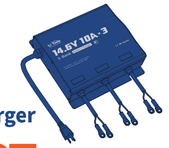
14.6V 10A x3

Li Time

WATER PROOF



3-Bank Battery Charger

PRODUCT MANUAL

For LiFePO4 | NCM | Lead Acid Battery

www.litime.com

USA service@litime.com EU service.de@litime.com

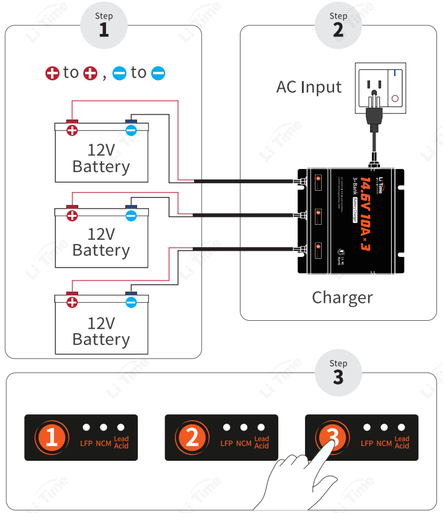
PRODUCT OVERVIEW

14.6V 10AX3 3-BANK BATTERY CHARGER

AC SIDE

DC SIDE

HOW TO CONNECT



Step 1 Connect the M8 battery terminals of the charger to the batteries, to , to .

Step 2 Plug the AC plug to the grid power.

Step 3 Select the suitable battery types by short pressing the button, then press and hold it or wait for 60 seconds to save the battery types.

BUTTON OPERATION

Button	Charger Status	Operation	Function
1 2 3	The charger is on set mode. (The LED is in red-green rapid flash.)	Short Press	Select the Battery Type
		Press and Hold (or wait for 60 seconds)	Save the Battery Type
	The battery is in charging. (The LED is always on red.)	Short Press	/
		Press and Hold 1st Time	Stop Charging
		Press and Hold 2nd Time	Enter the Set Mode
		Press and Hold 3rd Time	Save the Battery Type or Resume Charging

LED INDICATOR

LED Status	Charger Status
Always on Red	Battery is charging.
Always on Green	Battery is fully charged.
Green Slow Flash	Charger is on standby.
Red-green Slow Flash	Charging is stopped manually.
Red-green Rapid Flash	The charger is in Set or Protection mode.

REGISTER WARRANTY

Register Warranty

Li Time

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Shenzhen Litime Technology Co., Ltd

If you have any questions or need any help, please contact us at service@litime.com.

SPECIFICATIONS

Input	90V to 260V AC, 47Hz to 63Hz
Input Current(AC)	6A/115V, 2.5A/230V
Output Voltage(DC)	14.6V/LFP, 16.8V/NCM, 14.7V/Lead Acid
Max. Charging Power	168Wx3
Output Current	10Ax3
Protection Class	IP65
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	L9.06*W9.08*H2.64 inches L230*W230.6*H67 mm
Net Weight	Appr. 9.48 lbs / 4.3kg

Note: This battery charger supports activating the BMS of the lithium battery.

CHARGING MODES①

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 lithium battery and extend the lithium battery's lifetime. When the output voltage reaches the normal value, the charger will automatically switch to the next stage.

Constant Current Charging Stage (T2)

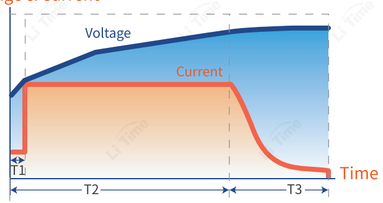
When the battery is in the main charging time, the charger will charge the battery with a 10A current for each bank. When the battery voltage rises above the set value, the charger will automatically switch to the next stage.

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.

①The above charging modes are suitable for LFP and NCM battery types. For lead-acid battery type, an additional float charging stage will be included.

Voltage & Current



* The charging curves are as above.

MAINTENANCE & USE PRECAUTIONS

1. Check the battery specifications carefully before charging to ensure that the 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 LiTime at service@litime.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 heat sources, sparks, flames, flammable gas, and hazardous chemicals.
9. **Do not** puncture, drop, crush, burn, penetrate, shake, strike, or throw it with force.
10. Place the charger in a well-ventilated area with sufficient heat dissipation to prevent overheating and damage.
11. Make sure the positive lugs of the charger are not touching the negative lugs before the charger connect to shore power.

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 LiTime at service@litime.com.

Problem	Possible Cause	Solution
The charger is not charging for the battery after connected to shore power.	Poor connection with battery	Make sure connections are correct and tight.
The battery is not fully charged after a long time charging.	Batteries are aged or damaged	Replace a new battery.
	Improper battery type choice	Select the correct battery type.
Enter set mode after automatic restart, red and green lights flash rapidly alternately.	Over temperature	Disconnect the battery to the charger, and cool the charger down.
	Over current	Restart the charger.
	Over voltage / Under voltage	Reconnect the suitable battery to the charger.
	Reverse connection	Connect the battery with the charger correctly (⊕ to ⊕, ⊖ to ⊖) and retry.
	Short circuit	Make sure the positive lugs of the charger are not touching the negative lugs.
The charger cannot activate the BMS of the lithium battery.	The charger has not been restarted	Restart the charger.
	The battery is damaged	Replace the battery.