HC507S Series / Data sheet

12V 100Ah | 12V 125Ah | ❄Bluetooth

Haicen Advanced Lithium Batteries

Model Included：

- **HC507S-12100BT**   12V 100Ah LiFePO4 Battery with Bluetooth
- **HC507S-12125BT**   12V 125Ah LiFePO4 Battery with Bluetooth

Haicen Advanced Lithium Batteries

Model		HC507S-12100BT	HC507S-12125BT
Electrical Specifications	Nominal Voltage	12.8V	12.8V
	Nominal Capacity	100Ah	125Ah
	Parallel Connection	Max. 6units	Max. 6units
	Serial Connection	Max. 4units	Max. 4units
	BMS	4S150A	4S150A
	Bluetooth	Android/IOS	Android/IOS
	Heat	No	No
	Circuit Protection	Over charge, Over discharge, Over current, Over temp, Short, Balance,Low temp	
	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
	Standard Current	20A	25A
	Fast Current	50A	62A
Discharge Specifications	Standard Current	20A	25A
	Max. Con. Current	100A	125A
	Peak Current	800A(300ms)	800A(300ms)
	Cut-off Voltage	10V	10V
Mechanical Specifications	Dimensions (mm)	507x110x227mm	
	Approx Weight(KG)	12	12.5
	Terminal Type	M8	
	Case Color/material	Black Plastic case (ABS)	
	IP Rating	IP65	
	Cell Type	Cylinder LiFePO4 cell	
	Cell holder	Yes	
Temperature Specifications	Charge Temp	0℃ to 55℃ (32℉ to 131℉)	
	Discharge Temp	-20℃ to 60℃ (-4℉ to 140℉)	
	Storage Temp	-5℃ to 45℃ (23℉ to 113℉)	

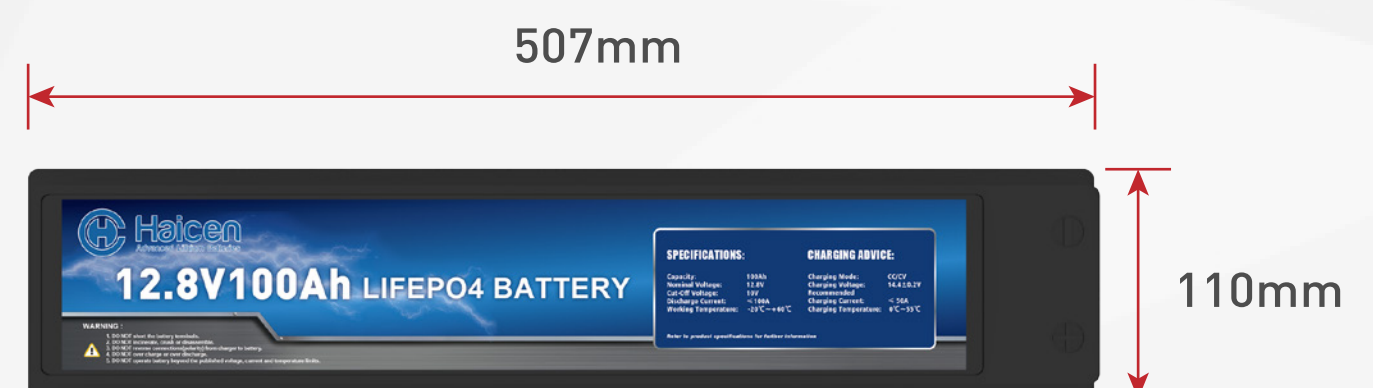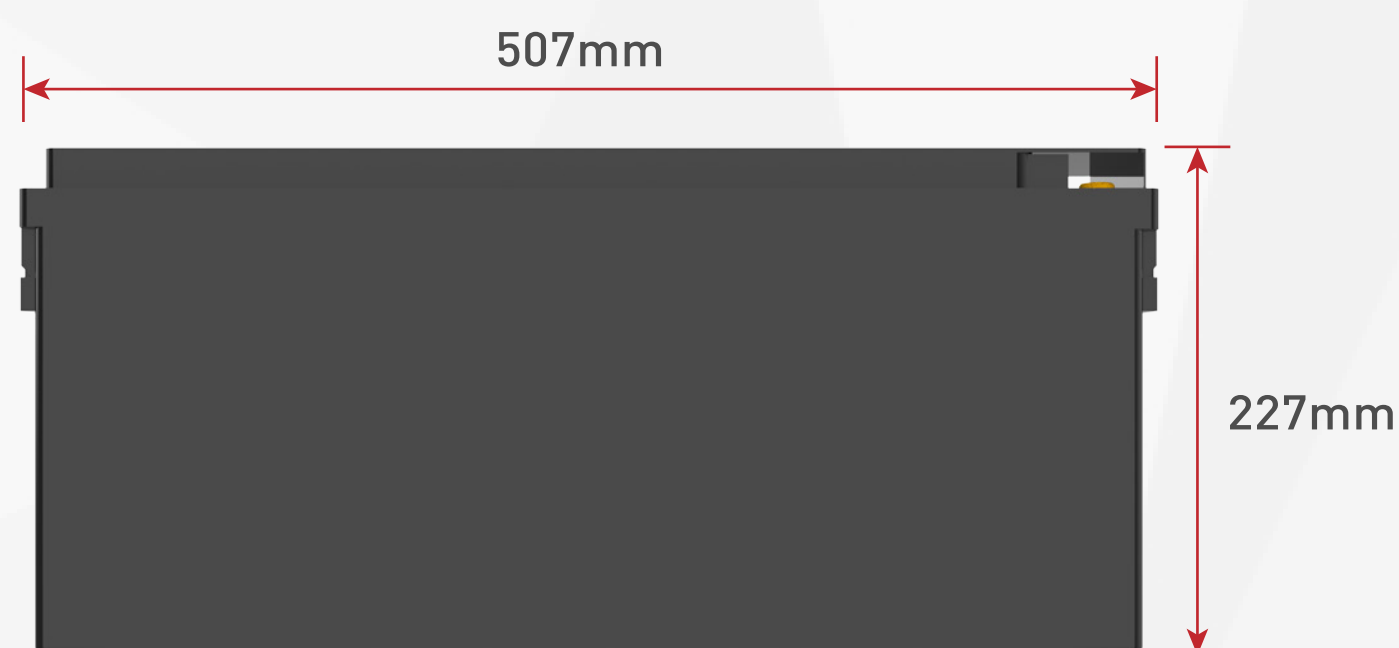## Key Points for Quality control:

- **Cell match:**
  More strict cell matching standard, the difference of Internal resistance is 1mΩ and voltage is 5mV.

- **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:

- **UL1642 (Cell)**
- **CE (Pack)**
- **IEC62133 (Cell)**
- **UN38.3 (Cell / Pack)**
- **IEC62619 (Cell)**
- **ROHS (Cell)**

QUALITY ASSURED FIRM · ISO 9001 · SGS

ISO 45001

GREEN DOVE AWARD · ISO 14001 · SGS

Dimensions:

507mm

227mm

507mm

110mm

12.8V100Ah LIFEPO4 BATTERY
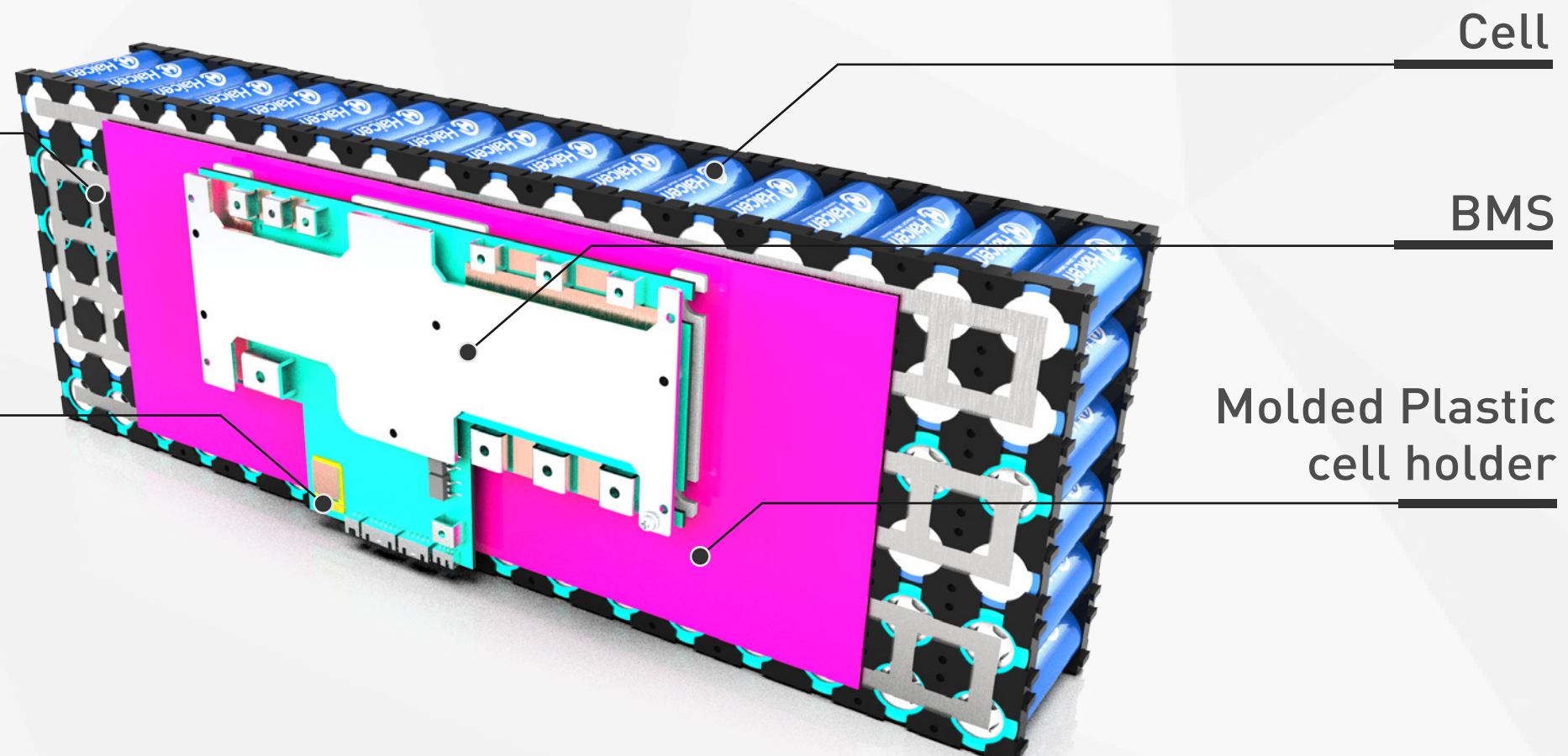
SPECIFICATIONS: | CHARGING ADVICE:
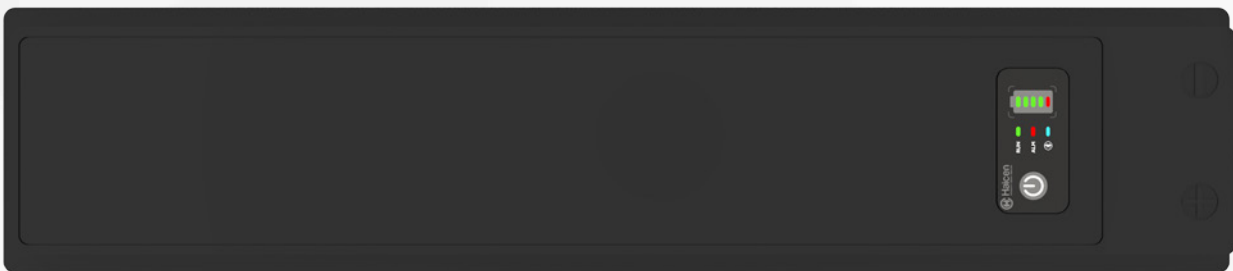
Internal Structure:

Molded Nickel sheet

Cell

Bluetooth module

BMS

Molded Plastic cell holder

SOC Display (optional）

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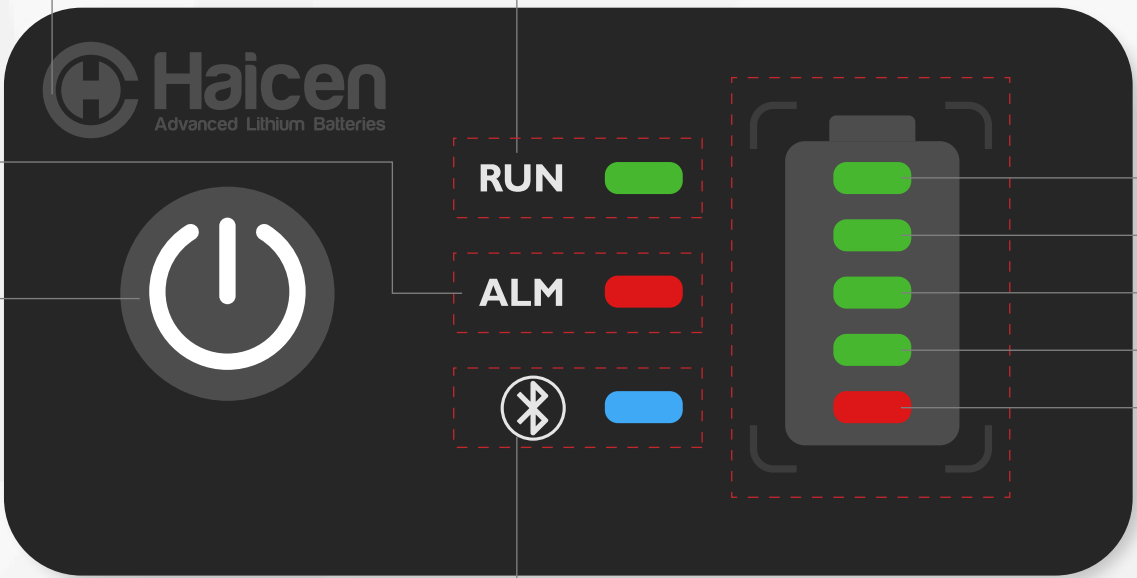The red LED will flash when the battery sends an alarm.

