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# Wind power controller

## User Manual



### Model

**FW12/24**

**12V maximum for 300w**

**24v maximum for 600w**

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## **Important Safety Warning**

**Before Using the controller, please read all instructions and cautionary markings on the unit and this manual. Store the manual where it can easily be accessed.**

This manual includes all safety warnings, installation, and operation guidance of controllers.

- Before installing and using this controller, read all instructions and cautionary markings on the controller and all appropriate sections of this guide.
- Do not use the machine in the place where has flammability and explosive gas/articles. Beware of flames and sparks.
- Please Contact our after-sales person if the machine doesn't work.
- Do not change the electrical components and parts yourself, or we will not responsible for the warranty items and related duties.
- Please install the machine indoor to avoid the rain water enter the controller inside.
- Please keep good ventilation and heat dissipation.
- Please use copper cable for line connection, and choose the right diameter of cable according to the actual current.
- To avoid a risk of fire and electric shock, make sure the existing wiring is in good condition and that the wire is connected tightly.
- Do not restart the controller immediately when it alarms. Please analyze the fault reasons and repair them at first.

## **1. Basic Information**

### **2.1 Introduction and Features**

It is wind power controller, and it can be applied to wind power generation system. It can control the wind turbine generation to charge the battery in a efficient and safe way.

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**Features:**

- Can be applied to independent wind power generation system and wind monitoring system.
- Integrated with other solar controller to be a wind&solar hybrid street light controller system.
- Simple structure, small volume, and cost effective.

## **2. Product Installation**

### **3.1 Installation Notes**

- 1) The machine should be kept indoors and well ventilated;
- 2) Environment temperature:  $-35\sim+75^{\circ}\text{C}$ ;
- 3) Avoid using the machine in direct sunlight, sun exposure, rain, humidity, acid fog, and dust.
- 4) To guarantee the lifespan, it is suggested that the space around the device has no other items within 30CM.
- 5) The machine can only charge for the battery over the rated voltage range.
- 6) The machine can only be connected to the wind turbine with allowed power and voltage.

### **3.2 Installation and Wiring**

#### **3.2.1 Installation Steps**

Please refer to the specific installation situation. Generally speaking, if it is used in street light pole, you can fix the controller to the rail inside the light pole.

#### **3.2.2 Electrical Connection**

## Wind turbine controller

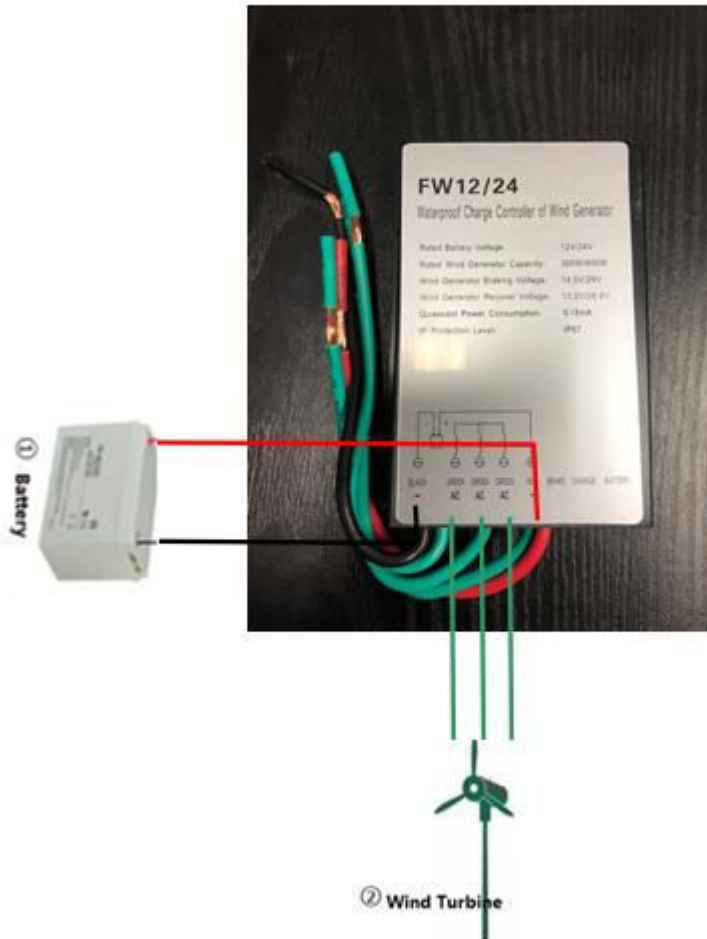


Chart 1: System Overview

Please connect those parts according to the order of ①②, and notice the following items.

1. Connect the controller with Battery by the terminal “B+, B-” ; (do not reversed the connection of positive and negative terminals)
2. When wind turbine is still or running in a low speed, connect its output cable to the “W1””W2””W3” terminal on the controller.
3. Check all the connection to make sure they are connected rightly and tightly.

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### 3. Lights

4.1 When battery light (green) is on, it indicates battery connection is normal.

4.2 When wind generator light (green) is on, it indicates wind generator connection is normal and it shows the rotation speed of wind generator by twinkle speed.

4.3 When brake light (red) is on, it indicates controller is braking automatically due to battery full charged or over-current protection function operation of controller.

### 4. Technical Parameters

Items	FW12/24
Rated Battery Voltage	12V/24V
Rated Wind Generator Capacity:	300w(12V)//600w(24V)
Wind Generator Braking Voltage	14.5V/29V
Wind Generator Recover Voltage	13.2V/26.4V
Wind Generator Braking Current	25A
Display Mode	LED
Ambient Temperature	-35~+75℃
Quiescent Current	≤15 mA
Dimensions(L x W x H)	100mm×87mm×28mm
IP Protection Level	IP67

### 5. Warranty

The product shall be in warranty for one year from production. Please take contract as the final one if it has special terms on warranty.