

# 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 m<sup>3</sup>** 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 6000m horizontally – **2 years warranty** up to 40m head only and with online registration



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

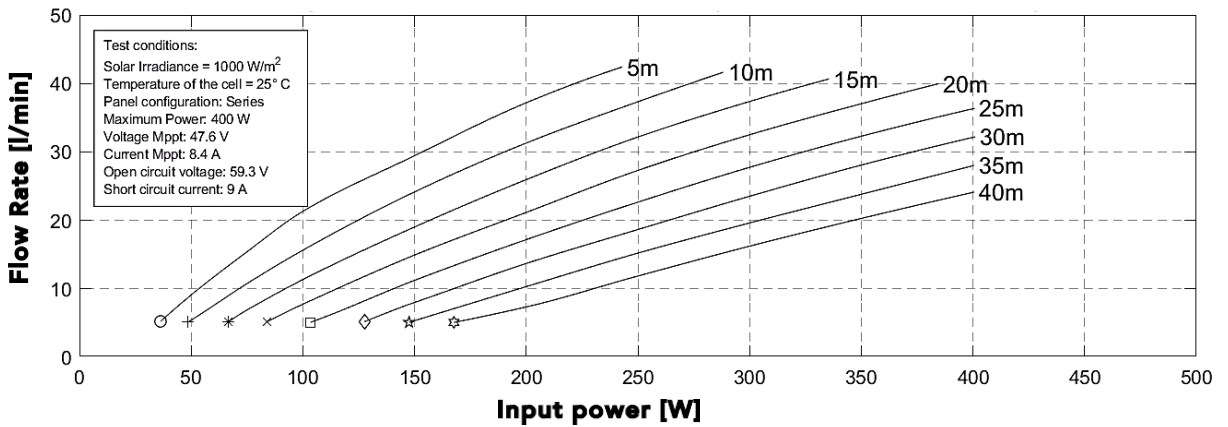
|   |                          |
|---|--------------------------|
| Total Dynamic Head (TDH) <sup>1</sup>                             | 60 m                     |
| Suction capacity at sea level (vertical meters) <sup>2</sup>      | 7 m                      |
| Maximum water flow rate   | 45 l/min                 |
| Range of maximum power point voltage ( $V_{MPP}$ ) <sup>3,4</sup> | 15-52 V                  |
| Range of open circuit voltage ( $V_{OC}$ ) <sup>5</sup>           | 17-65 V                  |
| Maximum Input current @ 25°C                                      | 9.5 A                    |
| Maximum Input power   | 500 W                    |
| Temperature operation of pump                                     | 0 - +50 °C               |
| Temperature storage <sup>6</sup>                                  | -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
- 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/m<sup>2</sup>, cell temperature: 25 °C
- 4 CAUTION: If the connected solar module supplies an open circuit voltage of more than 65V, the controller will be damaged. While selecting the solar PV module, it is important to keep in mind that the open circuit voltage should never exceed 65V over the entire working temperature range.
- 5 PV modules at standard test condition: AM = 1.5, E = 1,000 W/m<sup>2</sup>, cell temperature: 0 °C
- 6 Pump must be empty if stored at temperatures below 0 °C

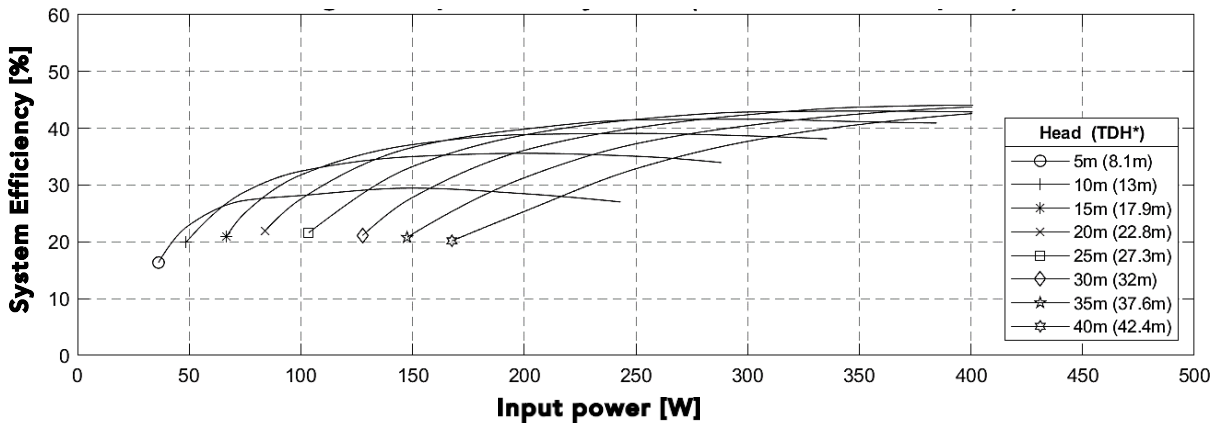


# ennos sunlight pump datasheet

## 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](http://www.ennos.ch)

# ennos sunlight pump datasheet

## 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



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

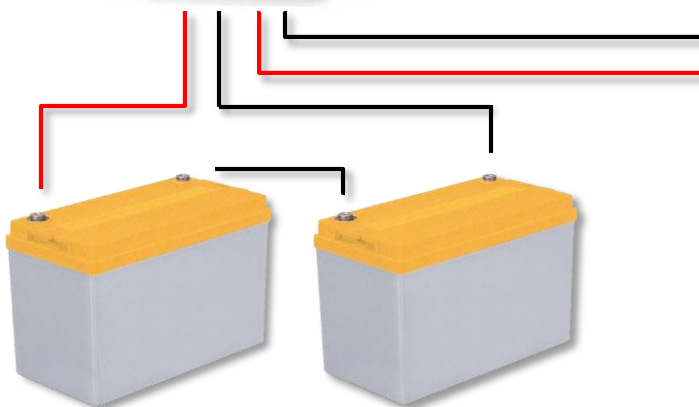
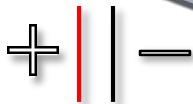
Connection: Load



PV array

Battery setup

Sunlight pump



2x 12V VRLA Battery

Connected in series

sunlight pump

Mode: Battery

