CU 202
Grundfos Datasheet

CU 202 is designed for monitoring and control of SQFlex submersible pumps in solar applications.

The controller is pre-configured for filling, allowing for quick and easy installation with its plug-and-pump capabilities. For other applications, the controller offers multiple control modes that can be easily selected and configured through the Grundfos GO app.

The pump can be operated via the keypad on the controller interface. The display provides:

- System status
- Alarms and warnings
- Pump performance data

Built-in Bluetooth enables easy commissioning and configuration through the Grundfos GO app. The Grundfos GO app offers detailed setup and monitoring of the controller.

Remote monitoring is available through Wi-Fi, GENIbus, or Modbus, using Grundfos Connect or another SCADA system, saving inspection time.

Communication between the pump and controller occurs via the power supply cable (mains borne signaling), eliminating the need for extra cables.

The CU 202 includes two configurable inputs and outputs and supports optional 24 VDC backup power to maintain measurements in the controller and communication to Grundfos Connect and Grundfos GO app.

Main features

- Compatible with the full range of SQFlex pumps
- Multiple control modes
- Intuitive LED display and simple control with dim/sleep mode on display LEDs
- Adjustable maximum speed to match well yield directly on keypad
- Wide voltage range (30 to 300 VDC and 90 to 240 VAC)
- Real-time clock – ready for scheduling
- Save/restore configuration
- Automatically generated installation report

SQFlex pumps

The SQFlex pump is a reliable water pump powered by renewable energy sources like solar and wind. Its flexible energy supply and performance make the SQFlex system adaptable to any installation site, including compatibility with AC power.

The SQFlex features a built-in frequency drive with a wide voltage range, maximum power point tracking (MPPT), and protections against dry-running, voltage fluctuations, and overload.
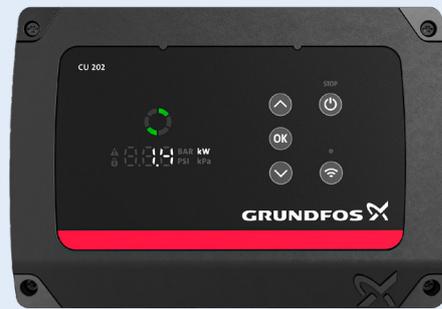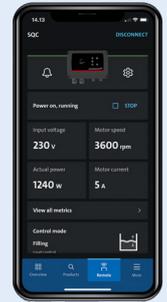
CU 202 controller $C \in$ *Grundfos GO Smartphone App*
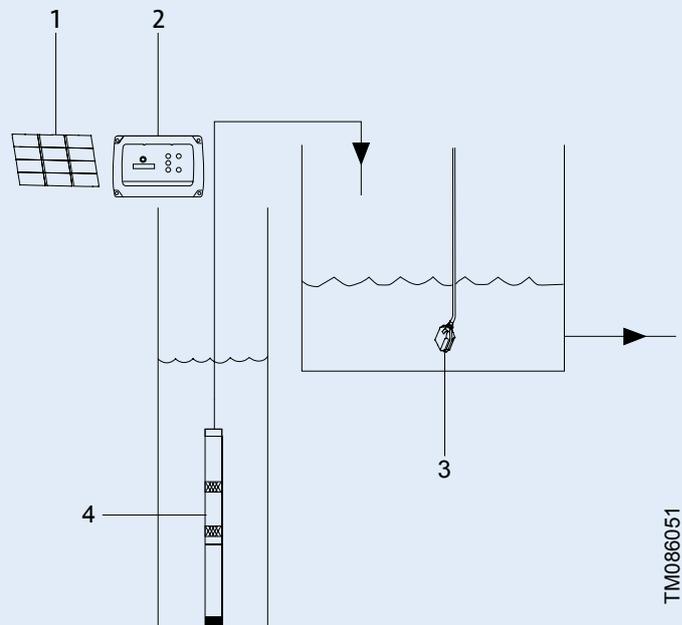
CU 202 and SQFlex pump system

TM086051

Pos.	Description
1	Solar panel
2	CU 202
3	Float switch
4	SQFlex pump

Ordering Information
CU 202 – 92799796

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Possibility in every drop

CU 202 Technical Data

Electrical Data:

Power input: 25 W

Power consumption: 5W

Rated voltage (AC): 1 x 90-240 V

Rated voltage (DC): 30-300 V

Maximum current consumption: 12.5 A

Enclosure type: 3R (IP55)

Maximum mains fuse: 16 A

Backup Battery (13W max) : 24VDC (22-28.8VDC)

Installation:

Range of ambient temperature: -20°C (-4°F) - +50°C (+122°F)

Relative humidity: 5-95%

Cabinet mounting: Angle plate mounting

Maximum cable pump cable length: 300m/1000ft

Approvals:

RCM, UKCA

Wiring:

| Terminal	Description
PE	2 x connection for grounding
1,2	1 x Power input 16mm² / 6AWG
3,4	1 x Pump power output 16mm² / 6AWG
5,6,7	1 x RS 485 for Genibus or modbus communicaitons
8,9,10	Configurable I/O 1
11,12,13	Configurable I/O 2
14,15	1 x 24VDC backup power

2 x configurable inputs & outputs (CIO)

Option	Description
DI	Digital Input
DO	Open Collector, no sourcing
AI	0-10V
	0-5V
	0.5-3.5V
	0-20mA
	4-20mA
AO	0-10V
	0-20mA
	4-20mA
Pulse Input	Max 10 Hz
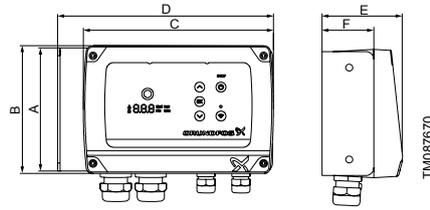
Dimensions of the control unit

Pos.	Description
A	155 mm (6.1 in)
B	160 mm (6.3 in)
C	232 mm (9.1 in)
D	262 mm (10.3 in)
E	96 mm (3.8 in)
F	63 mm (2.5 in)
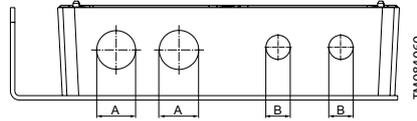
Dimensions of the cable gland holes, CU 202

Pos.	Description
A	⌀ 28.3 mm (1.11 in)
B	⌀ 18.6 mm (0.73 in)
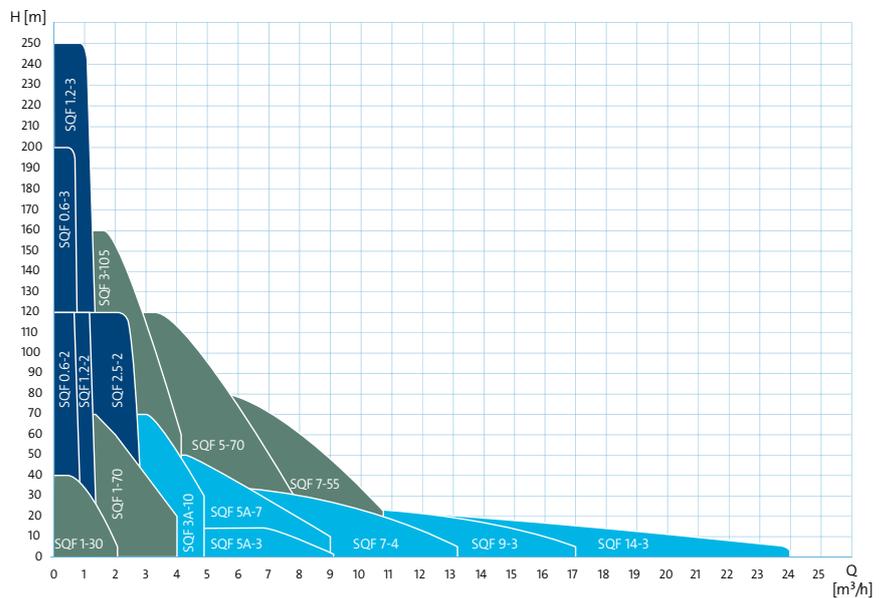
SQFlex pump performance

- ■ SQF Helical Rotor 3"
- ■ SQF Centrifugal 4"
- ■ SQF Centrifugal 3"

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