

## Crystalline Foldable Solar Panel Operating Instructions

Crystalline Foldable Solar Panels are lightweight, durable, and extremely portable. The solar modules are mounted to weather-resistant fabric that quickly folds for storage and unfolds for use.

To see our full line of solar products, accessories, and FAQs, visit: [www.powerfilmsolar.com](http://www.powerfilmsolar.com)

### Important Notes

Crystalline Foldable Solar Panels are designed for regular outdoor use but not permanent outdoor installations. The panels are weatherproof, but if rained on, wipe the panels dry and allow the fabric to air dry before folding. Always store the Foldable Solar Panel in a cool, dry environment.

Avoid bending or stepping on solar modules, as they can crack and damage the solar panel.

All connections must be solar positive (red) to battery positive and solar negative (black or blue) to battery negative. Reversing can damage the solar panel. Consult your battery manufacturer if you have questions about the specifications of your battery.

### How To Charge

1. Unfold the panel with the solar side facing up and pointing towards the sun.
2. Use the grommets on each corner and a tie cord to hold the panel in place and reduce loss or damage from high winds.
3. Connect the appropriate accessory cable for the device you will be charging.

### Charging Batteries

Connect the solar panel's output to the appropriate charge controller's input. Then, connect the desired cable to the charge controller's output and the battery. Follow your charge controller's instructions for the correct order of connecting the charge controller and battery. If you're unsure what charge controller to use, contact PowerFilm for assistance.

### How To Clean Your Solar Panel

Wipe each of the panel's modules with a damp cloth and a mild soap solution. Wait a few minutes for the panel to dry before folding and storing it.

## Specifications

	<b>160W (F3-48F28.3VKHAS)</b>	<b>190W (FM3-56F33VKHAS)</b>
<b>Operating Voltage</b>	28.3V	33.0V
<b>Operating Current</b>	5.7A	5.7A
<b>Weight</b>	6.7 lb / 3.0 kg	7.5 lb / 3.4 kg
<b>Folded Dimensions (in/mm)</b>	12.5 x 11.0 x 1.5 317.5 x 279.4 x 38.1	12.5 x 11.0 x 1.7 317.5 x 279.4 x 43.2
<b>Deployed Dimensions (in/mm)</b>	71 x 24.7 1,803.4 x 614.7	79 x 24.7 2,006.6 x 627.4

\* Tests performed at Standard Test Conditions (STC) (Spectrum: AM1.5, Intensity: 1000W/m<sup>2</sup>, Temperature: 25C). Power performance may vary due to temperature, spectral, and intensity variation.

## Certifications

- CE (Directives 2014/30/EU and 2014/35/EU)
- MIL-STD-810G
- RoHS
- REACH
- Berry Amendment Compliance

Full compliance statements are available at: [www.powerfilmsolar.com](http://www.powerfilmsolar.com)