



SKF 22309 E

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.

Technical specifications

General	
Bore type	Cylindrical

Dimensions	
Bore diameter	45 mm
Deviation limits of mid-range bore diameter	-0.012..0 mm
Outside diameter	100 mm
Deviation limits of mid-range outside diameter	-0.015..0 mm
Width	36 mm
Deviation limits of ring width	-0.06..0 mm
Shoulder diameter of inner ring	57.6 mm
Shoulder/recess diameter of outer ring	83.4 mm
Width of lubrication groove	6 mm
Diameter of lubrication hole	3 mm
Chamfer dimension	1.5 mm
ISO tolerance class for dimensions	Normal

Abutment dimensions	
Diameter of shaft abutment	54 mm
Diameter of housing abutment	91 mm
Radius of fillet	1.5 mm

Calculation data	
SKF performance class	SKF Explorer
Basic dynamic load rating	190 kN
Basic static load rating	183 kN
Fatigue load limit	19.3 kN
Reference speed	5300 r/min
Limiting speed	7000 r/min
Limiting value	0.37
Calculation factor	1.8
Calculation factor	2.7
Calculation factor	1.8

Tolerances of run-out	
Range of section height at inner ring of assembled bearing	5 µm
Maximum run-out of inner ring side face to the bore	8 µm
Range of section height at outer ring of assembled bearing	10 µm
Perpendicularity of outer ring outside surface	4.5 µm
ISO tolerance class for geometrical tolerances	P5

Radial internal clearance	
Minimum initial clearance	35 µm
Maximum initial clearance	55 µm

Performance	
Basic dynamic load rating	190 kN
Basic static load rating	183 kN

Reference speed	5300 r/min
Limiting speed	7000 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
Indicative carbon footprint for new product	4.9 kg CO ₂ e

Logistics	
Product net weight	1.37 kg
eClass code	23-05-09-11
UNSPSC code	31171510

SKF drawings

