



ELECTRONICS

PRODUCT SPECIFICATION

500W RENEWABLE ENERGY POWER SUPPLY

The Renewable Energy Power Supply is a high efficiency synchronous switching buck converter with a maximum power point tracking (MPPT) algorithm. The supply is designed to feed a DC bus or charge batteries directly from high voltage solar panels with very low energy loss. The supply accepts inputs of 30 - 70Vdc and charges 24 volt lead-acid and lithium batteries. The MPPT supply is rated for 500 watts continuous. MPPT ensures that the maximum available power can be harvested from the solar panels under any lighting conditions, increasing the PV array output by up to 30%.

The supply includes a serial communications interface



to allow a host device to track the input and output power level, and to control the charging conditions.

GENERAL SPECIFICATIONS

Part Number:

0754B27-001

Electrical:

- Input Voltage: 30-70Vdc
- Output Voltage: 24-29Vdc
- Output Current: 20A max.
- Maximum PV Power: 500W
- Standby Power: < 0.5W
- Output Protection:
 - Short Circuit
 - Power Limit: 550W
 - Over Voltage: 31V
 - Over Temperature: 100°C
- Input Protection:
 - Over Voltage: 80V
 - Reverse Voltage
- Efficiency: 92-97%

General Specifications:

- Baseplate temperature range -4°F to 185°F (-20°C to 85°C)
- RS-485 Communications

Mechanical:

- Dimensions: 3.0" x 5.3" x 1.2"
- Weight: <1.0 pounds
- Conformal Coated

Reliability:

- MTBF: 100,000 Hours