



Hubei Yiwei Power Co., Ltd.

product specifications

File No:LF100LA-50160

Version:A

effective date:2022-1-1

product name: Square aluminum shell lithium iron phosphate battery

Product number: LF100LA

Product specifications: 3.2V/100Ah

simulate system: Chen Peng

trial nuclear: Zhang Yong

batch allow: Yuan Dingding

client confirmation:

Mail:sales@evebattery.com

Address: China • Jingmen High-tech Zone, Hubei Province • Jingnan Avenue, Duodao District68Number

Table of contents

1	Scope of application.....	1
2	product type.....	1
3	Nominal technical parameters.....	1
4	Test Conditions.....	2
5	Battery performance.....	3
6	transportation.....	4
7	Storage.....	5
8	Precautions.....	5
	Appendix 1: Two-dimensional diagram of battery.....	6
	Appendix 2: Battery marking rules.....	7
	Appendix 3: Battery appearance photos.....	8

1 Scope of application

This standard describes the product type, basic performance, and

Test methods and precautions. This product is suitable for energy storage systems, etc.

2 product type

2.1 product name: Square aluminum shell lithium iron phosphate battery

2.2 Model specifications: LF100LA

3 Nominal technical parameters

serial number	project		parameter	Remark
1	Nominal capacity		100Ah	(25±2)°C, standard charge and discharge.
2	Q		3.2V	
3	Internal resistance (1KHz)		≤0.5mΩ	
4	Standard charge and discharge	Charge/discharge current	0.5C/0.5C	(25±2) °C
		Charge/discharge cut-off voltage	3.65V/2.5V	
5	Maximum charge/discharge current	Continuous charging/discharging	1C/1C	Refer to the continuous/pulse charge and discharge ammeter
		Pulse charge/discharge (30s)	2C/2C	
6	recommendSOCuse window		10%~90%	NA
7	Charging operating temperature		0°C~55°C	Refer to the continuous/pulse charge and discharge ammeter
8	Discharge operating temperature		- 20°C~55°C	
9	storage temperature	short term(1within months)	- 20°C~45°C	NA
		long(1within the year)	0°C~35°C	
10	Storage humidity		<95%	
11	Monthly self-discharge rate		≤3%/moon	(25±2)°C,30%~50%SOCstorage

serial number	project	parameter	Remark
12	size	Hem area width	$160.0 \pm 0.8\text{mm}$
13		Non-hem area width	$160.0 \pm 0.5\text{mm}$
14		thickness (30%-40%SOC 200kgf)	$50.1 \pm 0.5\text{mm}$
15		Height (total height)	$118.5 \pm 0.5\text{mm}$
16		Height (body height)	$115.7 \pm 0.5\text{mm}$
17		pole center distance	$97.0 \pm 0.3\text{mm}$
18	Battery weight		$1.98 \pm 0.05\text{kg}$
19	Encapsulation method	Utype envelope	

4 Test Conditions

4.1 Test environment conditions

temperature: $(25 \pm 2)^\circ\text{C}$

Relative humidity: 15%~90%

Atmospheric pressure: 86KPa~106KPa

4.2 Standard charging

At ambient temperature $(25 \pm 2)^\circ\text{C}$ Under the conditions of the battery 0.5C(A) Constant current charging to charging limit voltage 3.65V Then constant pressure

Charge until the current is less than 0.05C(A).

4.3 Standard discharge

At ambient temperature $(25 \pm 2)^\circ\text{C}$ Under the conditions of the battery 0.5C(A) Constant current discharge to end voltage 2.5V.

