



greensunpv



greensunbattery



Greensun Solar Energy Tech Co.,Limited

Tel: +86 187 1510 8506

Email: manager@greensunpv.com

Web: <https://www.greensunpv.com> <https://www.greensunbattery.com>

Add: Phase I, E-commerce Industrial Park, Jinggang Road, Shushan Economic and Technological Development Zone, Hefei City, Anhui Province, China

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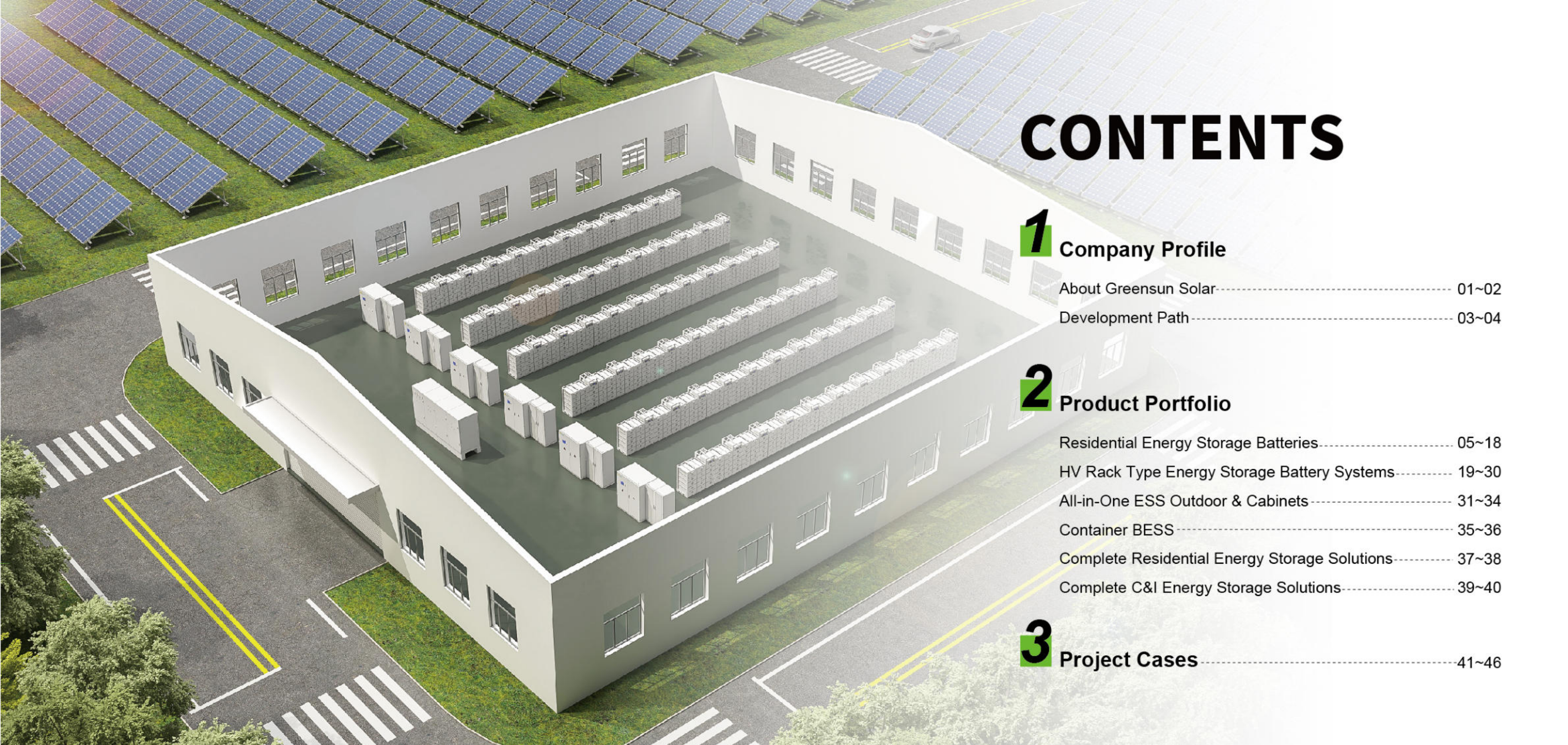


GreensunSolar



Expert And Provider of Residential ESS And C&I ESS

Bring Clean Energy to Everyone



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GREENSUN SLOAR

About GREENSUN

Greensun Solar is a global designer and provider of clean pv energy systems and energy storage solutions for residential and C&I applications. With expertise and experience in the pv industry and battery system integration, we are dedicated to providing tailored ESS solutions and complete photovoltaic power system solutions for a wide range of applications, including residential, commercial & industrial, and utility-scale projects.

Greensun Solar has always been committed to Research&Development, innovation, strict quality control, manufacturing and sales to ensure the provision of high efficiency and reliable products and system solutions as well as services to our global partners and customers.

With comprehensive product portfolios and sales team, Our business footprint extends to more than 100 countries and regions, including Czech Republic, Ukraine, Austria, Mexico, Australia, South Africa, Nigeria, Kenya, Haiti, Jamaica, Yemen, Thailand, Cambodia and America. Moving forward, Greensun Solar will collaborate with more partners to promote a sustainable low-carbon world.



DEVELOPMENT PATH

Mission and Philosophy

Build A strong brand and positive corporate image,
strengthen our customer and product mix through our innovative R&D
and comprehensive, high efficiency products;
Take Responsibility to Ensure A Sustainable and Clean Future.

2018

Established officially
and Headquarted in Anhui, China

2019

Focus on Residential&Small Commercial
Solar Energy System as well as LV
Residential lifepo4 battery

2020

Expand lithium battery production line and its
exportation
Design and Export more Solar Power System
with lithium battery storage

2021

Start HV Energy Storage System and Provide
more PV Solutions with Lithium Battery Storage

2022

Annual ESS Production 2GWH
&Annual PV Production to 5GW

2023

Actively Making Plans and Participate in
global exhibitions And the same time start
to make full preparations for industrial and
commercial ESS

2024

Annual ESS Sales 60000+
commercial ESS sales increasing

2025

Invest more in R&D, manufacturing
and sales of C&I ESS

Social Responsibility

Provide a Comprehensive, One Stop Clean Solar Energy
Solutions and Energy Storage System Solutions for everyone in the world

LiFePO4 Battery

12.8V/25.6V
GLi12-100/GLi12-200
GRB25.6-100Ah/GRB25.6-200Ah



- Ⓢ Certified Grade A Cells

Ⓢ Safety&Reliability with LiFePO4
- Ⓢ Lighter Weight & Easy to Install

Ⓢ 4500 Cycles Long Lifetime
- Ⓢ Multiple Protections
over charge/over discharge/
over-current, etc

Ⓢ OEM/ODM Service
wide applications: RV/marine/Camper Van/
Backup/UPS/EPS/Off Grid Solar System/ESS.....

