Yunseity Yunseity35qdnu1oxb

Yunseity MPPT Wind Turbine Controller

Model: Yunseity35qdnu1oxb

Brand: Yunseity

1. Introduction

This user manual provides essential information for the safe and efficient operation of your Yunseity MPPT Wind Turbine Controller. This device is designed to manage power generated by a wind turbine, ensuring optimal charging of 12V or 24V batteries. It features Maximum Power Point Tracking (MPPT) technology to maximize energy harvest from your wind turbine, even at low wind speeds.

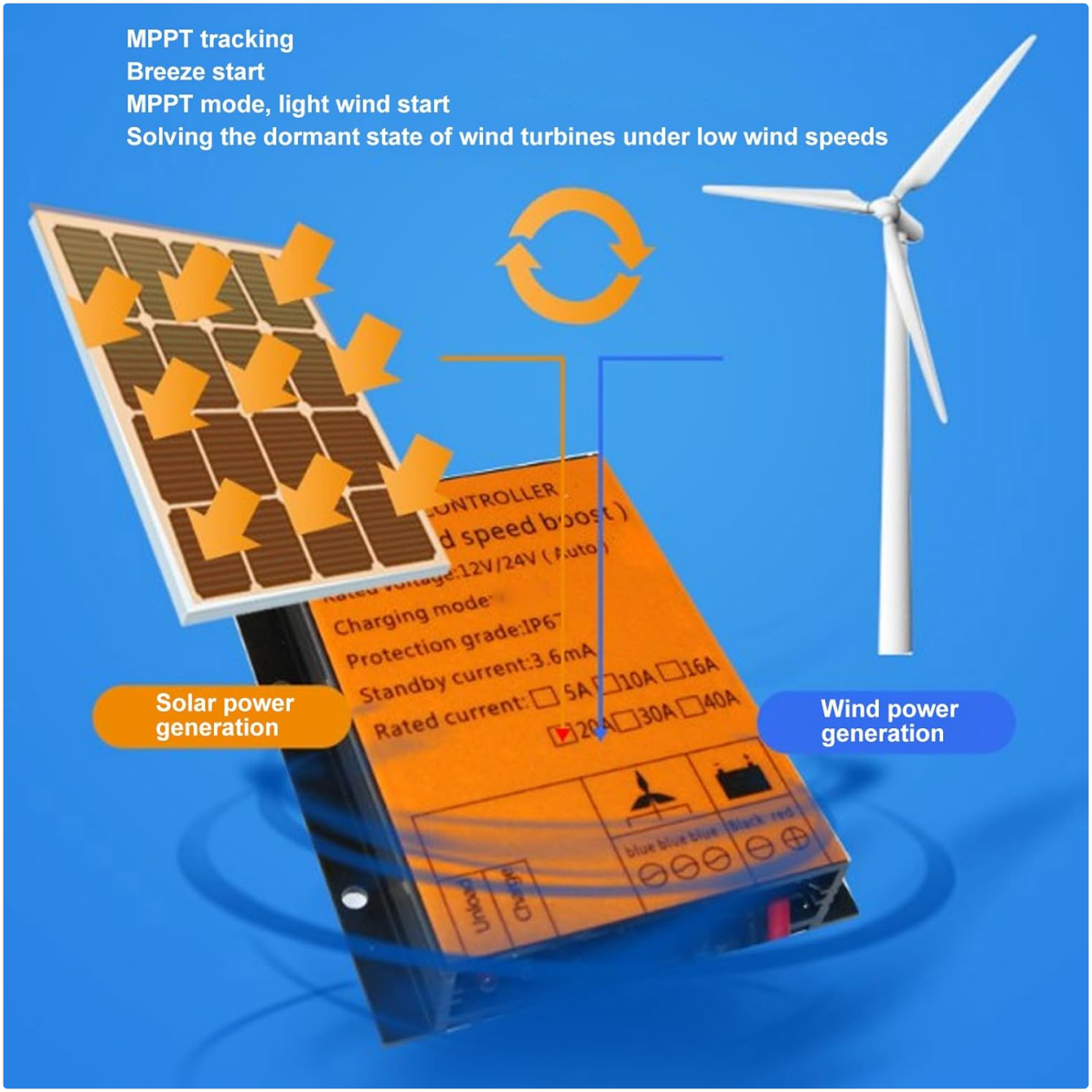

Image 1: Yunseity MPPT Wind Turbine Controller overview.

