



Lithium Batteries **for Golf Carts** **48V 105 Ah**



Keep improving, just for better

LEROAD Lithium Batteries for Golf Carts

Rated voltage:

48V

Rated capacity:

105 Ah

Cycle life:

> 3500次

Rated reserve energy:

5040 Wh

Charging time:

3-4 H

Working temperature range:

- 20°C ~ 55°C

Weight:

45 Kg

Battery protection level:

IP 65



LEROAD, leading lithium battery system technology

Provide you with a one-stop solution for golf cart lithium batteries



Intelligent supervision platform



5 years warranty



Quick charging



Strong stability



Maintenance-free



Multiple built-in safety features



Cost-effective



Environment-friendly



Adopt first-tier brand **EVE** A-grade battery

Long cycle life, better stability, consistency and higher charging efficiency
Square aluminum shell structure, high-precision explosion-proof valve design, better safety performance

Passed ROHS certification

- ✓ Low internal resistance
- ✓ High discharge rate
- ✓ Stable discharge platform



-20°C 0°C 55°C

All-weather available battery

In the ultra-low temperature to ultra-high temperature climate conditions of -20°C-55°C All can work normally.

Product advantages

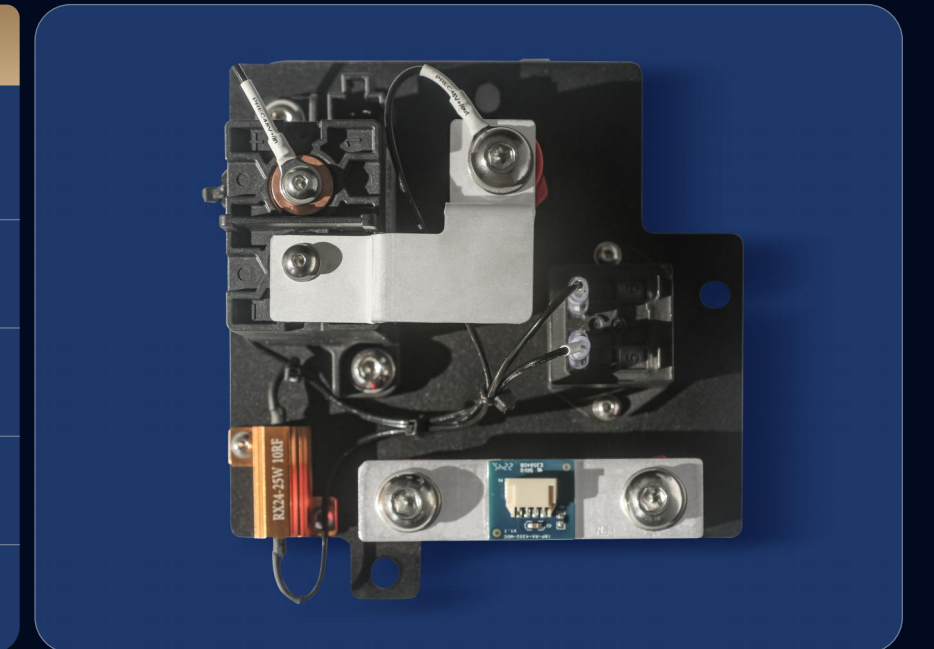
In the field of special vehicles, battery pack control solutions are mainly based on MOSFET.

LEROAD lithium batteries adopt the design concept of passenger cars and use the superior Relay control solutions.