Technical Data

Battery Module Model	GLi12-100	GLi12-200	GRB25.6-100Ah	GRB25.6-200Ah
Battery Type	LiFePO4			
Nominal Voltage	12.8V	12.8V	25.6V	25.6V
Nominal Capacity	100Ah	200Ah	100Ah	200Ah
Nominal Energy	1280Wh	2560Wh	2560Wh	5120Wh
Discharge Cut-off Voltage	10V	10V	20V	20V
Charge Voltage	14.4V	14.4V	28.8V	28.8V
Dimension	330*171*214mm	530*207*215mm	530*207*215mm	440*442*179mm
Weight	12Kg	24Kg	24Kg	45Kg
MAX Charge/Discharge Current	100A(Max)			
Working Temperature	0°C~50°C Charge -10°C ~50°C Disharge			
Case	ABS	ABS	ABS	Metal
Cycle Life	4500Cycles			

Main Application:

Home, EPS, Telecom, Solar or Wind Energy Storage, Medical Equipment, Security Equipment, Lighting, LED, Fire Emergency, Energy Storage, RV, Boat.....



RESS Residential Energy Storage System

Wall Mounted LiFePO4 Battery

GLW-100/GLW-200
(5.12KWH/10.24KWH)


Energy Storage


Outage Protection


Power Your Home

- Ideal for ESS HESS Off-grid/Hybrid Solar System UPS
- >6000Cycles
- Easy Move&Installation
- Compatible with Most Brands' Inverters on the Market
- Integrated Advanced BMS
- Support Parallel Connection to Expand Capacity Flexibly

Technical Data

Battery Module Model		GLW-100	GLW-200
Battery Type		LiFePO4	LiFePO4
Nominal Voltage		51.2V	51.2V
Nominal Capacity		100Ah	200Ah
Nominal Energy		5.12Kwh	10.24Kwh
Operating Voltage		44.8-57.6V	44.8-57.6V
Built-In Circuit Breaker		/	125A 2P
Scalability		Max. 15 pcs pack (Max. 76.80kWh) in parallel	Max. 15 pcs pack (Max. 153.60kWh) in parallel
Charge/Discharge Current	Max. Continuous	50A	100A
	Peak	250A(500ms)	250A(500ms)
Recommend Depth of Discharge		90% DoD	
Dimension		535*520*160mm	662*453*262.5mm
Battery Pack N.W.		49kg	95kg
Master LED Indicator		6LED(SOC:17%~100%) 3LED (ON/OFF, RUN, Alarm)	
Bluetooth		Include	
Communication Port		CAN/RS232/RS485	
IP Rating of Enclosure		IP20	
Operating Temperature		Charge: 0°C~55°C, Discharge: -20°C ~ 60°C	
Storage Temperature		-10 ~ 40°C	
Relative Humidity		95%	
Altitude		≤2000 m	
Cycle Life		≥6000 90%DOD	
Installation		Wall mounted(Floor-Mounted optional)	
Certification		CE,UN38.3,MSDS	



RESS Residential Energy Storage System

Mobile LiFePO4 Battery
GLM-280/GLM-314
(14.33KWH/16.07KWH)


Energy Storage


Outage Protection


Power Your Home

- Best Suitable for ESS HESS Off-grid/Hybrid Solar System /UPS/EPS/Telecom
- >6000Cycles
- Easy Move&Installation
- Compatible with Most Brands’ Inverters on the Market
- Intergrated Advanced BMS
- Support Parallel Connection to Expand Capacity Flexibly

Technical Data

Battery Module Model		GLM-280	GLM-314
Battery Type		LiFePO4	LiFePO4
Nominal Voltage		51.2V	51.2V
Nominal Capacity		280Ah	314Ah
Nominal Energy		14.336Kwh	16.076Kwh
Operating Voltage		44.8-57.6V	44.8-57.6V
Built-In Circuit Breaker		125A 2P	125A 2P
Scalability		Max. 15 pcs pack (Max. 215.040kWh) in parallel	Max. 15 pcs pack (Max. 241.152kWh) in parallel
Charge/Discharge Current	Max. Continuous	140A	160A
	Peak	250A(500ms)	250A(500ms)
Recommend Depth of Discharge		90% DoD	
Dimension		500*233*880mmm	500*233*880mmm
Package Size		943*563*396mm	943*563*396mm
Battery Pack N.W./G.W.		117kg/130kg	125kg/147kg
Master LED Indicator		5LED (SOC : 20% ~ SOC100%) , 3LED (working, alarming, protecting)	
Bluetooth		Include	
Communication Port		CAN/RS232/RS485	
IP Rating of Enclosure		IP20	
Operating Temperature		Charge: 0°C~55°C, Discharge: -20°C ~ 60°C	
Storage Temperature		-10 ~ 40°C	
Relative Humidity		95%	
Altitude		≤2000 m	
Cycle Life		≥6000 90%DOD	
Installation		Floor-Mounted(Movable with wheels)	
Certification		CE,UN38.3,MSDS	



RESS Residential Energy Storage System

Rack Mounted LV Battery
GLR-100 (5.12KWH)

- Safety**
Adopt LiFePO4 battery
&Multi-protection from BMS
- Compatibility**
Compatible with Most Brands' Inverters
- Optimal Electricity Cost**
Long Cycle Life and Superior Performance
- Easy to Scale Up**
Supports Parallel Connection to
Expand Capacity Flexibly
- Compact Size & East Installation**
Modular Design Enables Quick Installation

Technical Data

Battery Module Model		GLR-100
Battery Type		LiFePO4
Nominal Voltage		51.2V
Nominal Capacity		100Ah
Nominal Energy		5.12Kwh
Operating Voltage		44.8-57.6V
Built-In Circuit Breaker		125A 1P
Scalability		Max. 15 pcs pack (Max. 76.80kWh) in parallel
Charge/Discharge Current	Max. Continuous	100A
	Peak	150A(100ms)
Recommend Depth of Discharge		90% DoD
Dimension		440*440*133mm
Battery Pack N.W.		43kg
Master LED Indicator		6LED(SOC:17%~100%) 3LED (ON/OFF, RUN, Alarm)
Bluetooth		Include
Communication Port		CAN/RS232/RS485
IP Rating of Enclosure		IP20
Operating Temperature		Charge: 0°C~55°C, Discharge: -20°C ~ 60°C
Storage Temperature		-10 ~ 40°C
Relative Humidity		95%
Altitude		≤2000 m
Cycle Life		≥6000 90%DOD
Installation		Rack Mounted
Certification		CE,UN38.3,MSDS



RESS Residential Energy Storage System

Stackable LV Battery
GLR-200 (10.24KWH-153.60KWH)

-  **Safety & Reliable**
Very safe and high quality with LiFePO4 technology & smart BMS
-  **≥6000Cycles LongLiFe**
Long cycle life with tier 1 brand with A grade cells and superior performance
-  **Compact Size & Easy Installation**
Elegant Design
Rack-mounted for quick installation
-  **Expand capacity flexibly**
Parallel to expand capacity easily
-  **High compatibility BMS**
Seamless communication with most brands' inverters
-  **Wide Applications**
Self-Use, Peak Shaving, UPS, Backup, ESS, HESS, BESS, Bank, Hospital, School, Hotel, Telecom, Base Station

