



22310 E/VA405 Spherical roller bearing for vibratory applications, with relubrication features

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.

- Accommodate misalignment
- High load carrying capacity
- Accommodate very high vibration levels
- Low friction and long service life
- Increased wear resistance

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	110 mm
Width	40 mm

Performance

Basic dynamic load rating	228 kN
Basic static load rating	224 kN
Reference speed	4 800 r/min
Limiting speed	6 300 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	Normal
Tolerance class	Normal, bore to P5 and outside

for dimensions	diameter P6
Tolerance class for run-out	Normal
Sealing	Without
Lubricant	None
Relubrication feature	With

Technical Specification

SKF performance class

SKF Explorer

Bore type

Cylindrical

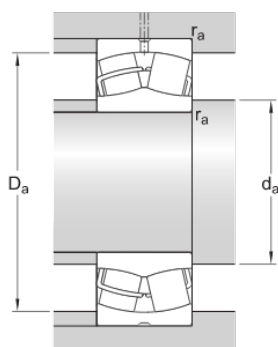


Dimensions

d	50 mm	Bore diameter
D	110 mm	Outside diameter
B	40 mm	Width
d_2	≈ 63.9 mm	Shoulder diameter of inner ring
D_1	≈ 91.9 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. 61 mm	Diameter of shaft abutment
D_a	max. 99 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of fillet



Calculation data

Basic dynamic load rating	C	228 kN
Basic static load rating	C_0	224 kN

Fatigue load limit	P_u	23.6 kN
Reference speed		4 800 r/min
Limiting speed		6 300 r/min
Limiting value	e	0.37
Calculation factor	Y_1	1.8
Calculation factor	Y_2	2.7
Calculation factor	Y_0	1.8
Permissible rotational acceleration for oil lubrication		834 m/s ²
Permissible linear acceleration for oil lubrication		275 m/s ²

Mass

Mass	1.9 kg
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Tolerance class

Dimensional tolerances	Normal, bore to P5 and outside diameter P6
Radial run-out	Normal

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