

PRODUCT SPECIFICATION

DOC NO.: LFP55345S

REV. : A

SHEET : 1 of 6

Specification Approval Sheet(Battery)

Cathode material : LiFePo4

Model: LFP55345S



PRODUCT SPECIFICATION

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1. Scope

These documents describe the Product Specification of the Lithium-ion rechargeable battery manufactured by Batterytalks

2. Model: LFP55345S

3. Specification

No.	Items	Specifications
1	Charge voltage	3.65V
2	Nominal voltage	3.2V
3	Minimal capacity	50Ah @0.2C Discharge
4	Charge current	Standard charge: 0.2C 0.2C
5	Standard Charging method	0.2C CC(constant current) charge to 3.65V, then CV(constant voltage 3.65V) charge till charge current decline to $\leq 0.05C$
6	Charging time	Standard charge: 5 hours (Ref.) Rapid charge: 0.5 hour (Ref.)
7	Max. charge current	1C
8	Standard discharge	1C
9	Max. discharge current	2C 10C (10s)
10	Discharge cut-off voltage	2.0V \pm 0.15V
11	Operating temperature	Charging: 0°C ~ 45°C Discharging: -20°C ~55°C
12	Storage temperature	-20°C ~ + 45°C
13	Battery Weight	Approx. 1650g
14	Battery Dimension	Length: 345.0 \pm 2mm Diameter55.0 \pm 0.5mm

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4. Battery Performance Criteria

4.1 Electrical characteristics

No.	Items	Test Method and Condition	Criteria
1	Standard Charge	Charging the Battery initially with constant current at 0.2C and then with constant voltage at 3.65V till charge current declines to 0.05C.	N.A.
2	Initial Capacity	The capacity means the discharge capacity of the Battery, which is measured in terms of discharge current of 0.2C and 2.0V cut-off voltage after the standard charge.	>50Ah
3	Cycle Life 循环寿命	Test condition: Charge: 0.2C to 3.65V Discharge: 0.2C to 2.0V 80% or more of 1 st cycle capacity at 0.2C discharge of Operation	≥ 2000
4	Self-discharge	After the standard charging, store the Battery under the condition as No.4.4 for 30days, then measured the capacity with 0.2C till 2.0V	Remaining capacity > 95% 剩余容量 > 95%
5	Initial Impedance	Internal resistance measured at AC 1KHz after 50% charge	≤2mΩ
6	Battery Voltage	As of shipment.	3.3V

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4.2 Mechanical characteristics

No.	Items	Test Method and Condition	Criteria
1	Vibration Test	After standard charging, fixed the Battery to vibration table and subjected to vibration cycling that the frequency is to be varied at the rate of 1Hz per minute between 10Hz an 55Hz, the amplitude of the vibration is 1.6mm. The Battery shall be vibrated for 30 minutes towards per axis of XYZ axes.	No leakage No fire 不起火
2	Drop Test	The Battery is to be dropped from a height of 1 meter twice onto concrete ground.	No explosion, no fire, no leakage.

4.3 Visual inspection

There shall be no such defect as scratch, flaw, crack, and leakage, which may adversely affect commercial value of the Battery.

4.4 Standard environmental test condition

Unless otherwise specified, all tests stated in this Product Specification are conducted at the condition below:

Temperature : $23 \pm 5^{\circ}\text{C}$

Humidity : $65 \pm 20\% \text{ RH}$

5. Storage and Others

a) Long Time Storage

If the Battery is stored for a long time(over 3 months), the Battery's storage voltage should be 3.20~3.40V and the Battery is to be stored in according to the condition specified about No. 4.4.

b) Others

Any matters that this specification does not cover should be discussed between the customer and BT

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6. Dimension (all unit in mm, not in scale)

Length	345.0 ±1.5mm
Diameter	55.0±0.5mm