



Image may differ from product. See specification for details.

21305 CC

Spherical roller bearing

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. They can be used in a modular system, including housings, sleeves and nuts.

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

Overview

Dimensions

Bore diameter	0.9843 in
Outside diameter	2.4409 in
Width	0.6693 in

Performance

Basic dynamic load rating	11 038 lbf
Basic static load rating	9 330 lbf
Reference speed	11 000 r/min
Limiting speed	15 000 r/min
SKF performance class	SKF Explorer

Properties

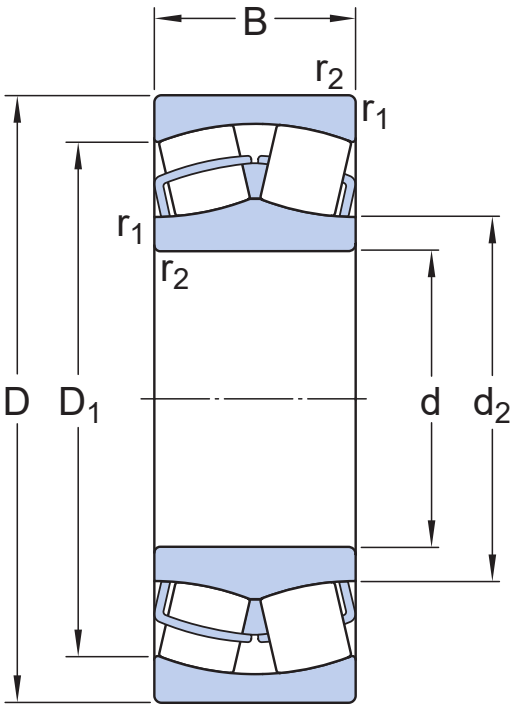
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	Without
Indicative carbon footprint for new product	2.12 lb CO ₂ e

Logistics

Product net weight	0.59 lb
eClass code	23-05-09-11
UNSPSC code	31171510

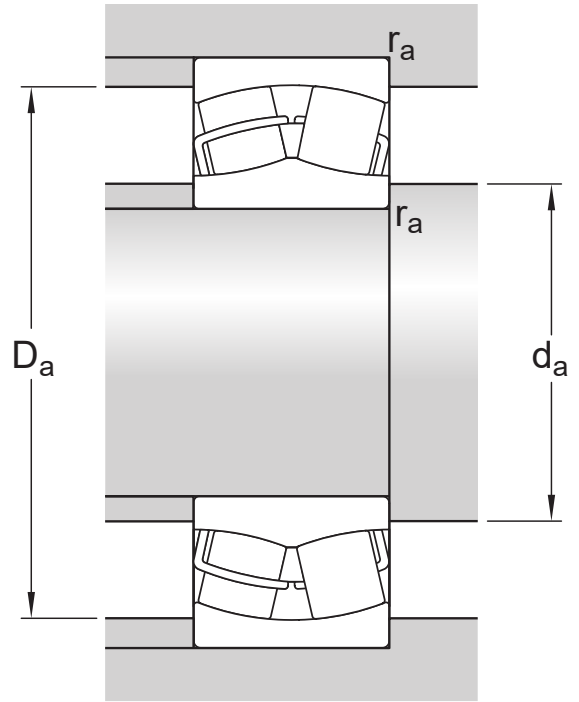
Technical specification

Bore type	Cylindrical
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Dimensions

d	0.9843 in	Bore diameter
t _{Δdmp}	-10 – 0 μm	Deviation limits of mid-range bore diameter
D	2.4409 in	Outside diameter
t _{ΔDmp}	-13 – 0 μm	Deviation limits of mid-range outside diameter
B	0.6693 in	Width
t _{ΔBs}	-60 – 0 μm	Deviation limits of ring width
d ₂	≈ 1.4055 in	Shoulder diameter of inner ring
D ₁	≈ 1.9961 in	Shoulder/recess diameter of outer ring
r _{1,2}	min. 0.0433 in	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

d _a	min. 1.2598 in	Diameter of shaft abutment
D _a	max. 2.1654 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	11 038 lbf
Basic static load rating	C ₀	9 330 lbf
Fatigue load limit	P _u	1 023 lbf
Reference speed		11 000 r/min
Limiting speed		15 000 r/min
Limiting value	e	0.3
Calculation factor	Y ₁	2.3
Calculation factor	Y ₂	3.4
Calculation factor	Y ₀	2.2

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t _{Kia}	4 μm
Maximum run-out of inner ring side face to the bore	t _{Sd}	8 μm
Range of section height at outer ring of assembled bearing	t _{Kea}	8 μm
Perpendicularity of outer ring outside surface	t _{SD}	4 μm
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

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