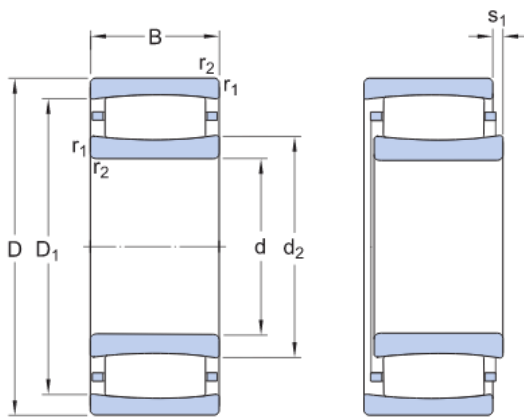
Technical Specification

SKF performance class

SKF Explorer

Bore type

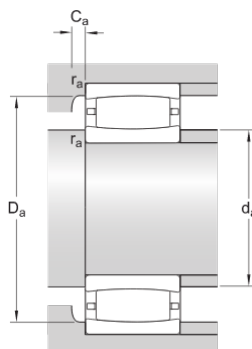
Cylindrical



Dimensions

d	70 mm	Bore diameter
D	125 mm	Outside diameter
B	31 mm	Width
d ₂	≈ 83.7 mm	Shoulder diameter of inner ring
D ₁	≈ 111 mm	Shoulder or recess diameter of outer ring
s ₁	max. 9.6 mm	Permissible axial displacement
r _{1,2}	min. 1.5 mm	Chamfer dimension

Abutment dimensions



d _a	min. 79 mm	Diameter of shaft abutment
d _a	max. 83.7 mm	Diameter of shaft abutment
D _a	min. 107 mm	Diameter of housing abutment
D _a	max. 116 mm	Abutment diameter housing
C _a	min. 0.4 mm	Minimum width of space required in housing
r _a	max. 1.5 mm	Radius of fillet
A negative value for C _a		

Calculation data

Basic dynamic load rating	C	186 kN
Basic static load rating	C_0	196 kN
Fatigue load limit	P_u	22.8 kN
Reference speed		5 000 r/min
Limiting speed		7 000 r/min
Misalignment factor	k_1	0.098
Internal clearance factor	k_2	0.127

Mass

Mass		1.5 kg
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