Technical Data

Battery Module Model		GLR-200					
Main Parameter							
Cell Chemistry		LiFePO4					
Module Energy		10.24Kwh					
Module Nominal Voltage		51.2V					
Module Capacity		200Ah					
Nominal Charge/Discharge Current		100A					
Dimension (W*D*H, mm)		478*675.8*278mm					
Weight Approximate		95.8kg					
Bluetooth		Include					
Master LED Indicator		6LED (SOC : 17% ~ 100%) , 3LED (ON/OFF, RUN, Alarm)					
Communication Port		CAN/RS232/RS485					
Stacked to Expand Capacity							
ITEM		GLR-200-E10	GLR-200-E20	GLR-200-E30	GLR-200-E40	GLR-200-E50	GLR-200-E60
Battery Module Qty In Parallel (Optional)		1	2	3	4	5	6
Nominal Voltage		51.2V					
Nominal Capacity		200Ah	400Ah	600Ah	800Ah	1000Ah	1200Ah
Nominal Battery Energy		10.24kWh	20.48kWh	30.72kWh	40.96kWh	51.20kWh	61.44kWh
Dimension (W*D*H,mm)		478*675.8*278	478*675.8*556	478*675.8*834	478*675.8*1112	478*675.8*1390	478*675.8*1668
Weight		95.8kg	191.6kg	287.4kg	383.2kg	479.0kg	574.8kg
IP Rating of Enclosure		IP20					
Operating Temperature		Charge:0~55°C/Discharge :-20~60°C					
Storage Temperature		-10~40°C					
Relative Humidity		95%					
Altitude		≤2000m					
Cycle Life		≥6000 90%DOD					
Installation		Rack Mounting					
Certification		CE/UN38.3/MSDS					



RESS Residential Energy Storage System

Stackable LV Battery
GLR-280 (14.33KWH-215.04KWH)

- Safety & Reliable**
Very safe and high quality with LiFePO4 technology & smart BMS
- ≥6000Cycles LongLiFe**
Long cycle life with tier 1 brand with A grade cells and superior performance
- Compact Size & Easy Installation**
Elegant Design
Rack-mounted for quick installation
- High compatibility BMS**
Seamless communication with most brands' inverters
- Expand capacity flexibly**
Parallel to expand capacity easily
- Wide Applications**
Self-Use, Peak Shaving, UPS, Backup, ESS, HESS, BESS, Bank, Hospital, School, Hotel, Telecom, Base Station

Technical Data

Battery Module Model		GLR-280					
Main Parameter							
Cell Chemistry		LiFePO4					
Module Energy		14.336Kwh					
Module Nominal Voltage		51.2V					
Module Capacity		280Ah					
Nominal Charge/Discharge Current		140A					
Dimension (W*D*H, mm)		478*838.5*278mm					
Weight Approximate		121.6kg					
Bluetooth		Include					
Master LED Indicator		6LED (SOC : 17% ~ 100%) , 3LED (ON/OFF, RUN, Alarm)					
Communication Port		CAN/RS232/RS485					
Stacked to Expand Capacity							
ITEM		GLR-280-E14	GLR-280-E28	GLR-280-E43	GLR-280-E57	GLR-280-E71	GLR-280-E86
Battery Module Qty In Parallel (Optional)		1	2	3	4	5	6
Nominal Voltage		51.2V					
Nominal Capacity		280Ah	560Ah	840Ah	1120Ah	1400Ah	1680Ah
Nominal Battery Energy		14.33kWh	28.67kWh	43.0kWh	57.34kWh	71.68kWh	86.02kWh
Dimension (W*D*H,mm)		478*838.5*278	478*838.5*556	478*838.5*834	478*838.5*1112	478*838.5*1390	478*838.5*1668
Weight		121.6kg	243.2kg	364.8kg	486.4kg	608.0kg	729.6kg
IP Rating of Enclosure		IP20					
Operating Temperature		Charge:0~55°C/Discharge :-20~60°C					
Storage Temperature		-10~40°C					
Relative Humidity		95%					
Altitude		≤2000m					
Cycle Life		≥6000 90%DOD					
Installation		Rack Mounting					
Certification		CE/UN38.3/MSDS					



RESS Residential Energy Storage System

Stackable LV Battery
GLR-314 (16.07KWH-241.15KWH)

- Safety & Reliable**
Very safe and high quality with LiFePO4 technology & smart BMS
- ≥6000Cycles LongLiFe**
Long cycle life with tier 1 brand with A grade cells and superior performance
- Compact Size & Easy Installation**
Elegant Design
Rack-mounted for quick installation
- High compatibility BMS**
Seamless communication with most brands' inverters
- Expand capacity flexibly**
Parallel to expand capacity easily
- Wide Applications**
Self-Use, Peak Shaving, UPS, Backup, ESS, HESS, BESS, Bank, Hospital, School, Hotel, Telecom, Base Station

Technical Data

Battery Module Model		GLR-314					
Main Parameter							
Cell Chemistry		LiFePO4					
Module Energy		16.076Kwh					
Module Nominal Voltage		51.2V					
Module Capacity		314Ah					
Nominal Charge/Discharge Current		157A					
Dimension (W*D*H, mm)		478*838.5*278mm					
Weight Approximate		125.8kg					
Bluetooth		Include					
Master LED Indicator		6LED (SOC : 17% ~ 100%) , 3LED (ON/OFF, RUN, Alarm)					
Communication Port		CAN/RS232/RS485					
Stacked to Expand Capacity							
ITEM		GLR-314-E16	GLR-314-E32	GLR-314-E48	GLR-314-E64	GLR-314-E80	GLR-314-E94
Battery Module Qty In Parallel (Optional)		1	2	3	4	5	6
Nominal Voltage		51.2V					
Nominal Capacity		314Ah	628Ah	942Ah	1256Ah	1570Ah	1884Ah
Nominal Battery Energy		16.07kWh	32.15kWh	48.22kWh	64.30kWh	80.38kWh	94.46kWh
Dimension (W*D*H,mm)		478*838.5*278	478*838.5*556	478*838.5*834	478*838.5*1112	478*838.5*1390	478*838.5*1668
Weight		125.8kg	251.6kg	377.4kg	503.2kg	629.0kg	754.8kg
IP Rating of Enclosure		IP20					
Operating Temperature		Charge:0~55°C/Discharge :-20~60°C					
Storage Temperature		-10 ~ 40°C					
Relative Humidity		95%					
Altitude		≤2000m					
Cycle Life		≥6000 90%DOD					
Installation		Rack Mounting					
Certification		CE/UN38.3/MSDS					



High Voltage

Energy Storage System

Rack Type LiFePO4 Battery

GHS-100 (20.48KWH-76.80KWH)

- Safe & Reliable**
Very safe and high-quality with LiFePO4 technology and smart BMS
- Compact Size & Easy Installation**
Elegant Design
Rack-mounted for quick installation
- High compatibility BMS**
Seamless communication with most brands' inverters

- ≥6000Cycles Long LiFe**
Long cycle life with tier 1 brand grade A cells and superior performance
- Expand capacity flexibly**
Parallel to expand capacity easily
- Wide Applications**
Self-Use, Peak Shaving, UPS, Backup, ESS, HESS, BESS, Bank, Hospital, School, Hotel, Telecom, Base Station