2. Product Features

- **MPPT Control Method:** Utilizes Maximum Power Point Tracking to ensure efficient power generation and battery charging, even at low wind speeds.
- **Efficient Heat Dissipation:** Features a heightened heat dissipation wind tunnel design to maintain stable operation and extend product lifespan during high current charging.
- **Automatic Voltage Matching:** Automatically detects and matches 12V or 24V battery systems, optimizing charging parameters.
- **Comprehensive Protection Features:** Includes safeguards against battery overcharge, over-discharge, reverse connection, overload, lightning strikes, and provides automatic or manual braking for the wind turbine.
- **Durable Construction:** Made from aluminum alloy with an IP67 proof level, ensuring resistance to dust and water ingress.
- **Versatile Applications:** Suitable for industrial fan control, building ventilation systems, energy recovery, and various wind power generation setups.

Image 2: Controller highlighting MPPT boost functionality.

3. Specifications

Specification	Detail
Item Type	Wind Generator Controller
Material	Aluminium Alloy
Charging Mode	MPPT
Proof Level	IP67
Standby Current	3.6mA
Display Method	Diode Indicator
Rated Current	40A
Discharge Method	PWM Electrodeless Noiseless Discharge

Guard Method	Battery Overcharge, Overload, Wind Limiting, Automatic Brake
Performance	MPPT Power Point Tracking Mode Charging

4. Safety Information

Please read and understand all safety instructions before installation and operation. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Ensure all connections are secure and correctly polarized.
- Do not attempt to open or repair the controller yourself. Refer to qualified personnel.
- Install the controller in a well-ventilated area, away from flammable materials.
- Wear appropriate personal protective equipment (PPE) during installation.
- Disconnect all power sources before performing any maintenance or wiring.

5. Installation and Wiring

Proper installation is crucial for the performance and safety of the wind turbine controller. Follow these steps carefully:

1. **Connect Battery:** Connect the thick red wire from the controller to the positive terminal of your battery.
2. **Connect Battery:** Connect the thick black wire from the controller to the negative terminal of your battery.
3. **Connect Wind Turbine:** Connect the three green wires from the controller to the three output wires of the wind turbine.

