



50A MPPT Solar Charge Controller

Model: W-C50



FEATURES AND ADVANTAGE

- True MPPT, the Latest Algorithm
- Tracking Efficiency Above 99.5%
- Charge Conversion Efficiency as Higher as 98%
- 12V / 24V DC System Self-Adaptation
- Reverse Discharge Protection
- Targeted for Accurate CUSTOM Setting
- Over Voltage Protection
- Common Negative Connection
- Charging Data Storage
- Internal Bluetooth-Optional
- External Battery Temp Sensor-Optional
- Conformal Coating For Inside Board
- External Digital Remote Display-Optional
- In-house Design And Manufacture

- Extensive Internal Electronics In-Circuit Protections And Safety Protections
- Targeted For Lead Acid Batteries: Gel, AGM, WET, CRYSTAL, CALCIUM Batteries Type Selections
- Targeted For Lithium Batteries: LiFePO₄, LTO (Lithium Titanium Oxide), LCO Batteries Type Selections

UNIQUE PERFORMANCE

- Splash Proof IP43
- 8+1 Battery Type Option
- Rubber Mask For Connectors Protection
- Unique Charge Management Technology For Safe And Optimized Charge
- Unique Multiple Peaks Detected Technology For Maximum Power Point Tracking

- Housing Enclosure In Patent Application
- Large and Informative LCD Display To Show Solar, Battery And Setting Parameters
- Unique Fully Discharged Battery Recovery Or Re-Start For Lead Acid or Lithium Battery
- Unique and Concise LED Bar / Transparent Windows Indications In Patent Application

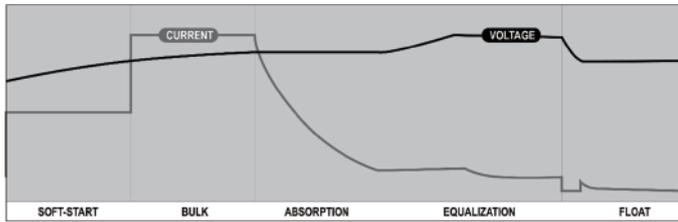
SPECIFICATIONS

System Nominal Voltage	12/24V Auto
Max. PV Open Circuit Voltage	100V DC
Charging Technology	MPPT
Max. PV Charging Current	50A
Max. Recommended PV Input Power	700Watt (12V) / 1400Watt (24V)

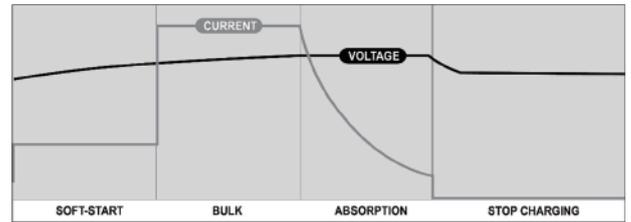
Battery Type Preset	Crystal, Gel, AGM, WET, Calcium / LCO, LFP, LTO
Housing Case Color	Black / Grey
IP Grade	IP43 for Inside PCBA, IP22 for Connection Area
Net Weight	1.34kg / 2.95lb
Dimensions (L*W*H)	195*140*73mm / 7.7*5.5*2.9in

CHARGING MANAGEMENT

For Lead Acid Battery (Crystal, GEL, AGM, WET And Calcium Battery): Soft Charge – Bulk Charge – Absorption Charge – Equalizing Charge* – Float Charge



For Lithium Battery (LCO, LFP, LTO Battery): Soft Charge – Bulk Charge – Absorption Charge – Stop and Restart Charge*



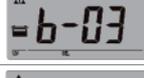
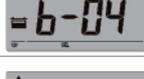
LED INDICATIONS

Normal Charge

LED Indications						
LED Color	Green	Blue	White	White	White	White
Soft-Start	ON	Flash	Flash	OFF	OFF	OFF
Bulk Charge	ON	ON	ON	Flash	OFF	OFF
Absorption / Equalization	ON	ON	ON	ON	ON	Flash
Float Charge	ON	OFF	ON	ON	ON	ON

Abnormal Charge

Solar Panel Abnormal Mode	LCD Display	LED Indication	LCD Backlight
Solar Panel Weak <15V	/	 Flash  ON	ON
Solar Panel Reverse Connection		 Flash  Flash  ON	Flash
Solar Panel Over Voltage (> 95V)		 Flash  Flash  ON	Flash

Battery Abnormal Mode	LCD Display	LED Indication	LCD Backlight
Solar Panel is Connected, Battery Disconnected		 Flash  ON  ON	Flash
Battery Reverse Connection		 Flash  ON  ON	Flash
Battery Over Voltage Than > 17V		 Flash  Flash  Flash  Flash	Flash
Battery Temperature Over 65°C		 Flash  Flash  Flash  Flash	Flash
The Controller Over Temperature Protection		 Flash  Flash  Flash  ON	Flash