Technical Data

Battery Module Model	
Main Parameter	
Cell Chemistry	LiFePO4
Module Energy	5.12Kwh
Module Nominal Voltage	51.2V
Module Capacity	100Ah
Nominal Charge/Discharge Current	50A
Dimension (W*D*H, mm)	482*475*157mm
Weight Approximate	40.8kg
Thermal Management	Smart fan cooling
LCD Display	SOC/ Voltage/Tem/Time/Fault Code
Communication Port	CAN/RS485
Stacked to Expand Capacity	
ITEM	
Battery Module Qty In Series (Optional)	
System Nominal Voltage	
System Operating Voltage	
System Energy	
Dimension (W*D*H, mm)	
Weight Approximate	
Working Temperature (°C)	
Status Indicator	
Humidity	
Altitude	
IP Rating of Enclosure	
Installation Location	
Storage Temperature (°C)	
Recommend Depth of Discharge	
Cycle Life	
Certification	

GHS-100					
LiFePO4					
5.12Kwh					
51.2V					
100Ah					
50A					
482*475*157mm					
40.8kg					
Smart fan cooling					
SOC/ Voltage/Tem/Time/Fault Code					
CAN/RS485					
Stacked to Expand Capacity					
GHS-100-E30	GHS-100-E40	GHS-100-E51	GHS-100-E61	GHS-100-E66	GHS-100-E76
6	8	10	12	13	15
307.2V	409.6V	512.0V	614.4V	665.6V	768.0
269V~341V	358V~454V	448V~568V	538V~682V	582V~738V	672V~852V
30.72kWh	40.96kWh	51.20kWh	61.44kWh	66.56kWh	76.80kWh
482*475*1192	1000*475*878	1000*475*1035	1000*475*1192	1500*475*878	1500*475*1035
264.8kg	346.4kg	428.0kg	509.6kg	550.4kg	632kg
Charge:0~55°C/Discharge :-20~55°C					
Wake Up/Power light					
5%~85%RH					
≤2000m					
IP20					
Rack Mounting					
0~35°C					
90%					
25±2°C, 0.5C/0.5C, DOD80%≥6000					
CE/UN38.3/MSDS					



High Voltage

Energy Storage System

Stackable LiFePO4 Battery

GHS-200 (40.96KWH/153.60KWH)

Safe & Reliable

- LiFePO4 batteries with safety performance and long cycle life
- Intelligent BMS
- Support aerosol fire extinguishing

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

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

Economical&Convenient

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

Technical Data

Battery Module Model	GHS-200					
Main Parameter						
Cell Chemistry	LiFePO4					
Module Energy	10.24Kwh					
Module Nominal Voltage	51.2V					
Module Capacity	200Ah					
Nominal Charge/Discharge Current	100A					
Dimension (W*D*H, mm)	478*685*278mm					
Weight Approximate	97kg					
Thermal Management	Smart fan cooling					
LCD Display	SOC/ Voltage/Tem/Time/Fault Code					
Communication Port	CAN/RS485					
Stacked to Expand Capacity						
ITEM	GHS-200-E60	GHS-200-E80	GHS-200-E100	GHS-200-E120	GHS-200-E130	GHS-200-E150
Battery Module Qty In Series (Optional)	6	8	10	12	13	15
System Nominal Voltage	307.2V	409.6V	512.0V	614.4V	665.6V	768.0
System Operating Voltage	269V~341V	358V~454V	448V~568V	538V~682V	582V~738V	672V~852V
System Energy	61.44kWh	81.92kWh	102.40kWh	122.88kWh	133.12kWh	153.60kWh
Dimension (W*D*H, mm)	478*685*1923	1000*685*1367	1000*685*1645	1000*685*1923	1500*685*1390	1500*685*1645
Weight Approximate	582kg	776kg	970kg	1164kg	1261kg	1455kg
Working Temperature (°C)	Charge:0~55°C/Discharge :-20-55°C					
Status Indicator	Wake Up/Power light					
Humidity	5%~85%RH					
Altitude	≤2000m					
IP Rating of Enclosure	IP20					
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					
Certification	CE/UN38.3/MSDS					



High Voltage

Energy Storage System

Stackable LiFePO4 Battery

GHS-280 (57.34KWH/215.04KWH)

Safe & Reliable

- LiFePO4 batteries with safety performance and long cycle life
- Intelligent BMS
- Support aerosol fire extinguishing

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

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

Economical&Convenient

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

Technical Data

Battery Module Model	GHS-280					
Main Parameter						
Cell Chemistry	LiFePO4					
Module Energy	14.336Kwh					
Module Nominal Voltage	51.2V					
Module Capacity	280Ah					
Nominal Charge/Discharge Current	140A					
Dimension (W*D*H, mm)	478*798*278mm					
Weight Approximate	120kg					
Thermal Management	Smart fan cooling					
LCD Display	SOC/ Voltage/Tem/Time/Fault Code					
Communication Port	CAN/RS485					
Stacked to Expand Capacity						
ITEM	GHS-280-E86	GHS-280-E115	GHS-280-E143	GHS-280-E172	GHS-280-E186	GHS-280-E215
Battery Module Qty In Series (Optional)	6	8	10	12	13	15
System Nominal Voltage	307.2V	409.6V	512.0V	614.4V	665.6V	768.0
System Operating Voltage	269V~341V	358V~454V	448V~568V	538V~682V	582V~738V	672V~852V
System Energy	86.02kWh	114.69kWh	143.36kWh	172.03kWh	186.37kWh	215.04kWh
Dimension (W*D*H, mm)	478*798*1923	1000*798*1367	1000*798*1645	1000*798*1923	1500*798*1390	1500*798*1645
Weight Approximate	720kg	960kg	1200kg	1440kg	1560kg	1800kg
Working Temperature (°C)	Charge:0~55°C/Discharge :-20-55°C					
Status Indicator	Wake Up/Power light					
Humidity	5%~85%RH					
Altitude	≤2000m					
IP Rating of Enclosure	IP20					
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					
Certification	CE/UN38.3/MSDS					



High Voltage

Energy Storage System

Stackable LiFePO4 Battery

GHS-314 (64.30KWH/241.15KWH)

Safe & Reliable

- LiFePO4 batteries with safety performance and long cycle life
- Intelligent BMS
- Support aerosol fire extinguishing

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

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

Economical&Convenient

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

Technical Data

Battery Module Model	GHS-314					
Main Parameter						
Cell Chemistry	LiFePO4					
Module Energy	16.076Kwh					
Module Nominal Voltage	51.2V					
Module Capacity	314Ah					
Nominal Charge/Discharge Current	157A					
Dimension (W*D*H, mm)	478*798*278mm					
Weight Approximate	126kg					
Thermal Management	Smart fan cooling					
LCD Display	SOC/ Voltage/Tem/Time/Fault Code					
Communication Port	CAN/RS485					
Stacked to Expand Capacity						
ITEM	GHS-314-E96	GHS-314-E128	GHS-314-E160	GHS-314-E192	GHS-314-E209	GHS-314-E241
Battery Module Qty In Series (Optional)	6	8	10	12	13	15
System Nominal Voltage	307.2V	409.6V	512.0V	614.4V	665.6V	768.0
System Operating Voltage	269V~341V	358V~454V	448V~568V	538V~682V	582V~738V	672V~852V
System Energy	96.46kWh	128.61kWh	160.76kWh	192.92kWh	209.00kWh	241.15kWh
Dimension (W*D*H, mm)	478*798*1923	1000*798*1367	1000*798*1645	1000*798*1923	1500*798*1390	1500*798*1645
Weight Approximate	756kg	1008kg	1260kg	1512kg	1638kg	1890kg
Working Temperature (°C)	Charge:0~55°C/Discharge :-20-55°C					
Status Indicator	Wake Up/Power light					
Humidity	5%~85%RH					
Altitude	≤2000m					
IP Rating of Enclosure	IP20					
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					
Certification	CE/UN38.3/MSDS					



