

Guangzhou Yixiu Lvbian Energy Technology Co.,ltd

## SPECIFICATION

**NAME:** waterproof lifepo4 battery charger

**PARAMETER:** 14.4V/25A



## 1. General

12V waterproof Battery Charger ( can work normally under 14.4Vdc/25A with 4s lifepo4 batteries

## 2. Electrical Specification

### 2.1 Main product specification

No.	Model	Technical specification	Remark
1	For battery type	4s lifepo4 batteries	
2	Max output voltage	14.4V± 0.2V	
3	Output current	25A± 0.5A	
4	Input voltage range	200-240Vac	
5	AC input voltage frequency	50-60HZ	

### 2.2 Output characteristic or charge stages

No.	Item	Technical specification	Remark
1	CC(constant current)	25A ± 0.2A <sub>dc</sub>	
2	CV(constant voltage)	14.4V± 0.2V <sub>dc</sub>	
3	Actual Output Power	360W	
4	Floating charge voltage	NO	
5	Transition Current	1.25A± 0.05A	
6	Power efficiency	≥85%	V <sub>in</sub> =220Vac, rated load

### 2.3 Protection characteristics

No.	Item	Technical specification	Remark
1	Over voltage protection	If the charger exceeds the maximum set voltage and will automatic protect	
2	Over current protection	If the charger output current exceeds the maximum charging current , it enters the current protection state	At CC mode
3	Over temperature protection	If charger's inside temperature up to about 78°C, The output power of the charger is halved into the protection state until normal operating temperatures will be continue charging	
4	Short circuit protection	If a short-circuit is detected, the charger will automatically shut down. The charger will resume normal charging once the short-circuit is no longer detected.	
5	Reverse polarity protection	If output wire are reversely connected to the batteries , the charger will not operate and will work normally when DC wires are correctly connected.	

### 2.4 Charging LED indicator

No.	Item	Status	Remark
1	Standby	Green	
2	Charging < 80%	Red	
3	Charging > 80%	Yellow	
4	Charged=100%	Green	
5	Abnormal output	Red light fast flashing	

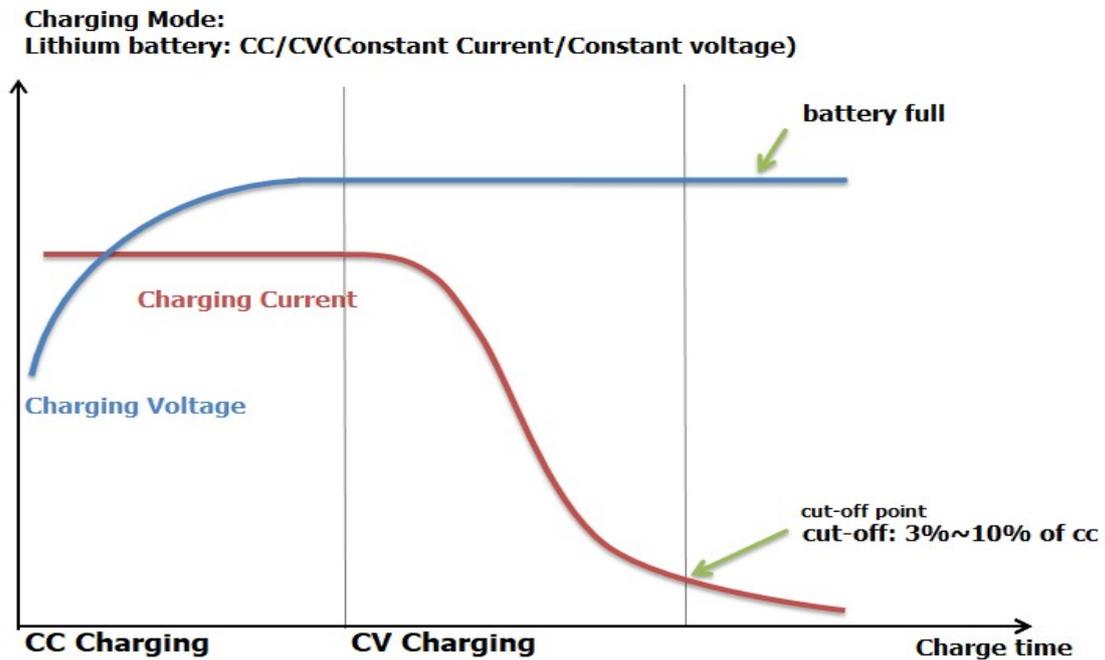
### 3. Safety

No.	Item		Standard (or test condition)	Remark
1	Electric Strength test	Input-Output	1500Vdc/1min $\leq$ 3mA	OK
		Input-Earth		
2	Isolation resistance	Input-Output	$\geq$ 10M $\Omega$ @500Vac	OK
		Output-Shell		

