

C 3140CARB 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	200 mm
Outside diameter	340 mm
Width	112 mm

Performance

Basic dynamic load rating	1 600 kN
Basic static load rating	2 320 kN
Reference speed	1 500 r/min
Limiting speed	2 000 r/min
SKF performance class	SKF Explorer

Properties

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

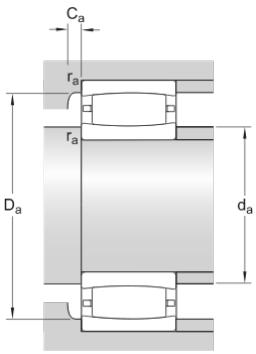
Technical Specification

SKF performance class	SKF Explorer
Bore type	Cylindrical

NOT FOUND

Dimensions

d	200 mm	Bore diameter
D	340 mm	Outside diameter
B	112 mm	Width
d_2	≈ 244 mm	Shoulder diameter of inner ring
D_1	≈ 305 mm	Shoulder or recess diameter of outer ring
s_1	max. 27.3 mm	Permissible axial displacement
$r_{1,2}$	min. 3 mm	Chamfer dimension



Abutment dimensions

d_a	min. 214 mm	Diameter of shaft abutment
d_a	max. 264 mm	Diameter of shaft abutment
D_a	min. 288 mm	Diameter of housing abutment
D_a	max. 326 mm	Abutment diameter housing
C_a	min. -0.6 mm	Minimum width of space required in housing
r_a	max. 2.5 mm	Radius of fillet

A negative value for C_a

Calculation data

Basic dynamic load rating	C	1 600 kN
Basic static load rating	C_0	2 320 kN
Fatigue load limit	P_u	200 kN
Reference speed		1 500 r/min
Limiting speed		2 000 r/min
Misalignment factor	k_1	0.108
Internal clearance factor	k_2	0.104

Mass

Mass	41 kg

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