High Voltage

Energy Storage System

Rack Type LiFePO4 Battery

GHR-280 (57.34KWH/215.04KWH)

Safe & Reliable

- LiFePO4 batteries with safety performance and long cycle life
- Intelligent BMS
- Support aerosol fire extinguishing

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 space utilization
- Embedded designed module for quick installation and easy maintenance

Technical Data

Battery Module Model	GHR-280					
Main Parameter						
Cell Chemistry	LiFePO4					
Module Energy	14.336Kwh					
Module Nominal Voltage	51.2V					
Module Capacity	280Ah					
Nominal Charge/Discharge Current	140A					
Dimension (W*D*H, mm)	532*801*233mm					
Weight Approximate	112kg					
Thermal Management	Smart fan cooling					
LCD Display	SOC/ Voltage/Tem/Time/Fault Code					
Communication Port	CAN/RS485					
Stacked to Expand Capacity						
ITEM	GHR-280-E86	GHR-280-E115	GHR-280-E143	GHR-280-E172	GHR-280-E186	GHR-280-E215
Battery Module Qty In Series (Optional)	6	8	10	12	13	15
System Nominal Voltage	307.2V	409.6V	512.0V	614.4V	665.6V	768.0
System Operating Voltage	269V~341V	358V~454V	448V~568V	538V~682V	582V~738V	672V~852V
System Energy	86.02kWh	114.69kWh	143.36kWh	172.03kWh	186.37kWh	215.04kWh
Dimension (W*D*H, mm)	582*838*1992	1184*838*1480	1184*838*1480	1184*838*1992	1184*838*1992	1184*838*2248
Weight Approximate	767kg	1021kg	1265kg	1509kg	1621kg	1865kg
Working Temperature (°C)	Charge:0~55°C/Discharge :-20-55°C					
Status Indicator	Wake Up/Power light					
Humidity	5%~85%RH					
Altitude	≤2000m					
IP Rating of Enclosure	IP20					
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					
Certification	CE/UN38.3/MSDS					



High Voltage

Energy Storage System

Rack Type LiFePO4 Battery

GHR-314 (64.30KWH/241.15KWH)

Safe & Reliable

- LiFePO4 batteries with safety performance and long cycle life
- Intelligent BMS
- Support aerosol fire extinguishing

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

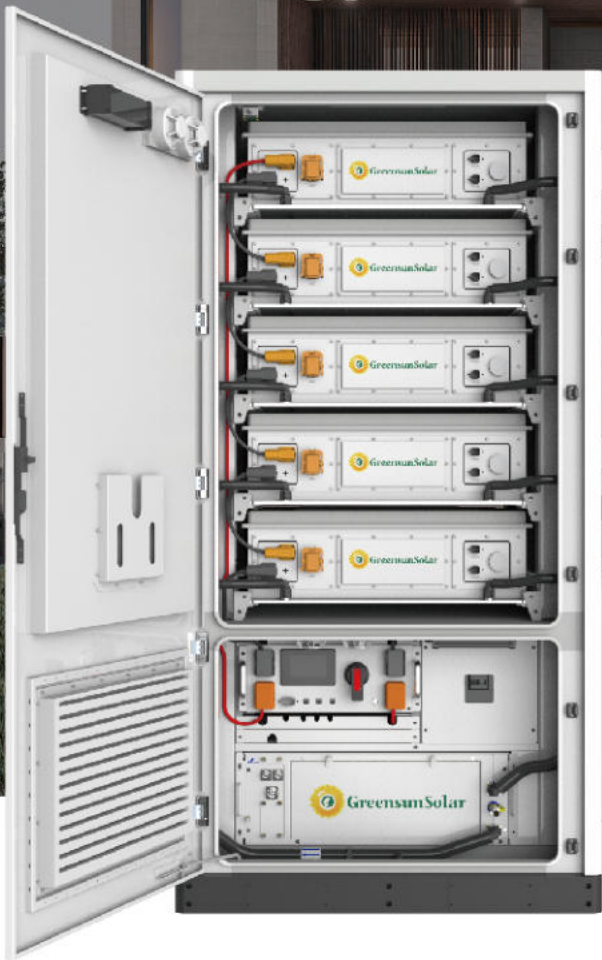
Economical&Convenient

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

Technical Data

Battery Module Model	GHR-314					
Main Parameter						
Cell Chemistry	LiFePO4					
Module Energy	16.076Kwh					
Module Nominal Voltage	51.2V					
Module Capacity	314Ah					
Nominal Charge/Discharge Current	157A					
Dimension (W*D*H, mm)	532*801*233mm					
Weight Approximate	114kg					
Thermal Management	Smart fan cooling					
LCD Display	SOC/ Voltage/Tem/Time/Fault Code					
Communication Port	CAN/RS485					
Stacked to Expand Capacity						
ITEM	GHR-314-E96	GHR-314-E128	GHR-314-E160	GHR-314-E192	GHR-314-E209	GHR-314-E241
Battery Module Qty In Series (Optional)	6	8	10	12	13	15
System Nominal Voltage	307.2V	409.6V	512.0V	614.4V	665.6V	768.0
System Operating Voltage	269V~341V	358V~454V	448V~568V	538V~682V	582V~738V	672V~852V
System Energy	96.46kWh	128.61kWh	160.76kWh	192.92kWh	209.00kWh	241.15kWh
Dimension (W*D*H, mm)	582*838*1992	1184*838*1480	1184*838*1480	1184*838*1992	1184*838*1992	1184*838*2248
Weight Approximate	779kg	1037kg	1285kg	1533kg	1647kg	1895kg
Working Temperature (°C)	Charge:0~55°C/Discharge :-20-55°C					
Status Indicator	Wake Up/Power light					
Humidity	5%~85%RH					
Altitude	≤2000m					
IP Rating of Enclosure	IP20					
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					
Certification	CE/UN38.3/MSDS					

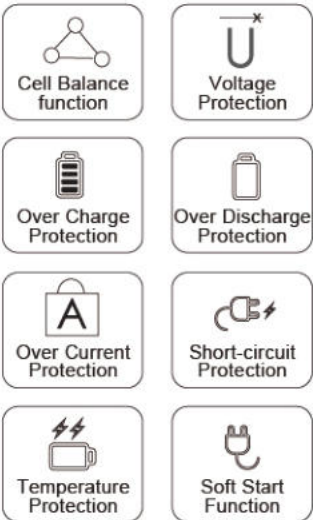
Liquid Cooling All-in-One Energy Storage System



GCB-LE260

Greensun's high security, high energy density DC 1000V liquid-cooled all-in-one energy storage system is designed for a wide range of applications from commercial and industrial buildings to utility-scale projects and EV charging stations.

