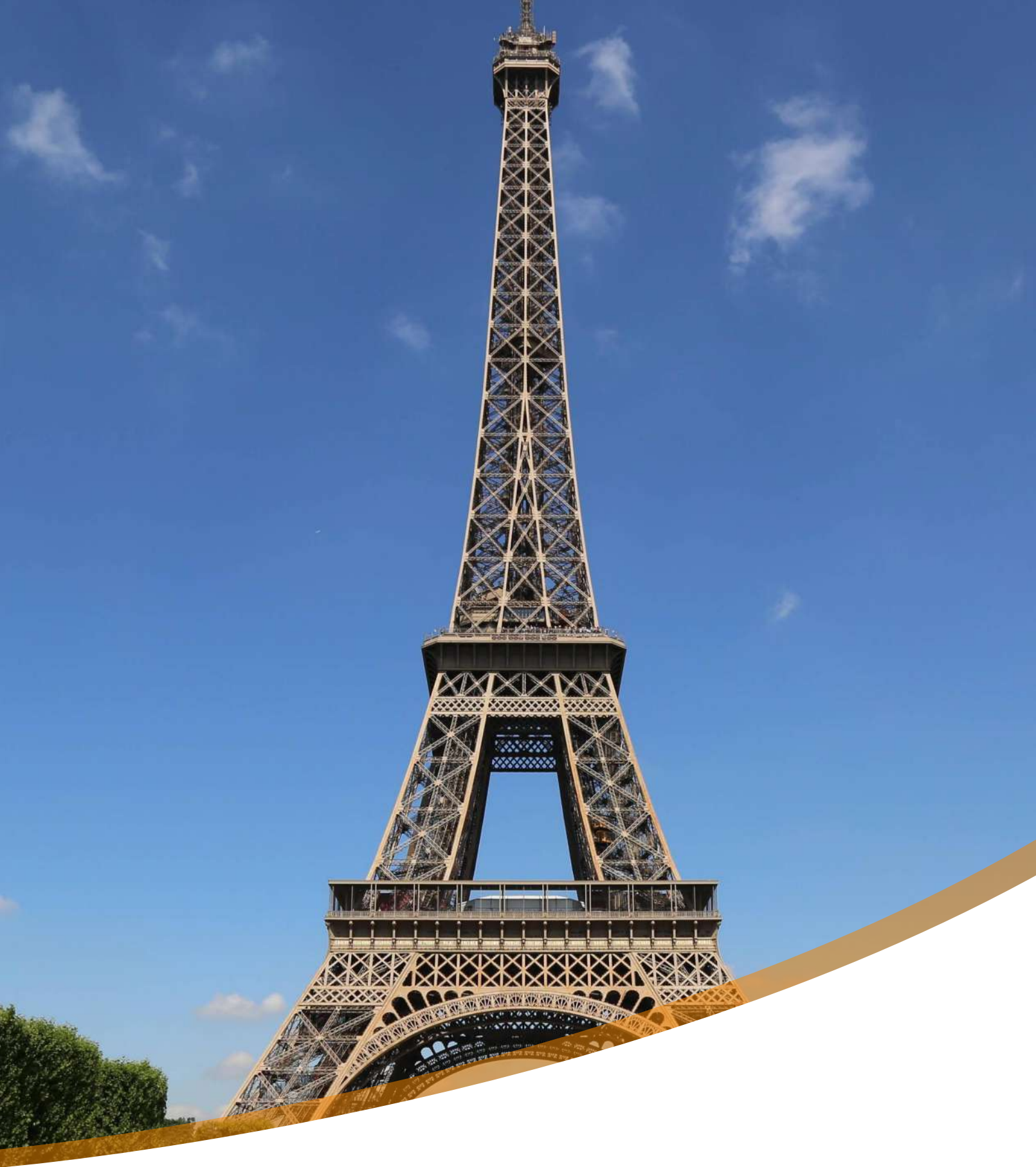


ELECTRIC VALLY SUPPLY CHAIN

📍 Shangnan Village, Yuanzhou Town, Boluo County, Huizhou City, Guangdong Province, China

📞 whatsapp :+86 13832277552

✉ sales@electricvalley.net



ENERGY STORAGE PRODUCT AND ESS



CONTENT

Company profile.....	01
Market layout	03
Products line	05
Energy storage battery	07
Inverter	13
Energy storage system	27
References case	35
Professional service	45

Company Profile

ELECTRIC VALLY SUPPLY CHAIN
covering an area of more than 15000 square meters, is a supplier specializing in providing household energy storage systems, industrial and commercial energy storage systems and other energy storage system solutions.

It integrates the R&D, production and sales of lithium battery PACK and serves the solar/wind energy storage field. It produces about 1MWh of all types of batteries every day.

Continuous R&D investment and keen market insight have kept the company's products in the leading position in the industry.

Neliaxi is committed to the development of professional and leading zero carbon energy conservation solutions, creating a digital energy management service provider, building a green, intelligent and efficient energy environment, and creating a healthy, happy and beautiful life.





Cumulative Sales to countries

69+

North America

America
Canada
Mexico
Nicaragua

Costa Rica
Guatemala
Jamaica
Puerto Rico

Neliaxi
America

Africa

Egypt
South Africa
Morocco

Nigeria
Namibia
Mauritius

South America

Chile
Brazil
Peru
Columbia

Bolivia
Ecuador
Argentina
Uruguay

Neliaxi
Germany

Neliaxi
India

Neliaxi
Huizhou

Neliaxi
Beijing

Neliaxi
Singapore

Europe

Germany
England
France
Italy
Spain
Portugal
Belgium
Russia
Poland
Switzerland
Greece
Austria

Slovenia
Lithuania
Iceland
Denmark
Romania
Hungary
Czech Republic
Sweden
Croatia
Ukraine
Norway

Asia

China
Japan
South Korea
Singapore
UAE
the Philippines
Turkey
Pakistan
Israel
Lebanon
Vietnam

India
Laos
Nepal
Cyprus
Thailand
Malaysia
Burma
Saudi Arabia
Mongolia
Indonesia
Iran

Oceania

Australia
New Zealand

Products Line

Battery

Rack type battery (LV)



Rack type battery (HV)



Stacked battery (LV)



Stacked battery (HV)



Wall mounted battery (LV)



