

## 45 Watt Solar Panel with Integrated Charge Controller

Soltronix brings together high-efficiency SunPower monocrystalline solar cells and PowerFilm® Solar's 30 years delivering custom solar solutions. The 45 Watt Solar Panel includes semi-flexible fiberglass backing, whole-cell design for maximum power and reliability, and an integrated PowerBoost charge controller to provide the greatest total efficiency available on the market.

The Soltronix PowerBoost series of charge controllers incorporate high efficiency DC-DC converters and a proprietary power point tracking system to optimize power collected from the solar panel and delivered to a traditional 12V battery. Designed specifically for use with solar, PowerBoost charge controllers will not overcharge and reduce the lifetime of connected batteries as do common three-stage chargers connected to solar panels

Soltronix also provides a proprietary encapsulation stack. The stack includes ETFE for maximum UV protection, and a custom layer of four other materials to provide impact resistance and durability far above industry norms. Due to this unique stack Soltronix panels can withstand significant hail before breaking.

Leveraging decades of expertise in custom encapsulations and solar electronics, the 45 Watt Solar Panel provides unsurpassed efficiency and reliability for your applications.

### Tips For Best Use:

- Angle the solar panel toward the sun for best results.
- Place in a location without shadows or shading.
- Routinely clean the solar panels to ensure best performance.



### Benefits Include:

- High Efficiency Sun Power Cells
- Integrated PowerBoost Smart Charge Controller
- Over-Charge Protection
- Semi Flexible Design
- Rugged Encapsulation

## 45 Watt Solar Panel with Integrated Charge Controller

### Electrical Characteristics

|  |                               |
|--|-------------------------------|
| Battery Charge Type                    | 12V Battery (Flooded and AGM) |
| Charging Voltage                       | 13.8V (float) 14.5V (max)     |
| Charging Efficiency                    | 88-91%                        |
| Output To PowerBoost Charge Controller | Nominally 45W                 |
| Effective Power To Battery             | 40W                           |

### Physical Characteristics

|             |  |
|-------------|--|
| Part Number | RP-15F13.7V  |
| Dimensions  | 29.6 x 17.0 x 0.1 inches<br>751.8 x 431.8 x 2.5 mm |
| Weight      | 3.0 lbs<br>1.4 kg                                  |

### Thermal Characteristics

|                                     |             |
|-------------------------------------|-------------|
| Temperature Coefficient for Power   | - 0.32(%/C) |
| Temperature Coefficient for Voltage | -1.8 (mV/C) |

### Connectors

#### Standard Connector:

Aptiv Weather Pack



#### Custom Connectors:

SAE

Anderson Powerpole Barrel

Customer Specified



29.6 inches

17.0 inches

### Power Comparison

Soltronix 45 Watt Solar Panel

