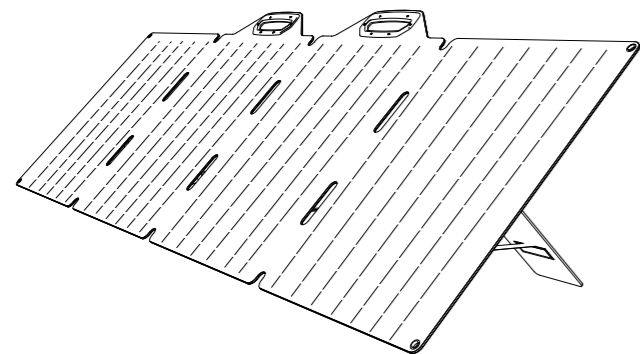


# SolarPowa 200

ETFE-Solar Panel Series



## User Manual

### IMPORTANT SAFETY INSTRUCTION

#### Product Disclaimer:

Actual products may vary. reserves the right to the final interpretation of the contents in this manual and all documents associated with this product. We also reserve the right to update, change or terminate this manual without prior notice.

Read all the instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Failure to operate the product correctly may result in damage to the product or personal property, and cause serious injury.

will not be held liable for damages caused by fire, earthquake, accidents, intentional misconduct on the part of the customer abuse or other abnormal conditions.

reserves the right to the final interpretation of the contents of this user manual.

**⚠ WARNING:** This product can expose you to chemicals such as Di (2-ethylhexyl) phthalate (DEHP), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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### IMPORTANT SAFETY INSTRUCTION

#### Product Warranty:

Our company provides customers with a warranty of 24 months from the date of purchase.

No dealer nor distributor may vary the terms of this warranty which is personal to the original purchaser and is not transferable.

Please retain the sales receipt as proof of purchase.

Warranty claims must wherever possible be made through the dealer from whom the product was purchased.

This warranty excludes:

- Damage caused through neglect, accident, misuse, wear, and tear, or incorrect installation, adjustment, or repair by unauthorized personnel. Any unauthorized servicing will result in the loss of warranty.
- The above conditions do not affect your statutory rights as a consumer.

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### IMPORTANT SAFETY INSTRUCTION

#### Product Use:

The actual output of the solar panel depends on the light intensity and tilt angle of the panel. The charging power of a solar panel may fluctuate due to weather conditions, seasonal changes, and location. This product should be installed and connected strictly in accordance with instructions found in the user manual.

The main body of this product is waterproof; however, the junction box and connection points must not be immersed in water.

To avoid damaging the solar cells of the panel:

- DO NOT use sharp objects on the surface. Do not knock or bend the solar panel.
- DO NOT apply pressure to the solar panel or allow it to be dropped on any of its corners, sides, or faces.

**WARNING:** This product should not come into contact with highly corrosive substances or be immersed in corrosive liquids.

DO NOT repair any damage to the product. Refer servicing to qualified personnel.

DO NOT disassemble or attempt to repurpose or modify in any manner.

Connect your device and solar charger with the included, or other certified power cable to start charging.

Overheating will cause damage. Stop using and contact the manufacturer if the product is excessively hot, is emitting odor, is deformed, or showing other abnormalities.

Do not clean with harmful chemicals or detergents.

The surface temperature of the solar panel will increase during operation. Please do not directly touch the front of the battery to avoid burns.

Do not use the panel when the panel front or back sheet is broken or damaged. It can expose personnel to hazardous voltages.

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#### Product Storage:

Recommended to fold and keep the solar panel vertically when being moved or stored. The panel must not be knocked, exposed to heavy pressure, or bent during the transportation and installation.

The product should be well folded or covered by something to protect it from sunlight.

Store in a cool, dry place. Recommend storage temperature: -4°F to 140°F / -20°C to 60°C.

Do not expose to moisture or submerge in liquid.

Store the solar panel in a dry environment when not in use.

Always ensure the junction box (if any) is not exposed to sunlight.

#### Product Disposal:

Unwanted solar panels must be disposed of in accordance with local legal requirements.

**WARNING:** Attention should be drawn to the environmental aspects of battery (if included) disposal. Dispose of the product in specific recycling boxes only after a complete discharge. Strictly follow the local regulations on battery disposal and recycling.