Portable battery



Inverter

Wall mounted off grid hybrid inverter



Single phase optical storage hybrid inverter



Three phase optical storage hybrid inverter



American standard inverter (battery > 80V)



American standard inverter (battery 48V)



Modular bidirectional energy storage inverter



ESS

Household energy storage system (LV)



Household energy storage system (HV)



Outdoor cabinet type energy storage system



Container type energy storage system



EMS Energy Management System



Remote module NLS600



Rack type battery (LV)



PV off grid



Microgrid energy storage



Industrial park



Emergency power supply

Technical parameter	NX-RL50	NX-RL100	NX-RL150
Total energy (kWh)	2.56	5.12	7.68
Nominal voltage (V)	51.2	51.2	51.2
Design life	6000@ 25℃ 80%	6000@ 25℃ 80%	6000@ 25℃ 80%
Discharge voltage (V)	44	44	44
Charging voltage (V)	57.6	57.6	57.6
Max.charging current (A)	50	100	100
Max.discharge current (A)	50	100	100
Storage temperature	0~35℃	0~35℃	0~35℃
Max. working altitude (M)	4000	4000	4000
Relative humidity	0~95% non-condensing	0~95% non-condensing	0~95% non-condensing
Installation	Frame	Frame	Frame
Ingress protection	IP21	IP21	IP21
Operating temperature	-25℃~55℃	-25℃~55℃	-25℃~55℃
Weight (kg)	23	45	68
Dimension W*D*H(mm)	450*400*132	450*400*177	450*400*222
Communication	RS485/RS232/CAN	RS485/RS232/CAN	RS485/RS232/CAN

Rack type battery (HV)



PV off grid



Microgrid energy storage



industrial park



emergency power supply

Technical parameter	NX-RH50	NX-RH100	NX-RH100/8
Total energy (kWh)	12.8	25.6	38.4
Nominal voltage (V)	256	256	384
Design life	6000@ 25℃	6000@ 25℃	6000@ 25℃
Discharge voltage (V)	220	220	330
Charging voltage (V)	288	288	432
Max.charging current (A)	50	100	100
Max.discharge current (A)	50	100	100
Storage temperature	0~35℃	0~35℃	0~35℃
Max. working altitude (M)	4000	4000	4000
Relative humidity	0~95% non-condensing	0~95% non-condensing	0~95% non-condensing
Installation	Frame	Frame	Frame
Ingress protection	IP21	IP21	IP21
Operating temperature	-25℃~55℃	-25℃~55℃	-25℃~55℃
Weight (kg)	163	280	435
Dimension W*D*H(mm)	600*600*1200	600*600*1500	600*600*2000
Communication	RS485/RS232/CAN	RS485/RS232/CAN	RS485/RS232/CAN

Stacked battery (LV)



Villa



Residence



Nomadic farm



Emergency power supply

Technical parameter	NX-SL100
Total energy (kWh)	5.12
Nominal voltage (V)	51.2
Design life	6000@ 25°C 80%
Discharge voltage (V)	44
Charging voltage (V)	57.6
Max.charging current (A)	100
Max.discharge current (A)	100
Storage temperature	0~25°C
Max. working altitude (M)	4000
Relative humidity	0~95% non-condensing
Installation	Stacking
Ingress protection	IP21
Operating temperature	-25°C~ 55°C
Weight (kg)	49
Dimension W*D*H(mm)	570*450*190
Communication	RS485/RS232/CAN

Stacked battery (HV)



Villa



Residence



Nomadic farm



Emergency power supply

Technical parameter	NX-SH100/5	NX-SH100/8	NX-SH100/10
Total energy (kWh)	25.6	38.4	51.2
Nominal voltage (V)	256	384	512
Design life	6000@ 25°C 80%	6000@ 25°C 80%	6000@ 25°C 80%
Discharge voltage (V)	220	330	440
Charging voltage (V)	288	432	576
Max.charging current (A)	100	100	100
Max.discharge current (A)	100	100	100
Storage temperature	0~ 25°C	0~ 25°C	0~ 25°C
Max. working altitude (M)	4000	4000	4000
Relative humidity	0~95% non-condensing	0~95% non-condensing	0~95% non-condensing
Installation	Stacking	Stacking	Stacking
Ingress protection	IP21	IP21	IP21
Operating temperature	-25°C~ 55°C	-25°C~ 55°C	-25°C~ 55°C
Weight (kg)	245	392	490
Dimension W*D*H(mm)	570*450*950	570*450*1160	570*450*2000
Communication	RS485/RS232/CAN	RS485/RS232/CAN	RS485/RS232/CAN

Wall mounted battery (LV)



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Technical parameter	NX-WL100
Total energy (kWh)	5.12
Nominal voltage (V)	51.2
Design life	6000@ 25°C 80%
Discharge voltage (V)	44
Charging voltage (V)	57.6
Max.charging current (A)	100
Max.discharge current (A)	100
Storage temperature	0~ 25°C
Max. working altitude (M)	4000
Relative humidity	0~95% non-condensing
Installation	Stacking
Ingress protection	IP21
Operating temperature	-25°C~ 55°C
Weight (kg)	49
Dimension W*D*H(mm)	400*450*177
Communication	RS485/RS232/CAN

Portable battery



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Technical parameter	NX-PPS1kW-PRO	
Basic parameters	Max.output power	1kW
	Stored electricity	≥1.2kWh
	Battery type	Lithium iron phosphate battery
PV module	PV module type	Monocrystalline silicon
	PV module power	200W/400W
Interface	Direct	USB 5V2A*2 ; DC12V5A*2
	AC output port	Threeholes*1
Inverter	Power	1kW
	Voltage/Frequency	230VAC/50Hz (220VAC)
	Protection	Battery overvoltage protection, overload protection short circuit protection, over temperature protection
Work environmen	Cooling mode	Air-cooled
	Working temperature	-10°C-40°C
	Operating environment	Outdoor/Indoor
	Altitude	<3000m (Use with derating if exceeding)

Wall mounted off grid hybrid inverter



Luxuryvilla



Communication base station



Nomadic farm



Residential electricity

Product features

- 

Supports automatic battery switching
- 

Support diesel generator input source
- 

Compatible with lead-acid, lithium ion battery and other batteries
- 

Support multi machine parallel connection/BMS intelligent management
- 

Support first class load power supply
- 

It has battery reverse connection protection and is compatible with anti reverse current function

