Shanghai Sunplus New Energy Technology Co., Ltd.

Online Manual

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www.sunplusnenergy.com

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Shanghai China

May the Sun
Brighten Innumerable Homes

SP2025_V3.0.1

36000m²
Production Base

5GW/12GWH
Production Capacity

300+
Employees

100+
R&D Team

65%
Engineers

3Days/30Days
Fast Delivery

Shanghai Sunplus New Energy Technology Co., Ltd.

Sunplus New Energy Technology is located in Shanghai, China, committed to the R&D, Production, and Sales of new energy power supply equipments.

We have a broad product line dedicated to providing comprehensive solutions for intelligent energy management for home, industrial and commercial users, as well as ground-based power plants.


Headquarter-China


European Branch-Netherlands


Factory-China


Warehouse-Italy


Production Plant-China


Test Workshop-China

Safe
Smart
Reliable

Sunplus is committed to becoming a global leading provider of Solar Energy Storage Solutions, providing Safe, Smart, and Reliable products. We focus on technological innovation and comprehensive service support to help customers gain competitive advantages. Partnering with Sunplus means having a customer-oriented and professional partner committed to your success.

Global Market

Photovoltaic System Products

Residential & Commercial Lithium Battery

Low Voltage Lithium Battery 5-20kWh

SP-LV5120-W1

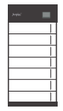
SP-LV-G2 Series

SP-LV5120-S Series

SP-LV-W2 series

High Voltage Lithium Battery 5-40kWh

SP-HV5120-S Series

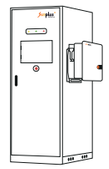


SP-HV2560-G Series

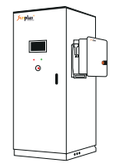
SP-HV3680-S series

C&I All-in-One Storage Solution

Solution1： Inverter +Battery Cabinet



SP-eBank F2 Series



SP-eBank F Series

Solution2： PCS +Battery Cabinet

EnerArk-2.0-M Series

EnerArk-2.0 Series

Residential & Commercial Hybrid Inverter

Single Phase Hybrid Inverter 3-12kW

SP1S-1P-L Series

SP2S-1P-L Series

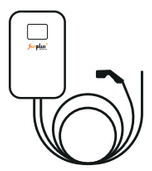
Three Phase Hybrid Inverter 3-15kW/29.9-50kW

SP1S-3P-H Series

AC EV Charger

Single Phase AC EV Charger 7.2kW

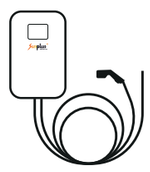
BS20 Series



BN30 Series

Three Phase AC EV Charger 11/22kW

BS20 Series



BN30 Series

Sunplus Energy Storage System

Single Phase Hybrid Inverter + LV Storage Battery

Sunplus ESS

Utilizing smart technology and professional industry knowledge, Sunplus is committed to providing users with integrated, reliable household and commercial energy storage solutions, effectively ensuring users' green electricity consumption and avoiding the impact of rising electricity bills or power outages. We are working tirelessly to build a photovoltaic production, energy storage and charging ecosystem, and continue to develop green energy into an independent energy source that innumberable families can rely on.

5/10 yrs

5/10-year Warranty

Plug & Play

European Warehouse

Core Highlights

- Rock Solid Quality
- 15-year Design Life
- Top Brand Components
- Full Certificates
- Germany Design
- Remotely Upgrade & Maintenance
- Assembled Accessory
- Local Technical Support & Training

System Parameter Overview

Inverter: SP1S-1P-L Series

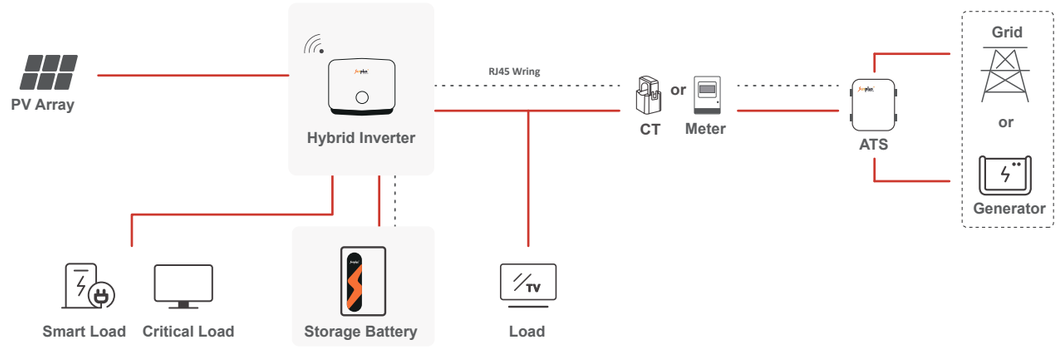
Rated Power Range(kW)	3-6
Max.DC Input Voltage(V)	600
Max.DC Input Current(A)	16
AC Output Power Range(kW)	3-6
Normal Grid Voltage(V)	220/230
Normal Grid Frequency(Hz)	50/60
Charge/Discharge Power Range(kW)	5
Max.Charge/Discharge Current(A)	100
Battery Voltage Range(V)	42-60
Battery Type	Lithium-ion/Lead-acid
Enclosure Protect Level	IP66

Battery: SP-LV5120-W1

Normal Capacity	104Ah/5.12kWh
Normal Voltage(V)	51.2
Max.Continuous Charge/Discharge Current(A)	50/100
Communication	WIFI/RS485/CAN
Enclosure Protect Level	IP65

System Structure

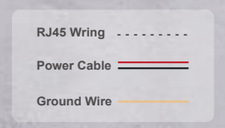
Fully understanding the system will provide passion and professionalism service for customers.



System Application Scenarios

Individual Battery Connection

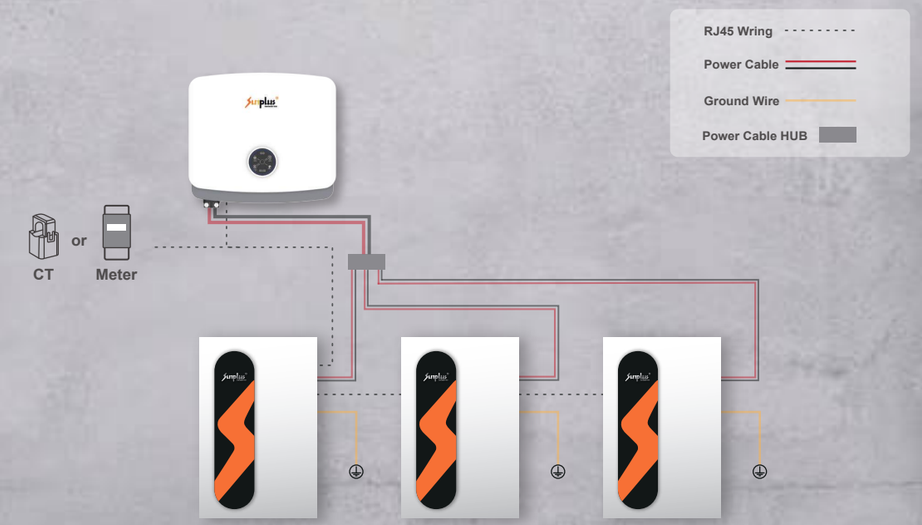
- Simple, cost-effective
- Ideal for individuals
- Easy to operate & maintain



Grounded

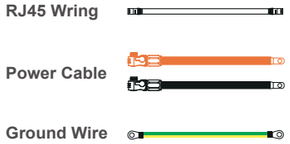
Multiple Battery Connection

- High capacity, highly scalable
- Ideal for high energy demands
- Provides more flexible energy management



Wall-Mounted

Accessory Kit



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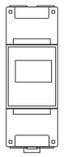

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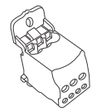

Power Cable HUB

Sunplus Energy Storage System

Three Phase Hybrid Inverter + HV Storage Battery

Sunplus ESS

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5/10-year Warranty

Plug & Play

European Warehouse

Core Highlights

- Rock Solid Quality
- 15-year Design Life
- Top Brand Components
- Full Certificates
- Germany Design
- Remotely Upgrade & Maintenance
- Assembled Accessory
- Local Technical Support & Training

System Parameter

Inverter: SP1S-3P-H Series

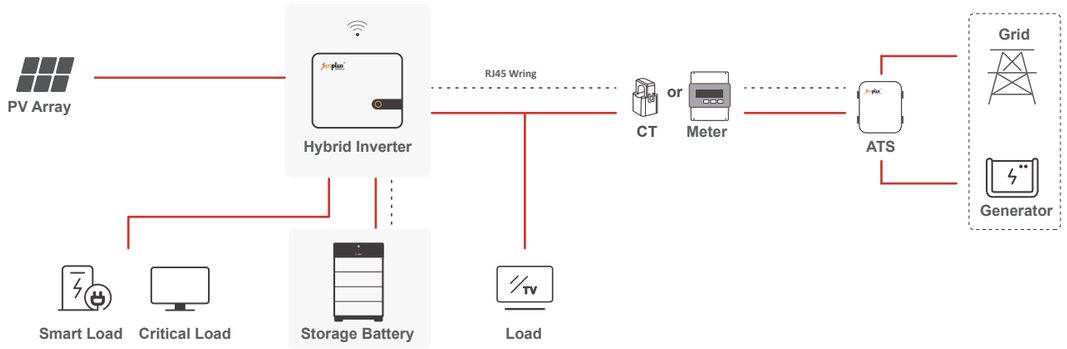
DC Input Power Range(kW)	3-15
Max.DC Input Voltage(V)	1000
Max.DC Input Current(A)	16/String
AC Output Power Range(kW)	3-15
Normal Grid Voltage(V)	230/400
Normal Grid Frequency(Hz)	50/60
Charge/Discharge Power Range(kW)	3-15
Max.Charge/Discharge Current(A)	25
Battery Voltage Range(V)	135-800
Battery Type	Li-ion/Lead-acid etc.
Enclosure Protect Level	IP66

Battery: HV5120-S2~S7

Normal Capacity	50Ah / 10.24~35.84kWh
Normal Voltage(V)	204.8~716.8
Max.Continuous Charge/Discharge Current(A)	25/40
Communication	WIFI/RS485/CAN
Enclosure Protect Level	IP65

System Structure

Fully understanding the system will provide passion and professionalism service for customers.



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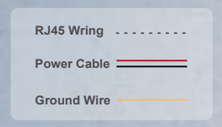
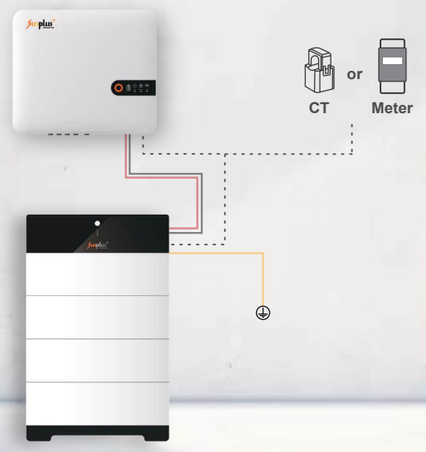
- Easy to operate & maintain

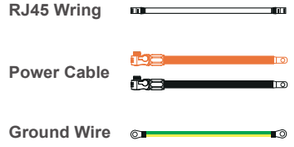




Multiple Battery Connection

- High capacity, highly scalable
- Ideal for high energy demands
- Provides more flexible energy management

Accessory Kit



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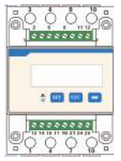

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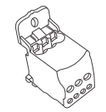


Power Cable HUB

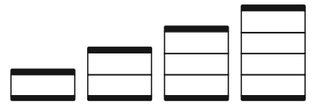
Lithium Battery

Residential & Commercial Lithium Battery

Low Voltage Lithium Battery 5-20kWh

SP-LV5120-W1

SP-LV-G2 Series



SP-LV5120-S Series

SP-LV-W2 series

High Voltage Lithium Battery 5-40kWh

SP-HV5120-S Series

SP-HV3680-S series

SP-HV2560-G Series

SP-LV5120-W1 Series / 5.12kWh

Residential Low Voltage Lithium Battery

- Long Design Life
- Multiple Protection
- Modular Design
- Dekra Certification
- Scalable & Flexible
- Remote management & maintenance

Over Current Protection

Over Charge Protection

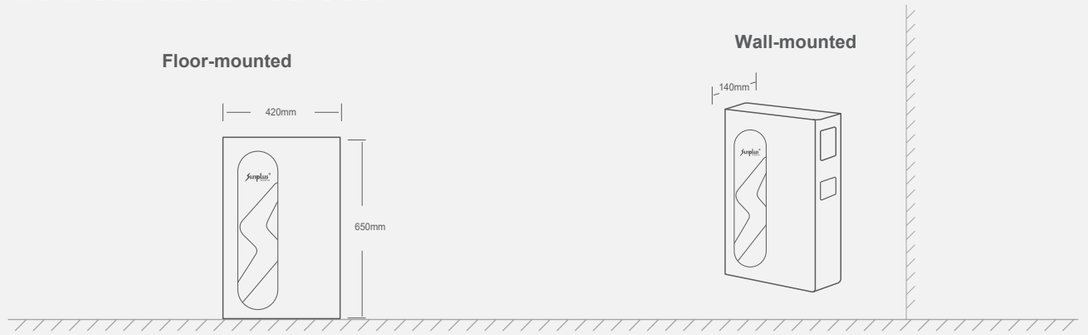
Over Discharge Protection

Cell Balance Function

Short Current Protection

Temperature Protection

Two Installation Methods:



Specification

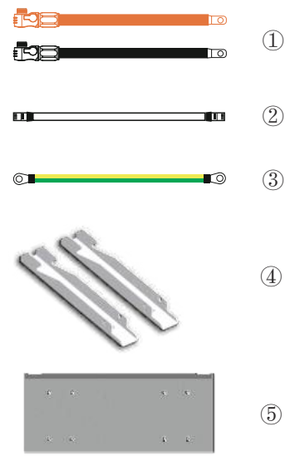
Product Name	Rechargeable Lithium Iron Phosphate Battery
Module Model	SP-LV5120-W1
Battery Type	LFP 16S1P
Nominal Capacity	100Ah / 5.12kWh
Rated Energy*2	4.85 kWh
Nominal Voltage	51.2V
Working Voltage	43.2~57.6V
Charging Voltage	57.6V
Max. Continuous Charge Current*3	50A
Max. Continuous Discharge Current*4	100A
Communication	RS485,CAN,WIFI(Optional)
Storage Temperature	0℃~45℃ (Recommended)
Storage Humidity	≤85% (RH)
Working Temperature	Charging: -10℃~50℃、 Discharging: -20℃~50℃
Working Humidity	≤95% (RH) No Condensation
Working Altitude	≤2000m
Ingress Protection	IP65
Protective Class	I
Weight	45kg
Dimension(W x D x H, mm)	420 x 140 x 650
Design Life	15Years (25℃)
Cycle Life	>6000 (25℃)
Scalability	Recommended ≤3, (Max. 8 in parallel)
Certification	CE/UKCA, CEI0-21, CB: , IEC62619, IEC/EN61000-6-1/3, IEC62368, ROSH, UN38.3, MSDS, DEKRA SEAL

*1 Test conditions: cell voltage 2.0~3.65V,25±2℃, 0.5C charge and 1C discharge.
*2 Test conditions: Fresh battery,95% depth of cell discharge ,25 ±2 ℃, 0.5C charge and 0.5C discharge.
*3、*4 Affected by temperature and SOC state.