Customized
logo is acceptable.

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

SOC (State of Charge)

RUN		100% SOC (Full Charge)
ALM		80% SOC
		60% SOC
		40% SOC
		20% SOC

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.

Bluetooth

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

Characteristics Curve:

Charging Characteristics (0.5C @25℃)
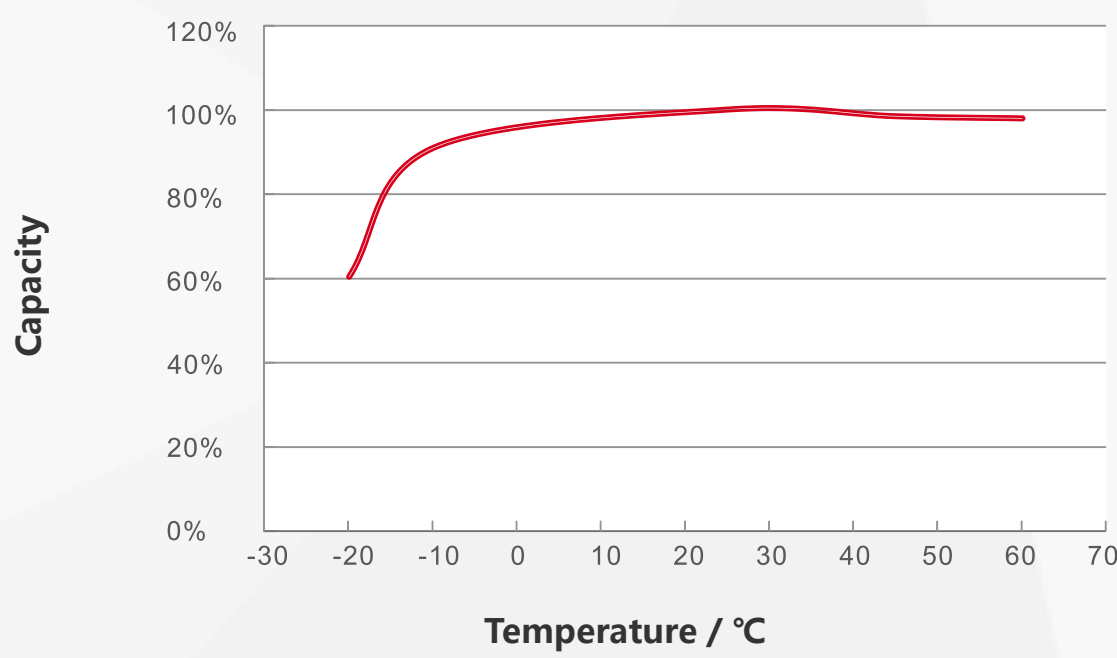

- Voltage
- State of Charge

X-axis: Time (Minutes)
Y-axis: Voltage / State of Charge
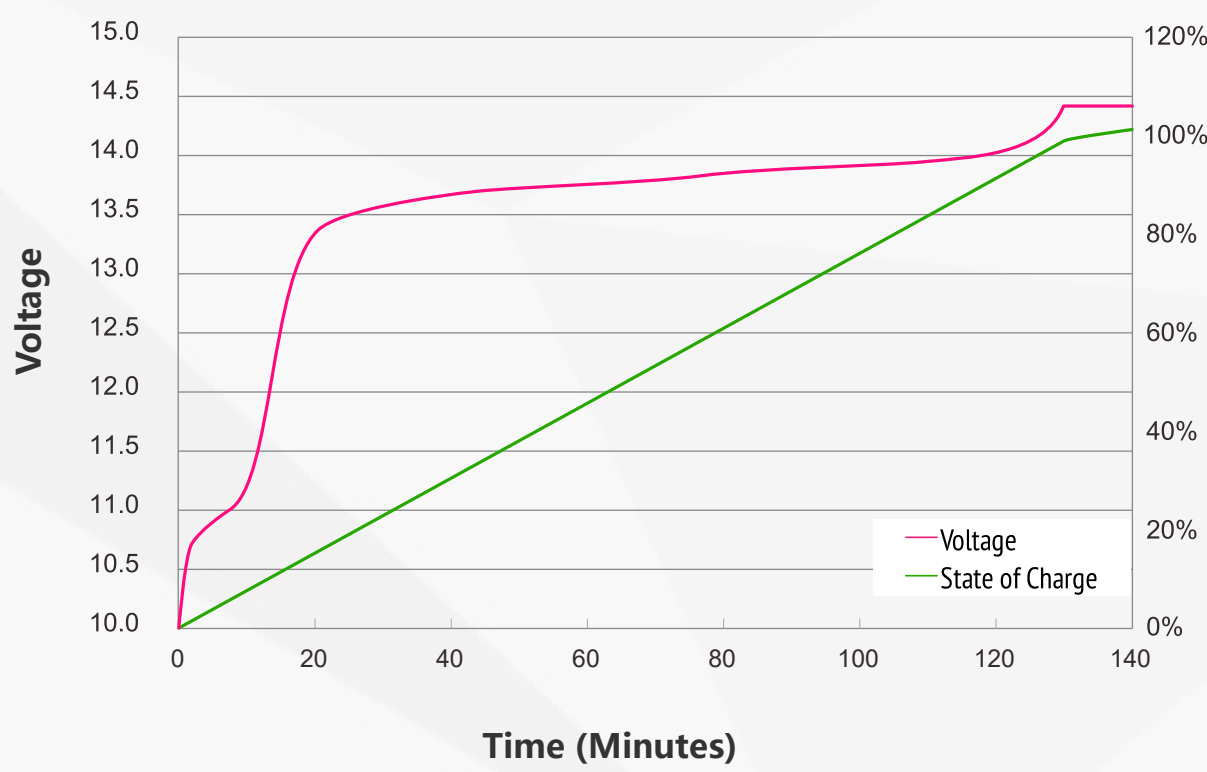
Disharging Characteristics (0.2C, 0.5C, 1C @25℃)

- 0.2C
- 0.5C
- 1C

X-axis: Capacity %
Y-axis: Voltage
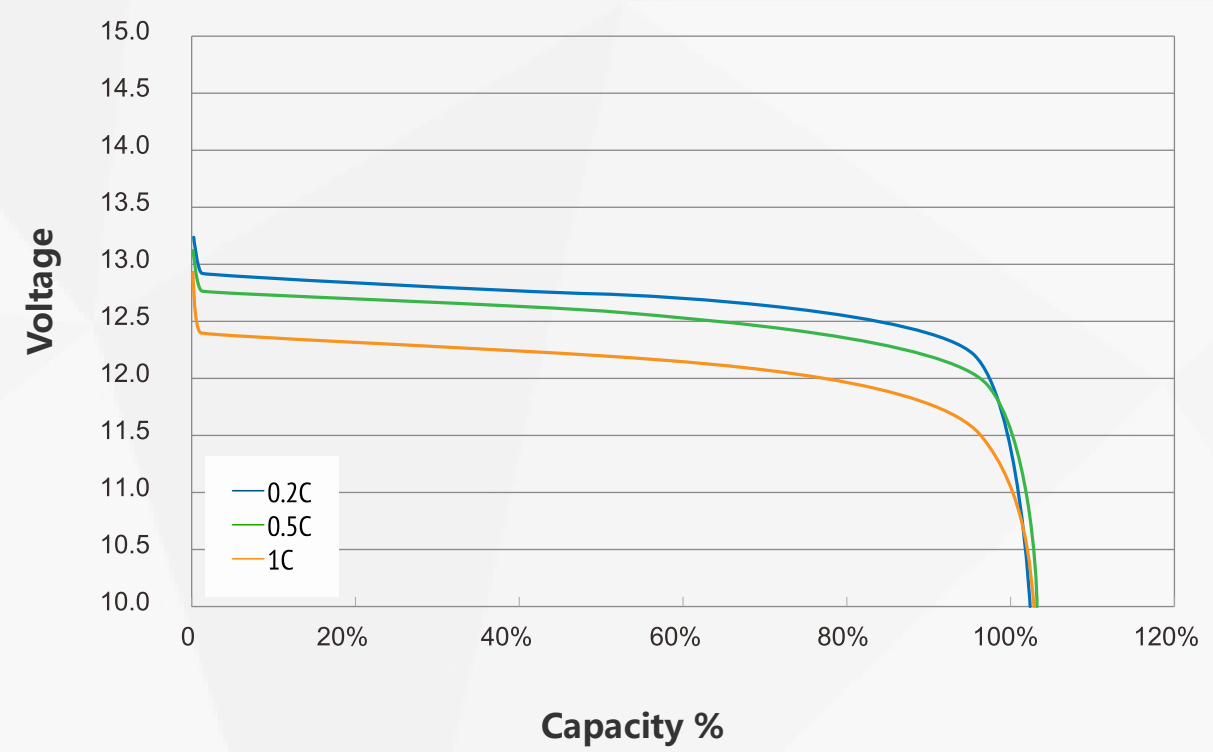
Different Temperature Capacity Curve

