



POWER[®]
QUEEN

Product Manual

14.6V 20A

LiFePO₄ BATTERY CHARGER

Power Queen



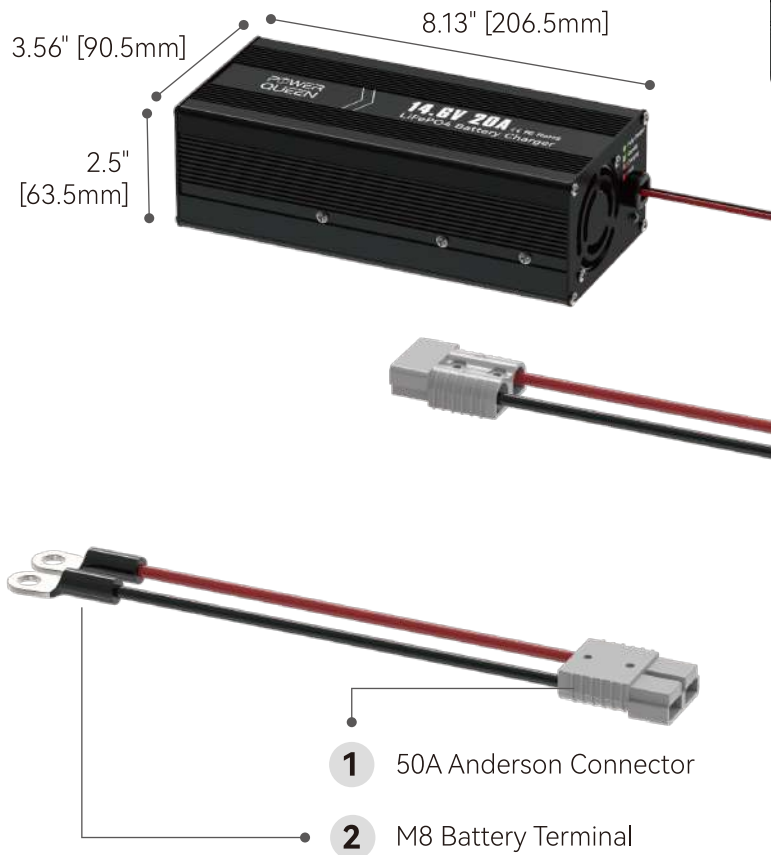
www.ipowerqueen.com

 service@ipowerqueen.com

 technicalsupport@ipowerqueen.com

PRODUCT OVERVIEW

14.6V 20A LiFePO4 Battery Charger





AC SIDE

100-240V AC Input

3 AC Port

DC SIDE

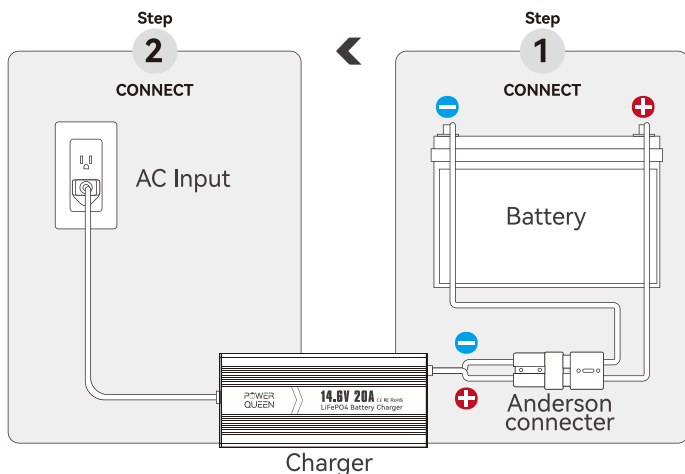
14.6V DC Output



LED Indicator

4

HOW TO CONNECT



➤ Step 1

Connect the DC output cable to the battery, **+** to **+**, **-** to **-**, then connect the Anderson connector.

➤ Step 2

Connect the AC input cable to the AC port and then to the grid power.

➤ Step 3

Disconnect the Anderson connector or the grid power after charging is complete.

CHARGING MODES

1) Pre-Charge Stage (T1)

When the battery voltage is lower than its normal standard and cannot withstand high-current charging, the charger will charge it at a limited current.

This charging mode will be able to activate and repair the battery and extend the battery's lifetime. When the output voltage reaches the normal value, the charger will automatically switch to the next stage.

