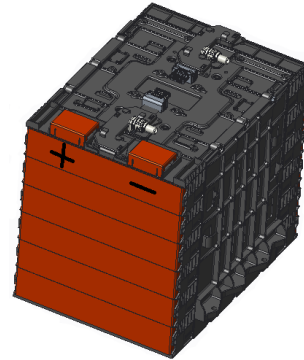


Features

- **Safety**
Automotive grade LFP battery
- **Higher economic benefit**
Much more reasonable price than new battery
- **Zero carbon product**
Recycled battery from EV cars/bus

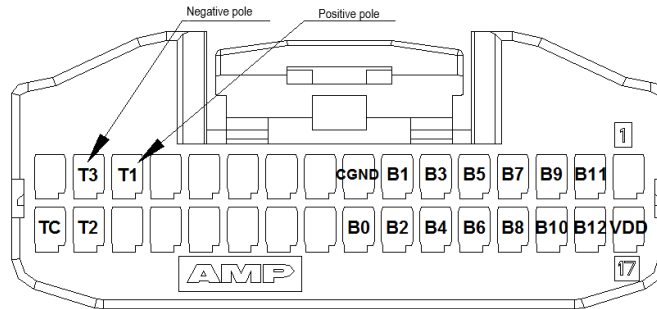


Specification

Basic parameters	
Capacity(Ah)	220
Rated Voltage(V)	38.4
Voltage range(V)	24-45.6
Structural parameters	
Length(mm)	428±3
Width(mm)	369±3
Height(mm)	394±3
Weight(Kg)	82
Electrical parameters	
Charging Method	CC/CP/VP
Charging Current	0.2C(Standard) 0.75C(Max continuous charging current)@25℃
Charge cut-off voltage	3.8V/Cell
Discharging Method	CC/CP/VP
Discharging Current	0.2C(Standard) 1C(Max continuous discharging current)@25℃
Discharge cut-off voltage	2.0V/Cell
Working Conditions	
Operating temperature(℃)	Charging:0~+50 Discharging:-20~+55
Storage conditions	Short-term storage(< 3 months):
	SOC:20%~60%
	Temp:-10~+45℃
	Humidity: 0~95%
Storage conditions	Long-term storage(< 1 year):
	SOC:30%~60%
	Temp:-10~+40℃
Shipping status	Humidity: 0~95%
	Cell volt: 3.25~3.35 V SOC:30%~50%

Battery sampling

The BMU attached on battery module, and upper BMS can be provided according to client's requirements.



B12/VDD/T1--Battery positive pole B0/CGND/T3--Battery negative pole

Battery module sampling plug

Charge/discharge limit strategy

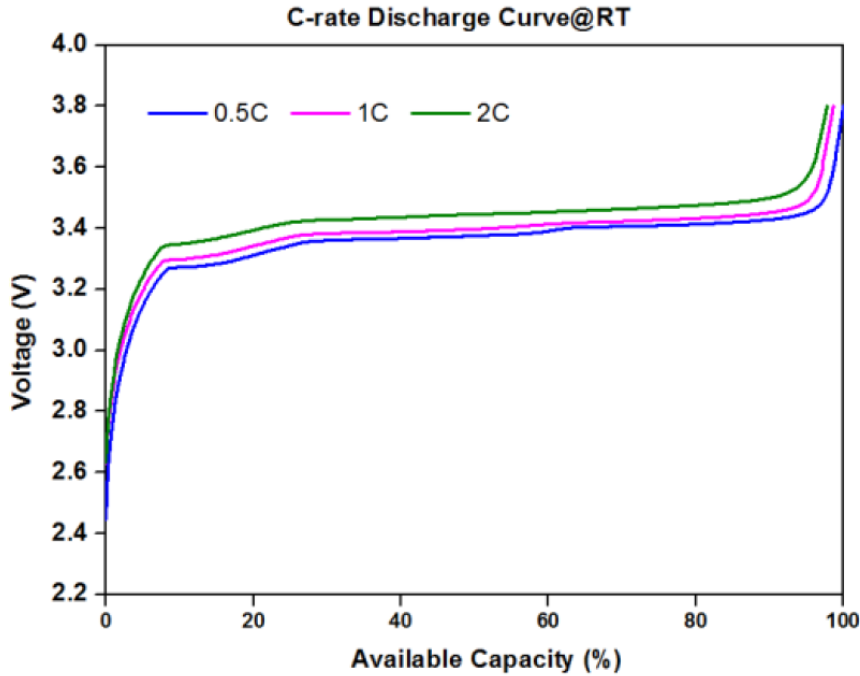
Max continuous discharging rate												
SOC Temp	100%	99%-90%	89%-80%	79%-70%	69%-60%	59%-50%	49%-40%	39%-30%	29%-20%	19%-10%	9%-1%	0%
>55℃	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C
50~55℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
45~49℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
40~44℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
35~39℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
30~34℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
25~29℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
20~24℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
15~19℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
10~14℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0C
5~9℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0.1C	0C
0~4℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0.1C	0.1C	0C
-5~0℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0.1C	0.1C	0.1C	0C
-10~-6℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0.1C	0.1C	0.1C	0C
-15~-11℃	0.5C	0.5C	0.5C	0.5C	0.5C	0.2C	0.2C	0.1C	0.1C	0.1C	0.1C	0C
-20~-16℃	0.5C	0.5C	0.5C	0.2C	0.2C	0.2C	0.1C	0.1C	0.1C	0.1C	0.1C	0C
<-20℃	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C

