

HCG-49 Series

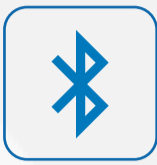
/ Data sheet



12V 212Ah

24V 106Ah

Bluetooth



Model Included:

- HCG49-12212

12V 212Ah LiFePO4 Battery
- HCG49S-12212BT

12V 212Ah LiFePO4 Battery with Bluetooth
- HCG49-24106

24V 106Ah LiFePO4 Battery
- HCG49S-24106BT

24V 106Ah LiFePO4 Battery with Bluetooth

<div><div></div><div>Haicen</div><div>Advanced Lithium Batteries</div></div>		Model			
		HCG49-12212	HCG49S-12212BT	HCG49-24106	HCG49S-24106BT
Electrical Specifications	Nominal Voltage	12.8V	12.8V	24V	24V
	Nominal Capacity	212Ah	212Ah	106Ah	106Ah
	Parallel Connection	Max. 4units	Max. 4units	Max. 4units	Max. 4units
	Serial Connection	Max. 4units	Max. 4units	Max. 2units	Max. 2units
	BMS	4S150A	4S150A	8S100A	8S100A
	Bluetooth	No	Android/IOS	No	Android/IOS
	Circuit Protection	Over charge, Over discharge, Over current, Over temp, Short, Balance			
	Cycle Life	3000times Cycles @100%DOD and 6000times @80% DOD			
	Self Discharge	Less than 3% per month			
	Charge Efficiency	100% @0.2C			
	Discharge Efficiency	98-100% @1C			
Charge Specifications	Charge Voltage	14.4±0.2V	14.4±0.2V	28.8±0.4V	28.8±0.4V
	Standard Current	42A	42A	21A	21A
	Fast Current	106A	106A	53A	53A
Discharge Specifications	Standard Current	42A	42A	21A	21A
	Max. Con. Current	150A	150A	100A	100A
	Peak Current	600A(300ms)	800A(300ms)	500A(300ms)	700A(300ms)
	Cut-off Voltage	10V	10V	20V	20V
Mechanical Specifications	Dimensions (mm)	490×171×240mm			
	Approx Weight(KG)	18.5	18.5	18.5	18.5
	Terminal Type	M8			
	Case Color/material	Black Plastic case (ABS)			
	IP Rating	IP65			
	Cell Type	3.2V106Ah prismatic cell			
	Cell holder	Yes			
Temperature Specifications	Charge Temp	0°C to 55°C	(32°F to 131°F)		
	Discharge Temp	-20°C to 60°C	(-4°F to 140°F)		
	Storage Temp	-5°C to 45°C	(23°F to 113°F)		

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Key Points for Quality control:

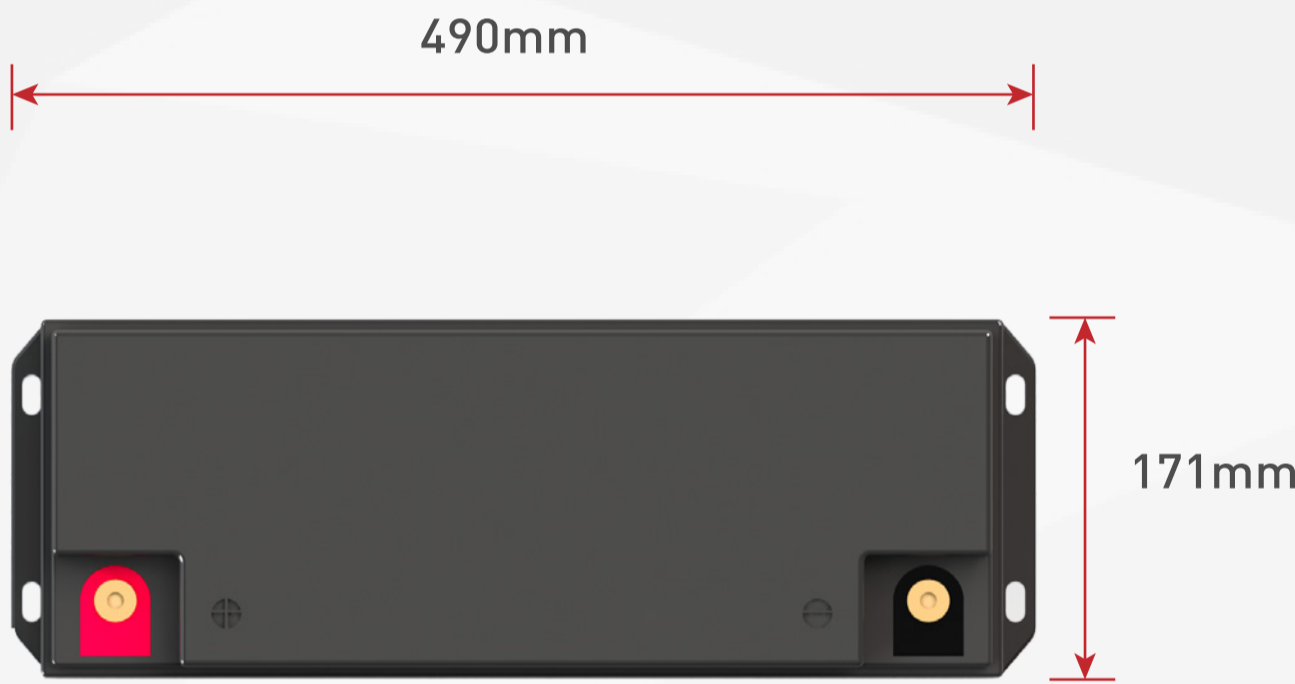
- **Cell match:**
Much stricter than most suppliers, the strict cell matching standards ensure the consistency of the cells and thus the high consistency of the battery pack.
- **Automatic cells welding:**
Cells are assembled by Automatic welding equipments to ensure the quality reliability and consistency.
- **100% Cycle test:**
All battery packs are 100% cycle tested (Fully Discharged→Fully Charged→Fully Discharged→60% Charged) before package and all test reports are stored.
- **Unique tracking number:**
All battery packs are lasered an unique number on the case side for quality tracking.

Certifications:

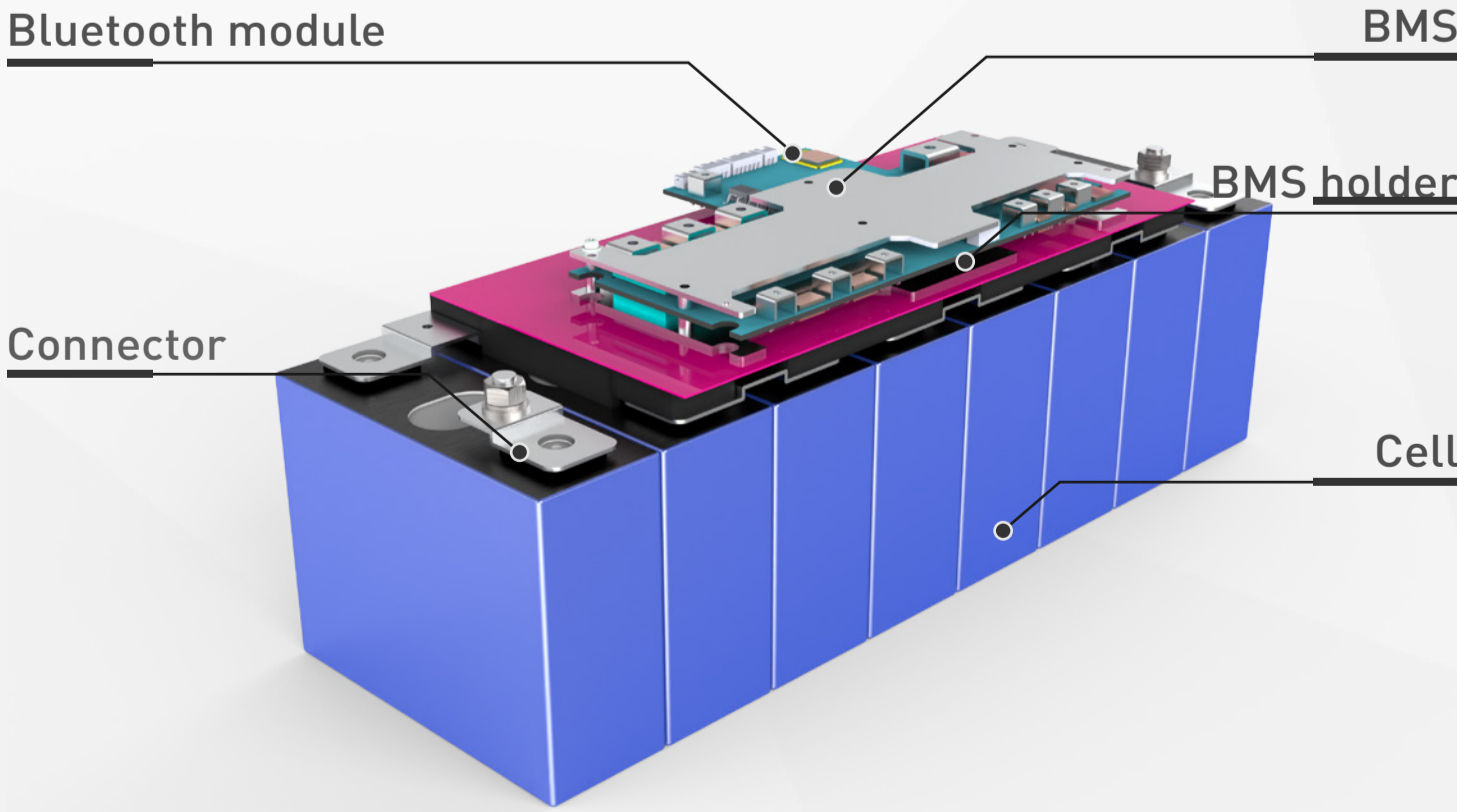
- UL1973 (Cell)
- UL9540 (Cell)
- IEC62133 (Cell)
- IEC62919 (Cell)
- CE (Pack)
- UN38.3 (Cell / Pack)
- ROHS (Cell)