- **Smaller Footprint**
Higher energy density benefits from latest LFP technology
- **Expansion & Economical Design**
Module design; Support max 10sets in parallel;
Compact structure design reduces space and installation costs
- **Monitoring**
Real-time monitoring of battery charging and discharging, online system updates and maintenance
- **Fire Safety**
Lithium Iron Phosphate (LFP) Battery;
The battery pack and system adopt an aerosol fire extinguishing solution



ESS System Configuration

Battery Module Model	GCB-LE260
AC Side	
Rated AC Power	125KW
Rated AC Output Voltage	3/N/PE, 220V/380V, 230V/400V
Rated AC Output Frequency	50Hz/60Hz
Max AC Current	189.9A/180.4A
Power Factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi	< 3%
PV Side	
Recommended Max. PV Array Size	250kW
Max. Usable PV Input Power	250kW
Max. Input Voltage	1000V
Rated Voltage	600V
Start-Up Voltage	180V
MPPT Voltage Range	150-950V
Max. Input Current	10×42A
Max. Short Circuit Current	10×60A
MPPT Number / Max. Input Strings Number	10/20
Battery Side	
Battery Type	LFP(LiFePO4)
Nominal Energy	261kWh
Rated Voltage	832V
DC Voltage Range	728~949V
Rated Capacity	314Ah
Max Charge/Discharge Current	157A
Battery Module	166.4V 314Ah(52.25kWh)
Battery Module Qty In Series (Optional)	5
System Parameter	
Cabinet Size	1200*1400*2105mm
Weight Approximate	2560kg
Installation Location	Floor-mounted
Protection Class	IP55
Altitude (m)	≤3000
Humidity	5%-95%
Cooling System	Liquid Cooling
Fire Extinguishing	Aerosol
Max.Parallel No.	10
Cycle Life	25±2°C, 0.5C/0.5C, EOL70% ≥8000
Certification	CE MSDS UN38.3

ALL IN ONE HYBRID ESS

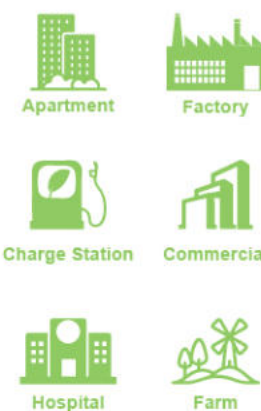
All-in-One Integrated System
inside the outdoor Cabinet to fulfill C&I Application



GCB-E113

GCB-E241

- PV Input Optional(it can connect with or without pv panels)
- Ultra-high energy density, small size, easy installation and transportation
- Lithium Iron Phosphate (LFP) Battery with smart BMS, safe and reliable
- The battery pack and system adopt an aerosol fire extinguishing solution
- Supports battery expansion to meet various demands
- EMS, PCS and BMS integrated technology, power supply redundancy design, support black start function, Off grid operation, etc
- 100% unbalanced output, each phase; Max. output up to 50% rated power
- Multiple communication methods support remote upgrade



System Information

Battery Module Model	GCB-E113		GCB-E240		
ITEM	GCB-E113-30KW	GCB-E113-50KW	GCB-E240-80KW	GCB-E240-100KW	GCB-E240-125KW
System Specification					
Nominal Output Power / UPS Power	30KW	50KW	80KW	100KW	125KW
AC Output Frequency and Voltage	50Hz/60Hz; 220V/380V,230V/400V		50Hz/60Hz; 220V/380V,230V/400V		
Grid Type	3L/N/PE		3L/N/PE		
Number Of Parallel (Off-grid)	10		10		
AC Output Rated Current	45.5A/43.5A	75.8A/72.5A	121.6A/115.5A	152A/114.3A	189.9A/180.4A
Battery Operating Voltage	160V~800V		672V~852V		
Energy Configuration	112.53kWh		241.15kWh		
System Usable Energy	101.28kWh		217.03kWh		
Battery Chemistry	LiFePO4		LiFePO4		
IP Rating Of Enclosure	IP55		IP55		
Installation Method	Floor-Mounted		Floor-Mounted		
Storage Temperature	0~35°C		0~35°C		
Operating Temperature	-20~55°C		-20~55°C		
Certification	UN3536		UN3536		
Inverter Technical Specification					
Max. PV Input Power	60KW	100KW	160KW	200KW	250KW
Max. PV Input Current	3 x 36A	4 x 36A	10 x 42A		
Rated PV Input Voltage	1000Vdc		1000Vdc		
Start Up DC Voltage	180Vdc		180Vdc		
MPPT Voltage Range	150-850V		150-950V		
Max. PV Short-Circuit Current	3 x 36A	4 x 55A	10 x 60A		
Number Of MPPT	3/2+2+2	4/2+2+2+2	10/20		
Power Factor	0.8 leading - 0.8 lagging		>0.99 (0.8 leading - 0.8 lagging)		
THD	<3%		<3%		
DC Injection current (mA)	<0.5% In		<0.5% In		
Operating Temperature Range	40 to +60°C, >45°C Derating		-25~60°C		
Relative Humidity	0-100%		0-100%		
Dimension (W×D×H,mm)	527×294×894mm		1174×400×814mm		
Inverter Communication	RS485/RS232/CAN		CAN, RS485-115200, Ethernet, Optional: Wi-Fi, Cellular, LAN		
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002,OVE-Richtlinie R25, G99, VDE-AR-N 4105		G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1&2/EN 50549-10, VDE 0126/UTE C 15/ VFR:2019, NTS 631/RD 1699/RD 244/UNE 206006/ UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683,EN 50530, MEA, PEA,PORTARIA Nº 140, DE 21 DE MARÇO DE 2022;		
Max. Efficiency	97.6%		97.6%		
MPPT Efficiency	>99%		>97.2%		

G500K-E1200 Power:500kw
Energy:1205.760kwh



Container

20FT Containerized Battery Energy Storage System
LiFePO4 Battery Technology

- Vertical industry integration chain
- Modular design with different densities, suits all scenarios.
- Flexible voltage range from 100VDC to 1500VDC.
- Three levels management system design delivers the highest reliability.
- Rack mounted or container based system configuration

System Information

Battery Module Model	G500K-E1200
AC Data	
Rated Power	500KW
Rated Voltage	400Vac
AC Output	3W+N+PE
Rated Current	722A
Voltage Range	320V-460Vac
Rated Frequency	45-55Hz / 55-65Hz
THDi (On-Grid)	<3%
THDi (Off-Grid)	≤ 1% Linear; ≤ 5% Non-Linear
Power Factor	1Leading~1Lagging(Settable)
Overload Capacity	110% Long-Term
On / Off-Grid Switching	Support
PV Data	
Max. PV Input Voltage	1000V
Max. PV Power	600KW
MPPT Operating Voltage Range	250-850V
Buck-Boost Mode	Support
Battery Data	
Cell Type	3.2V 314Ah/LiFePO4
Nominal Voltage	768V/1P 240S
Nominal Energy	1205.76kWh
Working Voltage Range	672V~850V
Max. Charge And Discharge Rate	0.5C@25°C
Number Of Battery Cycles	≥8,000
System Data	
System Specification	500kW/1,205.76kWh
Dimensions W *D *H	6058*2438*2896mm
Net Weight	21000Kg
Ingress Protection	IP54
Max. Operating Altitude	5,000(>3,000 Derating)
Cooling	Intelligent Air Cooling
Fire Extinguishing System	FM200
EMS Communication	RS485, TCP/IP