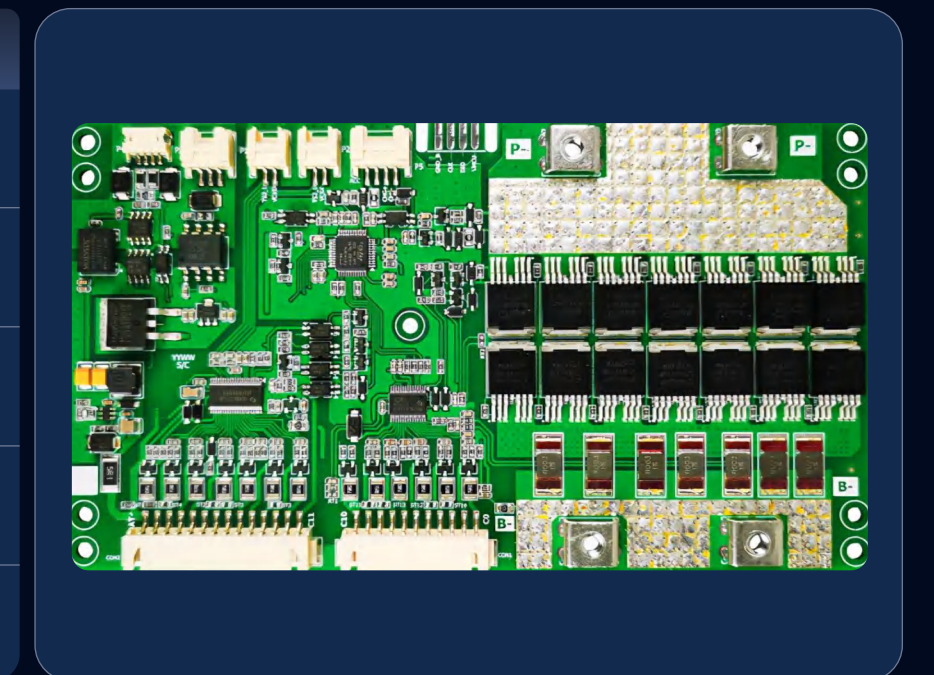
Relay solution

- No leakage current when disconnected
- Simple control system and low failure rate
- The relay has a fixed structure and flexible layout.
- Easy after-sales maintenance
- After the short circuit burns the fuse, just replace the fuse