Technical parameter	NX-C3KL1	NX-C5KL1	NX-C8KL1
Rated power	3500VA/3500W	5500VA/5500W	8000VA/8000W
INPUT			
Voltage	230 VAC		
Selectable voltage range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)		
Frequency range	50Hz/60 Hz (Auto sensing)		
OUTPUT			
AC voltage regulation (Batt.Mode)	230VAC ± 5%		
Surge power	7000VA	11000VA	16000VA
Efficiency (Peak)	Up to 93.5%		
Transfer time	10ms (For Personal Computers) ; 20ms (For Home Appliances)		
Waveform	Pure sine wave		
BATTERY			
Battery voltage	24 VDC	48 VDC	48 VDC
Floating charge voltage	27 VDC	54 VDC	54 VDC
Overcharge protection	33 VDC	63 VDC	63 VDC
SOLAR CHARGER &AC CHARGER			
Max.photovoltaic open circuit voltage	500 VDC		
Max. PV array power	5500 W	5500 W	4000W*2
MPPR range @ Operating voltage	120-450 VDC		
Max.solar charging current	100A	100A	120A
Max.AC charging current	80 A	80 A	120A
Max.charging current (A)	100A	100A	120A
Appearance			
Dimension W*D*H(mm)	500*300*120		554*420*141.9
Weight (kg)	11.5	12.1	18.4
Communication interface	USB/RS232/RS485/CAN		
ENVIRONMENT			
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Operating temperature	-10°C to 50°C		
Storage temperature	-15°C to 60°C		

Single-phase ESS hybrid inverter



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Product features

- Supports automatic battery switching
- Support diesel generator input source
- Compatible with lead-acid and lithium-ion batteries
- Parallel available, intelligent BMS management
- Input power source priority can be set by users
- Battery reverse connection protection, anti-power control function

Technical parameter	NX-F3KL1	NX-F3KL2	NX-F3KL3	NX-F3KL4	NX-F3KL5	NX-F3KL6
Input (PV)						
Max. power(kW)	4.6	4.6	6	6	7	7
Max. DC voltage(V)	550					
MPPT voltage range(V)	125 - 500					
Max.Input current of single MPPT(A)	14					
MPPT tracker/strings	2/1					
AC output						
Rated output power(kVA)	3	3.6	4	4.6	5	6
Max. output current(A)	13	16	17.4	20	21.7	26
Grid voltage/range(V)	230/176~270					
Frequency (Hz)	50/60					
PF	0.8lagging-0.8leading					
THDi	<3%					
AC output topology	L+N+PE					
Battery						
Battery voltage range(V)	40~58					
Max. charging voltage(V)	58					
Max. charge/discharge current(A)	95/62.2	95/75	95/83.3	95/95.8	95/104.2	95/110
Battery type	lithium/Lead-acid					
Communication Interface	CAN/RS485					
EPS output						
Rated power(kVA)	3	3.6	4	4.6	5	6
Rated output voltage(V)	230					
Rated output current(A)	13	16	17.4	20	21.7	26
Rated frequency(Hz)	50/60					
Automatic switching time (ms)	<20					
THDu	<2%					
Overload capacity	110%,30S/120%,10S/150%,0.02S					
General data						
Battery chage/discharge efficiency	95.00%					
DC Max. efficiency	97.60%					
Europe efficiency	97.00%					
MPPT efficiency	99.90%					
Ingress protection	IP65					
Noise emission (dB)	<35					
Operation temperature	- 25℃ ~ 60℃					
Cooling	Natural					
Relative humidity	0 ~95% (non-condensing)					
Altitude	2,000m(>2,000 Derating)					
Dimensions W*D*H(mm)	550*200*515					
Weight (kg)	25					
Isolation transformer	No					
Self-consumption(W)	<3					
Display and communication						
Display	LCD					
Interface:RS485/Wifi/4G/CAN/DRM	Yes/Opt/Opt/Yes/Yes					
Certificates	CE、TUV、SAA、NRS					

Three phase ESS hybrid inverter



Product features

- Compatible with lead-acid and lithium-ionbatteries
- Support diesel generator input source
- IP65 protection, low noise < 35dB
- Battery reverse connection protection, anti-power control function
- Input power source priority can be set by users
- Support full power discharge,automatic management of battery charge and discharge

Technical parameter	NX-F8KH3	NX-F10KH3	NX-F12KH3
Input (PV)			
Max. power(kW)	10.4	13	15.6
Max. DC voltage(V)	1000		
MPPT voltage range(V)	180 - 850		
Max.Input current of single MPPT(A)	12.5		
MPPT tracker/strings	2/1		
AC output			
Rated output power(kVA)	8.8	11	13.2
Max. output current(A)	12.7	15.9	19.1
Grid voltage/range(V)	400/360~440		
Frequency (Hz)	50/60		
Power factor	0.8lagging-0.8leading		
THDi	<3%		
AC output topology	3W+N+PE		
Battery			
Battery voltage range(V)	125~600		
Max. charging voltage(V)	600		
Full battery voltage(V)	210	270	250
Max. charge/discharge current(A)	40	40	50
Battery type	lithium/Lead-acid		
Communication Interface	CAN/RS485		
EPS output			
Rated power(kVA)	8.8	11	13.2
Rated output voltage(V)	400		
Rated output current(A)	12.7	15.9	19.1
Rated frequency(Hz)	50/60		
Automatic switching time (ms)	<20		
THDu	<2%		
Overload capacity	110%,30S/120%,10S/150%,0.02S		
General data			
Battery chage/discharge efficiency	96.60%	96.70%	96.80%
DC Max. efficiency	97.90%	98.20%	98.20%
Europe efficiency	97.20%	97.50%	97.50%
MPPT efficiency	99.50%	99.50%	99.50%
Ingress protection	IP65		
Noise emission (dB)	<35		
Operation temperature	- 25℃ ~ 60℃		
Cooling	Natural		
Relative humidity	0 ~95% (non-condensing)		
Altitude	2,000m(>2,000 Derating)		
Dimensions W*D*H(mm)	550*200*600		
Weight (kg)	29		
Isolation transformer	No		
Self-consumption(W)	<3		
Display and communication			
Display	LCD		
Interface:RS485/Wifi/4G/CAN/DRM	Yes/Opt/Opt/Yes/Yes		
Certificates	CE、TUV		