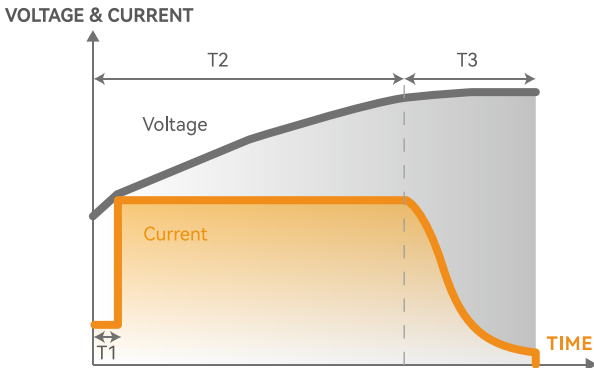
2) Constant Current Charging Stage (T2)

When the battery is in the main charging time, the charger will charge the battery with a 20A current. When the battery voltage rises above the set value, the charger will automatically switch to the next stage.

3) Constant Voltage Charging Stage (T3)

The charger switches to the Constant Voltage Charging Stage and the charging current gradually decreases. When the charging voltage or current reaches the set value, the charger automatically turns off the output voltage and the battery charging is completed.

The charging curves are as follows.









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LED INDICATOR

LED Status	Charger Status
 LED Always on Red	Battery is charging.
 LED Always on Green	Battery is fully charged.
 LED Flashes Green	Charger is on standby.
 LED Flashes Red	Charger fault or under protection, reverse polarity

TROUBLESHOOTING

If the charger does not work properly, the following methods can rule out the possibility of failure, please contact Power Queen at s

Problem	Possible Cause
LED flashes red when charging.	Under Over Temperature Protection
LED flashes red after connected.	Under Reverse Polarity Connection / Output Short-Circuit Protection
	Under Output Over-Voltage Protection
The charger does not charge and the LED is off after being connected to grid power.	AC port is not tightly or correctly connected
	Charger Internal Damage

ection (over temperature protection, output short-circuit connection protection, output over-voltage protection).

an help you solve the general problem quickly. If you still cannot service@ipowerqueen.com.

	Solution
ection	Cool down the charger to normal temperature, and the charger will resume charging,
ction Protection on	Connect the charger to the battery correctly, + to +, - to -.
rotection	Make sure the connected battery is a 12.8V LiFePO4 battery.
ctly connected.	Reconnect the AC input cable to the AC input port tightly.
	Contact us at service@ipowerqueen.com for further solutions.

MAINTENANCE & USE PRECAUTIONS

- 1) Check the battery specifications carefully before charging to ensure that the LiFePO₄ battery matches the charger technical data.
- 2) Make sure the charger is properly connected to the battery (+ to +, - to -) to avoid a short circuit.
- 3) The input/output connectors must be firmly connected during charging.
- 4) Unplug the input/output cable of the charger immediately once the charger or battery is found to be abnormal or damaged during charging.
- 5) Do not use other input cables or extend the output connection cable personally, or please contact Power Queen at service@ipowerqueen.com to get some advice if you need it.
- 6) Do not open, dismantle, or modify the charger.
- 7) Never use it in a thunderstorm.
- 8) Please keep the charger and battery away from water, heat sources, sparks, flames, flammable gas, and hazardous chemicals.
- 9) Do not place rods or other metal objects in vents or other openings.
- 10) Place the charge in a well-ventilated area with sufficient heat dissipation to prevent overheating and damage.
- 11) Do not puncture, drop, crush, burn, penetrate, shake, strike, or throw it with force.

SPECIFICATIONS

Input Voltage	100V to 240V AC; 50Hz to 60Hz
Max Input Current	7A
Output Voltage	14.6V DC
Output Current	20A
Temperature Range	Operating: -20°C to 40°C / -4°F to 104°F
	Storage: -40°C to 70°C / -40°F to 158°F
Dimensions	L8.13×W3.56×H2.5 inch
	L206.5*W90.5*H63.5 mm
Net Weight	1.3kg / 2.87lbs



If you have any questions or need any help,
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LiFePO4 BATTERY CHARGER

