



GreensunSolar

# HV Stackable Battery System

**GHS-314**



**ESS** Energy storage systems have been proven to be "extremely lucrative" for commercial and industrial (C&I) field.

## Safe and Reliable

- LiFePO4 Batteries with safety performance and long cycle life
- Intelligent BMS
- Support aerosol fire extinguishing
- Support up to 140A current output

## High-Efficiency Use

- Low self-discharge up to 6 months, no memory effect

## Support Wifi&Upgrade

- Wi-Fi module, real-time data monitoring
- Support USB upgrade, remote upgrade

## Intelligent BMS

- Multi protection functions including over-discharge, over-charge, over-current and over-high or low temperature
- Automatically manage charge and discharge state and balance current and voltage of each cell

## Flexible Expansion

- Support 3-15 packs in series as one cluster, max 10 clusters in parallel

## Economical&Convenient

- Rack Type, less footprint, lower cost, higher spaceutilization
- Stackable design for easy installation and maintenance

## Technical Data

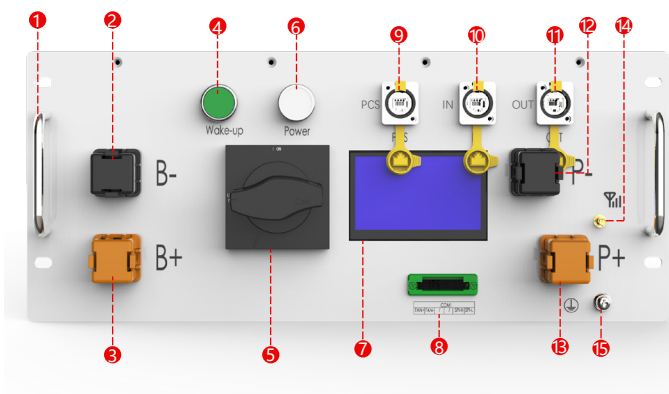
Battery Module Model		GHS-314					
<b>Main Parameter</b>							
Cell Chemistry		LiFePO4					
Module Energy (kWh)		16.076					
Module Nominal Voltage (V)		51.2					
Module Capacity (Ah)		314					
ITEM		GHS-314-E64	GHS-314-E80	GHS-314-E96	GHS-314-E112	GHS-314-E128	GHS-314-E144
Battery Module Qty In Series ( Optional )		4	5	6	7	8	9
System Nominal Voltage (V)		204.8	256.0	307.2	358.4	409.6	460.8
System Operating Voltage (V)		179V~227V	224V~284V	269V~341V	314V~398V	358V~454V	403V~511V
System Energy (kWh)		64.31	80.39	96.46	112.53	128.61	144.69
System Usable Energy (kWh) 90%		57.88	72.35	86.81	101.28	115.75	130.22
Charge/Discharge Current(A)	Nominal						157A
	Peak Discharge						157A
<b>Other Parameter</b>							
Thermal Management		Smart fan cooling					
LCD Display		SOC/ Voltage/Tem/Time/Fault Code					
Working Temperature (°C)		Charge:0~55/Discharge :-20-55					
Status Indicator		Wake Up/Power light					
Communication Port		CAN/RS485					
Humidity		5%~85%RH					
Altitude		≤2000m					
IP Rating of Enclosure		IP20					
Dimension (W*D*H, mm)		478*798*1367	478*798*1645	478*798*1923	1000*798*1112	1000*798*1367	1000*798*1390
Weight Approximate (kg)		504kg	630kg	756kg	882kg	1008kg	1134kg
Installation Location		Rack Mounting					
Storage Temperature (°C)		0~35°C					
Recommend Depth of Discharge		90%					
Cycle Life		25±2°C, 0.5C/0.5C, DOD80%≥6000					
Warranty		10 years					
Certification		CE/UN38.3/MSDS					