American ESS split- phase inverter (battery voltage > 80V)



Product features

-  Support 100% unbalanced load capacity
-  Compatible with lead-acid and lithiumion batteries and other battery access
-  Support full power discharge, automatic management of battery charge and discharge
-  Support battery reverse connection protection
-  Compatible with countercurrent prevention function
-  Passed UL certification

Technical parameter	R6KH1NA	R8KH1NA	R10KH1NA	R12KH1NA
Input (PV)				
Max. power(kW)	7.8	10.4	13	15.6
Max. DC voltage(V)	500			
MPPT voltage range(V)	125 - 500			
Max.Input current of single MPPT(A)	12			
MPPT tracker/strings	4/1			
AC output				
Rated output power(kVA)	6	8	10	12
Max. output current(A)	27.3	36.4	45.4	50
Grid voltage/range(V)	240/211~264			
Frequency (Hz)	50/60			
Power factor	0.8lagging-0.8leading			
THDi	< 3%			
AC output topology	L+N+PE			
Battery				
Battery voltage range(V)	85~400			
Max. charging voltage(V)	400			
Full battery voltage(V)	85	110	140	16
Max. charge/discharge current(A)	80/80			0
Battery type	lithium /Lead-acid			
Communication Interface	CAN/RS485			
EPS output				
Rated power(kVA)	6	8	10	12
Rated output voltage(V)	220-240/110-120			
Rated frequency(Hz)	50/60			
Automatic switching time (ms)	<20			
THDu	<2%			
Overload capacity	110%,30S/120%,10S/150%,0.02S			
General data				
Max. efficiency	≥98.2%			
CEC efficiency	≥97.2%			
Ingress protection	IP65/NEMA 3R			
Noise emission(dB)	<25	<25	<29	<29
Operation temperature	-25℃ ~ 60℃			
Cooling	Natural			
Relative humidity	0 ~95% (non-condensing)			
Altitude	2,000m(>2,000 Derating)			
Weight(kg)	32			
Dimensions W*D*H(mm)	530* 200* 660			
Display and communication				
Display	LCD			
Interface:RS485/Wifi/4G/CAN/DRM	Yes/Opt/Opt/Yes/Yes			
Standby power consumption at night(W)	< 2.5 (With the battery < 5)			
Isolation transformer	No			
Safety standard	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On-grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III			

American ESS split- phase inverter (battery voltage:48V)



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Product features



Support Parallel available



Bypass current capacity up to 100A



Support 100% unbalanced load capacity



UL certification

Technical parameter	NX-F5KLNA	NX-F6KLNA	NX-F8KLNA	NX-F10KLNA
Input (PV)				
Max. power(kW)	7.5	9	12	13
Max. DC voltage(V)	500			
MPPT voltage range(V)	125-500			
Max.Input current of single MPPT(A)	12			
MPPT tracker/strings	4/1			
AC output				
Rated output power(kVA)	5	6	8	10
Max. output current(A)	24	28.8	38.3	47.8
Ac output voltage(V)	120/240(split phase), 208(2/3 phase),230 (single phase)			
Frequency (Hz)	50/60			
Power factor	0.8lagging-0.8leading			
THDi	< 3%			
AC output topology	Split phase, 2/3 phase,single phase			
Battery				
Battery voltage range(V)	40~58			
Max. charging voltage(V)	58			
Max. charge/discharge current(A)	120/120	135/135	190/190	210/210
Battery type	lithium /Lead-acid			
Communication Interface	CAN/RS485			
EPS output				
Rated power(kVA)	5	6	8	10
Rated output voltage(V)	120/240 (split phase), 208 (2/3 phase),230 (single phase)			
Rated output current(A)	24	28.8	38.3	47.8
Rated frequency(Hz)	50/60			
Automatic switching time (ms)	<20			
THDu	< 2%			
Overload capacity	125%,60S/150%,1S			
General data				
Max. efficiency	≥98.2%			
North american efficiency	≥97.2%			
Ingress protection	IP65/NEMA 3R			
Noise emission(dB)	<25	<29	<29	<29
Operation temperature	-25℃ ~ 60℃			
Cooling	Natural			
Relative humidity	0 ~95% (non-condensing)			
Altitude	2,000m(>2,000 Derating)			
Dimensions W*D*H(mm)	430* 220* 710			
Display and communication				
Display	LCD, touch screen			
Interface:RS485/Wifi/4G/CAN/DRM	Yes			
Safety standard	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On-grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III			

Modular bidirectional energy storage inverter (DC/DC+DC/AC)



Product introduction: The 30kW two-level module adopts modular design internally, and the DC side battery is connected at low voltage. It has off grid, grid connected and rectification modes, and can be switched intelligently between the three modes. It also has reactive power compensation and harmonic compensation functions. The advanced control algorithm is adopted to realize multi machine parallel connection, which has excellent load adaptability and grid adaptability.

Product features



Efficient

- 1、The PF value on the AC side is ± 1 to improve the load carrying capacity
- 2、Two way flow of energy, seamless forward and reverse switching, full load switching time as low as 30ms



security

- 1. High reliable protection performance, high and low temperature resistance, humidity, salt spray and other harsh environments
- 2. Wide operating temperature range: - 30 °C~55 °C full load operation;
- 3. The interleaving technology is adopted to reduce the ripple current of the capacitor and improve the service life of the module



convenient

- 1、Modular design, easy to maintain and expand
- 2、Three phase 100% unbalanced load, supporting access to single-phase load, half wave load, flexible load configuration



intelligence

- 1. Multidimensional intelligent fan adjustment function reduces power window noise
- 2. Support the integration of local EMS and intelligent control