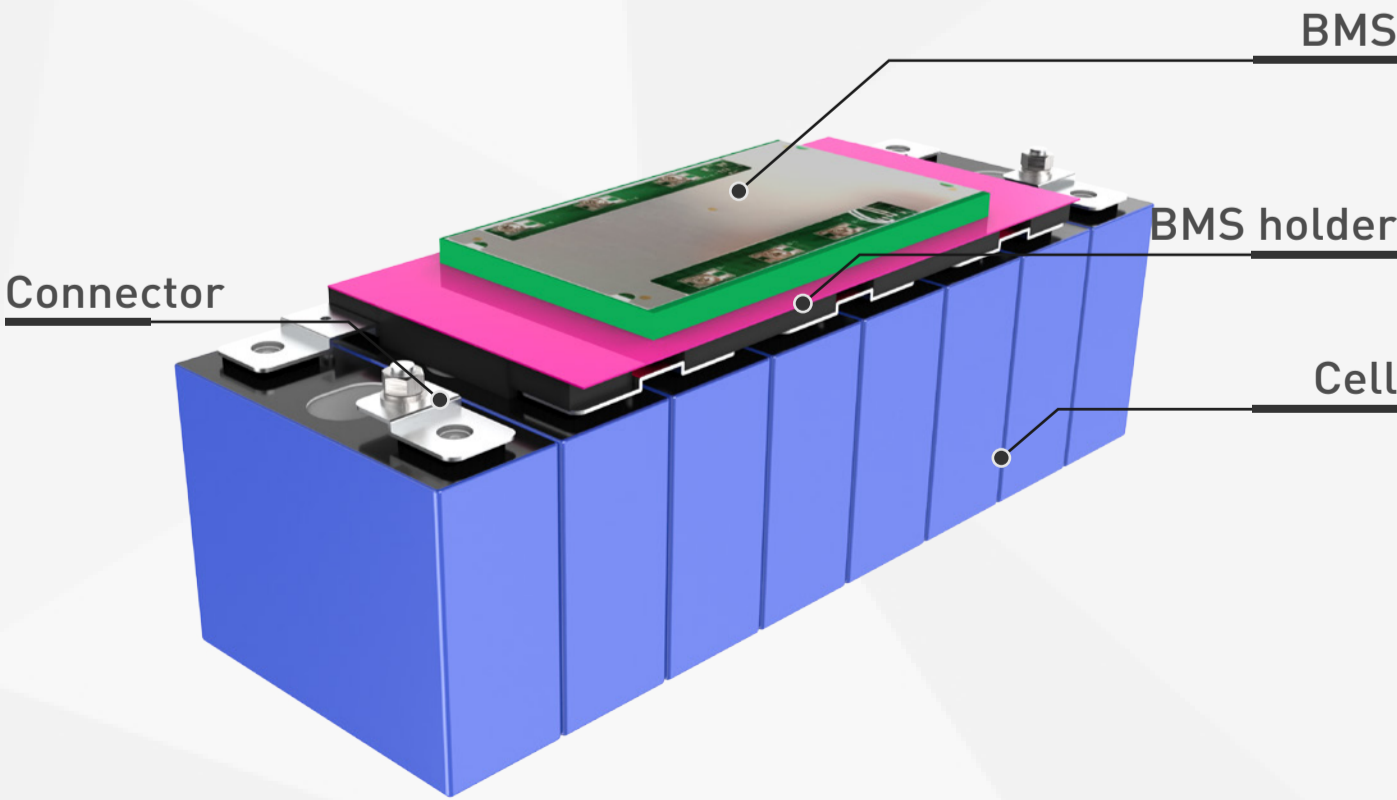
Dimensions:



Internal Structure:



HCG49S-12212BT



HCG49-12212

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SOC Display (optional)



ALM

Alarming

The red LED will flash when the battery sends an alarm.

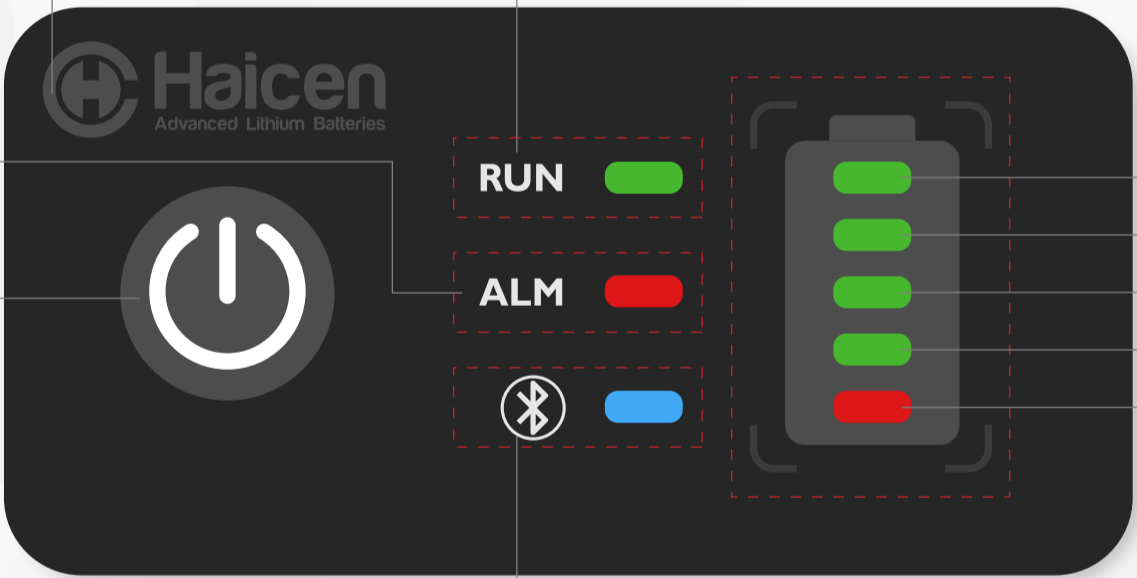
Customized logo is acceptable.

RUN

Working status of the battery
The green LED will be on when charging or discharging.

Switch

1. With the standby state, touch the "Switch" key, then the SOC LED will be on to show the current SOC and the RUN LED will be on. After 5s later, all LEDs in panel will turn off.
2. Press and hold the switch for 3s, then the BMS will immediately go to Sleep mode. With the Sleep state, press on the "Switch" key for 3s, then the BMS will wake up.



SOC (State of Charge)

- 100% SOC (Full Charge)
- 80% SOC
- 60% SOC
- 40% SOC
- 20% SOC

Bluetooth

Bluetooth connection status
The blue LED will be on when the battery is connected to Bluetooth.

