

▪ HC48106-3U

48V 106Ah LiFePO4 Battery

Brief Introduction:

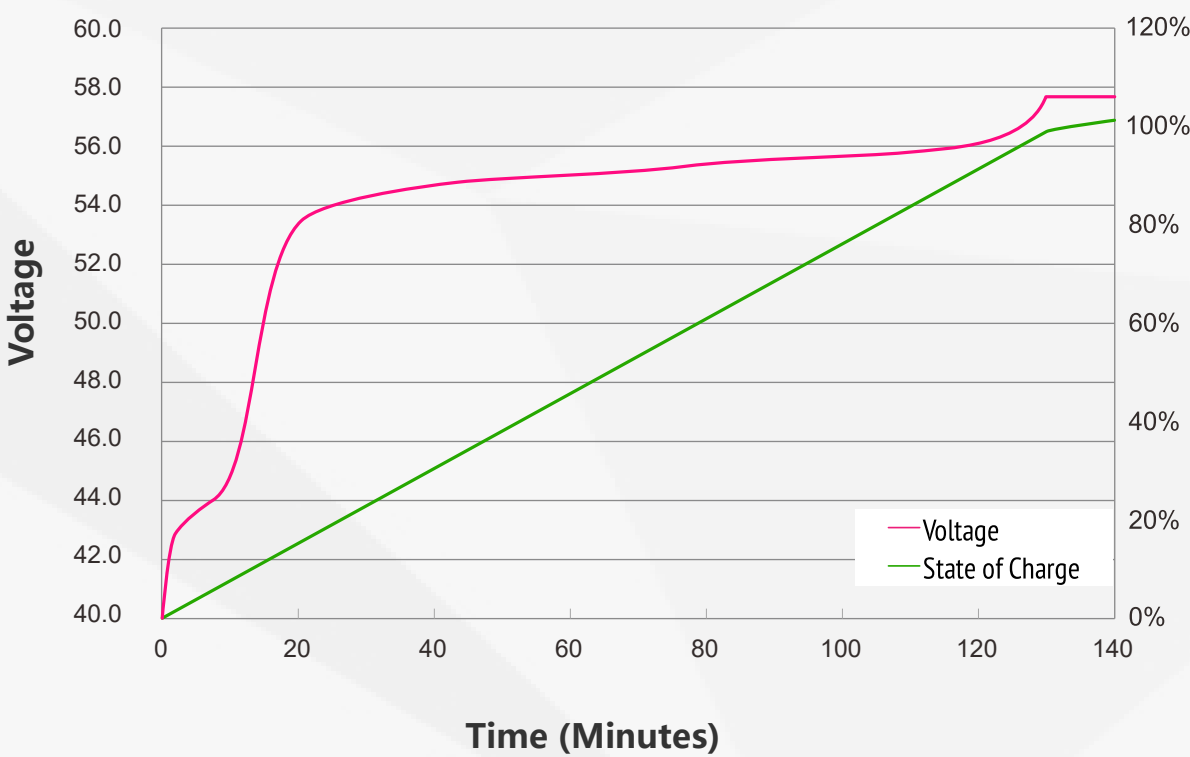
Haicen Power, ISO9001 certified factory, mainly focus on the R&D and Manufacture of : 1)12V to 48V LiFePO4 Batteries used for RV, Marine, Energy storage, Golf carts applications. 2) 48V LiFePO4 batteries for Energy storage system.



