



# UCF 211

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

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 grub screw locking, suitable for applications where the direction of rotation is constant or alternating. The bearing is mounted in a 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 hightemperatures and speeds
- Accommodate relatively heavy loads
- Cost-effective

## Overview

### **Dimensions**

| Bearing width, total               | 55.6 mm |
|------------------------------------|---------|
| Centre distance between bolt holes | 130 mm  |
| Housing overall width              | 43 mm   |
| Shaft diameter                     | 55 mm   |

## **Properties**

| Bore type                          | Cylindrical   |
|------------------------------------|---------------|
| Coating                            | Without       |
| Fastening bolt hole type           | Plain         |
| Flanged housing type               | Square        |
| Housing type                       | Flanged       |
| Lubricant                          | Grease        |
| Material, bearing                  | Bearing steel |
| Material, housing                  | Cast iron     |
| Number of bolt holes for fasteners | 4             |
| Relubrication hole                 | With          |
| Relubrication nipple               | With          |
| Retaining feature, inner ring      | Set screws    |
| Rubber seating ring                | Without       |
|                                    |               |

#### Performance

| Basic dynamic load rating | 43.6 kN     |
|---------------------------|-------------|
| Basic static load rating  | 29 kN       |
| Limiting speed            | 3 000 r/min |

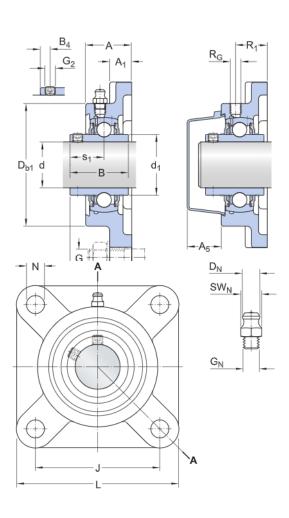


| Sealing type     | Contact, standard              |
|------------------|--------------------------------|
| Sealing, bearing | Seal and flinger on both sides |
| Sealing, unit    | Without                        |



# Technical Specification

| Compliance with standard | JIS                                     |
|--------------------------|---|
| Purpose specific         | For material handling applications      |
| Housing material         | Cast iron                               |
| Sealing solution         | Standard seals with additional flingers |



## Dimensions

| d               | 55 mm      | Bore diameter  |
|-----------------|------------|--|
| $d_1$           | ≈ 70<br>mm | Outer diameter inner ring                                |
| Α               | 43 mm      | Overall width  |
| $A_1$           | 18 mm      | Flange width   |
| A <sub>5</sub>  | 37.5<br>mm | Standout of end cover                                    |
| В               | 55.6<br>mm | Width of inner ring                                      |
| B <sub>4</sub>  | 9.5<br>mm  | Distance from locking device side face to thread centre  |
| D <sub>b1</sub> | 130<br>mm  | Top external diameter                                    |
| J               | 130<br>mm  | Distance between attachment bolts                        |
| L               | 162<br>mm  | Overall length   |
| Ν               | 19 mm      | Diameter of attachment bolt hole                         |
| s <sub>1</sub>  | 33.4<br>mm | Distance from locking device side face to raceway centre |
| Т               | 58.4<br>mm | Overall unit width                                       |
|                 |            |  |

## Grease fitting

| D <sub>1</sub> 6.589 mm | Diameter of head sphere of grease fitting |
|-------------------------|---|
| SV 11.11 mm             | Hexagonal key size for the grease fitting |



| G <sub>↑</sub> 1/8-27 NPT | Thread of grease fitting             |
|---------------------------|--------------------------------------|
|                           |                                      |
| Threaded hole             |                                      |
| R <sub>G</sub> 1/8-27 NPT | Housing thread for grease fitting    |
| R <sub>4</sub> 29 mm      | Axial position of the housing thread |

### Calculation data

| Basic dynamic load rating | С           | 43.6 kN     |
|---------------------------|-------------|-------------|
| Basic static load rating  | $C_0$       | 29 kN       |
| Fatigue load limit        | $P_{\rm u}$ | 1.25 kN     |
| Limiting speed            |             | 3 000 r/min |
| with shaft tolerance h6   |             |             |

## Mass

| Mass bearing unit | 3.45 kg |
|-------------------|---------|
|-------------------|---------|

# Mounting information

| Set screw                                       | $G_2$ | M10x1.25 |
|---|-------|----------|
| Hexagonal key size for set screw                |       | 5.08 mm  |
| Recommended tightening torque for set screw     |       | 16.5 Nm  |
| Recommended diameter for attachment bolts, mm   | G     | 16 mm    |
| Recommended diameter for attachment bolts, inch | G     | 0.625 in |

## Included products

| Housing | F 211/Y |
|---------|---------|
| Bearing | UC 211  |



# Associated products

End cover ECY 211



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