

50W Semi-Flexible Solar Panel with Integrated Charge Controller and Butyl Adhesive

Solar panels extend battery life, reduce jumpstarts, provide diesel savings, enable telematics and maintain battery voltage during extended off cycles.

PowerFilm designed this Soltronix 50W Semi-Flexible Solar Panel with Integrated Charge Controller to simplify solar charging. The 50W solar panel includes semi-flexible fiberglass backing, full backside butyl adhesive, and an integrated fixed power point (FPPT) charge controller.

Compared to other panels on the market, the FPPT integrated charge controller delivers more power to the battery and provides faster installation. Industrial-strength butyl adhesive across the entire backside of the panel ensures a tight bond to the vehicle or trailer and eliminates bond failures due to water freeze-thaw cycles

Cable Options

Custom cable lengths, connections, and wire wrap are available depending on requirements (cable not included).



Benefits

- High-efficiency SunPower/Maxeon cells require less area on fairings and limit power reduction due to hail damage/strikes
- Integrated FPPT charge controller results in faster installation and more power than traditional PWM charge controllers
- Full backside Industrial strength butyl adhesive provides the best bond to truck or trailer
- Semi-flexible design enables easy attachment to fairings or hoods
- Rugged, self-cleaning encapsulation

Electrical Characteristics

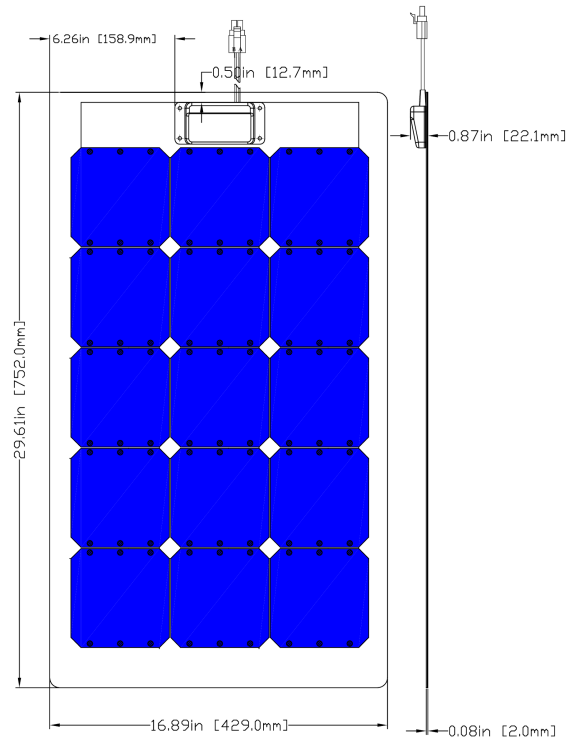
Battery Charge Type	12V Battery (Flooded and AGM)
Charging Voltage	13.8V (float) 14.5V (max)
Charging Efficiency	88-91%
Output to PowerBoost Charge Controller	Nominally 50W
Effective Power To Battery	44.3W

Physical Characteristics

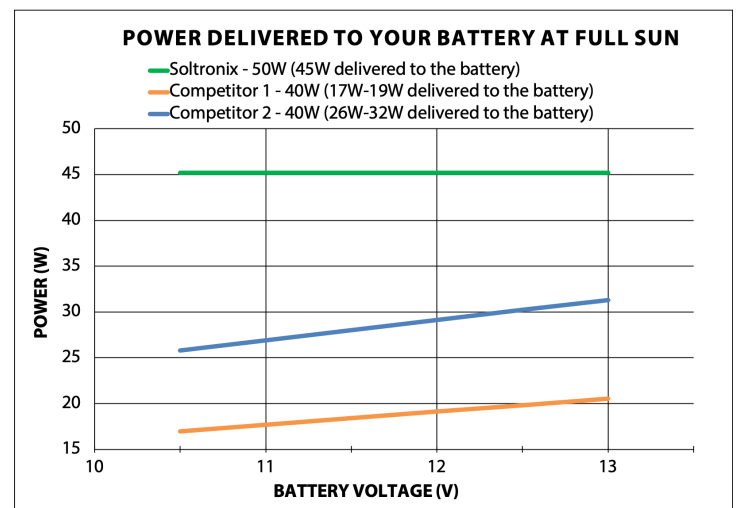
Part Number	R3-15F13.7VB
Dimensions	29.6 x 17.0 x 0.1 inches 751.8 x 431.8 x 2.5 mm
Weight	3.8 lbs 1.7 kg

Thermal Characteristics

Temperature Coefficient for Power	-0.27%/°C
Temperature Coefficient for Voltage	-0.236%/°C
Temperature Coefficient for Current	0.058%/°C



Power Comparison



Comparison Graph Notes

- Panel manufacturer and advertised panel output.
- Plot points are calculated outputs from the IV curve.
- MPPT / FPPT controllers aren't commonly found with panels under 100W.
- The largest drop in power to the battery occurs when the panel voltage is higher than the battery requirement. Traditional PWM charge controllers discard power above the current battery level.