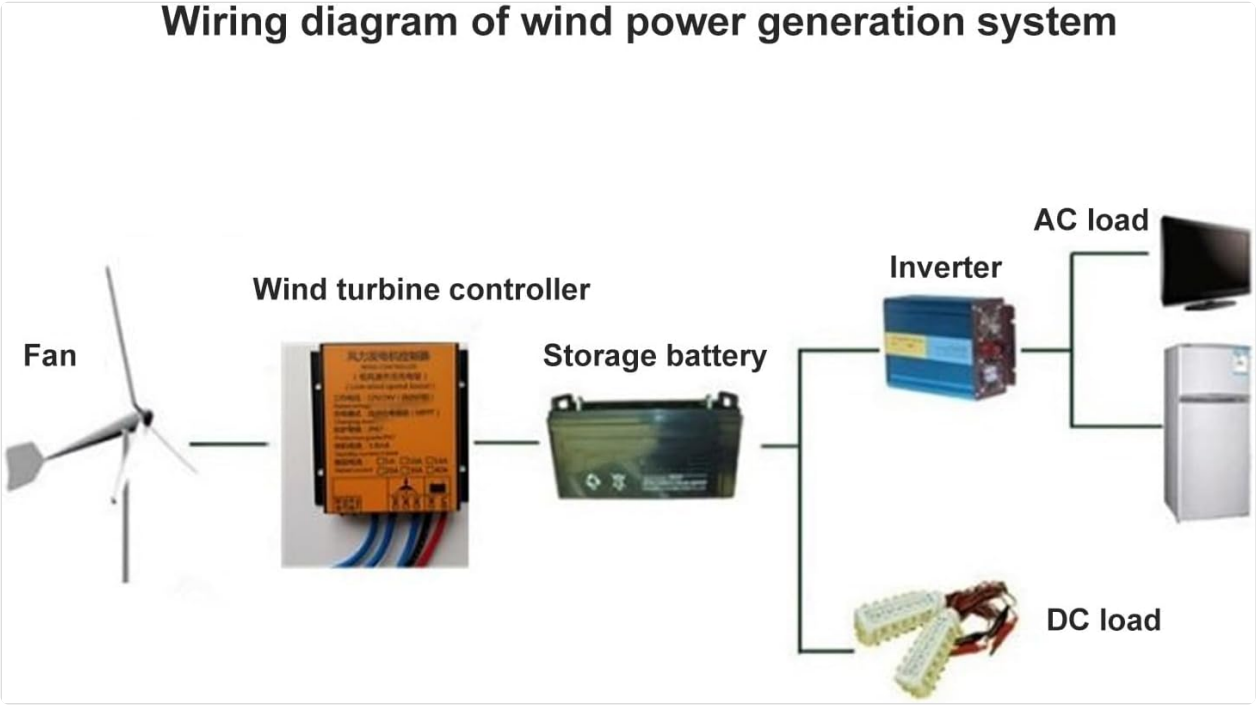

Image 3: General wiring diagram for a wind power generation system.

Ensure all connections are tight and insulated to prevent short circuits. The controller automatically detects 12V or 24V systems once connected to the battery.

