



Image may differ from product. See specification for details.

23164 CAC/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	12.5984 in
Outside diameter	21.2598 in
Width	6.9291 in

Performance

Basic dynamic load rating	821 227 lbf
Basic static load rating	1 236 449 lbf
Reference speed	850 r/min
Limiting speed	1 100 r/min
SKF performance class	SKF Explorer

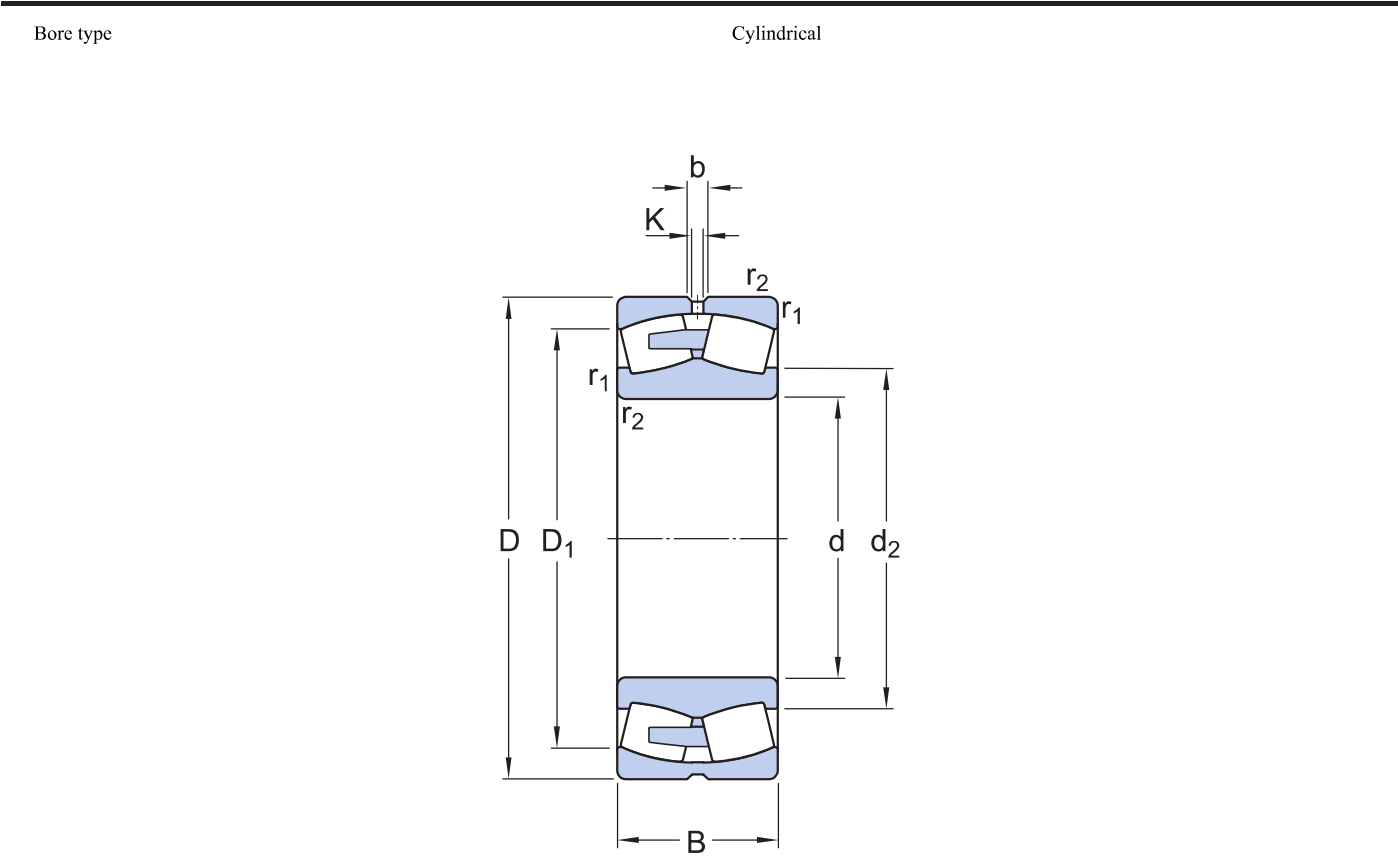
Properties

Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Machined brass
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	Normal
Sealing	Without
Lubricant	None
Relubrication feature	With
Candidate for remanufacturing	Yes
Indicative carbon footprint for new product	1 310 lb CO ₂ e
Indicative carbon footprint for remanufactured product	458 lb CO ₂ e

Logistics

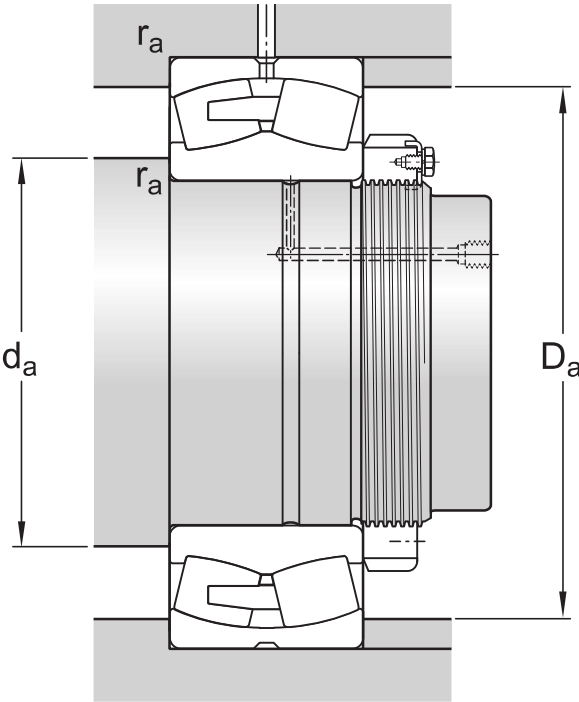
Product net weight	364 lb
eClass code	23-05-09-11
UNSPSC code	31171510

Technical specification



Dimensions

d	12.5984 in	Bore diameter
t _{Δdmp}	-40 – 0 μm	Deviation limits of mid-range bore diameter
D	21.2598 in	Outside diameter
t _{ΔDmp}	-50 – 0 μm	Deviation limits of mid-range outside diameter
B	6.9291 in	Width
t _{ΔBs}	-400 – 0 μm	Deviation limits of ring width
d ₂	≈ 15.1969 in	Shoulder diameter of inner ring
D ₁	≈ 18.3071 in	Shoulder/recess diameter of outer ring
b	0.878 in	Width of lubrication groove
K	0.4724 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. 13.3858 in	Diameter of shaft abutment
D_a	max. 20.4724 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	821 227 lbf
Basic static load rating	C_0	1 236 449 lbf
Fatigue load limit	P_u	89 924 lbf
Reference speed		850 r/min
Limiting speed		1 100 r/min
Limiting value	e	0.31
Calculation factor	Y_1	2.2
Calculation factor	Y_2	3.3
Calculation factor	Y_0	2.2

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t _{Kia}	60 μm
Range of section height at outer ring of assembled bearing	t _{Kea}	100 μm
ISO tolerance class for geometrical tolerances		Normal

Radial internal clearance

Minimum initial clearance	0.0079 in
Maximum initial clearance	0.0122 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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