

Product  
display

Integrated system  
configuration

# Integrated system configuration series - optical storage car shed



## Flexible

Charging piles and energy storage can be increased or decreased according to demand  
Adopt modular design, flexible collocation

## Convenience

The site requirements are not high, as long as no shelter open space can be installed

Convenient for owners of new energy vehicle charging needs

## Reliable

BIPV design, including PV system, energy storage system, charging system, distribution system, inverter system, EMS system, intelligent power management, safe and reliable.

## Low carbon

The photovoltaic electricity generated during the day can be charged by new energy vehicles, and the excess electricity can be directly stored in the battery system for charging at night. When the battery is fully charged, the surplus photovoltaic power can be directly connected to the grid and sent out to obtain electricity fee income

TYPE	HN-GCCP06	HN-GCCP08	HN-GCCP10	HN-GCCP15	HN-GCCP20
Parking space					
Quantity	6	8	10	15	20
Width	2.5m				
Deep	6m				
PV					
PV power	20.47kW	25.94kW	32.76kW	49.14kW	65.52kW
Wattage	455W				
Quantity	45PCS	57PCS	72PCS	108PCS	144PCS
Grid-connection parameter (AC)					
Power Output	20kW	25kW	30kW	50kW	60kW
Grid voltage/range/frequency	400V/360VAC-440VAC/50/60Hz				
Storage Energy data					
Capacity	38.4kWh	51.2kWh	61.44kWh	107.52kWh	
Battery type	Lithium iron phosphate battery				
Communication interface	CAN/RS485				
Off-grid/emergency output					
Rate power	20kW	25kW	30kW	50kW	60kW
Rated output voltage/frequency	400VAC/50/60Hz				
Auto switch time	<20ms				
Quick charging pile					
Specification of charging pile	120kW double gun				
Number of charging piles	3	4	5	7	10
Charging pile layout	A charging pile is arranged in 2 parking Spaces				
Carport					
Floor area	90m <sup>2</sup>	120m <sup>2</sup>	150m <sup>2</sup>	225m <sup>2</sup>	300m <sup>2</sup>
Carport height	Lowest point 2.2m/highest point 3.1m				
Carport Angle	8°				
Spacing	5-6m				

# Integrated system configuration series - optical storage car shed



Type		XCOFF24/1kW/3.6kWh	XCOFF48/2kW/7.2kWh
Energy storage battery	Rated power	1kW	2kW
	Rated Voltage	DC24V	DC48V
	Rated capacity	150AH	150AH
	Stored power	3.6kWh	7.2kWh
	Battery Type	Colloidal battery/Lithium iron phosphate battery	
Rated Maximum PV Input Power	Life Time	3-5 years (Colloidal battery) /15-25 years (lithium iron phosphate battery)	
	Controller type	PWM	MPPT
	Max Charge Current	30A	30A
	Input Voltage Range	DC30-45V	DC60-145V
	Max open circuit voltage	45V	145V
	Max power of pv panel	1000W (PV36V)	1680W
	Type of pv panel	Poly/Monocrystalline silicon	
	Protection function	Battery overcharge, overdischarge protection, etc	
	Daily power generation (Peak 4h/ day)	2.8kWh	5.3kWh
	Floor space	10m <sup>2</sup> (MAX)	15m <sup>2</sup> (MAX)
Output	Power	1kW	2kW
	Voltage range/frequency	110VAC/220VAC±5%; 50/60HZ±1%(QRMI)	
	Protection function	Battery overvoltage and low voltage protection, overload protection, etc	
Mains input	Function	85-138VAC/170-275VAC, Switchable mains and batteries are preferred	
	Display	LCD+LED	
	Communication interface (Optional)	RS485/GPRS/4G	
Working environment	Operating temperature/operating environment/altitude	-20-40℃/Indoor /<3000m(In excess of derating use)	
	Usage scenarios	Applicable load: lighting, mobile phone charging, TV, computer, small hand drill, washing machine, rice cooker, can not use induction cooker, air conditioning and other high-power household appliances. Project: cameras, monitoring, security, sewage treatment, forest fire prevention, geophysical prospecting, ships, agricultural industrial pumps, camping farms, disaster relief, emergency power supply, etc.	

