



THE SQFLEX SYSTEM...



*Solar Power & Pump Co.*

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....Water, Wherever, Whatever.

# THE INS AND OUTS

SQFlex pumps have built-in protection features that protect the pump itself and in many cases the well. Among these features are:

- Protection against dry-running, overloading and overheating
- Automatic restart when water returns to the well or when the motor temperature returns to the safety range
- Continuous load condition and voltage monitoring



## PUMP CASING

Stainless steel for long pump life.

## HELICAL ROTOR PUMP

Based on original pumping principles, the helical rotor pump uses a few, simple components for effective pumping in high head and low flow conditions.

## DRY-RUNNING PROTECTION

This unique feature shuts down the pump if it detects water shortage. It protects the well from being over-pumped and the motor from burning out.



## CENTRIFUGAL PUMP (4")

Technology based on 30 years' experience enables high flow in shallow water conditions. Stainless steel components give high wear resistance.



### BEARINGS

Powerful carbon/ceramic bearing system ensures extreme reliability.

### MOTOR

Only one motor for the entire pump range with built-in unique features. A newly developed segmented stator provides high efficiency.

### POWER TRANSMISSION

The unique Grundfos micro frequency converter ensures power transmission to the motor.

### ANY VOLTAGE

A wide voltage range enables the motor to operate at any voltage between 30V and 300V DC or 90-240V AC, which makes installation and sizing especially easy.



### COMMUNICATION

Two-way communication between interface box and pump eliminates the needs for additional wires.

### SYSTEM EFFICIENCY

Maximum Power Point Tracking (MPPT) means even and high system efficiency regardless of power source.





## CU 200

A user-friendly interface box that maintains two-way communication with the pump and monitors the operating conditions. Built-in diagnostics indicate faults and dry-running, display operating status power consumption and level switch input.



## IO 100

A very simple and easy-to-use system and with cable terminal connections interface. Controlled by a manual on/off switch.

## IO 101

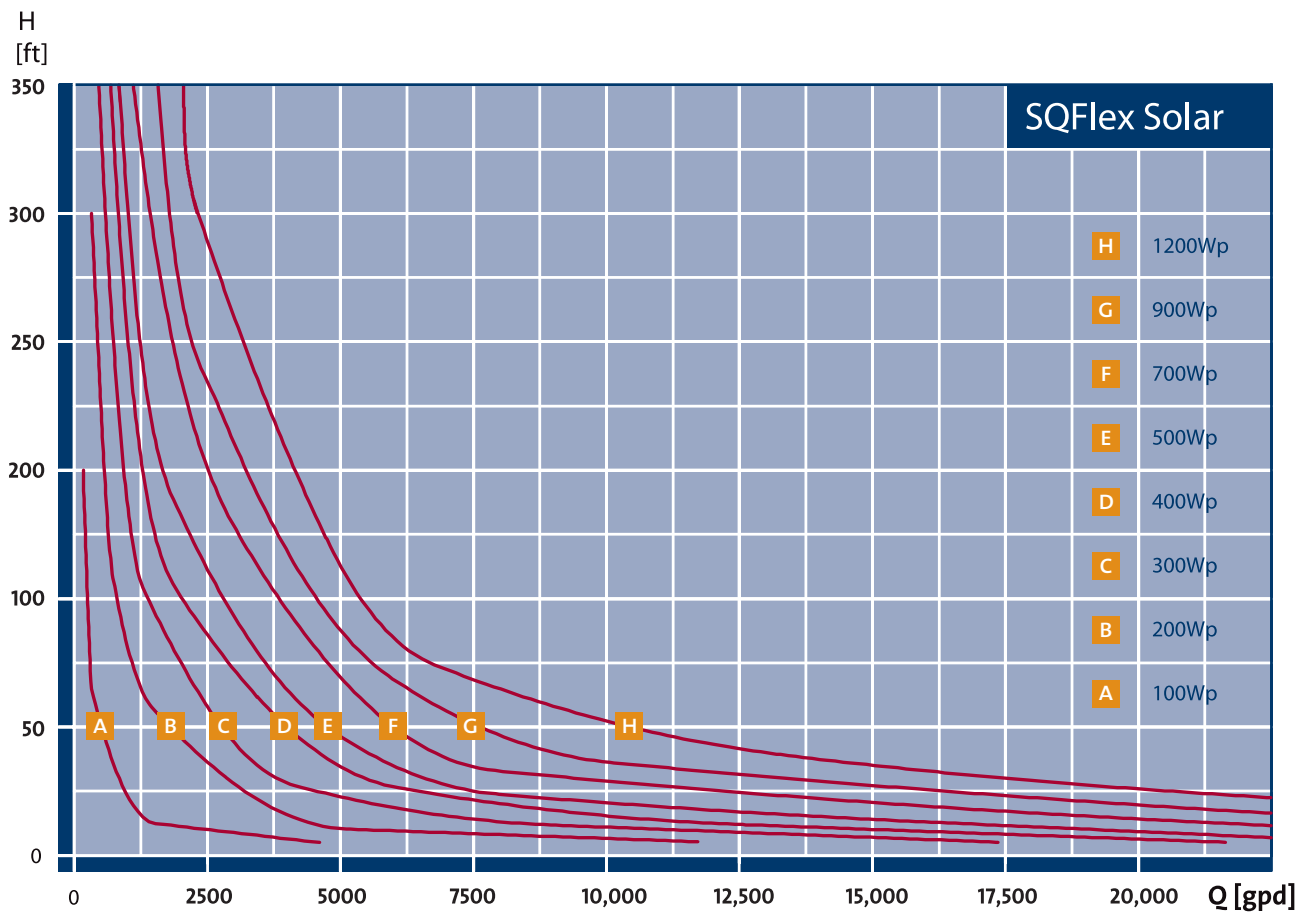
Acts as interface for powering back-up supplies, providing automatic change-over. For instance when changing from generator to solar energy, the solar panels automatically power the system as soon as the fuel tank runs dry.



## LEVEL SWITCH

Save energy as you save water. With a level switch inside the storage tank connected to the CU 200 control unit, the pump knows when the tank is full and shuts itself off.

# SQFLEX PERFORMANCE



The SQFlex Solar performance curves are based on:

- Irradiation on a tilted surface
- $H_t = 6 \text{ kWh/m}^2 \text{ day}$
- $20^\circ$  tilt angle
- Ambient temperature at  $30^\circ\text{C}$
- $20^\circ$  northern latitude
- 120V DC



The complete SQFlex pump range consists of 7 different pump sizes: 4 centrifugal and 3 helical rotor pumps. All pumps are fitted with the same motor which, together with the new sizing tools, makes system sizing simple.