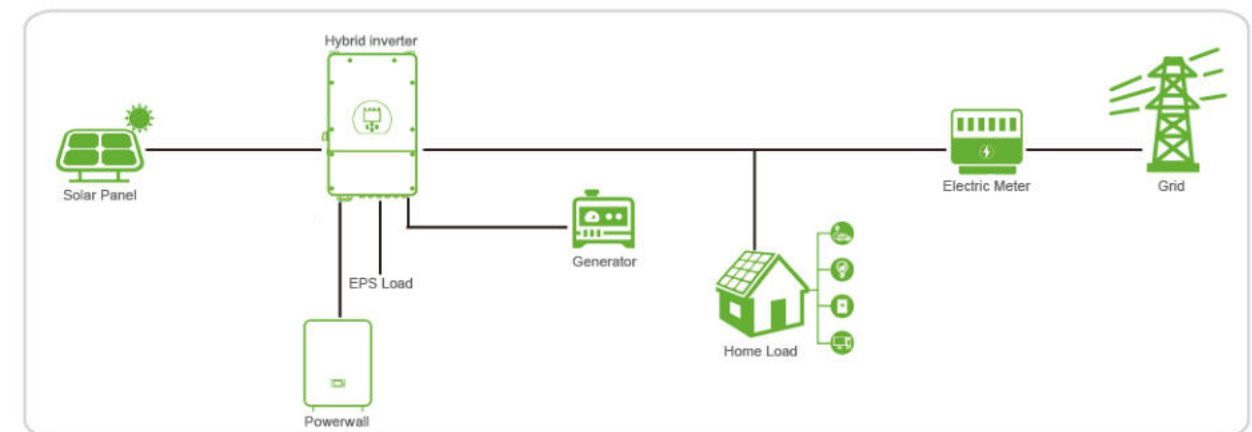


Residential Energy Storage Solution

PV System+Energy Storage System
Energy Storage System

ESS System Configuration

Battery Module Model	ESS 5.12-5KW	ESS 10.24-8KW	ESS 20.48-10KW	ESS 20.48-12KW	ESS 30.72-20KW
Battery Input Data					
Battery Type	Lithium-ion LiFePO4 (Lead-acid or Lithium-ion)				
Battery Capacity	5.12KWH	10.24KWH	20.48KWH	20.48KWH	30.72KWH
Battery Voltage Range (V)	40-60V				
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data (Optional)					
Max. DC Input Power (W)	6500	10400	13000	15600	26000
Rated PV Input Voltage (V)	370(125-500)	550(160-800)	550(160-800)	550(160-800)	180-900
Start-up Voltage (V)	125	160	160	160	180
MPPT Voltage Range (V)	150-425	200-650	200-650	200-650	180-900
Full Load DC Voltage Range (V)	300-425	350-650	350-650	350-650	
PV Input Current (A)	13+13	13+13	26+13	26+13	23/23
Max. PV Isc (A)	17+17	17+17	34+17	34+17	30/30
No.of MPP Trackers	2				
No.of Strings per MPP Tracker	1+1	1+1	2+1	2+1	2/2
AC Output Data And UPS					
Rated AC Output Power (W)	5000	8000	10000	12000	20000
Max AC Output Power (W)	5000	8800	11000	13200	20000
AC Output Rated Current (A)	22.7	12.1	15.2	18.2	31
Max AC Current (A)	25	18.2	22.7	27.3	31
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
Total Harmonic Distortion (THD)	<3% (of nominal power)				
DC current injection	<0.5% In				



C&I ESS

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



PV System+Energy Storage System

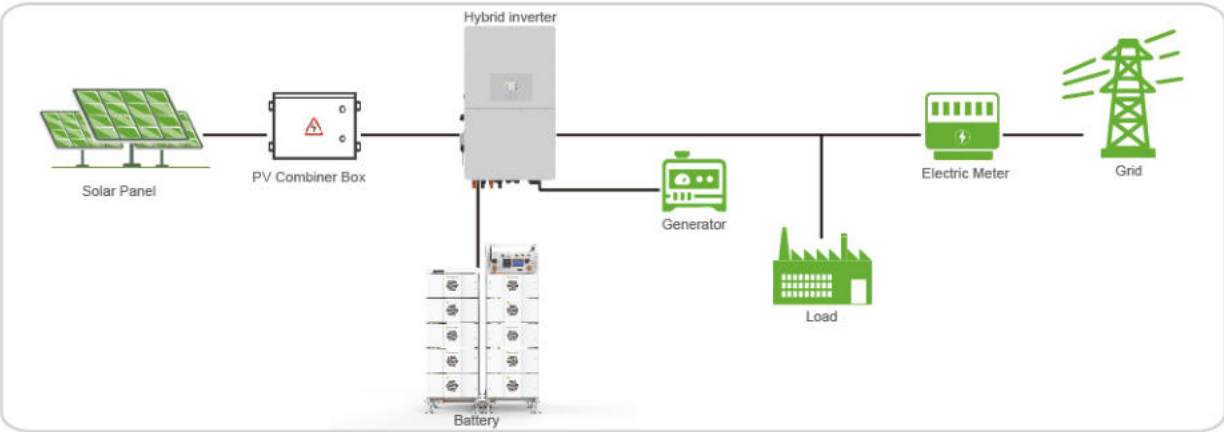
Energy Storage System

Dedicated
**Commercial&
Industrial ESS**

- 
Self-Consumption
- 
Demand Charge
- 
Micro-grid
- 
Off grid
- 
DG+BESS
- 
V2G
- 
Back Up
- 
Peak Shifting

ESS System Configuration

Battery Module Model	ESS 50KW-113	ESS 125KW-241	ESS 250KW-500	ESS 500KW-1000
Battery System Data				
Battery Type	LFP(LiFePO4)			
Nominal Capacity (kWh)	113KWH	241KWH	535.53KWH	1.04MWH
DC Voltage Range (V)	160V~800V	672V~852V	492.8V~624.8V	582.4V~738.4V
Battery Module Data				
Battery Module	GHR-314			
Nominal Voltage	51.2V			
Nominal Capacity 314Ah	314Ah			
Recommend Charge/ Discharge Current (A)	157A			
PCS DC/AC Data On-grid Mode				
Rated AC Power (KW)	50KW	125KW	250KW	500KW
Rated AC Output Voltage (V)	400V	400V	400V	400V
Rated AC Output Frequency (Hz)	50/45-55, 60/55-65	50/60Hz	50/60Hz	50/60Hz
Rated Current (A)	75.8A/72.5A	189.9A/180.4A	361A	722A
AC PF	0.8 leading to 0.8 lagging		1leading-1lagging(settable)	
THDi	<3%	<3%	<3%	<3%
PCS DC/AC Data Off-grid Mode				
Rated Power (KW)	50KW	125KW	250KW	500KW
Rated Current (A)	75.8A/72.5A	189.9A/180.4A	361A	722A
Rated Voltage (V)	400V			
Rated Frequency (Hz)	50/60Hz			
THDU	<2%		≤1% linear; or≤5% nonlinear	
PV DC/DC Data Parameter				
Max.PV Input Voltage (V)	1000V			
Max. PV Power (KW)	100KW	250KW	300/360	600/660/720
MPPT Voltage Range (V)	150-850V	150-950V	250~850V	