Matching List

Afore · Deye · MEGAREVO · solis · GOODWE · SOFAR SOLAR · invt · Voltronic Power · hoymiles · LUXPOWER · AISWEI

Accessories



① Inverter to Battery Positive & Negative Power Cables
② RJ45 Communication Cable
③ Grounding Cable
④ Square Tube Support
(Fixed On The Back Of The Battery Pack)
⑤ Bracket (Fixed On The Wall)

SP-LV-W2 Series / 5.12~7.68kWh

Low-voltage Residential Battery

IP21

Double and robust mechanical protection

IP21 supporting indoor installation

BMS

Intelligent BMS with multiple protections

90% DOD

Reliable performance: high efficiency and 90% DOD

Long cycle life and safest prismatic LFP batteries

Easy and quick installation and expansion withmodular design, up to 5 units in parallel

- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Remote management & maintenance

Model	SP-LV-5120-W2	SP-LV-7680-W2
Cell Type	LFP	
Nominal Voltage	51.2V	
Operating Voltage Range	43.2V - 57.6V	
Nominal Capacity	100Ah	150Ah
Nominal Energy	5.12kWh	7.68kWh
Max. Power	Charge: 4.1kw; Discharge: 5.12kw	Charge: 5.12kW; Discharge: 5.12kW
Depth of Discharge	100%, recommending 90%	100%, recommending 90%
Usable Energy	5.12kWh	7.68kWh
Dimension(W*H*D)	335*622*135.5 mm	585*364*165.5 mm
Weight	42.6kg	63kg
Max. Charge/Discharge Current	100A / 100A	
Operating Temperature	Charge: 0 °C - 50°C; Discharge: -10°C - 55°C	
Operating Humidity	5% - 95%	
Storage Temperature	-20°C to +60 °C	
Operating Attitude	< 4000m	
Communication	RS485 / CAN	
Scalability	Up to 5 Modules / 25kWh	Up to 5 Modules / 38.4kWh
Cooling Type	Natural	
Ingress Protection	IP21	
Installation Location	Wall -mounted	
Cycle Life	6000 Cycles[1]	
Authentication Level	IEC61000/UN38.3	

[1]: Test conditions: 0.5C Charge/0.5C Discharge, @25℃, 90% DOD, 70% EOL.

SP-LV5120-G2 Series / 5.12kWh

Residential Low Voltage Lithium Battery

Class 9/CE, UN38.3, MSDS, RoSH

IP65 Level

IP65 Level

Quick and simple installation

BMS

Advanced BMS management

6000 cycles life (DoD 80%)

High-density LiFePO4 battery

Compatible with mainstream inverters

- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Remote management & maintenance

Basic Information

Nominal Voltage	51.2V DC
Voltage Range	44V-58.4V
Nominal Capacity	100Ah
Rated Capacity	5.12kWh
Communication Protocol	CAN / RS485 / RS232
Max. Number of Parallel Connections	15
Cycle Life	6000 cycles (@80% DoD)
Protection Mechanism	Temperature Protection/Over-current Protection/Short-circuit Protection Over-charge Protection/Over-discharge Protection/Low-voltage Protection

Charging Parameters

Recommended Charging Current	50A
Max. Charging Current	100A
Recommended Charging Voltage	58V
Max. Charging Voltage	58.4V

Discharging Parameters

Recommended Discharging Current	50A
Max. Discharging Current	100A
Recommended Battery Discharge Cut-off Voltage	44V
Battery Cut-off Voltage	43.2V
Battery Recovery Voltage	48V

General Parameters

Dimension	600*480*189mm
Gross/Net Weight	55kg/52.6kg
Shell Material	Sheet Metal
Protection Rating	IP65
Installation Method	Wall-mounted + Floor type
Cell Type	LiFePO4

Certification & Safety Standard

Safety Certification	CE
Temperature Safety Certification	UN38.3,Class9, MSDS, RoSH

Temperature Parameters

Discharging Temperature	-20~65℃
Charging Temperature	0~55℃
Storage Temperature	-20~45℃

SP-LV1024-G2 Series / 10.24kWh

Residential Low Voltage Lithium Battery

Class 9/CE, UN38.3, MSDS, RoSH

IP65 Level

IP65 Level

10kwh capacity

BMS

Advanced BMS management

6000 cycles life
(DoD 80%)

High-density LiFePO4 battery

Compatible with mainstream inverters

- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Remote management & maintenance

Basic Information

Nominal Voltage	51.2V DC
Voltage Range	44V-58.4V
Nominal Capacity	200Ah
Rated Capacity	10.24kWh
Communication Protocol	CAN / RS485 / RS232
Max. Number of Parallel Connections	15
Cycle Life	6000 cycles (@80% DoD)
Protection Mechanism	Temperature Protection/Over-current Protection/Short-circuit Protection Over-charge Protection/Over-discharge Protection/Low-voltage Protection

Charging Parameters

Recommended Charging Current	100A
Max. Charging Current	200A
Recommended Charging Voltage	58V
Max. Charging Voltage	58.4V
Charge Rate	0.5C

Discharging Parameters

Recommended Discharging Current	100A
Max. Discharging Current	200A
Recommended Battery Discharge Cut-off Voltage	44V
Battery Cut-off Voltage	43.2V
Battery Recovery Voltage	48V
Discharge Rate	0.5C

General Parameters

Dimension	800*580*220mm
Gross/Net Weight	120kg/101kg
Shell Material	Sheet Metal
Protection Rating	IP65
Installation Method	Floor type
Cell Type	LiFePO4

Certification & Safety Standard

Safety Certification	CE
Temperature Safety Certification	UN38.3,Class9, MSDS, RoSH

Temperature Parameters

Discharging Temperature	-20∽65℃
Charging Temperature	0∽55℃
Storage Temperature	-20∽45℃

SP-LV1536-G2 Series / 15.36kWh

Residential Low Voltage Lithium Battery

Class 9/CE, UN38.3, MSDS, RoSH

IP65 Level

IP65 Level

15kwh capacity

BMS

Advanced BMS management

6000 cycles life (DoD 80%)

High-density LiFePO4 battery

Compatible with mainstream inverters

- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Remote management & maintenance

Basic Information

Nominal Voltage	51.2V DC
Voltage Range	44V-58.4V
Nominal Capacity	300Ah
Rated Capacity	15.36kWh
Communication Protocol	CAN / RS485 / RS232
Max. Number of Parallel Connections	15
Cycle Life	6000 cycles (@80% DoD)
Protection Mechanism	Temperature Protection/Over-current Protection/Short-circuit Protection Over-charge Protection/Over-discharge Protection/Low-voltage Protection

Charging Parameters

Recommended Charging Current	100A
Max. Charging Current	200A
Recommended Charging Voltage	58V
Max. Charging Voltage	58.4V

Discharging Parameters

Recommended Discharging Current	100A
Max. Discharging Current	200A
Recommended Battery Discharge Cut-off Voltage	44V
Battery Cut-off Voltage	43.2V
Battery Recovery Voltage	48V

General Parameters

Dimension	800*580*255mm
Gross/Net Weight	150kg/131kg
Shell Material	Sheet Metal
Protection Rating	IP65
Installation Method	Floor type
Cell Type	LiFePO4

Certification & Safety Standard

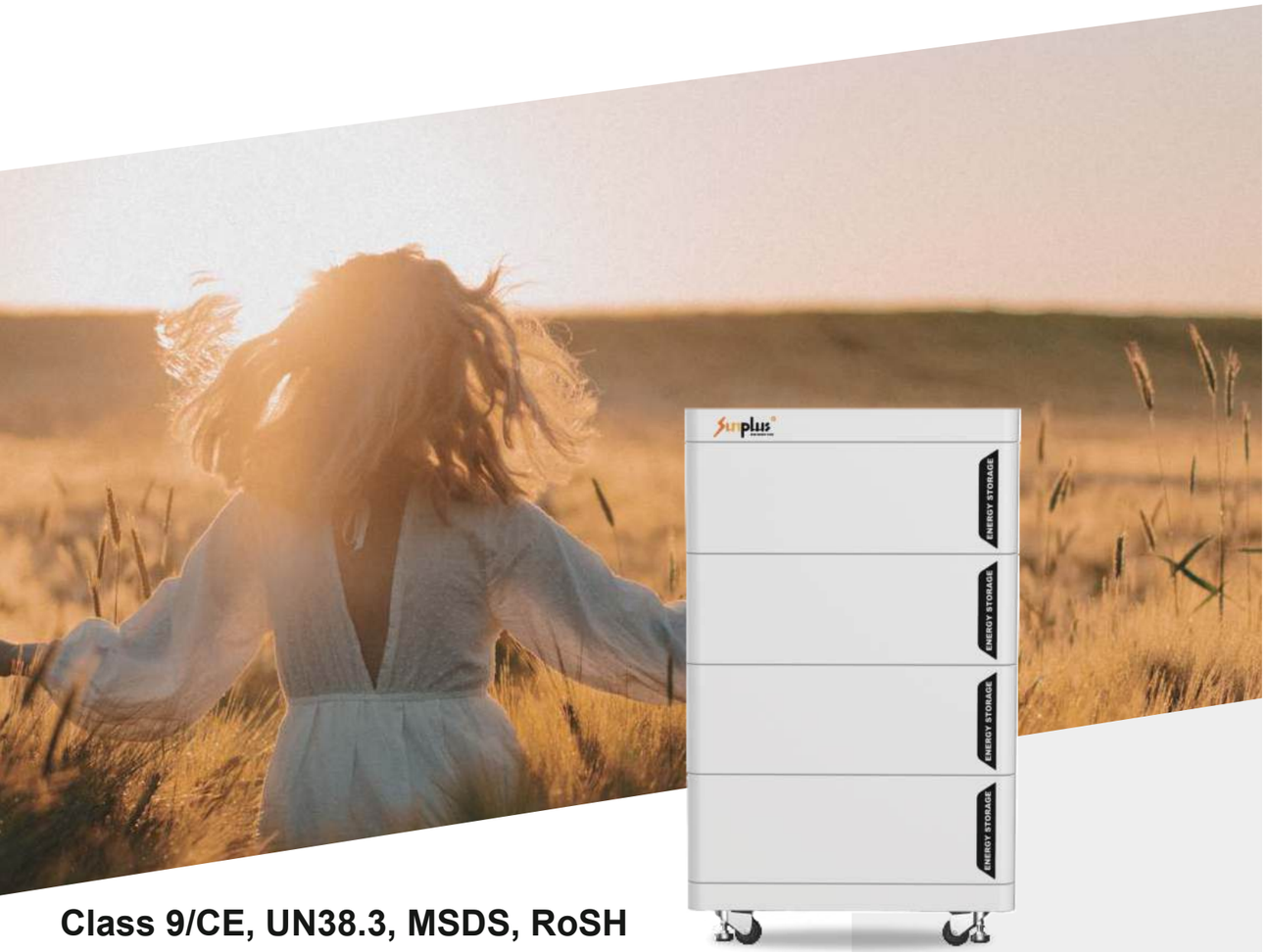
Safety Certification	CE
Temperature Safety Certification	UN38.3,Class9, MSDS, RoSH

Temperature Parameters

Discharging Temperature	-20∽65℃
Charging Temperature	0∽55℃
Storage Temperature	-20∽45℃

SP-LV5120-S Series / 5~20kWh

Residential Low Voltage Lithium Battery



Class 9/CE, UN38.3, MSDS, RoSH

Wheel design, easy to move

Avoid overcharging & Extending battery life

BMS

Advanced BMS management

6000 cycles life (DoD 80%)

High-density LiFePO4 battery

Noise less than 60 decibels

- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Remote management & maintenance

Basic Information	SP-LV5120-S1	SP-LV5120-S2	SP-LV5120-S3	SP-LV5120-S4
Single Module Capacity	5.12kwh			
Module Number	1	2	3	4
Rated Capacity	5.12kWh	10.24kWh	15.36kWh	20.48kwh
Nominal Voltage	51.2V			
Working Voltage	44V-58.4V			
Nominal Discharge Current	100A	200A	300A	400A
Nominal Charging Current	50A	100A	150A	200A
Recommended Discharge Level	80% DoD			
Humidity	20%-60%			
Installation Method	Stacked mode			
Protection Level	IP65			
Battery Warranty	5/10 Years			
Communication Protocol	CAN/RS485/RS232 (WIFI optional)			
Dimension	500*440*200mm	700*440*200mm	900*440*200mm	1100*440*200mm
Battery Net Weight	49kg	98kg	147kg	196kg
Cell Type	LFP			
Battery Rated Input Voltage	48Vdc			
Hybrid Charging Max. Charging Current	80A			
Battery Pack voltage Range	40Vdc-60Vdc			

Photovoltaic Input Parameters

Max. PV Open Circuit Voltage	500Vdc
PV Working Voltage Range	120V-500Vdc
MPPT Voltage Range	120V-450Vdc
Max. PVinput Current	22A
Max. PV Input Power	5500W
Max. PV Charging Current	80A

AC Parameters (Grid-connected Side)

Max. Charging Current	60A
Rated Input Voltage	220V/230Vac
Input Voltage Range	170Vac-280Vac
Frequency	50Hz/60Hz
Charging Effciency (Bypass and Inverter)	>95%
Switching Time	10ms
Max. Bypass Overload Current	40A

AC Output Parameters (Grid-connected side)

Output Voltage Wavefomm	Pure Sine Wave
Rated Output Voltage	230VAC+5%
Rated Output Power	5000W
Peak Power	10000VA

