

ennos sunlight pump datasheet

General Information of the 0.5HP sunlight pump

- ✓ Solar water pump with **integrated controller** – for easy plug and pump **up to 25 m³** water per day
- ✓ Maximum Power Point Tracking and **variable speed operation** – for maximum water output at any time of the day
- ✓ 0.5 HP (500W PV Modules) Brushless DC Motor - for **maintenance free operation** and **high efficiency** over wide flow and pressure range
- ✓ Progressive Cavity Displacement Pump – for **versatility** and simplicity
- ✓ LED Display – for fast information about operation, **trouble shooting** and actual flow rate
- ✓ Bluetooth Interface – for detailed **actual & statistical** data through android phone using the ennos sunlight pump app
- ✓ Running **dry protection** and tank overflow sensor for an **automated** and simple operation of the pump system
- ✓ **Pumping capacity** of 60m vertically and up to 7000m horizontally – **2 years warranty** up to 40m head only with online registration & app connection



Technical specifications Model: JSPBL0.3/HF2.4-5

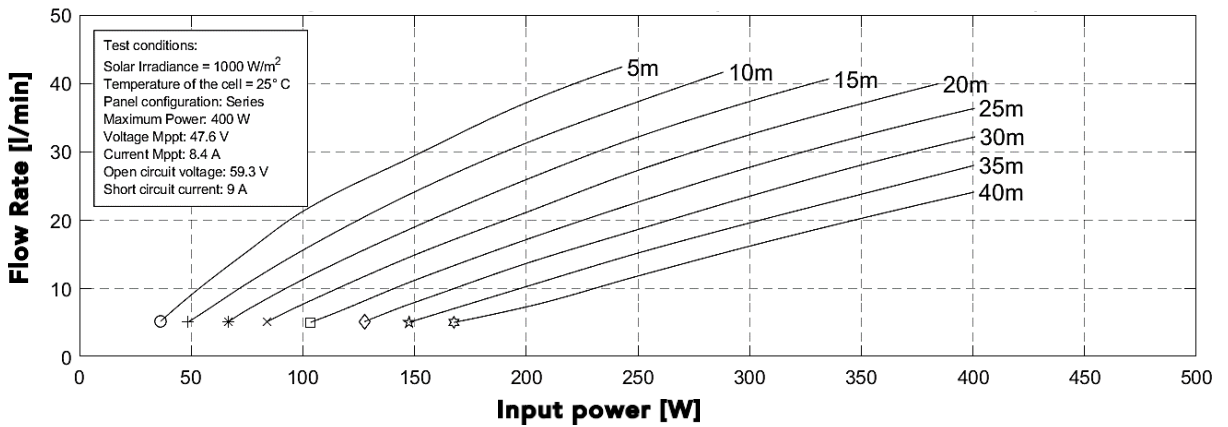
Total Dynamic Head (TDH) ¹	60 m
Suction capacity at sea level (vertical meters) ²	7 m
Maximum water flow rate	48 l/min
Range of maximum power point voltage (V_{MPP}) ^{3,4}	15-52 V
Range of open circuit voltage (V_{OC}) ⁵	17-65 V
Maximum Input current @ 25°C ⁶	10 A
Maximum Input power	500 W
Temperature operation of pump	0 - +50 °C
Temperature storage ⁷	-30 - +55 °C
Pump dimensions	L 595 x H 290 x W 240 mm
Pump weight	14 kg
Inlet	Foot valve with strainer
Type of enclosure	IP65

- 1 2-year warranty up to 40m Total Dynamic Head. At more than 15m TDH, it is strongly recommended to use a non-return (check) valve at the outlet to protect the pump from excessive back pressure.
- 2 Suction capacity at sea level. Subtract 1m for every 1000m altitude.
- 3 PV modules at standard test condition: AM = 1.5, E = 1,000 W/m², cell temperature: 25°C
- 4 The controller will be damaged if the connected solar module supplies an open circuit voltage of more than 65V.
- 5 PV modules at standard test condition: AM = 1.5, E = 1,000 W/m², cell temperature: 0°C
- 6 Controller limits input current at 10 A, and inline fuse blows at 30 A. PV output current can be oversized to extend operating time at full discharge.
- 7 Pump must be empty if stored at temperatures below 0°C.

