



**Wujiang Dynamo Wind Turbine Manufacturing Co. Ltd**

# Wind Generator Controller

## D-W400



## User's Manual



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## General Description

D-W400-A wind generator controller can control wind turbines charging battery with an intelligent charge mode. With the appearance of fine and operational running status lights, the controller is easy to operate. Have clear indications and accurately control battery to charge and discharge, with perfect protection. Current limiting constant voltage type charge greatly extending the battery life. Controller has a high charging efficiency, low no-load loss, security, stability, reliability and long life. Has a very high cost performance.

The controller adopts PWM to control wind turbine and charges battery with current limiting and voltage limiting as follows:

**Charge with current limiting:** Controller will charge battery with current limiting when battery power is low.

Controller will fully charge battery with the whole power produced by wind turbine when charge current of wind turbine is lower than current limiting point. Controller will charge battery with the current limiting point and the over power will be unloaded by PWM when total charge current of wind turbine exceeds current limiting point.

**Charge with voltage limiting:** Controller will charge battery with voltage limiting when battery power is high.

Controller will fully charge battery with the whole power produced by wind turbine when battery voltage is lower than voltage limiting point. Controller will charge battery with voltage limiting point and over power will be unloaded by PWM when battery voltage exceeds voltage limiting point.

The controller adopts digital LCD module especially designed for wind generator system. The LCD can display battery voltage. And there are some LED lights to show three-phase charging, current shunting and battery electricity.

The controller has intelligentized, modularized, simple structure design with powerful function. All components are high quality industrial range and each controller is produced under excellent production activity. Ensure the controller can be used in relatively poor working environment and has reliable performance and long useful life.



## Performance Features

- ◇ Precise control of digital and intelligent
- ◇ Keep the battery in the full state
- ◇ Prevent the battery overcharge
- ◇ When the battery voltage reach to the setting, disconnect the charge circuit, automatically detect wind turbine output voltage at the same time, when the wind generator output voltage is too high, the automatic braking of wind turbines
- ◇ When the current is too large ,the controller is automatic protection and control of wind turbine braking
- ◇ If load current over the rated current, the controller automatically protected
- ◇ Protection from the lightning strike

## Technical Specifications

MODEL	D-W400
Rated Power	400W
Applicable batteries	12V/24V
Wind turbine automatically braking voltage	14.5V/29V
Charge current max	28A/17A
Recovery time after the automatic braking	When the battery voltage is over 13V/26V
No load loss	≤40mA
Controller Mode	PWM
Display Mode	Digital LCD
Display Parameters	Battery Voltage
Working Temperature & Humidity	-20~+55℃/35~85%RH (Without Condensation)
Quiescent Current	≤20mA
Protection Function	battery over charge protection, battery over-discharge protection, Over load protection , lightning protecting, wind turbine current limiting, wind turbine automatic brake , controller temperature protection, battery low voltage protection, battery high voltage protection.
Dimensions	24*17*4cm
Weight	1.25kg



# Operation Process

The wiring diagram of wind generator system:



**Wind Generator**



**D-W400**



**Battery Bank  
( 12V/24V )**



**Off-grid inverter**



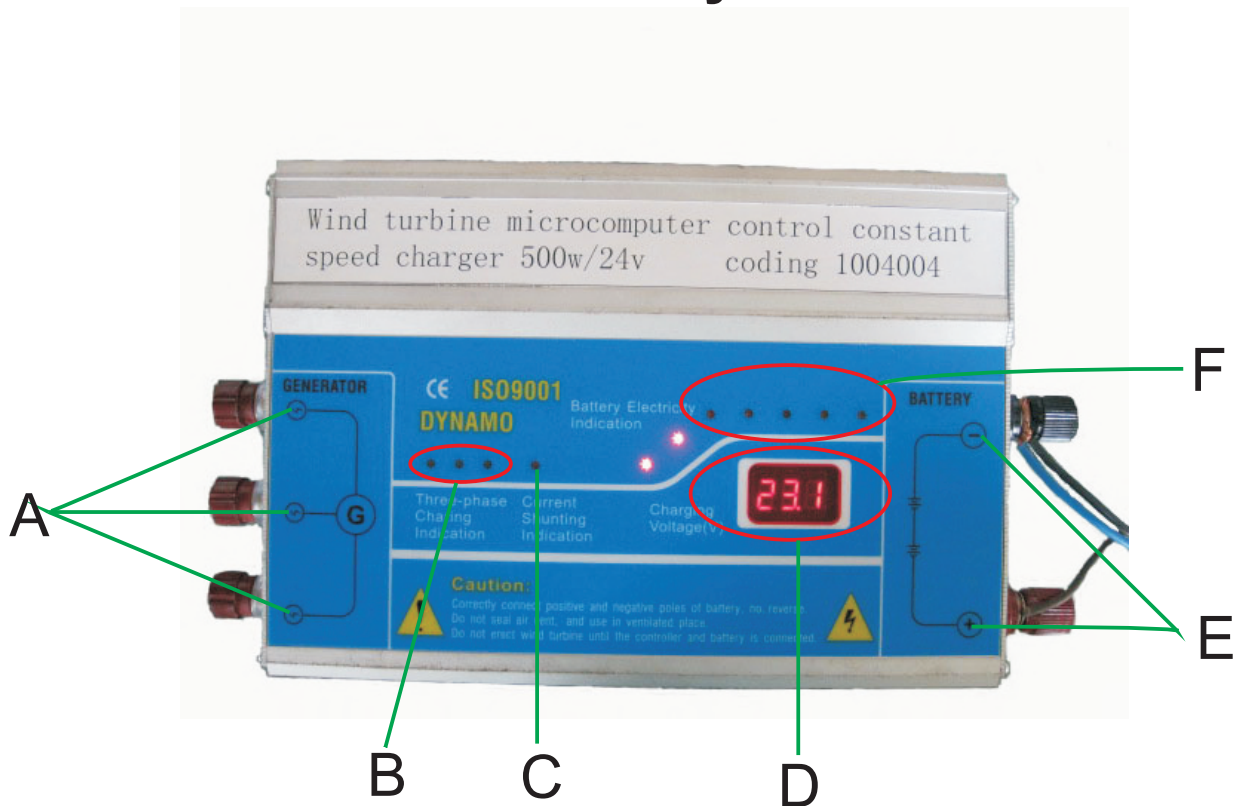
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**Load**



## Main Functions of Every Part of Controller



- A. It connects with the three cables from the wind turbine
- B. When the wind turbine is charging, the three lights will light up.
- C. When the wind turbine is brake, the LED will light. So when the wind turbine work normal, the light will sleep.
- D. It shows battery voltage
- E. It connects with battery
- F. It shows the battery capacity

## Warranty and after Sales Services

We provide 3 years warranty for our product from the date of delivery.

**NOTE:** If the product is exceed warranty or damaged by transportation, improper operation, human element, force majeure, it is not under warranty.

**Declare:** The product has applied for patent protection, counterfeiting will be subject to legal sanctions. Our company reserves the right to change products and without notice when products update.



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