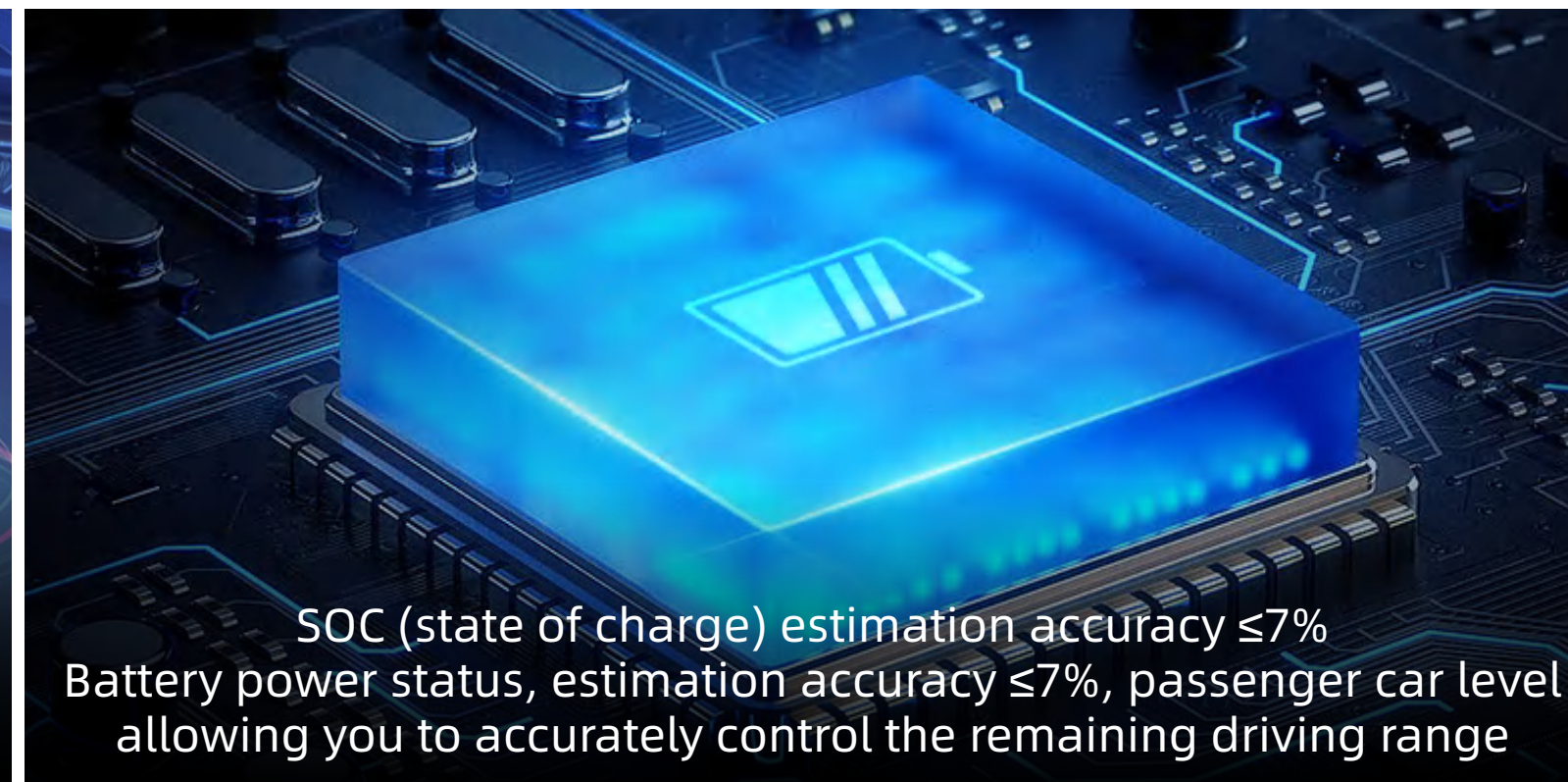
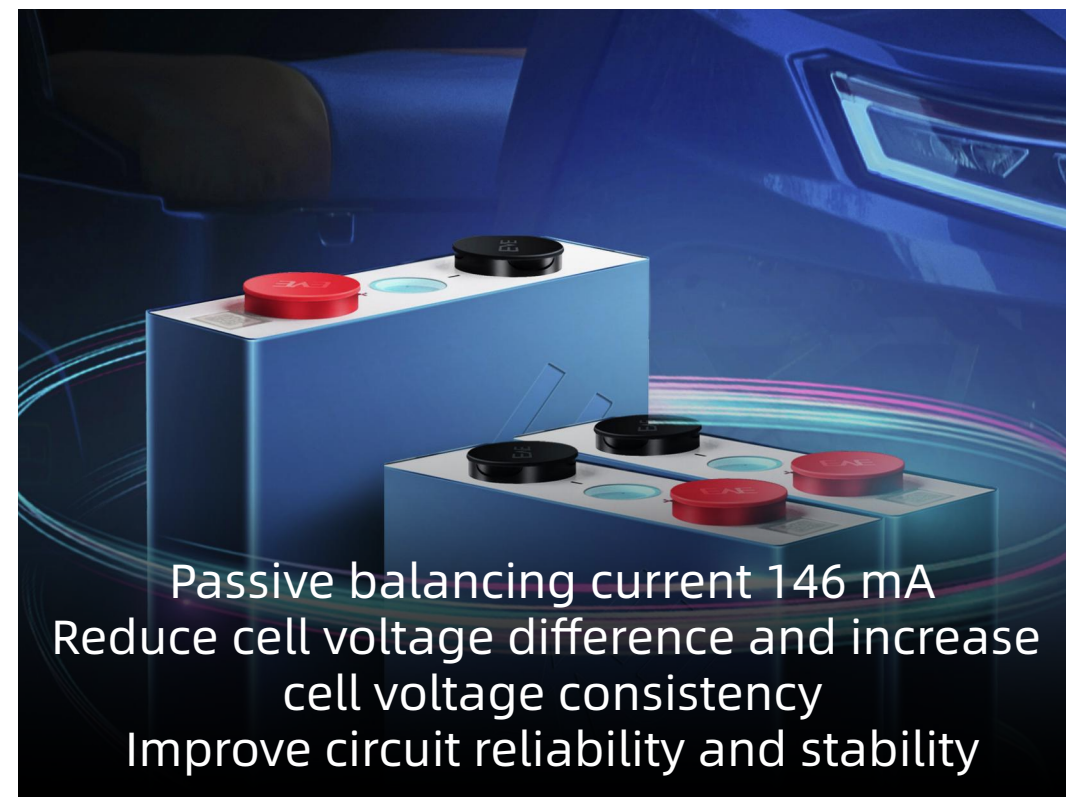
