

HCG-24 Series / Data sheet



- 12V 100Ah
- 12V 120Ah
- 12V135Ah
- 24V 50Ah
- 24V 65Ah
- 48V 30Ah



Model Included:

- HCG24-12100 12V 100Ah LiFePO4 Battery
- HCG24-12120 12V 120Ah LiFePO4 Battery
- HCG24-12135 12V 135Ah LiFePO4 Battery
- HCG24-2450 24V 50Ah LiFePO4 Battery
- HCG24-2465 24V 65Ah LiFePO4 Battery
- HCG24-4830 48V 30Ah LiFePO4 Battery

Haicen Advanced Lithium Batteries		Model					
		HCG24-12100	HCG24-12120	HCG24-12135	HCG24-2450	HCG24-2465	HCG24-4830
Electrical Specifications	Nominal Voltage	12.8V	12.8V	12.8V	24V	24V	48V
	Nominal Capacity	100Ah	120Ah	135Ah	50Ah	65Ah	30Ah
	Parallel Connection	Max. 6units	Max. 6units	Max. 6units	Max. 6units	Max. 6units	Max. 6units
	Serial Connection	Max. 4units	Max. 4units	Max. 4units	Max. 2units	Max. 2units	No
	BMS	4S100A	4S150A	4S150A	8S50A	8S60A	16S50A
	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	14.4±0.2V	28.8±0.4V	28.8±0.4V	57.6±0.8V
	Standard Current	20A	24A	27A	10A	13A	6A
	Fast Current	50A	60A	67A	25A	32A	15A