X-axis: Temperature / ℃
Y-axis: Capacity

Typical Charge Time Curve

Recharge current
- 0.2C
- 0.5C

X-axis: State of Charge %
Y-axis: Time (Minutes)
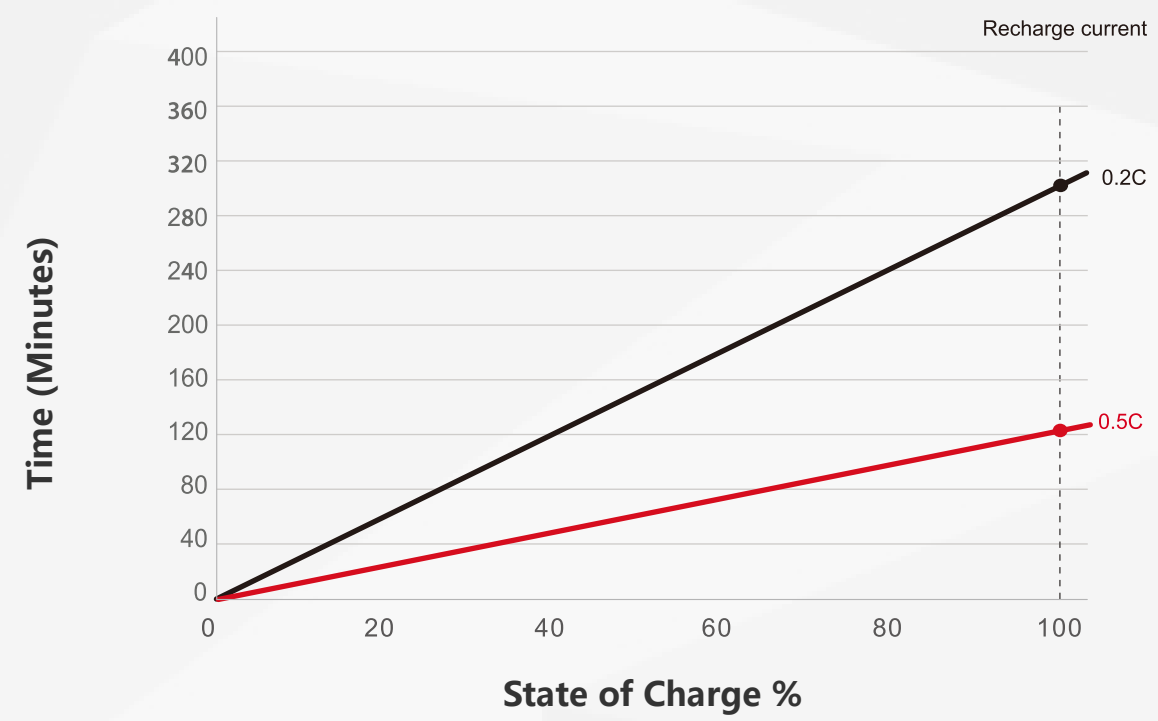
Different Temperature Self Discharge Curve