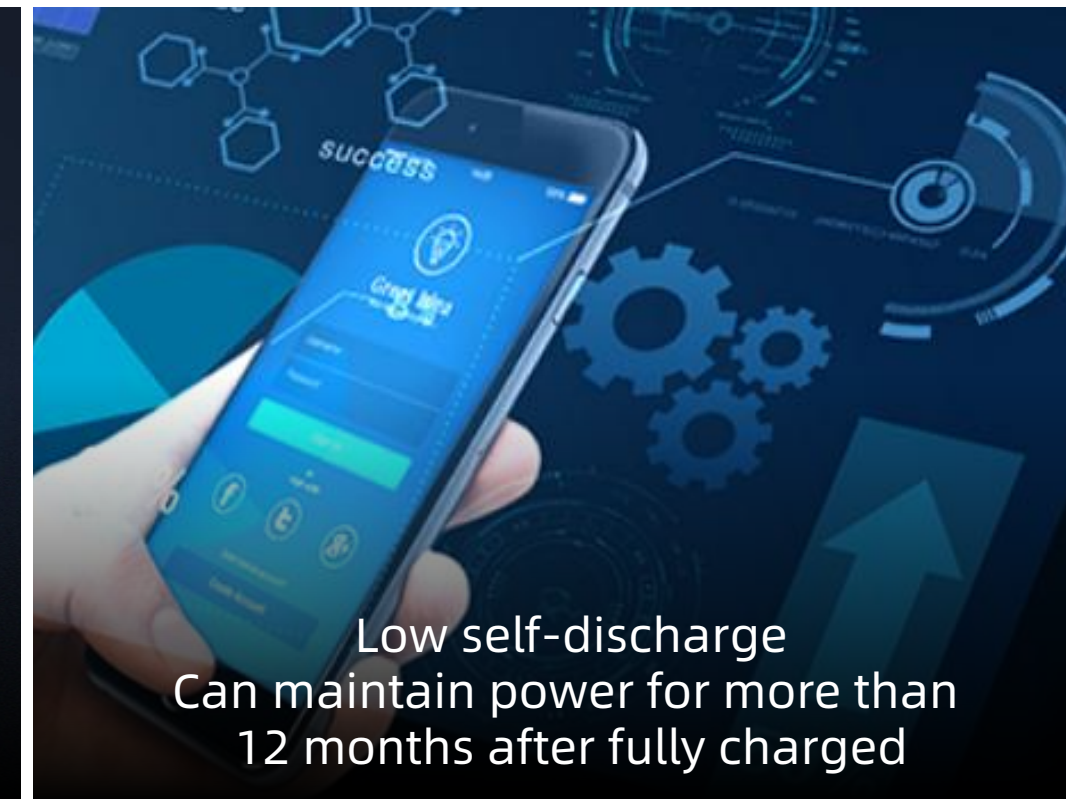
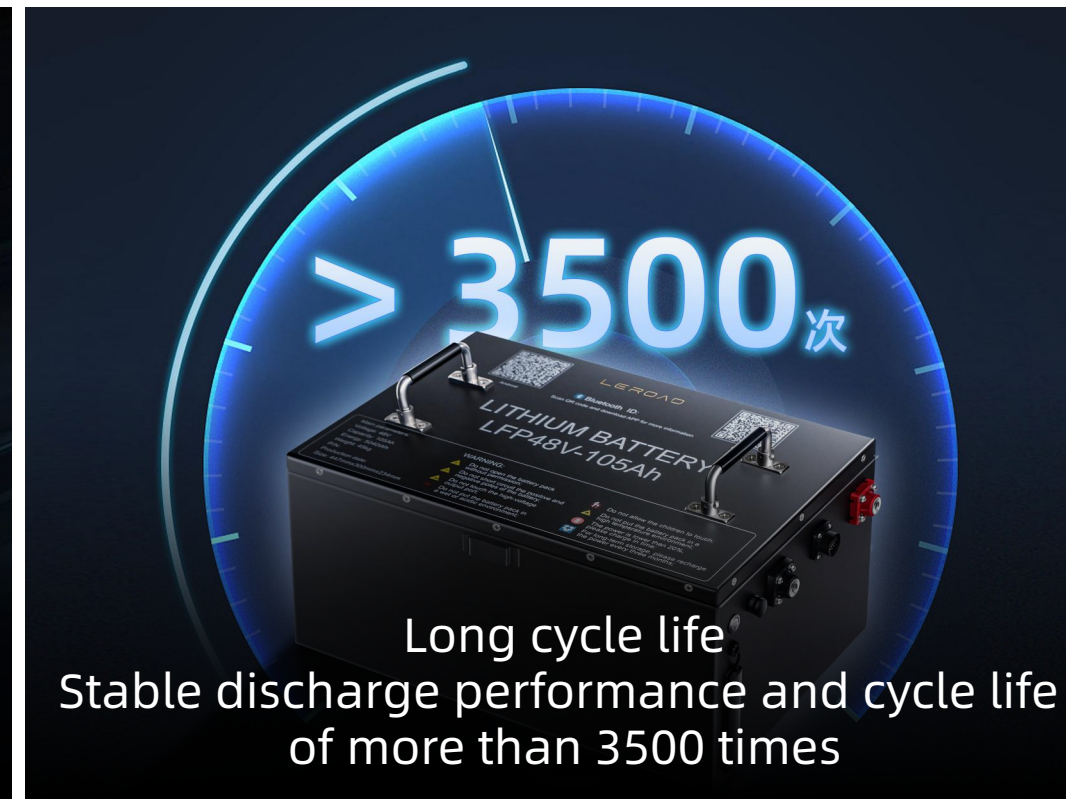
MOSFET solution

