

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

23220-2RS/VT143

Spherical roller bearing with integral sealing and 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. Under normal operating conditions, sealed bearings are almost

maintenance-free, keeping service costs and grease consumption low. The design includes features to facilitate relubrication.

- Accommodate misalignment
- High load carrying capacity
- Sealed for increased reliability, with relubrication features
- Low friction and long service life
- Increased wear resistance

Overview

Dimensions

Bore diameter	100 mm
Outside diameter	180 mm
Width	60.3 mm

Performance

Basic dynamic load rating	499 kN
Basic static load rating	600 kN
Limiting speed	1 700 r/min
SKF performance class	SKF Explorer

Properties

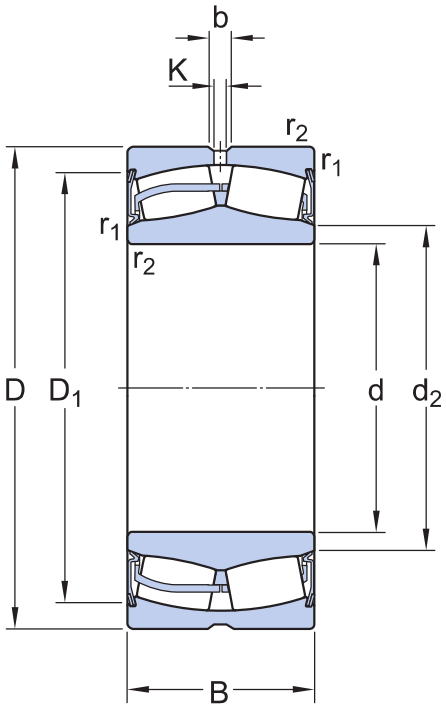
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Seal on both sides
Sealing type	Contact
Lubricant	Grease
Relubrication feature	With
Candidate for remanufacturing	Yes

Logistics

Product net weight	6.44 kg
eClass code	23-05-09-11
UNSPSC code	31171510

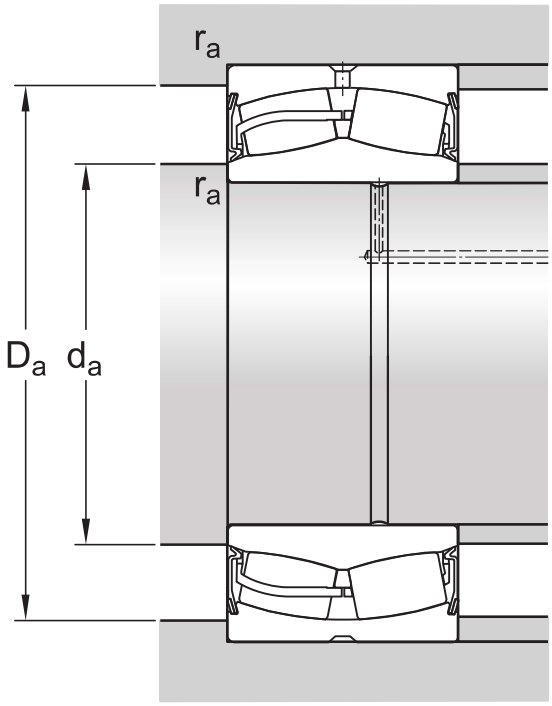
Technical specification

Bore type	Cylindrical



Dimensions

d	100 mm	Bore diameter
D	180 mm	Outside diameter
B	60.3 mm	Width
d_2	≈ 114 mm	Shoulder diameter of inner ring
D_1	≈ 159 mm	Shoulder/recess diameter of outer ring
b	8.3 mm	Width of lubrication groove
K	4.5 mm	Diameter of lubrication hole
$r_{1,2}$	min. 2.1 mm	Chamfer dimension



Abutment dimensions

d_a	min. 112 mm	Diameter of shaft abutment
d_a	max. 114 mm	Diameter of shaft abutment
D_a	max. 168 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	499 kN
Basic static load rating	C_0	600 kN
Fatigue load limit	P_u	63 kN
Limiting speed		1 700 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

Tolerance class

Dimensional tolerances	Normal
Radial run-out	P5

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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