220V System Solution

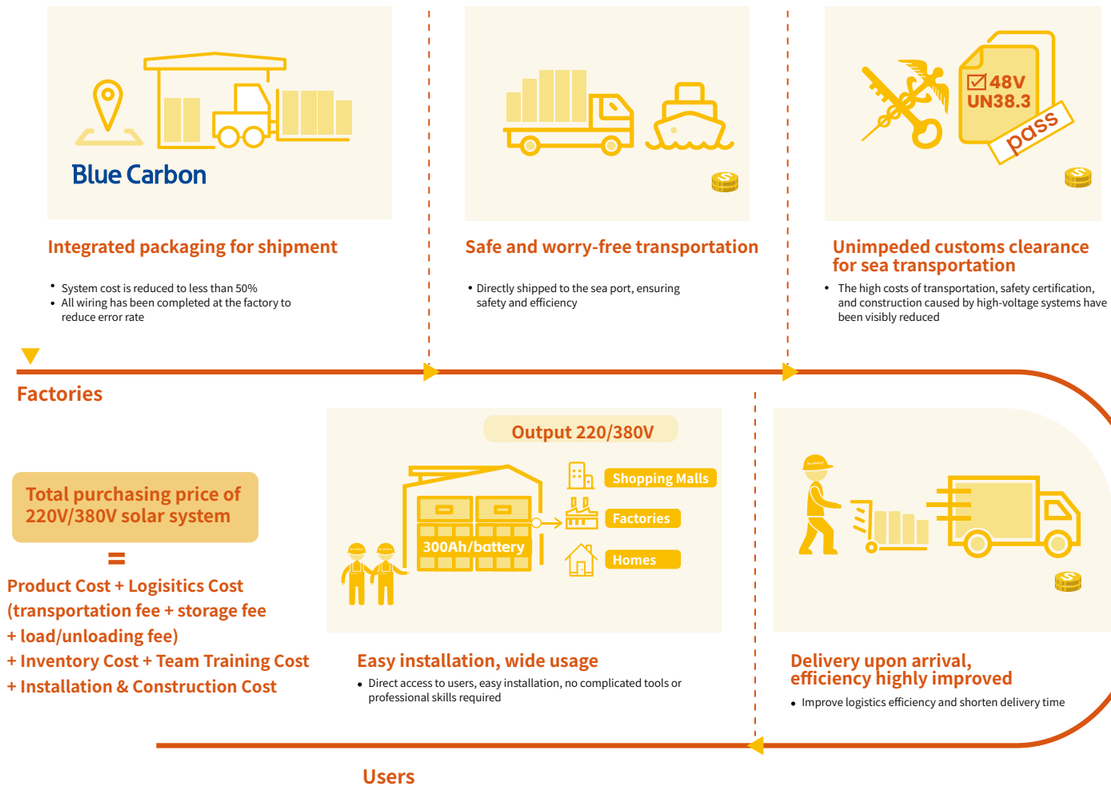
- Simple installation, modular production
- Battery can be dynamically expanded according to demand
- Flexible installation