- There is still uA level leakage when disconnected
- The control system is complex and has a high failure rate
- The heat dissipation structure needs to be designed and the structural layout requirements are high.
- After-sales maintenance is inconvenient
- After the short circuit, replace the MOSFETs on the PCB or directly replace the PCB



Compared with the MOSFET solution, The relay solution BDU module has a longer service life, is more resistant to large currents, and has lower maintenance costs. This will improve the user's vehicle efficiency as a whole and greatly reduce maintenance costs.

Advantages of Leroad lithium battery products

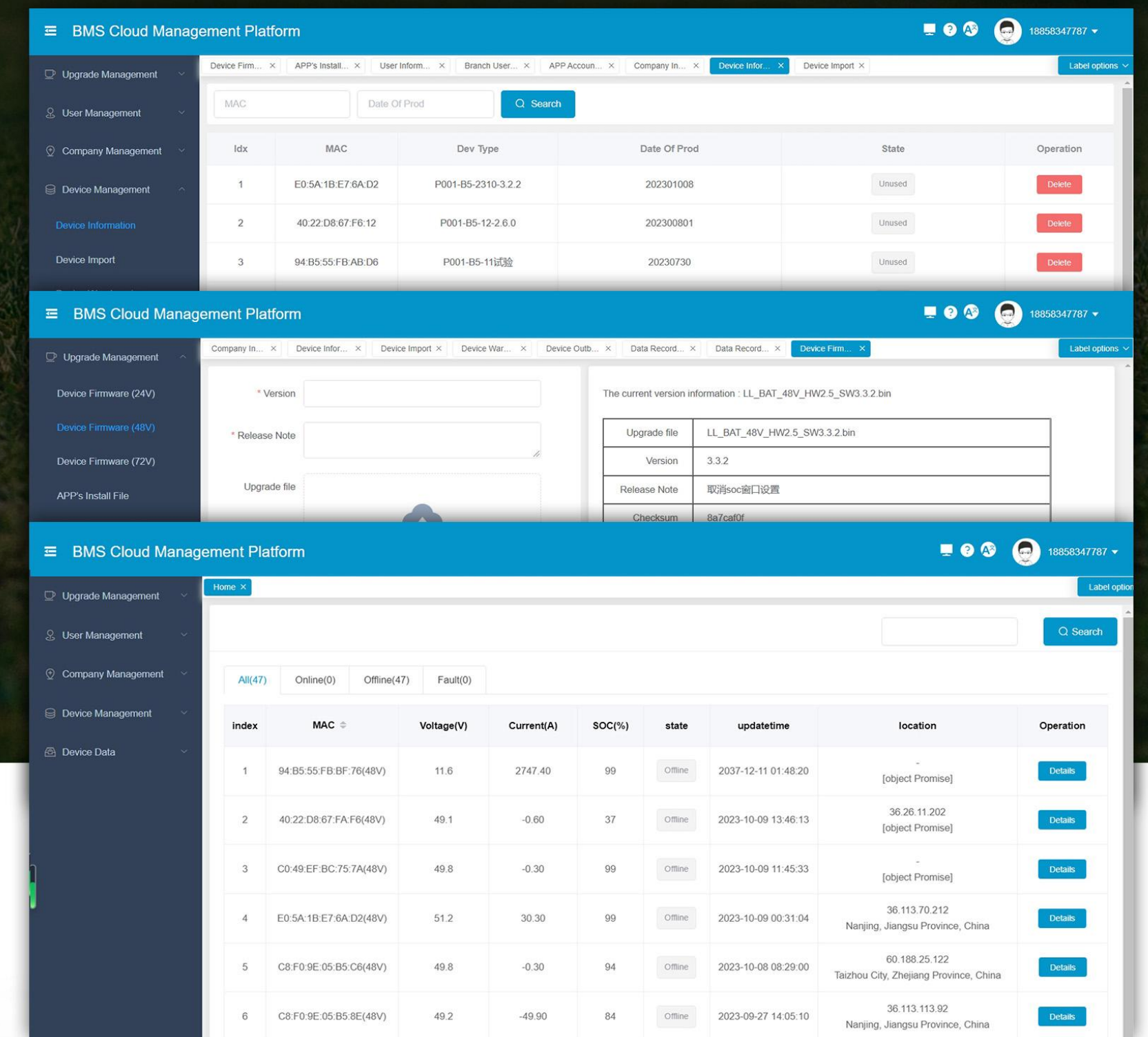


Battery intelligent supervision platform

Battery operation status can be analyzed through computer cloud monitoring

English and Chinese bilingual interface to meet international needs
Different accounts run at the same time
Hierarchical management, subsidiaries/ accounts set different permissions
Real-time monitoring of various battery data
Abnormal data/status real-time feedback

Historical data record query
Online hardware device program upgrade
Add, delete, and set up different devices at any time
Hierarchical account



Smart battery APP

Real-time monitoring through mobile APP
Remaining battery power, operating current,
voltage, temperature

