



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

## 31310

### Single row tapered roller bearing

Single row tapered roller bearings are designed to accommodate combined radial and axial loads and provide low friction during operation. The inner ring, with rollers and cage, can be mounted separately from the outer ring. These separable and interchangeable components facilitate mounting, dismounting and maintenance. By mounting one single row tapered roller bearing against another and applying a preload, a rigid bearing application can be achieved.

- High radial and axial load carrying capacity
- Accommodate axial loads in one direction
- Low friction and long service life
- Separable and interchangeable components

# Overview

## Dimensions

Bore diameter	50 mm
Outside diameter	110 mm
Width, total	29.25 mm
Width, inner ring	27 mm
Width, outer ring	19 mm
Contact angle	28.811 °

## Performance

Basic dynamic load rating	131 kN
Basic static load rating	120 kN
Reference speed	4 500 r/min
Limiting speed	6 000 r/min
SKF performance class	SKF Explorer

## Properties

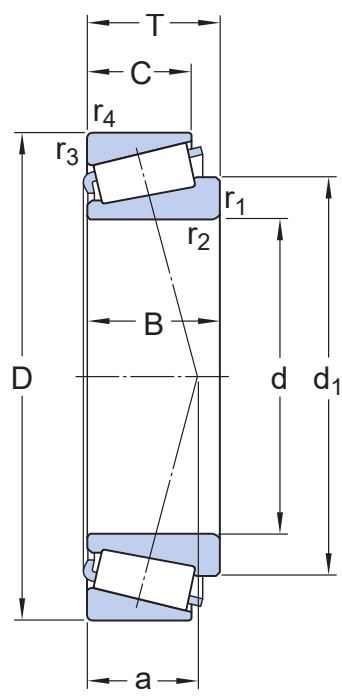
Bearing part	Complete bearing
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Arrangement of contact angle (double-row bearing)	Not applicable
Matched arrangement	No
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without
Unit system	Metric

## Logistics

Product net weight	1.22 kg
eClass code	23-05-09-10
UNSPSC code	31171516

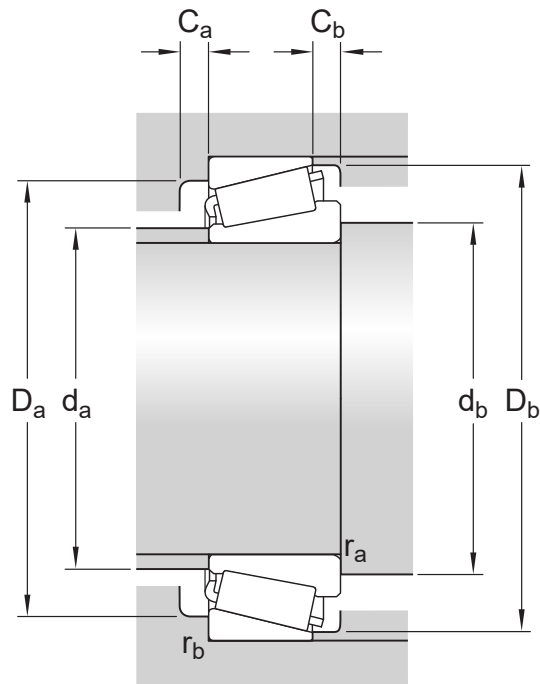
# Technical specification

Dimension series	7FB
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## Dimensions

d	50 mm	Bore diameter
D	110 mm	Outside diameter
T	29.25 mm	Total width
d <sub>1</sub>	≈ 81.5 mm	Shoulder diameter of inner ring
B	27 mm	Width of inner ring
C	19 mm	Width of outer ring
r <sub>1,2</sub>	min. 2.5 mm	Chamfer dimension of inner ring
r <sub>3,4</sub>	min. 2 mm	Chamfer dimension of outer ring
a	33.65 mm	Distance side face to pressure point



## Abutment dimensions

$d_a$	max. 63 mm	Diameter of shaft abutment
$d_b$	min. 61 mm	Diameter of shaft abutment
$D_a$	min. 87 mm	Diameter of housing abutment
$D_b$	max. 101 mm	Diameter of housing abutment
$C_a$	min. 4 mm	Minimum width of space required in housing on large side face
$C_b$	min. 10 mm	Minimum width of space required in housing on small side face
$r_a$	max. 2.5 mm	Radius of shaft fillet
$r_b$	max. 2 mm	Radius of housing fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	131 kN
Basic static load rating	$C_0$	120 kN
Fatigue load limit	$P_u$	14.3 kN
Reference speed		4 500 r/min
Limiting speed		6 000 r/min
Limiting value	e	0.83
Calculation factor	Y	0.72

## Tolerances and clearances

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### GENERAL BEARING SPECIFICATIONS

- **Tolerances:**  
metric bearings: Normal and CL7C, CLN  
inch bearings: Normal and CL, deviating width

## BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

# More Information

<div> <b>Product details</b></div> <div><div><a href="#">Designs and variants</a></div><div><a href="#">General bearing specifications</a></div><div><a href="#">Loads</a></div><div><a href="#">Temperature limits</a></div><div><a href="#">Permissible speed</a></div><div><a href="#">Design considerations</a></div><div><a href="#">Bearing designations</a></div><div><a href="#">Designation system</a></div></div>	<div> <b>Engineering information</b></div> <div><div><a href="#">Principles of rolling bearing selection</a></div><div><a href="#">General bearing knowledge</a></div><div><a href="#">Bearing selection process</a></div><div><a href="#">Bearing failure and how to prevent it</a></div></div>	<div> <b>Tools</b></div> <div><div><a href="#">SimPro Quick</a></div><div><a href="#">Bearing Select</a></div><div><a href="#">Engineering Calculator</a></div><div><a href="#">LubeSelect for SKF greases</a></div><div><a href="#">Heater Selection Tool</a></div><div><a href="#">Oil Injection Method Program</a></div><div><a href="#">skf.com/mount</a></div></div>
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