
58.4V 1A LiFePO₄ Battery Charger For 50.4V 16S

LFP Cells Pack Specification

Phonix Charger – Custom Smart Battery Charger Manufacturer

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

Product Overview

This technical data sheet describes a 58.4V 1A 58.4W LiFePO₄ Battery Charger designed for charging 16S 50.4V LiFePO₄ battery packs. The charger provides stable constant current and constant voltage charging optimized for LiFePO₄ battery chemistry.

The 58.4V 1A LiFePO₄ battery charger is designed for charging 50.4V 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 16-cells (16S) 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

- Brand: Phonix®
- Model: FX58401000LFP
- AC Input: 100~240V
- DC Output: 58.4V 1A
- Charge Process: Pre-charge, CC, CV and Automatically Cut-off
- Charger Indicator: With Double color LED for power capacity show
- Output Protections: OVP, OCP, Shorted, Reversed
- Safety Approval: CE, UL, TUV, FCC, PSE, CCC
- Multi-stage charging: Pre-charge, CC, CV and automatic cut-off
- Designed for 16S 50.4V LiFePO₄ battery packs
- Wide AC input range 100 ~ 240V AC
- LED charging status indicator
- Multiple protections: OVP, OCP, short circuit and reverse protection
- Industrial compact design
- OEM / ODM customization available

Technical Specifications

FX58401000LFP 58.4V 1A LiFePO4 Battery Charger for 16S 50.4V-51.2V Battery Packs		
Item	Specification	Remark
1.Input		
Rating input voltage	100~240 Vac, 50/60 Hz	
Input voltage range	100~264 Vac	
Rating input current	0.68 A/RMS	Input:100V Output: Full load
Max input power	68W	Input:100V Output: Full load
2.Output		
No load output voltage		
Output voltage range	DC51.2V~ 58.4V	
Charging current	1A ±10%	
Charging voltage	DC 58.4V±0.2 V	
Pre-charge	0.1A ± 10%	Voltage ≤32V (battery discharge voltage)
Charge-end current	≤0.1A±10%	
Suit with battery type	16S 51.2V LiFePO ₄ Battery	
Timer	-	
Max output power	58.4W	
Ripple voltage	≤580mV	Full load
Power LED	Red	Power on
Charging LED	All off	No battery
	All on (or Green on)	Finished
	All flashing	Error
	Flashing one by one	Charging
Shorted	Yes	
Reversed	Yes	
Efficiency	≥86%	Full load @220V
3.Environment		
Operate temperature	-10 ~ +40°C	
Operate humidity	< +50%	Relative humidity
Storage temperature	-40 ~ +70°C	
Storage humidity	0 ~ +55%	Relative humidity
Cooling	Natural	
Vibration resistance	5MM / 50HZ/600S	Non-operating condition
Impact resistance	1 meter drop test 3 times	Non-operating condition
4.Mechanical		

Net Weight	300g	
Size	113*44*31mm	Casing only
Connector	Refer to order	
5.Safety		
Max. temperature rise	< 40°C on casing	
Safety approval	CE/TUV/FCC/PSE/CCC	
MTBF	50000 H	
ESD	8.0 KV	
Hi-Pot Insulation	i/p to o/p: 3000V (1 min)	

Typical Applications

- 16S 47.2V LiFePO4 battery packs,
- Electric scooters, e-bikes, power tools, power equipment, marine equipment, 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/58-4v-1a-lifepo4-battery-charger-for-16s-50-4v-battery-packs/>



Phonix 50.4V-58.4V 1A LiFePO4 Battery Charger for 16S LFP Batteries Pack