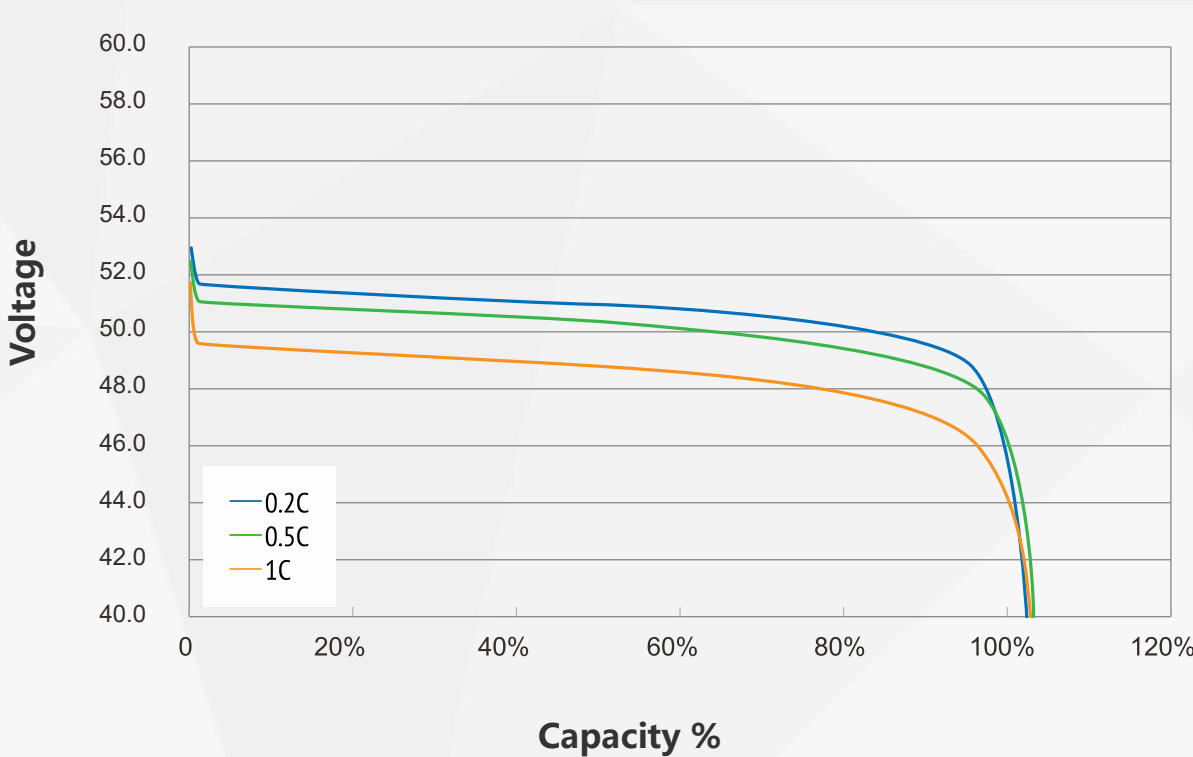
HC48106-3U		
Electrical Specifications	Nominal Voltage	51.2V
	Nominal Capacity	106Ah
	Parallel Connection	Max. 16units
	Serial Connection	No
	BMS	16S100A
	Circuit Protection	Over charge, Over discharge, Over current, Over temp, Short, Balance
	Communication	2×Rs485 and 1×CAN; LCD
	Cycle Life	3000times 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	57.6±0.8V
	Standard Current	20A
	Fast Current	50A
Discharge Specifications	Standard Current	20A
	Max. Con. Current	100A
	Peak Current	250A(2s)
	Cut-off Voltage	40V
Mechanical Specifications	Dimensions (mm)	482×425×133.5mm(3U standard size)
	Approx Weight(KG)	40
	Terminal Type	4×M6
	Case Color/material	Black Metal case
	IP Rating	IP56
	Cell Type	3.2V106Ah prismatic cell
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	-20°C to 45°C (-4°F to 113°F)

Characteristics Curve:

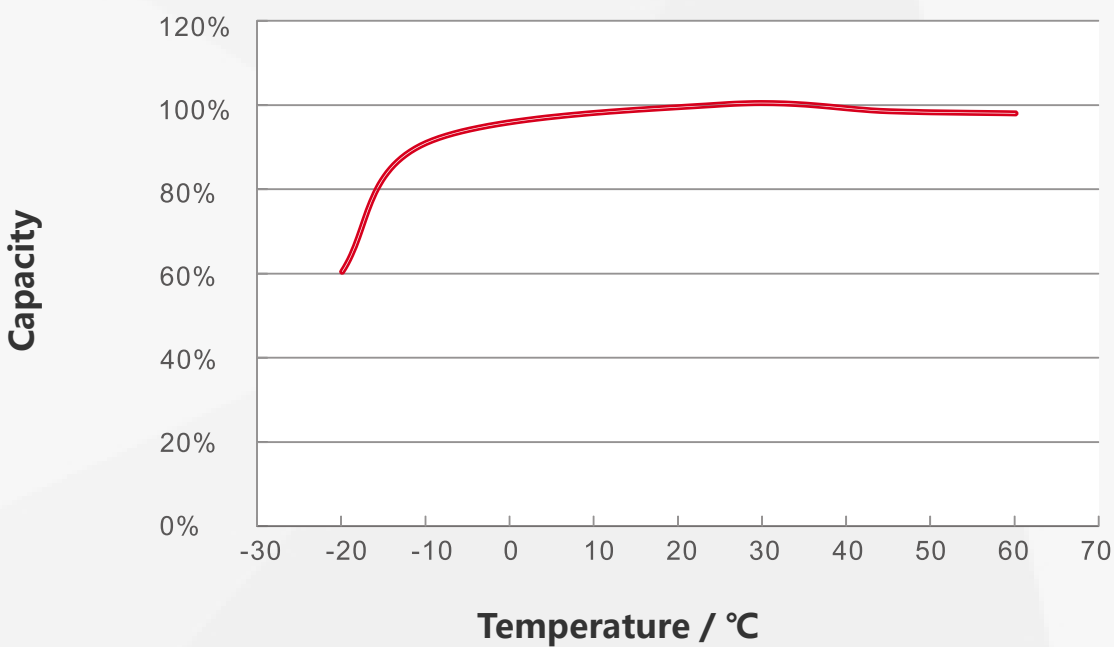
Charging Characteristics (0.5C @25°C)



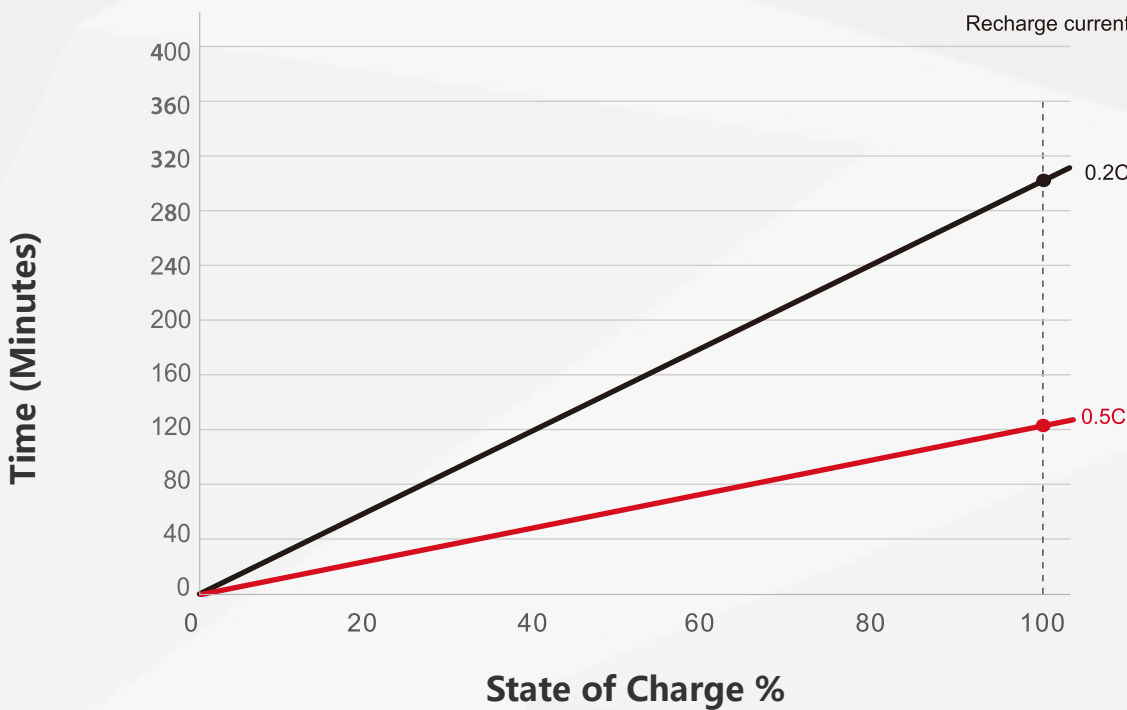
Discharging Characteristics (0.2C, 0.5C, 1C @25°C)



