



GreensunSolar



Rack Type HV Battery System

GHR-280

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

Economical&Convenient

- Rack Type, less footprint, lower cost, higher spaceutilization
- Embedded designed module for quick installation and easy maintenance

Technical Data

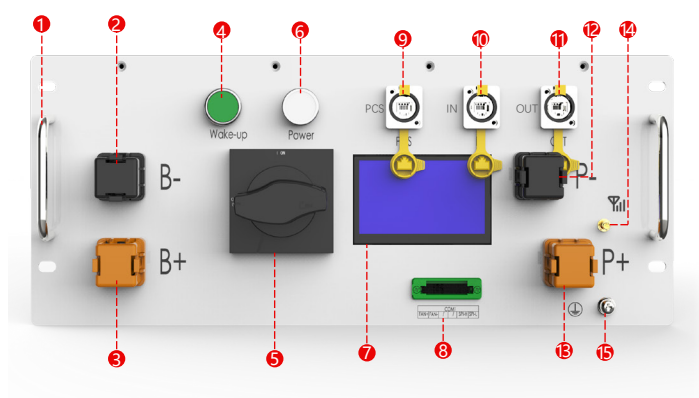
Battery Module Model		GHR-280					
Main Parameter							
Cell Chemistry		LiFePO4					
Module Energy (kWh)		14.336					
Module Nominal Voltage (V)		51.2					
Module Capacity (Ah)		280					
ITEM		GHR-280-E57	GHR-280-E72	GHR-280-E86	GHR-280-E100	GHR-280-E115	GHR-280-E129
Battery Module Qty In Series (Optional)		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)		57.34	71.68	86.02	100.35	114.69	129.02
System Usable Energy (kWh) 90%		51.61	64.51	77.42	90.32	103.22	116.12
Charge/Discharge	Nominal	140A					
Current(A)	Peak Discharge	140A					
Other Parameter							
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)		582*838*1480	582*838*1736	582*838*1992	582*838*2248	1184*838*1480	1184*838*1480
Weight Approximate (kg)		526kg	645kg	767kg	889kg	1021kg	1133kg
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		GHR-280					
Main Parameter							
Cell Chemistry		LiFePO4					
Module Energy (kWh)		14.336					
Module Nominal Voltage (V)		51.2					
Module Capacity (Ah)		280					
ITEM		GHR-280-E143	GHR-280-E157	GHR-280-E172	GHR-280-E186	GHR-280-E200	GHR-280-E215
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)		143.36	157.70	172.03	186.37	200.70	215.04
System Usable Energy (kWh) 90%		129.02	141.93	154.83	167.73	180.63	193.54
Charge/Discharge	Nominal	140A					
Current(A)	Peak Discharge	140A					
Other Parameter							
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)		1184*838*1480	1184*838*1736	1184*838*1992	1184*838*1992	1184*838*2248	1184*838*2248
Weight Approximate (kg)		1265kg	1378kg	1509kg	1621kg	1753kg	1865kg
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

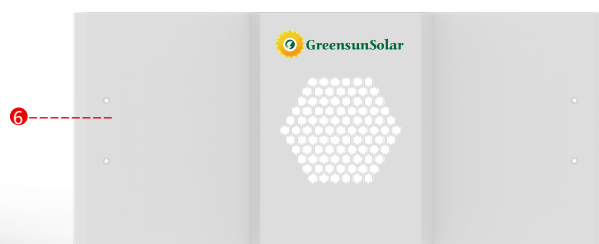
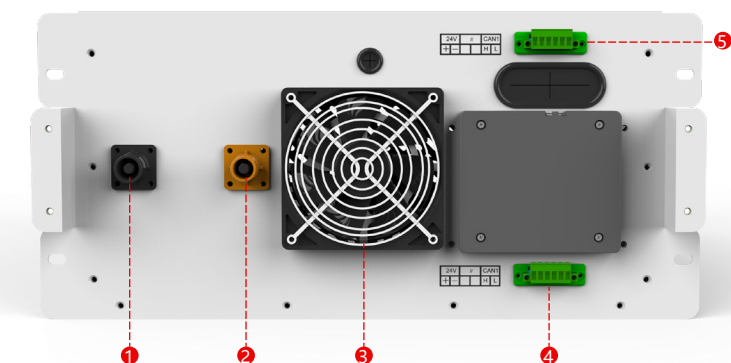
Model	HVB-R-280
Name	High Voltage Control Box
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	140A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	502×210×460mm(W×H×D),25kg



