



## MVPT Electronic Power Conditioning Board

### Part # MVPT10W-5V-12V

The MLPV Board is the same one used on our IPowerTower™. MVPT (Maximum Load Power Tracking) receives the output voltage generated from a TEG based electrical energy generator, for 1 or 4 TEG module based systems.

There are two output voltages which work on a principal of MVPT \*\* algorithms available with this version of the electronics module, and two output connector formats for flexibility of use. In total the output power generated from both outputs is approximately 10 Watts maximum.

To charge a cell phone, a USB Type A connector is provided; which is the same connector style found on laptop computers. The USB connector output voltage is 5 Volts which is the standard voltage for all USB applications. The IPowerTower™ can charge an iPhone or iPad Mini at up to 1.2A max. or any smartphone with high power requirement, with a vapor burner or propane producing heat and charge any battery simultaneously up to 12V. The MVPT\*\* Charging board also provides a universal screw clamp style terminal block that provides that same 5 Volts on one of the four connections found on the block. A small slotted screwdriver is all that is necessary to securely attach external wires to access the output voltages from the module.

The secondary output voltage available on the module allows the user to charge external batteries such as Lead Acid, NiMH, NiCd, Lithium Ion, AA, AAA, C ,D, 6V, 9V, 12V with battery voltages ranging from 1.2V up to 12V in any configuration. This smart charging function will **AUTOMATICALLY** adjust the voltage and current parameters to safely charge any battery. **Battery charger cannot exceed the maximum value, so the battery cannot be overcharged.**

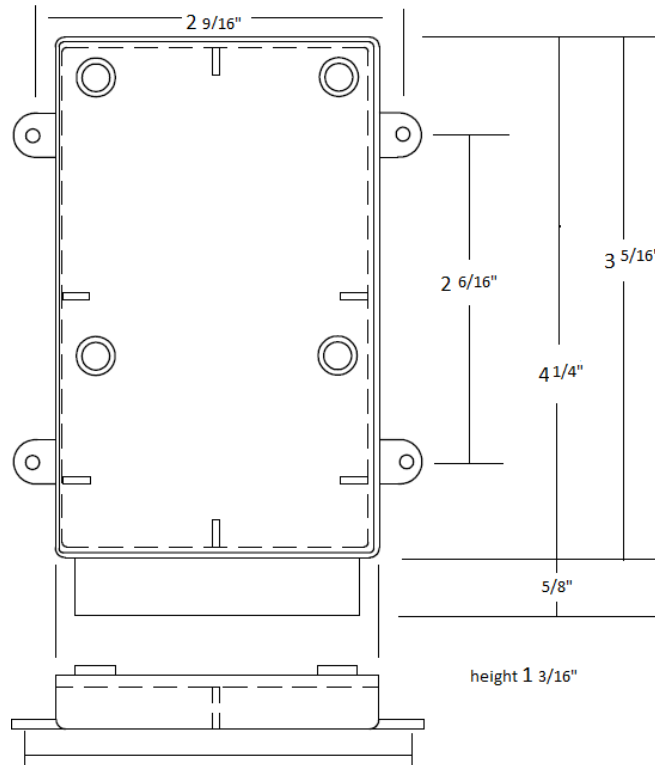
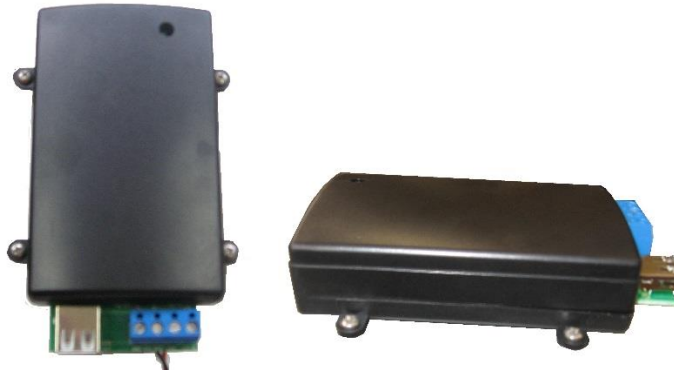
### SPECIFICATIONS

- Maximum Input Voltage: 40 VDC
- TEG module count: 1 to 4 modules\*
- USB Type A output voltage: 5V DC
- 5V output current: 1A typical, 1.2A maximum
- External battery charge current: 125mA maximum
- External battery voltage range: 1.2V to 12V batteries.
- Efficiency up to 97%

The Charger can accommodate other power requirements for custom LED lighting arrays using the 5V screw clamp terminal block, or the USB Connector for standard LED lamp configuration.



We can provide custom LED array configurations and optional accessory boards to provide features not available with this standard board. Alternatively, we can supply larger 12V charging systems, ask us how we can meet your requirements or custom needs.



Comes complete with Black Case

\*\* MVPT (Maximum Voltage POWER Tracking)

\* Depending on Design