SP-HV5120-S Series / 5-40kWh

Residential&Commercial High Voltage Lithium Battery

Modular Design & Easy Installation

Easy Installation

- A single module with small dimension and weights less than 48kg
- Wireless connection and fewer accessories
- Optimized design of handles and interfaces realizes easy installation

Modular Design

- With a wireless connection, it is no need to disassemble wires during maintenance
- The modular design of BMS makes maintenance convenient and reduces maintenance time
- With cloud monitoring fast troubleshooting

Flexible Expansion

- Optimized design of module voltage makes Sunplus batteries compatible with popular inverters
- 2-8 modules connected in series to form a complete unit
- Units can be connected in parallel to enlarge electric capacity

Over Current Protection

Over Charge Protection

Over Discharge Protection

Soft Start Function

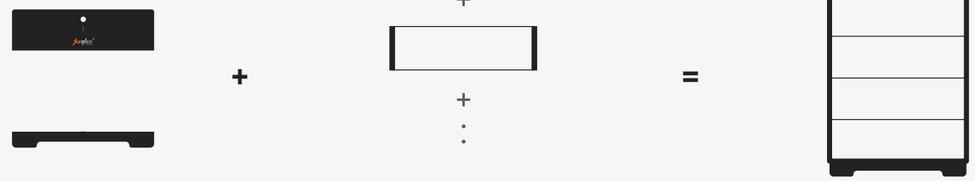
Voltage Protection

Cell Balance Function

Short Current Protection

Temperature Protection

- Long Design Life
- Multiple Protection
- Modular Design
- Dekra Certification
- Scalable & Flexible
- Easy Maintenance



HV-BOX01

HV BMS Control Box
+
Bottom Base

SP-HV5120-S

5.12kWh LiFePO4 Battery pack,
102.4V, 50AH

High Voltage Energy Storage Battery

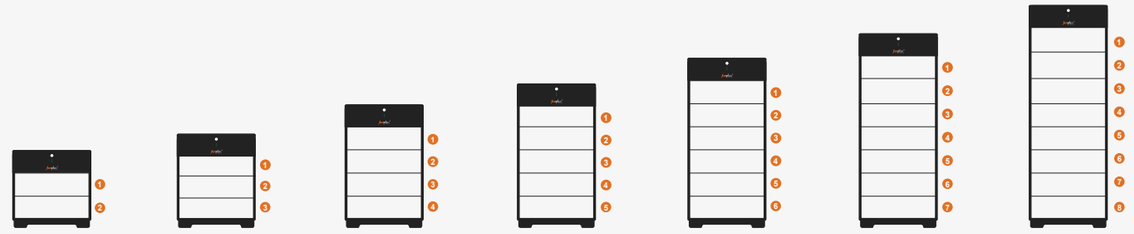
S1

HV5120-S1 Specification

Product Name	HV Stacked LFP Battery
Module Model	SP-HV5120-S1
Battery Type	LFP 1P32S
Nominal Capacity	50Ah / 5.12kWh
Usable Capacity	4.86kWh（95% DOD）
Nominal Voltage	102.4V
Working Voltage	91.2~115.2V
Charging Voltage	112V
Max. Continuous Charge Current	25A
Max. Continuous Discharge Current	40A
Communication	RS485 , CAN
Storage Temperature	0℃～45℃（Recommended）
Storage Humidity	≤85%（RH）
Working Temperature	Charging：-10℃～50℃ Discharging：-20℃～50℃
Working Humidity	≤95%（RH） No Condensation
Working Altitude	≤2000m
Ingress Protection	IP65
Protective Class	I
Weight	＜67kg
Dimension(W x D x H, mm)	636 x 330 x 188
Design Life	15 Years（25℃）
Cycle Life	＞8000（25℃), 60% EOL
Scalability	Module: Max. 8S, Max. 8 in parallel (Capacity 327.68kWh)
Certification	CE/UKCA: IEC/EN61000-6-2/3, CB: IEC62619, IEC63056, IEC60730 UN38.3, MSDS, DEKRA SEAL

S2-S8

Rechargeable Lithium Iron Phosphate Battery System



Product Model	SP-HV5120 -S2	SP-HV5120 -S3	SP-HV5120 -S4	SP-HV5120 -S5	SP-HV5120 -S6	SP-HV5120 -S7	SP-HV5120 -S8
Nominal Capacity(kWh)	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Usable Capacity(kWh)	9.72	14.58	19.44	24.3	29.16	34.02	38.88
Rated Power (kW)	8.192	12.288	16.384	20.480	24.576	28.672	32.768
Maximum Out Power (kW)	9.216	13.824	18.432	20.040	27.648	32.256	36.864
Nominal Voltage(V)	204.8	307.2	409.6	512	614.4	716.8	819.2
Working Voltage(V)	182.4~230.4	273.6~345.6	364.8~460.8	456~576	547.2~691.2	638.4~806.4	729.6~921.6
Charging Voltage(V)	224	336	448	560	672	784	896
Max. Continuous Charge Current(A)	25	25	25	25	25	25	25
Max. Continuous Discharge Current(A)	40	40	40	40	40	40	40
Weight(kg)	＜110	＜155	＜200	＜245	＜290	＜335	＜380
Dimension(W x D x H, mm)	636*330*628	636*330*816	636*330*1004	636*330*1192	636*330*1380	636*330*1568	636*330*1756
Design Life	15 Years（25℃）						
Scalability	Max. 8 in parallel						
Types of Protection	Against excessive energy charging, Against excessive energy discharge, Against too high or too low charging current, Against short circuit/reverse polarity, Against overheating, Before charging at low temperatures, Sleep mode after charging.						
Work Profiles	Charging only from a photovoltaic installation, Charging from the cut power of the photovoltaic installation, Charging from a photovoltaic installation and the power grid						

Compatibility List

Afore · GOODWE · Deye · SOFAR SOLAR · invt · MEGAREVO · LUXPOWER TEK · solis · hoymiles 昱能 · AISWEI · Voltronic Power · SOLINTEG · KOYOE Solar Energy · UEIHENG

Accessories

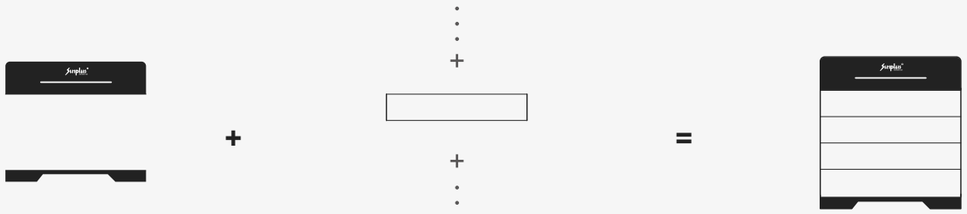
Inverter to Battery Positive & Negative Power Cables

RJ45 Communication Cable

Grounding Cable

SP-HV3680-S / 7-36kWh

Residential High Voltage Lithium Battery



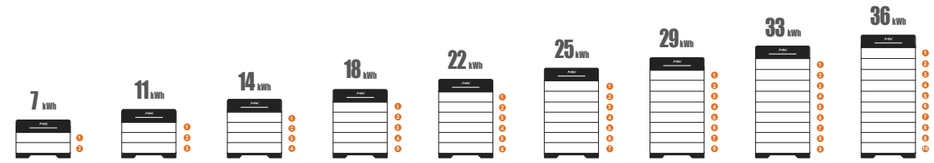
HV-BOX03

HV BMS Control Box
+
Bottom Base

SP-HV3680-S

3.68kWh LiFePO4 Battery pack,
51.2V, 72AH

High Voltage Energy Storage Battery



System	SP-HV3680-S2	SP-HV3680-S3	SP-HV3680-S4	SP-HV3680-S5	SP-HV3680-S6	SP-HV3680-S7	SP-HV3680-S8	SP-HV3680-S9	SP-HV3680-S10
Battery System Energy	7.36 kWh	11.04 kWh	14.72 kWh	18.40 kWh	22.08 kWh	25.76 kWh	29.44 kWh	33.12 kWh	36.80 kWh
Rated Battery Voltage	102.4 V	153.6 V	204.8 V	256 V	307.2 V	358.4 V	409.6 V	460.8 V	512 V
Rated capacity	72 Ah								
Rated Circuit	36A								
Max Charging/Discharging Current	50A								
Cycle times	⩾6000 time * (more cycle life requirement, please contact us for details)								
Dimensions(W H D)	710× 502 × 320 mm	710× 639 × 320 mm	710× 776 × 320 mm	710× 913 × 320 mm	710× 1050 × 320 mm	710× 1187× 320 mm	710× 1324 × 320 mm	710× 1461 × 320 mm	710× 1598 × 320 mm
System Net Weight	93.84 kg	130.96 kg	160.08 kg	204.66 kg	246.64 kg	275.12 kg	316.56 kg	353.68 kg	390.8 kg
Communication	RS485/CAN								

Module

Battery Module Energy	3.68 kWh
Rated Battery Module Voltage	51.2 V
Battery Module Dimensions (W×H×D)	710× 137 × 320 mm
Net Weight	36.32 kg

Environment

Operating Temperature	-10℃~55℃ (Charge) / -20 ℃~55℃ (Discharge)
Storage Temperature	-30°C~60°C
Operating Humidity	5%~95%RH, non-condensing
Operating Altitude	4000 m
Cooling	Natural convection
Installation	Wall-mounted or Floor-mounted
Ingress Protection Rating	IP65
Warranty	5/10 years
Certification	IEC 62619, IEC 63056 MSDS, IEC 62040-1, IEC 61000-6-1, IEC 61000-6-3, UN 38.3

*25℃，0.5C，80% DOD

Original battery
active balance technology

Flexible capacity options
7.36kWh to 36.8kWh

Easy installation with
modular and stacked design

Remote diagnosis
real-time data monitoring

Remote update &
Black start through inverter

SP-HV2560-G / 5-25kWh

Residential High Voltage Lithium Battery

Support 2~10PCS battery modules

OTA Remote upgrade

Intelligently identify the master-slave batteries without DIP address

10+

Support 10 clusters in parallel

Easy connection for WIFI remotely monitoring system

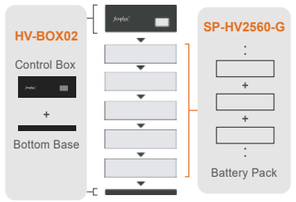
28 kg

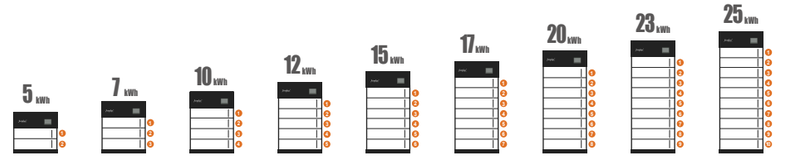
28kg battery module

- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Easy Maintenance

G2-G10

Rechargeable Lithium Iron Phosphate Battery System





Product Model		SP-HV2560 -G2	SP-HV2560 -G3	SP-HV2560 -G4	SP-HV2560 -G5	SP-HV2560 -G6	SP-HV2560 -G7	SP-HV2560 -G8	SP-HV2560 -G9	SP-HV2560 -G10
Rated voltage		102.4V	153.6V	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
Rated capacity		50Ah (0.5C)								
Battery module	Spec.	51.2V 50Ah								
	Weight	28KG								
	Dimension	700*280*135mm								
Rated capacity		5.12kWh	7.68kWh	10.24kWh	12.80kWh	15.36kWh	17.92kWh	20.48kWh	23.04kWh	25.60kWh
Working voltage		89-115.2V	134.4-172.8V	179.2-230.4V	224-288V	268.8-345.6V	313.6-403.2V	358.4-460.8V	403.2-518.4V	448-576V
Configuration		32SIP	48SIP	64SIP	80S1P	96S1P	112S1P	128S1P	144S1P	160S1P
Charging voltage		115.2V	172.8V	230.4V	288V	345.6V	403.2V	460.8V	518.4V	576V
Discharge voltage		89.6V	134.4V	179.2V	224V	268.8V	313.6V	358.4V	403.2V	448V
Rated charge and discharge current		25A (0.5C)								
Maximum charge and discharge current		30A								
Rated power		2.5kW	3.8kW	5kW	6kW	7.5kW	9kW	10kW	11.5kW	12.8kW
Maximum output power		3kW (Adjustable)	4.6kW (Adjustable)	6kW (Adjustable)	7kW (Adjustable)	9kW (Adjustable)	10kW (Adjustable)	12 kW (Adjustable)	13kW (Adjustable)	15kW (Adjustable)
Recommended depth of discharge		90%								
Working temperature range		-10℃ ~ +50℃								
Working humidity range		5-85%RH								
Communication method		WIFI/CAN2.0/RS485								
Number of parallel machines supported		10PCS(Max)								
Cycle life		25±2°C, 0.2C/0.2C, EOL 70% ≥ 6000 cycles								
Display method		4.3 inch								
OTA updating		Support remote OTA Updating								
Protective function	Voltage protection	Over charge and over discharge								
	Temperature protection	Over temperature range protection								
	Current protection	YES								
	Leakage Protection	YES								
	Dielectric withstand voltage	Single box 1000VDC (<1GΩ)								
Dimension (mm)		700*280*590	700*280*725	700*280*860	700*280*995	700*280*1130	700*280*1265	700*280*1440	700*280*1535	700*280*1670
Weight (KG)		80	110	140	170	200	230	260	300	330
Protection level		IP 65								
Types of protection		Against excessive energy charging, against excessive energy discharge, against too high or too low charging current, against short circuit/reverse polarity, against overheating, before charging at low temperatures, sleep mode after charging.								
Work profiles		Charging only from a photovoltaic installation, charging from the cut power of the photovoltaic installation, charging from a photovoltaic installation and the power grid.								

