

10A | 20A | 30A LED MPPTs

Microcare manufactures a range of MPPT Solar Charge Controllers often referred to as Solar Regulators. An MPPT or Maximum Power Point Tracker is an electronic DC to DC converter that optimizes the power output of the solar panels. Microcare manufactures two versions of the MPPT Solar Charger Controller: an entry level LED version and the Li-Ion compatible LCD unit.

Automatic Voltage Detection

When a Microcare MPPT is connected & switched on for the first time, the unit will automatically select the battery & panel voltage to find the optimum power point for charging giving the batteries the most efficient charge.

System Cost Saving

The Microcare MPPTs step down a high voltage solar array to a low voltage battery bank saving the installer money on the wire sizing required and on the installation time. The charge controller delivers the highest possible charge current for a given set of operating conditions.

LED MPPT

- The Microcare LED MPPT show the status of the system by means of LED status notification
- Batteries will charged by setting up the best power point of the solar panels
- The unit incorporates various charge modes which automatically increase the charge level to the batteries when first starting up or if the battery voltage falls below the minimum volts.
- It will automatically measure the battery voltage and set up the charge parameters (12 or 24V)
- Improves power extracted from the solar panels by 30% over normal shunt/series PWM regulators
- Other features include: Temperature controlled Cooling Fan, Selectable low voltage disconnect & 24 hour load shed or Day/Night mode.



Surge Protection

By installing the Microcare Low Voltage Combiner Unit, you are able to protect your PV solar installation against any surges and lightning by the use of fusing and surge arrestors. The Microcare Low Voltage Combiner Unit range is available in 1 to 6 string configurations.

OUTPUT CURRENT RATING	10A	20A	30A
MAXIMUM PANEL SIZE	12V-120W PV Max 24V-240W PV Max	12V - 240W PV Max 24V - 480W PV Max	12V - 360W PV Max 24V - 720W PV Max
NOMINAL BATTERY VOLTAGE	Multi-Voltage 12-24VDC (Automatic selection of voltage)		
PV INPUT VOLTAGE	Absolute Maximum 50V DC		
CHARGE ALGORITHM	2-stage Boost/Voltage		
BOOST VOLTAGE	Lead Acid battery: 14.8V (12V), 29.6V (24V) Gel battery: 14.2V (12V), 28.4V (24V)		
FLOAT VOLTAGE	Lead Acid battery: 13.8V (12V), 27.6V (24V) Gel battery: 13.6V (12V), 27.2V (24V)		
POWER CONVERSION	DC/DC Switch Mode		
OUTPUT EFFICIENCY	> 95% Typical @ 14V 15A Output		
VOLTAGE STEP DOWN	Can charge a lower voltage battery from a higher voltage PV array		
STATUS DISPLAY	6 LED display: Panel, Load, Boost, Full, Medium, Low		
POWER CONSUMPTION	Less than 1W		
ENVIRONMENTAL RATING	0 to 40 °C		
CABLE ENTRY	Connector (Max Cable size 16mm)		
DIMENSIONS (W x D x H)	9 x 10 x 5cm	11 x 10 x 6cm	11 x 10 x 7cm