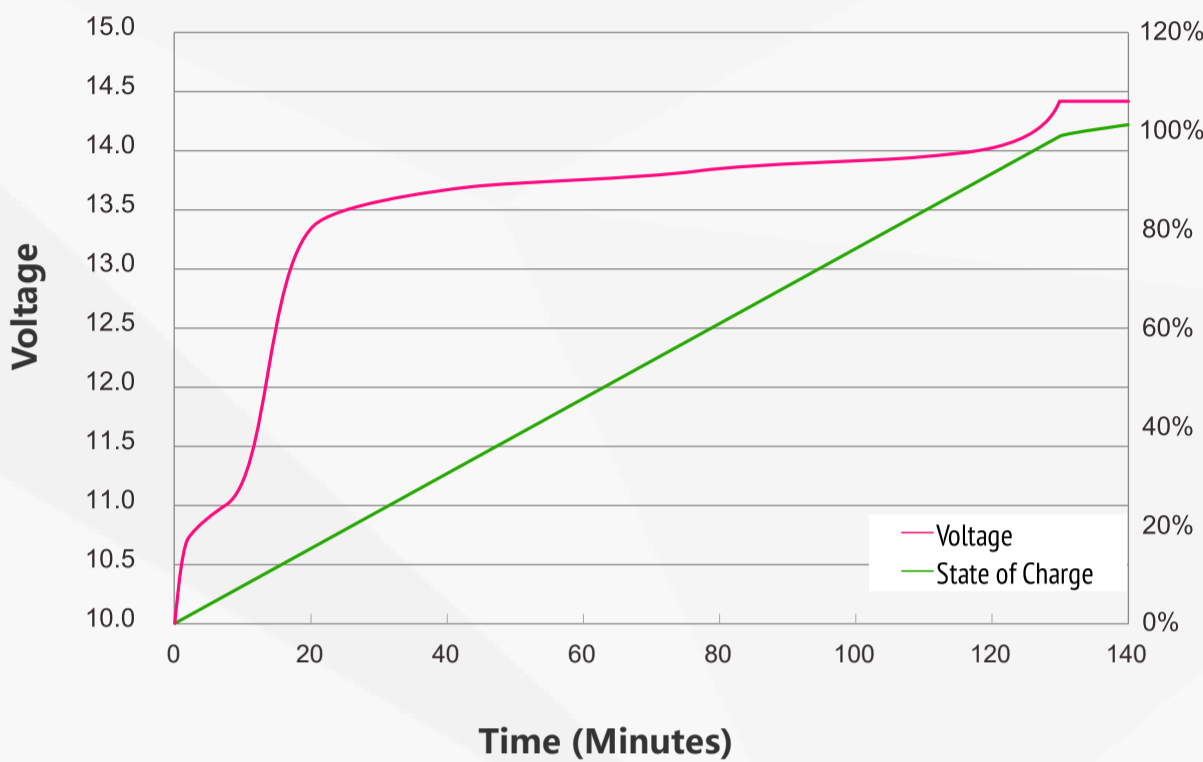
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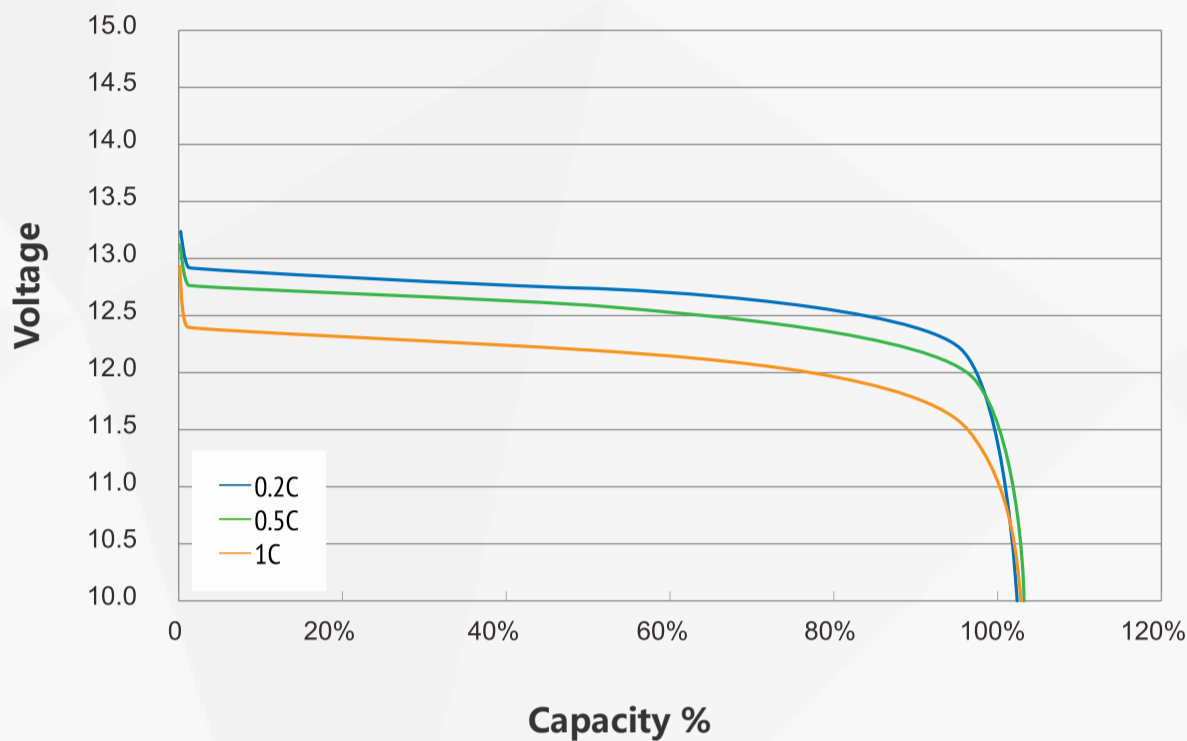
Bluetooth

