

# Portable LFP Battery Charger

## Quick Guide

SKU: RBC20A1P

### Important Safety Instructions

**WARNING** Indicates a potentially dangerous condition. Use extreme caution when performing this task.

**CAUTION** Indicates a critical procedure for the safe and proper installation and operation of the battery.

**NOTE** Indicates a procedure or function that is important to the safe and proper operation of the battery.

#### Disclaimer

The manufacturer accepts no liability for any damage caused by:

- Force majeure including fire, typhoon, flood, earthquake, war, and terrorism.
- Intentional or accidental misuse, abuse, neglect or improper maintenance, and use under abnormal conditions.
- Improper installation, improper operation, and malfunction of a peripheral device.
- Contamination with hazardous substances, diseases, vermin, or radiation.
- Alterations to the product without expressed written consent from the manufacturer.

#### General Safety Information

- Please keep the battery away from water, heat sources, sparks, and hazardous chemicals.
- DO NOT puncture, drop, crush, burn, penetrate, shake, or strike the battery.
- DO NOT open, dismantle, or modify the battery.
- DO NOT touch any terminals or connectors.

- Any uncovered battery material, such as electrolyte or powder, that has contacted skin or the eyes must be flushed out with plenty of clean water immediately. Seek medical attention afterwards. Spills on clothing should be rinsed out with water.

- DO NOT touch the exposed electrolyte or powder if the battery casing is damaged.

- Please make sure any battery charger(s) or charge controller(s) are disconnected when working on the battery.

- DO NOT connect or disconnect terminals from the battery without first disconnecting loads.

- Do not expose charger to rain or snow.

- Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.

- To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.

- Do not operate charger with damaged cord or plug – replace the cord or plug immediately.

- Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.

- Do not disassemble charger

- To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

- The charger outputs 20A and is intended for the use of charging 12.8V Lithium-iron phosphate (LFP, LiFePO4) batteries that can handle the charge current.

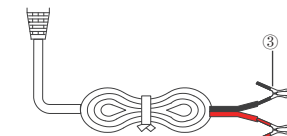
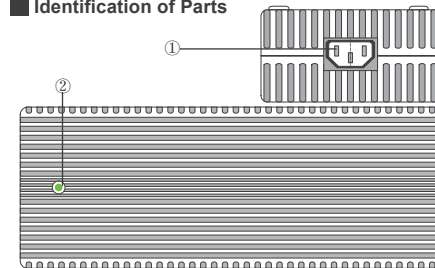
- Ensure that the LiFePO4 batteries include a PCM/BMS when using this charger.

### General Information

The Renogy 20A AC to DC Charger (RBC20A1P) is an automatic and portable charger intended for 12V Lithium-iron phosphate batteries. This charger includes 12AWG alligator clips and outputs power based on the power, voltage, and current condition of the battery. The charger has a status indicator light for providing a visual means to determine the operating mode and condition of the battery connected to the charger. The AC-DC portable charger will automatically monitor and maintain the battery at full charge.

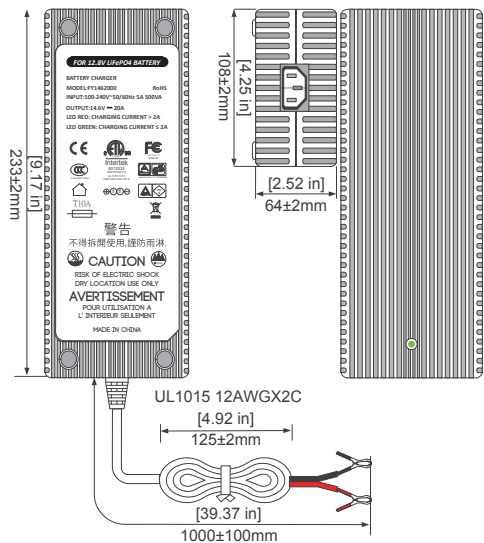
### Product Overview

#### Identification of Parts



- 1.AC Port
- 2.LED Status Indicator
- 3.Alligator Clips

## Dimensions



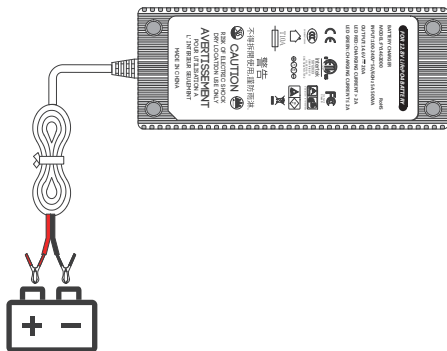
## Operation

**WARNING** Never alter AC cord or plug provided

**IMPORTANT:** Place charger on a hard-flat surface. Do not place on plastic, leather or textile surface.

- Locate charger as far away from battery as dc cables permit.
- Never place charger directly above battery being charged
- Do not operate charger in a closed-in area or restrict ventilation in any way.
- Never allow clips to touch each other

To get started, connect the positive alligator clip to the positive terminal on the LFP battery. Do the same for the negative terminal. Upon successful connection, the status indicator will display Red or Green depending on the status of the battery.



## LED Status

Charging Indicator	Status
Red	Indicates that the charger is charging at a rate greater than 2A. For discharged batteries the amperage will be 20A, for moderately charged batteries the value will be less.
Green	Indicates charging has been completed and the rate is less than or equal to 2A.

## Troubleshooting

Condition	Steps to take
The charger is connected but the status light does not turn on	<ol style="list-style-type: none"> <li>1. Check to make sure the AC cord is tightly connected to the charger.</li> <li>2. Make sure the ac outlet is supplying power by plugging in another device or using a multi-meter in AC mode.</li> </ol>
The Green LED is on upon connecting a discharged battery	<ol style="list-style-type: none"> <li>1. Use a multi-meter to check on the status of the LFP battery. Make sure the battery is a 12.8V LFP rated battery</li> <li>2. The battery or charger may be defective or require further troubleshooting</li> </ol>
The indicator light does not turn on	Double check your connections to make sure the positive alligator clip is connected to the positive terminal of your LFP battery. Do the same for the negative alligator clip and the negative terminal of the battery

## Technical Specifications

Model	FY1462000
Input Voltage	100-240 VAC ~ 50/60Hz
Input Amps	5A Max
Output Voltage	14.6 VDC
Output Amps	20A
Minimum Battery Voltage	8V
Efficiency	93%
Room Operating Temperature*	-29 C ~ 45 C / -20 F ~ 113 F
Storage Temperature	-40 C ~ 75 C / -40 F ~ 167 F
Self-Consumption	50mA
Current Protection	250V 10A Fuse built in
Dimensions	9.17 x 4.25 x 2.52 in / 233 x 108 x 64 mm
Weight	3.75 lbs / 1.7 kg
Cable Length	approx. 39.37 in / 1000 mm

\*Lithium iron phosphate batteries should not be charged below 0 C / 32 F. The BMS will cut off charging despite the operating temperature of the charger to be below 0 C / 32 F

## Charge Curve

