

## Technical specifications:

### ELECTRICAL

|  |  |
|--|--|
| System voltage ratings                                       | 12 / 24 / 48 VDC   |
| Current ratings  | Battery charge control   |
| TS-45  | 45A  |
| TS-60  | 60A  |
| Current ratings  | Loadb control  |
| TS-45  | 45A  |
| TS-60  | 60A  |
| Current ratings  | Diversiion charge control  |
| TS-45  | 45A diversion load   |
| TS-60  | 60A diversion load   |
| Accuracy   | 12 / 24V: $\leq 0.1\% \pm 50\text{mV}$<br>48V: $\leq 0.1\% \pm 100\text{mV}$                                   |
| Min. voltage to operate                                      | 9V   |
| Max. solar array Voc   | 125V   |
| Max. operating voltage                                       | 68V  |
| Self-consumption   | less than 20mA   |
| High temp shutdown   | 95°C disconnect solar<br>90°C disconnect load / diversion load<br>70°C reconnect solar / load / diversion load |
| Solar high voltage disconnect<br>HVD reconnect               | highest equalization + 0.2V<br>13.0V   |
| Transient surge protection<br>pulse power rating<br>response | 400watts<br><5nanosec  |

### BATTERY CHARGING / RTS

|                        |   |
|------------------------|---|
| Charge algorithm       | PWM, constant voltage                       |
| Temp comp. coefficient | -5mV / °C / cell ( 25°C ref )               |
| Temp comp. range       | -30°C to +80°C                              |
| Temp comp. setpoints   | PWM, float, equalize, HVD (with RTS option) |

### BATTERY CHARGING STATUS LED'S

|       |                |
|-------|----------------|
| G     | 13.3 to PWM    |
| G / Y | 13.0 to 13.3V  |
| Y     | 12.65 to 13.0V |
| Y / R | 12.0 to 12.65V |
| R     | 0 to 12.0V     |

**Note1:** Multiply x 2 for 24V systems, x 4 for 48V systems

**Note2:** The LED indications are for charging a battery.

When discharging, the LED's will typically be Y/R or R.

## MECHANICAL

|                        |  |
|------------------------|--|
| Dimensions(mm/inch)    | H:260.4mm / 10.25inch                    |
|                        | W:127.0mm / 5.0inch                      |
|                        | D:71.0mm / 2.8inch                       |
| Weight(kg/lb)          | 1.6kg / 3.5lb                            |
| Power terminals        | compression connector lug                |
| largest wire           | 35mm <sup>2</sup> / 2AWG                 |
| smallest wire          | 2.5mm <sup>2</sup> / 14AWG               |
| Terminal wire slot     | 8.2mm / 0.324 in wide                    |
|                        | 9.4mm / 0.37 in high                     |
| Knockout sizes         | 1 and 1.25inch                           |
| Torque terminals       | 5.65Nm / 50in-lb                         |
| RTS / Sense terminals: |  |
| wire sizes             | 1.0 to 0.25mm <sup>2</sup> / 16 to 24AWG |
| torque                 | 0.4Nm / 3.5 in-lb                        |

## ENVIRONMENTAL

|                     |   |
|---------------------|---|
| Ambient temperature | -40℃ ~ +45℃                                 |
| Storage temperature | -55℃ ~ +85℃                                 |
| Humidity            | 100%(NC)                                    |
| Enclosure           | type1(indoor & vented), powder coated steel |