

54.6V 2A Li-ion Battery Charger for 48V 13S Lithium-ion Cell Pack Technical Datasheet

Phonix Charger – Custom Smart Battery Charger Manufacturer

Li-ion Battery Charger: <https://phonixcharger.com/Li-ion-battery-charger/>

Product Overview

This technical datasheet describes a 54.6V 2A 109.2W Li-ion Battery Charger designed for charging 13S 48V Li-ion battery packs. The charger provides stable constant current and constant voltage charging optimized for Li-ion battery chemistry.

The 54.6V 2A Li-ion battery charger is designed for charging 48V 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 13-cells (13S) Li-ion 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](#), [Li-ion](#), [lead-acid](#), and [NiMH](#) battery applications.

Key Features

- Multi-stage charging: Pre-charge, CC, CV and automatic cut-off
- Designed for 13S 48V Li-ion 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 $\geq 85\%$
- Industrial compact design
- OEM / ODM customization available

Technical Specifications

Parameter	Specification
Brand	Phonix
Model	FX5462000
AC Input	100~240V, 50/60Hz
Input Voltage Range	AC 90~264V
Rated Input Current	1.18A at 100Vac input
Max Input Power	118W
DC Output Voltage MAX	DC 54.6V
Output Voltage Range	DC 48V ~ 54.6V,
Charging Voltage	54.6V±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	13S 48V Li-ion Battery (13S 48V Lithium-ion Cell Pack)
Efficiency	≥85%
Ripple Voltage	≤520 mV
Operating Temperature	-10°C ~ +40°C
Storage Temperature	-40°C ~ +70°C
Humidity	0 ~ 95% RH
Cooling	Natural cooling
Size	114*52*30mm

Parameter	Specification
Weight	160g
Safety Certifications	CE / UL / TUV / FCC / PSE / CCC / SAA / RCM / WEEE
MTBF	50000 Hours
Warranty	5 years

Typical Applications

- 13S 48V Li-ion 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 Li-ion battery charging solutions

Manufacturer Information

Manufacturer: Phonix

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Product Page:

<https://phonixcharger.com/54-6v-2a-li-ion-battery-charger-for-13s-48v-battery-pack/>

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

Adapt for E-scooters







1M AC cord + 1M DC cord + 0.2m DC Plug Extension Cable

INPUT CORD TYPE



美规



小英规



欧规



大英规



澳规

图 1: Phonix 54.6V 2A Li-ion Battery Charger for 13S Batteries Pack

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