Compatible with Inverter Brands

Afore · SINEXCEL · solis inverters · GOODWE · ThinkPower · MEGAREVO · hoymiles · SOFAR · Deye · ATESS · PYLONTECH

Hybrid Inverter

Residential & Commercial Hybrid Inverter

+ Single Phase Hybrid Inverter 3-12kW

SP1S-1P-L Series

SP2S-1P-L Series

+ Three Phase Hybrid Inverter 3-15kW/29.9-50kW

SP1S-3P-H Series

SP1S-1P-L Series / 3~6kW

Residential Hybrid Energy Inverter - Single Phase Low Voltage

6 operating modes

Multi-unit, up to 8pcs

Single-phase or three-phase

< 10 ms
UPS, grid-to-off-grid switch in 10ms

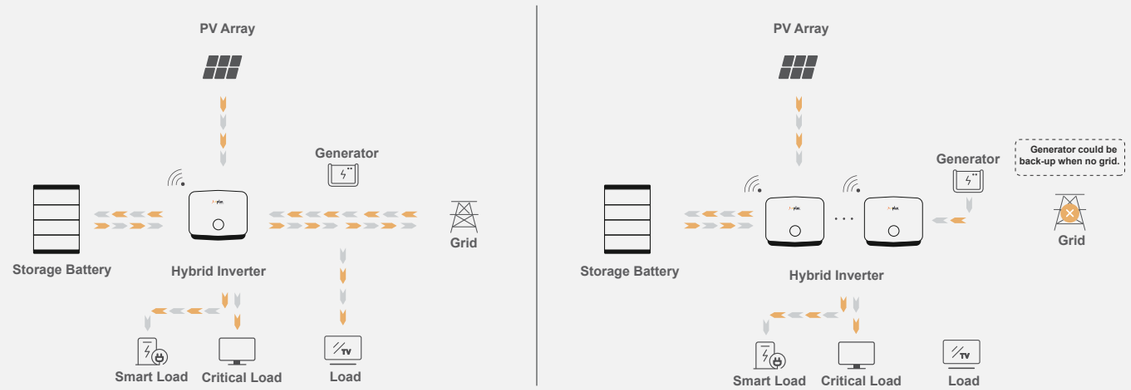
IP66
IP66 protection

Cloud integration for energy management

Remote upgrades and diagnostics

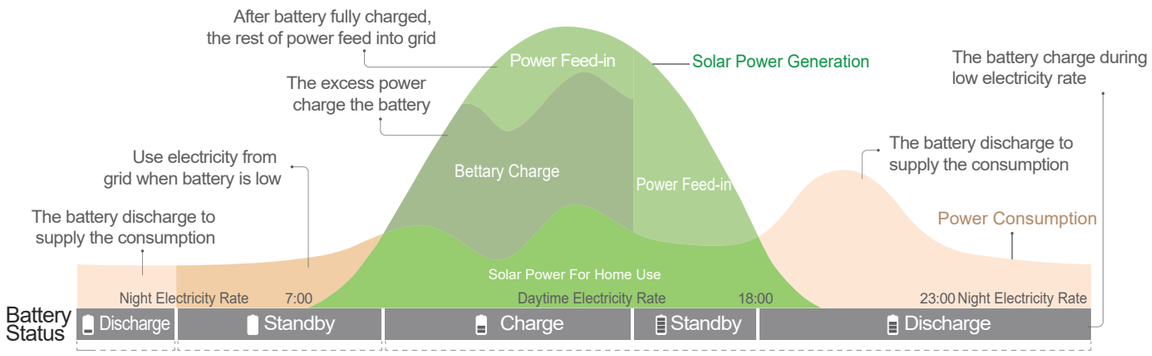
- Long Design Life
- Multiple Protection
- Parallel Functionality
- Versatile Operating Modes
- Remote Maintenance Capabilities

Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



PV Terminal

	SP1S-1P3K-L	SP1S-1P3.6K-L	SP1S-1P4K-L	SP1S-1P4.6K-L	SP1S-1P5K-L	SP1S-1P6K-L
Max.Input Power (W)	8000	8600	9000	9000	9000	9000
Max.PV Voltage (V)	600					
MPPT Voltage Range (V)	100-550					
MPPT Voltage Range (Full Load) (V)	250-520					
Rated Voltage (V)	360					
Max.Input Current (A)	16					
Isc PV (A)	20					
Number of MPPTS	2					
Number of Input Strings Per MPPT	1					

Battery Input/Output

Battery Type	Lithium-ion/Lead-acid
Battery Rated Voltage (V)	51.2
Battery Voltage Range (V)	42-60
Max.Charging/Discharging Power (W)	5000
Max.Charging/Discharging Current (A)	100
Battery Charging Wake-up	Support
Battery Communication Wake-up	Support
Charging Method	Constant Current, Constant Voltage, Floating

AC Input Terminal

Max. Input Power (W)	6000	7360	8000	9200	10000	10000
Max.Continuous Input Current (A)	26.1	32	34.8	40	43.5	43.5
Max. Continuous Input Power(Grid to Battery) (W)	3000	3680	4000	4600	5000	6000
Max. Continuous Input Current(Grid to Battery) (A)	13	16	17.4	20	21.7	26.1
Rated Input Voltage/Frequency (V)	230(L/N/PE); 50/60					
Input Voltage Range (V)	170-280					

AC Output Terminal

Rated Output Active Power (W)	3000	3600	4000	4600	5000	6000
Rated Output Current (A)	13	16	17.4	20	21.7	26.1
Rated Output Voltage/Frequency (V/Hz)	230(L/N/PE); 50/60					
Output Voltage Range (V)	180-270					
Power Factor Range	0.8Leading-0.8Lagging					
THDi	<3%					

Back Up LoadRating

Rated Output Power (W)	3000	3600	4000	4600	5000	6000
Rated Output Current (A)	13	16	17.4	20	21.7	21.7
Rated Output Voltage/Frequency (V)	230(L/N/PE);50/60					
Output Voltage Range (V)	180-270					
THDu(@Linear Load)	<3%					
Conversion Time (ms)	10					

Efficiency

Max.Efficiency	97.6%
European Efficiency	97.3%
Max. Efficiency On Battery Side and AC Side	94.7%
MPPT Efficiency	99.9%

General Parameters

Ingress Protection Rating	IP66
Operation Temperature Range (°C)	-25-60(DeratingAbove 40)
Max.Operation Altitude (m)	4000(DeratingAbove 2000)
Relative Humidity Range	0-95%RH(Non-condensing)
Protection Class	Class I
Standby Power (W)	<10
Installation Method	Wall Mounting
Parallel Connection	Support, Max.8 Units
Communication Interface	RS485,CAN(Battery); RS485(Electricity Meter); WiFi+Bluetooth,GPRS(WiFi)
Display	LCD; APP
Isolation Method	High-frequency Isolation
Cooling Method	Natural Cooling
Noise Level (dB)	<25
Dimension (Width*Height*Depth) (mm)	510*450*186
Packing Dimension(Width*Height*Depth) (mm)	610*570*300
Net Weight (kg)	22.6
Gross Weight (kg)	27.2
Warranty Period	5 Years/10 Years(Optional)

Certifications

Production Compliance	IEC 62109-1:2010;IEC 62109-2:2010
CE-EMC	EN/IEC 61000-6-1:2019; EN/IEC61000-6-3:2021; EN 62920:2017/A1:2021
Grid Certifications	CEI 0-21:2022; VDE-AR-N4105, VDE0124-100:2020; G991-9:2022,typeA,G100-1/2:2022; EN 50549-1:2019:C10/11:2021; IEC 61727:2024,IEC 62116:2014.IEC 61683:1999

SP2S-1P-L Series / 6~12kW

Residential Hybrid Energy Inverter - Single Phase Low Voltage

Support 8 Devices in Parallel

8 operating modes

Multi-unit, up to 8pcs

Single-phase or three-phase

< 10 ms
UPS, grid-to-off-grid switch in 10ms

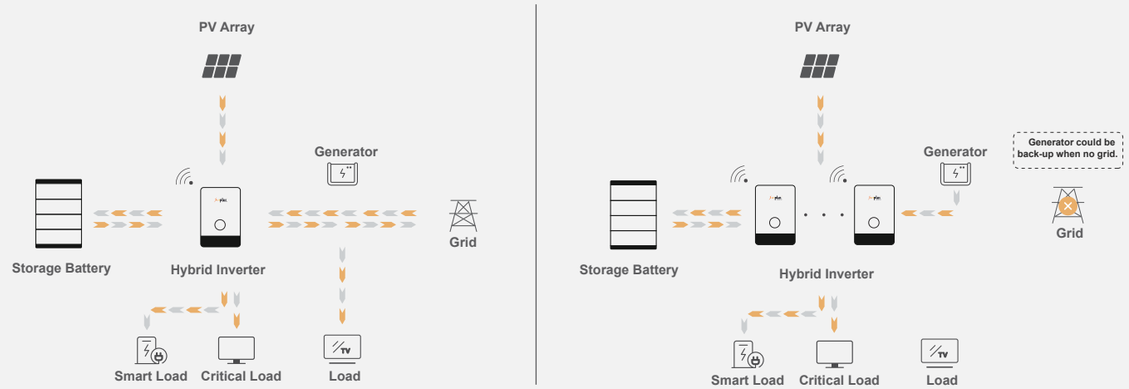
IP66
IP66 protection

Cloud integration for energy management

Remote upgrades and diagnostics

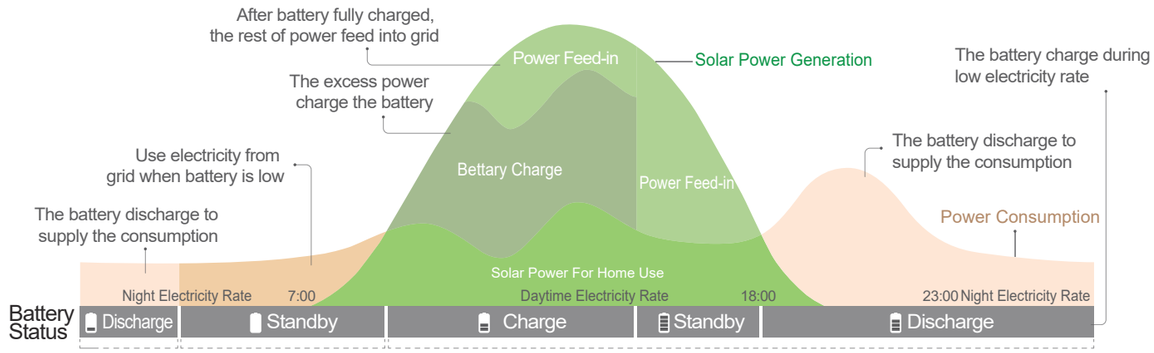
- Long Design Life
- Multiple Protection
- Modular Design
- Scalable & Flexible
- Remote management & maintenance

Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



PV Terminal

	SP2S-1P6K-L	SP2S-1P8K-L	SP2S-1P10K-L	SP2S-1P12K-L
Max.Input Power (W)	9000	12000	15000	18000
Max.PV Voltage (V)	500			
MPPT Voltage Range (V)	90-450			
MPPT Voltage Range (Full Load) (V)	250-450		300-450	
Rated Voltage (V)	360			
Max.Input Current (A)	25			
Isc PV (A)	30			
Number of MPPTS	2			
Number of Input Strings Per MPPT	1		2	

Battery Input/Output

Battery Type	Lithium-ion/Lead-acid			
Battery Rated Voltage (V)	51.2			
Battery Voltage Range (V)	42-60			
Max.Charging/Discharging Power (W)	6000	8000	10000	12000
Max.Charging/Discharging Current (A)	120	160	200	240
Battery Charging Wake-up	Support			
Battery Communication Wake-up	Support			
Charging Method	Constant Current, Constant Voltage, Floating			

AC Input Terminal

Max. Input Power (W)	6000	8000	10000	12000
Max.Continuous Input Current (A)	26.1	34.8	43.5	52.2
Rated Input Voltage/Frequency (V)	230(L/N/PE); 50/60			
Input Voltage Range (V)	170-280			

AC Output Terminal

Rated Output Active Power (W)	6000	8000	10000	12000
Rated Output Current (A)	26.1	34.8	43.5	52.2
Rated Output Voltage/Frequency (V/Hz)	230(L/N/PE); 50/60			
Output Voltage Range (V)	180-270			
Power Factor Range	0.8Leading-0.8Lagging			
THDi	<3%			

Back Up LoadRating

	SP2S-1P6K-L	SP2S-1P8K-L	SP2S-1P10K-L	SP2S-1P12K-L
Rated Output Power (W)	6000	8000	10000	12000
Rated Output Current (A)	26.1	34.8	43.5	52.2
Rated Output Voltage/Frequency (V)	230(L/N/PE);50/60			
Output Voltage Range (V)	180-270			
THDu(@Linear Load)	<3%			
Conversion Time (ms)	10			

Efficiency

Max.Efficiency	97.6%
European Efficiency	97.3%
Max. Efficiency On Battery Side and AC Side	94.7%
MPPT Efficiency	99.9%

General Parameters

Ingress Protection Rating	IP66
Operation Temperature Range (°C)	-25-60(DeratingAbove 40)
Max.Operation Altitude (m)	4000(DeratingAbove 2000)
Relative Humidity Range	0-95%RH(Non-condensing)
Protection Class	Class I
Standby Power (W)	<15
Installation Method	Wall Mounting
Parallel Connection	Support, Max.8 Units
Communication Interface	RS485,CAN(Battery); RS485(Electricity Meter); WiFi+Bluetooth,GPRS(WiFi)
Display	LCD; APP
Isolation Method	High-frequency Isolation
Cooling Method	Wind Cooling
Noise Level (dB)	<60
Dimension (Width*Height*Depth) (mm)	360*535*195
Packing Dimension(Width*Height*Depth) (mm)	450*640*300
Net Weight (kg)	27
Gross Weight (kg)	32
Warranty Period	5 Years/10 Years(Optional)

Certifications

Production Compliance	IEC 62109-1:2010; IEC 62109-2:2010
CE-EMC	EN/IEC 61000-6-1:2019; EN/IEC 61000-6-3:2021; EN 62920:2017/A1:2021
Grid Certifications	CEI 0-21:2022; VDE-AR-N4105, VDE 0124-100:2020; G99 1-9:2022, typeA, G100-1/2:2022: EN 50549-1:2019; C10/11:2021; IEC 61727:2024, IEC 62116:2014, IEC 61683:1999

SP1S-3P-H Series / 3-15kW

Residential Three Phase Hybrid Inverter

The Sunplus SP1S-3P-H series (3.0kW to 15kW three phase storage inverters) are designed to increase energy independence for household users, compatible with high voltage (135-800V) residential batteries from 5kwh to 35kwh.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides up to 130% peak output overloading.