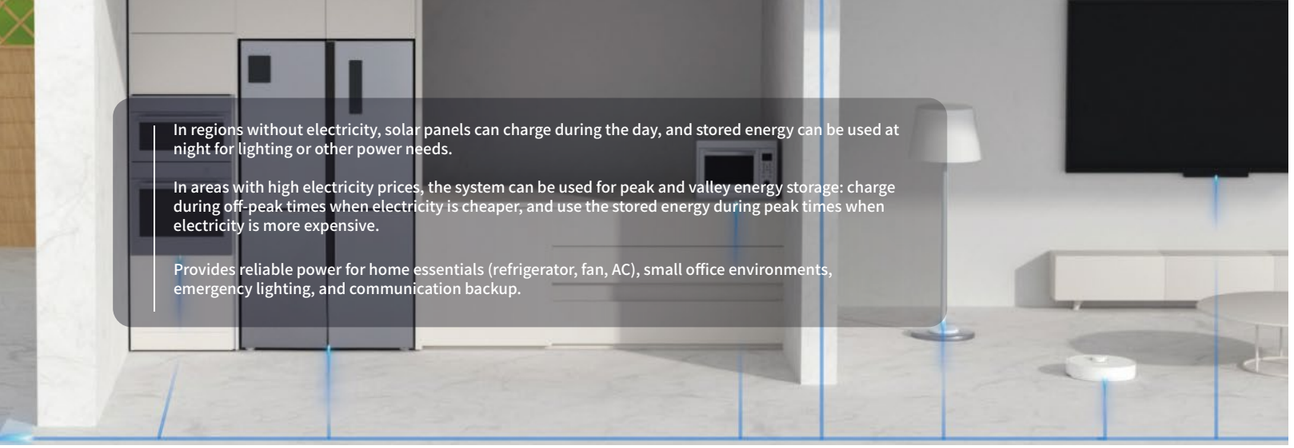
220V System Solution

Charging, Storage and Inversion Integration Standard Solutions

Charging, Storage and Inversion Integration

System Advantages





In regions without electricity, solar panels can charge during the day, and stored energy can be used at night for lighting or other power needs.

In areas with high electricity prices, the system can be used for peak and valley energy storage: charge during off-peak times when electricity is cheaper, and use the stored energy during peak times when electricity is more expensive.

Provides reliable power for home essentials (refrigerator, fan, AC), small office environments, emergency lighting, and communication backup.

220V/6kW 15kWh

Charging, Storage and Inversion Integration Standard Solution

Introduction to Standard Solutions

Technical Parameters

Battery Parameter

Nominal capacity	300Ah
Nominal voltage	51.2V
Electricity(kWh)	15kWh

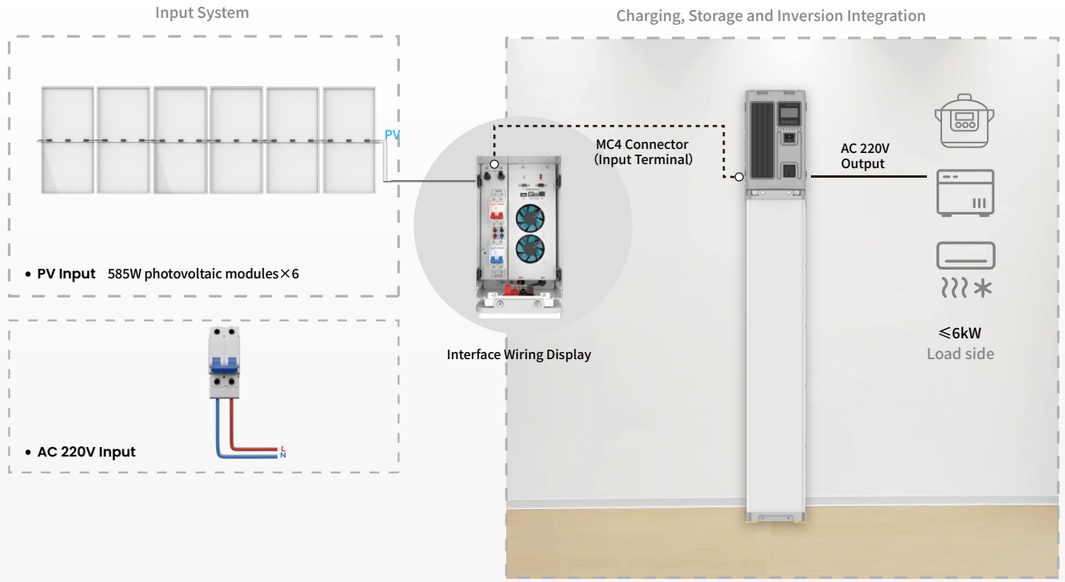
Inverter AC Output

Max power (kw)	6kW
Voltage (VAC)	208/220/230/240
Power factor (PF)	1
Frequency	50/60Hz±0.1%
Switch time (ms)	10(normal mode)/ 10(UPS mode)
Wave form	Pure sine wave
Overload capacity (battery mode)	60s@102%~110% load;10s@110%~130% load; 3s@130%~150% load; 0.2s@>150% load
Max. Efficiency (battery mode)	93%@48VDC
Max.Parallel Quantity	9 groups(54kW)

Photovoltaic/AC Input

Rated input voltage (VAC)	208/220/230/240;L+N+PE
Phase voltage range (VAC)	90~280±3(normal mode);170~280±3(UPS mode)
Frequency (Hz)	50/60(auto adaptive)
Solar charger type	MPPT
Max PV input current / input power	18A/6000W
MPPT range@operating voltage (VDC)	120~450
Max PV open circuit voltage (VDC)	500
Max PV charge current (A)	80
Max AC charge current (A)	80
Max. charge current (PV + AC)(A)	80

System Connection Display



In regions without electricity, solar panels can charge during the day, and stored energy can be used at night for lighting or other power needs.

