

## Technical Datasheet



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### General Information

- 0.5HP (375W) solar power pump – operating from multiple panel configurations from 100 to 500W
- PCD - Progressive Cavity Displacement - pump for constant flow regardless of pressure
- High Efficiency Brushless DC Motor - for maintenance free operation over wide flow and pressure range
- Integrated Maximum Power Point Tracking and variable speed operation
- Battery Mode Controller – for operating with multiple battery voltage levels and integrated battery protection
- Simple LED Display – information about operation modes and actual power and flow rate
- Bluetooth Interface – display current and statistical operating data
- Water flow sensor to avoid running dry of the pump when water source is empty
- Tank overflow sensor included in the package to avoid wasting of water, remote control, etc.

| Type  |                    | <b>JSPBL0.3/HF2.4-5</b> |
|---|--------------------|-------------------------|
| <b>Pump</b>   |                    |                         |
| Max. Total dynamic head (TDH)                                     | [m]                | 40                      |
| Suction capacity at sea level (vertical meters) <sup>1</sup>      | [m]                | 6                       |
| Max. Flow rate  | [l/min]            | 45                      |
| Pump type   | []                 | Positive displacement   |
| <b>Solar Mode</b>   |                    |                         |
| Range of maximum power point voltage ( $V_{MPP}$ ) <sup>2,3</sup> | [V <sub>DC</sub> ] | 15 - 52                 |
| Range of open circuit voltage ( $V_{oc}$ ) <sup>4</sup>           | [V <sub>DC</sub> ] | 17 - 65                 |
| Max. Input current @ 25°C $v_{amb}$                               | [A <sub>DC</sub> ] | 9.5                     |
| Max. Input power  | [W]                | 500                     |
| <b>Battery Mode (Battery Type: liquid)</b>                        |                    |                         |
| Nominal voltage   | [V <sub>DC</sub> ] | 12 / 24 / 36            |
| Battery low voltage disconnect                                    | [V <sub>DC</sub> ] | 11.5 / 23 / 34.5        |
| Battery end-of charge voltage                                     | [V <sub>DC</sub> ] | 13.9 / 27.8 / 41.7      |

<sup>1</sup> Suction capacity at sea level. Subtract 1m for every 1000m altitude.

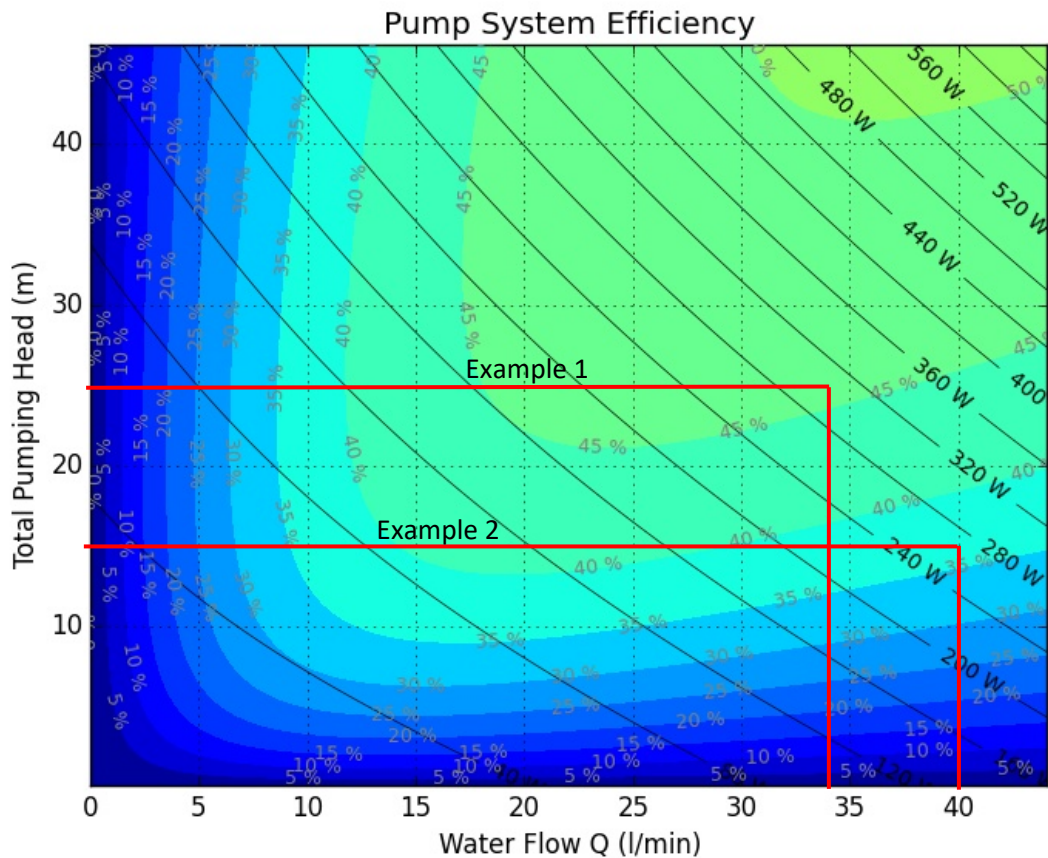
<sup>2</sup> PV modules at standard test condition: AM = 1.5, E = 1,000 W/m<sup>2</sup>, cell temperature: 25 °C

<sup>3</sup> CAUTION: If the connected solar module supplies an open circuit voltage of more than 65 V, the controller will be destroyed. When selecting the solar module, it is important to bear in mind that the open circuit voltage should never exceed 65 V over the entire working temperature range. When using solar modules with a maximum open circuit voltage of between 60 and 65 V (over the entire temperature range), all installation steps must be carried in accordance with protection class II.

<sup>4</sup> PV modules at standard test condition: AM = 1.5, E = 1,000 W/m<sup>2</sup>, cell temperature: 0 °C

| Environment            |      |                             |
|------------------------|------|-----------------------------|
| Ambient temperature    | [°C] |                             |
| • Storage <sup>5</sup> | [°C] | -30 - +55                   |
| • Operation of pump    | [°C] | 0 - +50                     |
| Type of enclosure      | [ ]  | IP65                        |
| Measures               | [mm] | L 595mm x H 290mm x W 240mm |
| Weight                 | [kg] | 14                          |
| Filtration             | [ ]  | Strainer                    |

**Water Flow in liter/min as a function of total pumping head and maximum solar power**



**Application Example 1:**

- Total Head: 25m
- Solar Power: 300W
- Max. Water Flow: 34ltr/min
- Full Load hours: 6hrs
- Total water per day: 12'240ltr

**Application Example 2:**

- Total Head: 15m
- Solar Power: 265W
- Max. Water Flow: 40ltr/min
- Full Load hours: 6hrs
- Total water per day: 14'400ltr

**Simple and comprehensive human interface:**



<sup>5</sup> Pump must be empty if stored at temperatures below 0°C