

# 51.1V 2A LiFePO4 Battery Charger for 44.1V 14S LFP Cells Pack Technical Datasheet

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Phonix Charger – Custom Smart Battery Charger Manufacturer

LiFePO4 Battery Charger: <https://phonixcharger.com/lifepo4-battery-charger/>

## Product Overview

This technical datasheet describes a 51.1V 2A 102.2W LiFePO4 Battery Charger designed for charging 14S 44.1V LiFePO4 battery packs. The charger provides stable constant current and constant voltage charging optimized for LiFePO4 battery chemistry.

The 51.1V 2A LiFePO4 battery charger is designed for charging 44.1V lithium iron phosphate (LFP) battery packs used in a wide range of applications, including electric scooters, e-bikes, power tools, portable power stations, solar energy storage systems, alarm and security systems, UPS backup power, industrial equipment, robotics, marine electronics, and other devices powered by 14-cells (14S) LiFePO4 batteries. The charger follows a safe multi-stage charging profile including pre-charge, constant current (CC), constant voltage (CV), and automatic charge termination.

Phonix provides OEM and ODM solutions for custom battery charging systems. As a [Custom](#) Battery Charger manufacturer, Phonix also offers custom smart charger design services for [lithium](#), [LiFePO4](#), [lead-acid](#), and [NiMH](#) battery applications.

## Key Features

- Multi-stage charging: Pre-charge, CC, CV and automatic cut-off
- Designed for 14S 44.1V LiFePO4 battery packs
- Wide AC input range 100 ~ 240V AC
- LED charging status indicator
- Multiple protections: OVP, OCP, short circuit and reverse protection
- High efficiency design  $\geq 90\%$
- Industrial compact design
- OEM / ODM customization available

## Technical Specifications

Parameter	Specification
Brand	Phonix
Model	FX51102000
AC Input	100~240V, 50/60Hz
Input Voltage Range	AC 90~264V
Rated Input Current	1.14A at 100Vac input
Max Input Power	114W
DC Output Voltage MAX	DC 51.1V
Output Voltage Range	DC 44.1V ~ 51.1V,
Charging Voltage	51.1V±10% , CV Mode.
Charging Current	2A ±5%
Pre-charge Current	0.2A
Charge End Current	≤0.2A ±10%
Output Max Power	102.2W
Battery Type	14S 44.1V LiFePO4 Battery (14S 44.1V LFP Cells Pack)
Efficiency	≥90%
Ripple Voltage	≤520 mV
Operating Temperature	-10°C ~ +40°C
Storage Temperature	-40°C ~ +70°C
Humidity	0 ~ 95% RH
Cooling	Natural cooling
Size	154*60*36mm
Weight	450g

Parameter	Specification
Safety Certifications	CE / UL / TUV / FCC / PSE / CCC / SAA / RCM / WEEE
MTBF	50000 Hours
Warranty	5 years

## Typical Applications

- 14S 44.1V LiFePO4 battery packs
- Electric scooters, e-bikes and light EV batteries
- Portable power stations and mobile power systems
- Solar energy storage and off-grid applications
- Backup power systems and UPS
- Security, alarm and surveillance systems
- Emergency lighting systems
- Industrial automation and robotics equipment
- Marine electronics and RV battery systems
- Portable medical and testing devices
- OEM / ODM custom LiFePO4 battery charging solutions

## Manufacturer Information

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### Product Page:

<https://phonixcharger.com/51-1v-2a-lifepo4-battery-charger-for-14s-44-8v-packs/>

**Official Website:** <https://phonixcharger.com>



图 1: Phonix 51.1V 2A LiFePO4 Battery Charger for 14S Batteries Pack