Discharge Specifications	Standard Current	20A	24A	27A	10A	13A	6A
	Max. Con. Current	100A	120A	135A	50A	60A	30A
	Peak Current	500A(300ms)	600A(300ms)	600A(300ms)	200A(300ms)	200A(300ms)	200A(300ms)
	Cut-off Voltage	10V	10V	10V	20V	30V	40V
Mechanical Specifications	Dimensions (mm)	260×170×208mm (Group 24)					
	Approx Weight(KG)	11.5	13	13	12	12	11.5
	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°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:

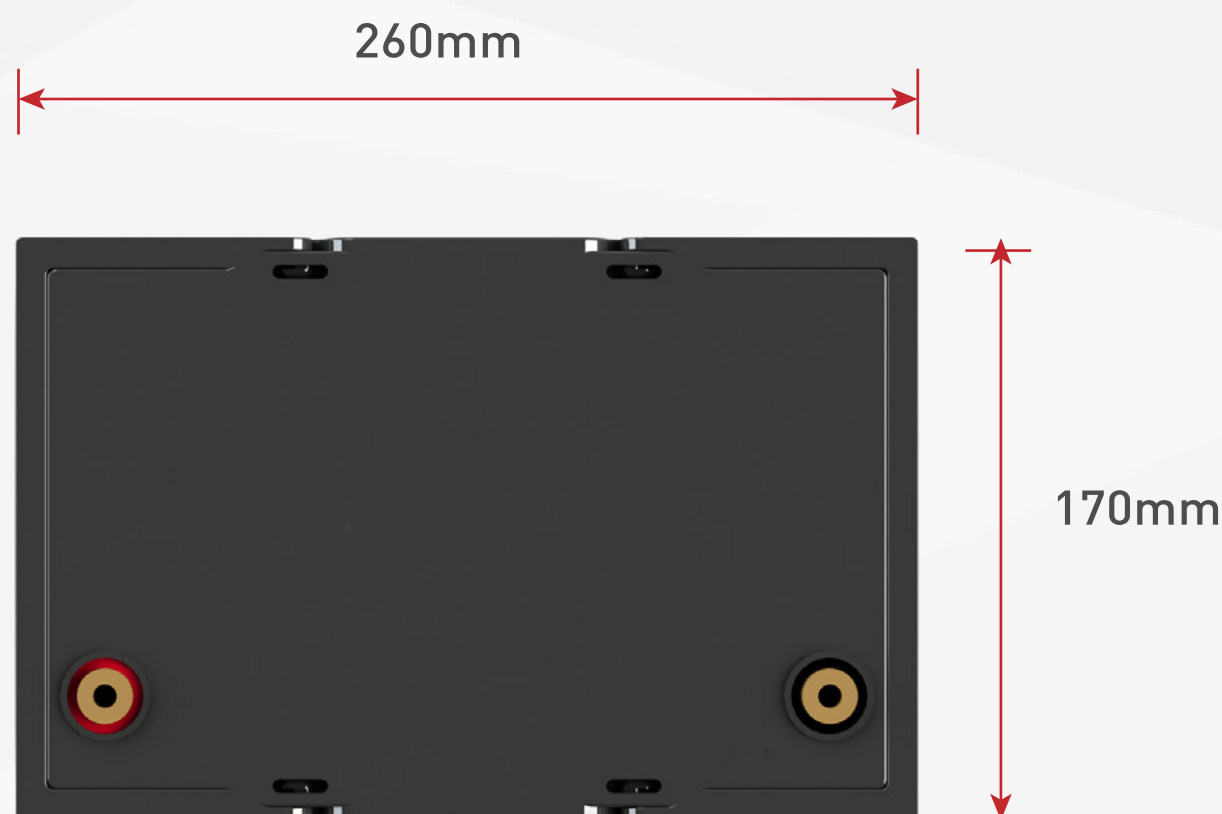
- **Cell match:**
More strict cell matching standard, the difference of Internal resistance is 1mΩ and voltage is 5mV.
- **Automatic cells welding:**
Cells are assembled by Automatic welding equipments to ensure the quality reliability and consistency.
- **100% Cycle test:**
All battery packs are 100% 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)
- IEC62133 (Cell)
- IEC62619 (Cell)
- UL2054 (PACK)
- CE (Pack)
- UN38.3 (Cell / Pack)
- ROHS (Cell)



