jntech

make the world greener

Residential Energy Storage System

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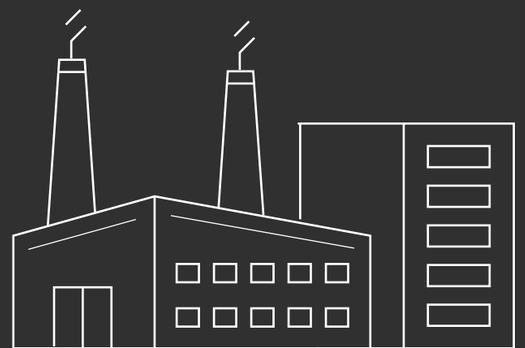
CONTENTS

ABOUT JNTECH

JNTech is a global leader in advanced micro-grid solutions, committed to providing reliable and sustainable energy systems that address the unique challenges of diverse regions worldwide. Since our founding in 2006, we have focused on providing stable, affordable, and sustainable power through green energy for more people. To achieve this, we have developed a diverse portfolio of solutions that can adapt to different markets and needs. Currently, our products are sold in over 100 countries and regions.

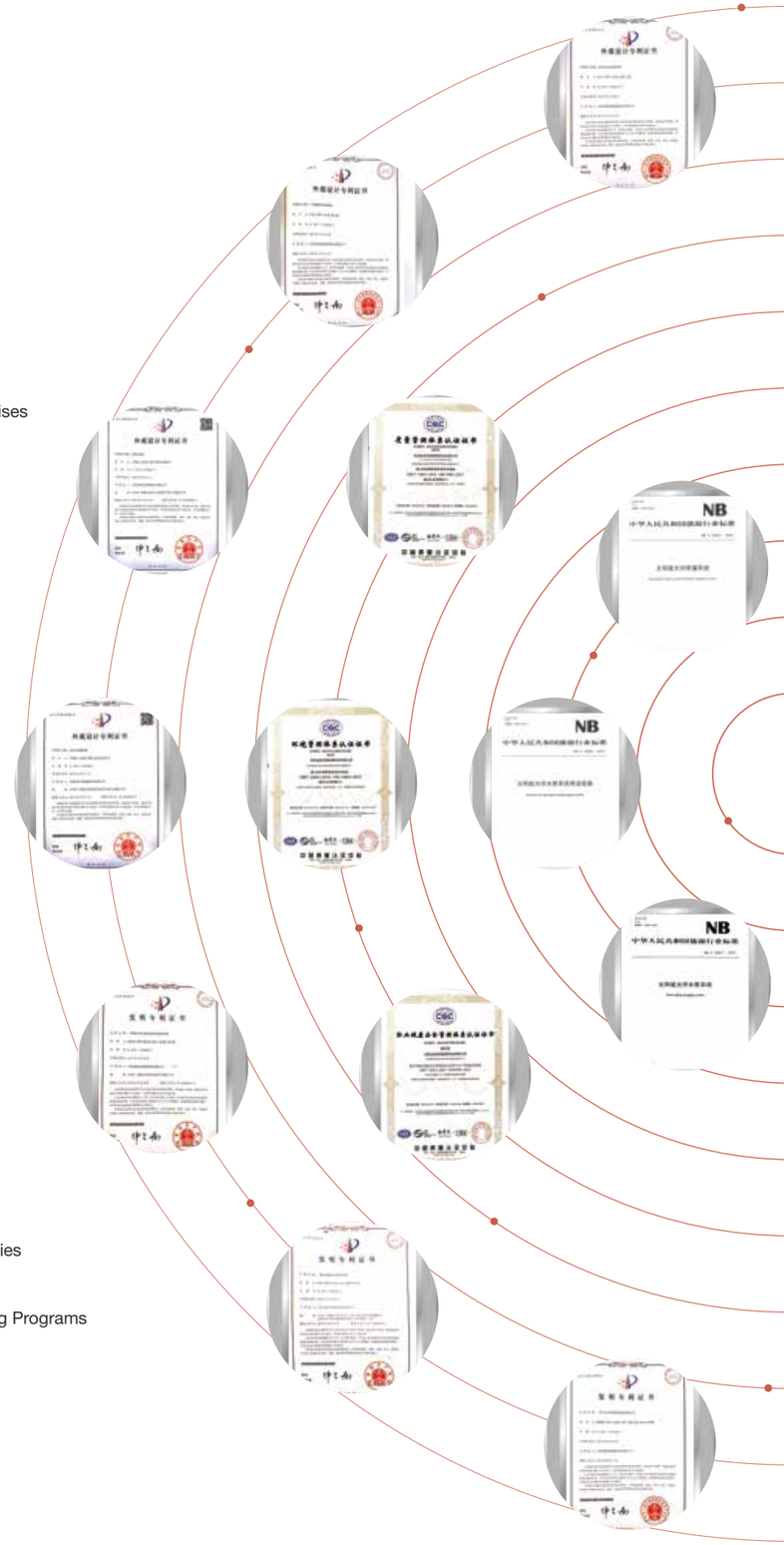
As a leading manufacturer and provider of solar and new energy products, JNTech specializes in innovative technologies to meet a wide range of energy requirements. Our solutions include home energy storage systems, solar water pumping systems, solar oil extraction systems, solar mining systems, solar irrigation systems, electric vehicle charging systems, and other micro-grid solutions. These solutions incorporate both our proprietary products and those from other providers, ensuring comprehensive support for agriculture, remote power, and carbon footprint reduction.