Flexible Design & Use

- DC 16A current input, compatible with high power PV module;
- Supports application in retrofit scenario;
- UPS Switching time <10ms;
- Provides 130% power to unbalance loads in backup mode & Grid mode;

Energy Independence

- Fast charging / discharging to meet the demand of higher consumption;
- 110% continuous AC output overloading;
- 130% max. AC output overloading@85s;
- DRM socket ready;
- Built-in RCMU(RCD), Type-B 300mA

Convenient Installation & Operation

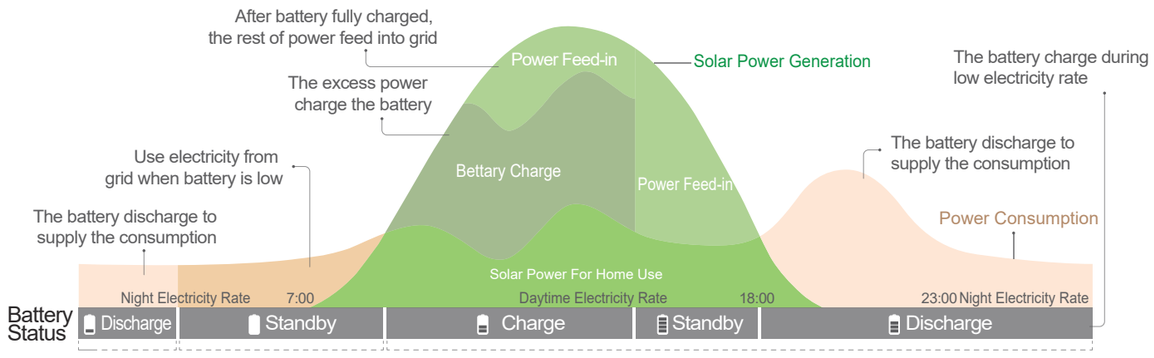
- Unique push-in connectors for time-saving installation;
- Touch free commissioning with smartphone;
- Compact size and elegant appearance;

Smart Management

- Remote firmware update and customizable settings;
- Free online monitoring to enhance energy management for end user, installer and retailer;
- Programmable supply priority for PV, Battery or Grid;

Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



PV (DC)	SP1S-3P3K-H	SP1S-3P4K-H	SP1S-3P5K-H	SP1S-3P6K-H
Recommended Max. PV Input Power	4500 W	6000 W	7500 W	9000 W
Max. Input Voltage*	1000 V			
Start-up Voltage	135 V			
Rated Input Voltage	600 V			
MPPT Input Voltage Range*	135-900 V			
MPPT Max. Input Current	16 A / 16 A			
MPPT Short-circuit Current	20 A / 20 A			
No. of MPPT	2			
No. of Strings per MPPT	1 / 1			
Grid (AC)				
Max. Input Apparent Power**	6000 VA	8000 VA	10000 VA	12000 VA
Rated Output Power	3000 W	4000 W	5000 W	6000 W
Max. Output Apparent Power	3300 VA	4400 VA	5500 VA	6600 VA
Rated AC Voltage	3L/N/PE, 220/380 V, 230/400 V			
Input/Output Voltage Range	180-300 V/312-519 V; 200-253 V/347-438 V			
Rated Output Voltage Frequency	50 / 60 Hz			
Input/Output Voltage Frequency Range	(45-55) ; (55-65) Hz			
Rated Output Current	4.35 A	5.8 A	7.2 A	8.7 A
Max. Input/Output Current	9.1 A / 5.9 A	12.12 A / 7.88 A	15.2 A / 9.8 A	18.2 A / 11.8 A
Power Factor (Rated)	>0.99			
Power Factor (Adjustable)	0.8 leading ... 0.8 lagging			
Total Harmonic Distortion	<3% (Rated Power)			
Grid Connection Mode	3L/N/PE			
AC Load Output (Off-grid)				
Rated Output Power	3000 W	4000 W	5000 W	6000 W
Max. Output Apparent Power	3300 VA	4400 VA	5500 VA	6600 VA
Rated AC Voltage	3L/N/PE, 220/380 V, 230/400 V			
Output Voltage Range	200-253V/347-438V			
Rated Output Frequency	50/60 Hz			
Rated Output Current	4.35 A	5.8 A	7.2 A	8.7 A
Max. Output Current	5.9 A	7.88 A	9.8 A	11.8 A
Total Harmonic Distortion	＜3% (R Load)			
On-grid/Off-grid Switching Time	＜10 ms			
Battery (DC)				
Rated Output Power	3000 W	4000 W	5000 W	6000 W
Max.Charge/Discharge Power	12500 W / 3300 W	12500 W / 4400 W	12500 W / 5500 W	12500 W / 6600 W
Rated Voltage	200 V	200 V	200 V	240 V
Battery Voltage Range	135-800 V			
Max. Charge/Discharge Current	25 A / 25 A	25 A / 25 A	25 A / 25 A	25 A / 25 A
Communication Port	CAN / RS485			
Efficiency				
Max. Efficiency	97.6%			
Max. MPPT Efficiency	99.9%			
Max. Euro Efficiency	97.0%			
Protection				
Integrated Protection	Anti-flow Protection, PV DC Reverse Protection, DC Circuit Breaker, Insulation Resistor Detection, Leakage Current Monitoring, AC Output Short Circuit Protection, Output Over Current Protection, Grid Monitoring, Anti-islanding Protection, Residual Current Monitoring, Battery Reverse Polarity Protection, Off-grid Overload Protection.			
Surge Protection	DC Type II, AC Type II			
General Data				
Dimensions (WxHxD)	516x442x222 mm			
Weight	24 kg			
Operating Temperature Range	-30~60 °C			
Noise	<30 dB			
Cooling	Smart fan			
Protection Rating	IP66			
Communication	Yes: RS485 / USB , Optional: 4G / WiFi			
Warranty	5 Years (10 Years Optional)			
Standards Compliance				
Grid Connection	EN 50549-1, CEI 0-21, AS 4777.2, G98/G99, EN 50438, IEC 62109-1/2, VDE 4105, VDE 0126			
Safety Regulation	EN/IEC 62109-1/2			
Others	EN/IEC 61000-6-1/2/3/4			

* Max. DC input voltage is 1000V without battery, 850V with battery. If the voltage is greater than the maximum, the inverter is in standby state.
** Max. grid input power refers to the max. power drawn from the grid, including the supply of off-grid load and battery charging.

PV (DC)	SP1S-3P8K-H	SP1S-3P10K-H	SP1S-3P12K-H	SP1S-3P15K-H
Recommended Max. PV Input Power	10000 W	15000 W	18000 W	22500 W
Max. Input Voltage*	1000 V			
Start-up Voltage	135 V			
Rated Input Voltage	600 V			
MPPT Input Voltage Range*	135-900 V			
MPPT Max. Input Current	16 A / 32 A			
MPPT Short-circuit Current	20 A / 40 A			
No. of MPPT	2			
No. of Strings per MPPT	1 / 1	1 / 2		
Grid (AC)				
Max. Input Apparent Power**	16000 VA	20000 VA	24000 VA	30000 VA
Rated Output Power	8000 W	10000 W	12000 W	15000 W
Max. Output Apparent Power	8800 VA	11000 VA	13200 VA	16500 VA
Rated AC Voltage	3L/N/PE, 220/380 V, 230/400 V			
Input/Output Voltage Range	180-300 V/312-519 V; 200-253 V/347-438 V			
Rated Output Voltage Frequency	50 / 60 Hz			
Input/Output Voltage Frequency Range	(45-55) ; (55-65) Hz			
Rated Output Current	11.6 A	14.5 A	17.4 A	22.5 A
Max. Input/Output Current	24.2 A / 15.8 A	30.3 A / 19.7 A	36.4 A / 23.6 A	45.45 A / 29.25 A
Power Factor (Rated)	>0.99			
Power Factor (Adjustable)	0.8 leading ... 0.8 lagging			
Total Harmonic Distortion	<3% (Rated Power)			
Grid Connection Mode	3L/N/PE			
AC Load Output (Off-grid)				
Rated Output Power	8000 W	10000 W	12000 W	15000 W
Max. Output Apparent Power	8800 VA	11000 VA	13200 VA	16500 VA
Rated Output Voltage	3L/N/PE, 220/380 V, 230/400 V			
Output Voltage Range	200-253V/347-438V			
Rated Output Frequency	50/60 Hz			
Rated Output Current	11.6 A	14.5 A	17.4 A	22.5 A
Max. Output Current	15.8 A	19.7 A	23.6 A	29.25 A
Total Harmonic Distortion	＜3% (R Load)			
On-grid/Off-grid Switching Time	＜10 ms			
Battery (DC)				
Rated Output Power	8000 W	10000 W	12000 W	15000 W
Max.Charge/Discharge Power	12500 W / 8800 W	12500 W / 11000 W	12500 W / 13200 W	15000 W / 16500 W
Rated Voltage	320 V	400 V	480 V	480 V
Battery Voltage Range	135-800 V			
Max. Charge/Discharge Current	25 A / 25 A	25 A / 25 A	25 A / 25 A	50 A / 50 A
Communication Port	CAN / RS485			
Efficiency				
Max. Efficiency	97.6%			
Max. MPPT Efficiency	99.9%			
Max. Euro Efficiency	97.0%			
Protection				
Integrated Protection	Anti-flow Protection, PV DC Reverse Protection, DC Circuit Breaker, Insulation Resistor Detection, Leakage Current Monitoring, AC Output Short Circuit Protection, Output Over Current Protection, Grid Monitoring, Anti-islanding Protection, Residual Current Monitoring, Battery Reverse Polarity Protection, Off-grid Overload Protection.			
Surge Protection	DC Type II, AC Type II			
General Data				
Dimensions (WxHxD)	516x442x222 mm			
Weight	24 kg			
Operating Temperature Range	-30~60 °C			
Noise	<30 dB			
Cooling	Smart fan			
Protection Rating	IP66			
Communication	Yes: RS485 / USB , Optional: 4G / WiFi			
Warranty	5 Years (10 Years Optional)			
Standards Compliance				
Grid Connection	EN 50549-1, CEI 0-21, AS 4777.2, G98/G99, EN 50438, IEC 62109-1/2, VDE 4105, VDE 0126			
Safety Regulation	EN/IEC 62109-1/2			
Others	EN/IEC 61000-6-1/2/3/4			

* Max. DC input voltage is 1000V without battery, 850V with battery. If the voltage is greater than the maximum, the inverter is in standby state.
** Max. grid input power refers to the max. power drawn from the grid, including the supply of off-grid load and battery charging.

SP1S-3P-H Series / 29.9-50kW

C&I Three Phase Hybrid Inverter

The Sunplus SP1S-3P-H series (29.9kW to 50kW three phase storage inverters) are designed to increase energy independence for C&I users, compatible with high voltage (135-800V) batteries including residential storage battery and battery cabinet from 30kwh to 215kwh.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides up to 130% peak output overloading.

Flexible Design & Use

- 4 MPPT inputs，DC 40A current input, compatiable with highpower PV module;
- Provides 130% power to unbalance loads in backup mode & Grid mode;
- Supports application in retrofit scenario;
- Switching time <10ms;
- 135~800 V wide battery voltage range;
- Generator input is supported;

Convenient Installation & Operation

- Unique push-in connectors for time-saving installation;
- Touch free commissioning with smartphone;
- Compact size and elegant appearance；
- DRM socket ready;
- Built-in RCMU(RCD), Type-B 300mA

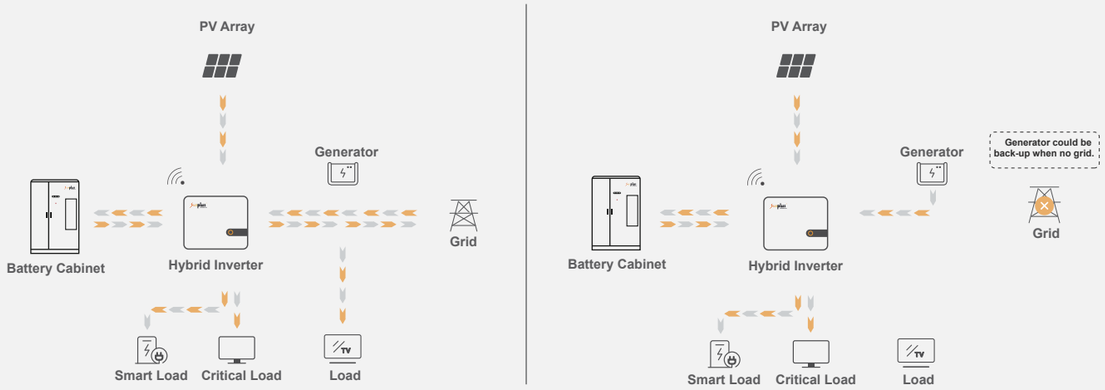
Energy Independence

- 3 battery inputs，Fast charging / discharging to meet the demand of higher consumption;
- 110% continuous AC output overloading;
- 130% max. AC output overloading @85s;

Smart Management

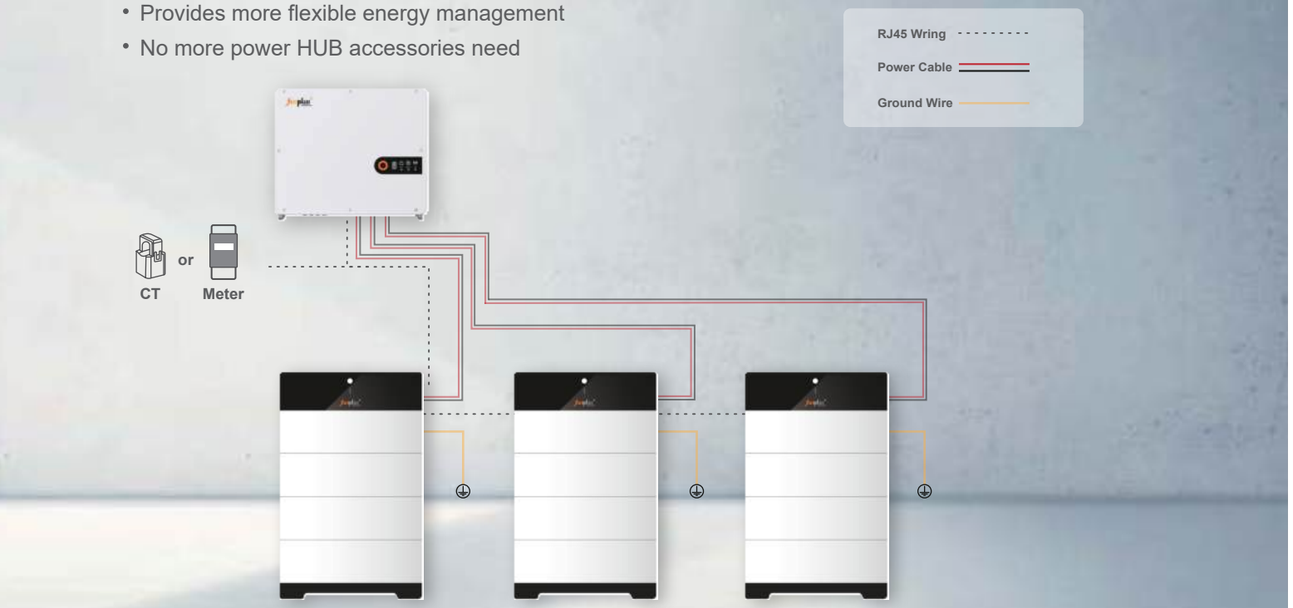
- Remote firmware update and customisable settings
- Free online monitoring to enhance energy management for end user, installer and retailer
- Programmable supply priority for PV, Battery or Grid
- Remote BMS firmware update;

Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



Multiple Battery Connection

- High capacity, highly scalable
- Ideal for high energy demands
- Provides more flexible energy management
- No more power HUB accessories need



PV (DC)	SP1S-3P29.9K-H	SP1S-3P30K-H	SP1S-3P35K-H	SP1S-3P40K-H	SP1S-3P50K-H
Recommended Max. PV Input Power	38870 Wp	39000 Wp	45500 Wp	52000 Wp	65000 Wp
Max. Input Voltage	1000 V				
Start-up Voltage	135 V				
Rated Input Voltage	600 V				
MPPT Input Voltage Range	135-900 V				
MPPT Max. Input Current	40A / 40 A / 40A			40A / 40 A / 40A / 40 A	
MPPT Short-circuit Current	50A / 50 A / 50A			50A / 50 A / 50A / 50 A	
No. of MPPT	3			4	
No. of Strings per MPPT	2/2/2			2/2/2/2	

Grid (AC)					
Max. Input Apparent Power	59800 VA	60000 VA	70000 VA	80000 VA	100000 VA
Rated Output Power	29900 W	30000 W	35000 W	40000 W	50000 W
Max. Output Apparent Power	29900 VA	33000 VA	38500 VA	40000 VA	55000 VA
Rated AC Voltage	3L/N/PE, 220/380 V, 230/400 V				
Input/Output Voltage Range	180-300 V/312-519 V; 200-253 V/347-438 V				
Rated Output Voltage Frequency	50 / 60 Hz				
Input/Output Voltage Frequency Range	(45-55) ; (55-65) Hz				
Rated Output Current	43.33 A	43.48 A	50.72 A	57.97 A	72.5 A
Max. Input/Output Current	90.6 A / 58.89 A	90.9 A / 59.09 A	106.1 A / 68.94 A	121.2 A / 78.79 A	151.5 A / 98.48 A
Power Factor (Rated)	>0.99				
Power Factor (Adjustable)	0.8 leading ... 0.8 lagging				
Total Harmonic Distortion	<3% (Rated Power)				
Grid Connection Mode	3L/N/PE				

AC Load Output (Off-grid)					
Rated Output Power	29900 W	30000 W	35000 W	40000 W	50000 W
Max. Output Apparent Power	29900 W	33000 W	38500 W	44000 W	55000 W
Rated Output Voltage	3L/N/PE, 220/380 V, 230/400 V				
Output Voltage Range	200-253 V/347-438 V				
Rated Output Frequency	50/60 Hz				
Rated Output Current	43.33 A	43.48 A	50.72 A	57.97 A	72.5 A
Max. Output Current	58.89 A	59.09 A	68.94 A	78.79 A	98.48 A
Total Harmonic Distortion	3% (R Load)				
On-grid/Off-grid Switching Time	＜10 ms				

Battery (DC)					
Rated Output Power	29900 W	30000 W	35000 W	40000 W	50000 W
Max.Charge/Discharge Power	29900 W/32890 W	30000 W/33000 W	35000 W/38500 W	40000 W/44000 W	50000 W/55000 W
Rated Voltage	210 V	210 V	245 V	280 V	350 V
Battery Voltage Range	135-800 V				
Max. Charge/Discharge Current	150 A / 150 A				
Communication Port	CAN / RS485				

Efficiency	
Max. Efficiency	97.6%
Max. MPPT Efficiency	99.9%
Max. Euro Efficiency	97.0%

Protection	
Integrated Protection	LVRT/HVRT, Anti-islanding protection, PV DC reverse protection, AC output short circuit protection, Leakage current protection, Insulation Resistance Monitoring, Battery reverse polarity protection, RSD, Arc fault protection, DC switch (solar)
Surge Protection	DC Type II, AC Type II

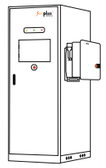
General Data	
Dimensions (WxHxD)	714 x 628 x 290 mm
Weight	80 kg
Operating Temperature Range	-30~60°C
Noise	<65 dB
Cooling	Intelligent air cooling
Installation Style	Wall-mounted
Ingress Protection Rating	IP66
Warranty	5 Years (10 Years Optional)

Standards Compliance	
Grid Connection	NB/T 32004, EN 50549-1, CEI 0-21, VDE-AR-N 4105, NTS Type A&B, RD 1699/661/413/647/244/2019, UNE 206006/206007/217001/217002
Safety Regulation	EN/IEC 62109-1/2
Others	EN/IEC 61000-6-1/2/3/4

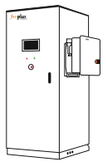
Commercial & Industrial Energy Storage Solutions

C&I All-in-One Storage Solution

Solution1： Inverter +Battery Cabinet

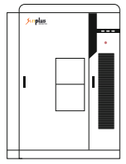


SP-eBank F2 Series



SP-eBank F Series

Solution2： PCS +Battery Cabinet



EnerArk-2.0-M Series

EnerArk-2.0 Series

SP-eBank-F2 Series
30~50kW/30~60kWh

C&I Hybrid Inverter + Battery Cabinet

Unique modular design & flexible function configuration

With self-use, peak shifting, forced charging & discharging and other working modes

Easy to install and deploy with large space utilization

Strong scalability, simple & convenient expansion on both AC and DC sides

- Flexible Design & Use
- Convenient Installation & Operation
- Energy Independence
- Smart Management

Battery parameters	SP-eBank-30F2	SP-eBank-50F2	SP-eBank-60F2
Number of battery packs	6	10	12
Rated voltage	307V	512V	614V
Voltage range	288~346	480~584	480~700.8
Rated energy	30kWh	51.2kWh	61.4kWh
Max. continuous discharging current		100A	
Discharge depth		90%	
Cycle life		6000 times	

PV parameters	
Max.PV input power	39/65kW
Rated input voltage	600VDC
Max.input voltage	1000VDC
MPPT voltage range	135-900VDC
MPPT Max. Input Current	40A x 3 / 40A x 4

AC side parameters	
AC rated input/output power	30/50kW
AC Max. input/output power	33/55kVA
Overload capacity	110% continuous load; 130% short-term overload (85s duration)
Maximum efficiency	97.6%
Rated AC voltage	3L/N/PE, 220/380 V, 230/400 V
Frequency	50/60Hz
THDi	<3% (Rated Power)
Power factor (Adjustable)	0.8 leading ... 0.8 lagging

System parameters	
Dimension（W*D*H）	680*900*2090mm
Weight	479~854kg
Communication	CAN/RS485/WiFi/ETH
Design Life	5/10 years+
Expansion	Support in parallel
Enclosure protection rating	IP54
Cooling	Air cooling
Environment temperature	-20~55℃
Humidity	10%~95%RH
Altitude	<2000m

1.The pictures are for reference only，Please refer to the order for actual product images

SP-eBank-F Series
30~50kW/80~107kWh

C&I Hybrid Inverter + Battery Cabinet

Unique modular design & flexible function configuration

With self-use, peak shifting, forced charging & discharging and other working modes

Easy to install and deploy with large space utilization

Strong scalability, simple & convenient expansion on both AC and DC sides

- Flexible Design & Use
- Convenient Installation & Operation
- Energy Independence
- Smart Management

Battery parameters	SP-eBank-3080F	SP-eBank-50120F
Number of battery packs	8	6
Rated voltage	409.6V	384V
Voltage range	320~467.2V	336~438V
Rated energy	84.3kWh	107.5kWh
Max. continuous charging & discharging current	100A	140A
Communication	RS485/CAN	CAN
Discharge Depth	95%	90%
Cycle life	6000 times	8000 times

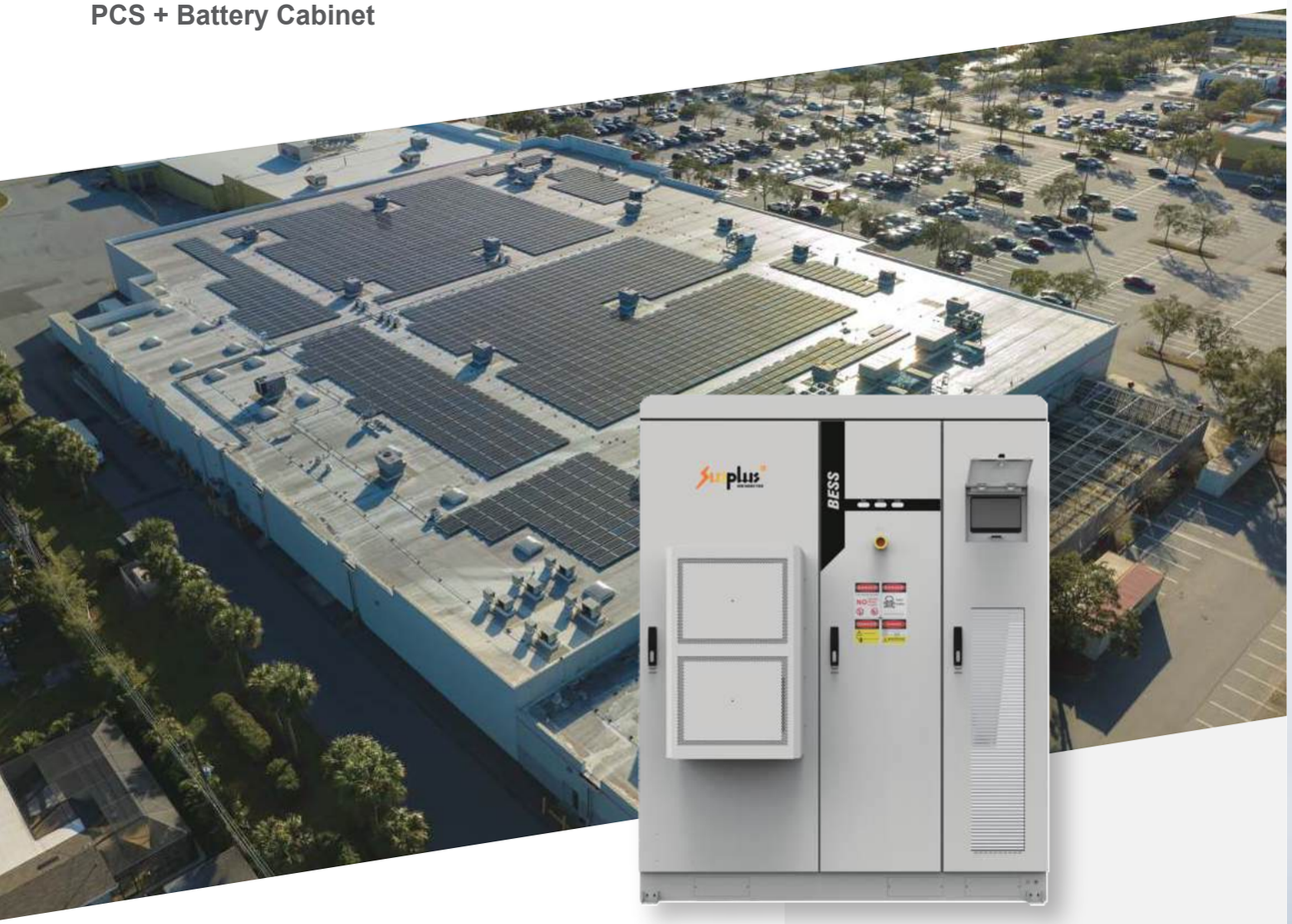
PV parameters		
Max.PV input power	39kW	65kW
Rated input voltage	600VDC	
Max.input voltage	1000VDC	
MPPT voltage range	135-900VDC	
MPPT Max. Input Current	40A x 3	40A x 4

AC side parameters		
AC rated input/output power	30kW	50kW
AC Max. input/output power	33kVA	55kVA
Overload capacity	110% continuous load; 130% short-term overload (85s duration)	
Maximum efficiency	97.6%	
Rated AC voltage	3L/N/PE, 220/380 V, 230/400 V	
Frequency	50/60Hz	
THDi	<3% (Rated Power)	
Power factor (Adjustable)	0.8 leading ... 0.8 lagging	

System parameters		
Dimension（W*D*H）	790*920*2148mm	750*1100*2000mm
Weight	931~1224kg	
Communication	CAN/RS485/WiFi/ETH	
Design Life	5/10 years+	
Expansion	Support in parallel up to 90kW/252.9kWh	
Enclosure protection rating	IP54	
Cooling	Air cooling	
Environment temperature	-30~50℃	
Humidity	10%~95%RH	
Altitude	<2000m	

EnerArk2.0 Series
30~100kW/125~215kWh

PCS + Battery Cabinet



CE (IEC 61000, IEC62619, IEC62477),
UL, G99, CEI 0-21, CEI 0-16, UN3480, UN38.3.

5 layers Safety Design
Much safer & More reliable

Response <100ms
Applied for grid auxiliar service

Multi Energy Accessing
Solar, diesel generator, wind turbine, etc

More Availability
Modular design + O&M cloud platform

- Plug-and-Play for ready to use
- All-in-One integrated modular design
- Parallel operation of multiple cabinets
- Global installation and application
- Supporting DC coupling with solar
- CE certificates for the whole system

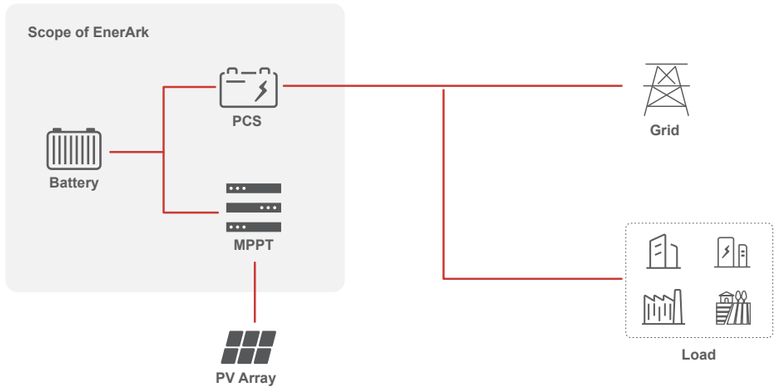
Integrated Plug-and-Play Battery Energy Storage System

EnerArk-2.0 is a compact and Plug-and-Play battery energy storage system with easy to be transported, installed and maintained. It is an All-in-One system comprises of PCS, batteries, BMS, EMS, MPPT, automatic fire control system and temperature control system.