Characteristics Curve:

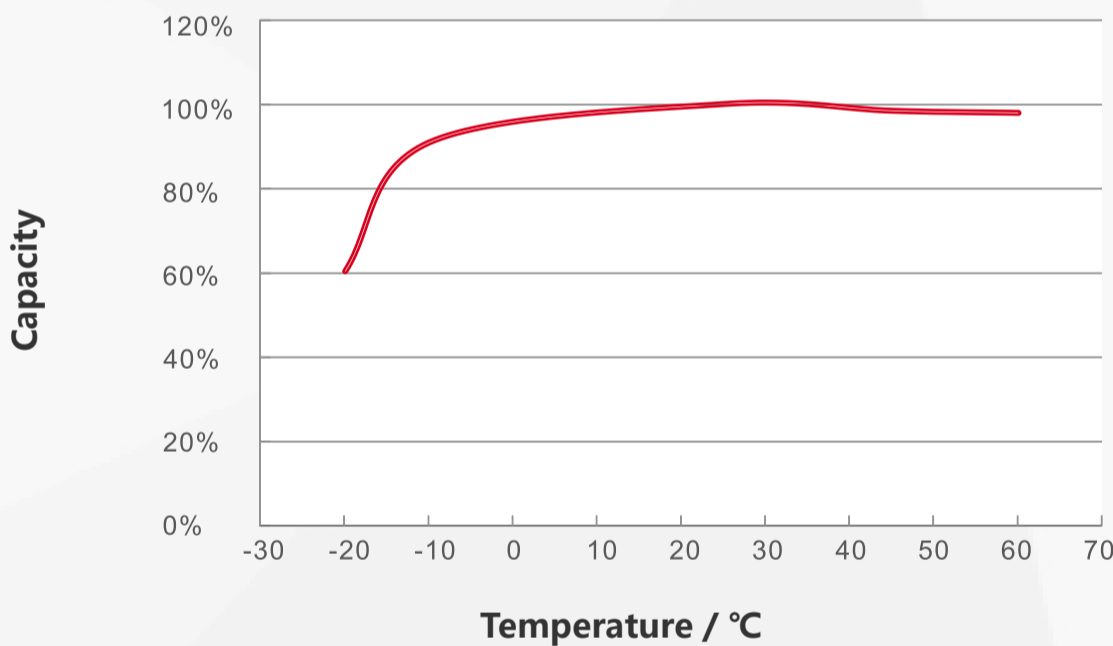
Charging Characteristics (0.5C @25°C)