Technical parameter	NX-RPCSD30
DC side parameters	
Max. voltage 【Vd.c】	1000
Rated voltage 【Vd.c】	350
Voltage range 【Vd.c】	200~900
Max.impulse/discharge power 【kW】	30
Max. impulse/discharge current 【Ad.c】	100
AC side grid connection parameters	
Max. input apparent power 【kVA】	30
Max.input active power 【kW】	30
Rated input voltage 【Va.c】	230/400,3P4W+PE
Max. continuous input current 【Aa.c】	43
Rated input frequency 【Hz】	50
Power factor	0.8cap~0.8ind
Off grid parameters on AC side	
Rated output voltage 【Va.c】	230/400,3P+N+PE
Rated output frequency 【Hz】	50
Max. continuous output current 【Aa.c】	43
Max. output active power 【kW】	30
Max. output apparent power 【kVA】	30
Unbalanced load capacity	100%
Overload capacity	1.1 times 1min@ambienttemperature 35°C; 1.2times5S
General data	
Operating temperature range【°C】	-30 ⁻ +60 (>45°C derating)
Degree of protection	IP20
Working altitude[m]	3000
Max. efficiency	97%
AC/DC starting function	YES
Dimension (W * D * H) [mm]	436*550*130
Weight [kg]	28

Modular bidirectional energy storage inverter(DC+AC)



Product introduction: The AC/DC module adopts modular design, with off grid, grid connected and rectifier modes, and can be switched intelligently between the three modes. It also has reactive power compensation and harmonic compensation functions. The advanced control algorithm is adopted to realize multi machine parallel connection, which has excellent load adaptability and grid adaptability.

Product features

-  **Efficient**
1. AC and DC power supply, supporting black start

2. Two way flow of energy, seamless forward and reverse switching, full load switching time as low as 30ms

-  **Security**
1. High reliable protection performance, high and low temperature resistance, humidity, salt spray and other harsh environments

2. Wide operating temperature range: - 30 °C~60 °C full load operation

3. The interleaving technology is adopted to reduce the ripple current of the capacitor and improve the service life of the module

-  **Convenient**
1. Modular design, easy to maintain and expand

2. Three phase 100% unbalanced load, supporting access to single-phase load, and flexible load configuration

-  **Intelligence**
1. Multidimensional intelligent fan adjustment function reduces power consumption and noise

2. Support the integration of local EMS and intelligent control

Technical parameter	NX-RPCS30	NX-RPCS60
DC side parameters		
Max voltage 【Vd.c】	1000	1000
Rated voltage 【Vd.c】	800	800
Voltage range 【Vd.c】	680~1000	680~1000
Max. impulse/discharge current 【Ad.c】	44	88
AC side grid connection parameters		
Max.input apparent power 【kVA】	30	60
Max.input active power 【kW】	30	60
Rated input voltage 【Va.c】	230/400,3P4W+PE	230/400,3P4W+PE
Max. continuous input current 【Aa.c】	43	86
Rated input frequency 【Hz】	50	50
Power factor	0.8cap~0.8ind	0.8cap~0.8ind
Off grid parameters on AC side		
Rated output voltage 【Va.c】	230/400,3P+N+PE	230/400,3P+N+PE
Rated output frequency 【Hz】	50	50
Max.continuous output current 【Aa.c】	43	86
Max. output active power 【kW】	30	60
Max output apparent power 【kVA】	30	60
Unbalanced load capacity	100%	
Overload capacity	1.1 times 1min @ ambient temperature 35 ; 1.2 times 5S	
General data		
Operating temperature range 【℃】	-30~+60 (derating at>45)	
Degree of protection	IP20	
Working altitude 【m】	3000	
Max.efficiency	98.50%	
AC/DC starting function	YES	
Dimension (W * D * H) [mm]	436*550*130	
Weight [kg]	25	28

Optical storage integrated machine



Rural areas without/without electricity



Island off grid



Nomadic Farm



Mine off grid

Product Features :



Friendly & Flexible

- Various working modes can be set flexibly;
- PV controller modular design, easy to expand;



Abundant Configuration

- Integrated design, easy to integrate;
- Support simultaneous access of load, battery, power grid, diesel and PV;
- Built-in maintenance bypass switch, improve system availability;



Safe & Reliable

- Built-in isolation transformer for high load adaptability;
- Perfect protection function for inverter and battery;
- Redundancy design for important functions;

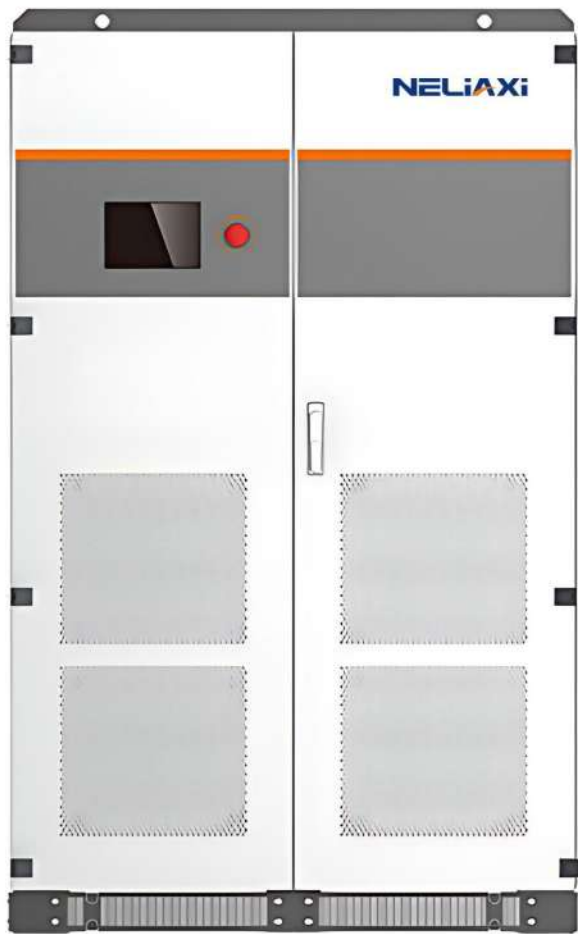


Intelligent & Efficient

- Support battery capacity and discharge time prediction;
- Smooth switching between on and off grid, uninterrupted supply of load;
- Operate with EMS to monitor system status in real time;