In areas with high electricity prices, the system can be used for peak and valley energy storage: charge during off-peak times when electricity is cheaper, and use the stored energy during peak times when electricity is more expensive.

Suitable for projects such as ensuring power supply for daily household appliances, operation of small commercial shops, slow-charging stations, power supply for essential medial equipment, outdoor living and emergency lighting.

220V/12kW 30kWh

Charging, Storage and Inversion Integration Standard Solution

Introduction to Standard Solutions

Technical Parameters

Battery Parameter

Nominal capacity	600Ah
Nominal voltage	51.2V
Electricity(kWh)	30kWh

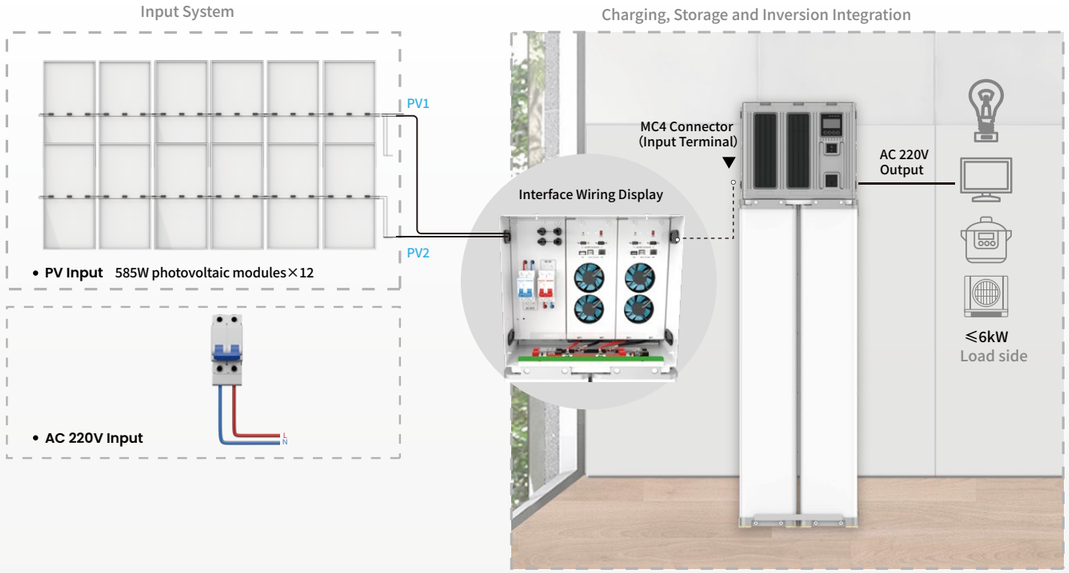
Inverter AC Output

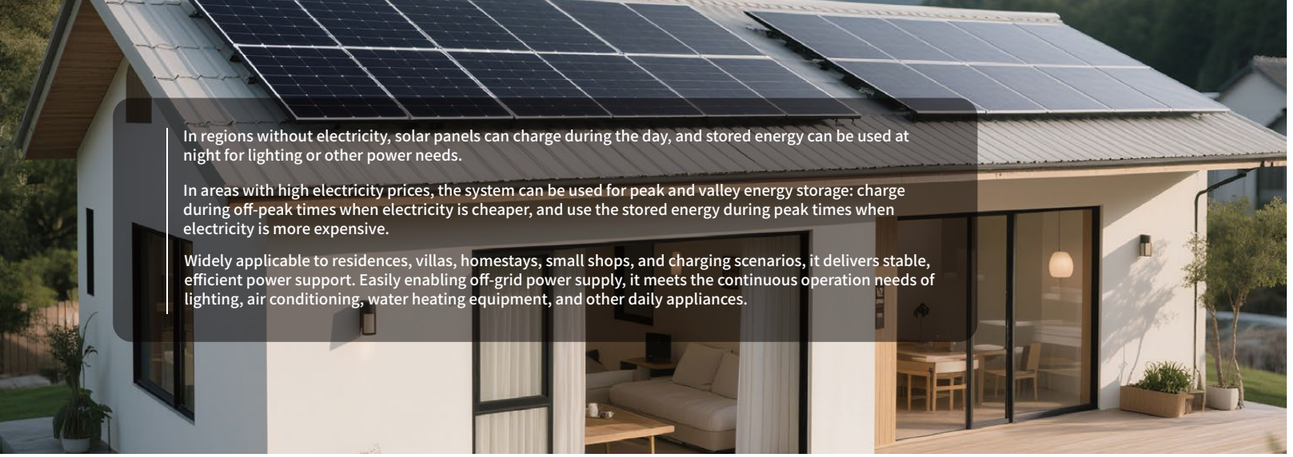
Max power (kw)	12kW
Voltage (VAC)	208/220/230/240
Power factor (PF)	1
Frequency	50/60Hz±0.1%
Switch time (ms)	10(normal mode)/ 10(UPS mode)
Wave form	Pure sine wave
Overload capacity (battery mode)	60s@102%~110% load;10s@110%~130% load; 3s@130%~150% load; 0.2s@>150% load
Max. Efficiency (battery mode)	93%@48VDC
Max.Parallel Quantity	4 groups(48kW)

Photovoltaic/AC Input

Rated input voltage (VAC)	208/220/230/240;L+N+PE
Phase voltage range (VAC)	90~280±3(normal mode);170~280±3(UPS mode)
Frequency (Hz)	50/60(auto adaptive)
Solar charger type	MPPT
Max PV input current / input power	18A/6000W×2
MPPT range@operating voltage per unit (VDC)	120~450
Max PV open circuit voltage per unit (VDC)	500
Max PV charge current (A)	160
Max AC charge current (A)	160
Max. charge current (PV + AC)(A)	160

System Connection Display





In regions without electricity, solar panels can charge during the day, and stored energy can be used at night for lighting or other power needs.

In areas with high electricity prices, the system can be used for peak and valley energy storage: charge during off-peak times when electricity is cheaper, and use the stored energy during peak times when electricity is more expensive.

Widely applicable to residences, villas, homestays, small shops, and charging scenarios, it delivers stable, efficient power support. Easily enabling off-grid power supply, it meets the continuous operation needs of lighting, air conditioning, water heating equipment, and other daily appliances.

