

FY 20 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 | 20 mm |
| Housing overall width | 29.5 mm |
| Width, total | 43 mm |
| Centre distance between bolt holes | 63.5 mm |
| Bearing width, total | 30.5 mm |

Performance

| | |
|---------------------------|--|
| Basic dynamic load rating | 12.7 kN |
| Basic static load rating | 6.55 kN |
| Limiting speed | 8 500 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 |

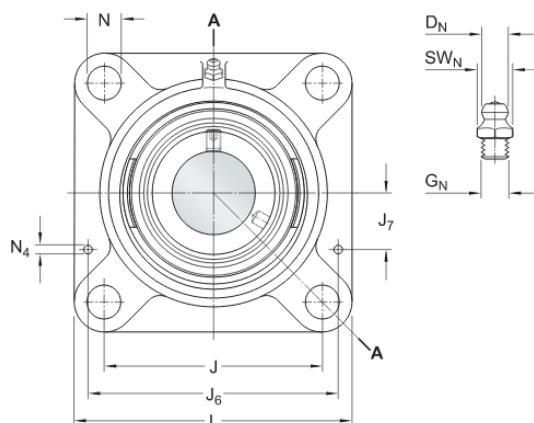
| | |
|--------------------|--------------------|
| Coating | Without |
| Sealing, bearing | Seal on both sides |
| Sealing type | Contact, standard |
| Sealing, unit | Optional end cover |
| Lubricant | Grease |
| Relubrication hole | With |
| Grease fitting | With |

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 | 20 mm | Bore diameter |
| d_1 | ≈ 28.2 mm | Outer diameter of inner ring |
| d_2 | 32.4 mm | Outside diameter of locking 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 | 21 mm | Width of inner ring |
| B_1 | 30.5 mm | Overall bearing width |
| B_4 | 4.75 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 | 23.5 mm | Distance from locking device side face to raceway centre |
| T | 43 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 | | 8 500 r/min |
| | | Limiting speed with shaft tolerance h6 |

Mass

| | |
|-------------------|---------|
| Mass bearing unit | 0.56 kg |
|-------------------|---------|

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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