



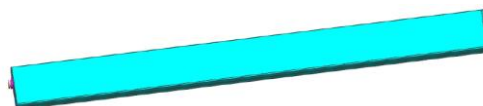
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C102F Battery Product Specification

❖ Model: C102F

❖ C102F Battery Characteristics

- Lithium iron phosphate is used as the cathode material.
- Exhibits excellent safety characteristics and an exceptionally long cycle life
- Excellent thermal performance with a wide operating temperature range for batteries
- High energy density, environmentally friendly



❖ Battery certification

- GBT31484-2015
- GBT31485-2015
- GBT31486-2015

Basic battery parameters		Basic battery dimensions & weight	
Nominal voltage	3.20 V	Length	960.0±0.7 mm
Monomer capacity (1/3Cmin)	138.5Ah	Width	90.0±0.3 mm
Rated energy	443.2Wh	Thickness	13.5 + 0.3/-0.2 mm
Standard charging mode	Constant current charging (CC)	Weight	2.610±0.040Kg
Standard charging current	27A @ 23°C	Abuse testing (GB31485) Test results (based on: EUCAR)	
Maximum continuous charging current	270A @ 23°C		
Charge cutoff voltage	3.80V/Cell	Crimp	≤L4
Discharge mode	Constant current discharge (CC)	Overcharge	≤L4
Discharge cutoff voltage	2.00V/Cell	Overfall	≤L2
Standard discharge current	27A @ 23°C	Short	≤L4
Maximum continuous discharge current	270A @ 23°C	Hot furnace	≤L4
Maximum charging power	1000W (BOL/23°C/50%SOC/10S)		
Maximum discharge power	2000W (BOL/23°C /50%SOC/10S)		
Outgoing state voltage	3.20 V~3.30 V		
Shipped SOC	20%~30%		
DCIR@50%SOC	30s, 1.5C, 1.1±0.2mΩ		



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❖ Battery Safety

• Battery operation & storage

Charging temperature	-20~+55℃
Discharge temperature	-30~+60℃
Short term storage ambient temperature	-20~+35℃ (less than 3 months, 20~60% SOC)
Long term storage ambient temperature	-20 to +30℃ (less than 1 year, 30~60% SOC)
Storage humidity	5%~95%
Height	≤4000m

• Battery Protection & Monitoring

To ensure battery longevity and safe operation, the charger and protection circuit must monitor the battery during charging and discharging processes.

No	Project	Condition
1	Charge cutoff voltage	3.80 V/Cell
2	Discharge cutoff voltage	2.00 V/Cell
3	Level 1 overcharge protection voltage	3.85 V/Cell
4	Level 2 overcharge protection voltage	4.00 V/Cell
5	Overcharge recovery voltage	3.50 V~3.60 V/Cell(unrecoverable secondary overcharge)
6	Over discharge protection voltage	1.70 V/Cell
7	Second level over discharge protection voltage	1.50 V/Cell
8	Over discharge recovery voltage	2.50 V~2.80 V/Cell(unrecoverable secondary over-discharge)
9	Temperature alarm	60℃
10	Overheat protection	65℃

● Security warning

- 1 、 Do not place the battery in fire or heat it in any other way.
- 2 、 Do not short-circuit or install with incorrect polarity to avoid mechanical or electrical damage.
- 3 、 Do not mix batteries from different manufacturers or models.
- 4 、 Do not disassemble or modify the external structure of the battery, and avoid applying external force to impact or puncture the battery.
- 5 、 Do not place the battery in water, seawater, strong acidic, or strong alkaline substances.
- 6 、 Avoid direct sunlight and high temperature and humidity (temperature ≤65℃, humidity ≤95%)
- 7 、 When handling batteries, rubber or latex gloves must be worn.
- 8 、 When charging or discharging a battery, ensure it has voltage, current, and temperature monitoring and protection.
- 9 、 In the event of battery leakage, smoking, or damage, immediately stop using it and contact our company for handling.