With extensive experience and technical expertise in photovoltaic micro-grid projects, JNTech has established strong partnerships with organizations such as the World Bank, United Nations, IBRD, FAO, and various NGOs. These collaborations underscore our commitment to advancing sustainable energy solutions on a global scale. We believe that the widespread adoption of clean energy will enhance convenience and development opportunities for communities worldwide.



Qualifications and Honors

- National Standard Drafter
- United Nation Global Marketplace Supplier
- Specialized and New Enterprise
- National High-Tech Enterprise
- National Innovative SME
- Anhui Province Specialized in Special New Enterprises
- CE, TUV, ISO9001, ISO14001, and OHSAS18001 Certifications



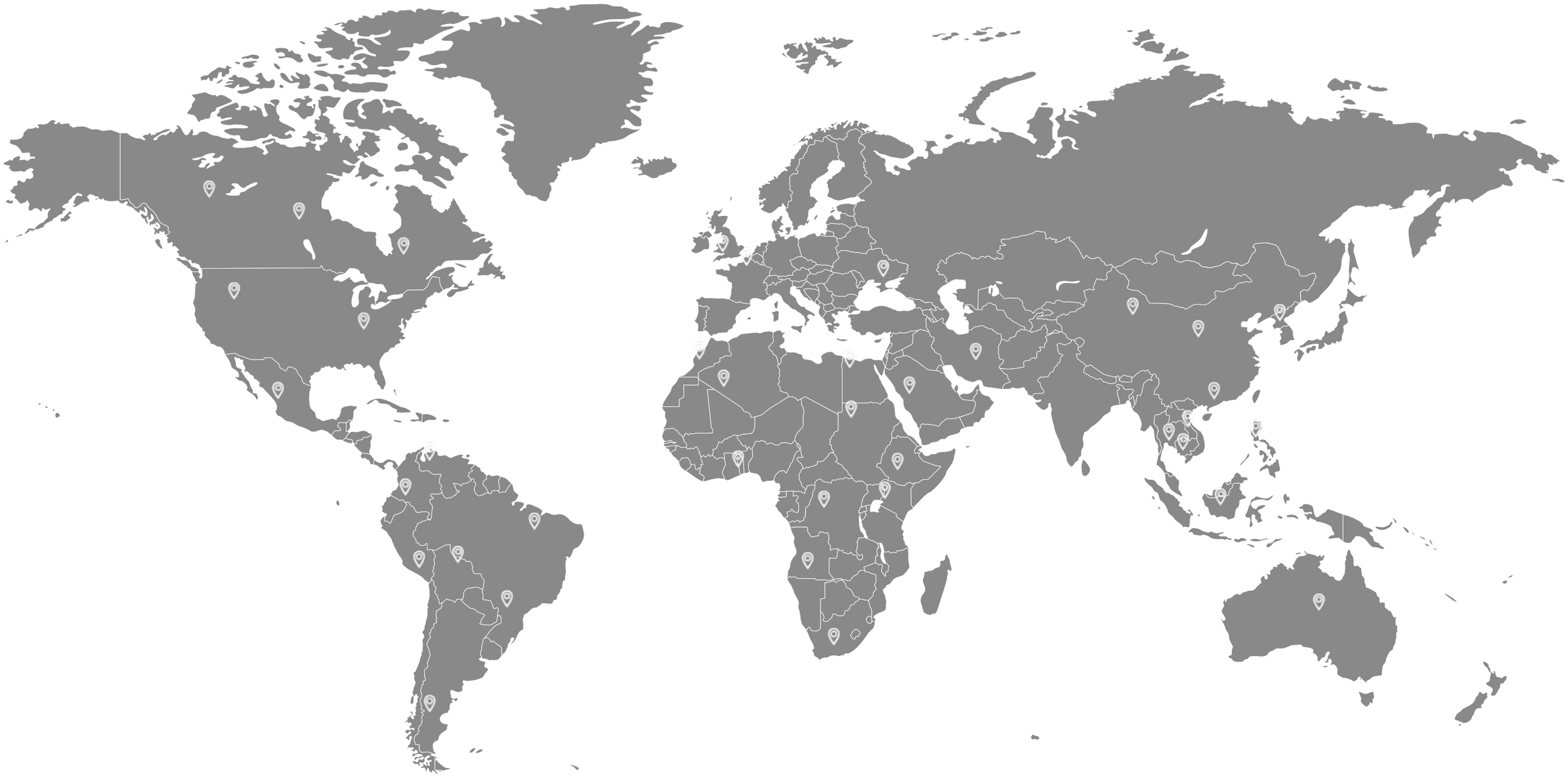
Service

Pre-sales

- Investment Consultation
- Site Selection Assistance
- Customized Design Solutions
- Site Construction Support
- Operations and Maintenance Planning