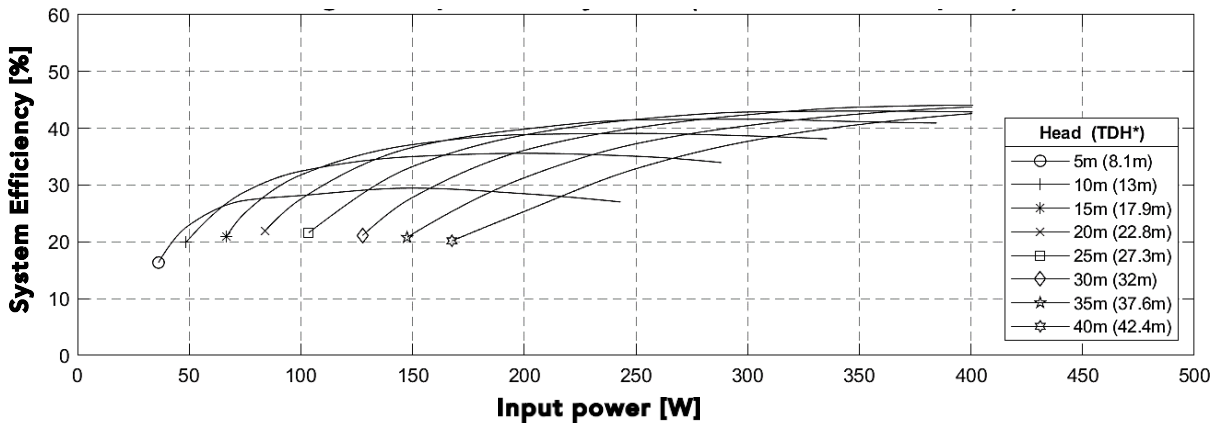


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sunlight pump performance chart



sunlight pump efficiency chart



* TDH: Total dynamic head includes pressure loss

Curves in Graphic are mean values. Input power is measured at the pump, not the solar panels

Battery mode with Valve Regulated Lead Acid (VRLA) battery

Nominal voltage*

12 / 24 / 36 / 48 V

* The use of the sunlight pump in battery mode requires an external charge controller to avoid deep discharging of batteries by the pump and to control the charging through the solar panels

Further Information

www.ennos.ch

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sunlight pump powered by battery

Battery mode with Valve Regulated Lead Acid (VRLA) battery

Nominal voltage*

12 / 24 / 36 / 48 V

* The use of the sunlight pump in battery mode requires an external charge controller to avoid deep discharging of batteries by the pump and to control the charging through the solar panels

sunlight pump: example of battery mode in use with solar panels



PV Array

This is an example showing a 24V setup. The charge controller needs to fit battery specifications.

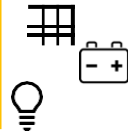
For other setup possibilities of the sunlight pump with batteries, consult the above table.

Charge Controller 24 V, 10A

Connection: PV

Connection: Battery

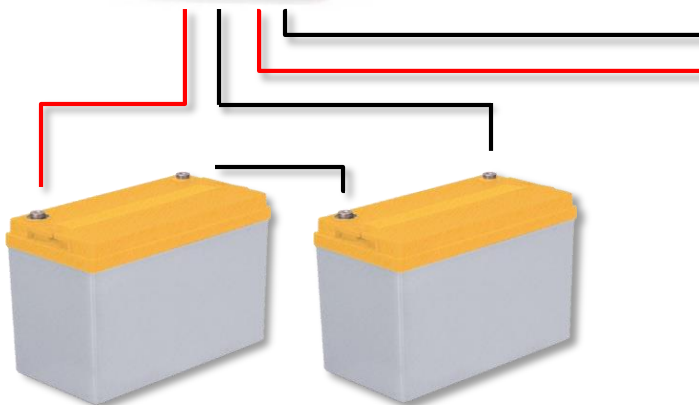
Connection: Load



PV array

Battery setup

Sunlight pump



sunlight pump

Mode: Battery



2x 12V VRLA Battery

Connected in series