



Water is essential for life, good health and economic development -yet more than one billion people lack access to clean water. Each year, millions are embroiled in conflicts over its scarce availability.

**High-efficiency Solar Water Pumps ATLANTS9000SF Series Introduction, 50/60Hz:**

**The stark reality.**

**Transformation.** Water is Life. Since the birth of civilization, people have moved and settled close to water, moved when there is too little of water, journey down water, write, sing and dance about water. Today millions are without water, a basic human right. Lack of water promotes misery, famine, poverty, thirst and reliance on others. No water, no future, certain death.

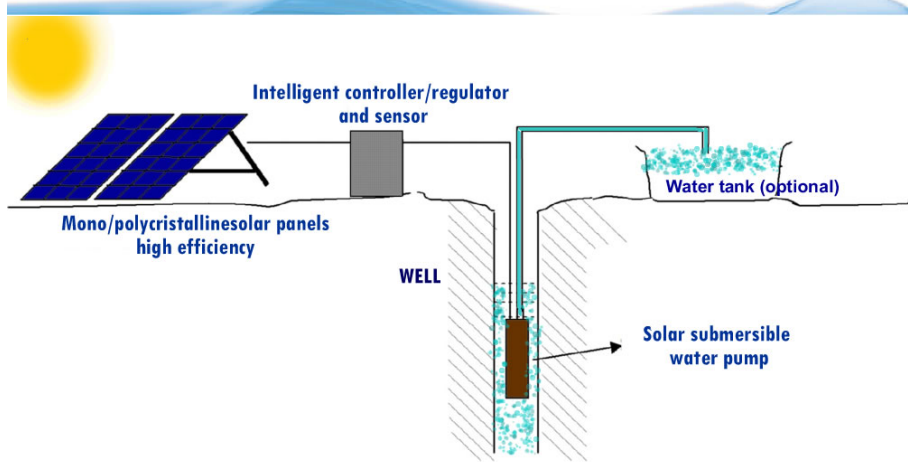
**Power.** Our systems transform energy of the sun. This energy generates power to run the ATLANTS pumping systems automatically, without efforts. They can provide water in multiple quantities, portability, flexibility, and self-reliance to the most remote areas of the globe. There is no limit to the power of the sun.

**Independence.** People need water, for drinking, cooking, washing, food, industry, transport, energy, meals, fun, for life, and it is not only for humans who need it, all life is relies and is dependent on water to survive. We cannot survive without water. ATLANTS makes it possible towards obtaining self-reliance and independence. Water is a basic human right.

**Hope.** Hope, is a short word, but with HUGE meaning. People live in hope, but in reality they live in despair. Access to water, daily is the difference between life or death, hope or hopelessness.