Technical Specification	NEL0030	NEL0050	NEL0100	NEL0150	NEL0250	NEL0500
AC(on-grid)						
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW)	30	50	100	150	250	500
Rated voltage(V)	400					
Rated current (A)	43	72	144	216	361	722
Voltage range(V)	320~460					
Rated frequency (Hz)	50/60					
Frequency range(Hz)	45~55/55~65					
THDi	<3%					
Power factor	1lagging~1leading					
AC connection	3W+N+PE					
Transformer ratio	100/400	200/400	270/400	270/400	270/400	315/400
AC(Off Grid)						
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW)	30	50	100	150	250	500
Rated voltage(V)	400					
Rated current(A)	43	72	144	216	361	722
THDu	≤1% linear; or≤5% nonlinear					
Rated frequency(Hz)	50/60					
Overload capacity	110% long-term					
Photovoltaic input						
Max.PV input voltage(V)	1,000					
Max.PV power(kW)	36/72	60/120	120/180/240	120/180/240	300/360	600/660/720
MPPT voltage range(V)	250-850					
MPPT voltage range@full load (V)	450-850					
Battery						
Battery voltage range(V)	250~850	320~850	420~850	420~850	420~850	500~850
Max. charging power(kW)	36/72	60/120	120/180/240	120/180/240	300/360	600/660/720
General data						
Dimension W*D*H(mm)	800*800*1,900	800*800*1,900	1,200*800*2,050	1,200*800*2,050	(600*720*2,050)*1+ 1,200*800*2,050	(600*720*2,050)*2+ 1,600*1050*2,050
Net Weight (kg)	576/607	720/750	1,120/1,150/1,180	1,250/1,280/1,310	1,980/2,010	3,265/3,295/3,325
Operation temperature(°C)	-30 ~ 55					
Relative humidity	0 ~95% non-condensing					
Ingress protection	IP20					
Noise emission(dB)	<70					
Operation altitude (m)	5,000(>3,000 Derating)					
Cooling	Air Cooling					
Display and communication						
Display	LCD touch-screen					
BMS communication	RS485, CAN					
EMS communication	RS485, TCP/IP					
Certificates	EN62109-1/-2, EN62477-1, EN61000-6-2, EN61000-6-4, South Africa NRS097-2-1:2017, Pakistan & India IEC61727, IEC62116,IEC 61683					

Power Conversion System (without isolation transformer)



Photovoltaic power station energy storage



Wind energy storage



Thermal power joint frequency regulation



Grid side energy storage

Product features:

Friendly & Flexible

- Wide battery voltage range, support multiple battery type access;
- Reactive power, active power adjustable;
- Off-grid cold start function, support multi-machine parallel function;

Rich configuration

- Integrated design for easy transportation and integration;
- Support RS485, CAN communication mode, can accept real-time BMS instructions

Safe & Reliable

- High performance DSP, optimized control circuit design, high reliable system;
- Patented control detection algorithm to ensure equipment failure diagnose;
- AC/DC dual backup for auxiliary power supply;

Intelligent & Efficient

- Highest power density, maximum efficiency of 98.7%;
- Low power consumption fan, with intelligent temperature control system;
- With grid-connected charging and discharging, off-grid independent inverter function;

Technical specification	NEL0500	NEL0630
DC(battery)		
Voltage range(V)	600~900	
Max. current (A)	929	1,170
AC(on-grid)		
Max output power(kVA)	550	693
Rate output power(kW)	500	630
Rated voltage(V)	400	
Voltage range(V)	320~460	
Rated current(A)	722	909
Max. output current (A)	794	1,000
Rated frequency (Hz)	50/60	
Frequency range(Hz)	45~55/55~65	
THDi	<3%	
Power factor	1lagging-1leading (Settable)	
AC connection	3W+PE	
General data		
Max.efficiency	98.7%	
Ingress protection	IP21	
Noise emission(dB)	<70	
Operating temperature(°C)	-30~ 55	
Cooling	Forced air	
Relative humidity	0 ~95% non-condensing	
Operation altitude (m)	5,000 (>3,000 Derating)	
Dimension W * D * H (mm)	1,000*700*2,050	
Weight(kg)	950	
Transformer	No	
Self-consumption(W)	<100	
Display and communication		
Display	LCD touch-screen	
BMS communication	RS485, CAN	
EMS communication	RS485, TCP/IP	
Certificates	IEC/EN62109-1/-2, IEC/EN 62477-1, IEC/EN 61000-6-2, IEC/EN 61000-6-4,CGC	

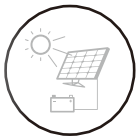
Power Conversion System (with isolation transformer)



Industrial and commercial energy storage



Microgrid system



Optical storage and charging system

Product features:

Friendly & Flexible

- Wide battery voltage range, support multiple battery type access;
- Reactive power, active power adjustable;
- Off-grid cold start function, support 4 pcs in parallel;

Rich configuration

- Integrated design for easy transportation and integration;
- Support RS485, CAN communication mode, can accept real-time BMS instructions

Safe & Reliable

- Built-in isolation transformer, adapt to impact load;
- Redundant design for auxiliary power supply;

Intelligent & Efficient

- Highest power density, maximum efficiency reach 97.5%;
- With on-grid charging and discharging, off-grid independent inverter function;8

Technical specification	NEL0030TS	NEL0050TS	NEL0100TS	NEL0150TS	NEL0250TS	NEL0500TS
DC(battery)						
Voltage range (V)	250~850	320~850	420~850	420~850	420~850	500~850
Max. Current (A)	137	178	270	405	673	1,128
AC(on-grid)						
Max output power(kVA)	33	55	110	165	275	550
Rate output power(kW)	30	50	100	150	250	500
Rated voltage(V)	400					
Voltage range(V)	320~460					
Rated current(A)	43	72	144	216	361	722
Max. output current(A)	48	80	159	238	397	794
Rated frequency (Hz)	50/60					
Frequency range (Hz)	45~55/55~65					
THDi	<3%					
Power factor	1lagging-1leading (Settable)					
AC connection	3W+N+PE					
AC(off grid)						
Rated voltage(V)	400					
THDu	<1% Linear <5% Nonlinear					
Rated frequency (Hz)	50/60					
Overload capacity	110% long-term					
General data						
Max. efficiency	96.3%	96.5%	97.1%	97.1%	97.3%	97.5%
Ingress protection	IP21					
Noise emission(dB)	<70					
Operating temperature (°C)	-30~ 55					
Cooling	Forced air					
Relative humidity	0 ~95% non-condensing					
Operation altitude (m)	5,000m(>3,000 Derating)					
Dimension W*D*H (mm)	800*800*1,900	800*800*1,900	800*800*1,900	800*800*1,900	1,200*800*2,050	1,600*1,050*2,050
Weight(kg)	605	676	936	1,057	1,582	2,665
Transformer ratio	100/400	200/400	270/400	270/400	270/400	315/400
Self-consumption (W)	<100					
On/ Off grid switching	Automatic					
Display and communication						
Display	LCD touch-screen					
BMS communication	RS485, CAN					
EMS communication	RS485, TCP/IP					
Certificates	IEC/EN62109-1/-2, IEC/EN 62477-1, IEC/EN 61000-6-2, IEC/EN 61000-6-4,CGC					