## Technical Data

Battery Module Model		GHS-314					
<b>Main Parameter</b>							
Cell Chemistry		LiFePO4					
Module Energy (kWh)		16.076					
Module Nominal Voltage (V)		51.2					
Module Capacity (Ah)		314					
ITEM		GHS-314-E160	GHS-314-E176	GHS-314-E192	GHS-314-209	GHS-314-E225	GHS-314-E241
Battery Module Qty In Series ( Optional )		10	11	12	13	14	15
System Nominal Voltage (V)		512.0	563.2	614.4	665.6	716.8	768.0
System Operating Voltage (V)		448V~568V	493V~625V	538V~682V	582V~738V	627V~795V	672V~852V
System Energy (kWh)		160.76	176.84	192.92	209.00	225.08	241.15
System Usable Energy (kWh) 90%		144.69	159.16	173.63	188.10	202.57	217.03
Charge/Discharge Current(A)	Nominal						157A
	Peak Discharge						157A
<b>Other Parameter</b>							
Thermal Management		Smart fan cooling					
LCD Display		SOC/ Voltage/Tem/Time/Fault Code					
Working Temperature (°C)		Charge:0~55/Discharge :-20-55					
Status Indicator		Wake Up/Power light					
Communication Port		CAN/RS485					
Humidity		5%~85%RH					
Altitude		≤2000m					
IP Rating of Enclosure		IP20					
Dimension (W*D*H, mm)		1000*798*1645	1000*798*1668	1000*798*1923	1500*798*1645	1500*798*1645	1500*798*1645
Weight Approximate (kg)		1260kg	1386kg	1512kg	1638kg	1764kg	1890kg
Installation Location		Rack Mounting					
Storage Temperature (°C)		0~35°C					
Recommend Depth of Discharge		90%					
Cycle Life		25±2°C, 0.5C/0.5C, DOD80%≥6000					
Warranty		10 years					
Certification		CE/UN38.3/MSDS					

# System Components

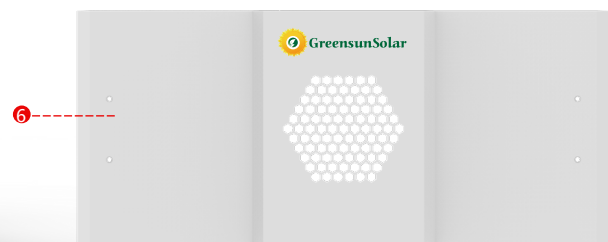
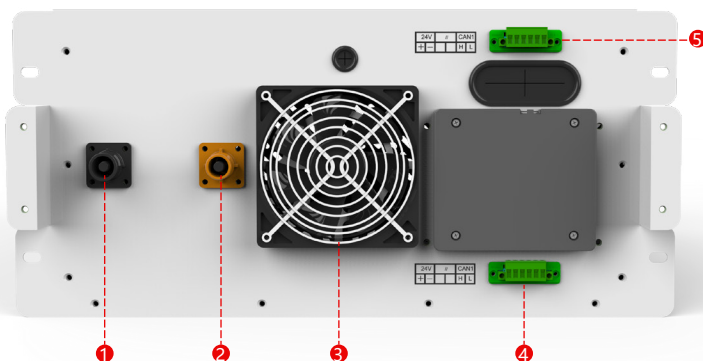
Model	HVB-S-314
Name	High Voltage Control Box
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	157A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	557×255×500mm(W×H×D),25kg



- ① Handle
- ② B-: Battery common negative connection position (Black)
- ③ B+: Battery common positive connection position (Orange)

