



Image may differ from product. See technical specification for details.

## 127 TN9

### Self-aligning ball bearing

Self-aligning ball bearings 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, which can be caused, for example, by shaft deflection.

- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction

## Overview

## Dimensions

Bore diameter	7 mm
Outside diameter	22 mm
Width	7 mm

## Performance

Basic dynamic load rating	2.65 kN
Basic static load rating	0.56 kN
Reference speed	63 000 r/min
Limiting speed	40 000 r/min

## Properties

Retaining feature, inner ring	None
Locating feature, bearing outer ring	None
Number of rows	2
Bore type	Cylindrical
Cage	Non-metallic
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

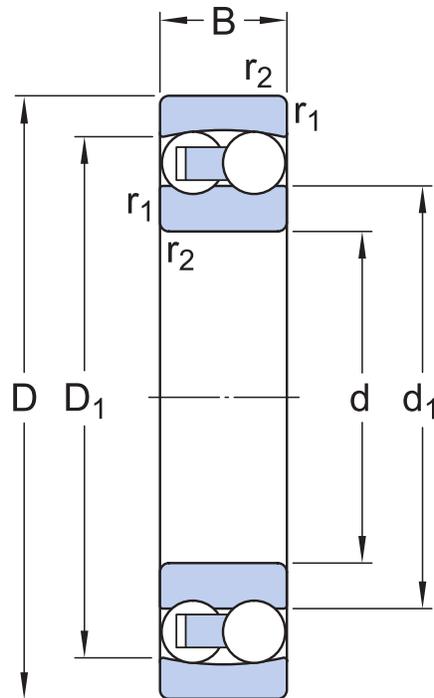
## Logistics

Product net weight	0.0143 kg
eClass code	23-05-08-06
UNSPSC code	31171532

## Technical specification

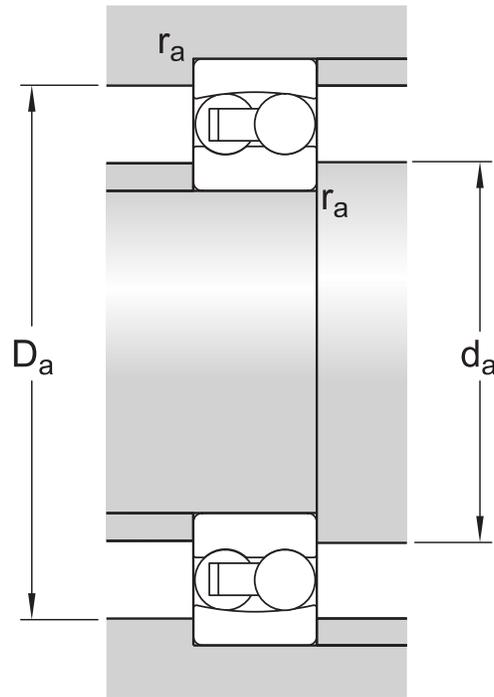
Bore type

Cylindrical



## Dimensions

d	7 mm	Bore diameter
D	22 mm	Outside diameter
B	7 mm	Width
d <sub>1</sub>	≈ 12.709 mm	Shoulder diameter inner ring
D <sub>1</sub>	≈ 17.6 mm	Shoulder diameter outer ring
r <sub>1,2</sub>	min. 0.3 mm	Chamfer dimension



## Abutment dimensions

$d_a$	min. 9.4 mm	Abutment diameter shaft
$D_a$	max. 19.6 mm	Abutment diameter housing
$r_a$	max. 0.3 mm	Fillet radius

## Calculation data

Basic dynamic load rating	C	2.65 kN
Basic static load rating	$C_0$	0.56 kN
Fatigue load limit	$P_u$	0.029 kN
Reference speed		63 000 r/min
Limiting speed		40 000 r/min
Permissible angular misalignment	$\alpha$	3 °
Calculation factor	$k_r$	0.04
Limiting value	e	0.31
Calculation factor	$Y_0$	2.2
Calculation factor	$Y_1$	2
Calculation factor	$Y_2$	3.1

## Tolerances and clearances

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### GENERAL BEARING SPECIFICATIONS

- [Tolerances: Normal, JS7](#)
- [Radial internal clearance: table](#)

## BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fits](#)

## More Information

 <b>Product details</b>	 <b>Engineering information</b>	 <b>Tools</b>
<a href="#">Designs and variants</a>	<a href="#">Principles of rolling bearing selection</a>	<a href="#">SKF Product select - Select and evaluate bearing</a>
<a href="#">General bearing specifications</a>	<a href="#">General bearing knowledge</a>	<a href="#">SKF Product select - Combine housing with bearing</a>
<a href="#">Loads</a>	<a href="#">Bearing selection process</a>	<a href="#">SimPro Quick</a>
<a href="#">Temperature limits</a>	<a href="#">Bearing interfaces</a>	<a href="#">LubeSelect for SKF greases</a>
<a href="#">Permissible speed</a>	<a href="#">Seat tolerances for standard conditions</a>	<a href="#">Heater selection tool</a>
<a href="#">Design considerations</a>	<a href="#">Selecting internal clearance</a>	<a href="#">Drive-up Method Program</a>
<a href="#">Mounting</a>	<a href="#">Lubrication</a>	<a href="#">Oil Injection Method Program</a>
<a href="#">Designation system</a>	<a href="#">Sealing, mounting and dismounting</a>	<a href="#">Tool and Accessory Selector for sleeves and shafts</a>
	<a href="#">Bearing failure and how to prevent it</a>	



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