New Energy · New Life · New Future

Your Trusted Power Of Choice

Advanced Solar Energy System Solutions

Solar Energy Storage System Solution

Manufacturer

-Since 2010

PRODUCT CATALOGUE

R&D and Innovation

By continuously innovating to drive enterprise development, we have established two technology centers: the Foshan headquarters experimental base and the Shenzhen software research and development center. We have signed a strategic cooperation agreement with Guangzhou University for industry university research cooperation, and guided by customer needs, we have launched a complete set of household photovoltaic system equipment and information software management programs with excellent performance and high cost-effectiveness.

Quality and Delivery Capability

The factory has independent intellectual property rights covering an area of over 20000 square meters, with 10 advanced automated production lines and a daily production capacity of about 3000 units. From raw material procurement to product delivery, every step strictly adheres to international quality control standards to ensure high-quality and on-time delivery.

20000m²
Workshop Space

300+
Employees

10+
Automatic Production Lines

26+
Milion USD Investment

Product
Certificate

Product
Line

Shipping
Diagram

CONTENTS

NEW ENERGY · NEW LIFE · NEW FUTURE

MS Portable Energy Storage Power Supply

300W/500W/1000W

MAIN FEATURES

- Wide input range for communication, pure sine wave output
- High charging/discharging energy efficiency and long cycle life of lithium batteries
- Intelligent air-cooled energy-saving design
- The panel display is simple and easy to operate
- Complete protection functions for overcurrent, overvoltage, overtemperature, short circuit, etc
- Small size, light weight, suitable for outdoor scenes

Product Specifications

Model		MS-30132-HV	MS-50132-HV	MS-10264-HV	MS-50132-LV	MS-10264-LV
AC Input	Rated Voltage	230VAC			120VAC	
	Voltage Range	90-280VAC			60-145VAC	
	Frequency Range	45-65Hz				
	Power Factor	>0.95				
AC Output	Rated Power	300W	500W	1000W	500W	1000W
	Voltage Range	230VAC±5V			120VAC±5V	
	Frequency Range	50Hz±0.5%			60Hz±0.5%	
	Power Factor	≥99%				
	Overload Capacity	CP300W,<170VAC shutdown	CP500W,<170VAC shutdown	CP1000W,<170VAC shutdown	CP500W,<85VAC shutdown	CP1000W,<85VAC shutdown
	Voltage Waveform	pure sine wave				
	Harmonic Distortion (THD)	<3% @ linear load <5% non-linear load				
	Convert Time	≤20ms				
	USB Output	5V/1A				
PV Input	Voltage Range	11-55VDC				
	Rated Power	300W(Max)		550W(Max)	300W(Max)	550W(Max)
	Maximum Current	10A(Max)		15A(Max)	10A(Max)	15A(Max)
	Maximum Charging Current	80A(Max)		100A(Max)	80A(Max)	100A(Max)
Battery Characteristics	Battery Type/Rated Voltage	Lithium iron battery/3.2V-206AH	Lithium iron battery/3.2V-314AH	Lithium iron battery/6.4V-314AH	Lithium iron battery/3.2V-314AH	Lithium iron battery/6.4V-314AH
	Battery capacity	659WH	1004WH	2009WH	1004WH	2009WH
	Voltage Range	3.0-3.65VDC		6.0-7.3VDC	3.0-3.65VDC	6.0-7.3VDC
	Maximum Charging Power	300W	500W	1000W	400W	1000W
	AC+PV Maximum Charging Current	1-100A(configurable)	1-140A(configurable)	1-160A(configurable)	1-140A(configurable)	1-160A(configurable)
Other	Communication And Monitoring	USB (serial interface)				
	Working Temperature Range	-10-40℃				
	Storage Temperature Range	-15-60℃				
	Humidity Range	5-95% (no condensation)				
	Noise	≤50dB				
	Working Altitude	Applicable for ≤ 3000m 10% reduction for every 1000m increase (over 3000m)				
Product Dimensions(length*width*height)mm		255*135*315	255*155*315	285*230*315	255*155*315	285*230*315
Packaging Dimensions(length*width*height)mm		325*200*350	315*220*345	355*305*350	315*220*345	355*305*350
Net Weight (KG)		7.9	10.7	19	10.7	19
Gross Weight(KG)		8.5	11.5	20	11.5	20

AL-S Solar Energy Storage System

600W/1200W/2200W/3500W/5000W/10000W

MAIN FEATURES

- Pure sine wave output
- LifePO4 battery with 10 years service life
- The mains input automatically turns on and activate the LifePO4 battery
- MPPT Controller greatly improving the charging efficiency more than 20%
- Overcharge protection and over discharge protection for a longer battery life
- Safe and reliable with intelligent exhaust fan control