## Flexible

System can be based on user demand for electricity consumption to increase or decrease the modularizing design, flexible collocation

## Convenience

Meet the power usage requirements of the no-power area to provide stable power

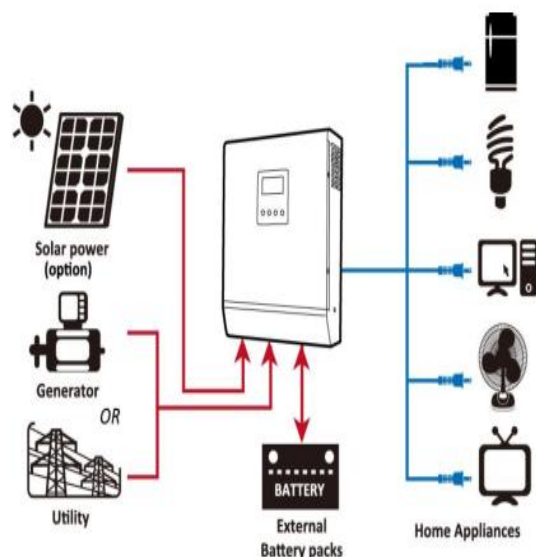
## Reliable

Integrated design, including photovoltaic system, energy storage system, distribution system, inverter system, EMS system, intelligent power management, safe and reliable.

## LC(low carbon)

During the day, the photovoltaic power is preferentially supplied to the load, and the excess power can be directly stored in the battery system. When the PV power generation power is not enough to support the load, the battery will discharge.

# Integrated system configuration Series - photovoltaic off-grid 5kW



## Flexible

The system can increase or decrease according to the user's demand for electricity consumption. Adopt modular design, flexible collocation.

## Convenience

Meet the power usage requirements of the no-power area to provide stable power.

## Reliable

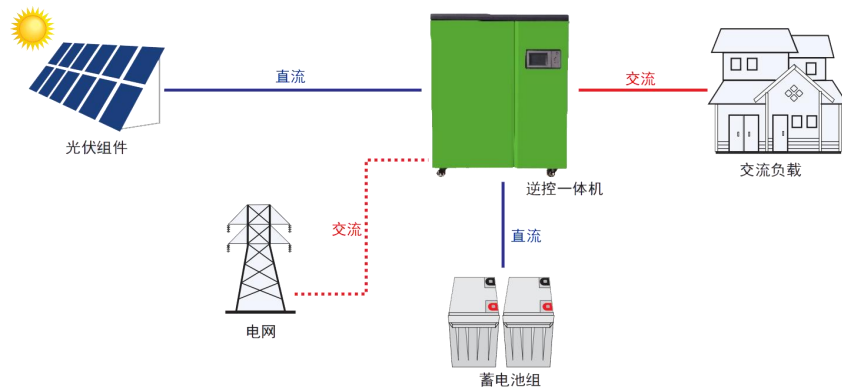
Integrated design, including photovoltaic system, energy storage system, distribution system, inverter system, EMS system, intelligent power management, safe and reliable.

## LC(low carbon)

During the day, the photovoltaic power is preferentially supplied to the load, and the excess power can be directly stored in the battery system. When the photovoltaic power generation power is not enough to support the load, the battery will discharge.