And information such as the operating
status of each single battery cell

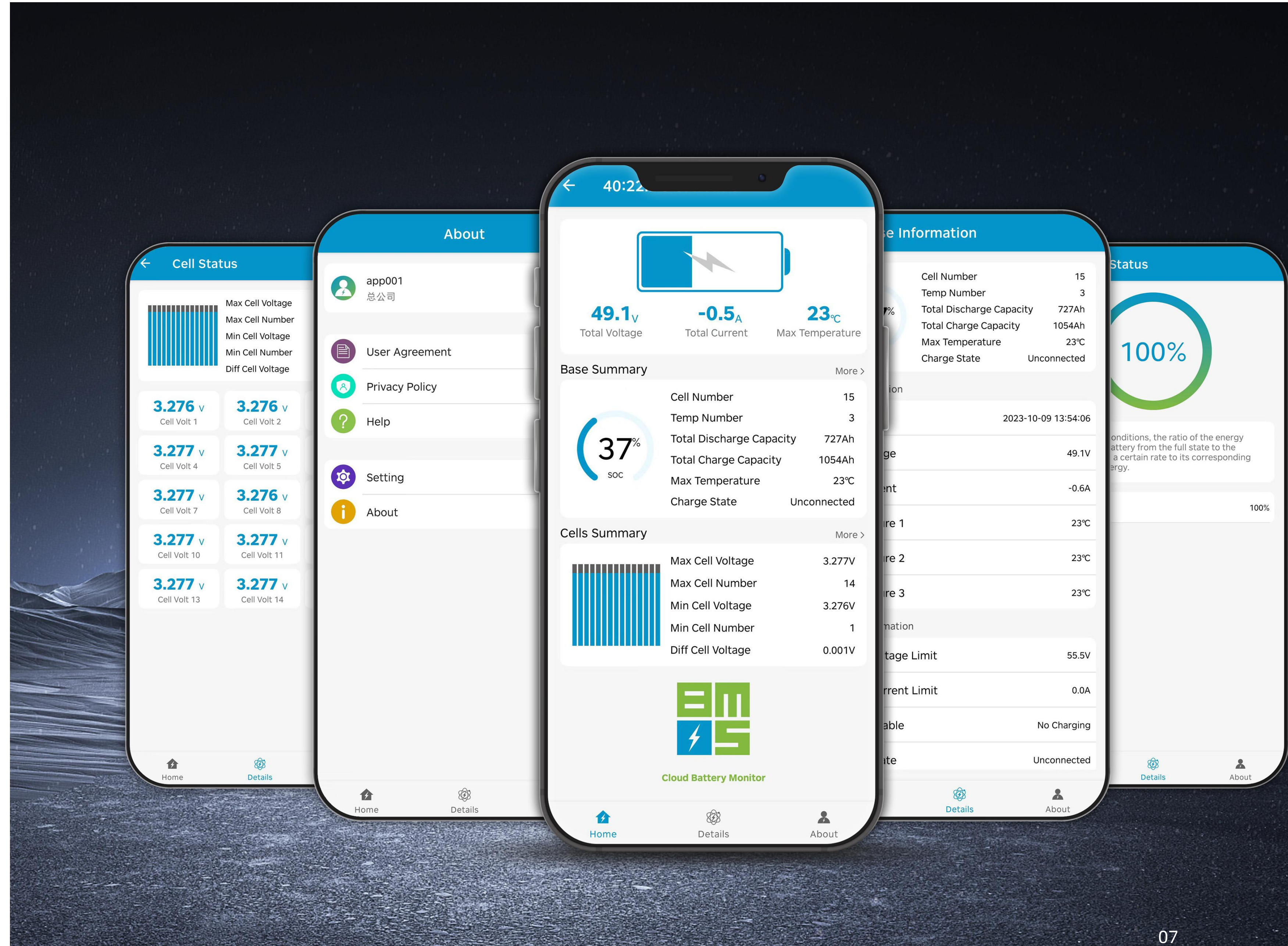
Both Android and IOS systems
are available



Android



IOS



SAFETY

Y



IP 65
Battery protection level

Security protection plan

Lithium iron phosphate Battery has high thermal stability and chemical stability, and have a variety of built-in. Safety functions ensure stable, safe and reliable battery operation.

- 
Voltage protection
- 
Current protection
- 
Short circuit protection
- 
Temperature protection
- 
SOC warning
- 
Health monitoring
- 
Status monitoring
- 
Pressure differential protection

Passed GB38031-2020 and UN38.3 tests

Test item	GB38031	UN38.3	Test results
Vibration	✓	✓	OK
Mechanical shock	✓	✓	OK
Simulate collision	✓	✓	OK
Extrusion	✓	/	OK
Heat and moisture cycle	✓	✓	OK
Soaking	✓	✓	OK
Thermal stability (external fire, heat dissipation)	✓	✓	OK
Temperature shock	✓	✓	OK
Salty spray	✓	✓	OK
High altitude	✓	✓	OK
Over-temperature protection, over-current protection, External short circuit protection, over-discharge protection, over-charge protection	✓	✓	OK
Room temperature, low temperature, high temperature capacity and energy testing (GBT31467-2015)	✓	✓	OK

Reliability test

3000km full load reliability test (road surface: flat road, bumpy road, twisted road, slope, etc.)

