



FLEXIBLE PHOTOVOLTAICS FOR MILITARY SHELTERS | STEFD

OVERVIEW:

Flexible Photovoltaic (PV) technology converts “free” light energy into electricity with no noise, moving parts, fuel consumption or pollutant emissions. It is lightweight, conformal, and relatively inexpensive. PV devices have already been directly integrated into shelter textiles, hold promise for future Warrior Systems, and offer an alternative way to power some of your electronic equipment in the field.

PRODUCTS:

QUADRANT:

- Modular unit, equals ¼ of existing TEMPER tent fly
- Power: ~190W

TEMPER Fly:

- Drop in replacement for existing TEMPER tent fly
- Power: ~750W

PowerShade:

- Solar shade provides ~85% reduction in solar load
- Power: 1-3kW (modularly expandable)

Balance of System (BOS):

Designed for multiple applications including TEMPER Fly, Quadrant, Power Shade and Foldable Units, BOS stands for “Balance of System” and consists of a charge controller, power monitor, AC inverter, and two storage batteries. The power is generated by the PV, flows to the charge controller which uses that power to charge the batteries if they are depleted. If the user is drawing power, then the charge controller handles that part as well, diverting the power generated by the PV out to the electrical load. If there is no power being generated by the PV (night or shaded PV) then the charge controller allows power to flow back out of the battery, through the AC inverter, and then out to the electrical load. While all of this is happening, whether power is going in or out, the Power monitor is tracking how much and how fast, and this information is available to the user via an LED display.

POINT OF CONTACT:

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