



SP-18100
Solar Panel Folding Bags & Accessories
user's manual

Shandong Enernova New Energy Technology Co.,Ltd.

Precautions

Please read the user manual before using this product. The following operations are strictly prohibited. Failure to operate according to this regulation will cause damage to solar panels and even lead to accidents.

- * Keep away from the fire while using the panel.
- * Do not bend the solar panel.
- * Do not use solar panel in shading places such as under the trees or buildings.
- * Do not immerse the solar panel in water or any other kind of liquid.
- * When cleaning the solar panel, do not put it directly into the water, but gently wipe it with a wet cloth.
- * Do not use or store solar panels near fire or combustibles.
- * Do not scratch the solar panel with sharp objects, otherwise the surface of the solar panel will be damaged. In serious cases, the silicon wafer and its connecting wire inside the solar panel will be damaged, resulting in open circuit damage (the silver wire is the connecting wire of the silicon wafer).
- * Do not place corrosive substances on solar panel.
- * Do not step on or place heavy objects on the solar panel.
- * Do not dismantle the solar panel.

* The output circuit of the solar panel must be correctly connected to the equipment, and it is strictly prohibited to connect the positive and negative poles reversely.

* Before using, please check the connection condition of each component, wire and plug, and be sure to plug the connector in place during use.

* Due to the material properties of the product, it is strictly prohibited to drop it, otherwise the interior of the solar panel will be damaged and the product will be unusable.

* When the solar panel is connected with other equipment, if there is abnormal voltage, or overheating, smoking and other faults in the connector and conductor, please take fire-fighting measures immediately, try to disconnect it safely, and move it to an open position.

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One、 Introduction

Enernova foldable solar panels are packaged with high-quality monocrystalline silicon, waterproof polyester cloth, ETFE and other materials. Each folding sheet is connected in parallel with braided copper wire. The product is convenient to storage and equipped with a variety of interfaces.

Two、 Technical Parameters

No.	Item	Description	Note
1	Material Quality	<i>monocrystalline silicon</i>	
2	Conversion Efficiency	(20-22) %	
3	Maximum Power	100W	
4	Open-circuit Voltage	21.6V	
5	Rated Voltage	18V	
6	Short-Circuit Current	5.83A	
7	Operating Temperature	-10-65° C	
8	Folding Size	450*350*60mm	The actual size

9	Unfolding Size	1415*450*10mm	maybeslightly differ from parameters because of the use of soft material
10	Unfolding Support Angle	40-45 Degrees	
11	Output Interface	DC5521	
12	Weight	2.8kg	
13	USB-A Output	See the instructions in the "Solar Panel Junction Box" section for details.	The actual output power depends on the actual lighting conditions.
14	USB-C Output		
15	Type-C Output		

Three、 Packing List

No.	Item	Quantity
1	100W solar photovoltaic panel (including USBA and USBC, which have been connected with the solar panel and are put in the small bag on one side of the folding bag. Pulling the zipper and you will see it. For detailed parameters, please refer to the independent manual)	1

2	Connecting wire (1.5m in length, both ends are DC5521), Store in a small bag on the side of the folding bag	1 piece
3	1 to 8 adapter terminal (DC5521 to 8 types of terminals, See manual for details), Store in a small bag on the side of the folding bag	1 set
4	User manual	1

Four、 Frequently Asked Questions

1. The power rating of the folding bag is 100W. However, when using it, the displayed outlet cannot reach it when charging the portable power station or other devices. Why?

Answer:

1) The rating power of the solar panel is measured with the test using a standard light in the laboratory. But in actual use, it is influenced by the intensity of sunlight, the position of the solar panel, the MPPT algorithm of the connecting device and the circuit.

2) For example, the output of solar panel in winter will be much lower. When other conditions are all right, a 100W solar panel may only output 20W (depending on latitude).

3) If the power of the charging circuit inside the connected power station is limited, for example, at only 30W, the charging power will

not exceed this value even if the intensity of sunlight is strong enough.

4) Each piece of the folding bag is connected in parallel, but even so, if a certain piece's sunlight being blocked, the total output power of portable power station will become 0 in a short time due to the MPPT algorithm at the first moment when the shadow just appears. This is a normal phenomenon. After the calculation is completed, the output power will be based on the actual received energy at this time.

2. Which ports does this product support for charging??

Answer: Please confirm that the rated voltage and open-circuit voltage of this folding bag are within the voltage range marked by your device. If the interface of the device is DC5521 female, it can be used directly. If not, please confirm whether it is in the range within the 1 to 8 adapter attached to the folding bag.

3. Can the folding bag use other connecting wires? Can they be used in parallel?

Answer:

1) The rated voltage of this folding bag is 18V and the maximum output power is 100W, so the rated current is 5.5A. Before using other connecting wires, please pay attention to allowable current of the wires, which should be greater than or equal to 5.5A.

2) This folding package can be used in parallel, but due to the slight difference in parameters between each package, the output power after parallel connected will not reach the rated value, so the output power of the two boards will not be equal to the sum of the output of two board when they are employed separately.

