



## User Manual

### DC Solar PV Submersible Pump

#### Model: M123T-30 (Centrifugal)

Voltage	12V	Carry Water Height	30 meters	Water Inlet	Ø76mm	Revolving Speed	3000/rpm
Power	396W	Flow Rate	3T/h	Water Outlet	Ø25mm	Protection Grade	IP68
Size: Ø76mm x 600mm Base:Ø90mm Material: stainless steel							

#### Accessory:

A complete pump including 5 meters four square millimeter of pure copper wire and 25mm water outlet. We can extend the cable according to customer requirement.

#### Specification:

1. Wide working voltage: 10V-22V.
2. With Built-in control system, the pump can make full use of solar energy.
3. Over voltage protection/Low voltage protection: when the voltage is too high or too low water pump will automatically stop working; And then the pump will do self-detecting every 10 minutes. when the voltage recover to 10~22V, the pump will start working again.
4. Water pump can be connected directly to solar panel and work in the sunshine. No need the controller.

#### Model naming rules:

**M12    3T    -    30**  
**a        b        c**

#### Model description:

a: voltage: 12V                      b: flow rate: 3T/ H (3m<sup>3</sup>/hour)                      c: carry water height: 30meter

#### Solar module:

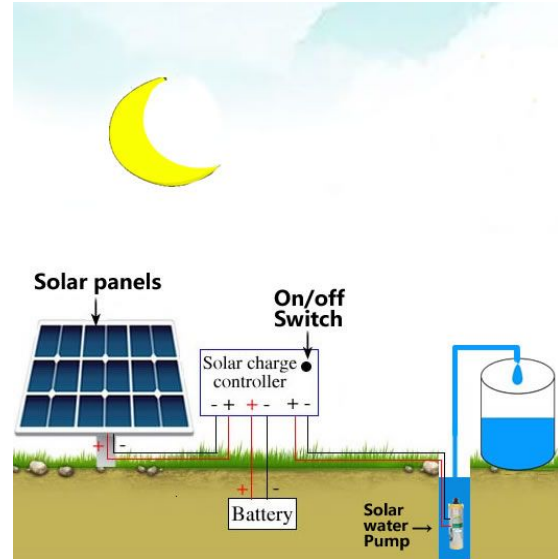
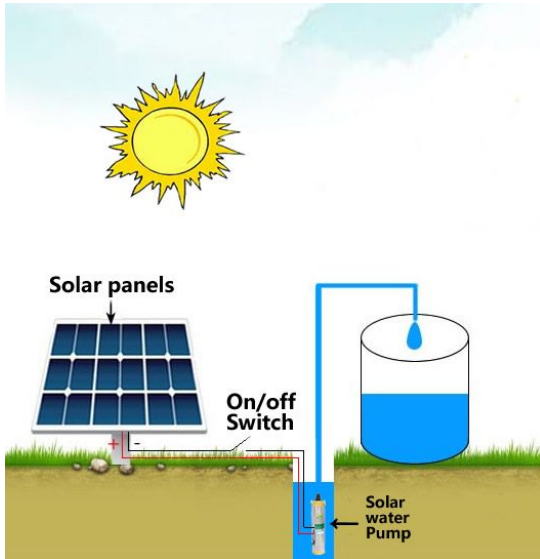
For 12 v solar water pump system, it is recommended to use 18v mono silicon or poly solar panels connected in parallel;

For 24 v solar water pump system, it is recommended to use 30-36v solar panels connected in



parallel

## Installation:



1. If the pump work only in the sun, can be connected directly to solar panels, no need controller. It will need around 600w solar panels under working voltage 18v .If the sun is not very good, it is recommended to use more solar panels.
2. If need the pump to work at night or in rainy days, it will need to use the battery and the controller ( to prevent the battery overcharge and overdischarge with the controller.

### Note:

1. The positive and negative wire of the pump can not be wrong connected;
2. The pump can't work long time without water;
3. The pump is a submersible pump, all must be submerged in the water;
4. Cable requirements.(note: when the cable length is more than 40 meters, it is recommended to use 6 sqmm or 10 sqmm pure copper cable.)