

## Optimal Solar MPPT Battery Charge System



### Features

- Integrates Maximum Power Point Tracking (MPPT), battery charge management, state of charge information.
- Continuous output power rating without de-rating at up to 50°C ambient temperature.
- Built-in Battery Energy Monitor 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 solar charger.
- Supports Flooded Lead Acid (FLA), GEL and Absorbed Glass Mat (AGM) batteries, 2/3/4-stage charging with adjustable set points for all parameters.
- Wire the PV modules in series up to 112VDC normal (140VDC Max) for SS-50C Series, SS-80C Series and 192VDC normal (240VDC Max) for SS-40CX Series, SS-80CX Series.
- Easy stacking of up to 16 units in parallel for high currents.
- Precise charging for 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.

### Specifications

| Model No.   | SS-50C MPPT  | SS-80C MPPT  | SS-40CX MPPT   | SS-80CX MPPT   |
|---|--|--|--|--|
| Maximum output current<br>( Continuous at up 50°C ambient temperature ) | 50 Amps  | 80 Amps  | 40 Amps  | 80 Amps  |
| Battery Voltages  | 12,24,36,48 VDC Normal   |  |  |  |
| Max PV Input Current  | 40 Amps  | 70 Amps  | 30 Amps  | 70 Amps  |
| Input Voltage Range   | 16~112VDC Operating  |  | 16~192VDC Operating  |  |
|   | 140VDC Maximum Open Circuit Voltage                                  |  | 240VDC Maximum Open Circuit Voltage                                  |  |
| Max PV Array Power  | 3250 Watts (Maximum when equalizing a 48V battery to 64V at 50 Amps) | 5200 Watts (Maximum when equalizing a 48V battery to 64V at 80 Amps) | 2600 Watts (Maximum when equalizing a 48V battery to 64V at 40 Amps) | 5200 Watts (Maximum when equalizing a 48V battery to 64V at 80 Amps) |
| 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: 16~112VDC  | 12V Battery: 16~192VDC |
|                                | 24V Battery: 32~112VDC  | 24V Battery: 32~192VDC |
|                                | 36V Battery: 48~112VDC  | 36V Battery: 48~192VDC |
|                                | 48V Battery: 64~112VDC  | 48V Battery: 64~192VDC |
| 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   |                        |
| Dimension                      | 267.6 x 196 x 147 mm  | 414.8 x 225 x 147 mm   |
|                                | 267.6 x 196 x 147 mm  | 414.8 x 225 x 147 mm   |
| Weight                         | 4.3 kgs   | 7.1 kgs                |
|                                | 4.3 kgs   | 7.1 kgs                |