25.6V 200Ah

PRODUCT SPECIFICATION

- Support maximum 4 batteries in series
- Protect voltage, current, temperature in whole process
- Built-in BMS
- 10 years design life

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25.6V 200Ah LiFePO4 Battery

1. Overview

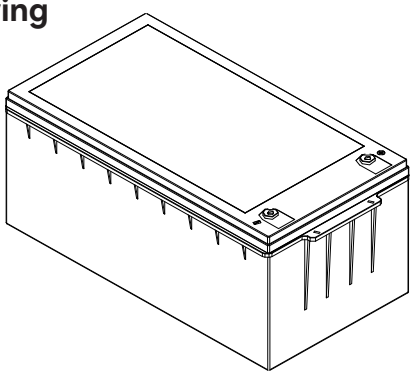
LFP-24200 is 25.6V200Ah Lithium iron phosphate battery module which designed for UPS, solar system, portable devices, energy storage and medical cart applications. This battery module integrated with intelligent BMS inside, has big advantages on safety, cycle life, energy density, temperature range and environmental protection. This product specification describes the type, size, structure, electrochemistry
performance, service life, and BMS characteristics.

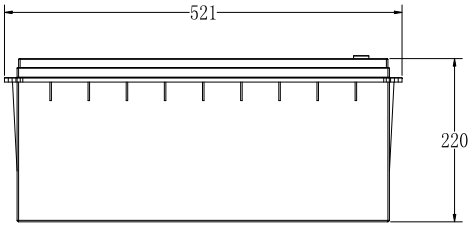
2. Advantages

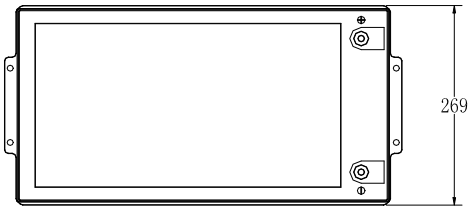
The battery module consists of single LFP cells, wire, BMS and container.

- Packed with high performance LFP single cell, long life, safety and wide temperature range
- High energy density, small size, light weight, no pollution;
- High efficiency, fast charging;
- Built-in BMS, protect voltage, current, temperature in whole process
- Standard VRLA battery case , can replace the VRLA battery directly
- Customize dimension and capacity, Support maximum 4 batteries in series
- 10 years design life, Stable performance, maintenance-free

3. Module Drawing







4. Application scenario

Sailboat

RV

Residence

signal tower

5.Battery Specification（@25±5℃）

NO.	Items		Characteristics
1	Nominal Capacity		200Ah
2	Mix. Capacity		195Ah
3	Nominal Energy		5120Wh
4	Combination Structure Of Battery		54173210-8S1P
5	Nominal Voltage		25.6V
6	End Of Discharge Voltage		21.6V
7	Standard Charge Voltage		29.2±0.2V
8	Float Charge Voltage		27.6V
9	Standard Charge Current		40A
10	Recommended Charge Current		≤100A
11	Allowed Max.Charge Current		100A
12	Standard Charge Current		80A
13	Recommended Charge Current		≤150A
14	Allowed Max. Charge Current		150A
15	Peak Current		300A,10Sec
16	Internal Resistance		≤50mΩ
17	Weight		Approx.41.0kg±5%
18	Ex-factory Capacity		Approx.50%SOC
19	Operation Temperature	Discharge	-20℃~60℃
		Charge	0℃~45℃
20	Storage Environment	≤1Month	-20～+60℃、5～75%RH
		≤6Month	-10～+45℃、5～75%RH
		Recommend environment	15～+35℃、5～75%RH

6.Electrical Characteristics & Test Condition

Testing Conditions:Ambient Temperature: 25+5;Humidity:45%~75%

Normal charge: Charge battery under CC(0.2C)/cV(28.8v) mode until thecharge curent reduce to 0.02c, and then rest for 1h.

No.	Items	Standard	Test Condition
1	Normal Capacity	≥200Ah	After Normal charge, discharge @0.2C current to the end of discharge voltage.
2	Internal Impedance	≤50mΩ	@50% SOC @1kHz AC internal resistance test Instrument.
3	Short Circuit Protection	Auto cutoff load when short circuit	Connect the positive and negative of this battery pack through a lead with 0.10 resistance.
4	Discharge Temperature Characteristic	-20℃/25℃≥45%	Battery shall be charged according to standard charge, discharged at 0.5C to 21.6V.Battery shall be stored for 4 hours at the test temperature prior to discharging and then shall be discharged at the test temperature, The percentage shall be calculated using discharging capacity compared to the minimum capacity.
		-10℃/25℃≥70%	
		0℃/25℃≥85%	
		25℃/25℃≥100%	
		55℃/25℃≥95%	
5	Discharge performance in normal temperature	Discharge capacity 0.2C ≥ 100% 1C ≥ 95%	When the battery is in the environment of 25℃± 2 , after standard charging, rest for 10min,and then discharge to 21.6V with 0.2C, 1C.Calculate the ratio of discharge capacity torated capacity at each multiple.
6	Capacity retention rate	Capacity retention≥90% Capacity recovery≥95%	Measure the initial state and capacity of the battery, after standard charge, then rest for 28 days, measure the final state of the battery discharge at 0.2C to 21.6V,measure the remaining capacity of the battery. After standard charging, the battery is discharged at 0.2C to21.6V to measure its recovery capacity. It canbe cycled three times.
7	Cycle life@DOD 100%	≥ 2000 cycles	After Normal charge, discharge @0.5C current to theend of discharge voltage. Repeat above process until discharge capacity reduce to 70% of initial value.

7.Circuit Protection

NO.	Item	Content	Parameter
1	Over charge	Over-charge protection for each cell	3.65±0.05V
		Over-charge protection for battery	29.2±0.20V
		Over-charge protection delay time	0.5-2S
		Over-charge release method	Cell voltages3.50+0.05v and battery voltage ≤28.0+0.20V or Discharge current>2A
2	Over charge current	Charge over current protection 1	Charge current 140±20A
		Charge over current protection delay time	300~800mS
		Charge over current release	Cut load,Auto Recovery or discharge current > 2A
3	Over discharge	Over-discharge protection for each cell	2.3V±0.10V
		Over-discharge protection for battery	21.6±0.30V
		Over-discharge protection delay time	0.5-1.5S
		Over-discharge release method	Cell voltage ≥2.70±0.05V and battery voltage ≥22.4±0.20V or charge current>2A
4	Over discharge current	Discharge over current protection	Discharge current 350±30A
		Discharge over current protection	50~150mS
		delay time	
		Discharge over current release	Cut load,Auto Recovery or charge current >2A
5	Temperature	Charging high temperature protection	50±5°C
		Charge Over-temperature release method	40~45°C
		Charging low temperature protection	0±5°C
		Discharge over temperature protection	70±5°C
		Disharge Over-temperature release method	50~60°C
		Dischargelowtemperatureprotection	-20±5°C
		PCB temperature protection	90±5°C
		PCB Over-temperature releasemethod	90±5°C
		temperature protection delay time	<10S
6	Cell balance	Balance Start Voltage	3.525±0.025V
		Balance current	36±10mA
7	Short circuit protection	Short Circuit Protection Current	1400±200A
		Protection condition	Loadshortcircuit
		Protection delay	450~800uS
		Short circuit protection release	Cut load,Auto Recovery