Product Specifications

Model		AL-S600	AL-S1200	AL-S2200	AL-S3500	AL-S5000	AL-S10K
Inverter	Battery Voltage	12.8V	25.6V		51.2V		
	In-built Battery Specification	50AH/12.8V	50AH/25.6V	100AH/25.6V	100AH/51.2V	100AH/51.2V	200AH/51.2V
	Rated Power	600W	1200W	2200W	3500W	5000W	10000W
	Output Voltage	110/120/220/230/240VAC					220/230/240VAC
	Output Frequency	50/60Hz					
	Output Waveform	Pure Sine Wave					
	Input Voltage Range	73~138/145~275VAC		85~138/170~275VAC			170~275VAC
	Input Frequency	45~65Hz					
MPPT Charge	Maximum Photovoltaic Voltage	100V			≤200V		
	PV Input Range Voltage	18~100V	34~100V		65~200V		
	Rated Charge Current	30A				60A	
	Maximum Power	420Wp	840Wp		1650Wp	3400Wp	
	Voltage Of Floating Charge	14.2V	28.4V		56.8V		
	MPPT Efficiency	≥97%					
DC Output	Voltage Of High Voltage Protection	17V	34V		68V		
	Voltage Of High Voltage Recovery	15V	30V		60V		
	Voltage Of Low Voltage Recovery	13V	26V		52V		
	Voltage Of Low Voltage Protection	11.2V	22.4V		44.8V		
	5VDC USB Output Port	2 Units/MAX 2A					
	12VDC Output Port	2 Units/MAX 2A					
Other	Heat Dissipation/Cooling	Temperature Control By Intelligent Exhaust Fan					
	Ambient Temperature For Operation	0~40°C					-20~50°C
	Ambient Temperature For Storage	-25~55°C					
	Operation/Storage Conditions	0~90%(no condensation)					
	External Dimensions:L*W*H(mm)	460*182*397	485*202*406	540*229*464	577*350*644	627*405*664	780*447*724
	Packing Dimensions:L*W*H(mm)	527*267*470	552*277*477	570*310*535	665*450*825	715*505*845	875*545*922
	Net Weight (KG)	13	26	41.5	77	112	153
	Gross Weight (KG)	15	27.5	43	97	137	182

AL Solar Energy Storage System

300W/500W/1000W/1500W

MAIN FEATURES

- Pure sine wave output
- Built in Gel battery
- PV input 18~100VDC/34~100VDC
- MPPT Controller greatly improving the charging efficiency more than 20%
- Overcharge protection and over discharge protection for a longer battery life
- Safe and reliable with intelligent exhaust fan control

NLB Solar Energy Storage System

3.6KW/6KW

MAIN FEATURES

- Pure sine wave output
- Built-in 1 or 2 MPPT
- Compatible work with LiFePO4 battery via RS485
- LifePO4 battery with 10 years service life
- Wifi remote monitoring optional
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model		AL-300	AL-500	AL-1000-12	AL-1000-24	AL-1500
Inverter	Battery Voltage	12V			24V	
	In-built Battery Specification	1*55AH/12V		1*100AH/12V	2*55AH/12V	2*100AH/12V
	Rated Power	300W	500W	1000W	1000W	1500W
	Output Voltage	110/120/220/230/240VAC				220/230VAC
	Output Frequency	50/60Hz				
	Output Waveform	Pure Sine Wave				
	Input Voltage	73~138/145~275VAC			85~138VAC/170~275VAC	
	Charge Current	10A(MAX)		15A(MAX)		
Solar Input	Voltage Range	18~100V			34~100V	
	Rated Charge Current	30A				
	Maximum Power	420Wp			840Wp	
	Voltage Of Overcharge Protection	14.2V			28.4V	
	Voltage Of Overcharge Recovery	14V			28V	
	Voltage Of Floating Charge	13.7V			27.4V	
DC Output	Voltage Of High Voltage Protoction	17V			34V	
	Voltage Of High Voltage Recovery	14.5V			29V	
	Voltage Of Low Voltage Recovery	12.5V			25V	
	Voltage Of Low Voltage Protection	11V			22V	
	5VDC USB Output Port	2 Units/MAX 2A				
	12VDC Output Port	2 DC ports + backboard 12V terminal block(MAX 8A)				
Starting Temperature Of The Exhaust Fan		>45°C				
Ambient Temperature For Operation		0~40°C				
Ambient Temperature For Storage		-25~55°C				
Operation/Storage Conditions		0~90%(no condensation)				
External Dimensions:L*W*H (mm)		343*225*443	423*260*453			513*310*493
Packing Dimensions:L*W*H(mm)		420*290*490	520*370*520			610*420*550
Net Weight (KG)		25	26.7	43	46	84
Gross Weight (KG)		25.6	26.8	45	47.6	88