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

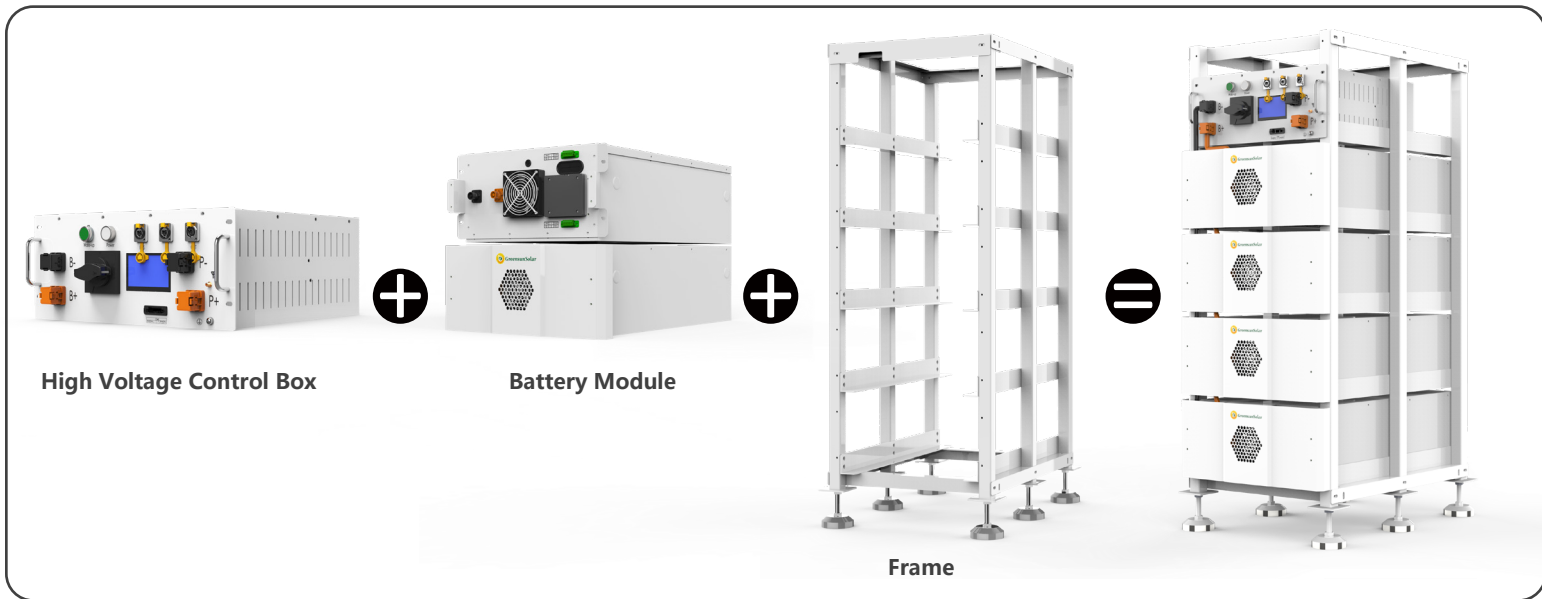
- ④ Wake-up Switch
- ⑤ On/Off Switch
- ⑥ Power Indicator
- ⑦ Battery Screen: Display battery SOC, Voltage, Current and Temperature, Time, Fault code
- ⑧ Providing 24VDC power for the cooling fan and Communicative connection with the first battery module
- ⑨ PCS Communication Port: Connect with PCS/Inverter
- 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	GHR-280
Name	Battery Module
Nominal Capacity	280Ah
Nominal Energy	14.336kWh
Nominal Voltage	51.2Vdc
Nominal Charge/Discharge Current	140A
Ingress Protection	IP20
Operating Temperature(Charge)	0~55°C
Operating Temperature(Discharge)	-20~55°C
Storage Temperature	0~35°C
Details	532×233×801mm(W×H×D),112kg



- 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



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.