After-sales

- Standardization of Workflow, Operations, and Policies
- Technical Services, Marketing Support, and Training Programs
- Collaborative Platform for Technical Exchanges
- Creating Value through Win-Win Cooperation
- 24/7 Online Support and Service



GLOBAL SALES NETWORK

15+
Years of Experience in Solar Industry

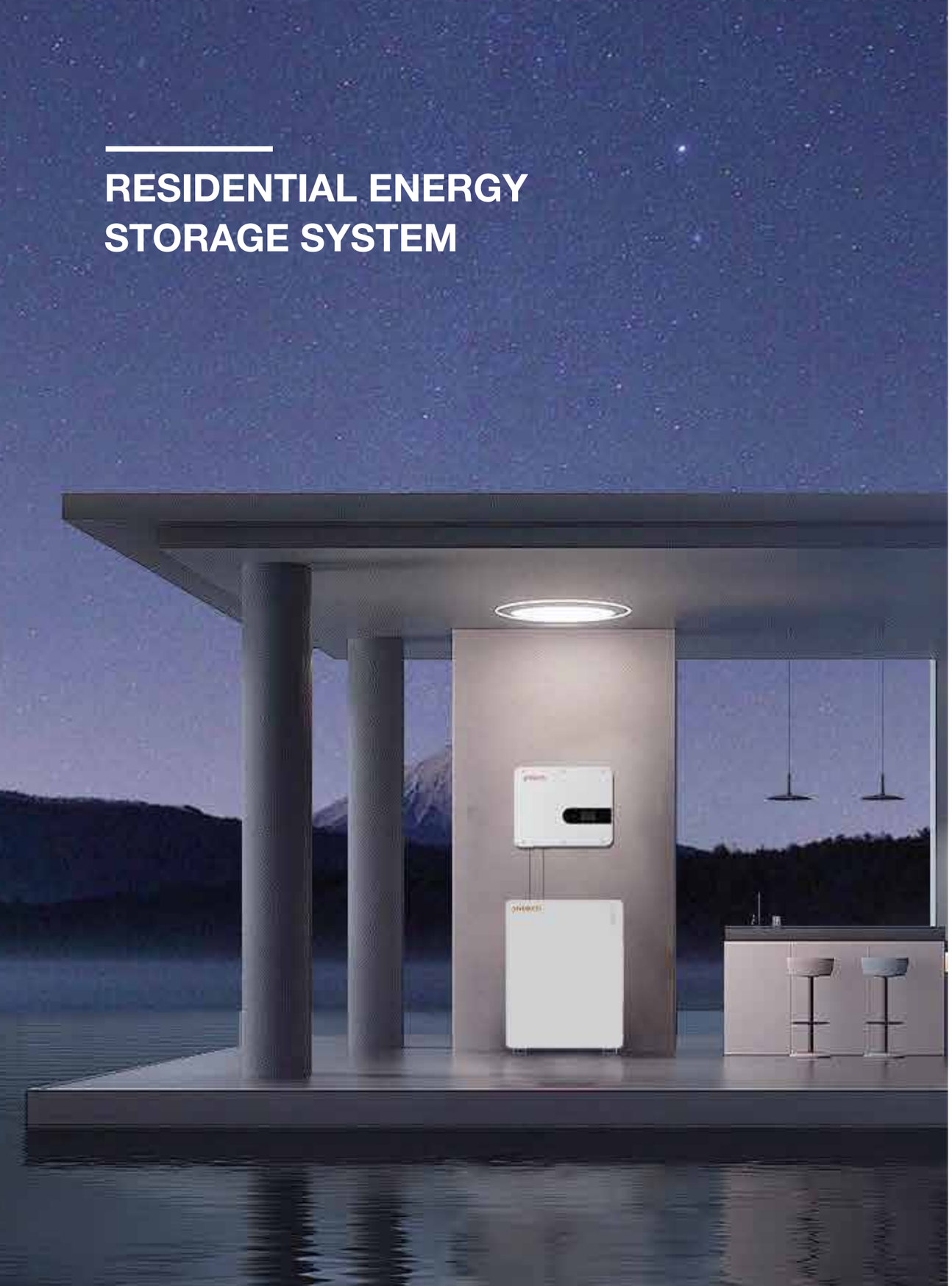
40%+
R&D Employees

100+
Countries and Regions

10,000+
Global Clients

1,000,000+
Products Sold

RESIDENTIAL ENERGY STORAGE SYSTEM



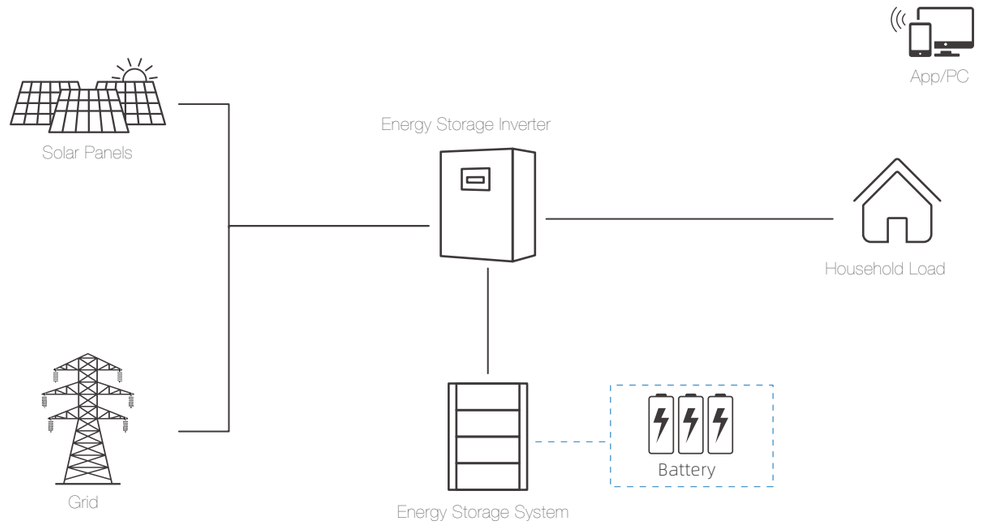
Overview of the Residential Energy Storage System

JNTech's Residential Energy Storage System is a cutting-edge solution designed to meet the growing demand for sustainable, stable, and reliable home energy management. This system integrates advanced battery technology with intelligent energy management software, offering homeowners the ability to store excess solar energy generated during the day and use it when needed, ensuring a stable and uninterrupted power supply while maximizing energy efficiency.

Key benefits:

- Stable Power Supply:
  The system ensures continuous, reliable power even during grid outages or instability, offering peace of mind for homeowners.
- Energy Independence:
  By storing excess energy, homeowners can reduce their reliance on the grid, particularly during peak hours or in the event of power disruptions.
- Cost Savings:
  The system allows users to optimize energy usage by storing cheaper, off-peak electricity and utilizing it during peak periods, significantly lowering energy bills.
- Eco-Friendly:
  By maximizing the use of solar energy and minimizing dependence on fossil fuels, the system helps reduce the household's carbon footprint.
- Scalable Design:
  The modular architecture of the system allows it to be tailored to the specific energy needs of any household, providing flexible capacity options for different usage scenarios.
- Smart Energy Management:
  Integrated with advanced energy monitoring and management software, the system enables real-time data tracking and remote control, giving users full visibility and control over their energy usage.

System Diagram



PRODUCTS AND SPECIFICATIONS

ENERGY STORAGE PRODUCTS LIST

Battery Module — Rack Design

Model
JNB048100-H-V3
5.12kWh Lithium Battery
(Rack Design)

Model
JNB048100-S-V1
5.12kWh Lithium Battery
(Rack Design)

Wall-Mounted Battery

Model
JNB025100-W
2.56kWh Lithium Battery

Model
JNB051100-W
5.12 kWh Lithium Battery

Model
JNB051200-W
10.24 kWh Lithium Battery

Low-Voltage Mobile Batteries

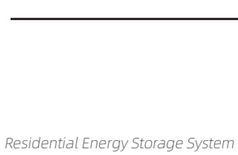
Model
JNB051280-P
14.3kWh Lithium Battery
(Mobile Design)

INVERTER PRODUCT LIST

Solar Control Inverter Integrated Machine

Model:
JNF1K2LF-X-V1
1.2 kW Inverter

Model:
JNF1K6LF-X-V1
1.6 kW Inverter



Model:
JNF2K4LF-X-V1
2.4 kW Inverter

Model:
JNF3KHF-X-V1
3 kW Inverter

Model:
JNF5KHF-X-V1
5 kW Inverter

Model:
JNF6K2HF-X-V1
6.2 kW Inverter

Solar Control Inverter Integrated Machine

Model:
JNF3KLF-X-V1
(Power-frequency inverter)
3 kW Inverter

Model:
JNF11KHF-X-V1
11 kW Inverter

Single Phase Hybrid Energy Storage Inverter

Model:
JNS6KLV
6 kW Hybrid Inverter

Features:

- Uses lithium iron phosphate battery for increased safety and prolonged cycle life.
- Advanced BMS with three-level protection for comprehensive security.
- Modular design with automatic operation capabilities.
- Offers customized solutions for residential, commercial, and industrial energy storage systems.
- Low-voltage design to meet safety and reliability requirements for household use.
- Scales easily by connecting up to 16 units in parallel.