Max continuous charging rate												
SOC Temp	100%	99%-90%	89%-80%	79%-70%	69%-60%	59%-50%	49%-40%	39%-30%	29%-20%	19%-10%	9%-1%	0%
>50℃	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C
45~49℃	0C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C
40~44℃	0C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C
35~39℃	0C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C
30~34℃	0C	0.2C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C
25~29℃	0C	0.2C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C
20~24℃	0C	0.2C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C	0.3C
15~19℃	0C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C
10~14℃	0C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C
5~9℃	0C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C
0~4℃	0C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C	0.1C
<0℃	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C	0C

Make the earth cool Make the resources cycle

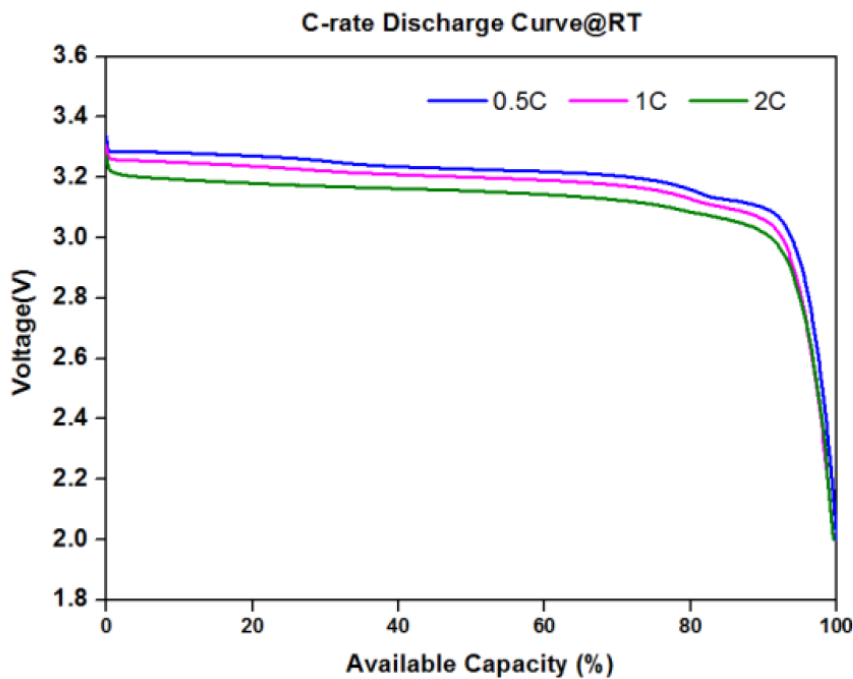
Charging at different rates

After fully discharged at $23\pm 2^{\circ}\text{C}$ with 0.5C discharge current, the cell is charged with different C-rate to 3.80V.



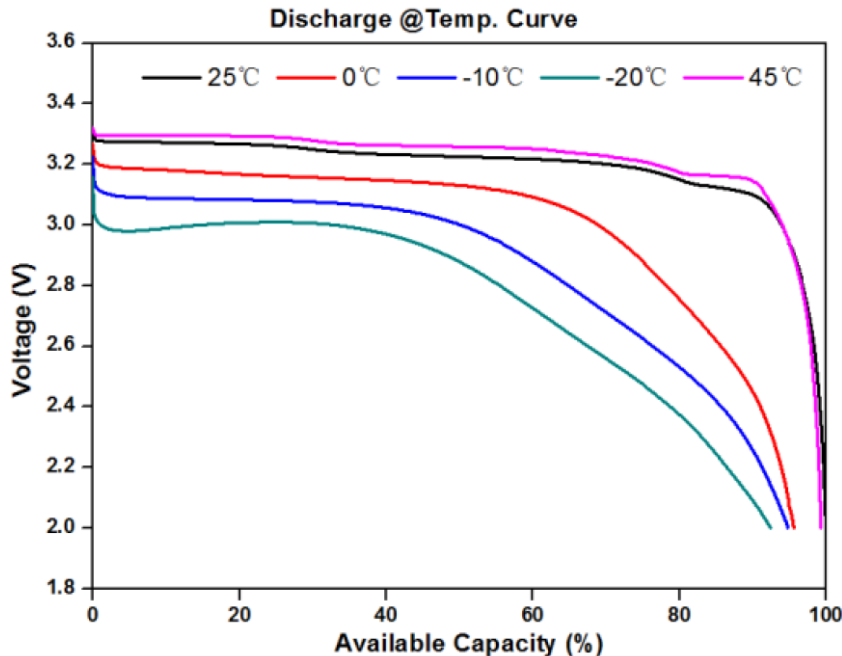
Discharge at Different Rate

After fully charged at $23\pm 2^{\circ}\text{C}$ with 0.5C charge current, the cell is discharged with different C-rate to 2.00V.



Discharge at Different Temperature

After fully charged at $23\pm 2^{\circ}\text{C}$ with 0.5C charge current, then keep the cell at different temperature for 8 hours. The cell is discharged to 2.00V with 0.5C.



Safety warning

1. Never throw out battery in a fire or expose to high temperatures. Move away from the fire.
2. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.
3. Do not use the battery with other maker's batteries, different types and/or models of batteries.
4. Do not disassemble or alter the batteries' outside structure. Do not impact or penetrate the cell.
5. Incompatible products: Conductive materials, water, sea-water, strong oxidizers and strong acids.
6. Avoid direct sunlight, high temperature, and high humidity (temperature $\leq 65^{\circ}\text{C}$, humidity $\leq 95\%$).
7. Wear neoprene or nature rubber gloves if handling a cell.
8. Insure the cell has necessary protection and monitoring to voltage, current and temperature of the cell.
9. In case of smoking or electrolyte spilled, cell damaged, stop using the cell immediately and the contact Pand to dispose.