- 10℃
- 25℃
- 30℃
- 40℃
- 50℃

X-axis: Storage Time(Months)
Y-axis: Remaining Capacity (%)
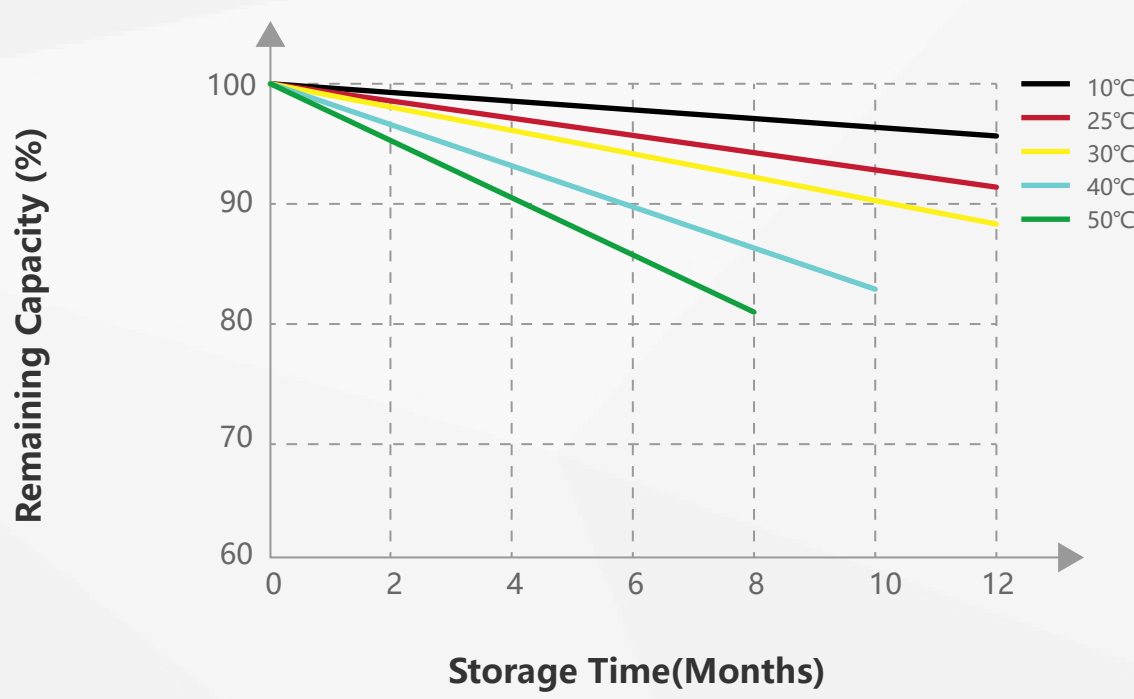
Different DOD Discharge Cycle Life Curve

Discharge: 0.2C
Charge: 0.5C
Temperature: 25℃

X-axis: Depth of Discharge (DOD)
Y-axis: Cycles
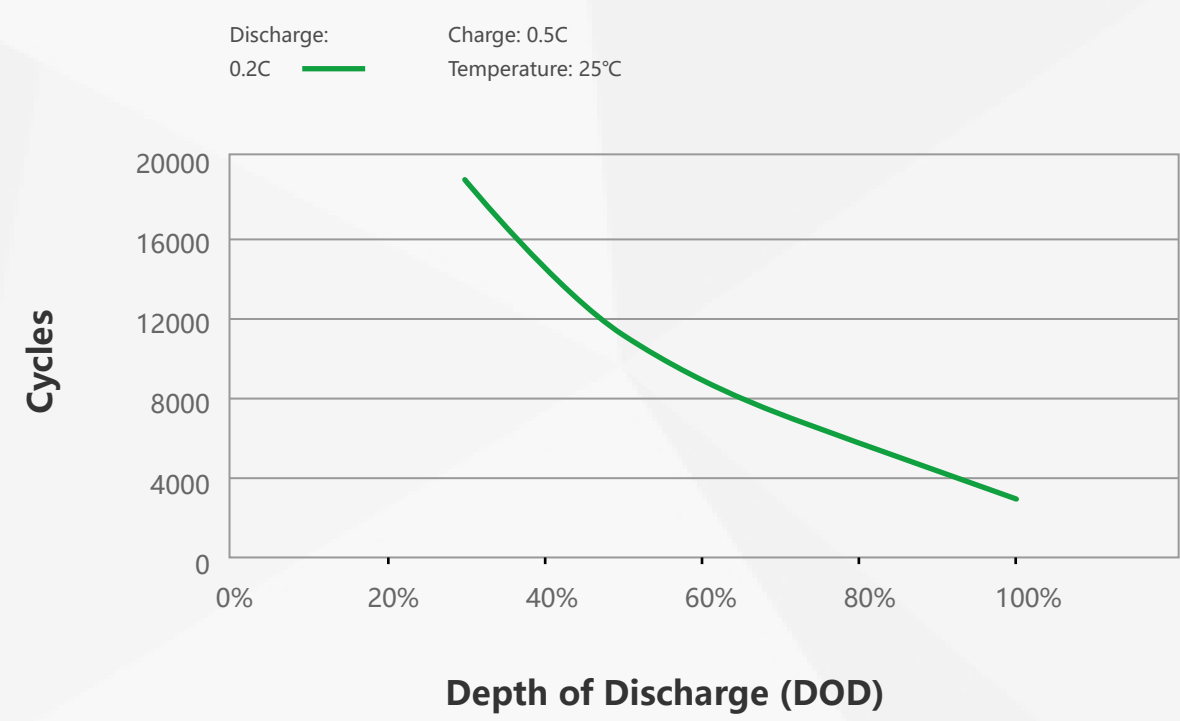
Key Benefits:

- **Higher qualified cylindrical cell:**
  UL1642, IEC62619, IEC62133 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.

