

FYJ 50 TFSquare flanged ball bearing unit with set screw locking, cast iron housing, JIS

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

These square flanged ball bearing units are compliant with Japanese Industrial Standards (JIS). 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	40 mm
Width, total	54.6 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

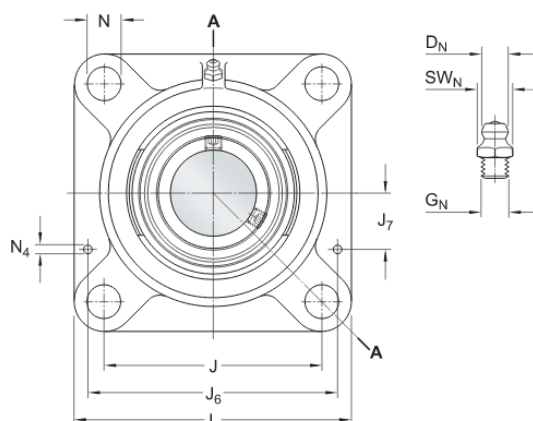
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides
Sealing type	Contact, standard
Sealing, unit	Without
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

Technical Specification

Compliance with standard	JIS
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	Without
Coating	Without



Dimensions



d	50 mm	Bore diameter
d_1	≈ 62.51 mm	Outer diameter of inner ring
A	40 mm	Overall width
A_1	15 mm	Flange width
A_3	3.2 mm	Depth of centring recess
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}	116 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	16 mm	Diameter of attachment bolt hole
s_1	32.6 mm	Distance from locking device side face to raceway centre

T 54.6 mm Overall unit width

Threaded hole

R_G	1/4-28 UNF	Housing thread for grease fitting
R_1	22 mm	Axial position of the housing thread

Grease fitting

D_N	6.5 mm	Diameter of head sphere of grease fitting
SW	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	2.4 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	14 mm
Recommended diameter for attachment bolts, inch	G	0.5625 in

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