



Image may differ from product. See specification for details.

## 22205 E

### Spherical roller bearing with relubrication features

Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

- Accommodate misalignment
- High load carrying capacity
- Relubrication features
- Low friction and long service life
- Increased wear resistance

## Overview

### Dimensions

Bore diameter	0.9843 in
Outside diameter	2.0472 in
Width	0.7087 in

### Performance

Basic dynamic load rating	11 218 lbf
Basic static load rating	9 892 lbf
Reference speed	13 000 r/min
Limiting speed	17 000 r/min
SKF performance class	SKF Explorer

### Properties

Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	With
Indicative carbon footprint for new product	1.38 lb CO <sub>2</sub> e

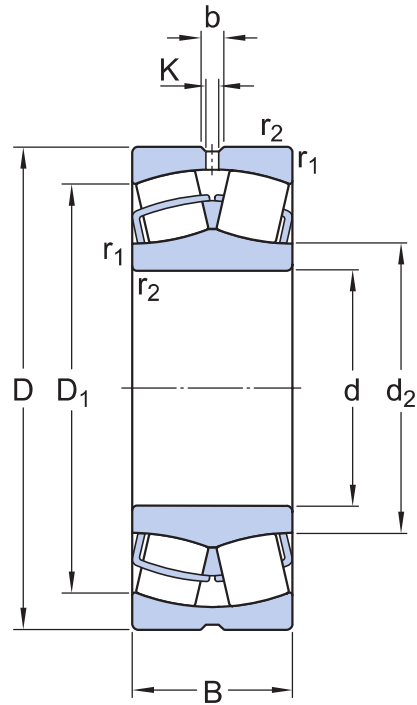
### Logistics

Product net weight	0.38 lb
eClass code	23-05-09-11
UNSPSC code	31171510

## Technical specification

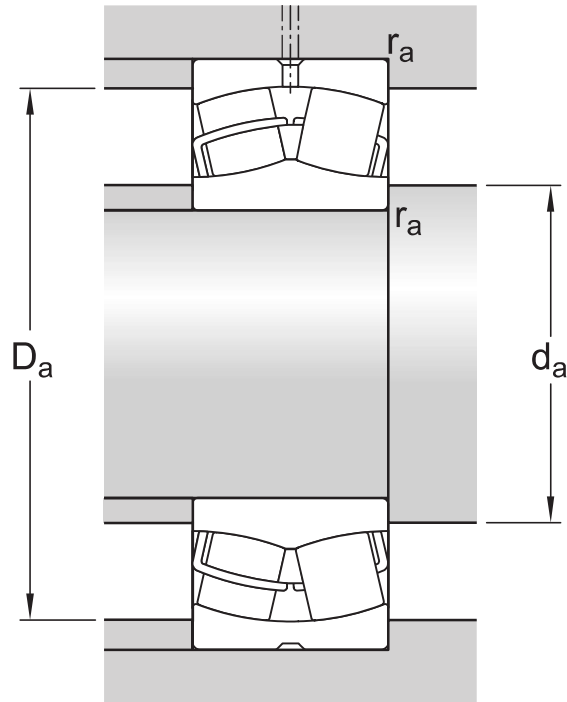
Bore type

Cylindrical



## Dimensions

d	0.9843 in	Bore diameter
$t_{\Delta dmp}$	-10 – 0 $\mu\text{m}$	Deviation limits of mid-range bore diameter
D	2.0472 in	Outside diameter
$t_{\Delta Dmp}$	-13 – 0 $\mu\text{m}$	Deviation limits of mid-range outside diameter
B	0.7087 in	Width
$t_{\Delta Bs}$	-60 – 0 $\mu\text{m}$	Deviation limits of ring width
$d_2$	$\approx 1.2323$ in	Shoulder diameter of inner ring
$D_1$	$\approx 1.7402$ in	Shoulder/recess diameter of outer ring
b	0.1457 in	Width of lubrication groove
K	0.0787 in	Diameter of lubrication hole
$r_{1,2}$	min. 0.0394 in	Chamfer dimension
	Normal	ISO tolerance class for dimensions



## Abutment dimensions

$d_a$	min. 1.2047 in	Diameter of shaft abutment
$D_a$	max. 1.8268 in	Diameter of housing abutment
$r_a$	max. 0.0394 in	Radius of fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	11 218 lbf
Basic static load rating	$C_0$	9 892 lbf
Fatigue load limit	$P_u$	1 068 lbf
Reference speed		13 000 r/min
Limiting speed		17 000 r/min
Limiting value	e	0.35
Calculation factor	$Y_1$	1.9
Calculation factor	$Y_2$	2.9
Calculation factor	$Y_0$	1.8

## Tolerances of run-out

Range of section height at inner ring of assembled bearing	$t_{Kia}$	4 $\mu\text{m}$
Maximum run-out of inner ring side face to the bore	$t_{Sd}$	8 $\mu\text{m}$
Range of section height at outer ring of assembled bearing	$t_{Kea}$	8 $\mu\text{m}$
Perpendicularity of outer ring outside surface	$t_{SD}$	4 $\mu\text{m}$
ISO tolerance class for geometrical tolerances		P5

## Radial internal clearance

Minimum initial clearance	0.001 in
Maximum initial clearance	0.0016 in

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS




- Tolerances: Normal, P6, P5, tapered bore 1:12, tapered bore 1:30
- Radial internal clearance: cylindrical bore, tapered bore

### BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit



## More Information

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



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