Dimensions:



Internal Structure:

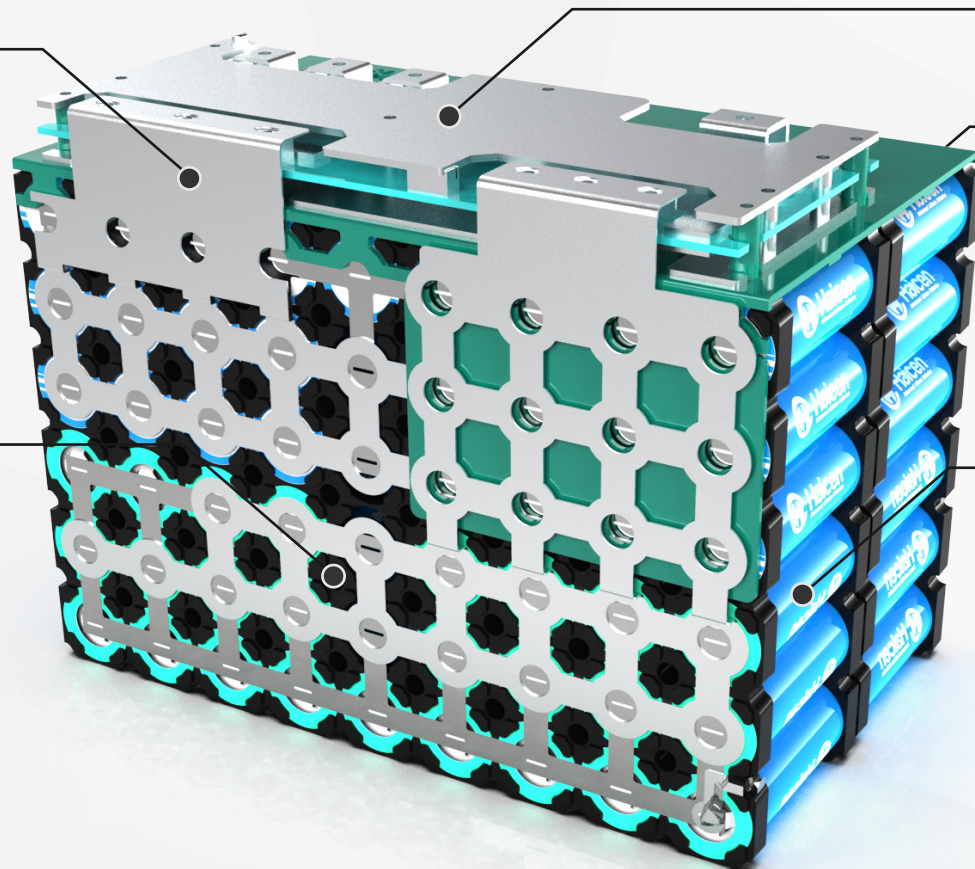
Molded Nickel sheet

Molded Plastic cell holder

BMS

BMS holder

Cell



12V 100Ah

