609-ZDeep groove ball bearing with seals or shields

Deep groove ball bearing with seals or shields

Single row deep groove ball bearings with seals or shields are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Low friction and high-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	9 mm
Outside diameter	24 mm
Width	7 mm

Performance

Basic dynamic load rating	3.9 kN
Basic static load rating	1.66 kN
Reference speed	70 000 r/min
Limiting speed	43 000 r/min
SKF performance class	SKF Explorer

Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on one side
Sealing type	Non-contact

Lubricant	None
Relubrication feature	Without

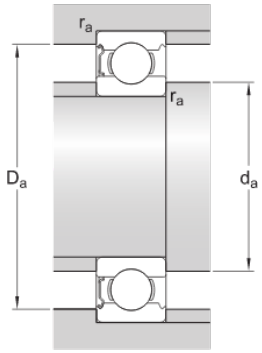
Technical Specification

SKF performance class	SKF Explorer

NOT FOUND

Dimensions

d	9 mm	Bore diameter
D	24 mm	Outside diameter
B	7 mm	Width
d_1	≈ 14.45 mm	Shoulder diameter
D_2	≈ 21.2 mm	Recess diameter
$r_{1,2}$	min. 0.3 mm	Chamfer dimension



Abutment dimensions

d_a	min. 11 mm	Diameter of shaft abutment
d_a	max. 14.3 mm	Diameter of shaft abutment
D_a	max. 22 mm	Diameter of housing abutment
r_a	max. 0.3 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	3.9 kN
Basic static load rating	C_0	1.66 kN
Fatigue load limit	P_u	0.071 kN
Reference speed		70 000 r/min

Limiting speed		43 000 r/min
Minimum load factor	k_r	0.025
Calculation factor	f_0	13

Mass

Mass bearing	0.015 kg

Tolerance class

Dimensional tolerances	P6
Radial run-out	P5

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