### 4. Environmental testing

No.	Item	Specification	Remark
1	High temperature ambient operating	+50°C	Features OK
2	Low temperature ambient operating	-15°C	Features OK
3	High temperature storage	+70°C	Work normally after recovery under normal temperature for 2 hours
4	Low temperature storage	-40°C	Work normally after recovery under normal temperature for 2 hours
5	Altitude	0-3000m	
6	Humidity	5~95%	

## 5. Charging Curve



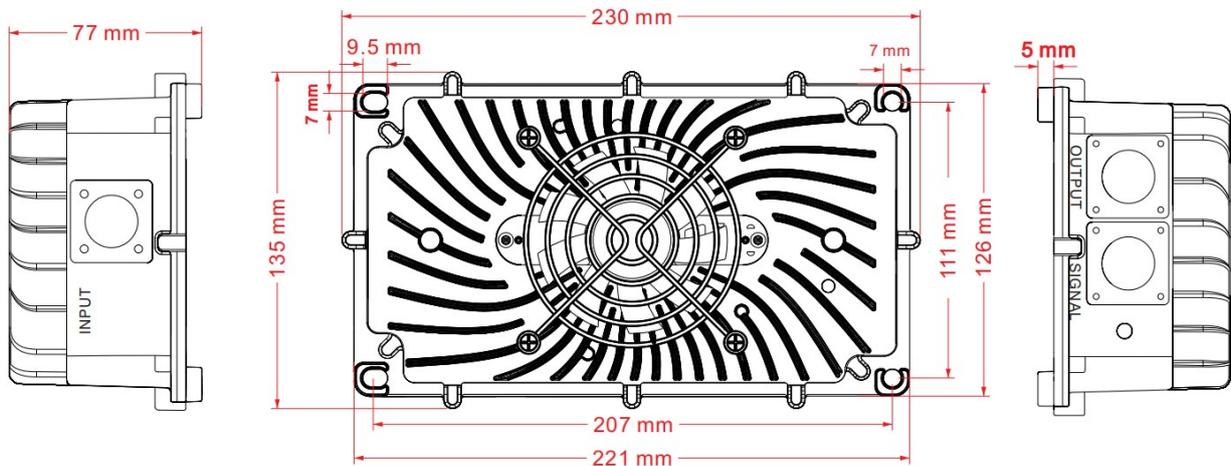
### 5.1 Charging Mode

Charging mode	Output Voltage	Output Current	Decription
C.C. Charge	10~14.4V $\pm$ 1.0V	25A $\pm$ 0.2A	Constant Current
	Charging the battery by 25.0A constant current .		
C.V mode	14.4V $\pm$ 0.2V	25.0A $\rightarrow$ 1.25A	Constant Voltage
	Charging the battery by 14.4V constant voltage.		
Charging	14.4V $\pm$ 0.2V <	1.25A ( $\pm$ 0.05A)	
Completed	Charge complete. Current 1.2 5 A		

## 6. Charger characteristic

No.	Item	Description	Size	备注 Remark
1	Shell material	Aluminum	L*W*H: 230*135*77mm	
2	Input plug	220vac Eu plug	AC cable 1.5m	
3	Output Plug	As customers' requirement	DC cable 1.5m	
4	Net Weight	2.2KG	/	
5	Package	4 pcs / carton	/	
6	Waterproof Feature	IP67	/	
7	Fan	cooling Fan	/	

### 6.1 structure chart



## 7. Reliability requirements

No.	Item	Technical specification	Remark
1	MTBF	MTBF no less than 20000 hours (25 degrees C, Full load and rated voltage input)	
2	Burn-in and Life test	At ambient temperature 25 °C aging in two minutes, shell surface temperature ≤ 55 °C.	