

FY 50 TF

Square flanged ball bearing unit with set screw locking, cast iron housing, ISO



These square flanged ball bearing units are compliant with ISO standards. They consist of an insert bearing, with an extended inner ring and set screw locking, and are suitable for applications where the direction of rotation is constant or alternating. The bearing is mounted in a cast iron housing, which can be bolted to a machine wall or frame. Ball bearing units can accommodate moderate initial misalignment, but normally do not permit axial displacement.

- Resist high levels of contamination
- Designed for high temperatures and speeds
- Accommodate relatively heavy loads
- Cost-effective

Overview

Dimensions

Bearing width, total	51.6 mm
Centre distance between bolt holes	111 mm
Housing overall width	43 mm
Shaft diameter	50 mm

Performance

Basic dynamic load rating	35.1 kN
Basic static load rating	23.2 kN
Limiting speed	4 000 r/min
Note	Limiting speed with shaft tolerance h6

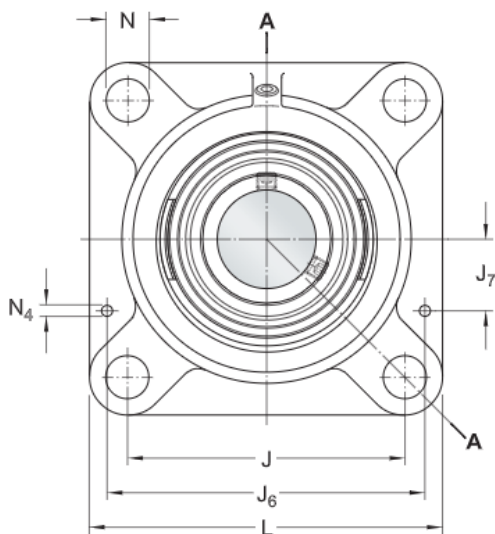
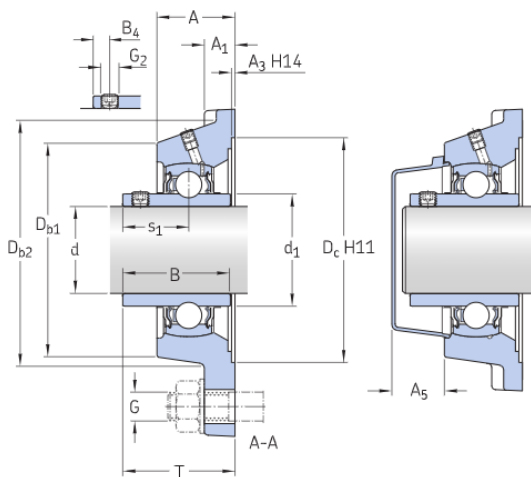
Properties

Bore type	Cylindrical
Coating	Without
Fastening bolt hole type	Plain
Flanged housing type	Square
Grease fitting	With
Housing type	Flanged
Lubricant	Grease
Material, bearing	Bearing steel
Material, housing	Cast iron
Number of bolt holes for fasteners	4
Relubrication hole	With

Retaining feature, inner ring	Set screws
Rubber seating ring	Without
Sealing type	Contact, standard
Sealing, bearing	Seal and flinger on both sides
Sealing, unit	Optional end cover

Technical Specification

Compliance with standard	ISO
Purpose specific	For material handling applications
Material, housing	Cast iron
Sealing, bearing	Seal and flinger on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Optional end cover
Coating	Without



Dimensions

d	50 mm	Bore diameter
d ₁	≈ 62.51 mm	Outer diameter inner ring
A	43 mm	Overall width
A ₁	15 mm	Flange width
A ₃	3.2 mm	Depth of centring recess
A ₅	33 mm	Standout of end cover
B	51.6 mm	Width of inner ring
B ₄	9 mm	Distance from locking device side face to thread centre
D _{b1}	107 mm	Top external diameter
D _{b2}	118 mm	Base external diameter
D _c	125.4 mm	Diameter of housing centering recess
J	111 mm	Distance between attachment bolts
L	143 mm	Overall length
N	18 mm	Diameter of attachment bolt hole
s ₁	32.6 mm	Distance from locking device side face to raceway centre
T	60.6 mm	Overall unit width

Dowel pins

J_6 129 mm	Distance of dowel pins
J_7 35.5 mm	Axial offset of dowel pins
N_L 4 mm	Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	C	35.1 kN
Basic static load rating	C_0	23.2 kN
Fatigue load limit	P_u	0.98 kN
Limiting speed		4 000 r/min
		Limiting speed with shaft tolerance h6

Mass

Mass bearing unit	2.3 kg
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Mounting information

Set screw	G_2	M10x1
Hexagonal key size for set screw		5 mm
Recommended tightening torque for set screw		16.5 Nm
Recommended diameter for attachment bolts, mm	G	16 mm
Recommended diameter for attachment bolts, inch	G	0.625 in

Included products

Housing	FY 510 M
Bearing	YAR 210-2F

Associated products

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