

"Making Solar Simple"

## MADE IN USA

### MAPPS SPECIFICATIONS

#### Photovoltaic Modules

- High Efficiency Crystalline Silicon
- Meet JPL Block V Durability Criteria
- Tempered Glass and Aluminum Frame
- Module Warranty up to 25 Years

#### Gel Cell Sealed Batteries

- Sealed Maintenance-Free

- Excellent Deep-Cycling Performance
- Immobilized Electrolyte, Non-Spillable
- Transports Easily and Safely

#### Charge/Load System Controller

- Field Proven High Efficiency Design
- Temperature Compensated Charging
- Low Voltage Load Disconnect
- Most Models UL Listed and FM Approved

#### Balance of System Components

- Weatherproof Battery/Controller Enclosure
- Heavy Duty Aluminum Mounting Structures
- Color-Coded, Pre-Cut Wiring Harness
- Easy-to-Follow Manual/System Schematics

#### Optional Equipment Specifications

##### Lighting Control

- Ten field adjustable lighting control options
- Manual

- Detects day and night using the PV array

#### DC/AC Inverter for 120 VAC Systems

- Pure Sine Wave 120 VAC Power
- Low Battery Cutout Protection
- Overload & overtemp protection

### Optional Accessories

#### Frangible Couplings

- Designed for Aviation and Roadside Apps
- Omni-directional breakaway support system

#### Aluminum shelf and backpanel

- DIN RAIL for customer load (s)
- Polyphaser surge protection for radios

#### DC to DC Voltage Converters

- Prewired on backpanel
- 12-24, 24-12, 24-24, 48-24, 12-48, 48-12 and more available



**SOLAR  
ELECTRIC  
SUPPLY, INC.**

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## MAPPS Remote Photovoltaic Power System Datasheet

Model Number: MAPPS 90-108-12

#### MAPPS Solar System Specifications

|                                                    |                                                             |
|----------------------------------------------------|-------------------------------------------------------------|
| Solar Array Wattage, Standard Test Conditions, STC | 90 W                                                        |
| Nominal System Voltage                             | 12 VDC                                                      |
| Battery System Storage, 100 hour rate              | 108 Amp-Hrs                                                 |
| Battery Type                                       | Sealed Lead Acid Gel                                        |
| Solar Module Certifications                        | ETL Listed to UL 1703, Class I Division 2, Group A, B, C, D |
| Battery Enclosure Rating                           | NEMA 3R                                                     |
| MAPPS System Weight                                | 127 lbs                                                     |

#### MAPPS Upgrades

|                            |              |
|----------------------------|--------------|
| Dusk/dawn Light Controller | Not Included |
| Frangible Coupling         | Not Included |
| Radio Shelf                | Not Included |

#### MAPPS System Electrical Specifications

|                                                      |          |
|------------------------------------------------------|----------|
| Solar Array Max Power Current, Imp                   | 5.03 A   |
| Solar Array Short Circuit Current, Isc               | 5.6 A    |
| Solar Array Vmp                                      | 17.9 VDC |
| Solar Array Voc                                      | 22.2 VDC |
| Solar Temperature Coefficient (Voc/°C)               | -0.360%  |
| Solar Charge Controller Amp Rating                   | 10.0 A   |
| Solar Charge Controller Voltage                      | 12 VDC   |
| Optional Dc to AC Sine Wave Inverter Wattage         | N/A      |
| Optional Dc to AC Sine Wave Inverter Nom. DC Voltage | N/A      |

#### MAPPS Solar Array Mechanical Specifications

|                                               |                       |
|-----------------------------------------------|-----------------------|
| Solar Array Total Area                        | 6.97 sq.ft (0.65sq.m) |
| Solar Array & Mounting Structure Total Weight | 32 lbs                |
| Solar Mounting Structure Mounting Method      | Side-of-Pole          |
| Solar Mounting Structure Wind Speed Rating    | 90 MPH                |
| Solar Mounting Structure Material             | Milled Aluminum       |

#### MAPPS Battery and Equipment Enclosure

|                         |                                                       |
|-------------------------|-------------------------------------------------------|
| Mounting Method         | Standard Pole Mount                                   |
| Material                | Milled Aluminum                                       |
| Enclosure Finish        | Glossy Urethane Enamel White                          |
| Dimensions (LxWxH)      | 18 in. x 16 in. x 10.8 in. (1.68 m x 1.49 m x 1.01 m) |
| Weight (with Batteries) | 95 lbs                                                |

#### MAPPS Optional Accessories

|                          |    |
|--------------------------|----|
| Wind Speed Upgrade       | No |
| Optional DC-DC Converter | No |