220V/18kW 45kWh

Charging, Storage and Inversion Integration Standard Solution

Introduction to Standard Solutions

Technical Parameters

Battery Parameter

Nominal capacity	900Ah
Nominal voltage	51.2V
Electricity(kWh)	45kWh

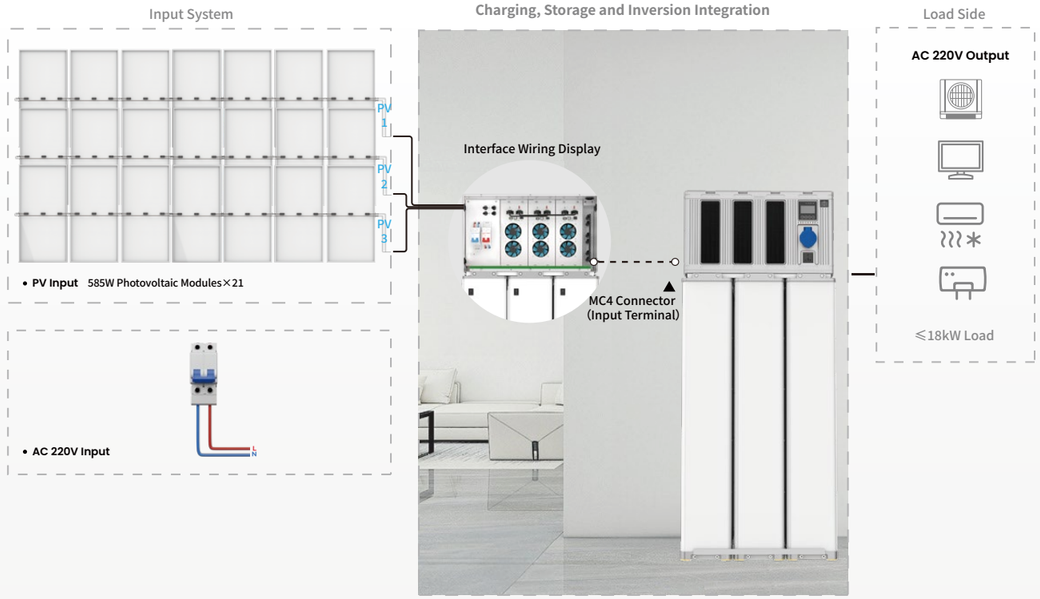
Inverter AC Output

Max power (kw)	18kW
Voltage (VAC)	208/220/230/240
Power factor (PF)	1
Frequency	50/60Hz±0.1%
Switch time (ms)	10(normal mode)/ 10(UPS mode)
Wave form	Pure sine wave
Overload capacity (battery mode)	60s@102%~110% load;10s@110%~130% load; 3s@130%~150% load; 0.2s@>150% load
Max. Efficiency (battery mode)	93%@48VDC
Max.Parallel Quantity	3 groups(54kW)

Photovoltaic/AC Input

Rated input voltage (VAC)	208/220/230/240;L+N+PE
Phase voltage range (VAC)	90~280±3(normal mode);170~280±3(UPS mode)
Frequency (Hz)	50/60(auto adaptive)
Solar charger type	MPPT
Max PV input current / input power	18A/6000W×3
MPPT range@operating voltage per unit (VDC)	120~450
Max PV open circuit voltage per unit (VDC)	500
Max PV charge current (A)	240
Max AC charge current (A)	240
Max. charge current (PV + AC)(A)	240

System Connection Display



Suitable for household energy storage and management, power supply for large appliances; it can set up a home photovoltaic-storage system equipped with photovoltaic components; it can be used as a power supply source or backup power source in remote areas or areas with unstable power supply, and supports charging with renewable energy. It can also meet the needs of daily operations of small businesses and peak-valley arbitrage.

220V System Solution

Power Generation-Storage-Inverter BOX Standard Solutions

INVERTER BOX

Power Generation-Storage-Inverter BOX

Inverter BOX is mainly composed of solar panel, energy storage battery and inverter. As an off-grid system which operates independently, and integrates power generation, storage and inversion, it can be charged by solar panel, store the solar energy in the battery, and convert it into AC through the inverter to provide power to the load, which solves the problem of electricity in the areas without electricity, areas with inconvenient access to electricity, and areas experiencing power outages.This has a wide range of application scenarios, and it is not affected by the State Grid. It is a home-based power supply solution system.

10/12/15kWh

Technical Parameters

Solar Panel

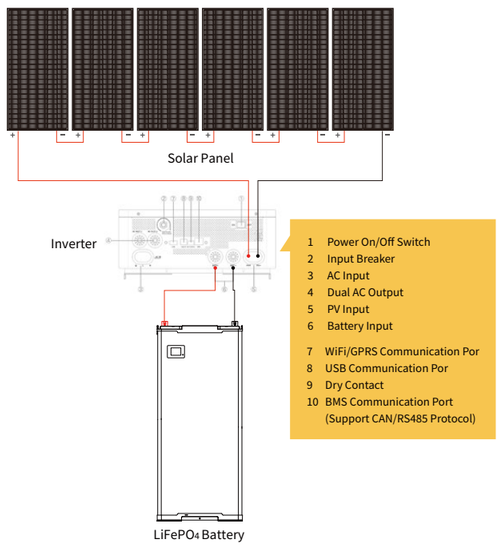
Open-Circuit Voltage (Voc) [V]	49.68V
Optimum Operating Voltage (Vmp) [V]	44.14V
Short-Circuit Current (Isc) [A]	13.50A
Optimum Operating Current (Imp) [A]	12.46A
Wafer Efficiency[%]	23.3%

$LiFePO_4$ Battery

Nominal Voltage	51.2V
Nominal Capacity	200Ah/250Ah/300Ah
Electricity(kWh)	10.24kWh/12.8kWh/15.36kWh

Inverter

Rated Input Voltage (VAC)	208/220/230/240;L+N+PE
Voltage Range (VAC)	90~280±3(normal mode);170~280±3 (UPS mode)
Frequency (Hz)	50/60 (Auto Adaptive)
Rated Capacity (kw)	6kW
Frequency	50/60Hz±0.1%
Wave Form	Pure Sine Wave
Battery Rated Voltage (VDC)	48