- **Heat:**
  Uniform internal heating is an important feature of our cold-weather performance batteries, as many external heating blanket options currently available cannot sense the internal temperature of the cells and may not be completely effective at heating the battery throughout. The system features proprietary technology that draws power from the charger itself, requiring no additional components. The entire process of heating and charging is completely seamless. Simply plug the battery into the regular lithium charger and the internal heating and monitoring system takes care of the rest.

- **More stable and firm internal structure:**
  Cell holders can well protect and separate the cells to avoid any circuit short risk caused by vibration or impact or over current, and improve the heat dissipation.

- **Smaller size and less weight:**
  The size of our battery is just 3/4 size of the standard 12V 100Ah battery from other suppliers.

Market Applications:

RV

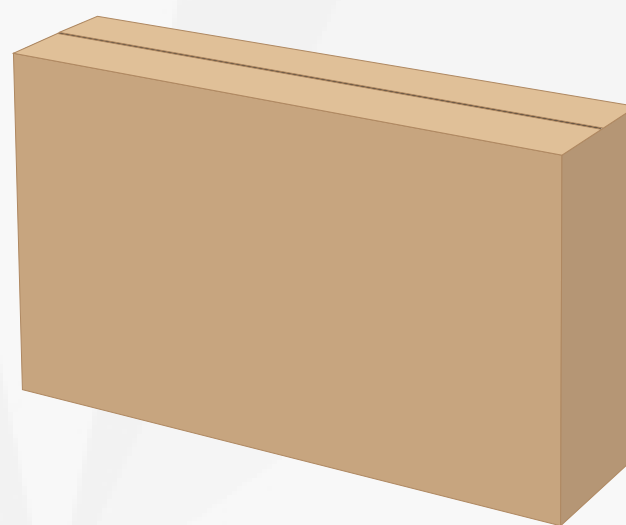Marine

Golf cart

Cleaning

Light EV

Energy storage

Robotics

Lighting

Package:

20' Container=10Pallets=660Cartons=660Units;
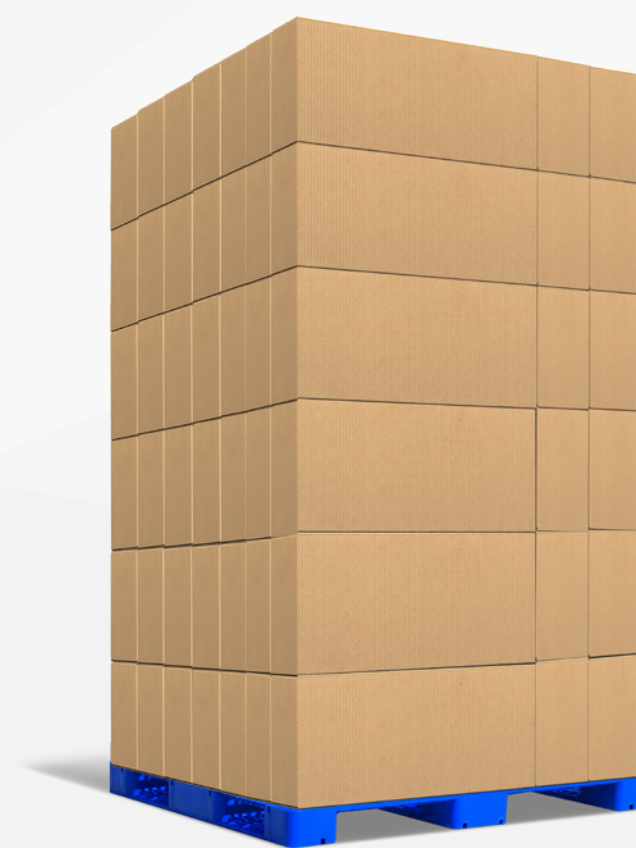40' Container=20Pallets=1320Cartons=1320Units;

1Carton=1Unit

1Pallet=66Cartons

| Internal Package | Weight: 13Kg/carton | Weight: 873Kg/pallet |
| Forming pearl foam | Size(L×W×H): 567×170×298mm | Size(L×W×H)=1.2×1×1.95m ≈ 2.3BM |

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.