MODEL	JNB048100-H-V3	JNB048100-S-V1
Rated capacity	100Ah	
Rated voltage	51.2V	
Rated energy	5.12kwh	
Battery type	LiFePO4	
Max. continuous charge current	100A (1C)	
Max. continuous discharge current	100A (1C)	
Voltage range	40 ~ 60Vdc	
Operating temp	Charge 0~45℃, discharge -25~55℃	
Storage temperature	-20~60℃	
Size (W*D*Hmm)	596*195*532mm	600*485*167
Weight (Kg)	55Kg	48Kg
Cooling method	Natural air cooling	Forced cooling
Protection level	IP30	IP21
Functional protection	Undervoltage, overvoltage, overcurrent, temperature, short circuit	
Installation method	Rack insert	
Cycle life	≥6000(80%DOD 25℃ 0.5C/0.5C)	
Interface	RS485/CAN	
Elevation	≤3000m	

Features:

- Adopt lithium iron phosphate battery, which is highly safe and has a long charge and discharge cycle life;
- Built-in advanced BMS, three-level battery management system protection, and perfect protection function;
- Modular design supports automated operation;
- Can provide customized products for household energy storage, industrial and commercial energy storage.

MODEL	JNB025100-W
Rated capacity	100Ah
Rated voltage	25.6V
Rated energy	2.56kWh
Battery type	LiFePO4
Max. continuous charge current	100A(1C)
Max. continuous discharge current	100A(1C)
Voltage range	21.6V～29.2V
Operating temp	Charge0～50℃, discharge-15～55℃, storage-20℃～55℃
Size (W*D*Hmm)	458*134*410mm
Cooling method	Natural air cooling
Weight(Kg)	25Kg
Communication interface	RS485/CAN
Protection level	IP30
Function protection	Undervoltage, overvoltage, overcurrent, temperature, short circuit
Installation method	Wall Mounted
Cycle life	≥6000(80%DOD 25℃ 0.5C/0.5C)
Elevation	≤3000m

Features:

- Adopt lithium iron phosphate battery, which is highly safe and has a long charge and discharge cycle life;
- Built-in advanced BMS, three-level battery management system protection, and perfect protection function;
- Modular design supports automated operation;
- Can provide customized products for household energy storage, industrial and commercial energy storage.

MODEL	JNB051100-W
Rated capacity	100Ah
Rated voltage	51.2V
Rated energy	5.12kWh
Battery type	LiFePO4
Max. continuous charge current	100A(1C)
Max. continuous discharge current	100A(1C)
Voltage range	43.2V～58.4V
Operating temp	Charge0～50℃, discharge-15～55℃, storage-20℃～55
Size (W*D*Hmm)	458*134*585mm
Cooling method	Natural air cooling
Weight(Kg)	50Kg
Communication interface	RS485/CAN
Protection level	IP30
Function protection	Undervoltage, overvoltage, overcurrent, temperature, short circuit
Installation method	Wall Mounted
Cycle life	≥6000(80%DOD 25℃ 0.5C/0.5C)
Elevation	≤3000m

Features:

- Adopt lithium iron phosphate battery, which is highly safe and has a long charge and discharge cycle life;
- Built-in advanced BMS, three-level battery management system protection, and perfect protection function;
- Modular design supports automated operation;
- Can provide customized products for household energy storage, industrial and commercial energy storage.

MODEL	JNB051200-W
Rated capacity	200Ah
Rated voltage	51.2V
Rated energy	10.24kWh
Battery type	LiFePO4
Max. continuous charge current	100A(0.5C)
Max. continuous discharge current	100A(0.5C)
Voltage range	43.2V～58.4V
Operating temp	Charge0～50℃, discharge-15～55℃, storage-20℃～55
Size (W*D*Hmm)	592*181*777mm
Cooling method	Natural air cooling
Weight(Kg)	100Kg
Communication interface	RS485/CAN
Protection level	IP30
Function protection	Undervoltage, overvoltage, overcurrent, temperature, short circuit
Installation method	Wall Mounted
Cycle life	≥6000(80%DOD 25℃ 0.5C/0.5C)
Elevation	≤3000m

Features:

- **Perfect Compatiblity**
  Compatible to most inverter brands on the market
- **Compact Design**
  Mobile type with small footprint
- **Safety**
  BMS & Breaker two Level over protection
- **High quality Cell**
  Tier one new Grade A only
- **Long Life**
  10000 cycles long working lifespan
- **Fast Installation**
  Plug & Play battery interface

MODEL	JNB051280-P
Rated capacity	280Ah
Rated voltage	51.2V
Rated energy	14.336kWh
Battery type	LiFePO4
Max. continuous charge current	100A(0.35C)
Max. continuous discharge current	100A(0.35C)
Voltage range	43.2V～58.4V
Operating temp	Charge0～50℃, discharge-15～55℃, storage-20℃～55℃
Size (W*D*Hmm)	832*251*582mm
Cooling method	Natural air cooling
Weight(Kg)	102Kg
Communication interface	RS485/CAN
Protection level	IP30
Function protection	Undervoltage, overvoltage, overcurrent, temperature, short circuit
Installation method	Mobile Power
Cycle life	≥6000(80%DOD 25℃ 0.5C/0.5C)
Elevation	≤3000m

Features:

- Lithium battery self-start, better matching lithium battery charging.
- AC input source compatible with the grid and diesel generators, smart control.
- Intelligent power supply mode, intelligently distributing the energy ratio of photovoltaic, grid electricity, and battery.
- Advanced energy management system, adaptable to different application scenarios.
- The charging current can be set to protect the battery and extend its lifespan.
- The battery configuration is diverse, with options for gel batteries or lithium batteries.
- The fuse-free switch battery has a reverse connection protection feature, making installation safer.
- The internal cooling fan has intelligent speed control to extend the fan's lifespan.

