

Image may differ from product. See technical specification for details.

YAT 209

Insert bearing with set screws locking and narrow inner ring

Insert bearings are based on sealed deep groove ball bearings. This variant of insert bearing is suitable for applications with both constant and alternating directions of rotation. It has an inner ring extended on one side, and is locked onto the shaft by tightening two (set) screws on the inner ring.

- Quick and easy to mount onto the shaft
- Long service life
- Reduce noise and vibration levels

Overview

Dimensions

Shaft diameter	45 mm
Bore diameter	45 mm
Outside diameter	85 mm
Width, total	37 mm
Width, inner ring	37 mm
Width, outer ring	22 mm

Performance

Basic dynamic load rating	33.2 kN
Basic static load rating	21.6 kN
Limiting speed	4 300 r/min
Note	Limiting speed with shaft tolerance h6

Properties

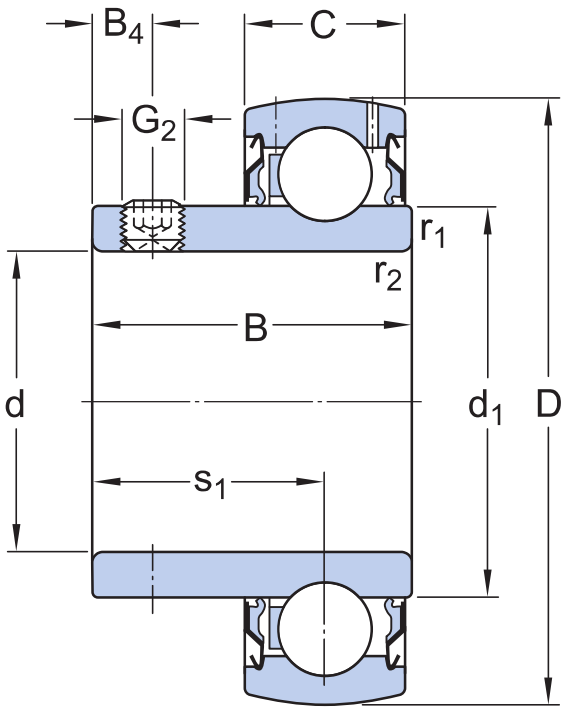
Retaining feature, inner ring	Set screws
Bore type	Cylindrical
Rolling elements	Balls
Outer ring type	Spherical
Inner ring extension	On one side
Cage	Non-metallic
Rubber seating ring	Without
Material, bearing	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Contact, standard
Lubricant	Grease
Relubrication feature	With

Logistics

Product net weight	0.552 kg
eClass code	23-05-08-02

UNSPSC code	31171536

Technical specification



Dimensions

d	45 mm	Bore diameter
D	85 mm	Outside diameter
B	37 mm	Width of inner ring
C	22 mm	Width of outer ring
d_1	≈ 56.8 mm	Outside diameter of inner ring
B_4	7 mm	Distance face to thread centre
$r_{1,2}$	min. 1 mm	Chamfer dimension of inner ring
s_1	25.8 mm	Distance from locking device side face to raceway centre

Calculation data

Basic dynamic load rating	C	33.2 kN
Basic static load rating	C_0	21.6 kN
Fatigue load limit	P_u	0.915 kN
Limiting speed		4 300 r/min
		Limiting speed with shaft tolerance h6

Calculation factor	f_0	14

Mounting information

Set screw	G_2	M6x0.75
Hexagonal key size for set screw	N	3 mm
Recommended tightening torque for set screw		4 N·m

Associated products

Rubber seating ring	RIS 209 A

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: table 1, table 2
- Radial internal clearance: Standard inner ring, Other bearings

BEARING INTERFACES

- Shaft tolerances

More Information

Product details

- Designs and variants
- Lubrication
- General bearing specifications
- Loads
- Temperature limits
- Permissible speed
- Design considerations
- Mounting and dismounting
- Designation system

Engineering information

- Principles of rolling bearing selection
- General bearing knowledge
- Bearing selection process
- Bearing failure and how to prevent it

Tools

- SKF Product select
- Bearing Frequency Calculator
- SimPro Quick
- Heater selection tool

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