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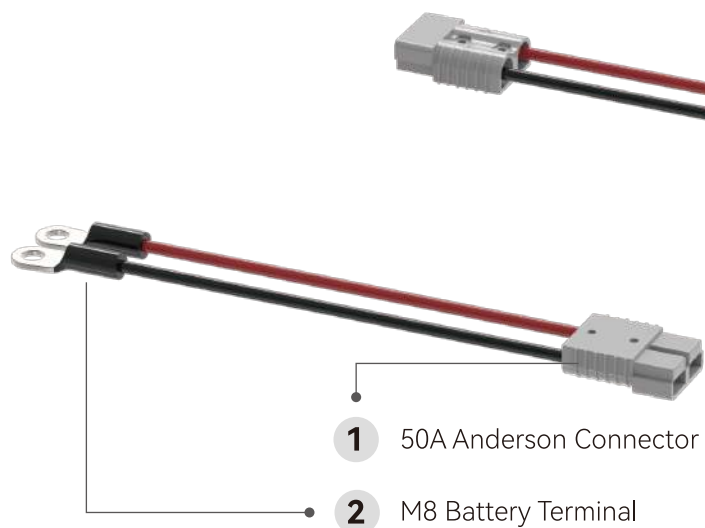
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PRODUCT OVERVIEW

14.6V 20A LiFePO4 Battery Charger



AC SIDE

100-240V AC Input

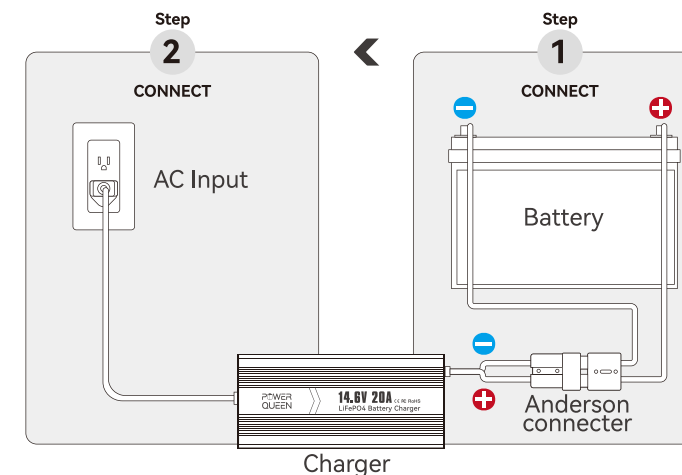
3 AC Port

DC SIDE

14.6V DC Output



HOW TO CONNECT



➤ Step 1

Connect the DC output cable to the battery, **+** to **+**, **-** to **-**, then connect the Anderson connector.

➤ Step 2

Connect the AC input cable to the AC port and then to the grid power.

➤ Step 3

Disconnect the Anderson connector or the grid power after charging is complete.

CHARGING MODES

1) Pre-Charge Stage (T1)

When the battery voltage is lower than its normal standard and cannot withstand high-current charging, the charger will charge it at a limited current.

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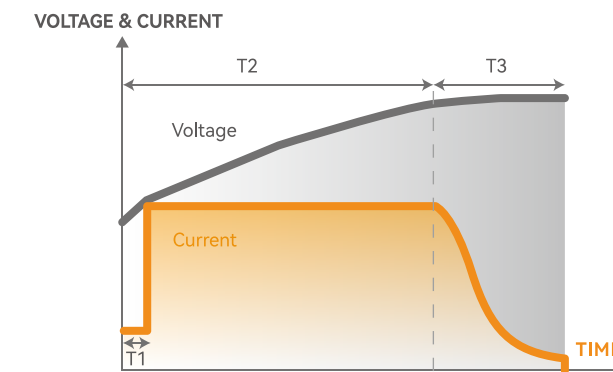
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TROUBLESHOOTING

If the charger does not work properly, the following methods can help you solve the general problem quickly. If you still cannot rule out the possibility of failure, please contact Power Queen at service@ipowerqueen.com.

Problem	Possible Cause	Solution
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LED flashes red after connected.	Under Reverse Polarity Connection Protection / Output Short-Circuit Protection	Connect the charger to the battery correctly, + to +, - to -.
	Under Output Over-Voltage Protection	Make sure the connected battery is a 12.8V LiFePO4 battery.
The charger does not charge and the LED is off after being connected to grid power.	AC port is not tightly or correctly connected.	Reconnect the AC input cable to the AC input port tightly.
	Charger Internal Damage	Contact us at service@ipowerqueen.com for further solutions.

MAINTENANCE & USE PRECAUTIONS

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