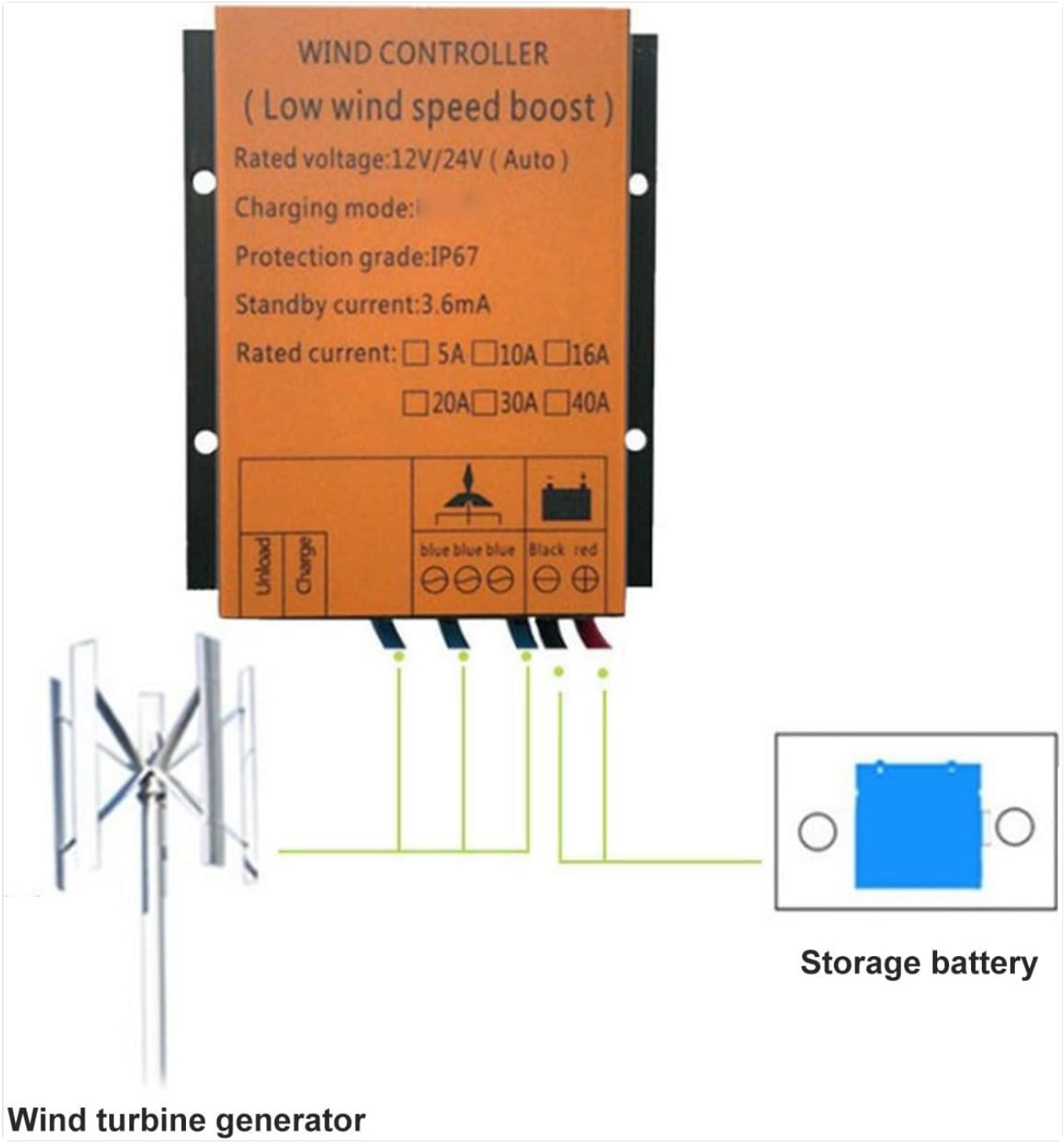

Image 4: Example connection of the controller to a wind turbine generator and storage battery.

Image 5: Close-up view of the controller's wiring terminals.

6. Operation

Once correctly installed, the Yunseity MPPT Wind Turbine Controller operates automatically. It continuously tracks the maximum power point of the wind turbine to optimize energy transfer to the battery.

- **MPPT Charging:** The controller dynamically adjusts the charging current and voltage to ensure the battery receives the most efficient charge from the wind turbine. This allows the wind turbine to charge the battery even at low wind speeds.
- **Automatic Braking:** The controller features an automatic braking mechanism to protect the wind turbine from over-speeding in high winds or when the battery is fully charged.

- **Diode Indicators:** The diode indicators on the controller provide visual feedback on its operational status. Refer to the specific indicator meanings in the product documentation for detailed status information.

Image 6: Controller facilitating low voltage charging from a wind turbine to a battery.

7. Maintenance

The Yunseity MPPT Wind Turbine Controller is designed for durability and requires minimal maintenance. However, regular checks can ensure optimal performance and longevity:

- **Visual Inspection:** Periodically inspect the controller and all wiring connections for any signs of damage, corrosion, or loose connections.
- **Cleanliness:** Keep the controller free from dust and debris. Use a dry, soft cloth for cleaning. Do not use harsh chemicals or abrasive materials.
- **Ventilation:** Ensure the area around the controller remains clear to allow for proper heat dissipation.
- **IP67 Rating:** While the controller has an IP67 rating for dust and water resistance, avoid submerging it in water or exposing it to extreme environmental conditions beyond its specified operating range.

8. Troubleshooting

The controller incorporates multiple protection features to prevent damage. If you encounter issues, consider the following:

- **No Charging:** Check all wiring connections between the wind turbine, controller, and battery. Ensure the wind turbine is generating power. Verify battery voltage is within the controller's operating range.
- **Overcharge/Over-discharge:** The controller is designed to prevent these conditions. If you suspect an issue, check battery health and voltage.
- **Automatic Braking Engaged:** This is a normal protective function during high winds or when the battery is full. It will disengage automatically when conditions normalize.
- **Diode Indicators:** Observe the diode indicators for diagnostic information. Consult the full product manual (if available) for specific error codes or patterns.

