

FY 45 FMSquare flanged ball bearing unit with eccentric locking, cast iron housing, ISO

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

These square flanged ball bearing units are compliant with ISO standards. They consist of an insert bearing, with a narrow inner ring and eccentric locking, and are intended primarily for use in applications where the direction of rotation is constant. 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	45 mm
Housing overall width	39 mm
Width, total	56.7 mm
Centre distance between bolt holes	105 mm
Bearing width, total	43.7 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

Housing type	Flanged
Flanged housing type	Square
Number of bolt holes for fasteners	4
Fastening bolt hole type	Plain
Retaining feature, inner ring	Eccentric collar
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel

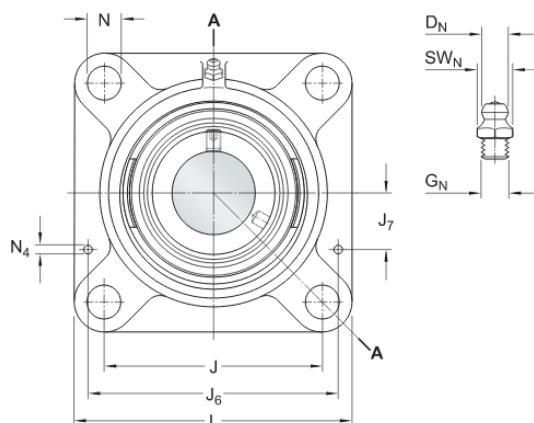
Coating	Without
Sealing, bearing	Seal on both sides
Sealing type	Contact, standard
Sealing, unit	Optional end cover
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

Technical Specification

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

Dimensions

d	45 mm	Bore diameter
d_1	≈ 56.8 mm	Outer diameter of inner ring
d_2	62 mm	Outside diameter of locking ring
A	39 mm	Overall width
A_1	14 mm	Flange width
A_3	3.2 mm	Depth of centring recess
A_5	26.5 mm	Standout of end cover
B	30.2 mm	Width of inner ring
B_1	43.7 mm	Overall bearing width
B_4	6.75 mm	Distance from locking device side face to thread centre
D_{b1}	102 mm	Top external diameter
D_{b2}	112 mm	Base external diameter
D_c	119.1 mm	Diameter of housing centering recess
J	105 mm	Distance between attachment bolts



L	137 mm	Overall length
N	16 mm	Diameter of attachment bolt hole
s ₁	32.7 mm	Distance from locking device side face to raceway centre
T	56.7 mm	Overall unit width

Threaded hole

R _G	1/4-28 UNF	Housing thread for grease fitting
R ₁	24.5 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	123 mm	Distance of dowel pins
J ₇	33.5 mm	Axial offset of dowel pins
N ₄	4 mm	Recommended diameter for dowel pins

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

Mass

Mass bearing unit	2 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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