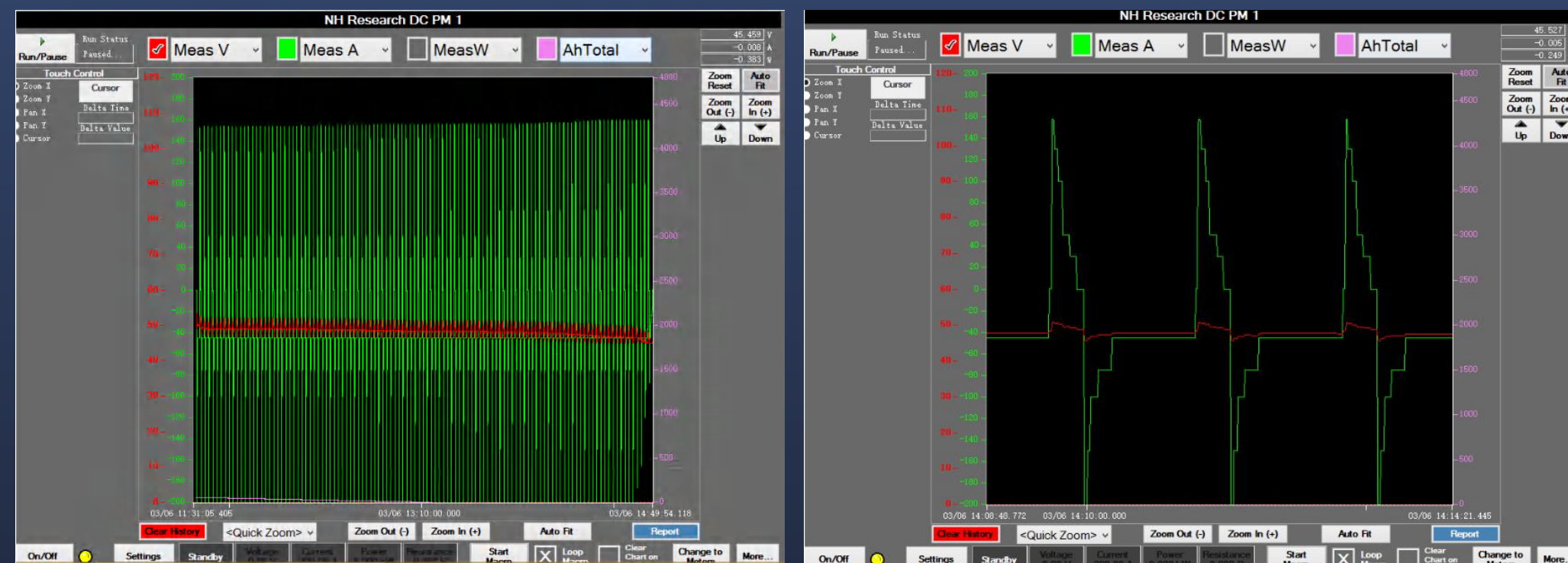


25% slope performance test



Reliability test

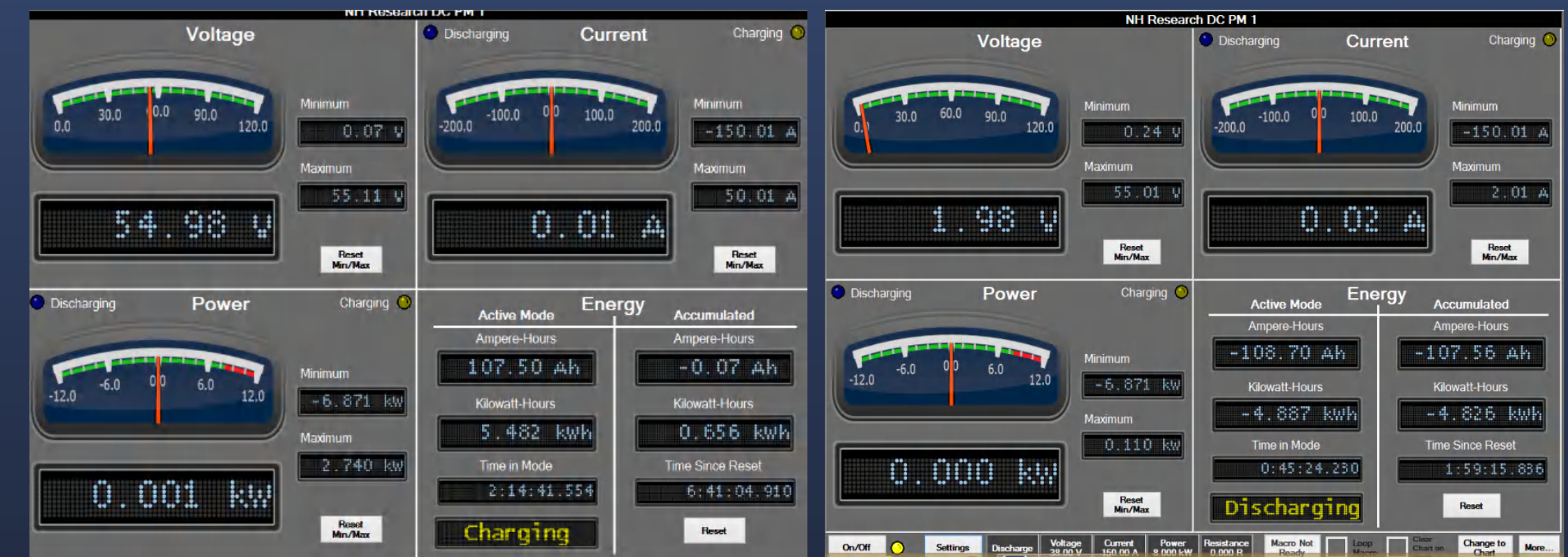
Bench working condition test (simulating road working conditions)



Simulated road condition testing

Local magnification

Charge and discharge capacity test



1C charging capacity test

1C discharge capacity test

Lithium batteries VS Lead acid batteries

Lithium batteries are more than 65% lighter than equivalent lead-acid batteries. And it has compact structure and smaller size.

It lasts more than 3 times longer than lead-acid batteries and has a 5-year warranty. More environmentally friendly and energy-saving

Lithium iron phosphate battery	VS	Lead-acid battery
>3500 times	Cycle life	< 500 times
>5 years	Service life	1-2 years
unnecessary	Maintain	Regular water filling, maintenance and inspection
Yes (EC)	Does it support fast charging	No
Have memory	Charging frequency	No memory
45kg	Weight	180kg
Multiple built-in protections	Safety	Basic security protection
No pollution	Environmental friendliness	Possible Lead contaminatio

Lithium Batteries

LFP BATTERY



LEAD-ACID BATTERY



Golf cart battery charger

Suitable for regular golf cart batteries


Two specifications, choose as needed

110V low voltage
American Standard
Charger input cable
(With charger plug)


220V high voltage
International standard
Charger input cable
(With charger plug)




Global use
can be used anywhere in the world
Reliable operation on single-phase power grid




**Higher charging efficiency
Lower power consumption**
The charger has a rated power of up to 30A, ensuring the battery can be charged quickly shortening the charging time



Smart charging