**Fact: almost a third of the world population does not have easy access to water drinking on a daily basis**

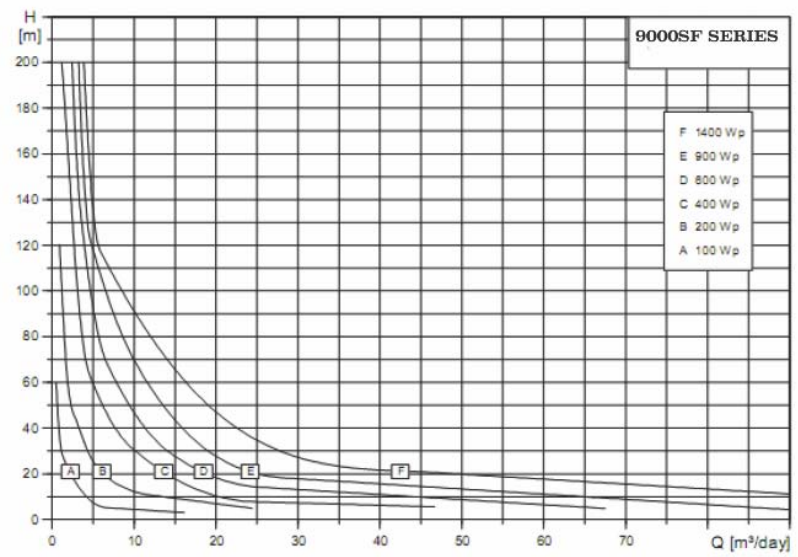
*We can help to solve de problem*



Solar pump makes use of the solar energy to pump, clean, no pollution, simple and convenient. It solves the problem of agriculture irrigation, people and livestock's water supply and frontier defense sentry water supply in the region where there is no water and no electricity. This product can automatically work at sunrise and stop at sunset without manpower. It is a high-technology green product with credibility and environment-protected. And systems are easy to install, PV pumping system can be connected to existing wells and pumps or installed quickly in new well. The technology is very easy for most wells and much deeper well to apply.

**Product data**

**Performance range**





### INTRODUCTION

#### Features and benefits

- Dry-running protection
- High efficiency
- Overvoltage and undervoltage protection
- Overload protection
- Overtemperature protection
- Maximum Power Point Tracking (MPPT)
- Wide voltage range
- Reliability

#### Application

1. Drinking water supply
2. Livestock watering
3. Pond management
4. Irrigation
5. Fountains

#### Components:

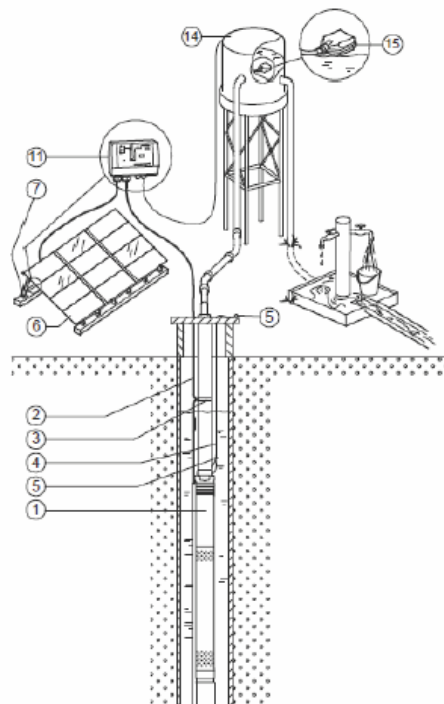
- 1 ATLANTS9000SF Pump
- 2 Submersible drop cable
- 3 Cable clips
- 4 Straining wire
- 5 Wire clamp
- 6 Solar panels
- 7 Support structure
- 11 Controller box
- 14 Tank
- 15 Level sensors

#### AdvantageS

1. Easy to install
2. Maintenance confined to periodic cleaning of the solar panels
3. Few and simple components.
4. The protective circuit incorporated in the motor electronic unit cuts out the pump in case of dry running or similar situations. By using the controller switch, the power supply to the pump can be closed manually, for example when there is no need for water supply or the system requires service.

#### ATLANTS9000SF Solar Pump System

The system is a reliable water supply system based on solar power sources, and the system incorporates an effective submersible pump. Very flexible as to its energy supply and performance, It can be combined and adapted to any need according to the conditions on the installation site.



#### The system components are:

- Submersible pump
- Solar pumping system intelligent controller and optimiser
- PV ATLANTS Solar panels

#### Pump

Available model: ATLANTS9000SF0.6, ATLANTS9000SF2A, ATLANTS9000SF3A

#### The pump range comprises two pump technologies:

- The helical rotor pump (3") for high heads and small flows.
- The centrifugal pump (4") for low heads and large flows.

The performance curves below illustrate the pump performance for the two pump models. All pump types are available in two material variants:

- Made of stainless steel DIN W.-Nr. 1.4301
- Made of stainless steel DIN W.-Nr. 1.4401.

#### Motor

The motor has been developed specifically for the solar pump system and is designed according to the Permanent-magnet principle with built-in electronic unit. The motor is available in two material variants:

- Made of stainless steel DIN W.-Nr. 1.4301
- Made of stainless steel DIN W.-Nr. 1.4401.