5 battery performance
5.1 Electrical properties

serial number	project	skills requirement	Test Methods
1	25°C magnification Discharge performance	Discharge capacity/nominal capacity × 100% A) 0.5C(A) ≥ 100% B) 1C(A) ≥ 98%	After standard charging of the battery, put it aside 0.5h, respectively with 0.5C(A), 1C(A) Discharge to 2.5V, if the discharge capacity does not meet the technical requirements, this test is allowed to be repeated complex 3 Second-rate.
2	different temperatures Discharge performance	Discharge capacity/nominal capacity × 100% A) 55°C 1.0C ≥ 95% B) -20°C 1.0C ≥ 70%	A) After standard charging of the battery, the 55 ± 2°C set aside under conditions 4h, by 1.0C(A) Discharge to 2.5V. B) After standard charging of the battery, in -20 ± 2°C set aside under conditions 4h, by 1.0C(A) Discharge to 2.0V.
3	25°C charge retention and resilience	Capacity retention rate: Remaining capacity/nominal capacity ≥ 95% Capacity recovery rate: Recovery capacity/nominal capacity ≥ 97%	1) After standard charging of the battery cell, 25 ± 2°C let stand 28 sky; 2) After the storage is completed, the battery core is 25°C below 0.5C Constant current discharge to 2.5V, let stand 30min; Calculate capacity retention rate; 3) The battery cell is in 25 ± 2°C below 0.5C Constant current and constant voltage charging to 3.65V/0.05C cut off, stand still 30min; 4) The battery cell is in 25°C below 0.5C Constant current discharge to 2.5V, let stand 30min. Calculate capacity recovery rate; 5) 3-4 Step capacity recovery steps allow repetition 3 Second-rate.
4	25°C cycle life	≥ 5000 Second-rate @ 0.5C/0.5C	(25 ± 2)°C, the battery is in 200kgf Under the fixture: with 0.5C(A) Constant current and constant voltage charging to 3.65V, cut-off current 0.05C(A), put aside 30min, by 0.5C(A) Constant current discharge to 2.5V, put aside 30min, and then proceed to the next cycle until the capacity decays to the nominal capacity. 80% end.

5	35°C cycle life	≥3500 Second-rate @0.5C/0.5C	(35±2)°C, the battery is in 200kgf Under the fixture: with 0.5C(A) Constant current and constant voltage charging to 3.65V, cut-off current 0.05C(A), put aside 30min, by 0.5C(A) Constant current discharge to 2.5V, put aside 30min, and then proceed to the next cycle until the capacity decays to the nominal capacity. 80% end.
6	45°C cycle life	≥2000 Second-rate @0.5C/0.5C	(45±2)°C, the battery is in 200kgf Under the fixture: with 0.5C(A) Constant current and constant voltage charging to 3.65V, cut-off current 0.05C(A), put aside 30min, by 0.5C(A) Constant current discharge to 2.5V, put aside 30min, and then proceed to the next cycle until the capacity decays to the nominal capacity. 80% end.
7	end of life management	Capacity/nominal capacity < 70%	When the battery is in use and exceeds the end of life regulations, Battery use should be discontinued.

5.2 Safety performance

serial number	project	skills requirement	Test Methods
1	Overdischarge	No explosion or fire	refer to: GB/T 36276-2018 "Lithium-ion Batteries for Electric Power Storage"
2	overcharge	No explosion or fire	
3	short circuit	No explosion or fire	
4	fall	No explosion or fire	
5	heating	No explosion or fire	
6	extrusion	No explosion or fire	
7	low pressure	No explosion, no fire, no leakage	
8	thermal runaway	No explosion or fire	

6 transportation

The battery should be in a state of charge (30%~50%SOC) Pack into boxes for transportation. During transportation, severe vibrations and Impact or extrusion, protect from sun and rain.