MODEL	JNF1K2LF-X-V1	JNF1K6LF-X-V1	JNF2K4LF-X-V1
PV INPUT			
Maximum input DC voltage	150Vdc		
Maximum input power	1600W		
MPPT voltage range	30～150Vdc		
Maximum photovoltaic charging current	60A		
BATTERY			
Rated battery voltage	24Vdc		
Charging voltage	27.4Vdc		
Battery information	Gel/Lithium		
AC INPUT			
Rated input voltage	220Vac		
Frequency range	50Hz/60Hz±5%(Adaptive)		
Maximum charging current	20A	30A	60A
INVERTER OUTPUT			
Output voltage	220Vac		
Rated frequency	50Hz/60Hz±1%		
Rated power	1200W	1600W	2400W
Output waveform	Pure Sine Wave		
Load peak ratio	(MAX) 3:1		
Switching time	≤20ms		
GENERAL PARAMETERS			
Packaging dimensions (W*D*Hmm)	387*200*531mm		
Packaging weight(Kg)	12.61Kg	14.89Kg	16.64Kg
OTHER PARAMETERS			
Protection Level	IP20		
Noise	≤45dB		
Cooling Method	Forced cooling		
Operating Temperature	-10～+50℃		
Storage Temperature	-15～+45℃		
Operating Environment Humidity	20%~95%（Non-condensing）		
Display Method	LCD/LED		
Display Content	Display Running Mode, Loads/Input/Output etc.		
Communication Interface	RS232、BMS/RS485		
Operating altitude	2000m(>2000m Reduction work)		

Features:

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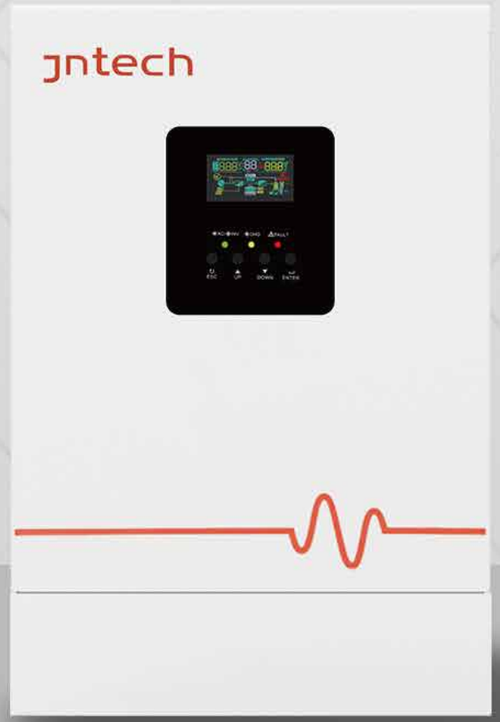

MODEL	JNF3KHF-X-V1	JNF5KHF-X-V1	JNF6K2HF-X-V1
PV INPUT			
Maximum input DC voltage	500Vdc		
Maximum input power	5000W	7500W	7500W
MPPT voltage range	60～500Vdc		
Maximum photovoltaic charging current	100A	100A	120A
BATTERY			
Rated battery voltage	24Vdc	48Vdc	48Vdc
Constant voltage charging voltage	28.2Vdc	56.4Vdc	56.4Vdc
Float charging voltage	27Vdc	54Vdc	54Vdc
Battery information	Gel/Lithium		
AC INPUT			
Rated input voltage	208/220/230/240Vac	208/220/230/240Vac	208/220/230/240Vac
Frequency range	50Hz/60Hz (Auto Adaptive)		
Maximum charging current	60A	100A	100A
INVERTER OUTPUT			
Output voltage	208/220/230/240 Vac±5%		
Rated frequency	50/60Hz±0.1%		
Rated power	3000W	5500W	6200W
Output waveform	Pure Sine Wave		
Peak power	6000VA	11000VA	12400VA
Transfer Time (adjustable)	Computers (UPS Mode) 10ms, Appliance (APL Mode) 20ms		
GENERAL PARAMETERS			
Packaging dimensions (W*D*Hmm)	385*195*565mm	385*195*565mm	385*195*565mm
Packaging weight(Kg)	10.4Kg	11.89Kg	12.26Kg
OTHER PARAMETERS			
Protection Level	IP20		
Noise	≤50db		
Cooling Method	Forced cooling		
Operating Temperature	-10～+50℃		
Storage Temperature	-22～+55℃		
Operating Environment Humidity	20%~95%（Non-condensing）		
Display Method	LCD		
Display Content	Display Running Mode, Loads/Input/Output etc.		
Communication Interface	RS232、BMS		
Operating altitude	Altiude Not Over 1000m, Derating over 1000m, Max 4000m		

