

# User Manual

Mono Solar Panel





# **Important**

## **Thank you for choosing BougeRV Solar Panel.**

Please read and understand the installation manual before installing BougeRV Solar Panel. With proper operation and maintenance, this solar panel could provide you with clean, renewable solar electricity for many years. This manual contains important installation, maintenance, and safety information. Retain this manual for future reference.

# Limited Warranty

BougeRV Solar Panel comes with an **10-year warranty on materials and workmanship** that commences from the date of purchase.

**We also provide 25 years 80% efficient power output warranty.**

If you have any questions during use, please feel free to contact us:

 [service@bougeRV.com](mailto:service@bougeRV.com)

 [www.bougeRV.com](http://www.bougeRV.com)

 1-408-656-8402

 1-669-232-7427

**NOTE:If you have any after-sales problems with solar panels, please provide the barcodes on the solar panels. We can track the production batches of the solar panels faster and solve your problems more quickly.**

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Ps: The limited warranties do not apply to any of the following:

The solar panel which in BougeRV's absolute judgment have been subjected to misuse, abuse, neglect or accident, alteration, or improper installation, application, or removal.

This includes, but is not limited to, installation, application, or removal by any party other than a BougeRV authorized dealer; non-observance of BougeRV's installation, user's and/or maintenance instructions; power failure surges, lightning, flood, fire, accidental breakage, or other events beyond BougeRV's control.

# Safety Precautions

- Do not stand on, drop, scratch, or allow objects to fall on the solar panels as doing so may damage them and void the warranty.
- Do not place anything on the solar panel, even for a moment because the resulting residue may damage or stain the glass surface.
- If the front glass is broken, or the back sheet is torn, contact with any panel surface or panel frame can cause electric shock.
- Broken J-boxes or connectors are electrical hazards as well as laceration hazards. Installers should remove any such solar panel from the array and contact BougeRV for disposal instructions.
- Do not install or handle the solar panel when they are wet or during periods of high wind.
- Do not block drain holes or allow water to pool in or near module frames.
- Unconnected connectors must always be protected from pollution (e.g dust, humidity, foreign particles, etc), prior to installation. Do not leave unconnected (unprotected) connectors exposed to the environment. A clean assembly environment is therefore essential to avoid performance degradation.
- Save these instructions!

# Electrical Parameters

MODEL	100W SOLAR PANEL	180W SOLAR PANEL	200W SOLAR PANEL
Peak Power Pm	100W	180W	200W
Open circuit voltage Voc	21.4V	23.0V	21.62V
Max.power voltage Vmp	18.15V	19.2V	17.98V
Max.power current Imp	5.51A	9.38A	11.12A
Short circuit current Isc	6.11A	10.23A	12.09A
Solar cells Efficiency	21.90%	20.50%	22.80%
Operating temperature limits	-40°F~ +185°F	-40°F~ +185°F	-40°F~ +185°F
Cable/ Cable connector Model	12AWG 3FT MC4 connectors	12AWG 3FT MC4 connectors	12AWG 3FT MC4 connectors
Max.static load, front(e.g.snow/wind)	2400 Pa	2400 Pa	2400 Pa
Max.static load, back(e.g.,wind)	2400 Pa	2400 Pa	2400 Pa
Max.hailstone impact (diameter/velocity)	227g stell ball fall down from 1m height and 60m/s wind	227g stell ball fall down from 1m height and 60m/s wind	227g stell ball fall down from 1m height and 60m/s wind
Max.system voltage(V)	1000V DC	1000V DC	1000V DC
Series fuse rating	10A	15A	15A
Application Class	Class A	Class A	Class A
Product Certification /Standard	CE,ETL	CE,ETL	CE,ETL
Product diameter (mm)	995 * 540 * 35	1480 * 670 * 35	1390 * 705 * 35

# Electrical Parameters

<b>MODEL</b>	<b>300W SOLAR PANEL</b>	<b>300W SOLAR PANEL (fold)</b>
Peak Power Pm	300W	300W
Open circuit voltage Voc	20.8V	20.4V
Max.power voltage Vmp	17.5V	17.5V
Max.power current Imp	17.14A	17.14A
Short circuit current Isc	18.85A	19.22A
Solar cells Efficiency	23%	23%
Operating temperature limits	-40°F~ +185°F	-40°F~ +185°F
Cable/ Cable connector Model	12AWG 3FT MC4 connectors	12AWG 3FT MC4 connectors
Max.static load, front(e.g.snow/wind)	2400 Pa	2400 Pa
Max.static load, back(e.g.,wind)	2400 Pa	2400 Pa
Max.hailstone impact (diameter/velocity)	227g stell ball fall down from 1m height and 60m/s wind	227g stell ball fall down from 1m height and 60m/s wind
Max.system voltage(V)	1000V DC	1000V DC
Series fuse rating	20A	20A
Application Class	Class A	Class A
Product Certification /Standard	CE,ETL	CE,ETL
Product diameter (mm)	1640*880*35	1640*932*35

