



Image may differ from product. See specification for details.

24160 CC/W33

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	11.811 in
Outside diameter	19.685 in
Width	7.874 in

Performance

Basic dynamic load rating	871 359 lbf
Basic static load rating	1 416 296 lbf
Reference speed	560 r/min
Limiting speed	800 r/min
SKF performance class	SKF Explorer

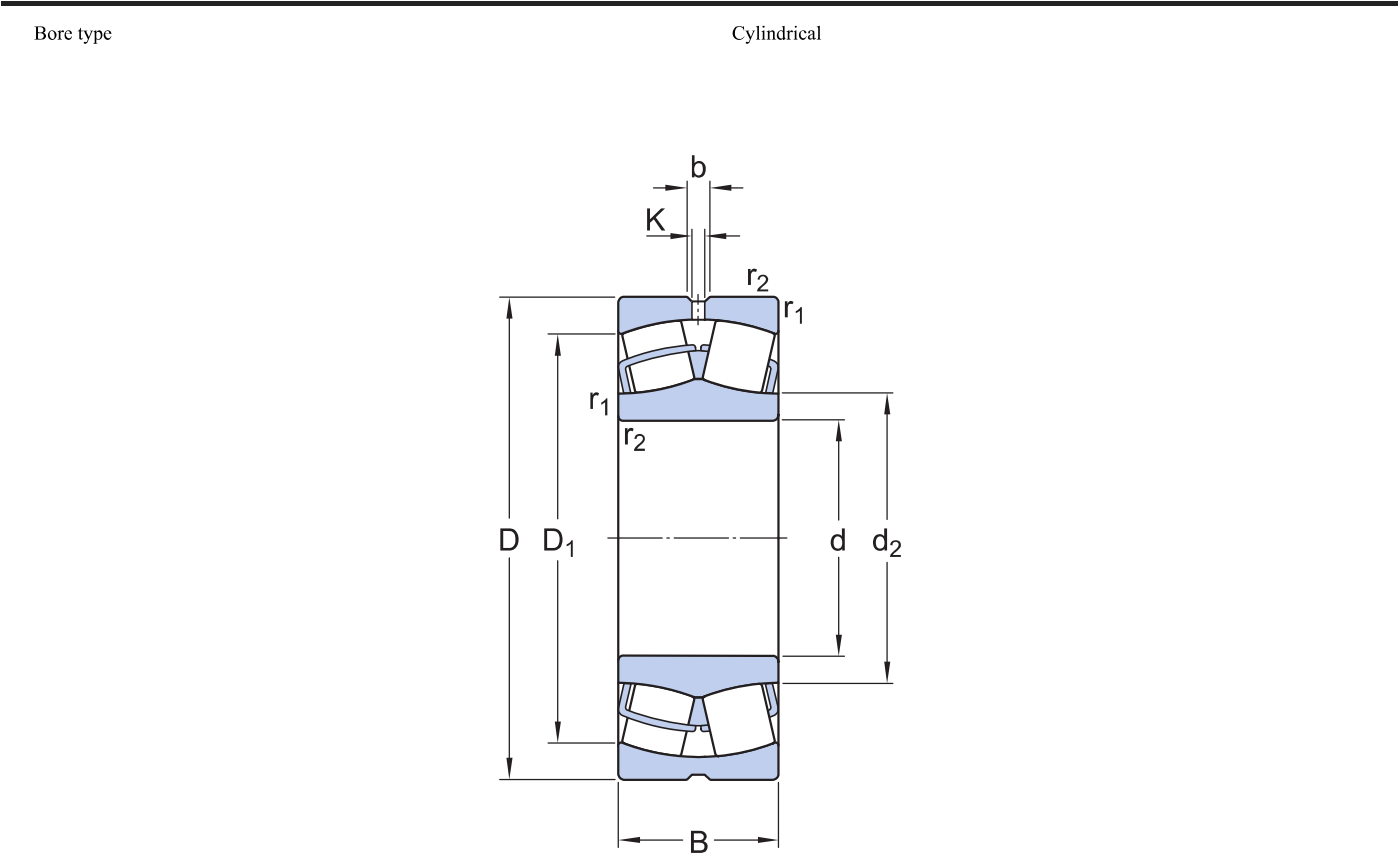
Properties

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
Candidate for remanufacturing	Yes
Indicative carbon footprint for new product	1 248 lb CO ₂ e
Indicative carbon footprint for remanufactured product	437 lb CO ₂ e