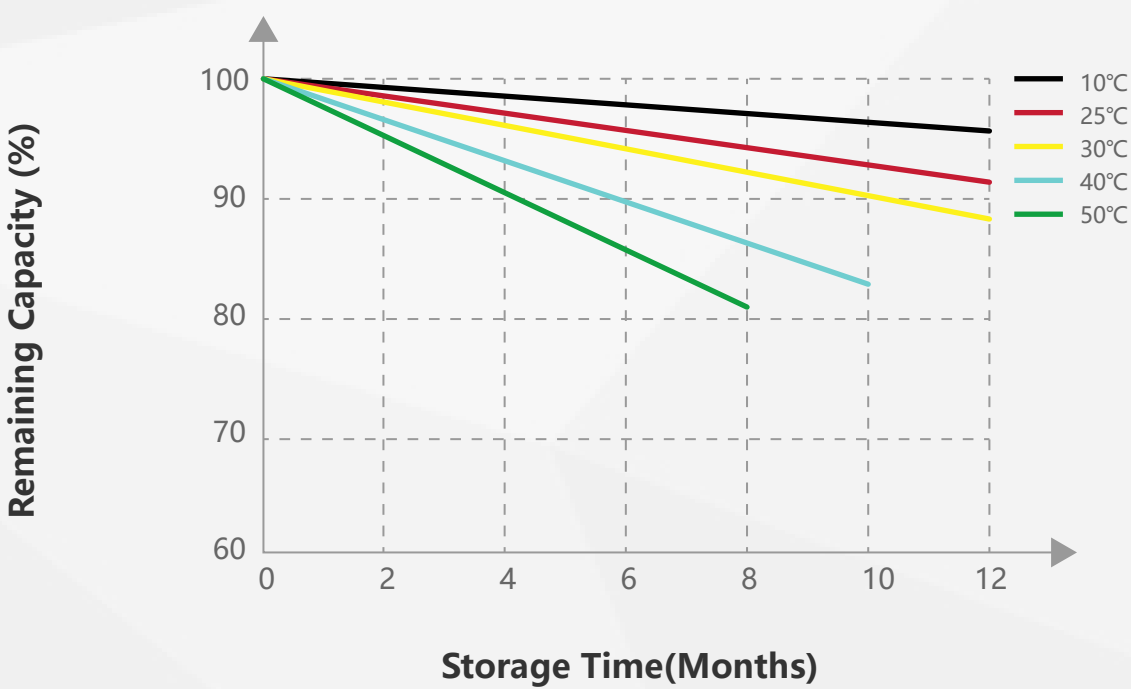
Different Temperature Capacity Curve



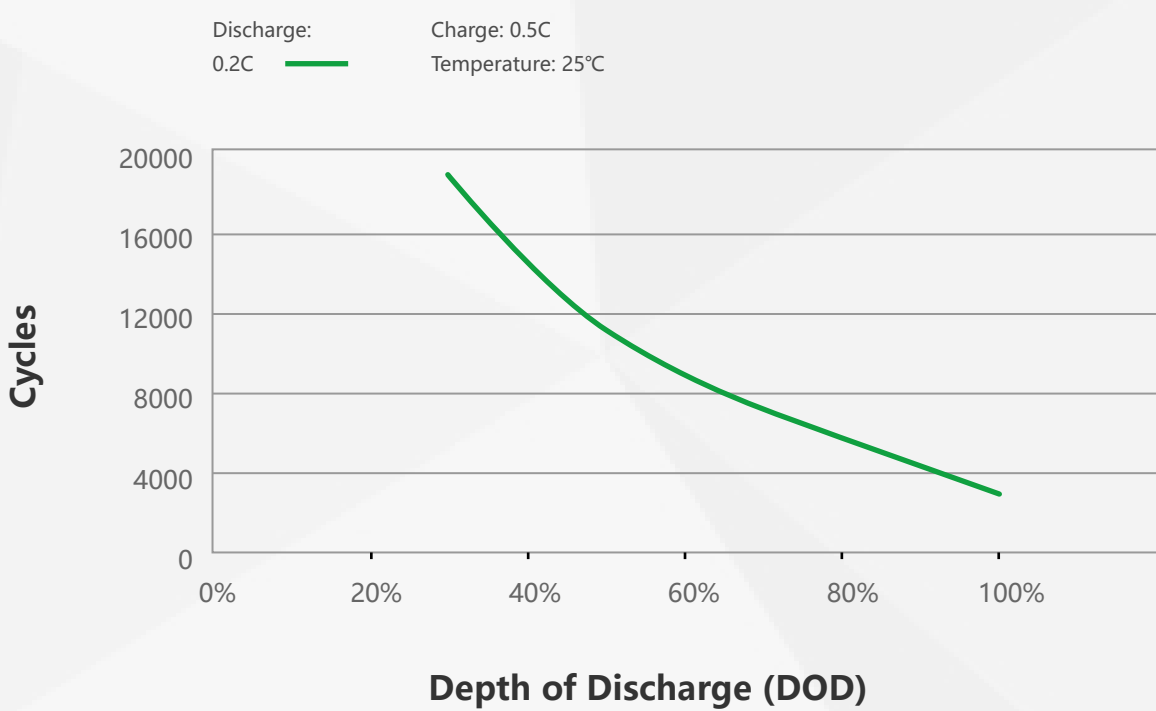
Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve



Product advantages:

- Product advantages



Real double protection (comply with UL1973 and IEC62619).



High Temperature Tolerance.



Max. 16pcs in Parallel to get Max. 86kwh system.



Compatible with most Brands inverters.



Modular, Scalable & Proven Performance.



Maintenance Free.

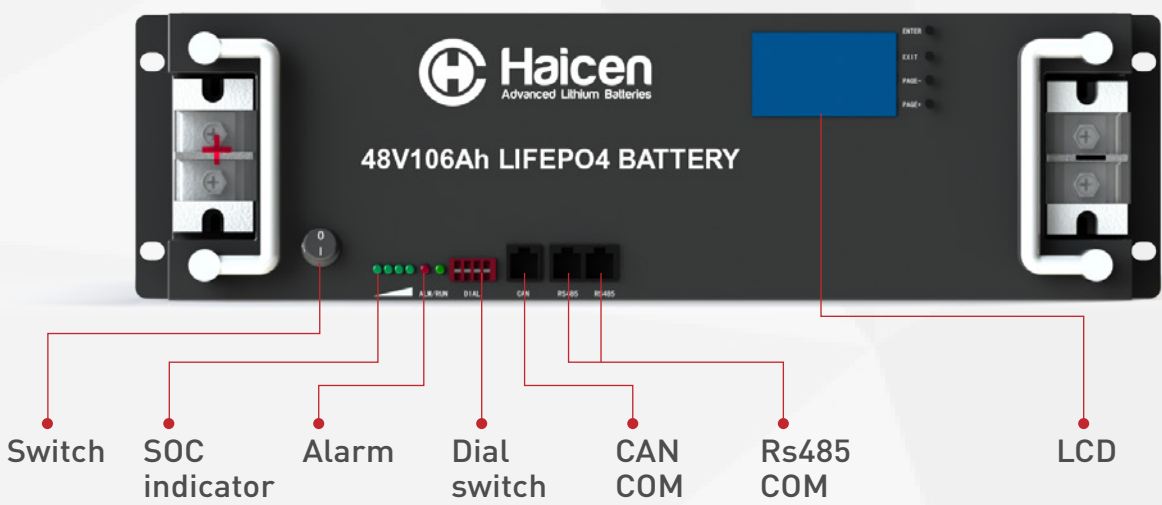


HC48106-3U module could be compatible with the inverters as below:

Invert Brand		Communication Protocol	Communication type	Communication baud rate	Protocol version
派能	 PYLONTECH	CAN-Bus-protocol-PYLON	CAN	500K	V1.3
固德威	 固德威 GOODWE	Goodwe communication protocol	CAN	500K	V1.5
锦浪	 锦浪 JINLANG	CAN communication protocol	CAN	500K	V1.0
首航	 SOFAR 首航新能源	Sofar Inverter BMS-CAN protocol	CAN	500K	V1.0
古瑞瓦特-SPF	 Growatt	Growatt BMS CAN-Bus-protocol-low-voltage	CAN	500K	V1.05
古瑞瓦特-SPH	 Growatt	Growatt BMS communication protocol of growatt low voltage battery	CAN	500K	V1.01
SMA	 SMA	SMA-BMZ-Protocol-en	CAN	500K	
Victron	 victron energy	can-bus_bms_protocol	CAN	500K	V1.0
鹏城	 LUPOWER	Luxpowertek Battery CAN Protocol	CAN	500K	v1.0
Studer	 STUDER	Technical specification Studer BMS Protocol	CAN	500K	V1.03
TBB	 TBB TBB POWER	TBB Lithium battery BMS-CAN communication protocol V1.02	CAN	500K	V1.02
德业	 Deye 德业	Enjie CAN protocol V1.0	CAN	500K	V1.0
美世乐	 MUST 美世乐	1_PV1800F-CAN communication Protocol1.04.04	CAN	100K	Apply to PV1800 inverter
派能	 PYLONTECH	RS485-protocol-pylon-low-voltage	485	9600	V3.5
日月元	 Voltronic Power	Voltronic Inverter and BMS 485 communication protocol	485	9600	V1.0
硕日	 srne	PACE BMS Modbus Protocol for RS485	485	9600	V1.3
古瑞瓦特-SPF	 Growatt	SPF BMS RS485 protocol	485	9600	V2.01

Operating instruction:

- Step 1: learn Interface Instruction:



- Step 2: Installation:



STEP 1



STEP 2



STEP 3

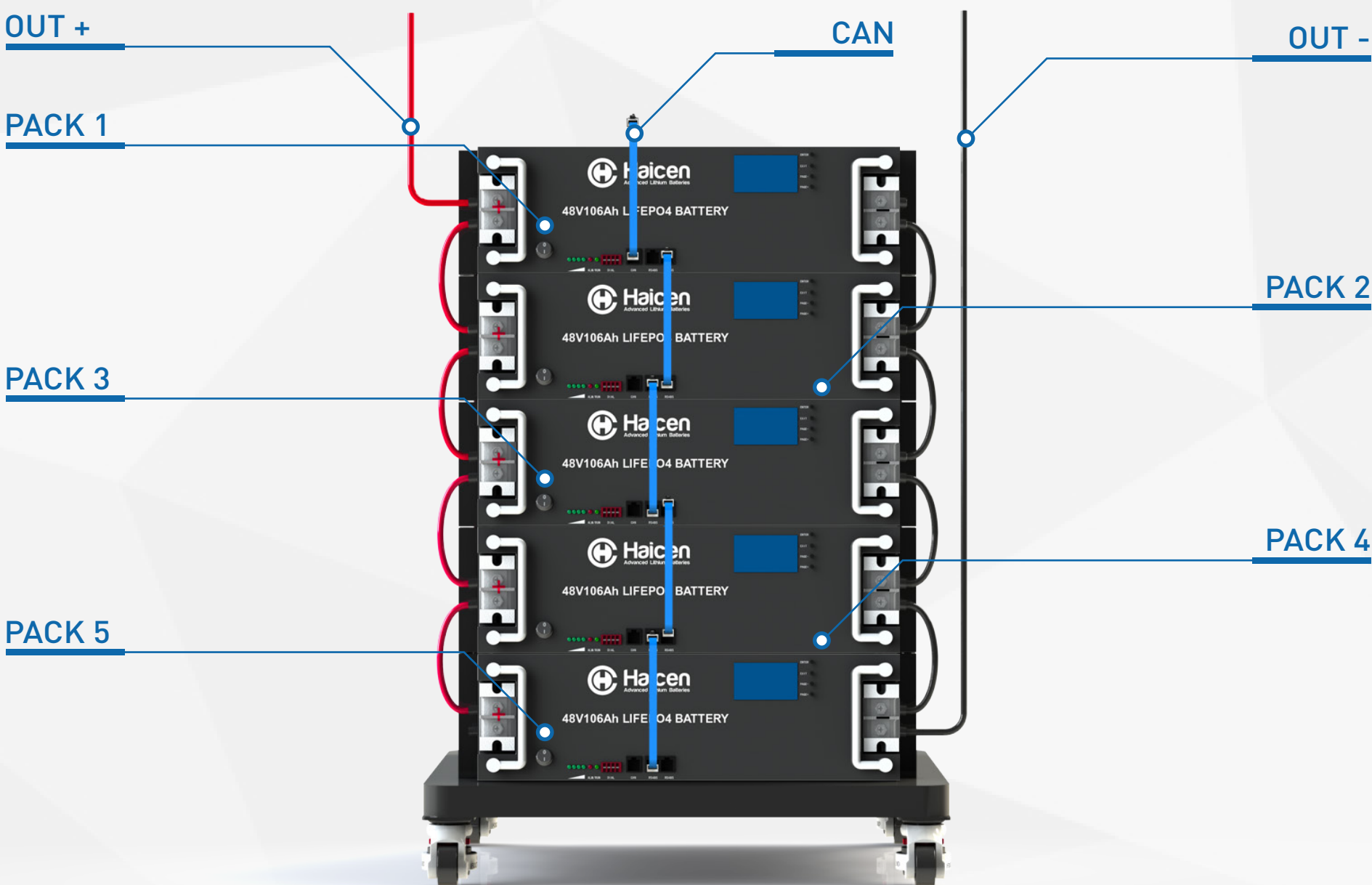


STEP 4



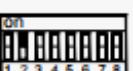
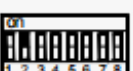
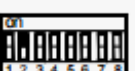
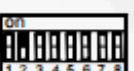
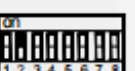
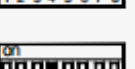
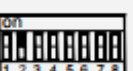
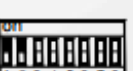
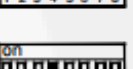
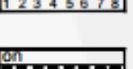
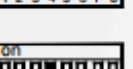
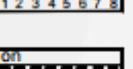
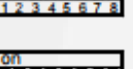
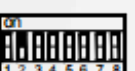
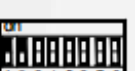
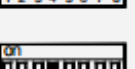
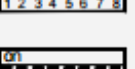
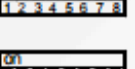
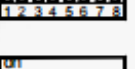
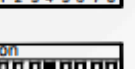
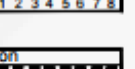
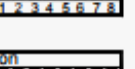
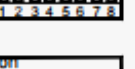
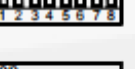
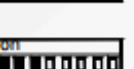
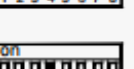
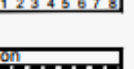
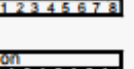
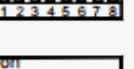
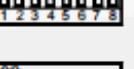
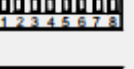
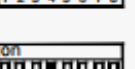
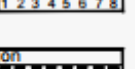
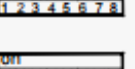
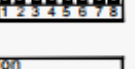
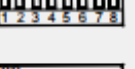
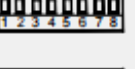
STEP 5

- Step 3: Connection:

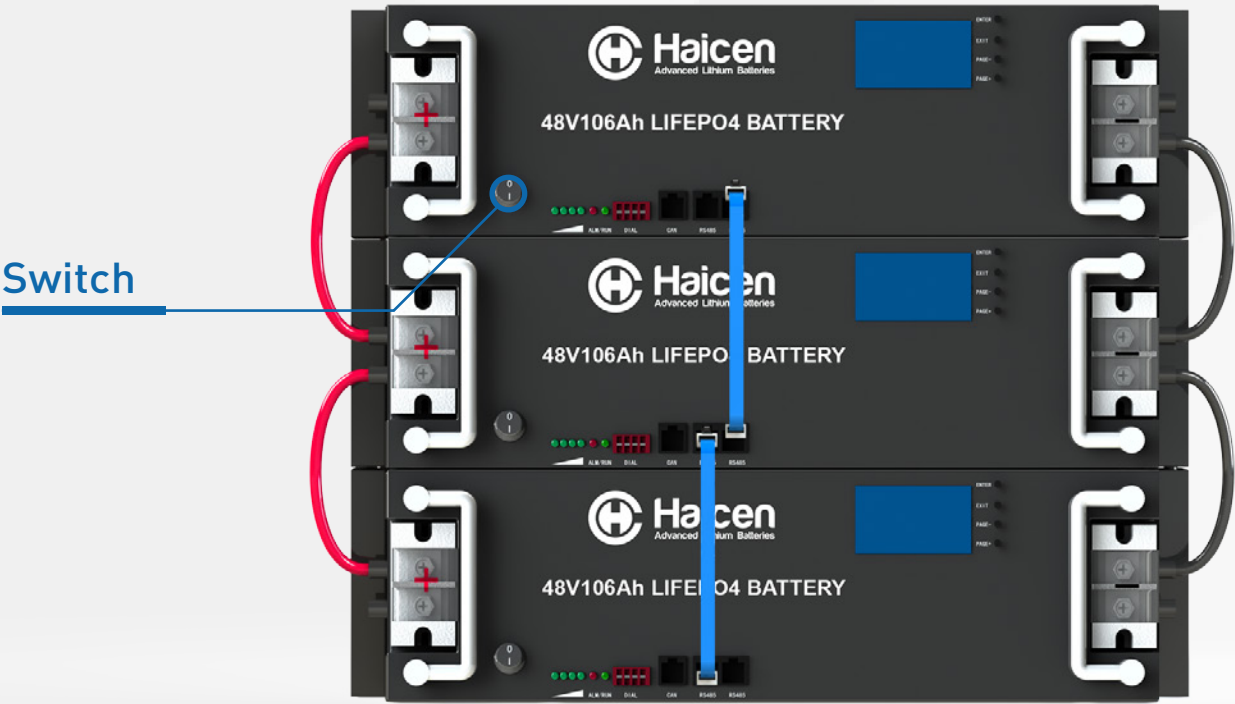


Step 4: Dialing address

Automatic dialing. Manual dialing (optional)
Single machine address setting: 0000 0000
Address setting for parallel operation: the definition of dial switch is shown in the table below.

1P	2P	3P	4P	5P	6P	7P	8P	9P	10P	11P	12P	13P	14P	15P
	 	  	   	    	     	      	       	        	         	          	           	            	             	              

Step:6 Turn on the switch separately



With a load/inverter, the energy storage system start to work!

Noted:

Sleep mode:

- a : The system will immediately go to Standby mode without load or charger, and RUN LED will flash (1s ON, 1s OFF). After 48h later, the system will automatically go to sleep mode. And then all LEDs in panel will turn off.
- b: With the standby state, the system can be forced into sleep mode through pressing the Switch.

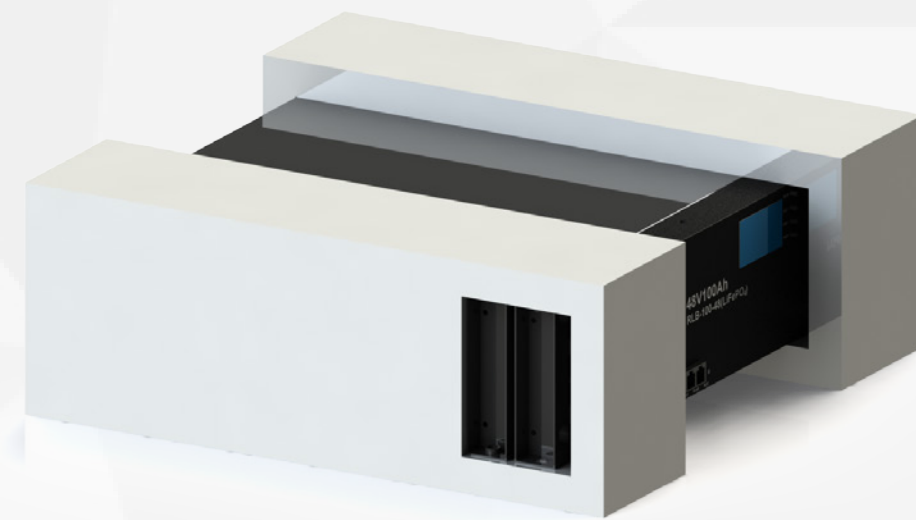
Wake up:

- The following operations can wake up the system from sleep mode:
- a. Automatically wake up when connecting a charger;
 - b. Press on the “Switch” key;

Package:

20' Container=10Pallets=280Cartons=280Units;
40' Container=20Pallets=560Cartons=560Units;

Internal Package
Forming pearl foam



Weight: 42Kg/carton
Size(L×W×H): 570×512×240mm

1Carton=1Unit



Weight: 1191Kg/pallet
Size(L×W×H)=1.2×1×1.8m ≈ 2.2CBM

1Pallet=28Cartons