Project Case

Global Delivery



36kWh/61.44kWh
Installed in Spain



Complete 15kW Solar Storage System with 28.8kWh
Installed in Jamaica



20.48kWh Home ESS Batteries
Installed in Kazakhstan



20kW/38.4kWh
Installed in USA



24kW/36kWh
Installed in Bulgaria



12kW/32kWh
Installed in Anhui, China



24kW&40.96kWh Home Storage Batteries
Installed in Haiti



20kW Complete Hybrid Solar Storage System with 20kWh Battery
Installed in Panama

Project Case

Global Delivery



8kW/19.2kWh
Installed in Puerto Rico



19.2kWh
Installed in Morocco



8kW/57.6kWh
Installed in Puerto Rico



20kW/48kWh
Installed in Jamaica



10kW/16kWh
Installed in Jamaica



5.12kWh&9.8kWh Home Storage Batteries
Installed in Costa Rica



115.2kWh
Installed in Kenya

Project Case

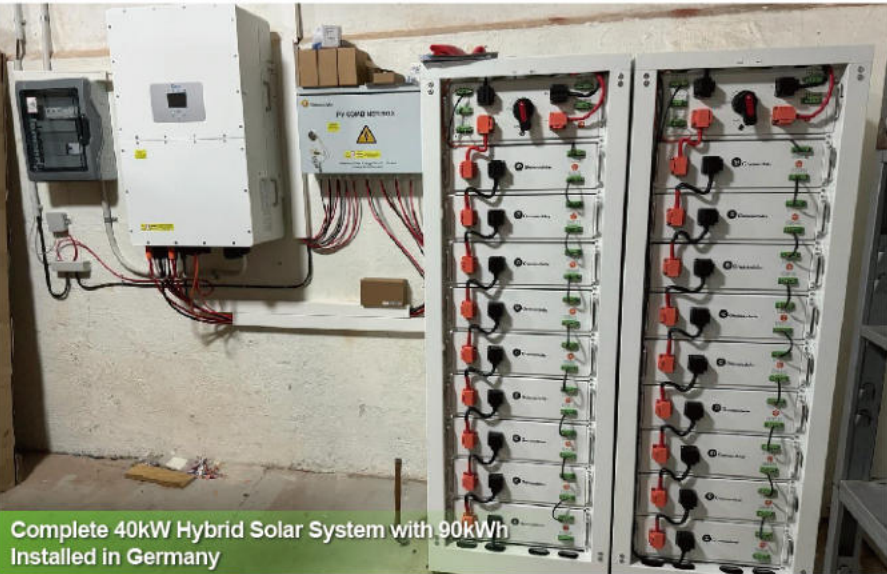
Global Delivery



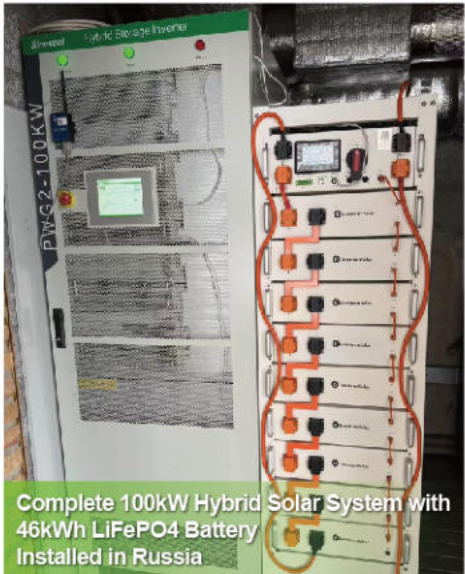
45.6kW/145kWh
Installed in Nicaragua



5kW/15kWh
Installed in Hefei, China



Complete 40kW Hybrid Solar System with 90kWh
Installed in Germany



Complete 100kW Hybrid Solar System with
46kWh LiFePO4 Battery
Installed in Russia



150kW Hybrid Solar Storage System with 418kWh Batteries
Installed in Cambodia



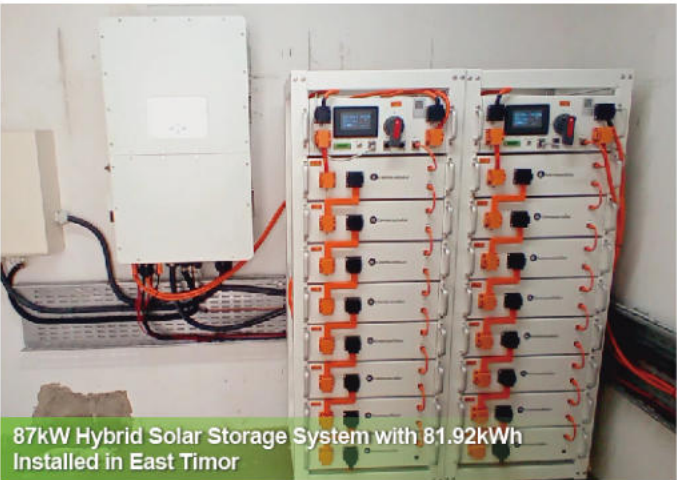
100kW/71.68kWh
Installed in Cambodia

Project Case

Global Delivery



500kW Greensun PV Panels + 450kW Hybrid Storage Inverters
+ 1.1MWh BESS
Installed in Latvia



87kW Hybrid Solar Storage System with 81.92kWh
Installed in East Timor



80kW/241kWh small commercial ESS
Installed in Kenya



300kW Solar Power System with 450kWh
Installed in Cambodia



Outdoor Cabinet ESS 25kW/100kWh
Installed in UK

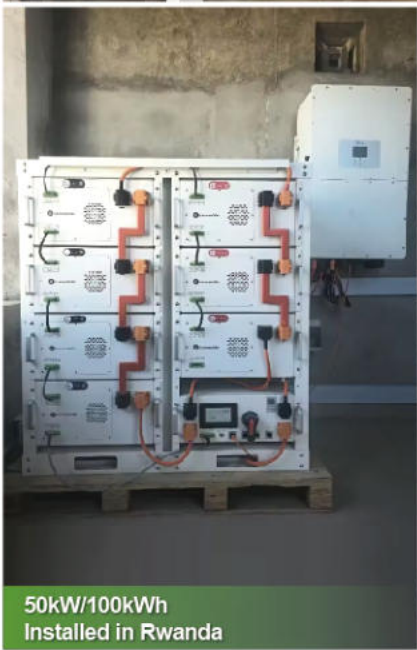


50kW/71.68kWh ESS
Installed in Nigeria



Project Case

Global Delivery



Project Case

Global Delivery