High-performance EV grade LiFePo4 batteries ensures high safety and reliability with four layers of safety protection with intelligent BMS design. The synergy of the system components and unique design enable to achieve effective charging and discharging for various applications with high energy density and maximized battery life time to provide the lower LCOS. It supports AC Coupling and DC coupling applications with its ease in integration and suitable for all ranges of C&I energy storage projects.

System Structure

EnerArk-2.0 adopts an integrated design, consolidating all key components into a compact and seamless system. At the core of the system lies the Power Conversion System (PCS), responsible for efficiently managing energy conversion between the battery and external sources. The system also includes high-performance LiFePo4 batteries, meticulously designed Battery Management System (BMS), Energy Management System (EMS), Maximum Power Point Tracking (MPPT) technology, as well as automatic fire control and temperature control systems.



Factory, Office Park, Hotel, Farm
TOM arbitrage, peak power shaving

EV Charging Station
Power extension, solar benefit maximization

Microgrid
Multi-energy integration with solar, generator, wind turbine, etc.

Distribution Network Operator (DNO)
Auxiliary grid service, VPP

Battery Parameters	EnerArk2.0-NBN-P30	EnerArk2.0-NBN-P50	EnerArk2.0-NBN-P100
Cell type & capacity		LFP-280Ah	
Battery module type		IP20S	
System capacity range (kWh)	125 ~ 215	125 ~ 215	215

AC Side On-grid Parameters			
Grid type		3P4W	
Charging / discharging power (kW)	30	50	100
Rated grid voltage		AC 400V±15%	
Frequency range (Hz)		50(±5)	
Rated AC output current (A)	43	72	144
Power factor		0.8（Leading）~ 0.8（Lagging）	
Harmonics		≤3% (at rated power)	

AC Side Off-grid Parameters			
Load type		3P4W	
Rated output power (kW)	30	50	100
Rated output voltage		AC 400V±1%	
Rated output frequency (Hz)		50	
Frequency accuracy (Hz)	43	0.2	144
Rated current (A)		72	

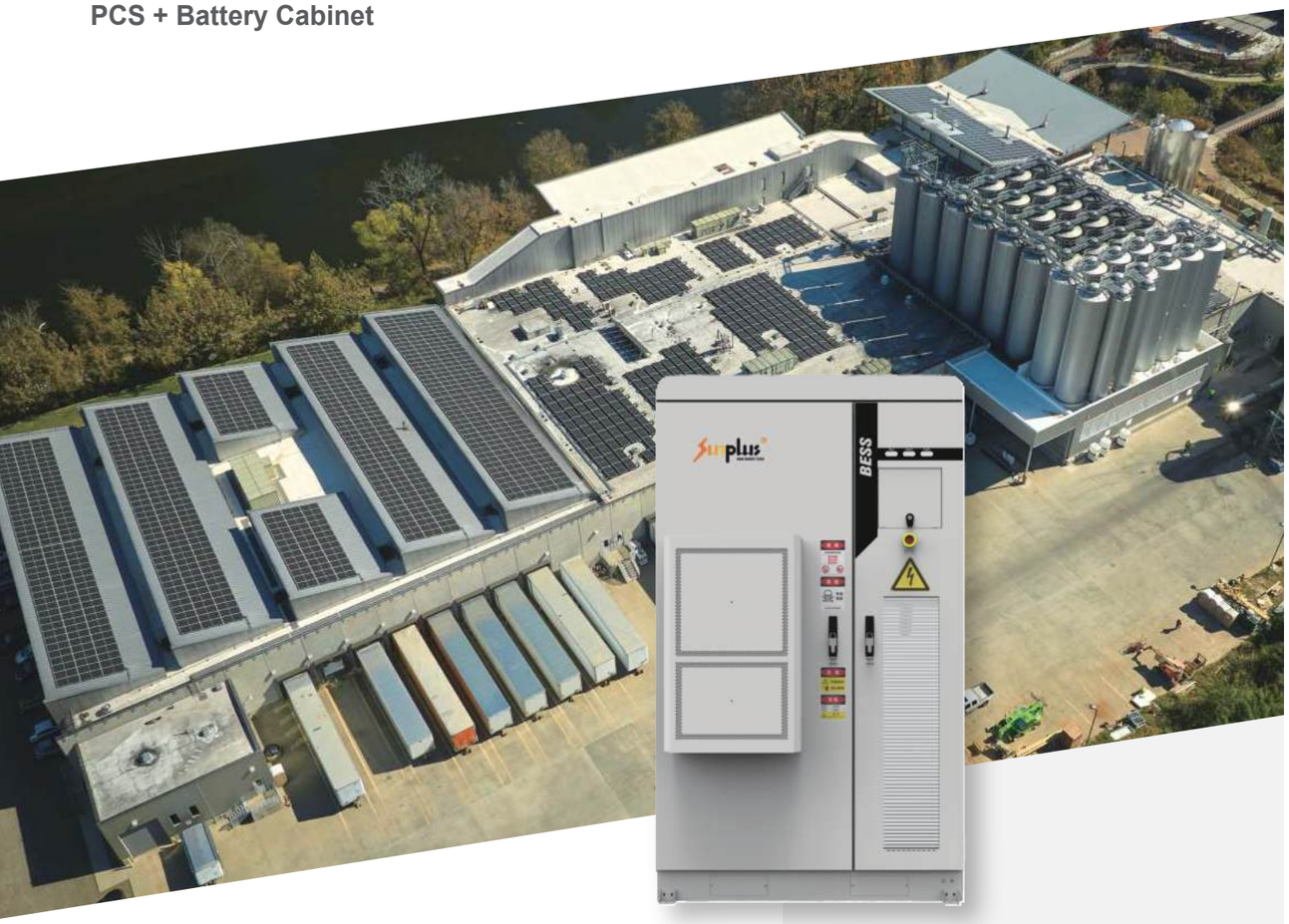
General Parameters	
Dimensions (mm) (W*H*D)	1686*2093*1354
Max. weight (kg)	2500
Ingress protection	IP55（Battery Cabinet）IP54 (Electrical Cabinet)
Cooling method	HVAC (Battery compartment) & Forced air cooling (Electrical compartment)
Fire fighting system	Combustible gas detection + Novec1230 + water fire suppression
Anti-corrosion grade	C3
Relative humidity	0-95%（non-condensing）
Operating temperature (℃)*	-20～50
Operating altitude (m)**	＜2000
Noise emission (dB)	≤75
Communication interface & protocol	Rs485, Ethernet; Modbus RTU, Modbus TCP/IP
Display	HMI
Warranty	5 years, (can be extended to 10 years)

PV Side Parameters (Optional)			
Max. PV input power (kW)	30/36	30/36/90/100	30/36/90/100
MPPT voltage range (V)	200~850	200~850	200~850
Number of MPPT	1/1	1/1/2/2	1/1/2/2
Number of PV inputs	1/1	1/1/2/2	1/1/2/2
Max. input current (A)	100/200	100/200/300/400	100/200/300/400
Certifications	System: CE(IEC61000, IEC62477), IEC62619,UN3480, CEI021(on going), CEI016(on going), VDE2510(on going) Converter: G99, VDE4105, EN50549, AS/NZS 4777, CE(IEC61000, IEC62477) , IEC62109, NC RfG, NRS097, VDE4110(on going) Cell: IEC62619, UL1973, UL1642, UL9540A		

* The system will be derated when the ambient temperature exceeds 45℃.
** The system will be derated when the altitude is between 2000 and 3000m.

EnerArk2.0-M Series
30~50kW/107kWh

PCS + Battery Cabinet



CE (IEC 61000, IEC62619, IEC62477), UL, G99, CEI 0-21, CEI 0-16, UN38.3.

5 Tiers Safety Design
Much safer & More reliable

Response <200ms
Applied for grid auxiliar service

Multi Energy Accessing
Solar, diesel generator, wind turbine, etc

More Availability
Modular design + O&M cloud platform

- Plug-and-Play for ready to use
- Compact with modular design
- Parallel operation up to 60NOs
- Unbalanced loads operation
- Support with solar
- Intelligent remote monitoring
- IP55 grade,suitable for outdoor

Battery Parameters

	EnerArk-M-NBN-P30	EnerArk-M-NBN-P50
Battery cell type	$LiFePO_4$ - 280Ah	
Battery model	IP20S	
Battery capacity range (kWh)	107	

On-Grid AC Side Parameters

Grid connection type	3P4W	
Charging / discharging power (kW)	30	50
Grid voltage range	AC 400V ±15%	
Frequency range (Hz)	50±5	
Rated AC output current (A)	43	72
Power factor	0.8（Leading）~ 0.8（Lagging）	
Harmonics	≤3% (at rated power)	

Off-Grid AC Side Parameters

Wiring method	3P4W+PE	
Output voltage range	400(±1%)	
Rated output power	30	50
Rated output frequency (Hz)	50	
Frequency accuracy (Hz)	0.2	

General Parameters

Dimensions (mm) (W*H*D)	1220*2093*1340
Maximum weight (kg)	About 1500
Protection grade	IP55（Battery Cabinet）IP54 (Electrical Cabinet)
Cooling method type	Battery Cabinet (air conditioner) & Electrical Cabinet (forced air cooling)
Fire fighting system	Combustible gas detection + Novec1230 + Water fire protection
Altitude (m)**	＜2000
Operating temperature (℃)*	-20～50
Corrosion protection grade	C3
Noise level (dB)	≤75
Communication interface	RS485, Ethernet
Communication protocol	Modbus RTU, Modbus TCP/IP
Display	HMI
Product standard warranty	5 years, 6000 cycles（0.5C, 95%DOD, EOL:70%）

PV Side Parameters (Optional)

Maximum PV input power (kW)		30/60	30/60/90/100
MPPT voltage range (V)		200~850	
Number of PV inputs		1/1	1/1/2/2
Maximum input current (A)		100/200	100/200/300/400
Certifications	System	CE(IEC61000,IEC62477), IEC62619, UN3480, CEI021, CE1016, VDE2510	
	Converter	CE(IEC61000, IEC62477), G99,VDE4105, EN50549, NC RfGAS/NZS 4777, IEC62109, NRS097, VDE4110(on going)	
	Cell	IEC62619, UL1973, UL1642, UL9540A	
	PACK	UN38.3	

* The system will be derated when the ambient temperature exceeds 45℃.

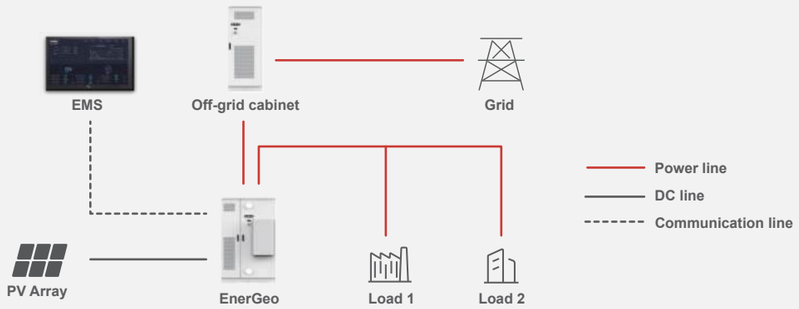
** The system will be derated when the altitude is between 2000 and 3000m.

Application 1：On-grid+PV（optional）

- EMS controls the charging and discharging of the system through issuing instructions, allowing for flexible scheduling;
- BESS uses photovoltaic or utility to charge at night and discharge at peak hours for peak shaving of power, there by reducing electricity bills;
- During the daytime, PV is given priority to meet the load power supply, excess electricity is stored in the energy storage system, and at night when there is no PV, power is supplied to the load through energy storage, which is self-generated and self-consumed, increasing PV consumption.

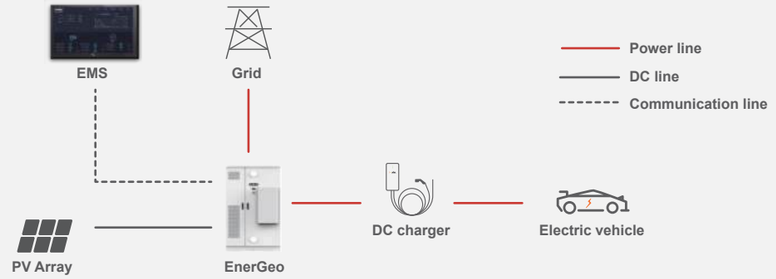
Application 2：On-grid+Off-grid+PV（optional）

- Supports on-grid and normal photovoltaic operation. In case of emergency power outage, the energy storage system can supply power to the back-end load normally without the grid;
- Supports off grid cabinet and off grid switching, with switching time ≤ 20ms;
- Supports normal system powering of back-end loads when there is no grid access.



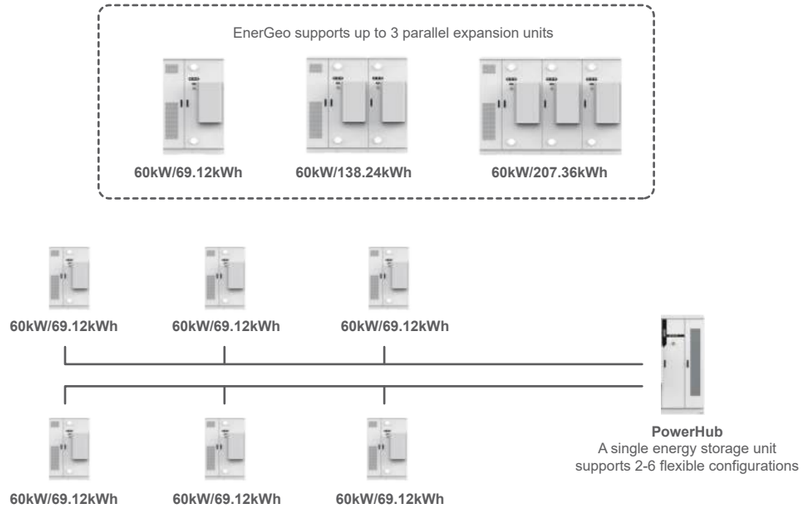
Application 3：On-grid+PV(optional)+Charging station

- Supports on-grid for normal operation;
- Supports photovoltaic+DC charging pile access;
- BESS can intelligently coordinate the output between multiple devices such as photovoltaic, energy storage, utility and DC charging pile according to the power of the connected DC charging pile.