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12V135Ah

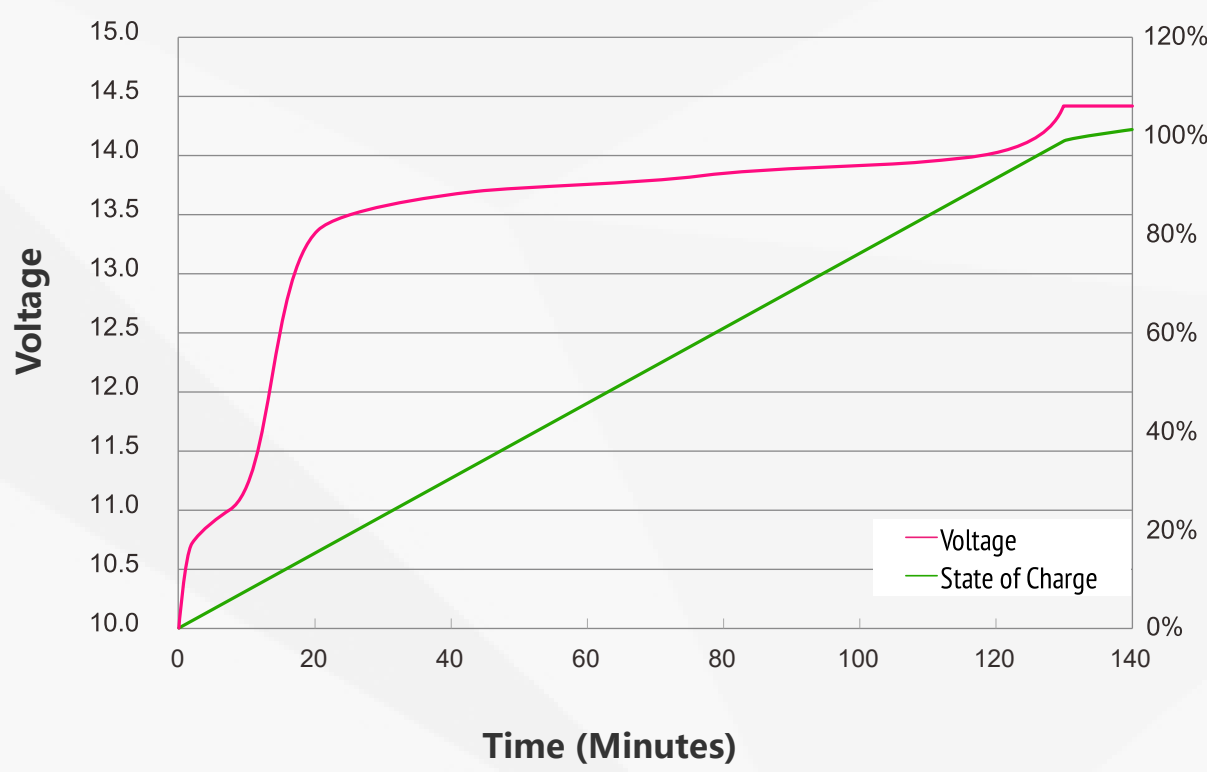
24V 50Ah

24V 65Ah

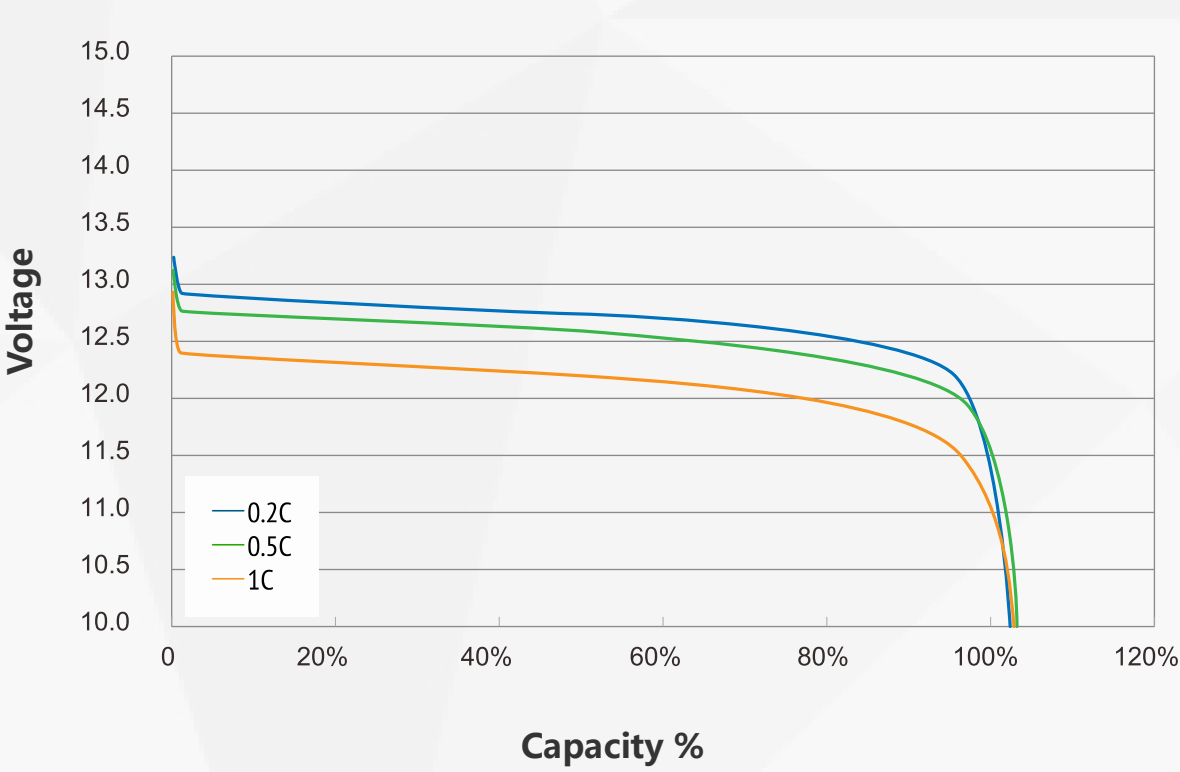
48V 30Ah

Characteristics Curve:

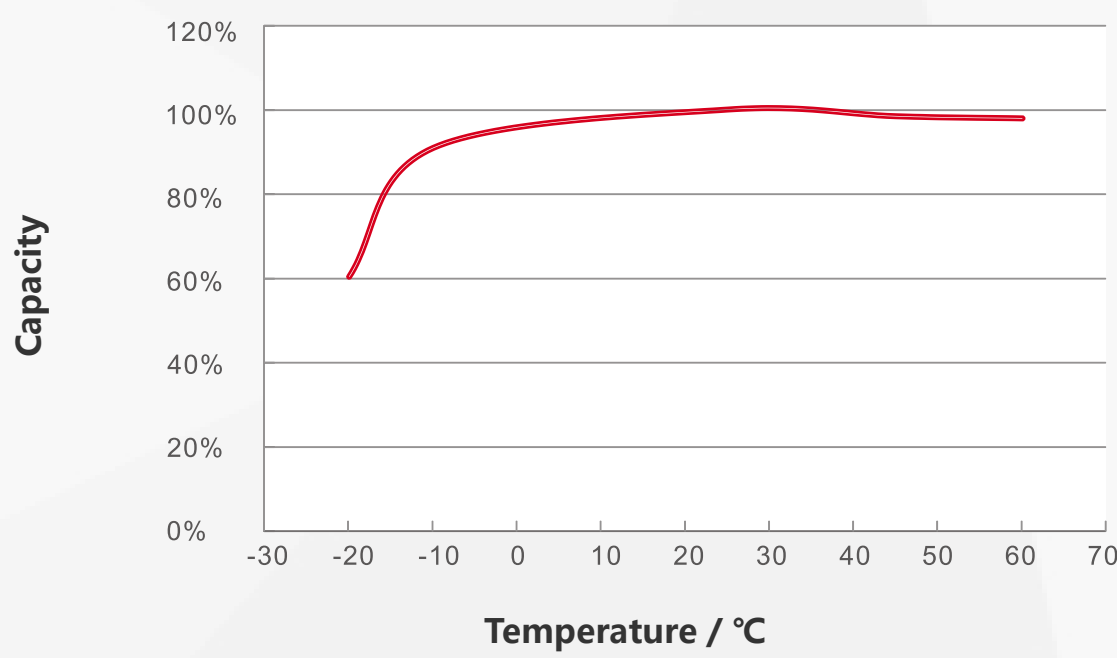
Charging Characteristics (0.5C @25°C)



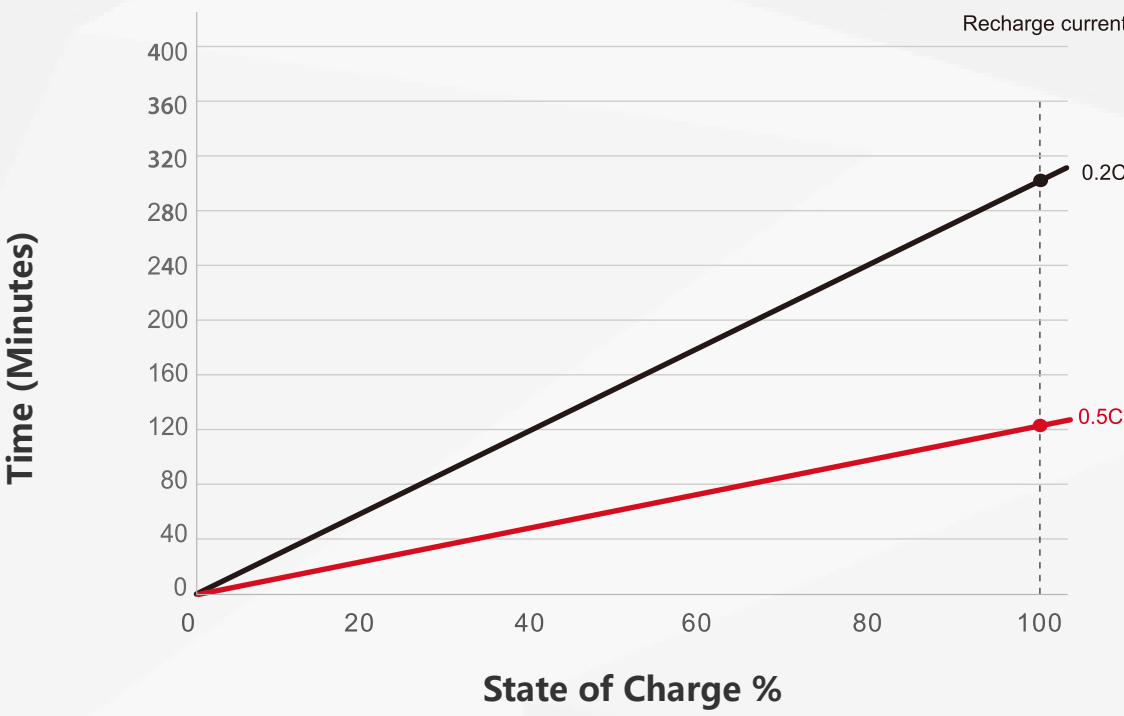
Discharging Characteristics (0.2C, 0.5C, 1C @25°C)



