



C 3140

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	7.874 in
Outside diameter	13.386 in
Width	4.409 in

Performance

Basic dynamic load rating	359 694 lbf
Basic static load rating	521 557 lbf
Limiting speed	2 000 r/min
Reference speed	1 500 r/min
SKF performance class	SKF Explorer

Properties

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

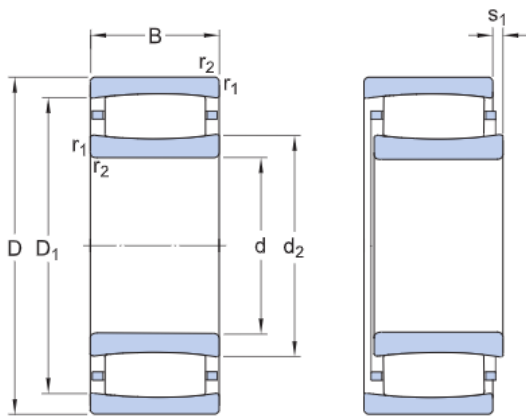
Technical Specification

SKF performance class

SKF Explorer

Bore type

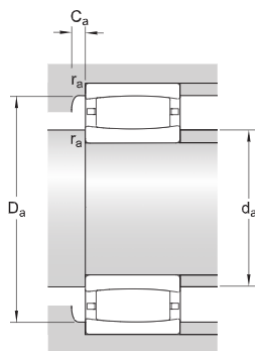
Cylindrical



Dimensions

d	7.874 in	Bore diameter
D	13.386 in	Outside diameter
B	4.409 in	Width
d ₂	≈ 9.606 in	Shoulder diameter of inner ring
D ₁	≈ 12.008 in	Shoulder or recess diameter of outer ring
s ₁	max. 1.0748 in	Permissible axial displacement
r _{1,2}	min. 0.118 in	Chamfer dimension

Abutment dimensions



d _a	min. 8.425 in	Diameter of shaft abutment
d _a	max. 10.394 in	Diameter of shaft abutment
D _i	min. 11.339 in	Diameter of housing abutment
D _i	max. 12.835 in	Abutment diameter housing
C _e	min. -0.024 in	Minimum width of space required in housing
r _a	max. 0.098 in	Radius of fillet
A negative value for C _a		

Calculation data

Basic dynamic load rating

C

359 694 lbf

Basic static load rating	C_0	521 557 lbf
Fatigue load limit	P_u	44 962 lbf
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		90.39 lb
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