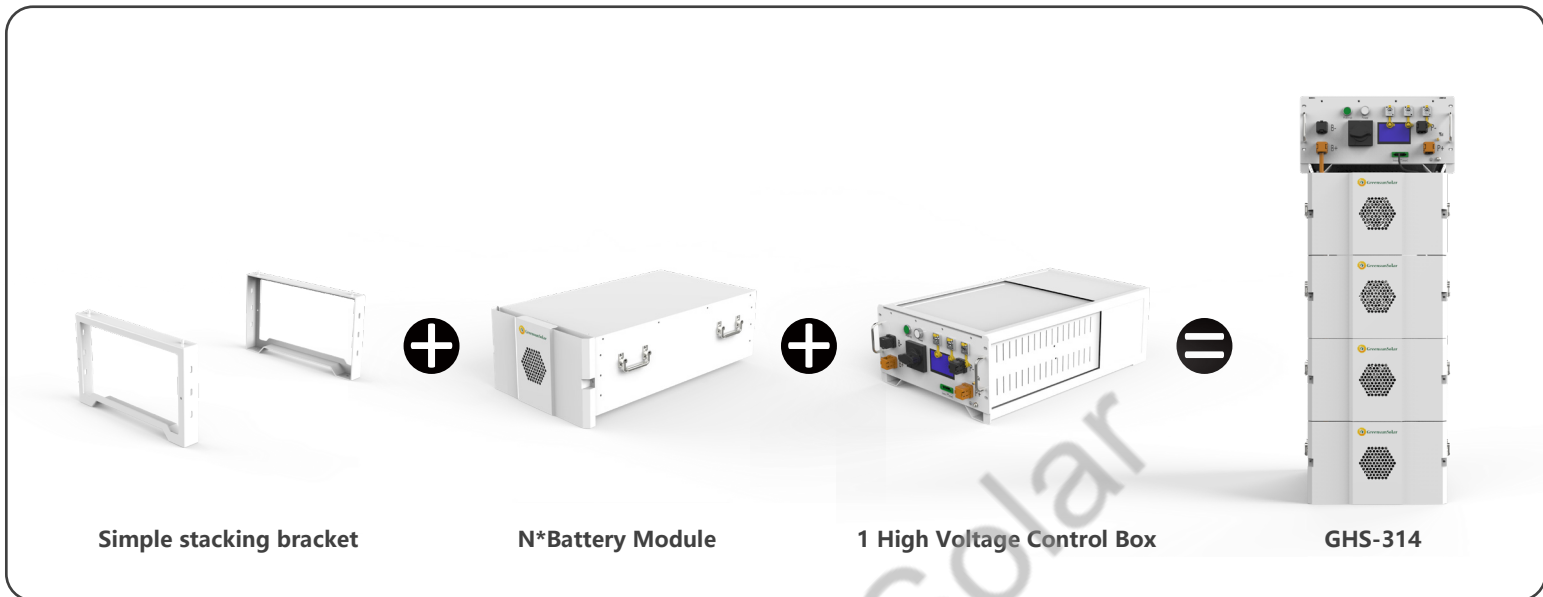
- ④ Wake-up Switch
- ⑤ On/Off Switch
- ⑥ Power Indicator
- ⑦ Battery Screen: Display battery SOC, Voltage, Current and Temperature, Time, Fault code
- ⑧ Providing 24VDC power for the cooling fan and Communicative connection with the first battery module
- ⑨ PCS Communication Port: Connect with PCS/Inverter
- ⑩ IN Port for parallel
- ⑪ Out Port for parallel
- ⑫ Connection Position Of PCS Negative Pole (Black)
- ⑬ Connection Position Of PCS Positive Pole (Orange)
- ⑭ Wireless Antenna
- ⑮ Connection to the battery rack and the ground point

Model	GHS-314
Name	Battery Module
Nominal Capacity	314Ah
Nominal Energy	16.076kWh
Nominal Voltage	51.2Vdc
Nominal Charge/Discharge Current	157A
Ingress Protection	IP20
Operating Temperature(Charge)	0~55°C
Operating Temperature(Discharge)	-20~55°C
Storage Temperature	0~35°C
Details	478×278×798mm(W×H×D),126kg



