



C 2316

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	3.15 in
Outside diameter	6.693 in
Width	2.283 in

Performance

Basic dynamic load rating	114 653 lbf
Basic static load rating	123 645 lbf
Limiting speed	4 500 r/min
Reference speed	3 400 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

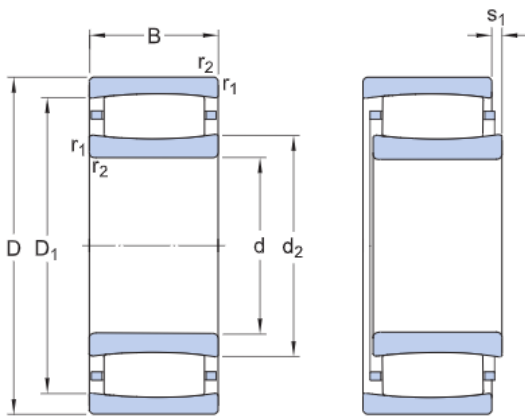
Technical Specification

SKF performance class

SKF Explorer

Bore type

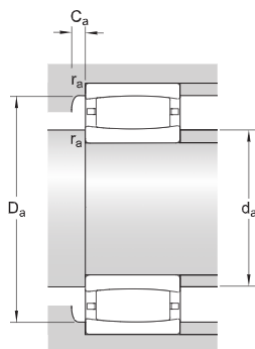
Cylindrical



Dimensions

d	3.15 in	Bore diameter
D	6.693 in	Outside diameter
B	2.283 in	Width
d ₂	≈ 4.016 in	Shoulder diameter of inner ring
D ₁	≈ 5.748 in	Shoulder or recess diameter of outer ring
s ₁	max. 0.3976 in	Permissible axial displacement
r _{1,2}	min. 0.083 in	Chamfer dimension

Abutment dimensions



d _a	min. 3.622 in	Diameter of shaft abutment
d _a	max. 4.685 in	Diameter of shaft abutment
D _ç	min. 5.236 in	Diameter of housing abutment
D _ç	max. 6.22 in	Abutment diameter housing
C _ç	min. 0.094 in	Minimum width of space required in housing
r _a	max. 0.079 in	Radius of fillet
A negative value for C _a		

Calculation data

Basic dynamic load rating

C

114 653 lbf

Basic static load rating	C_0	123 645 lbf
Fatigue load limit	P_u	13 489 lbf
Reference speed		3 400 r/min
Limiting speed		4 500 r/min
Misalignment factor	k_1	0.107
Internal clearance factor	k_2	0.101

Mass

Mass		13.889 lb
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