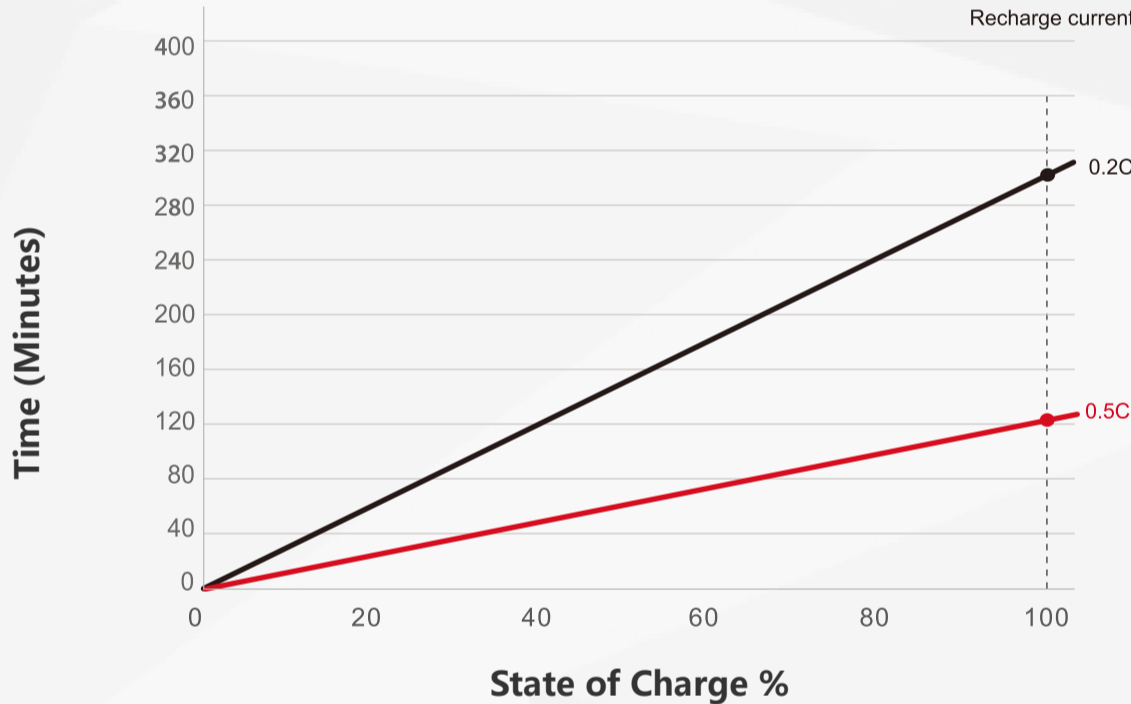
Discharging Characteristics (0.2C, 0.5C, 1C @25°C)