Product Specifications

Model			NLB-3.6KW		NLB-6KW	
Rated Power			3600W		6000W	
LifePO4 Battery	Specification		25.6V-206AH	25.6V-314AH	51.2V-206AH	51.2V-314AH
	Battery Capacity		5273WH	8038WH	10547WH	16076WH
	Stacking Quantity		built-in			
MPPT Input	Max PV Input		5000W		9000W	
	PV Input Voltage		40~430VDC		60~450VDC	
	Max Open Circuit Voltage		450VDC		500VDC	
	Charging Current(can be set)		100A		120A	
AC Input	Voltage Ramge	UPS	170~280VDC		170~264VDC	
		INV	90~280VDC		90~280V	
	Frequency		45~65Hz			
	Charging Current(can be set)		100A		120A	
Inverter Output	Voltage Range(can be set)		208/220/230/240VAC±5%			
	Frequency		50/60Hz			
	Output Wave		Pure Sine Wave			
	Conversation Time		10ms			
	Efficiency		>93%		>94%	
	Overload		102~110%/60s;110%~130%/10s;130%~150%/3s;>150%/0.2s			
Ambient Temperature For Operation			-10~50°C			
Ambient Temperature For Storage			-15~60°C			
Operating/Storage Environment			5~95%Relative humidity(non-condensing)			

The company reserves the right to change without notice.

HDB Stacked Solar Energy Storage System

12KW

MAIN FEATURES

- Pure sine wave output
- Built-in 2 MPPT
- Compatible work with LiFePO4 battery via RS485
- LifePO4 battery with 10 years service life
- Wifi remote monitoring optional
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model			HDB-12KW
Rated Power			12000W
Communication Input	Voltage		230/240VAC
	Selectable Voltage Range	UPS	170~280VAC
		INV	90~280VAC
	Frequency Range		50/60Hz(Auto sensing)
Communication Output	AC Voltage Regulation (Batt .Mode)		220/230/240VAC
	Surge Power		24KW
	Efficiency(Peak)PV to INV		95%
	Efficiency(Peak)Battery to INV		94%
	Transfer Time		10ms
	Overlord Capacity		1min@102%~125%Load,10s@>125%Load
PV Charge	Maximum PV Array Power		15000W
	MPPT Range Operating Voltage		60~450VDC
	Maximum PV Array Open Circuit Voltage		500VDC
	Maximum Charge Current		160A
	Maximum Efficiency		99%
Battery And AC Charging	Specification		314AH/51.2V
	Battery Capacity		16076.8WH
	Stacking Quantity		1~3
	Maximum Charging Current		160A
AC+PV Charge	Maximum Charge Current		160A
Opera Ting Environment	Humidity		5~95% Relative Humidity(Non-condensing)
	Operating Temperature		0~55°C
	Storage Temperature		-15~60°C
Physical	Communication Interface		USB/RS232/RS485

Note: Our company has the right of changing this user manual without any information

Integrated Solar Storage Hybrid Power System

125KW-241KWh

MAIN FEATURES

- Combining high power and high capacity
- Multi energy complementarity and flexible configuration
- It can integrate various energy sources such as photovoltaic power generation, diesel generators, and mains power, and achieve intelligent scheduling through an energy management system (EMS)
- Intelligent management and optimization
- The power output can meet the demand of large-scale loads, such as small and medium-sized factories, commercial complexes, or community power supply
- Fast response and seamless switching