The motor has three internal limitations:

- Maximum power input of
  - 900 W (when fitted to helical rotor pumps)
  - 1400 W (when fitted to centrifugal pumps)

- Maximum current of 8.4 A
- Maximum speed of
  - 3000 min-1 (when fitted to helical rotor pumps)
  - 3600 min-1 (when fitted to centrifugal pumps).

The pump delivers its maximum performance when one of the above limitations is reached.

#### Supply voltage

Flexible as regards power supply and power range, the motor can be supplied with either DC or AC voltage:

- 30-300 VDC, PE
- 1 x 90-240 V –10%/+6%, 50/60 Hz, PE.



**Solar modules**

PVS solar modules have been developed specifically for the pump system. The solar modules are equipped with plugs and sockets enabling easy connection in parallel. Atlants ONLY use high efficiency mono or polycrystalline solar panels.

For further information on solar modules please see ATLANTS informations concerning this product.

**Pumped liquids**

The pumps are applicable in thin, clean, nonaggressive, non-explosive liquids, not containing solid or long-fibred particles larger than sand grains.

PH value: 5 to 9.

Liquid temperature: 0°C to +40°C.

The pump can run at free convection (~ 0 m/s) at maximum +40°C.

**Sand content**

Maximum sand content: 50 g/m3.

A higher sand content will reduce the pump life considerably due to wear.

**Curve conditions**

Performance range, Solar

The Solar performance range shown on the introduction based on

- Solar radiation on a tilted surface (tilt angle of 20°)
- HT = 6 kWh/m2 per day
- Ambient temperature: +30°C

**Specific performance charts**

The specific performance charts on pages 6 to 7 are based on the following guidelines:

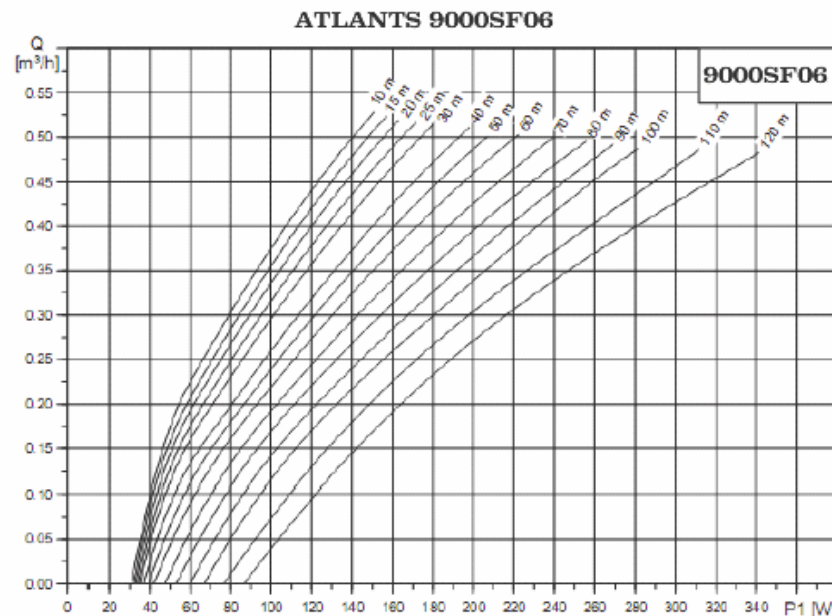
- All curves show mean values.
- The curves must not be used as guarantee curves.
- Typical deviation: ±15%.
- The measurements have been made at a water temperature of +20°C.
- The curves apply to a kinematic viscosity of 1 mm2/s. If the pump is used for liquids with a viscosity higher than that of water, this will reduce the head and increase the power consumption.