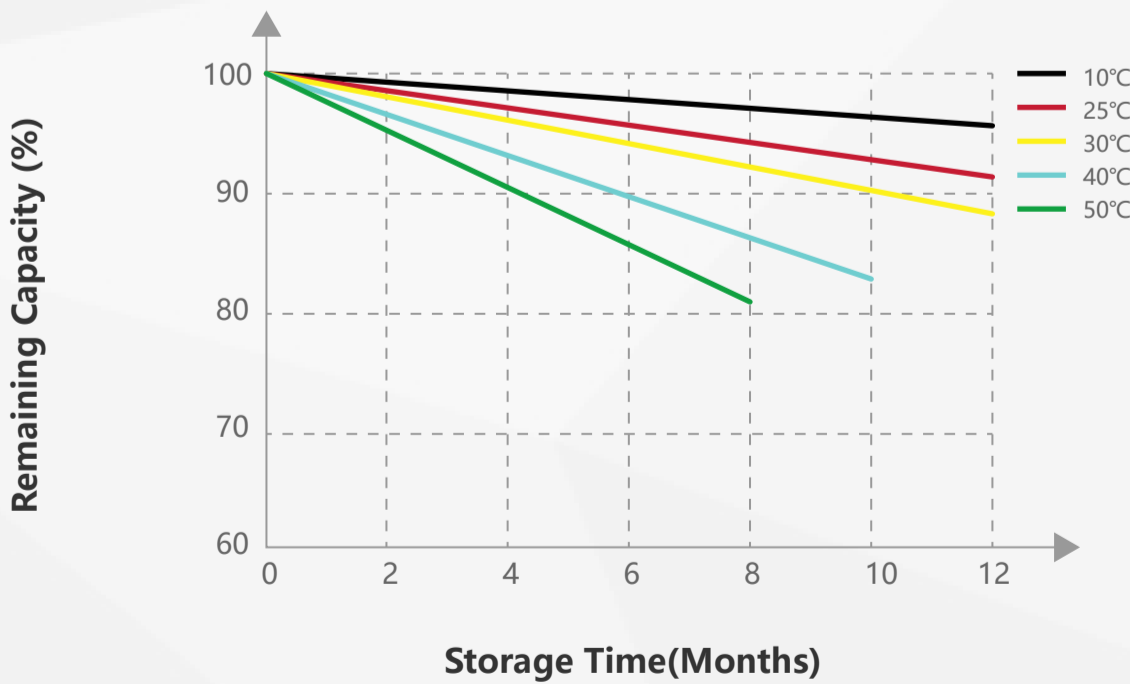
Different Temperature Capacity Curve



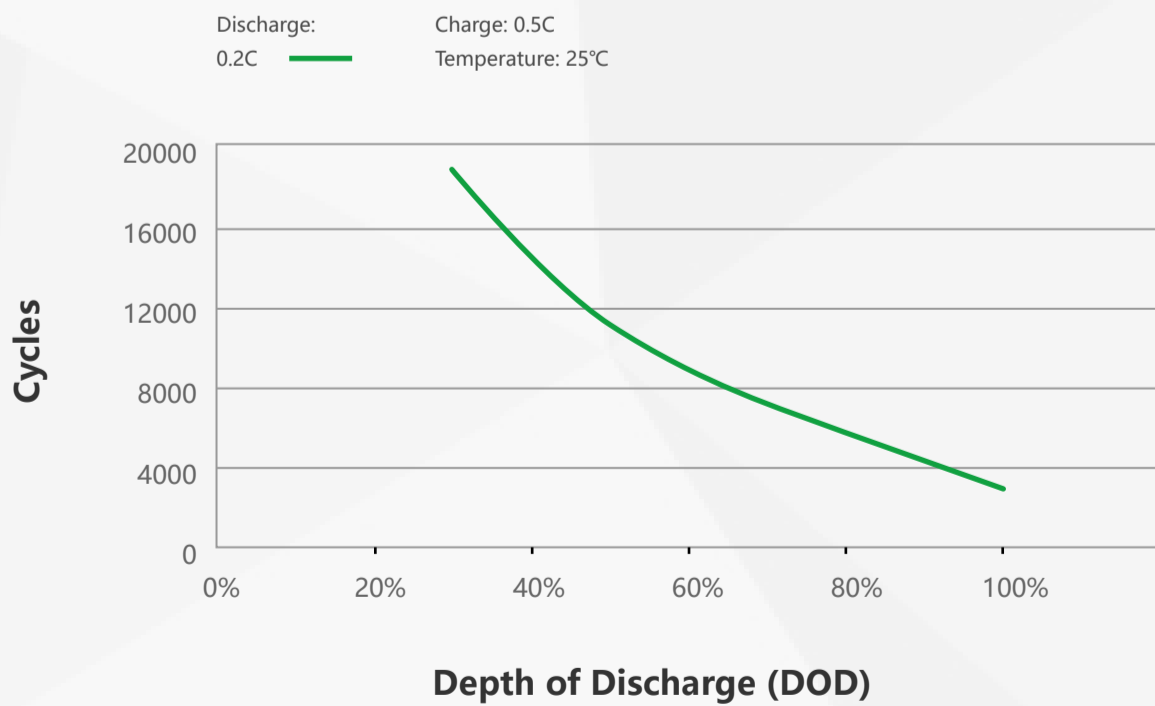
Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve



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Bluetooth

Key Benefits:

- **Higher qualified cylindrical cell:**
UL1973, UL9540, IEC62133, IEC62619 listed with Cycle life more than 3000times and excellent consistency.
- **Bluetooth:**
can monitor the battery status(charge, discharge, current, temperature, cycle life and so on) and change the data for different applications.
- **Higher energy density with less weight:**
The 3.2V106Ah prismatic cell which be used in these two model is with energy density 169wh/kg, about 15% higher than others, which bring less weight.

Market Applications:



RV



Marine



Golf cart



Cleaning



Light EV



Energy storage



Robotics



Lighting

Package:

20' Container=10Pallets=460Cartons=460Units;
40' Container=20Pallets=920Cartons=920Units;



Internal Package
Forming pearl foam



1Carton=1Unit

Weight:19.5Kg/carton
Size(L×W×H): 570×250×330mm



1Pallet=46Cartons

Weight: 912Kg/pallet
Size(L×W×H)=1.2×1×2m ≈ 2.4CBM

Customized items:

- **Bluetooth App design:** Help you to design and upload customized App, or supply you our Source code for your design.
- **Case color:** Customized case color is acceptable based on quantity more than 300pcs per batch.
- **Label design:** We can help you to design customized label on the battery.
- **Carton design:** Customized carton is acceptable based on quantity more than 200pcs per batch.
- **Certificates:** 50% discount on certificates cost for first bulk order and 100% reback for future orders.
- **NDA agreement:** NDA agreement is allowed and necessary to protect your benifits.