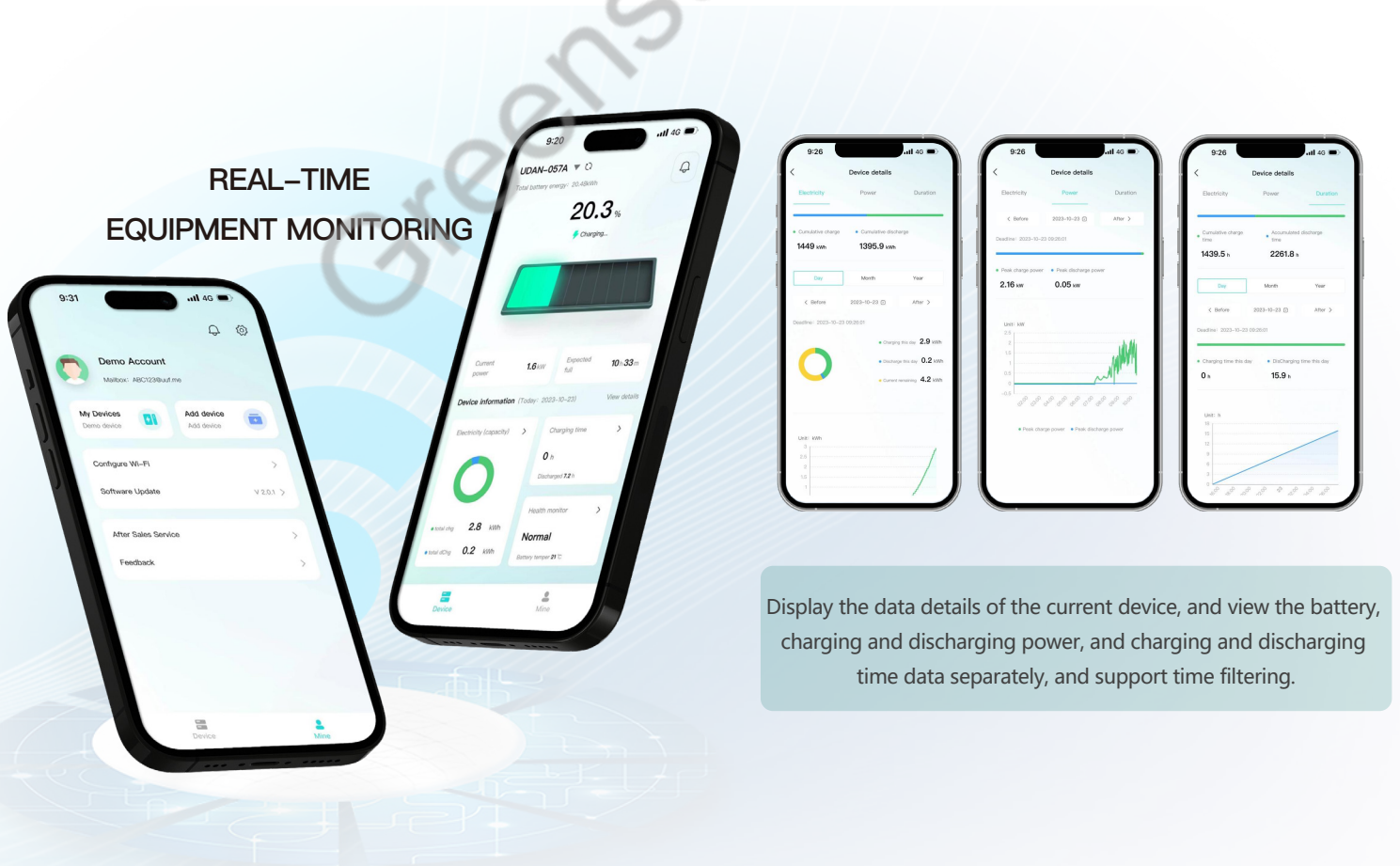
- ① B-: Battery module negative pole (black)
- ② B+: Battery module positive pole (orange)
- ③ Fan: Ventilation and heat dissipation
- ④⑤ Connection position of battery module communication and power supply output
- ⑥ Dust guard/dust guard

## System Components



## All-in-one Energy & Device Management Platform

**REAL-TIME EQUIPMENT MONITORING**



The application interface is shown on three smartphones. The first phone displays a 'Demo Account' screen with options for 'My Devices', 'Add device', 'Configure Wi-Fi', 'Software Update', 'After Sales Service', and 'Feedback'. The second phone shows a detailed view of a device (UDAN-057A) with a battery level of 20.3% and a charging status. The third phone displays three different data views: 'Device details' with cumulative charge/discharge, 'Power' with peak charge/discharge power, and 'Duration' with charging and discharging time data. The interface includes various charts, graphs, and filters for data analysis.

Display the data details of the current device, and view the battery, charging and discharging power, and charging and discharging time data separately, and support time filtering.

## Schematic Diagram



GHS-314-E64

GHS-314-E80

GHS-314-E96

GHS-314-E112

GHS-314-E128



GHS-314-E144

GHS-314-E160

GHS-314-E176

GHS-314-E192



GHS-314-E209

GHS-314-E225

GHS-314-E241