



SKF 22224 EK/C3

Spherical roller bearing with tapered bore 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. 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	Tapered 1:12

Dimensions	
Bore diameter	120 mm
Deviation limits of mid-range bore diameter	0..0.035 mm
Deviation limits of tapered slope	0..0.035 mm
Outside diameter	215 mm
Deviation limits of mid-range outside diameter	-0.03..0 mm
Width	58 mm
Deviation limits of ring width	-0.08..0 mm
Shoulder diameter of inner ring	141 mm
Shoulder/recess diameter of outer ring	189 mm
Width of lubrication groove	11.1 mm
Diameter of lubrication hole	6 mm
Chamfer dimension	2.1 mm
ISO tolerance class for dimensions	Normal

Abutment dimensions	
Diameter of housing abutment	203 mm
Radius of fillet	2 mm

Calculation data	
SKF performance class	SKF Explorer
Basic dynamic load rating	652 kN
Basic static load rating	780 kN
Fatigue load limit	73.5 kN
Reference speed	2800 r/min
Limiting speed	3800 r/min
Limiting value	0.26
Calculation factor	2.6
Calculation factor	3.9
Calculation factor	2.5

Tolerances of run-out	
Range of section height at inner ring of assembled bearing	6 µm
Maximum run-out of inner ring side face to the bore	9 µm
Range of section height at outer ring of assembled bearing	15 µm
Perpendicularity of outer ring outside surface	5.5 µm
ISO tolerance class for geometrical tolerances	P5

Radial internal clearance	
Minimum initial clearance	135 µm
Maximum initial clearance	170 µm

Performance	
Basic dynamic load rating	652 kN
Basic static load rating	780 kN

Reference speed	2800 r/min
Limiting speed	3800 r/min
SKF performance class	SKF Explorer

Properties	
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Tapered 1:12
Cage	Sheet metal
Radial internal clearance	C3
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	31.1 kg CO ₂ e
Indicative carbon footprint for remanufactured product	10.9 kg CO ₂ e

Logistics	
Product net weight	8.65 kg
eClass code	23-05-09-11
UNSPSC code	31171510

SKF drawings

