



SKF 22316 EJA/VA405

Spherical roller bearing for vibratory applications, 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. This bearing design offers excellent performance in many types of vibrating machinery. 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	80 mm
Deviation limits of mid-range bore diameter	-0.009..0 mm
Outside diameter	170 mm
Deviation limits of mid-range outside diameter	-0.018..0 mm
Width	58 mm
Deviation limits of ring width	-0.06..0 mm
Shoulder diameter of inner ring	98.3 mm
Shoulder/recess diameter of outer ring	143 mm
Width of lubrication groove	8.3 mm
Diameter of lubrication hole	4.5 mm
Chamfer dimension	2.1 mm
ISO tolerance class for dimensions	Normal, bore to P5 and outside diameter P6

Abutment dimensions	
Diameter of shaft abutment	92 mm
Diameter of housing abutment	158 mm
Radius of fillet	2 mm

Calculation data	
SKF performance class	SKF Explorer
Basic dynamic load rating	516 kN
Basic static load rating	540 kN
Fatigue load limit	54 kN
Reference speed	3000 r/min
Limiting speed	4000 r/min
Limiting value	0.35
Calculation factor	1.9
Calculation factor	2.9
Calculation factor	1.8
Permissible rotational acceleration for oil lubrication	785 m/s ²
Permissible linear acceleration for oil lubrication	216 m/s ²

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	13 µm
Perpendicularity of outer ring outside surface	5 µm
ISO tolerance class for geometrical tolerances	P5

Radial internal clearance	
Minimum initial clearance	110 µm
Maximum initial clearance	145 µm

Performance	

Basic dynamic load rating	516 kN
Basic static load rating	540 kN
Reference speed	3000 r/min
Limiting speed	4000 r/min
SKF performance class	SKF Explorer

Properties	
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Surface-hardened sheet metal
Radial internal clearance	C4
Tolerance class for dimensions	Normal, bore to P5 and outside diameter P6
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	With
Indicative carbon footprint for new product	23.1 kg CO ₂ e

Logistics	
Product net weight	6.41 kg
eClass code	23-05-09-11
UNSPSC code	31171510

