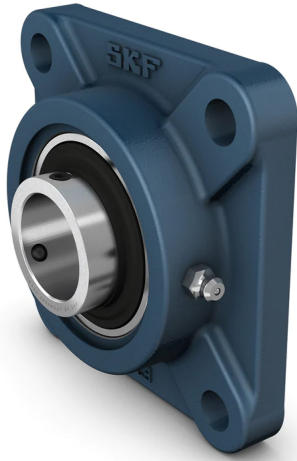**SKF**®

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	2.031 in
Centre distance between bolt holes	4.37 in
Housing overall width	1.693 in
Shaft diameter	1.969 in

Performance

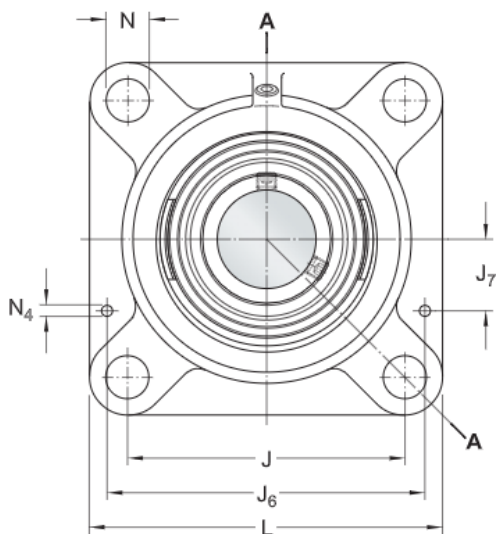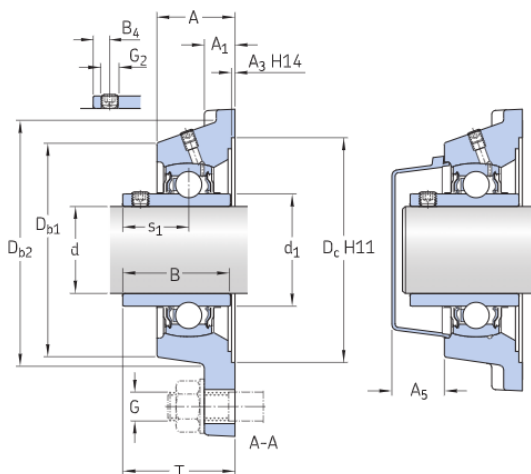|	
Basic dynamic load rating	7 891 lbf
Basic static load rating	5 216 lbf
Limiting speed	4 000 r/min
Note	Limiting speed with shaft tolerance h6

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	1.969 in	Bore diameter
d_1	≈ 2.461 in	Outer diameter of inner ring
A	1.693 in	Overall width
A_1	0.591 in	Flange width
A_3	0.126 in	Depth of centring recess
A_5	1.299 in	Standout of end cover
B	2.031 in	Width of inner ring
B_4	0.354 in	Distance from locking device side face to thread centre
D_{b1}	4.213 in	Top external diameter
D_{b2}	4.646 in	Base external diameter
D_c	4.937 in	Diameter of housing centering recess
J	4.37 in	Distance between attachment bolts
L	5.63 in	Overall length

N	0.709 in	Diameter of attachment bolt hole
s_1	1.283 in	Distance from locking device side face to raceway centre
T	2.386 in	Overall unit width

Dowel pins

J_6	5.079 in	Distance of dowel pins
J_7	1.398 in	Axial offset of dowel pins
N_4	0.157 in	Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	C		7 891 lbf
Basic static load rating	C_0		5 216 lbf
Fatigue load limit	P_u		220 lbf
Limiting speed			4 000 r/min
			Limiting speed with shaft tolerance h6

Mass

Mass bearing unit	5.071 lb

Mounting information

Set screw	G_2	M10x1
Hexagonal key size for set screw		0.197 in
Recommended tightening torque for set screw		146.037 lbf-in
Recommended diameter for attachment bolts, mm	G	16.002 mm
Recommended diameter for attachment bolts, inch	G	0.625 in

Included products

Housing	FY 510 M
Bearing	YAR 210-2F

Associated products

End cover	ECY 210

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