



6003-Z

- SKF Explorer

Deep groove ball bearings

Bearing data

[Tolerances,](#)

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

[Radial internal clearance,](#)

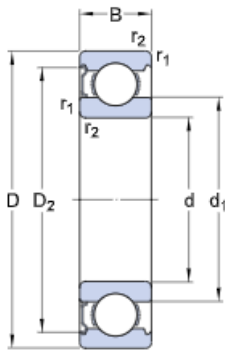
Matched bearing pairs, Stainless steel
d < 10 mm, Other bearings

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fits](#)

Technical specification

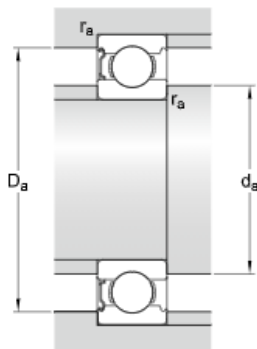


DIMENSIONS

d	17 mm	Bore diameter
D	35 mm	Outside diameter
B	10 mm	Width
d1	≈23 mm	Shoulder diameter
D2	≈31.2 mm	Recess diameter
r1,2	min.0.3 mm	Chamfer dimension

ABUTMENT DIMENSIONS

da	min.19 mm	Diameter of shaft abutment
da	max.22.9 mm	Diameter of shaft abutment
Da	max.33 mm	Diameter of housing abutment
ra	max.0.3 mm	Radius of shaft or housing fillet



CALCULATION DATA

Basic dynamic load rating	C	6.37 kN
Basic static load rating	C ₀	3.25 kN
Fatigue load limit	P _u	0.137 kN
Reference speed		45 000 r/min
Limiting speed		28 000 r/min
Minimum load factor	k _r	0.025
Calculation factor	f ₀	14

MASS

Mass bearing	0.039 kg
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TOLERANCE CLASS

Dimensional tolerances	P6
Radial run-out	P5

More information

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

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