Logistics

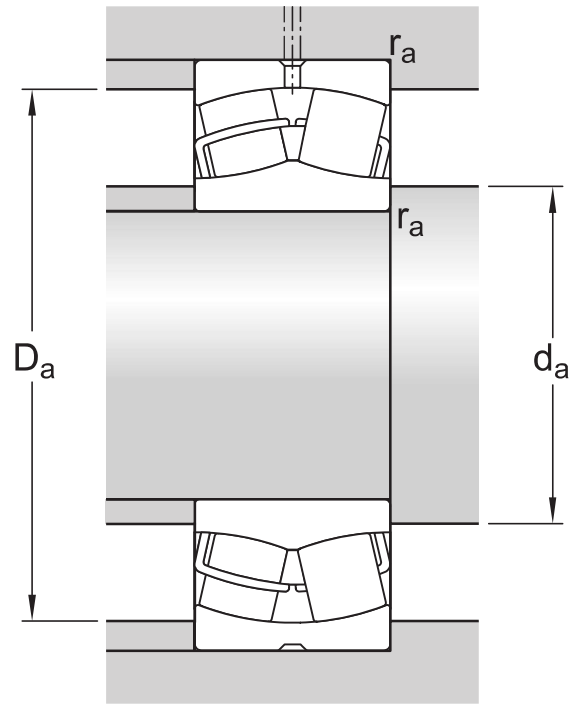
Product net weight	347 lb
eClass code	23-05-09-11
UNSPSC code	31171510

Technical specification



Dimensions

d	11.811 in	Bore diameter
t _{Δdmp}	-35 – 0 μm	Deviation limits of mid-range bore diameter
D	19.685 in	Outside diameter
t _{ΔDmp}	-45 – 0 μm	Deviation limits of mid-range outside diameter
B	7.874 in	Width
t _{ΔBs}	-100 – 0 μm	Deviation limits of ring width
d ₂	≈ 13.3071 in	Shoulder diameter of inner ring
D ₁	≈ 16.6142 in	Shoulder/recess diameter of outer ring
b	0.5472 in	Width of lubrication groove
K	0.2953 in	Diameter of lubrication hole
r _{1,2}	min. 0.1969 in	Chamfer dimension
	Normal	ISO tolerance class for dimensions



Abutment dimensions

d _a	min. 12.5984 in	Diameter of shaft abutment
D _a	max. 18.8976 in	Diameter of housing abutment
r _a	max. 0.1575 in	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	871 359 lbf
Basic static load rating	C ₀	1 416 296 lbf
Fatigue load limit	P _u	104 536 lbf
Reference speed		560 r/min
Limiting speed		800 r/min
Limiting value	e	0.4
Calculation factor	Y ₁	1.7
Calculation factor	Y ₂	2.5
Calculation factor	Y ₀	1.6

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t _{Kia}	13 μm
Maximum run-out of inner ring side face to the bore	t _{Sd}	13 μm
Range of section height at outer ring of assembled bearing	t _{Kea}	23 μm
Perpendicularity of outer ring outside surface	t _{SD}	7.5 μm
ISO tolerance class for geometrical tolerances		P5

Radial internal clearance

Minimum initial clearance	0.0075 in
Maximum initial clearance	0.011 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	Engineering information	Tools
Designs and variants	Principles of rolling bearing selection	SimPro Quick
General bearing specifications	General bearing knowledge	SKF Product select - Select and evaluate bearing
Loads	Bearing selection process	SKF Product select - Combine housing with bearing
Temperature limits	Bearing failure and how to prevent it	LubeSelect for SKF greases
Permissible speed		Drive-up Method Program
Design considerations		Heater selection tool
Mounting		Oil Injection Method Program
Designation system		Tool and Accessory Selector for sleeves and shafts



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