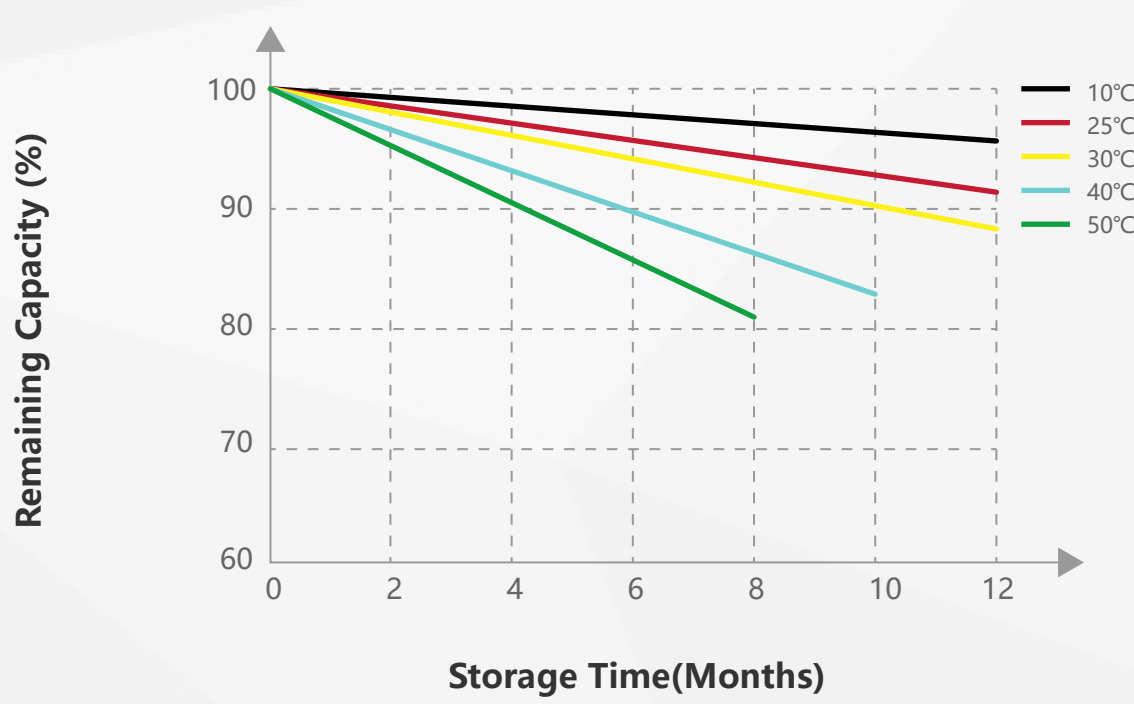
Different Temperature Capacity Curve



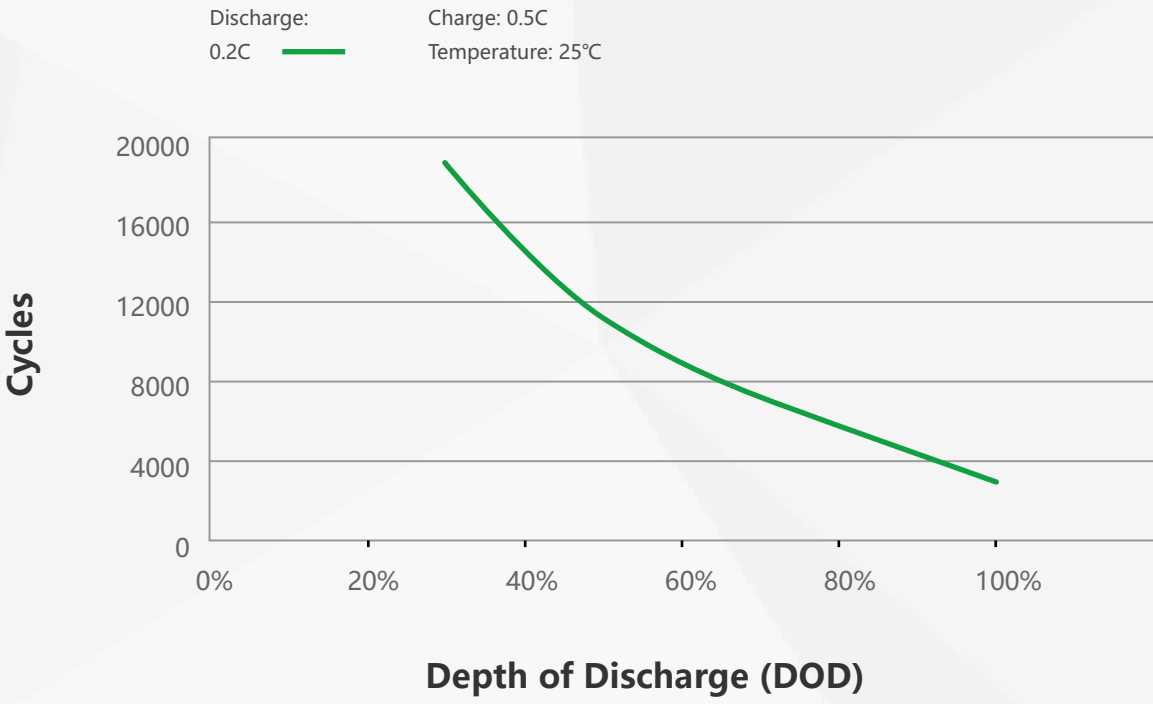
Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve



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Key Benefits:

- **Higher qualified cylindrical cell:**
UL1642, IEC62619, IEC62133 listed with Cycle life more than 3000times and excellent consistency.
- **Stronger BMS:**
Can support the batteries in parallel and series connection