Features:

- Lithium battery self-start, better matching lithium battery charging.
- AC input source compatible with the grid and diesel generators, smart control.
- Intelligent power supply mode, intelligently distributing the energy ratio of photovoltaic, grid electricity, and battery.
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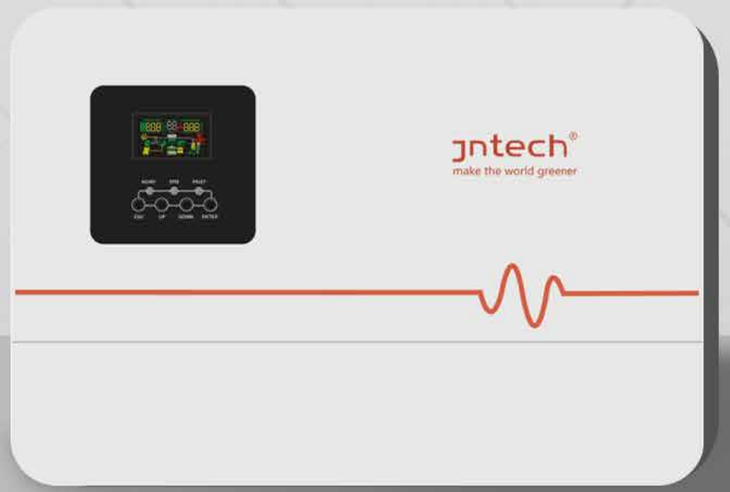

MODEL	JNF3KLF-X-V1
INPUT	
Voltage (DC)	24V
Nominal Voltage	220VAC (Standard)
Voltage Range	154-264VAC+3V (APP Mode) 185-264VAC+3V (UPS Mode)
Frequency	50Hz/60Hz+5%(Auto Adaptive)
OUTPUT	
Watt	3000W
Voltage	The output voltage is the same as the input frequency
Frequency	The output frequency is the same as the input frequency
Waveform	Pure sinewave
Transfer time(AC to DC)	<8ms
Transfer time(DC to AC)	<8ms
Output voltage regulation	10%rms
Bypass Mode	Yes
Saver Mode	Yes
Efficiency	>98%
PROTECTION	
Input Protection	Circuit Breaker
Output Protection	Circuit Breaker
BATTERY	
Battery Type	External lead-acid battery or water battery or lithium battery
	Up to 500Ah
Charging current	120Vdc
Low Level disconnect(Selectable)	20V or 21V
LCD Indicator status	Input AC, Output AC
	Battery DC, Output Load
	Alarm, Fault
	Battery Charge Level
	Output Frequency
LED Indicator status	AC Line In:Green
	Inverter:Green
	Charging:Yellow
	Alarm:Red
DC high voltage alarm and fault	31.2V
DC high voltage recovery	30V

Features:

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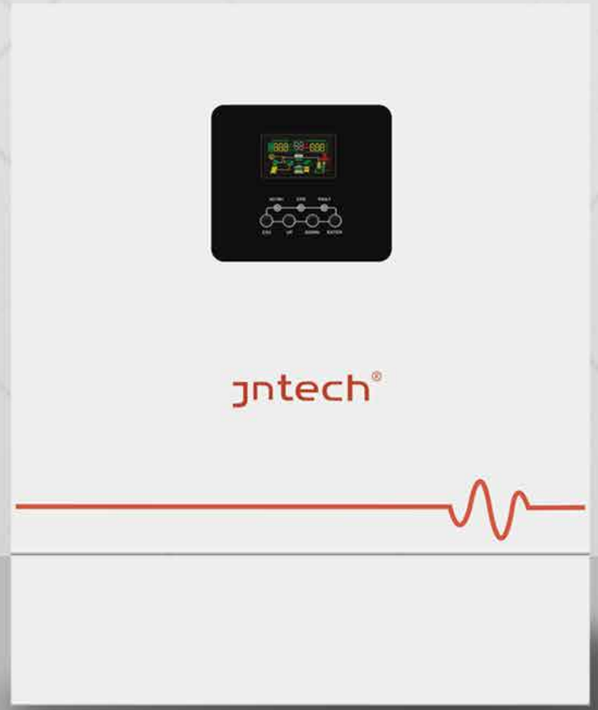