Application 4：Flexible expansion

- Supports up to 3 battery cabinets in parallel;
- A single unit supports a maximum of 6 units in parallel, and a single field station supports a maximum of 60 units in parallel operation.



ViStarter

Edge Energy Management System

IEC62619, UL1973, UL1642, UL9540A, UN3480, UN38.3.

Supports Local Web & Cloud Access
VPN and/or SCADA control
Remote operation & maintenance

Operation Data Management
Real-time operation data management
Lifecycle running data traceability

Benefits from Time-of-Use Tariff
AI adapts to grid & load changes, saving energy through consumption analysis

Microgrid Control
Battery/PCS coordination management.
Multi-energy support (solar, wind, diesel generator)
Custom energy needs for diverse control strategies

- Real-time & complete historical data storage
- Perfect fault protection function
- Remote visibility, controllability & adjustment
- Cloud-based operation & maintenance
- Millisecond-level rapid response
- Real-time cloud AI computing
- Fast fault location & analysis

Applications and Customer Values

Business Buildings / Industrial Park

ViStarter integrates solar and other sources for reliable power, optimizing economy through peak-load shifting and surplus solar storage, enhancing energy usage.

New Energy Charging Station

ViStarter sends operating data to the server in real time for remote monitoring and data analysis to achieve flexible capacity expansion.

Remote Areas or Houses

24-hour AI computing and cloud maintenance to provide users with automatic uninterruptible power.

Energy Investment Operator

Intelligent energy management + digital operation and maintenance technology to achieve intelligent and safe operationof energy storage assets.

New Energy Station

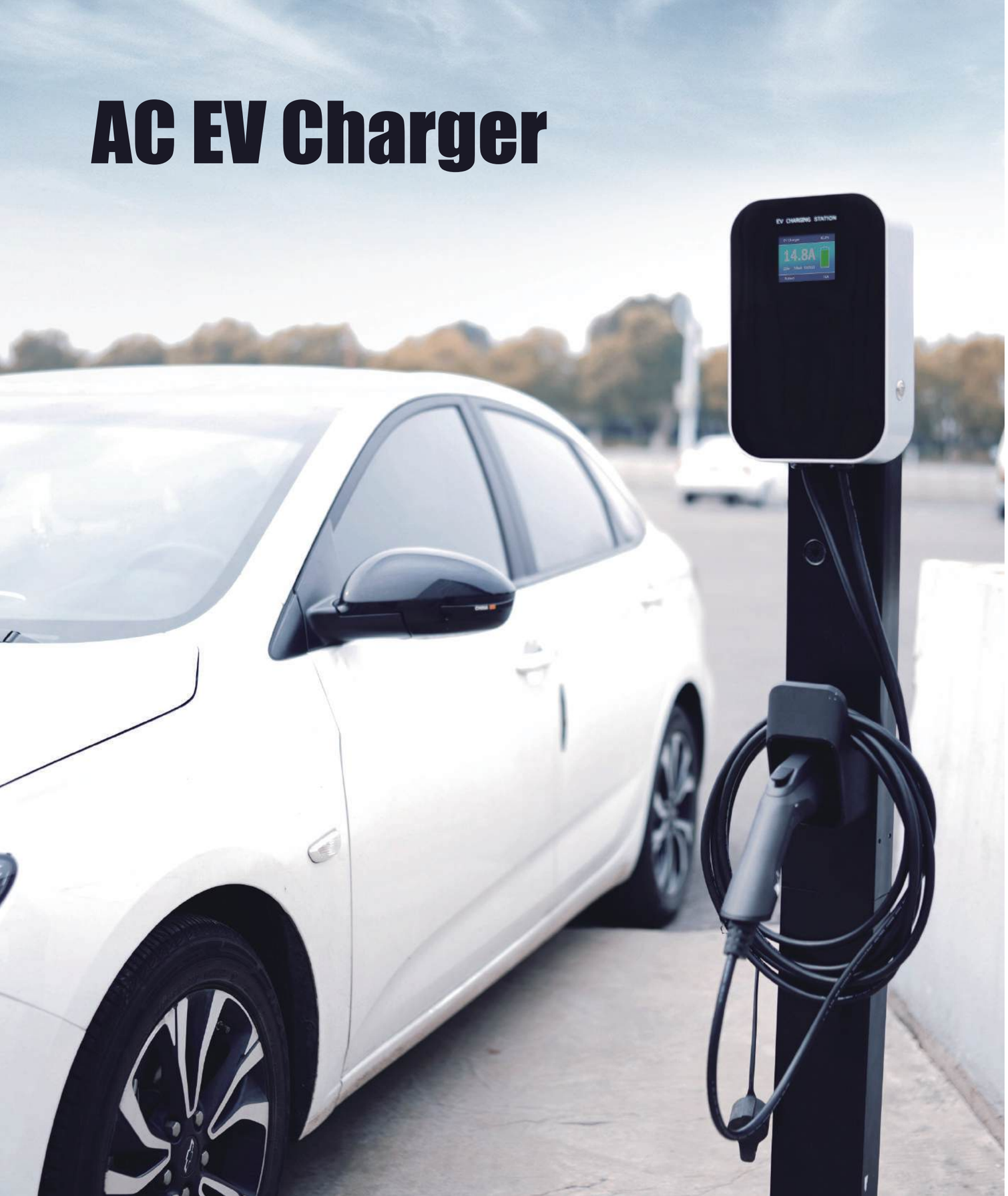
ViStarter intelligently smooth new energy power generation output and optimizes the new energy utilization.

General Parameters	EMSIV4S
Power supply method	DC12V,9A
Display size	10.1 inches
DPI（px)	1280*800
Ingress protection	IP20
Operating ambient temperature (℃)	-20~50
Operating humidity	10%~95%
Dimension (mm) (L*W*H)	320*60*500
Weight (kg)	About 9
Warranty	5 years

Function Parameters	
Mode	On-grid, peak-load shifting, PV output smoothing, backup power
Data display	Yes
Human machine interface (HMI)	Yes
Local parameter configuration	Yes
Data return	Yes
Data storage	Yes

External Data Interface Parameters	
Ethernet	2 x Intel® I210AT GbE LAN ports
USB	4 x USB 2.0 (500mA per each)
SIM	1 x SIM card holder
COM1	2 x RS485
COM2	2 x RS485
COM3	2 x RS485
Antenna	1x4G

AC EV Charger



AC EV Charger

+ Single Phase AC EV Charger 7.2kW

BS20 Series

BN30 Series

+ Three Phase AC EV Charger 11/22kW

BS20 Series

BN30 Series

BS20 Series AC 7.2/11/22kW

AC EV Charging Station

Intelligent Chip

Colourful LCD Display

APP Control

RFID Control

Easy Installation

OCPP Control

Dynamic Load Balancing

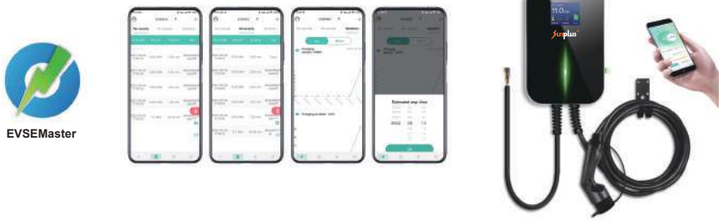
- Under voltage protection
- Over load protection
- Short circuit protection
- Earth leakage protection
- Over-temp protection
- Lightning protection

Basic Version BS20-BA/BC

The basic wall-mounted charger is suitable for home use. It is compatible with any electric vehicle. The LCD display can show the detailed charging status.

APP Version BS20-BA/BC-APP

It is an intelligent wall-mounted charging station, which can freely set the charging time and duration, remote control by APP, and can check your charging history documents anytime.



Charging Time Setting
Freely set the charging time & duration

Remote Control by APP
Start or stop charging via Bluetooth

Charging History Record
Query charging history anytime & anywhere

Firmware Update
Make app version upgrades

OCPP Version BS20-BA/BC-OCPP

OCPP is an open-source communication standard for EV charging stations and network software companies. OCPP station is compatible with RFID and APP version functions to achieve effective charging Settings and system management.

High compatibility
You could choose different OCPP platform operators

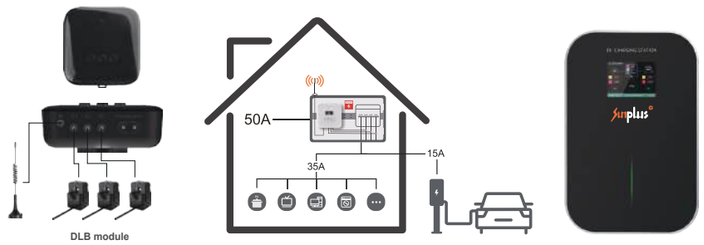
Payment system
Offer accurate charging data to back end for payment

Software management
Manage all EV charging hardware in one place

Customization
Support multiple commands that allow you to customize different functions

DLB Version BS20-BA/BC-DLB

Dynamic load balancing safely distributes the energy between an EV and other home appliances. This ensures that when charging a vehicle, you never exceed your home's maximum power consumption.



Avoid Costly Grid Expansion

Monitor & Regulate Real-time Energy Consumption

Enhance Charging Efficiency

BN30 Series AC 7.2/11/22kW

AC EV Charging Station

Intelligent Chip

LED Indicator

RFID Control

APP Control

Easy Installation

- Under voltage protection
- Over load protection
- Short circuit protection
- Earth leakage protection
- Over-temp protection
- Lightning protection

Basic Version BN30

The basic wall-mounted charger is suitable for home use. It is user-friendly, easy to install, stable in performance and has a complete protection mechanism. It is compatible with any electric vehicle.

LED Light

Different color indicate different information

TPU Cable

More Environmentally Friendly and Resistant to Cold & High Temperatures

Button Switch

Socket

Socket Outlet for EV Charging with Alternating Current(AC)

Type1 Plug | Type2 Plug | GB/T Plug

High Compatibility

Fitting 99.5% EVs , 100% correctly & effectively

Safety Protection

Provide full & complete protection while charging

Waterproof Rating up to IP66

Can maintain normal use even inextreme weather

RFID Version BN30-RFID

The RFID wall-mounted charging station is suitable for Both indoor and outdoor charging. By using our compact RFID card, you can start or stop charging, prevent unauthorized people to use your charging station.

Gas station | Parking lot | Home use

RFID Card Accepted

APP Version BN30-APP

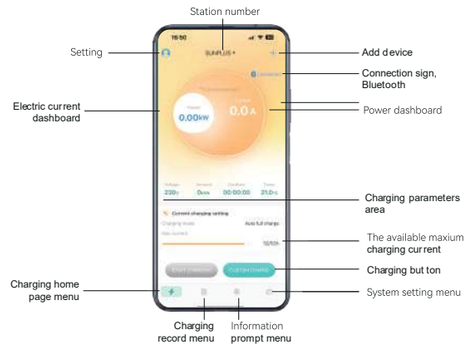
It is an intelligent wall-mounted charging station, which can freely set the charging time and duration, remote control by APP, and can check your charging history documents anytime.

Charging Time Setting
Freely set the charging time & duration

Remote Control by APP
Start or stop charging via Bluetooth

Charging History Record
Query charging history anytime & anywhere

Firmware Update
Make app version upgrades



OPTIONAL MODELS

BS20-BA-7.2KW	32A Single Phase	BS20-BC-7.2KW	32A Single Phase
BS20-BA-11KW	16A Three Phase	BS20-BC-11KW	16A Three Phase
BS20-BA-22KW	32AThree Phase	BS20-BC-22KW	32A Three Phase

Function	BS20-BA/BC	BS20-BA/BC-APP	BS20-BA/BC-OCPP	BS20-BA/BC-DLB
Communication	Ethernet/WIFI/4G/Bluetooth(Optional)		Ethernet/4G	
LCD	3.5-inch color display			
RCD	Type A /Type A+6mA DC			
LED Indicator light	✓			
Current adjusting	✓			
Charging protocol-Hub	✗	✗	OCPP 1.6-J	
RFID	✗	✗	✓	✓
Intelligent power adjustment	✗	✗	✓	✓
Certificate				
Certificate	CE.FCC, CSA. ROHS		CE	
Input & Output				
Input voltage/Output voltage(V)	AC 230/400			
Input frequency(Hz)	47~63			
Max. output power(kW)	7.2(1 Phase)/11/22(3 Phase)			
Max. output current(A)	16/32			
Charging interface type	SAE J1772, IEC 62196-2, GB/T			
Working Environment				
IP rating	IP66			
Environment temperature(°C)	-25~+55			
Relative humidity	0-95% non-condensing			
Maximum altitude(m)	<2000			
Cooling	Natural air cooling			
Standby power consumpiton(W)	<8			
Mechnical				
Dimension (L/W/D) (mm)	295/195/65		312/193/75	295/195/65
Weight(kg)	6-8			
Protection				
Under voltage protection	✓			
Over load protection	✓			
Short circuit protection	✓			
Earth leakage protection	✓			
Over-temp protection	✓			
Lightning protection	✓			

OPTIONAL MODELS

BN30-11KW	16A Three Phase
BN30-7.2KW	32A Single Phase
BN30-22KW	32A Three Phase

Function	BN30	BN30-RFID	BN30-APP
Communication	Ethernet/WIFI/4G/Bluetooth(Optional)		
LCD	✗		
RCD	Type A /Type A+6mA DC		
LED Indicator light	✓		
Current adjusting	✓		
RFID	✗	✓	✗
Certificate			
Certificate	CE		
Input & Output			
Input voltage/Output voltage(V)	AC 230/400		
Input frequency(Hz)	47~63		
Max. output power(kW)	7.2(1 Phase)/11/22(3 Phase)		
Max. output current(A)	16/32		
Charging interface type	SAE J1772, IEC 62196-2, GB/T		
Working Environment			
IP rating	IP66		
Environment temperature(°C)	-25~+55		
Relative humidity	0-95% non-condensing		
Maximum altitude(m)	<2000		
Cooling	Natural air cooling		
Standby power consumpiton(W)	<8		
Mechnical			
Dimension (L/W/D) (mm)	118/95/167		
Weight(kg)	5		
Protection			
Under voltage protection	✓		
Over load protection	✓		
Short circuit protection	✓		
Earth leakage protection	✓		
Over-temp protection	✓		
Lightning protection	✓		