



# 6309

- Popular item  
- SKF Explorer

## Deep groove ball bearings

### Bearing data

[Tolerances](#),

Normal (metric), P6, P5, Normal (inch),

[Radial internal clearance](#),

Matched bearing pairs, Stainless steel  
 $d < 10$  mm, Other bearings

### Bearing interfaces

[Seat tolerances for standard conditions](#),

[Tolerances and resultant fits](#)

## Technical specification



### DIMENSIONS

d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width
d1	≈62.18 mm	Shoulder diameter
D2	≈86.7 mm	Recess diameter
r1,2	min.1.5 mm	Chamfer dimension

### ABUTMENT DIMENSIONS

da	min.54 mm	Diameter of shaft abutment
Da	max.91 mm	Diameter of housing abutment
ra	max.1.5 mm	Radius of shaft or housing fillet



## CALCULATION DATA

Basic dynamic load rating	C	55.3 kN
Basic static load rating	C <sub>0</sub>	31.5 kN
Fatigue load limit	P <sub>u</sub>	1.34 kN
Reference speed		15 000 r/min
Limiting speed		9 500 r/min
Minimum load factor	k <sub>r</sub>	0.03
Calculation factor	f <sub>0</sub>	13

## MASS

Mass bearing	0.84 kg
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## TOLERANCE CLASS

Dimensional tolerances	P6
Radial run-out	P6

## More information

Product details	Engineering information	Tools
<a href="#">Single row deep groove ball bearings</a>	<a href="#">Principles of rolling bearing selection</a>	<a href="#">Bearing Select</a>
<a href="#">Stainless steel deep groove ball bearings</a>	<a href="#">General bearing knowledge</a>	<a href="#">SimPro Quick</a>
<a href="#">Single row deep groove ball bearings with filling slots</a>	<a href="#">Bearing selection process</a>	<a href="#">Engineering Calculator</a>
<a href="#">Double row deep groove ball bearings</a>	<a href="#">Bearing interfaces</a>	<a href="#">LubeSelect for SKF greases</a>
<a href="#">Bearing data</a>	<a href="#">Seat tolerances for standard conditions</a>	<a href="#">Heater selection tool</a>
<a href="#">Loads</a>	<a href="#">Selecting internal clearance</a>	<a href="#">Rolling bearings mounting and dismounting instructions</a>
<a href="#">Temperature limits</a>	<a href="#">Lubrication</a>	
<a href="#">Permissible speed</a>	<a href="#">Sealing, mounting and dismounting</a>	
<a href="#">Designation system</a>	<a href="#">Bearing failure and how to prevent it</a>	

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