Type		HN-OFF48/3kW/9.6kWh	HN-OFF48/5kW/19.2kWh
Rated power		3kW	5kW
Energy storage battery	Rated voltage	DC48V	
	Rated capacity	200AH	400AH
	Stored power	9.6kWh	19.2kWh
	Battery type	Colloidal battery/lithium iron phosphate battery	
	Life Time	3-5年 (Colloidal cell) / 15-25年 (Lithium iron phosphate battery)	
PV input	Controller type	MPPT	
	Max charging current	60A	120A
	Input voltage range	DC60-145V	
	Max open circuit voltage	145V	
	Max power of photovoltaic panel	3360W	6720W
	Type of pv panel	Poly/monocrystalline silicon	
	Protection function	Battery overcharge, overdischarge protection, temperature compensation, polarity reverse connection protection, short circuit protection, overtemperature protection, etc	
	Daily power generation (Peak 4h/ day)	10.5kWh	21kWh
	Floor space	30m <sup>2</sup> (MAX)	60m <sup>2</sup> (MAX)
	Output	Power	3kW
Voltage range/frequency		110VAC/220VAC±5%; 50/60HZ±1%(Inverting mode)	
Protection function		Battery overvoltage and low voltage protection, overload protection, short circuit protection, overtemperature protection, etc	
Mains input	Function	85-138VAC/170-275VAC, Switchable mains and batteries are preferred	
Display		LCD+LED	
Communication interface (Optional)		RS485/GPRS/4G	
Working environment	Operating temperature/operating environment/altitude	-20-40℃/indoor/<3000m (If it exceeds the limit, it must be derated)	
Usage scenarios		Applicable load: lighting, mobile phone charging, TV, refrigerator, computer, small hand drill, washing machine, rice cooker, electric kettle, induction cooker, microwave oven, air conditioning and other household appliances. Engineering projects: camera, monitoring, security, sewage treatment, forest fire prevention, geophysical exploration camping, ships, agricultural and industrial pumps, farms, rescue and disaster relief, emergency power supply, etc.	

# Integrated system configuration Series - photovoltaic off-grid 10kW



## Flexible

The system can increase or decrease according to the user's demand for electricity consumption  
Adopt modular design, flexible collocation

## Convenience

Meet the power usage requirements of the no-power area to provide stable power

## Reliable

Integrated design, including photovoltaic system, energy storage system, distribution system, inverter system, EMS system, intelligent power management, safe and reliable.

## LC(low carbon)

During the day, the photovoltaic power is preferentially supplied to the load, and the excess power can be directly stored in the battery system. When the photovoltaic power generation power is not enough to support the load, the battery will discharge.

Type		XCOFF96/8kW/28.8kWh	XCOFF96/10kW/38.4kWh
Rated power		8kW	10kW
Energy storage battery	Rated voltage	DC96V	
	Rated capacity	300AH	400AH
	Stored power	28.8kWh	38.4kWh
	Battery type	Colloidal battery/lithium iron phosphate battery	
	Life Time	3-5 years (Colloidal cell) /15-25 years (Lithium iron phosphate battery)	
Photovoltaic input	Controller type	MPPT	
	Max charging current	80A	100A
	Input voltage range	DC145-230V	
	Max open circuit voltage	230V	
	Max power of photovoltaic panel	7840W	10080W
	Type of pv panel	Poly/monocrystalline silicon	
	Protection function	Battery overcharge, overdischarge protection, temperature compensation, polarity reverse connection protection, short circuit protection, overtemperature protection, etc	
	Daily power generation (Peak 4h/day)	25kWh	32kWh
Floor space	80m <sup>2</sup> (MAX)	100m <sup>2</sup> (MAX)	
Output	Power	8kW	10kW
	Voltage range/frequency	110VAC/220VAC±5%; 50/60HZ±1%(Inverting mode)	
	Protection function	Battery overvoltage and low voltage protection, overload protection, short circuit protection, overtemperature protection, etc	
Mains input	Function	85-138VAC/170-275VAC, Switchable mains and batteries are preferred	
Display		LCD+LED	
Communication interface (Optional)		RS485/GPRS/4G	
Working environment	Operating temperature/operating environment/altitude	-20-40℃/室内/<3000m (If it exceeds the limit, it must be derated)	
Usage scenarios		Applicable load: lighting, mobile phone charging, TV, refrigerator, computer, small hand drill, washing machine, rice cooker, electric kettle, induction cooker, microwave oven, air conditioning and other household appliances. Engineering projects: camera, monitoring, security, sewage treatment, forest fire prevention, geophysical exploration camping, ships, agricultural and industrial pumps, farms, rescue and disaster relief, emergency power supply, etc.	