Household energy storage system (LV)



- 
villa
- 
Residential buildings
- 
Nomadic farm
- 
Spare battery

Technical parameter	NX-HESS-LV2560				
Number of batteries in parallel	1	2	3	4	5
Rated total capacity	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.60kWh
Dimension (W * D * H)	570*450*370mm	570*450*590mm	570*450*810mm	570*450*1030mm	570*450*1250mm
Rated DC voltage	51.2V	51.2V	51.2V	51.2V	51.2V
Unit capacity	100Ah	100Ah	100Ah	100Ah	100Ah
Rated charge discharge ratio	0.5C	0.5C	0.5C	0.5C	0.5C
Discharge depth	90%	90%	90%	90%	90%
Communication interface	RS485、CAN	RS485、CAN	RS485、CAN	RS485、CAN	RS485、CAN
Number of cycles	6000@25°C	6000@25°C	6000@25°C	6000@25°C	6000@25°C
Inverter data	Optional				
Rated output power	3/4/5/6 kW				
Rated output voltage	220/230V				
Rated grid frequency	50/60Hz				
Max.PV access power	5.5kW				
PV MPPT voltage	120-450V				
Working temperature	-20°C~ 55°C				
Module connection mode	Stacked/wall mounted/rack mounted				

Household energy storage system (HV)



- 
villa
- 
Residential buildings
- 
Nomadic farm
- 
Spare battery

Technical parameter	NX-HESS-HV7168			
Number of batteries in parallel	5	8	5	5
Rated total capacity	25.6kWh	38.4kWh	51.7kWh	71.68kWh
Dimension (W * D * H)	570*450*950mm	570*450*1160mm	570*550*1350mm	570*650*1350mm
Rated DC voltage	256V	384V	256V	256V
Unit capacity	100Ah	100Ah	202Ah	280Ah
Rated charge discharge ratio	0.5C	0.5C	0.5C	0.5C
Discharge depth	90%	90%	90%	90%
Communication interface	RS485、CAN	RS485、CAN	RS485、CAN	RS485、CAN
Number of cycles	6000@25°C	6000@25°C	6000@25°C	6000@25°C
Inverter data	Optional			
Rated output power	6/8/10/12/15kW			
Rated output voltage	400V			
Rated grid frequency	50/60Hz			
Max.PV access power	9/12/15/18/22.5kW			
PV MPPT voltage	180-850V			
Working temperature	-20°C~ 55°C			
Module connection mode	Stacked/rack mounted			

Outdoor cabinet type energy storage system



Technical parameter	NX-BESS60	NX-BESS120	NX-BESS200
DC data			
Battery capacity (kWh)	60	120	215
Number of battery racks	1		
BMS communication interface	RS485/CAN		
DC voltage range(V)	200~900	680~1000	670~1000
AC data			
Rated AC power(kW)	30	60	100
Max. AC power(kW)	30	60	110
Rated AC current(A)	46	91	152
Max. AC current(A)	46	91	167
DC current component	< 0.5%		
THDi	< 0.3% (Rated power)		
Rated grid voltage(V)	400		
Allowable grid voltage range(V)	310-440	310-440	320-460
Rated grid frequency(Hz)	50/60		
Allowable grid frequency range(Hz)	45~55/55~65		
Power factor	1lagging-1leading		
Isolation method	non-isolated		
General Data			
Ingress protection	IP54		
Fire extinguishing system	Support		
Operating temperature	-30℃ ~ 55℃		
Dimension W*D*H (mm)	1000*1000*2350	2000*1000*2350	2400*2000*2350
Weight (kg)	800	1500	2200
BMS communication mode	CAN, RS485		
EMS communication mode	RS485, TCP/IP		
PCS cooling way	Temperature control intelligent air cooling		
Battery cooling way	Air conditioning cooling		
Altitude	4,500m (> 3,000 Derating)		

Technical parameter

- Simple structure, small footprint, flexible layout , easy installation operation and maintenance
- Intelligent control system, can be connected to the local monitoring system for system control
- Built-in fire control, temperature control, system warning function for multiple security
- IP54 design

Container storage system



PV charging station



Wind power storage



Combined thermal power FM



Grid-side storage

Technical parameter	HN-ESS-250/516kWh	HN-ESS-500/1008kWh	HN-ESS-630/1505kWh	HN-ESS-1260/2580kWh
DC data				
Battery capacity (kWh)	516	1008	1505	2580
Number of battery clusters	3	5	7	12
Battery cluster voltage (V)	614.4	720	768	768
Battery type	Lithium iron phosphate			
Discharge depth	90%			
Number of cycles (times)	6000@25°C			
AC data				
Rated AC power(kW)	250	500	630	1260
Rated grid voltage (V)	400			
Grid voltage range (V)	320-460			
Rated grid frequency (Hz)	50/60			
Power grid frequency range (Hz)	45-55/55-65			
Isolation method	YES	NO	NO	NO
Access mode	3W+N+PE	3W+PE	3W+PE	3W+PE
General data				
Full load operation time (h)	2			
Ingress protection	IP54			
Cooling mode	Air conditioning and air cooling			
Fire fighting system	Automatic fire protection			
Operating temperature range	-30°C~55°C			
Dimensions W*D*H(mm)	6058*2438*2591	6058*2438*2591	12192*2438*2591	12192*2438*2591
Weight (t)	7.2	12.3	17.1	28.1
BMS communication	RS485 , CAN			
EMS communication	RS485 , TCP/IP			
Highest altitude (m)	4500 (Derating is required if it exceeds 3000m)			
relative humidity	0-95% non-condensing			

Product features



Friendly & flexible

- 1、Standardized design, easy for capacity expansion, easy for maintenance
- 2、Independent air flow design for high reliability



Abundant configuration

- 1、Standardized design, easy for capacity expansion, easy for maintenance
- 2、Integrated monitoring system



Safe and reliable

- 1、Support battery management system and comprehensive thermal management
- 2、Perfect fault classification protection mechanism



Intelligent and efficient

- 1、Support real-time online monitoring of system status
- 2、high-capacity ,long life, High discharge rate

EMS (energy management system)

EMS is developed by Neliaxi for a variety of application scenarios of energy storage systems. Through independent learning and data analysis, EMS can provide users with optimal charging and discharging operation strategies to help customers to improve the efficiency of clean energy and save energy cost. In addition, the EMS supports system monitoring and real-time fault alarms. can easily master the system charging state, battery voltage, temperature,auxiliary system status and other detailed information anytime and anywhere.



