

# SQFlex pumps



The complete SQFlex pump range consists of 10 different pump sizes: 4 helical rotor pumps for medium to high heads and low to medium flows, and 6 centrifugal pumps for shallow heads and high flows. It is available in two different stainless steel material variants: type AISI 304 as standard and type AISI 316 for slightly aggressive water. The pump is fitted with a high efficiency motor for DC or AC voltage. This makes pump sizing and selection extremely easy.

## Renewable-energy based water supply systems

### Solar systems

The GF solar panels are designed especially for the SQFlex pump motor unit. A higher output voltage compared to standard 12V panels ensures optimum efficiency of the complete SQFlex pump system – with up to 20% flow increase per day in small systems. The solar panels incorporate eight bypass diodes, which minimise power loss in case the panels are covered by patches of shadow, dirt, leaves or bird lettings. Wiring of the GF solar panels is easily done using the MC cable connectors, and the panels are mounted to the support structures without the use of any special tools.

### Wind systems

Where wind speed prevails over sunshine hours, the SQFlex Wind is just as cost-effective and sustainable. SQFlex Wind is particularly suitable for open fields, valleys and landscapes where the wind blows constantly. The small but high-quality wind turbine consists of only a few simple components, making it exceptionally easy to install and maintain compared to conventional windmills.

### Combi systems

The SQFlex Combi takes maximum advantage of natural energy resources by providing a combination of solar and wind energy: solar panels for when the sun is shining; a wind turbine for when the wind is blowing. The added benefits of the SQFlex Combi are even greater reliability and water whenever it is needed.

### Backup systems

Natural energy rarely runs low, but if it ever does, both the SQFlex Solar and SQFlex Wind systems can temporarily fall back on a petrol or diesel-driven generator or batteries. Intelligent control units make changing between power supplies very easy.

### Control units

The SQFlex system is available with a user-friendly CU200 control unit that maintains two-way communication with the pump and monitors the operating conditions. Built-in diagnostics indicate faults and dry-running, power consumption and level switch input.

Other alternatives are IO100 switch box and IO101 generator box for SQFlex Solar, and IO102 breaker box for SQFlex Wind, which are controlled by a manual on/off switch.

### Level switch

Save energy as you save water. With a level switch inside the storage tank connected to the CU200 control unit, the pump knows when the tank is full and shuts itself off.

Illustration at top of page shows cut-away cross section view of SQ pump

## Battery backup system

Battery backup systems with a charge controller are typically used in applications where the pump is not running during most of the peak sun hours of the day, or where it is impossible or impractical to store large volumes of water. Examples include remote homes or cabins, automatic livestock waterers, and very low-yielding wells. The SQFlex battery backup system enables SQFlex Solar to operate just like any traditional closed water supply system powered by the mains supply, providing water pressure day and night.

## SQFlex Solar WaterPack

A SQFlex Solar WaterPack is a complete system ready for installation - just add one or more solar panels. The standard package contains:

- SQF submersible pump
- IO100 SQFlex switch box
- Support structure
- Cable kit

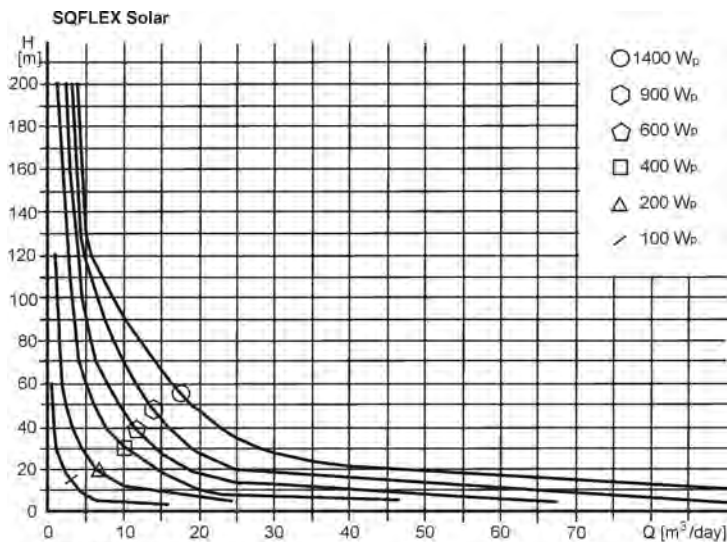
### SQFlex

#### Technical data

Flow, Q: max. 90 m<sup>3</sup>/day  
 Head, H: max. 200 m  
 Liquid temp.: 0°C to + 40°C  
 Voltage supply: 30-300 VDC  
 or 1 x 90-240 V,  
 50/60 Hz  
 Installation depth: max. 150 m.

## Applications

- Villages, schools, hospitals, single family houses
- Farms and greenhouses
- Game parks and game farms
- Conservation areas.



The SQ Flex solar performance curves are based on:  
 Irradiation on a tilted surface  
 Ht = 6kWh/m<sup>2</sup> per day  
 20° tilt angle  
 Ambient temperature at 30°C  
 20° northern latitude  
 120V DC

Pump protection includes Sand Flinger (right), and dry running protection.



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