Multiple Installation Battery Product Specification

Model: LiFePO4 51.2V100Ah

PART NO.: CUR5000H

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Prepared By	Checked By	Approved By
Bingshan Chen	/	Guich Deng

Web: www.curentabattery.com
Email: info@curentabattery.com

1. Specifications

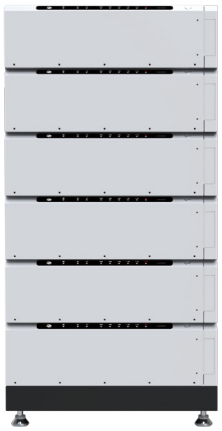
No.	Item	General Parameter	Remark
1	Nominal Voltage	51.2V	
2	Rated Capacity	100Ah	
3	Cycle Life	≥6000 Cycles	Charge: CC@0.2C to 58.4V, then CV till current to 0.05C; Rest: 30min; Discharge: 1C to 40.0V; Temperature: 20±5℃.
4	Discharge Cut-off Voltage	40V	
5	Charge Cut-off Voltage	58.4V	
6	Material	LiFePO4	
7	Recommend Charge Current	20A~50A	0.2C~0.5C
8	Max. Continuous Charge Current	100A	1C
9	Max. Continuous Discharge Current	100A	Peak: 350A, @<35S
10	Operation Temperature	Charge: 0~55℃	
		Discharge: -20~65℃	
		Storage: 0~45℃	
11	Self-discharge Rate	<3%/month	
12	Casing	Iron case	
13	Weight	Approx.: 45Kg	
14	Dimension (L*W*H)	592*400*176mm(±2mm)	
15	Communication	CAN/RS485	
16	Display Screen	Optional	
17	Parallel Connection	Max. 30pcs	Up to 150kWh
18	Maximum Mounting Height	≤2m	

2. Product Structure Design

Product appearance (for reference only)

Wall mounted type

Rack mounted type
(eg: 4pcs paralleled batteries)



Horizontally stackable type
(eg: 6pcs paralleled batteries)

Vertically stackable type
(eg: 4pcs paralleled batteries)

3. Test Conditions, Methods and Electrical Performance

3-1 Test conditions

All tests shall be done under temperature: 15℃~35℃, relative humidity: (RH) 25%~85%, air pressure: 86kPa~106kPa except special appointment.

3-2 Measuring apparatus

a) Voltage is measured by DC Voltmeter whose precision is higher than 0.5 grade and self resistance is higher than 1kΩ/V;

b) Current is measured by Amperemeter whose precision is higher than 0.5 grade;

c) Temperature is measured by Thermometer which has proper measuring range and its division value is lower than 0.5℃;

d) The time used in measuring should be degreed in hour, minute or second, and should have degree of accuracy no less than ±1%.

3-3 Standard charge

Charge the battery with DC stable power supply 58.4V, constant current 0.2C(A) until current reach to 0.05C(A).

3-4 Standard discharge

Charge battery by (3-3), discharge the battery with constant current 1C(A) until the battery reach to over discharge protection or total voltage reach to 40V.

3-5 Battery capacity

Discharge battery by (3-4), and write down discharge time (hour), then capacity (Ah)=1C (A) * discharge time (hour).

3-6 Electrochemistry performance

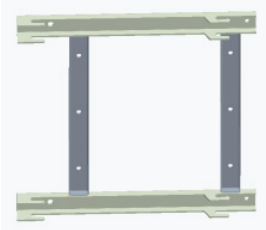
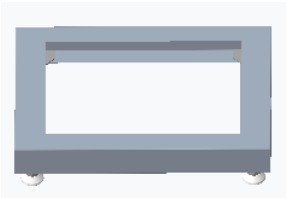
Item	Test Method	Technical requirement
20℃ discharge capacity	Battery charge with standard methods, discharge at 1C(A), write down discharge capacity.	≥95% nominal capacity
55℃ discharge capacity	Battery charge with standard methods, stored for 5h in 55℃±2℃, then discharge at 1C(A) to cut-off voltage, write down discharge capacity.	≥80% nominal capacity
Charge retain ability and recover capability	Battery charge with standard methods, stored for 28d in normal temperature 7d in 55℃.	capacity retention rate≥80% capacity recover rate≥90%
Cycle life	Under the condition of 20℃±5℃, charge the battery with 0.2C(A); discharge the battery at 1C to cut-off voltage. Repeat the above test cycle till the retained capacity is 80% of initial capacity.	≥6000 cycles

4. Product Storage & Transportation

Storage	Transportation	Maintenance
If the battery pack needs to be stored for a long time, charge the battery to 50% SOC (after discharge, charge by charger for 2~3h every 3 months). Battery pack and the charger should be stored in a clean, dry and ventilating place, and should not be placed together with corrosive material, keep the battery away from fire and heat source.	Battery pack and charger should be transported after packaging, and should avoid severe vibrating, impacting, extrusion, direct light and rain. They can be transported by automobile, train, ship, plane, etc..	a) The battery pack should be stored in 40%~60% state-of-charge. b) In the process of maintenance, don't assemble and disassemble the battery without permission, otherwise, the performance of battery will be descend.

5. Inventory List of Articles

A	B	C	D
			

E		F	G
			

No.	Items	Quantity	Specifications	Remarks
A	Battery Pack	1	Multifunctional battery pack	Yes
B	Cable	1	External communication cable	
C	Cable	2	Parallel Power Cable (7AWG, Standard Overcurrent 100A)	Optional
D	Cable	1	Parallel Communication cable	
E	Bracket	2	Wall bracket	
F	Base	1	Vertically stackable base	
G	Base	1	Horizontally stackable base	

6. Warnings

* Do not immerse the battery into water or seawater.
* Do not use, leave or charge the battery near a heat source such as fire or heater.
* Do not inversely connect positive and negative polar.
* Do not put the battery in fire or heat the battery.
* Do not short-circuit the battery with wires or other metals.
* Do not pierce the shell with nails or other sharp objects. Do not hammer or tread the pack.
* Do not disassemble the battery pack without permission.
* Do not put the battery pack in microwave oven or pressure vessels.
* Do not use the battery in extremely thermal environment, such as direct light or cars in hot day. Otherwise, the battery will overheats and the performance and life of battery will be influenced.
* If the battery leaks or smells, move it away from open fire.
* The battery should be used after fully charged in the first use.
* If the battery pack smells, fevers, out of shape, color changes or any other abnormal phenomena happen when the battery is being charged or used, please take it out of the charger or electrical equipment.
* If the battery leaks and the electrolyte contacts eye, do not rub eye. Instead, rinse eye with clean water, and seek medical attention immediately.

*Temperature will influence discharge capacity, if the temperature exceeds standard environment temperature(25±°5℃), discharge capacity will reduce.