

Optimal Wind MPPT Battery Charge System



Features

- Integrated with Wind Interface (Included the rectifier and braking unit), Maximum Power Point Tracking (MPPT), battery charge management and state of charge information
- Continuous output power rating without de-rating at up to 50°C ambient temperature
- Built-in Battery Energy Monitor that tracks power production and consumption to calculate the energy remaining in battery. State of charge (SOC) is displayed in percent full, Amp-hours, Watt-hours, and 90 days of energy-harvest history is stored in the wind MPPT charger
- Supports Flooded Lead Acid (FLA), GEL, Absorbed Glass Mat (AGM) batteries; 2/3/4-stage charging with adjustable set points for all parameters
- Up to 220 VAC input voltage from Wind Turbine
- Easy stacking of up to 16 units in parallel for high currents
- Precision charging of 12V/24V/36V/48V batteries with easy set-up and using battery voltage sense (BVS) wires
- Built-in temperature compensation function for safe and complete charging
- The Wind MPPT Charger with the rectifier and braking unit for wind system is required to control and stop the control from overload condition caused by over large wind speed
- The Maximum Automatic Brake Function is 240 VDC. Supply 5 levels of the Automatic Brake Function: 200, 210, 220, 230, 240 VDC (Adjustable)
- When WS-100CX Wind MPPT Charger connects with 48VDC batteries, it can support 6.0KW Wind Turbine

Specifications

Model No.	WS-100CX-MPPT
ELECTRICAL	
Input Voltage Range (no damage)	0 ~ 220 VAC
Operating Input Voltage Range from PMG (Permanent Magnet Generator)	20 ~ 220 VAC 0 ~ 600 Hz Optimal Range: 20 ~ 180 VAC
System Voltage Ratings	12, 24, 36, 48 VDC
Current Ratings-Battery Charge Control	100A
Max. Current in the Brake Resistor	100A Diversion load
DC Output Voltage Range	16 ~ 240 VDC Operating 240 VDC Maximum
Automatic Brake Function	5 Level: 200, 210, 220, 230, 240 VDC (Adjustable) ※ Can be customized for the wind turbines
Maximum Wind Turbine Capacity	
Charging 48 VDC Batteries	6.0KW
Charging 36 VDC Batteries	4.5KW
Charging 24 VDC Batteries	3.0KW
Charging 12 VDC Batteries	1.5KW
Charge Regulation Modes	Bulk, Absorption, Float, Auto / Manual Equalization
Battery Temperature Compensation	5.0 mV per°C, per 2 volt cell

DC to DC Conversion Capability	12V Battery: 16 ~ 240VDC
	24V Battery: 32 ~ 240VDC
	36V Battery: 48 ~ 240VDC
	48V Battery: 64 ~ 240VDC
Display Status	Built-in 2-line, 20-character LCD with backlight LCD status screen displays input voltage and current, output voltage and current, charge-mode, Battery SOC
Data Logging	Logs energy harvested for 90 days, LCD displays WH, KWH, AH
Energy Monitor	LCD shows SOC, AH, WH, and present charge or discharge current. A 50mV / 500Amp shunt is required to use
Auxiliary Relays	Two independent relays with from A (SPST) contacts for control of external devices. Contact rating is 3 Amps, 50VDC
Operation Temperature	Full Power Output to +50°C ambient
Standby Power	< 2 Watts
Relative Humidity	0 ~ 100% condensing
MECHANICAL	
Dimensions (H x W x D) mm	401 x 258 x 183
Weight (kgs)	8.3
OPTIONS	
PC Monitoring Unit (PMU-WS)	Monitoring the values displayed in PC
Shunt	Measuring the current drawn into and out of the battery
Optional Diversion Load	
Specifications subject to change without notice	