22316 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.

- Accommodate misalignment
- High load carrying capacity
- Relubrication features
- Low friction and long service life
- Increased wear resistance

Overview

Dimensions

Bore diameter	80 mm
Outside diameter	170 mm
Width	58 mm

Performance

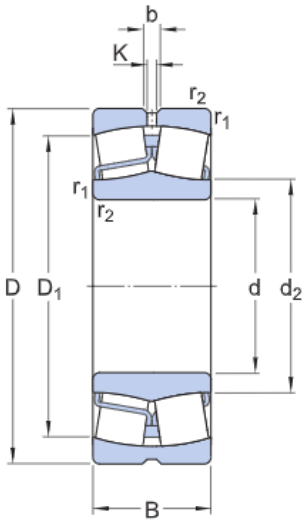
Basic dynamic load rating	516 kN
Basic static load rating	540 kN
Reference speed	3 000 r/min
Limiting speed	4 000 r/min
SKF performance class	SKF Explorer

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

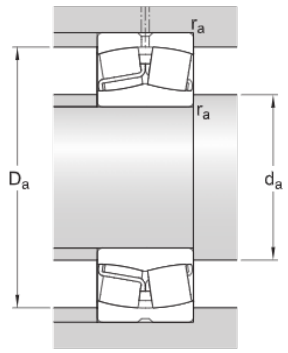
Technical Specification

SKF performance class	SKF Explorer
Bore type	Cylindrical



Dimensions

d	80 mm	Bore diameter
D	170 mm	Outside diameter
B	58 mm	Width
d_2	≈ 98.3 mm	Shoulder diameter of inner ring
D_1	≈ 143 mm	Shoulder/recess diameter of outer ring
b	8.3 mm	Width of lubrication groove
K	4.5 mm	Diameter of lubrication hole
$r_{1,2}$	min. 2.1 mm	Chamfer dimension



Abutment dimensions

d_a	min. 92 mm	Diameter of shaft abutment
D_a	max. 158 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of fillet

Calculation data

Basic dynamic load rating	C	516 kN
Basic static load rating	C_0	540 kN

Fatigue load limit	P_u	54 kN
Reference speed		3 000 r/min
Limiting speed		4 000 r/min
Limiting value	e	0.35
Calculation factor	Y_1	1.9
Calculation factor	Y_2	2.9
Calculation factor	Y_0	1.8

Mass

Mass	6.25 kg

Tolerance class

Dimensional tolerances	Normal
Radial run-out	P5

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