



FY 20 TRSquare flanged ball bearing unit with set screw locking, cast iron housing, ISO

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	20 mm
Housing overall width	29.5 mm
Width, total	37.3 mm
Centre distance between bolt holes	63.5 mm
Bearing width, total	31 mm

Performance

Basic dynamic load rating	12.7 kN
Basic static load rating	6.55 kN
Limiting speed	5 000 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, multiple
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 and flinger on both sides
Sealing type, bearing	Contact, multiple
Sealing, unit	Optional end cover
Coating	Without



Dimensions

d	20 mm	Bore diameter
d_1	≈ 28.2 mm	Outer diameter of inner ring
A	29.5 mm	Overall width
A_1	11 mm	Flange width
A_3	3.2 mm	Depth of centring recess
A_5	20.5 mm	Standout of end cover
B	31 mm	Width of inner ring
B_1	31 mm	Overall bearing width
B_4	4.5 mm	Distance from locking device side face to thread centre
D_{b1}	57 mm	Top external diameter
D_{b2}	63 mm	Base external diameter
D_c	68.3 mm	Diameter of housing centering recess
J	63.5 mm	Distance between attachment bolts
L	86 mm	Overall length
N	11.5 mm	Diameter of attachment bolt hole



s_1	18.3 mm	Distance from locking device side face to raceway centre
T	37.3 mm	Overall unit width

Threaded hole

R_G	1/4-28 UNF	Housing thread for grease fitting
R_1	20.5 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	74 mm	Distance of dowel pins
J_7	16 mm	Axial offset of dowel pins
N_4	4 mm	Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	C	12.7 kN
Basic static load rating	C_0	6.55 kN
Fatigue load limit	P_u	0.28 kN
Limiting speed		5 000 r/min
		Limiting speed with shaft tolerance h6

Mass

Mass bearing unit	0.54 kg
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Mounting information

Set screw	G ₂	M6x0.75
Hexagonal key size for set screw		3 mm
Recommended tightening torque for set screw		4 N·m
Recommended diameter for attachment bolts, mm	G	10 mm
Recommended diameter for attachment bolts, inch	G	0.375 in

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