4. What are the precautions for outdoor users?

Answer: It should be fully expanded and faced to the sun to obtain the maximum energy. If the wind is strong, it should be noted that the unfolded surface of the product should be in the same direction as the wind. If necessary, please use auxiliary fastening device.

5. How to clean the surface of this product?

Answer: The solar panel can be cleaned with a soft cloth (dipped with water or solvent containing less than 25% alcohol).

6. Is this product waterproof?

A: This product and its bag both have general waterproof function, in other words, the product itself cannot be exposed to rain for a long time. In the situation of raining, you should stop using and taking it in indoors in time, and do not fold it until it is dry thoroughly.

7. When the product leaves the factory, a protective film will be pasted on the surface of the board, which can be gently peeled off before use.

Five、 Warranty

From the date of purchase, a one-year warranty period is provided (damage due to improper personal use or other natural disasters is not covered by the warranty). Please provide proof of purchase for product warranty services within the warranty period and range.

Six、 Solar panel junction box

The solar panel junction box is located in the zipper bag on the side of the folding bag. When in use, unfold the solar panel, open the zipper, and insert the cable into the corresponding connector to use. The type of the interface is marked on the box, and the detailed parameters are shown in the table below(The DC interface is the full power output interface of the solar panel group).



Item		Parameter
Size		(L)85mm* (W) 51mm* (H) 14mm
Indicator Light	Red	The power indicator light is on when power is on, and the indicator light will be off when any port has no output.

	Input Voltage	8-32V
DC Interface	Output Voltage	Solar output voltage-0.4V
	Output Protection	Protection against reverse charging (Connected with a 20A diode to prevent reverse charging)
	DCPort Specification	5521 metal material
USB1 Characteristics	Output Voltage	5.1±0.2V
	Output Power	15W Max
	Output Protection	Overcurrent protection, overvoltage protection, undervoltage protection, short-circuit protection, over-temperature protection with CV / CC characteristics (When the output current is less than the setting value, CV mode, otherwise CC mode)
	Output Charging Protocol	Support Apple 2.1A Support Samsung 2.0A: DP = 1.2V, DM =1.2V Support BC1.2:DP and DM short circuit
	Conversion Efficiency	>85%
USB2 (QC3.0) Characteristics (Orange)	Output Voltage	From 5V to 12V, automatic adjustment according to fast charging protocol
	Output Power	18W Max (5V@3.1A, 9V@2A, 12V@1.5A etc.)
	Output Protection	Overcurrent protection, overvoltage protection, undervoltage protection, short-circuit protection, over-temperature protection with CV / CC characteristics (When the output current is less than the setting value, CV mode, otherwise CC mode)

Color)	Output Charging Protocol	<p>Support QC3.0/QC2.0 HP certificate number : 478786303-2</p> <p>Support QC3.0 Class A: 3.6V~12 V (0.2V/step)</p> <p>Support QC2.0 Class A: 5 V, 9 V and 12 V</p> <p>Support Huawei FCP fast charging 5V and 9V</p> <p>Support Samsung AFC fast charging 5V and 9V</p> <p>Support Spreadtrum SFCP fast charging 5V, 9V and 12V</p> <p>Support Apple 2.4A: DP = 2.7V, DM = 2.7V</p> <p>Support Samsung 2.0A: DP = 1.2V, DM = 1.2V</p>
	Conversion Efficiency	>85%
TYPE-C Output	Output Voltage	From 5V to 20V , automatic adjustment according to fast charging protocol
	Output power	60W Max (5V@3.1A , 9V@3.1A , 12V@3.1A,15V@3.1A,20V@3.1Aetc.)
	Output Protection	Overcurrent protection, overvoltage protection, undervoltage protection, short-circuit protection, over-temperature protection with CV / CC characteristics (When the output current is less than the setting value, CV mode, otherwise CC mode)
	Output charging protocol	<p>Support PPS/PD3.0/PD2.0;</p> <p>Support QC4+/QC4/QC3.0/QC2.0;</p> <p>Support AFC;</p> <p>Support FCP;</p> <p>Support low voltage SCP/ high voltage SCP;</p> <p>Support PE2.0/PE1.1;</p> <p>Support SFCP;</p>
	Conversion Efficiency	>85%

Seven、 1 to 8 terminal manual

1.Interface Description

DC5521---DC7955(7.9/5.5/0.8mm)

DC5521---DC6042(6.0/4.2/0.6mm)

DC5521---DC6330(6.3/3.0mm)

DC5521---DC5525(5.5/2.5mm)

DC5521---DC5517(5.5/1.7mm)

DC5521---DC4817(4.8*1.7mm)

DC5521---DC4017(4.0/1.7mm)

DC5521---DC35135(3.5/1.35mm)

2.Attention

1、 Make sure that the voltage is within the specified range before using the terminal.

2、 Please pay attention to confirm whether the terminal matches the actual interface to avoid damage to the device.

3、 Be sure to insert terminals in place while using to avoid poor contact.

4、 If there is overheating, deformation or smoke during use, please turn off the power immediately.

3、 Picture



Eight、 Contact information

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