7 storage

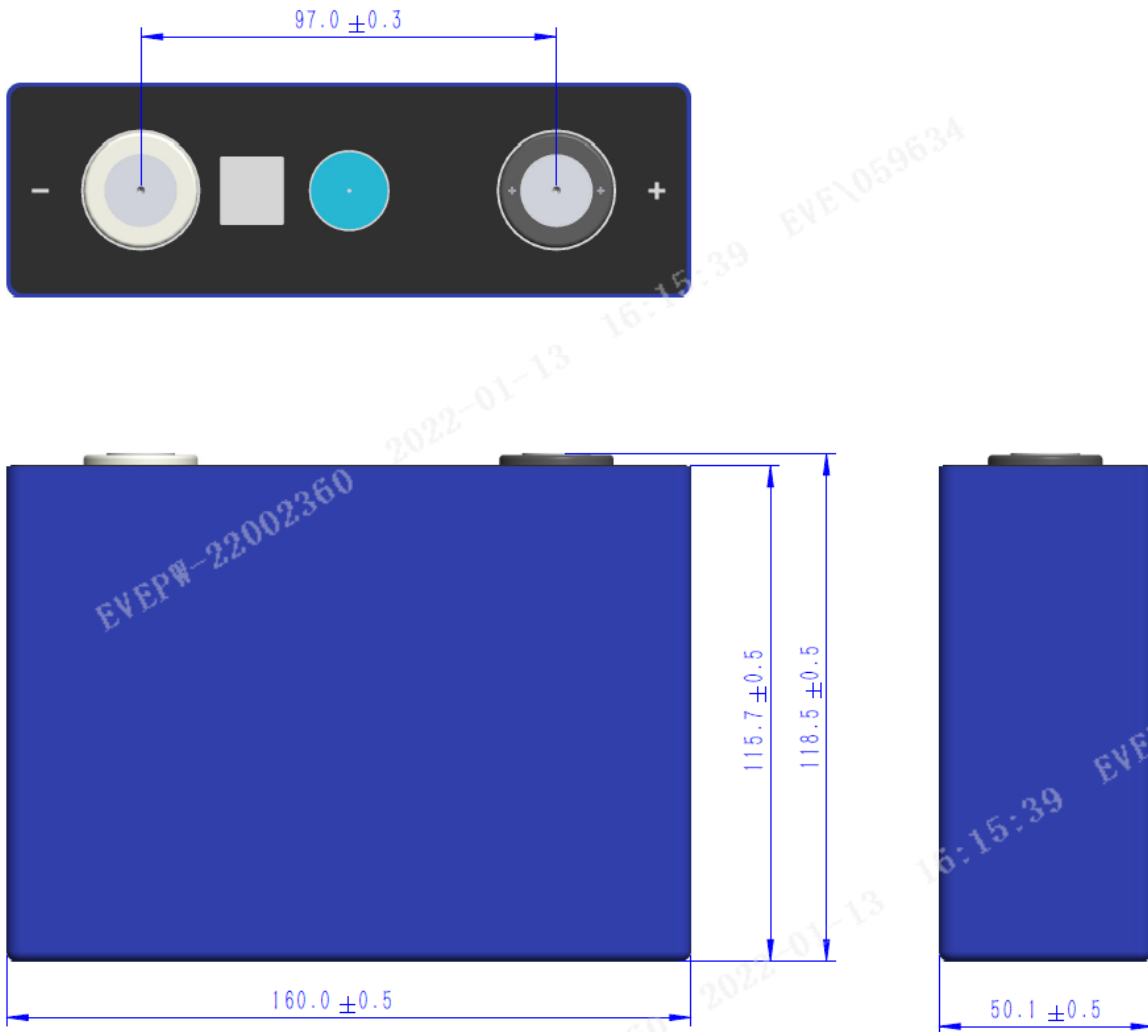
Batteries should be stored (exceeded 1 months) at an ambient temperature of 0°C~35°C in a clean, dry and ventilated room. Every 6 months pair

The battery is charged and discharged once, storing the state of charge (30%~50% SOC).

8 Precautions

1. When charging and discharging the battery, ensure that the conditions for monitoring and protecting the battery voltage, current, and temperature are met.
- 2, please keep the battery away from heat sources, fire sources and other heating and corrosive environments such as strong acid and strong alkali.
3. Please do not short-circuit the battery or install it with incorrect polarity at any time.
4. Please do not mix batteries of different models or manufacturers.
5. Do not use external force to cause the battery to fall, impact, or puncture. Do not disassemble the battery or change its external structure.
- 6, When the battery is not used for a long time, please keep the battery charge at 30%~50% SOC condition, and avoid direct sunlight radiation or high temperature and high humidity environment.
- 7, When operating the battery, you need to wear rubber gloves and other protective devices.
8. If the battery leaks, smokes or is damaged, please stop using it immediately and contact our company for handling.

Appendix 1: Two-dimensional battery diagram



Appendix 2: Battery marking rules



AC10001234

320Wh

- 320Wh: 标称容量能量
- 0001234: 序列号, 当日生产的同一规格电芯序列号, 第4~10位
- AC1: 生产日期代码, 2020年12月1日, 第1~3位

02Y6C11A12700J



Appendix 3: Photos of the appearance of the battery (the bottom insulation sheet can be optionally attached as needed)

