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Lithium Energy Solution

MeriTech Power Co.,LTD

Lithium iron phosphate battery specifications

MODEL: 25.6V200Ah

Prepared By/Date	Checked By/Date	Approved By/Date
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Customer Approval	**Signature/Date**
	Company Name
	Company Stamp

PSC SOLAR (UK)
Africa's Solar Electricity Power

41B, Olutoye Crescent, Adeniyi Jones, Ikeja, Lagos.

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1 Scope

This manual is applicable to the batteries manufactured by MeriTech Power Co.,LTD **EXCLUSIVELY FOR PSC SOLAR (UK)** as mentioned in this book.

Product Specification

Table 1

No.	Item	General Parameter		Remark
1	Rated Capacity	Typical	200Ah	40A0.2C standard charging, 100A0.5C standard discharge
		Minimum	200Ah	
2	Nominal Voltage	25.6V		Mean Operation Voltage
3	Voltage at end of Discharge	20.8V ±0.5V		Discharge Cut-off Voltage
4	Battery limit voltage	29.2V±0.5V		max
5	Internal Impedance	≤50mΩ		Internal resistance measured at AC 1KHz after 50% charge The measure must uses the new batteries that within one week after shipment and cycles less than 5 times
6	Standard charge	Constant Current40A Constant Voltage 29.2V		Charge time : Approx 5h
7	Standard discharge	Constant current 100A end voltage20.8V±0.5V		Discharge time is approximately 2H
8	Fast charge	Constant Current 100A Constant Voltage 29.2V		Charge time : Approx 2h

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Continuous the table 1

No.	Item	General Parameter	Remark
9	Maximum Continuous Charge Current	100A	1.0C
10	Maximum Continuous Discharge Current	100A	1.0C
11	Operation Temperature Range	Charge: 0~45℃	60±25%R.H. Battery
		Discharge: -20~60℃	
12	Storage Temperature Range	Battery storage ambient temperature（-10℃~45℃）	60±15%R.H. at the shipment state
		Charge quantity30%~50%	
13	Bluetooth/WIFI function	/	

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3.1 Appearance

There shall be no such defect as flaw, crack, rust, leakage, which may adversely affect commercial value of battery.

3.2 Initial Performance Test

Table 2

Item	Test Method and Condition	Requirements
1、Li-ion BatteryVoltage	As of shipment	≥24V
（2）Open-Circuit Voltage	The open-circuit voltage shall be measured within 24 hours after standard charge.	≥24V
（3）Internal impedance	Internal resistance measured at AC 1KHz after 50% charge.	≤50mΩ
（4）Minimal Rated Capacity	After standard charging, let it sit for 30 minutes and measure the capacity released by discharging 150A to a cut-off voltage of 20.8V	**≥200Ah**

3.3 cycle life

No.	Item	Criteria	Test Conditions
1	Cycle Life (200Ah)	Higher than 80% of the Initial Capacities of the Cells	Carry out 6000cycle Charging/Discharging in the below condition. ◆Charge:Standard Charge ◆Discharge: Standard discharge ◆Rest Time between charge/discharge:30min. ◆Temperature:20±5℃

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(Interface Diagram）

4. Assembly schematic

1、

battery system length x width x height =450mm*180mm*660mm±2mm (II)

5.Handling of Cells

5.1.Prohibition of disassembly

1) Never disassemble the cells
   The disassembling may generate internal short circuit in the cell, which may cause gassing, firing, explosion, or other problems.
2) Electrolyte is harmful
   LI battery should not have liquid from electrolyte flowing, but in case the electrolyte come into contact with the skin, or eyes, physicians shall flush the electrolyte immediately with fresh water and medical advice is to be sought.

5.2 Prohibition of dumping of cells into fire

Never incinerate nor dispose the cells in fire. These may cause explosion of the cells, which is very dangerous and is prohibited.

5.3 Prohibition of cells immersion into liquid such as water

The cells shall never be soaked with liquids such as water, seawater, drinks such as soft drinks, juices, coffee or others.

5.4 Battery cells replacement

The battery replacement shall be done only by either cells supplier or device supplier and never be done by the user.

5.5 Prohibition of use of damaged cells

The cells might be damaged during shipping by shock. If any abnormal features of the cells are found such as damages in a plastic envelop of the cell, deformation of the cell package, smelling of an electrolyte, an electrolyte leakage and others, the cells shall never be used any more.

The Cells with a smell of the electrolyte or a leakage shall be placed away from fire to avoid firing or explosion.

6.Period of Warranty

The delivery period from battery date for If the battery is proved in manufacturing process defect formation rather than the user abuse and error caused by use of this company is responsible for replacement battery.

7.Storing the Batteries

The batteries should be stored at room temperature, charged to about 30% to 50% of capacity. We recommend that batteries be charged about once per half 3 months to prevent over discharge.

8.Other The Chemical Reaction

Because batteries utilize a chemical reaction, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, if the various usage conditions such as charge, discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage. If the batteries cannot maintain a charge for long periods of time, even when they are charged correctly, this may indicate it is time to change the battery.

9.Note:

Any other items which are not covered in this specification shall be agreed by both parties.