

Overview

23024 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

Dimensions

Bore diameter	120 mm
Outside diameter	180 mm
Width	46 mm

Performance

Basic dynamic load rating	366 kN
Basic static load rating	500 kN
Reference speed	3 200 r/min
Limiting speed	4 000 r/min
SKF performance class	SKF Explorer

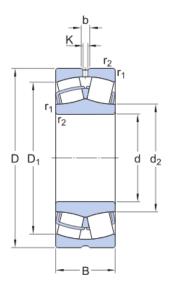
Properties

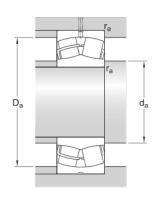
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	With
Candidate for remanufacturing	Yes



Technical Specification

SKF performance class	SKF Explorer
Bore type	Cylindrical





Dimensions

d 120 mm	Bore diameter
D 180 mm	Outside diameter
B 46 mm	Width
d ₂ ≈ 135 mm	Shoulder diameter of inner ring
$D_1 \approx 163 \text{ mm}$	Shoulder/recess diameter of outer ring
b 6 mm	Width of lubrication groove
K 3 mm	Diameter of lubrication hole
r _{1,2} min. 2 mm	Chamfer dimension

Abutment dimensions

d _a min. 129 mm	Diameter of shaft abutment
D _a max. 171 mm	Diameter of housing abutment
r _a max. 2 mm	Radius of fillet

Calculation data

Basic dynamic load rating	С	366 kN
Basic static load rating	C_0	500 kN



Fatigue load limit	$P_{\rm u}$	53 kN
Reference speed		3 200 r/min
Limiting speed		4 000 r/min
Limiting value	е	0.22
Calculation factor	Y ₁	3
Calculation factor	Y ₂	4.6
Calculation factor	Y_0	2.8

Mass

Mass	4.05 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	P5



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