#### Product Certifications:



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## INTRODUCTION

### SolarPowa 200-ETFE-Solar Panel Series

Thank you for your purchase of the SolarPowa 200. The ETFE-SolarPowa 200 solar panel combines industry-leading solar panel technology with ergonomic design to optimize your satisfaction. It has an adjustable kickstand, which enables you to position the solar charger in a good direction or orientation, facing the ideal angle for maximum yield. With its seamless one-piece design and industrial-strength fabric-wrapped exterior rear layer, this stellar solar charger has high-grade water resistance and dust protection.

Please read this manual carefully to obtain the best performance from your SolarPowa 200.

### Unpacking The Equipment

The carton should contain:

- The ETFE-SolarPowa 200 solar panel
- One user manual

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## SYSTEM SPECIFICATIONS

### SPECIFICATIONS

#### General Information

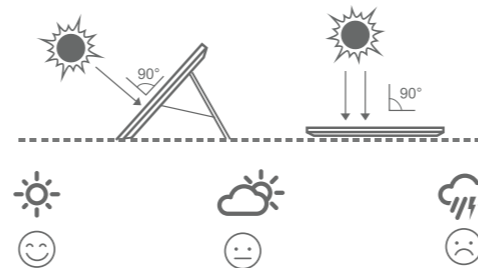
Model	SolarPowa 200
Rated Power	200W
Open-circuit Voltage (VOC)	63.5V
Short-circuit Current (ISC)	3.97A
Working Voltage (VMP)	52.8V
Working Current (IMP)	3.78A
Waterproof	IP68
Output Port	MC4

#### General

Net Weight	6.67kg / 14.7lbs
Solar Cell type	Monocrystalline silicon
Folded Size ( L x W x H )	673 × 484 × 46mm 26.5 × 19 × 1.8 inches
Unfolded Size ( L x W x H )	1922 × 596 × 20mm 75.7 × 23.5 × 0.79 inches

## SYSTEM OPERATIONS

1. ETFE-SolarPowa built-in MC4 cable included.
2. Unfold the ETFE-SolarPowa 200.
3. Please use approved cables for charging.
4. Position the ETFE-SolarPowa 200 where the entire surface area is at an angle of 90° facing direct sunlight. Prop up with the kickstand where necessary.
5. Avoid any shaded areas to optimize energy production.



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## FREQUENTLY ASKED QUESTIONS

### 1. Why the connected device cannot be charged?

Please check if your device is well connected to the solar charger or if the connecting cable works normally. Re-plug the cable or try with another cable.

### 2. Why the connected device is charged slowly?

Ensure that the input current and voltage of the connected device are within the accepted range. The amount of sunlight, weather, or shady may cause fluctuations in the current output that prevent your devices from charging. In this event, try placing the solar charger in more direct sunlight or wait for the weather to clear. In order to get the maximum solar energy, please adjust the solar charger toward the sun.

### 3. What is the difference between the nominal / rated output from the actual output of the solar charger?

The maximum nominal / rated output of the SolarPowa 200 solar charger is rated based on the Standard Test Conditions (STC) – the industry-wide standard for the conditions under which a solar panel is tested. The test conditions are defined as irradiation 1000 W/m<sup>2</sup>, temperature 25°C, and air mass 1.5.

The nominal / rated power refers to the power of the solar charger, which is not equal to the actual output of the solar charger. In fact, the actual power is less than the nominal / rated power, since there will be some power loss in the form of heat during the solar energy conversion, and a few other environmental factors such as the weather conditions, seasonal changes, and location.

NOTE: Refer to page 09 to optimize the efficiency of the solar charger.

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6. Solar charger, in most cases, does not deliver the full rated power. Here are a few recommendations to optimize the efficiency of the ETFE-SolarPowa 200 solar charger:

#### • Perfect the Sunlight Orientation

The amount of sunlight shining on the panel fluctuates the output power. A solar charger's performance can be maximized by orienting the panel so that it faces directly toward the sun. The ideal angle of inclination for a solar panel is 90 degrees from horizontal.

#### • Eliminate the Shade

The surface of the solar charger should not be shaded during use. Shading caused by weather, coverings, or other obstructions can greatly reduce power output.

#### • Offset Surface Temperature Increase

The amount of power generated by a solar charger depends on its surface temperature. Lower temperature leads to a higher generation. This effect is greater compared to winter time than summer. During the summer day, particularly, the surface of the solar charger may reach 131°F / 55°C, which reduces the rated power over 10% efficiency.

#### • Keep it Clean

Dust or dirt can gradually accumulate on your solar panel, reducing the amount of sunlight reaching the solar cells. Cleaning your panels a few times a year allows them to convert more solar energy.

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