**Pressure loss**

The QH curves are inclusive of inlet and valve losses at actual speed



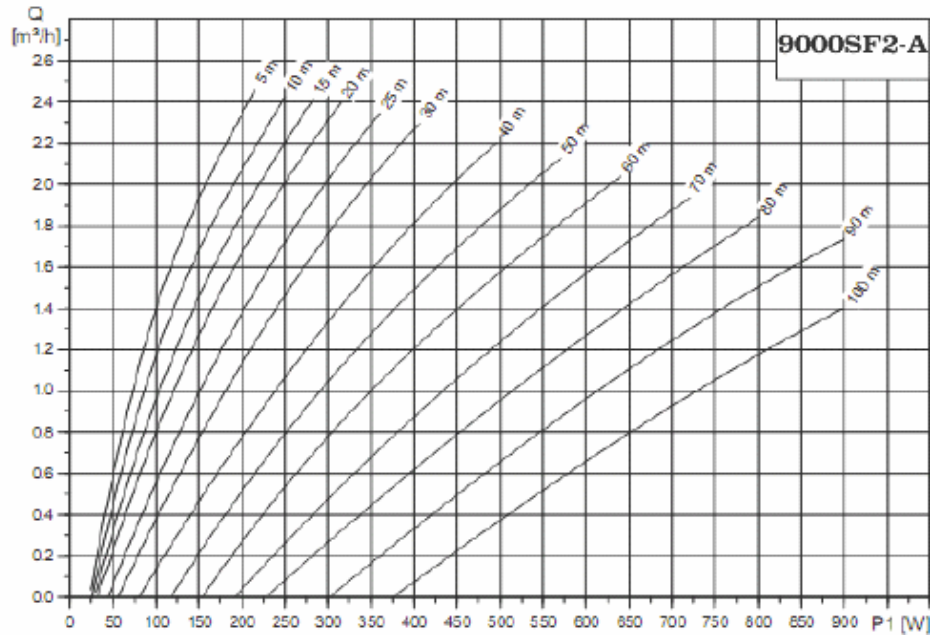
**Performance curves**



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### ATLANTS 9000SF2-A

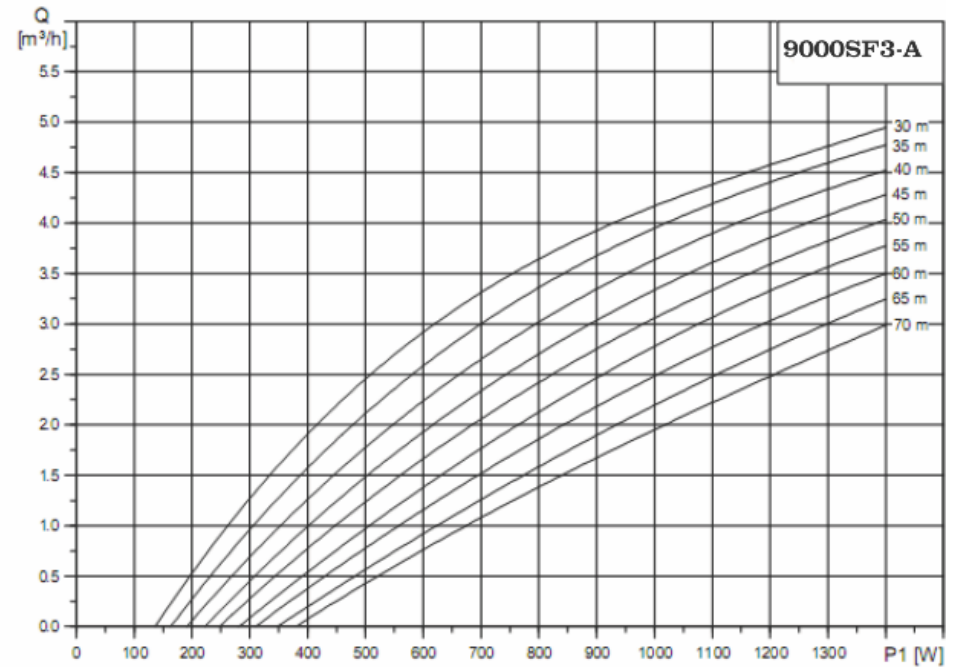


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### ATLANTS 9000SF3-A



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