# Integrated system configuration Series - photovoltaic off-grid 30kW



## Flexible

The system can increase or decrease according to the user's demand for electricity consumption  
Adopt modular design, flexible collocation

## Convenience

Meet the power usage requirements of the no-power area to provide stable power

## Reliable

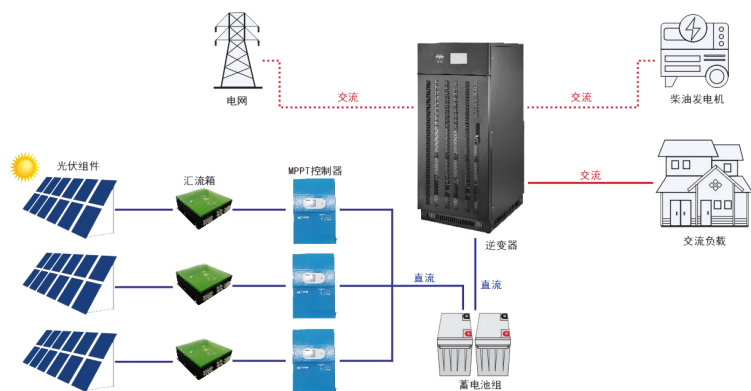
Integrated design, including photovoltaic system, energy storage system, distribution system, inverter system, EMS system, intelligent power management, safe and reliable.

## LC(low carbon)

During the day, the photovoltaic power is preferentially supplied to the load, and the excess power can be directly stored in the battery system. When the photovoltaic power generation power is not enough to support the load, the battery will discharge.

Type		HN-OFF96/8kW/96kWh	HN-OFF96/10kW/153kWh
Rated power		20kW	30kW
Energy storage battery	Rated voltage	DC192V	
	Rated capacity	500AH	800AH
	Stored power	96kWh	153.6kWh
	Battery type	Colloidal battery/lithium iron phosphate battery	
	Life Time	3-5 years (Colloidal cell) /15-25 years (Lithium iron phosphate battery)	
Photovoltaic input	Controller type	MPPT	
	Max charging current	100A	100A*2
	Input voltage range	DC250-400V	
	Max open circuit voltage	400V	
	Max power of photovoltaic panel	19600W	39200W
	Type of pv panel	Poly/monocrystalline silicon	
	Protection function	Battery overcharge, overdischarge protection, temperature compensation, polarity reverse connection protection, short circuit protection, overtemperature protection, etc	
	Daily power generation (Peak 4h/day)	64kWh	125kWh
	Floor space	200m <sup>2</sup> (MAX)	380m <sup>2</sup> (MAX)
	Power	20kW	30kW
Output	Voltage range/frequency	Single-phase 110VAC/220VAC±5%; Three-phase three-phase 190VAC/380V±5%; 50/60 Hz ±1%(Inverter mode)	
	Protection function	Battery overvoltage and low voltage protection, overload protection, short circuit protection, overtemperature protection, etc	
Mains input	Function	Three-phase 150-240VAC/300-480V switchable mains priority, battery priority	
Display		LCD+LED	
Communication interface (Optional)		RS485/GPRS/4G	
Working environment	Operating temperature/operating environment/altitude	-20-40°C/indoor/<3000m (If it exceeds the limit, it must be derated)	
Usage scenarios		Applicable load: lighting, mobile phone charging, TV, refrigerator, computer, small hand drill, washing machine, rice cooker, electric kettle, induction cooker, microwave oven, air conditioning and other household appliances. Engineering projects: camera, monitoring, security, sewage treatment, forest fire prevention, geophysical exploration camping, ships, agricultural and industrial pumps, farms, rescue and disaster relief, emergency power supply, etc.	