INVERTER BOX

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5/6/7.2kWh

Technical Parameters

Solar Panel

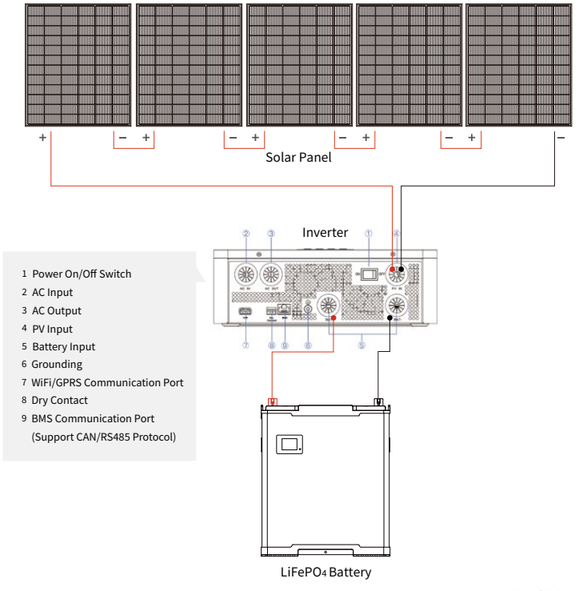
Open-Circuit Voltage (Voc) [V]	49.18V
Optimum Operating Voltage (Vmp) [V]	43.49V
Short-Circuit Current (Isc) [A]	7.61A
Optimum Operating Current (Imp) [A]	6.90A
Component Efficiency[%]	22.1%

$LiFePO_4$ Battery

Nominal Voltage	25.6V
Nominal Capacity	200Ah/250Ah/300Ah
Electricity(kWh)	5.12kWh/6.4kWh/7.68kWh

Inverter

Rated Input Voltage (VAC)	208/220/230/240;L+N+PE
Voltage Range (VAC)	90~280±3(normal mode);170~280±3 (UPS mode)
Frequency (Hz)	50/60 (Auto Adaptive)
Max Power (kw)	4kW
Frequency	50/60Hz±0.1%
Wave Form	Pure Sine Wave
Rated Voltage (VDC)	24



U-Powers

Your Own Portable Energy Source.

25.6V /8kWh

Model: BCT-UPS-4KW

Technical Parameters

Battery Specifications

Basic Specifications	
Nominal Capacity	314Ah
Nominal Voltage	25.6V
Electricity(kWh)	8kWh
Input	
Full Charge Voltage	29.2V
Continuously Use Input Current	<100A
Overcharge Delay Protection	1000ms
Output	
Continuously Use Output Current	<100A
Discharge Cut-off Voltage	17.6V
Over-Discharge Delay Protection	5000ms
Short Circuit Protection Delay	256us
Short Circuit Protection Recovery	Disconnect load
Instant Start Current Time	500ms
Battery	
Cell Type	$LiFePO_4$(LFP)
Storage Temperature Range	-20°C-35°C
Operating Temperature Range	Charging: 0–45°C, Discharging: -10–50°C
Self-Discharge (25°C)	<3%/Month
Depth of Discharge	>80%
C-rate Discharge	<0.5C
Cycle Life	> 6000 times(< 0.5C)

Solar Panel

585W	4PCS

Built-in Inverter Specifications

AC Input	
Rated Input Voltage (VAC)	220VAC
Voltage Range (VAC)	90-280VAC
Frequency (Hz)	40-70Hz
AC Output	
Max.Power (kW)	3kW
Peak Power (kVA)	4kV A
Voltage (VAC)	208/220/230/240VAC
Power Factor (PF)	1
Frequency	50/60Hz
Switch Time (ms)	10ms
Wave Form	Pure sine wave
Max. Efficiency (Battery Mode)	>90%@3kW
Charger (PV / AC)	
Solar Charger Type	MPPT
Max.PV Input Current / input Power	18A/4kW
MPPT Range@Operating Voltage (VDC)	40-450VDC
Max.PV Open Circuit Voltage (VDC)	500VDC
Max.PV Charge Current (A)	100A
Max.AC Charge Current (A)	100A
Max.Charge Current (PV + AC)(A)	100A
Interface	
Charger (PV / AC)	WIFI/GPRS Communication Port/ BMS Communication Port(RS485/CAN)