MODEL	JNF11KHF-X-V1
PV INPUT	
Maximum input DC voltage	500Vdc
Maximum input power	2×5500W
MPPT voltage range	90～500Vdc
Maximum photovoltaic charging current	150A
BATTERY	
Rated battery voltage	48Vdc
Constant voltage charging voltage	56.4Vdc
Float charging voltage	54Vdc
Battery information	Gel/Lithium
AC INPUT	
Rated input voltage	208/220/230/240Vac
Frequency range	50Hz/60Hz (Auto Adaptive)
Maximum charging current	150A
INVERTER OUTPUT	
Output voltage	208/220/230/240 Vac±5%
Rated frequency	50/60Hz±0.1%
Rated power	11000W
Output waveform	Pure Sine Wave
Peak power	22000VA
Switching time	≤20ms
GENERAL PARAMETERS	
Packaging dimensions (W*D*Hmm)	570*241*708mm
Packaging weight(Kg)	22.71Kg
OTHER PARAMETERS	
Protection Level	IP20
Noise	≤50db
Cooling Method	Forced cooling
Operating Temperature	-10～+50℃
Storage Temperature	-22～+55℃
Operating Environment Humidity	20%~95%（Non-condensing）
Display Method	LCD
Display Content	Display Running Mode, Loads/Input/Output etc.
Communication Interface	RS232、BMS
Operating altitude	Altiude Not Over 1000m, Derating over 1000m, Max 4000m

Features:

Optimal power and storage

- Maximum efficiency 97.6%
- 16A high current in series, suitable for Bifacial module and high efficiency module
- Maximum charge and discharge current up to 135A, make full use of solar power
- Less than 10ms seamless switch to backup power to ensure the safety of key electrical appliances

Strong on-load and backup capability

- Max 1.3 times off-grid overload output in 60 seconds
- 110% continuous AC output overload
- Support Max. PV Input Power of 130%
- Support for a diesel generator to charge the battery directly (no additional controller required), with a choice of lithium or lead-acid batteries

Easy installation and operation

- Mobile phone intelligent cloud monitoring, Convenient operation at anytime and anywhere
- Color LCD touch screen for easy operation
- Simple and compact shape, weight, volume, size of the industry's best at same power range

Intelligent EMS management

- Support remote software upgradation and customization
- 24/7 operating condition monitoring
- EMS intelligent M intelligent scheduling, optimize the precision of energy scheduling

MODEL	JNS6KLV
PV INPUT	
Max. recommended PV array power	7800 Wp
Max. PV array input voltage	500 v
Start-up voltage	125 v
Rated input voltage	370 v
MPPT voltage range	150~430 v
Max. input current per MPPT	16 A
Max. short circuit current per MPPT	20 A
No. of MPPT Tracker / Strings	2
No. of strings per MPPT	1
AC GRID	
Maximum input apparent power	9200 VA
Rated output power	6000 W
Maximum output apparent power	6600 VA
Rated output voltage	L/N/PE,220/230/240 V
Input/output voltage range	180~300 V
Rated output voltage frequency	50/60 Hz
Input/output voltage frequency range	(45~55)/(55~65)Hz
Rated output current	26.1 A
Max. input/output current	40/28.7 A
Power factor (Rated)	>0.99
Power factor range	Adjustable from 0.8 overexcited to 0.8 underexcited
Max. total harmonic distortion (THD)	<3%(rated power)
Grid connection	L/N/PE
OFF-GRID OUTPUT (AC)	
Rated output power	6000 W
Maximum output apparent power	6600 VA
Rated output voltage	L/N/PE,220/230/240 V
Output voltage range	200~240 V
Rated output frequency	50-60 Hz
Rated output current	26.1 A
Max. output current	28.7 A
Max. total harmonic distortion THD	<3% (linear load)
On off grid switching time	<10ms
BATTERY	
Rated output power	6000 W
Max. charge/discharge power	6000 W
Rated voltage	48 V
Battery voltage range	40~60V
Max. charge/discharge current	135 A
Communication interface	CAN/RS485
EFFICIENCY	
Max. efficiency	97.6%
MPPT efficiency	99.9%
European efficiency	96.5%
PROTECTION	
Integrated protection	Anti-reverse current protection; DC reverse connection protection; input DC switch; insulation impedance detection; GFCI leakage current detection; output short circuit protection; output overcurrent protection; grid monitoring; island protection; residual current detection; off-grid overload.
Surge protection	DC Typell,AC Type II
DISPLAY AND COMMUNICATION	
Display	LCD+LED+APP
Communication Interfaces	RS485, 4G (optional), WiFi (optional)
GENERAL PARAMETER	
Dimension (W*D*Hmm)	580*232*330 mm
Weight (net weight) (Kg)	20.5 Kg
Operating temp.	-25~60℃(derating above 45℃)
Noise	<35 dB
Cooling method	Intelligent air cooling
Mounting	Wall-mounted
Protecition level	IP65
Warranty	5 years
CERTIFICATIONS	
Grid connection standards	IEC 62116/61727,NRS 097-2-1,EN 50549/50438,C 10/11,CEI 0-21,AS 4777.2,UNE 206006/206007, VDE 4105,RD1699/661/413/244/2019,NTS Type A,UNE 217002/217001
Safety standards	EN/IEC 62109-1/2
Other standards	EN/IEC 61000-6-1/3,IEC 60068,IEC 61683