Perfect functions

- 1、Support multiple communication protocols
- 2、Support 5-year historical data review

Intelligent security

- 1、More accurate and comprehensive monitoring
- 2、Real-time control of PCS and battery operation data

Easy & convenient

- 1、User-friendly operation interface, simple and easy to operate
- 2、Support mobile APP/ wechat mini program for remote management

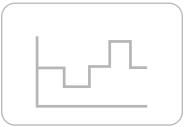
Application Area



Microgrid system energy control



PV charging station energy control



C&I peak cutting and valley llingenergy control



Frequency modulation peak modulation energy control

Remote module NLS600

Remote module NLS600 adopts high-performance 4-core A9 processor, main frequency up to 1.4GHz, supports 2 10/100 adaptive industrial Ethernet interface, 4 serial communication interface (1 RS232/4 RS485), can be customized WIFI/CAN, large capacity SD memory card interface, built-in RTC, buzzer, etc. It can provide users with powerful computing capacity and exible communication modes, small size and easy installation. Embedded with 512MB DDR3 SDRAM and 8G Flash memory, abundant communication ports are ideal for PV power station communication, power environment monitoring in computer rooms, ESS energy management and other applications.



- 1、Supports 4 RS485,1 RS232,2 Ethernet, standard 4G, support WIFI/CAN customization
- 3、Linux operating system, perfect debugging software, convenient and exible device access

- 2、Embedded WEB built-in database, data cloud platform, mobile phone Wechat mini program access
- 4、Equipped with large capacity Flash and memory, supporting device data browsing and historical data report through embedded WEB

References case





520kWh energy storage container

Installed capacity : 250 kW/520 kWh

Case location : Yichang, Hubei, China

Application model: PV+peak shaving and valley filling

Installation time: 2022

Project introduction: The system is an optical storage and charging system composed of photovoltaic shed, energy storage container and charging pile. The PV installed capacity of the whole system is 250kW. The energy storage system uses 250kW PCS and 520kWh lithium iron phosphate battery pack. The charging pile uses two 120kW double gun charging piles and four 7KW AC charging piles.

Operation logic: PV power generation in the daytime is preferentially used by charging piles, and excess electricity is stored in the energy storage system. The energy storage system releases electricity when the electricity price is reduced at the peak at night. During the operation of the whole system, the municipal electricity is supplemented to realize the flexible and orderly electricity use mode of optical storage and charging, and achieve the goal of green electricity use.



525kWh energy storage container

Installed capacity : 250 kW/525 kWh

Case location: Zhengzhou, Henan, China

Application model: PV+peak shaving and valley filling

Installation time: 2022

Project introduction: The system is an intelligent micro grid system composed of ground photovoltaic, photovoltaic shed, energy storage container and charging pile, with a capacity of 300kW ground photovoltaic, 50kW photovoltaic shed, 500kW/1000kWh energy storage system, two 30kW double gun charging piles, four 7kW charging piles and one 6.6kW V2G charging pile.

Operation logic: PV power generation in the daytime is preferentially used by the charging pile, and the excess electricity is stored in the energy storage system. The energy storage system supplies power to the load when PV is insufficient or at night. The entire system forms an independent micro grid, which can operate independently when the power grid is cut off, ensuring the safety of power use. In the case of grid mains power, the mains power can also supplement the energy for the system, and the system can also cut the peak and fill the valley to reduce the power consumption cost of users.



Singapore Energy Storage Project

Model and specification: 51.2V280Ah/516 kWh

Project location: Singapore

Application model: power grid peak regulation and frequency modulation

Installation time: 2022

Project introduction: The system is a mobile energy storage system (large charging bank) composed of energy storage inverter, lithium iron phosphate battery pack and outdoor containers. The capacity is 500kW/516kWh.

Operation logic: the energy storage system can be charged by mains power or diesel generator. After being fully charged, it can be transported to the project site by trailer for off grid power use for on-site operation. When the battery is discharged to a certain amount of power, the on-site diesel generator can be started for charging to ensure low carbon, low noise and high energy utilization rate for on-site power use. The whole system saves fuel cost, maintenance cost and electricity cost, and improves economic value. It is very suitable for remote areas, areas without electricity and areas with high electricity prices.



A military 150kW/200 kWh optical storage micro grid project



China Hebei 50kW/120kWh energy storage system



China Qinghai 30kW/100kWh energy storage system



China Sichuan 50kW/100kWh energy storage system



Australian outdoor energy storage cabinet system



Africa energy storage container system



Pakistan Optical Storage System - 2 kW/12 kWh



China State Grid 50kW/100kWh energy storage system



Energy storage Systems in Thailand



Energy storage systems in Nigeria



Energy storage Systems in Singapore



Hebei North Power Grid Beijing 60 kW



CNPC photovoltaic off-grid system



Beijing Energy Storage System 60 kW/200 kWh



China Qinghai Golmud PV energy storage -0.3MW/1.25MWh



Beijing rack battery

Professional Service

Pre-sales

- 1、 Provide free technical consultation.
- 2、 Design total solutions according to customer requirements.
- 3、 Determine the technical scheme and sign the technical agreement.

In sale

- 1、 Professional team on-site tracking.
- 2、 Support customer site inspection and project verification.
- 3、 Provide professional solution optimization suggestions.

After-sales

- 1、 Provide after-sales technical consultation and training services.
- 2、 Can improve the product according to customer requirements.
- 3、 Support remote product upgrade.
- 4、 1h response, 8h emergency stop loss, 24h solution.