

# 2203 E-2RS1TN9



## Self-aligning ball bearing with seals on both sides

Self-aligning ball bearings, with seals on both sides, have two rows of balls, a common sphered raceway in the outer ring and two deep uninterrupted raceway grooves in the inner ring. They are insensitive to angular misalignment of the shaft relative to the housing. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction
- Integral sealing results in reduced maintenance requirements and prolonged bearing service life

# Overview

#### Dimensions

Bore diameter	0.669 in
Outside diameter	1.575 in
Width	0.63 in

#### Properties

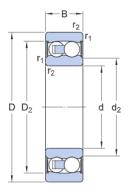
Bore type	Cylindrical
Cage	Non-metallic
Coating	Without
Locating feature, bearing outer ring	None
Lubricant	Grease
Material, bearing	Bearing steel
Radial internal clearance	CN
Relubrication feature	Without
Retaining feature, inner ring	None
Sealing	Seal on both sides
Sealing type	Contact
Tolerance class	Normal



Cylindrical

# Technical Specification

#### Bore type



da

#### Dimensions

d	0.669 in	Bore diameter
D	1.575 in	Outside diameter
В	0.63 in	Width
d <sub>2</sub>	≈ 0.831 in	Recess diameter inner ring
$D_2$	≈ 1.377 in	Recess diameter outer ring
r <sub>1,2</sub>	min. 0.024 in	Chamfer dimension

#### Abutment dimensions

Abutment diameter shaft	d <sub>a</sub> min. 0.827 in
Abutment diameter shaft	$d_a$ max. 0.827 in
Abutment diameter housing	D <sub>a</sub> max. 1.409 in
Fillet radius	r <sub>a</sub> max. 0.024 in

#### Calculation data

Da

Basic dynamic load rating	С	1 987 lbf
Basic static load rating	C <sub>0</sub>	495 lbf
Fatigue load limit	P <sub>u</sub>	26 lbf
Limiting speed		12 000 r/min



Permissible angular misalignment	α	1.5 °
Calculation factor	k <sub>r</sub>	0.045
Limiting value	е	0.31
Calculation factor	Y <sub>0</sub>	2.2
Calculation factor	Υ <sub>1</sub>	2
Calculation factor	Y <sub>2</sub>	3.1

#### Mass

Mass bearing	0.196 lb
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