# Integrated system configuration Series - photovoltaic off-grid 80kW



## Flexible

The system can increase or decrease according to the user's demand for electricity consumption. Adopt modular design, flexible collocation.

## Convenience

Meet the power usage requirements of the no-power area to provide stable power.

## Reliable

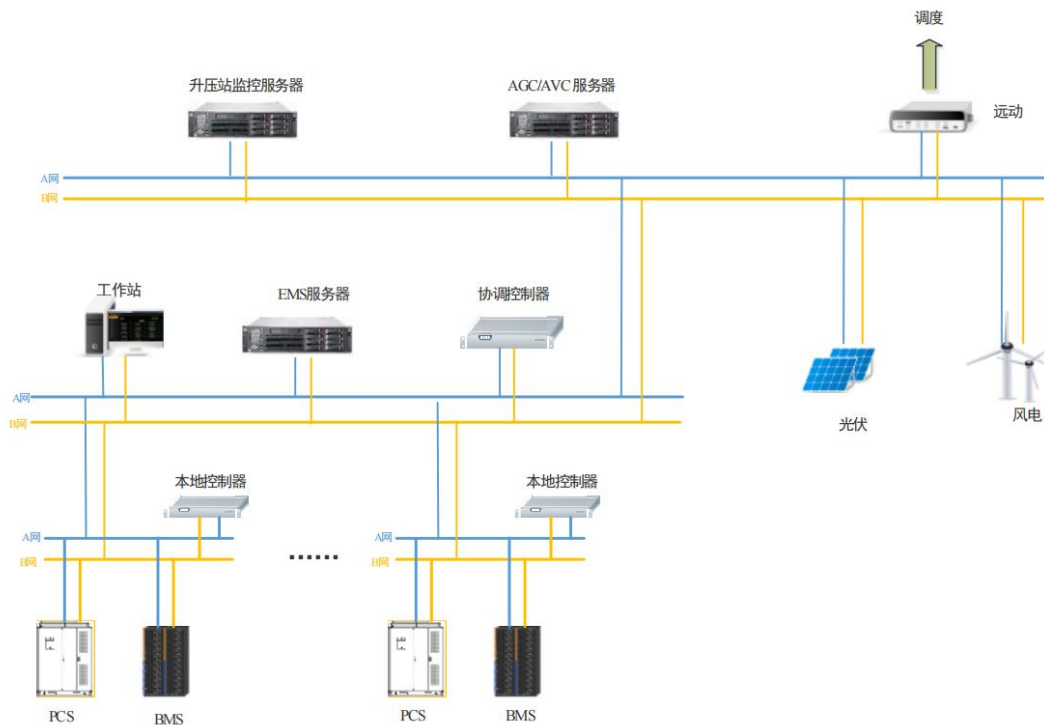
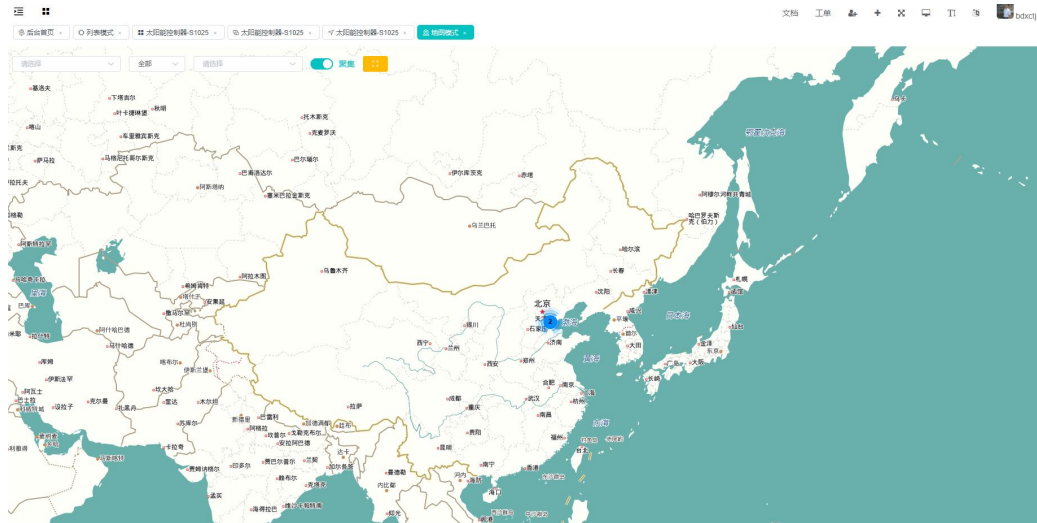
Integrated design, including photovoltaic system, energy storage system, distribution system, inverter system, EMS system, intelligent power management, safe and reliable.