# Electrical Parameters

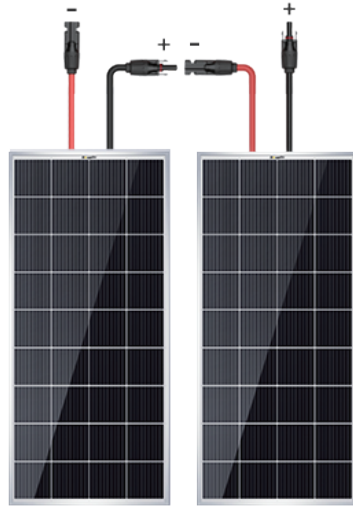
<b>MODEL</b>	<b>200W SOLAR PANEL(NEW)</b>	<b>400W SOLAR PANEL</b>
Peak Power Pm	200W	400W
Open circuit voltage Voc	22.5V	37.07V
Max.power voltage Vmp	19.1V	31.01V
Max.power current Imp	10.99A	12.90A
Short circuit current Isc	12.21A	13.79A
Solar cells Efficiency	23%	23%
Operating temperature limits	-40°F~ +185°F	-40°F~ +185°F
Cable/ Cable connector Model	12AWG 3FT MC4 connectors	12AWG 4.9FT MC4 connectors
Max.static load, front(e.g.snow/wind)	2400 Pa	2400 Pa
Max.static load, back(e.g.,wind)	2400 Pa	2400 Pa
Max.hailstone impact (diameter/velocity)	227g stell ball fall down from 1m height and 60m/s wind	227g stell ball fall down from 1m height and 60m/s wind
Max.system voltage(V)	1000V DC	1000V DC
Series fuse rating	15A	25A
Application Class	Class A	Class A
Product Certification /Standard	CE,ETL	CE,ETL
Product diameter (mm)	1485*705*35	1724*1134*35



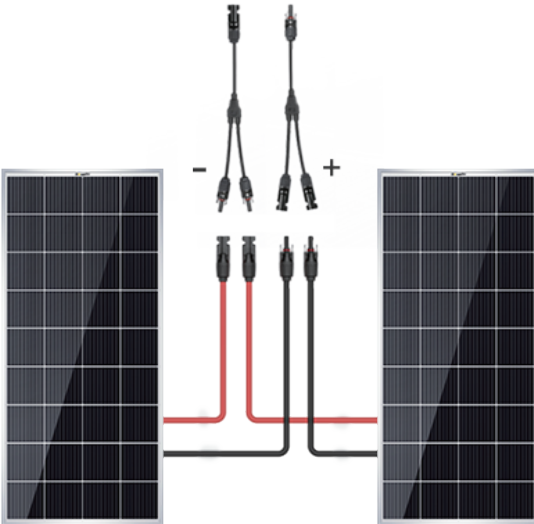
# Electrical Connections

## Series Connection

The panel may be wired in series to produce the desired voltage output.



Electrical Connection



Parallel Connection

## Parallel Connection

The solar panel can be wired in parallel to produce the desired current output with the parallel connector.

# Frequently Asked Questions

**Q1** How to choose the appropriate solar accessories that fit the solar panel if I want to build a solar system on my own?

**A1** BougeRV provides you with professional technical services. You can send us your needs and the parameter information or instructions of your purchased accessories directly to our email: [service@bougeerv.com](mailto:service@bougeerv.com), we will help you build the ideal DIY solar system.

**Q2** What should I do if the solar panel I received is damaged, missing parts, or no output?

**A2** Please send relevant pictures to our after-sales mailbox [service@bougeerv.com](mailto:service@bougeerv.com) immediately, and leave your order number. We will reply one by one according to the chronological order sent by the customers.

**Q3** What causes the low output power or no output during the use of solar panels? How can I solve it?

**A3** The output power of solar panels is mainly affected by light intensity, light angle, and shadow occlusion during the use of solar panels. Therefore, during daily use, the angle of illumination must be adjusted to prevent shadows, and the obstructions on the solar panel must be cleaned regularly, such as bird droppings, dust, and garbage. Such obstructions may cause the solar panel to not output at all.

**Q4** Does it work with the portable power station?

**A4** Yes, BougeRV solar panels with mc4 connectors are suitable for most portable power stations on the market. If you want to inquire about the specific model, please contact us.



# **BougeRV**

**OUTDOOR APPLIANCES**

[www.bougerv.com](http://www.bougerv.com)