



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

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

Shaft diameter	50 mm
Housing overall width	43 mm
Width, total	60.6 mm
Centre distance between bolt holes	111 mm
Bearing width, total	51.6 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

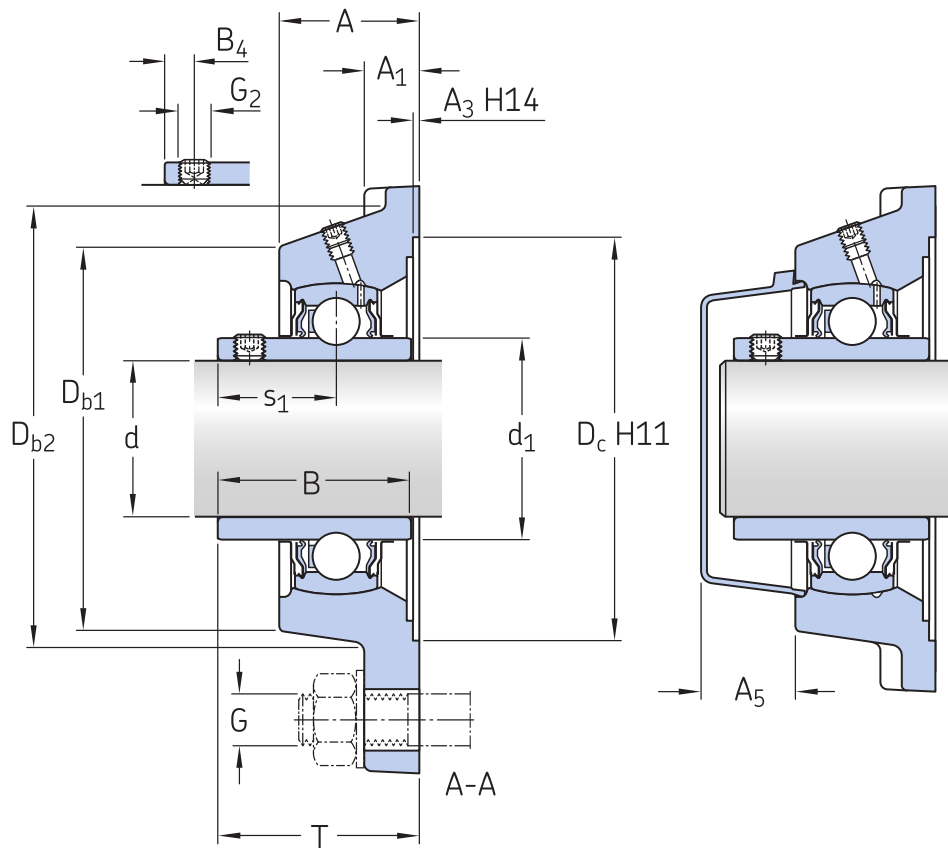
Housing type	Flanged
Flanged housing type	Square
Number of bolt holes for fasteners	4
Fastening bolt hole type	Plain
Retaining feature, inner ring	Set screws
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides
Sealing type	Contact, standard
Sealing, unit	Optional end cover
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

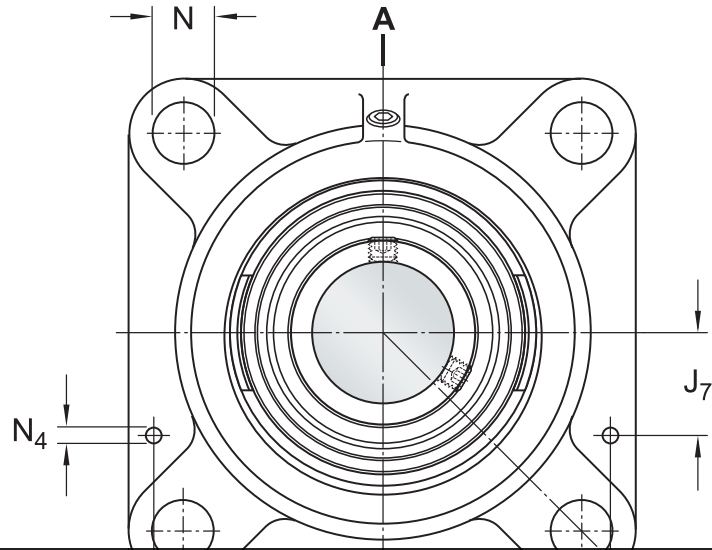
Logistics

Product net weight	2.25 kg
eClass code	23-05-08-02
UNSPSC code	31171536

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 of inner ring
A	43 mm	Width of housing
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 ₁	51.6 mm	Overall bearing width
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 width

THREADED HOLE

R _G	1/4-28 UNF	Housing thread for grease fitting
R ₁	28.5 mm	Axial position of the housing thread

GREASE FITTING

D_N	6.5 mm	Diameter of head sphere of grease fitting
SW_N	7 mm	Hexagonal key size for the grease fitting
G_N	1/4-28 SAE-LT	Thread of grease fitting

DOWEL PINS

J_6	129 mm	Distance of dowel pins
J_7	35.5 mm	Axial offset of dowel pins
N_4	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 N·m
Recommended diameter for attachment bolts, mm	G	16 mm
Recommended diameter for attachment bolts, inch	G	0.625 in

Compatible products

Component

Square flanged housing for insert bearings, cast iron

[FY 510 M](#)

Insert bearing with set screw locking and extended inner ring





[YAR 210-2F](#)

Recommended product

End cover for bearing units

[ECY 210](#)

More Information

<p> Product details</p> <hr/> <p>Flanged units to ISO standards</p> <hr/> <p>Flanged units to North American standards</p> <hr/> <p>Flanged units to Japanese Industrial Standards (JIS)</p> <hr/> <p>Flanged units, not standardized (SKF Food Line)</p> <hr/> <p>Permissible misalignment</p> <hr/> <p>Locating/non-locating support</p> <hr/> <p>Loads</p> <hr/> <p>Temperature limits</p> <hr/> <p>Permissible speed</p> <hr/> <p>Lubrication</p> <hr/> <p>Mounting and dismounting</p> <hr/> <p>Ordering information</p> <hr/> <p>Designation system</p>	<p> Engineering information</p> <hr/> <p> Principles of ball bearing units selection and application - Download catalogue (4.9 MB)</p> <hr/> <p>Principles of selecting mounted bearing solutions</p> <hr/> <p>Bearing failure and how to prevent it</p>	<p> Tools</p> <hr/> <p>SKF Product select</p> <hr/> <p>Bearing Frequency Calculator</p>
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