## LC(low carbon)

During the day, the photovoltaic power is preferentially supplied to the load, and the excess power can be directly stored in the battery system. When the photovoltaic power generation power is not enough to support the load, the battery will discharge.

Type		HN-OFF384/50kW/192kWh	HN-OFF384/80kW/307kWh
Rated power		50kW	80kW
Energy storage battery	Rated voltage	DC384V	
	Rated capacity	500AH	800AH
	Stored power	192kWh	307kWh
	Battery type	Colloidal battery/lithium iron phosphate battery	
	Life Time	3-5 years (Colloidal battery) /15-25 years (lithium iron phosphate battery)	
PV input	Controller type	MPPT	
	Max charging current	100A*2	
	Input voltage range	DC250-400V	
	Max open circuit voltage	650V	
	Max power of photovoltaic panel	39200W	78400W
	Type of pv panel	Poly/monocrystalline silicon	
	Protection function	Battery overcharge, overdischarge protection, temperature compensation, polarity reverse connection protection, short circuit protection, overtemperature protection, etc	
	Daily power generation (Peak 4h/day)	125kWh	250kWh
	Floor area	380m <sup>2</sup> (MAX)	750m <sup>2</sup> (MAX)
Output	Power	50kW	80kW
	Voltage range/frequency	Single-phase 110VAC/220VAC±5%; Three-phase three-phase 190VAC/380V±5%; 50/60 Hz ±1%(Inverter mode)	
	Protection function	Battery overvoltage and low voltage protection, overload protection, short circuit protection, overtemperature protection, etc	
Mains input	Function	Three-phase 150-240VAC/300-480V switchable mains priority, battery priority	
Display		LCD+LED	
Communication interface (Optional)		RS485/GPRS/4G	
Working environment	Operating temperature/operating environment/altitude	-20-40℃/ indoor /<3000m (over which derating is required)	
Usage scenarios		Applicable load: lighting, mobile phone charging, TV, refrigerator, computer, small hand drill, washing machine, rice cooker, electric kettle, induction cooker, microwave oven, air conditioning and other household appliances. Engineering projects: camera, monitoring, security, sewage treatment, forest fire prevention, geophysical exploration camping, ships, agricultural and industrial pumps, farms, rescue and disaster relief, emergency power supply, etc.	

# Integrated system Configuration Series - EMS



Model	HN-EM1000
	Power supply
Voltage	AC: 200~240Vac / 50Hz
Power	≤ 2000W
	System configuration
Server	Industrial computer/server
Switchboard	Layer 2 switch supports network management functions
EMS controller	EMS200
Monitoring software	Insight
Network firewall	Optional
UPS	Optional 2 kVA OR 3 kVA
	Communication parameter
Communication interface	Ethernet, optical fiber, RS485
Communication protocol	Modbus RTU / TCP, IEC104
	Universal parameter
Protection class	IP20
Operating temperature	-20~+55°C (industrial computer) / 5~40°C (server)
Operating humidity range	0~95% (no condensation))
Size (width × height × depth)	Screen cabinet, 800×600×2260mm (industrial computer) 800×1000×2260mm (server)