

# USER MANUAL

## DC Brushless Solar Submersible Water pump

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### Model: M243T-70

Voltage: DC 24v;      Head: 70m;      Flow rate: 50L/min;      Power: 1344w  
Intake: 76mm;      Outlet:25mm      Rotation speed:3000r/m      Protection class:IP68

### Accessories

A complete range of accessories including 5m pure copper wire and the water pump with 25mm outlet. We can make longer copper wire according to the customer requirements.

### Product Features:

1. Wide working voltage:22v-60v.
2. Built-in MPPT controller which can make the best use of solar energy.
3. Over-voltage protection / Under-voltage protection: The pump will stop working automatically when the voltage is too high or too low; Then it will detect the voltage every 10 minutes, and it will start to work automatically when the voltage is between 22v-60v.
4. The pump can be directly connected to solar panels without controller in sunshine.

### Model naming rules:

M24 3T - 70  
a b c

### Model Description:

a: Voltage:24v      b: Flow rate:3T/H(3m<sup>3</sup>/H)      c:Head:70m

### Solar Modules

The 12v solar water pump system are recommended to be powered by 18v Monocrystalline / Polycrystalline solar panels in parallel connection; The 24v solar water pump system are recommended to be powered by 36v Monocrystalline / Polycrystalline solar panels in parallel connection.

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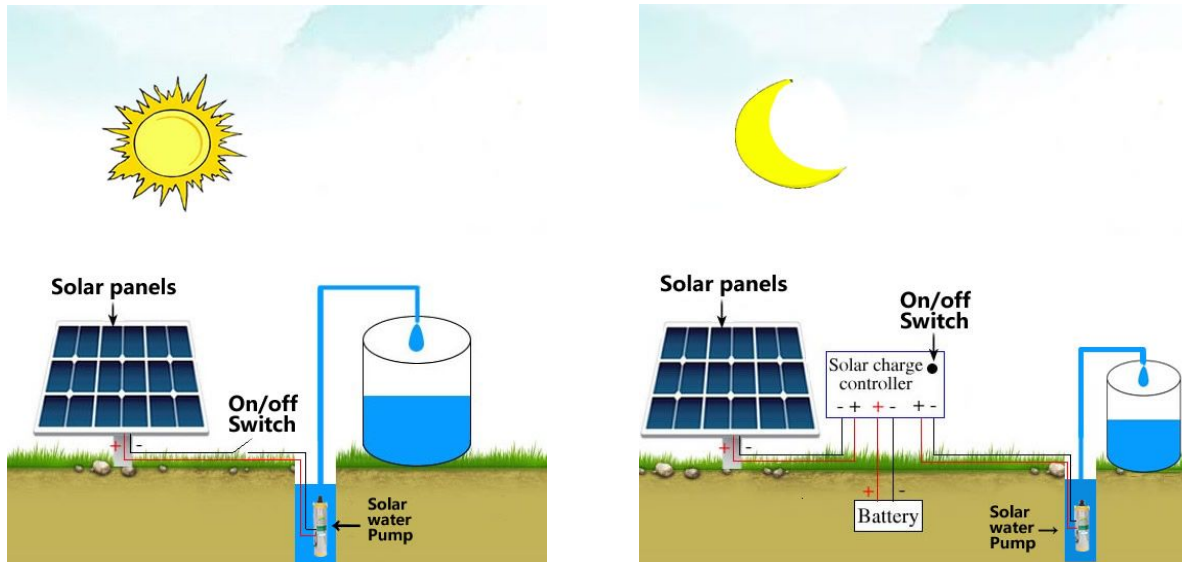
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### Installations



1. If you just need the pump to work in sunshine, it can be directly connected to solar panels without controller. You need totally about 2800w (36v) solar panels. If the sun is not very well, you can use more solar panels.
2. If you also need the pump to work during the night time, or even in cloudy and rainy day, you also need controller and battery.

### Note:

1. Do not mix the positive (+) and negative (-) connection.
  2. Do not operate for long time when there is no water in the pump
  3. The pump is submersible pump, it must be full submerged in the water.
  4. Copper wire required. ( PS: 6 mm<sup>2</sup> or 10 mm<sup>2</sup> copper wire is required when the cable length is too long.)
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