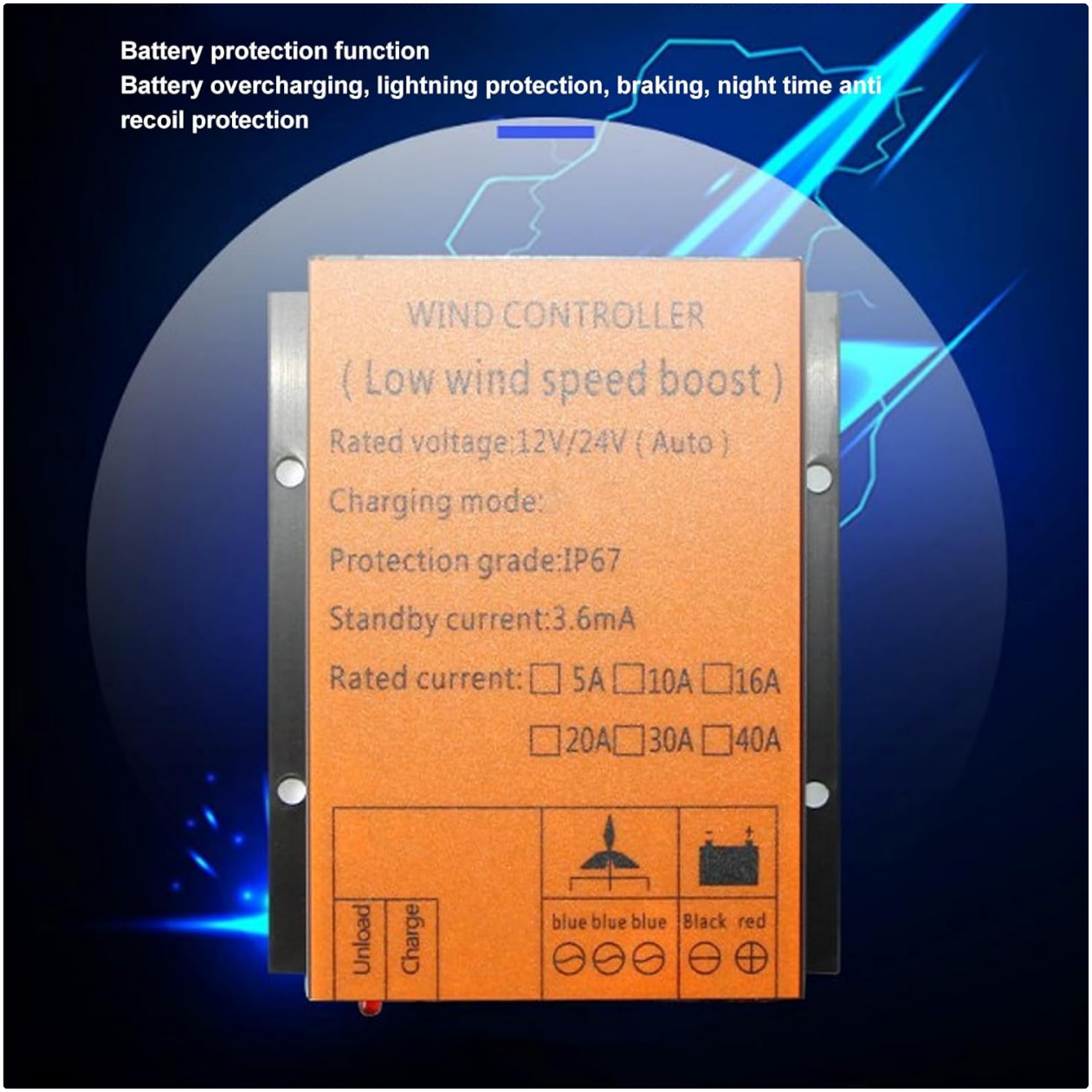

Image 7: Controller highlighting battery protection features.

For persistent issues, contact customer support.

9. Package Contents

The package for the Yunseity MPPT Wind Turbine Controller includes:

- 1 x Wind Generator Controller

10. Warranty and Support

For warranty information and technical support, please refer to the documentation included with your purchase or contact Yunseity customer service directly. Keep your purchase receipt as proof of purchase.