When golf cart battery charging is complete, the system will automatically shut down



Easy to move
Light weight, mobile and usable, Very convenient



Trickle charging function
Built-in trickle charger to reduce battery cells pressure difference to improve battery capacity efficiency

Main parameters and functions of battery assembly

Parameters

No.	Project	Technical parameters
1	Group combination	1P15S 48V105Ah
2	Rated voltage	48V
3	Rated Capacity	105Ah
4	Maximum allowable charging current	105A
5	Maximum continuous discharge current	150A
6	Maximum allowable feedback current	150A
7	SOC estimation accuracy	≤7%
8	Passive balancing current	146mA
9	Storage temperature range	-30~60 °C
10	Range of working temperature	-20~55 °C
11	Self-discharge rate/month	≤3.5%
12	Rated reserve energy	5.04 kWh
13	Cycle life	3500 times
14	Battery box material	Metal
15	Battery assembly protection level	IP65
16	Battery assembly weight	45Kg
17	Battery assembly size (LxWxH)	447x284x234mm
18	Charging time	3-4H

Functions

No.	Function
1	Overvoltage and undervoltage protection
2	Charge and discharge overcurrent protection
3	High discharge and low temperature protection
4	High charging and low temperature protection
5	Short circuit protection
6	Bluetooth APP (online software upgrade)
7	WIFI (remote fault diagnosis)
8	NTC failure alarm
9	The ignition key and the switch switch are interlocked at the same time
10	Low battery buzzer
11	Accelerator speed limit signal
12	BMS sleep and activate
13	Passive equilibrium
14	SOC, SOH estimation
15	CAN2.0B communication (baud rate 250kbps, built-in 120 ohm resistor)
16	RS485 electricity meter





Start your golf journey
With higher efficiency, lower cost and higher safety



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