- **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



Light EV



Energy storage



Cleaning



Robotics



Lighting

Package:

20' Container=10Pallets=900Cartons=900Units;
40' Container=20Pallets=1800Cartons=1800Units;

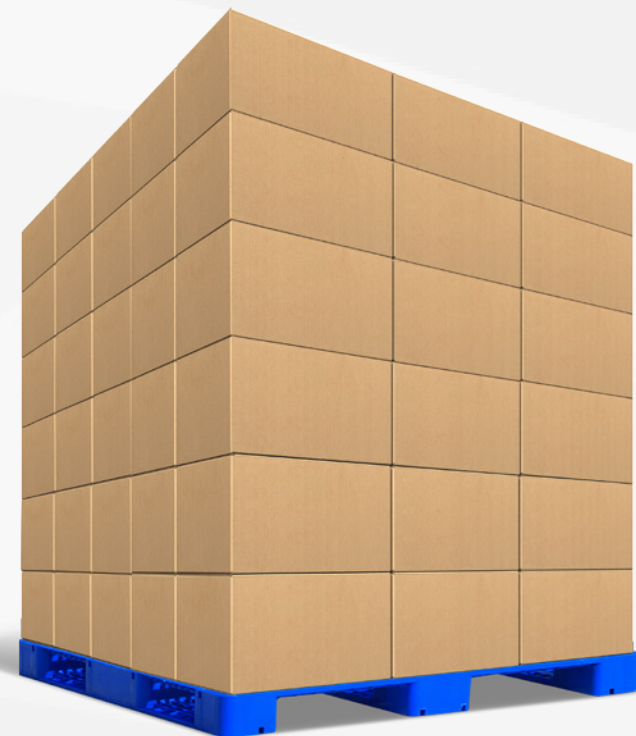


Internal Package
Forming pearl foam



1Carton=1Unit

Weight: 12Kg/carton
Size(L×W×H): 320×230×282mm



1Pallet=90Cartons

Weight: 1095Kg/pallet
Size(L×W×H)=1.2×1×1.8m ≈ 2.2BM

Customized items:

- **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.