MPPT20A-LED

Microcare 20 amp LED MPPT Regulator with Load Shed

Solar MPPTs, Pure Sine Wave Bi-Directional Inverters, Wind Turbine Controllers designed and manufactured by **J&J ELECTRONICS**

The 20 amp MPPT Regulator has been developed to create a cost effective solution for small installations. The Microcare 20 amp MPPT Regulator continually calculates the module's maximum power point. When a 75W PV panel is connected directly to a battery, charging at 12 volts, its power production is artificially limited to about 53 watts. This wastes 22 watts or nearly 30% of the available power! MPPT technology used in Microcare MPPT Regulator operates in a very different fashion. The Microcare controller continually tracks the module's maximum power voltage, in this case 17 volts. It then operates the module at its maximum power voltage to extract maximum power. This provides a 30% increase in power over a conventional charge regulator.

The higher power extracted from the module is then provided to the battery in the form of increased charge current. This enables the maximum cost per watt to be obtained which creates an economically viable solution on a lower income scale. Each Solar Panel system sold needs a Microcare 20 amp MPPT Regulator to maximize the panel's power. Manufactured in South Africa.

Features:

Automatically measures the battery voltage and then sets up the charge parameters (12v-24v)
Operates the Solar Panels at the maximum efficiency
Charges batteries by setting up the best power point of the solar panels
Can improve power extracted from the solar panels by 30% over normal shunt/series pass regulators
LED Display
Maximum Current 20 Amps.
20 amp Load controller.
Temperature controlled Cooling Fan
Selectable Low voltage disconnect.
24 hour load or Street Light mode

Specifications:

Output Current Rating	20 amps
Nominal Battery Voltage	Multi-Voltage 12-24vdc (Automatic selection of voltage)
PV Input Voltage	Absolute Maximum 50VDC
Charge Algorithm	2-stage Boost/Float
Boost Voltage	Charges to 14.8v for minimum of 3 hours (12v system) 29.6v (24v system)
Float Voltage	13.8v per battery (12v system) 27.6v (24v system)
Power Conversion	DC/DC Switch Mode
Output Efficiency	>95% Typical @ 14 Volt 15 Amps Output
Voltage Step down Capability	Can charge a lower voltage battery from a higher voltage PV array.
Status display	6 LED Display Panel Load Boost Full Medium Low
Features	1. MPPT Charge Controller 2. 20 amp Load Shed 3. 24 hour load shed or Street Light Controller 4. Programmable; Dusk to Dawn, ½ hour 1hour or 1.5 hour delays. 5. Selectable battery low cutout. 10.0v,10.7v,11.5v for 12 volt system 6. Selectable battery low cutout. 20.0v,21.4v,23.0v for 24 volt system.
Power Consumption	Less than 1watt
Environmental Rating	0 – 40°C
Protection System	Lighting Protection Reverse polarity Panel/Battery Internal Fuse
Cable Entry	Connector (Max Cable size 16mm)
Warranty	3 Years
Cabinet Dimension	110mm (L) x 110mm (W) x 70mm (H)
Weight	500g
PV Panel Range	12v - Max 240 watt PV Panel 24v - Max 480 watt PV Panels