Product Specifications

Parameter		SNT125-241KWH-PV250
Photovoltaic Parameters	Maximum Input Power	250.0KW
	Maximum Input Voltage	1000V
	MPPT Working Range	180~950V
	MPPT Rated Voltage	500~850V
	Starting Voltage	200V
	Maximum Input Current	40A*8
	Maximum Short-circuit Current	55A
	Number Of MPPT	8 groups
	Number Of Input Strings Per MPPT Channel	2*8=16 Route
	Photovoltaic MPPT Efficiency	99%
AC Communication Parameters (grid connected end)	Rated Output Power	125.0KW
	Maximum Output Power	125.0KW
	Maximum Charging Power	125.0KW
	Mixed Output Power	137.0KW
	Rated Voltage	380/400V,3L/N/PE
	Rated Frequency	50/60Hz
	Maximum Output Current	198A
	Maximum Three-phase Unbalanced Output	0~97%
	Maximum Bypass Current	300A
	Total Harmonic Distortion Of Current	＜3%
AC Communication Parameters (off grid end)	Rated Output Power	125.0KW
	Rated Output Voltage	380/400V,3L/N/PE
	Rated Output Frequency	50/60Hz
	Maximum Output Single-phase Apparent Power	40KW
	Off Grid Switching Time	10ms
	Conversion Efficiency	98.00%
Battery Parameters	Battery Parameters Operating Voltage Range	672-864.0V
	Battery Type	Lithium iron phosphate LifePO4
	Battery Model	SF-T768V 314AH
	Rated Charging/disCharging Current	300A/300A
	Charging Power	125.0KW
	Battery Count Setting	15
	Single Pack Battery Capacity	16.076KWH
	Rated Capacity	241.0KWH
Basic Parameters	Temperature Control System Air-cooled Air Conditioner	air-cooled air conditioner
	Passive Firefighting	Hot aerosol fire extinguishing device/detector
	Working Temperature range	-25~60°C (>45 derating)
	Working Altitude	＜3000m
	Noise Emissions	＜30~60dB
	Protection Level	IP54
	Relative Humidity Range	0~95°C (No condensation)
	Size (W*H*D) (mm)	1200*1100*2200
	Packaging Weight	2600KG
	Human Computer Interaction Mode	LCD/APP
	Cloud Based Communication Method	Wi-Fi
	Display Interface	liquid crystal, LCD, RS485, CAN
	Certification	UN38. 3 MSDS CE
	Safety Standards	IEC62109-1/-2
	EMC Standard	EN61000-6-1/-3,IEC61000
	Well Network Standard	NRS97, G98/G99, EN50549-1, C10/C11, as 4777, VDE-AR-N4105, VDE0126, IEC62040

NKH Off-grid Hybrid Solar Inverter

1.2KW/3.6KW/6KW/12KW

MAIN FEATURES

- Built-in 1 or 2 MPPT
- Pure sine wave output
- Compatible work with LiFePO4 battery via RS485
- Capable to work without battery
- Wifi remote monitoring optional
- Support multiple output priority: UTL,SOL,SBU,SUB

Product Specifications

Model			NKH-1200	NKH-3600	NKH-6000	NKH-12K
Rated Power			1200W	3600W	6000W	12000W
Parallel Mode (function reserved)	Allow Quantity		0		0~6	
Communication Input	Voltage		230/240VAC			
	Selectable Voltage Range	UPS	170~264VAC	170~280VAC	170~280VAC	
		INV	90~280VAC	120~280VAC	90~280VAC	
	Frequency Range		50/60Hz(Auto sensing)			
Communication Output	AC Voltage Regulation (Batt .Mode)		208/220/230/240VAC			220/230/240VAC
	Surge Power		2.4KW	7.2KW	12KW	24KW
	Efficiency(Peak)PV to INV		95%			
	Efficiency(Peak)Battery to INV		94%			
	Transfer Time		10ms			
	Overlord Capacity		1min@102%~110% Load,10s@110%~130% Load, 3s@130%~150% Load 2s@150% Load			1min@102%~125%Load,10s@>125%Load
Battery & AC Charge	Battery Voltage		12VDC	24VDC	48VDC	
	Floating Charge Voltage		13.5VDC	27VDC	54VDC	
	Overcharge Protection		15.75VDC	32VDC	64VDC	61VDC
	Maximum Charge Current		60A	100A	120A	160A
PV Charge	Maximum PV Array Power		1000W	5000W	9000W	15000W
	MPPT Range Operating Voltage		20~100VDC	40~430VDC	60~450VDC	
	Maximum PV Array Open Circuit Voltage		125VDC	450VDC	500VDC	
	Maximum Charge Current		60A	100A	120A	160A
	Maximum Efficiency		99%			
AC+PV Charge	Maximum Charge Current		120A	100A	120A	160A
Opera Ting Environment	Humidity		5~95% Relative Humidity(Non-condensing)			
	Operating Temperature		0~55°C			
	Storage Temperature		-15~60°C			
Physical	Communication Interface		USB/RS232/RS485			
	Dimension(L*W*H)mm		260*103*342	312*122*436	343*122*427	389*129*503
	Package Size(L*W*H)mm		355*198*435	395*215*505	425*195*495	470*225*565
	Net Weight(KG)		4.1	7.5	9.2	15

Note: Our company has the right of changing this user manual without any information

GS Hybrid Solar Inverter (IP65)

6.5KW

MAIN FEATURES

- IP65 protection level design
- Scalable, three-phase parallel operation, flexible application, up to 6 parallel units
- Multiple working modes including off grid, grid connected, and mixed grid
- WIFI remote communication management
- Dedicated generator input interface
- Two photovoltaic inputs

Product Specifications

Model		GS-652048-902A
Inverter Mode	Rated Output Power	6500VA/6500W
	Rated DC Input Voltage	48V
	Maximum DC Charging/discharging Current	120A/125A
	Output Voltage Waveform	pure sine wave
	Rated Output Voltage	230Vac±5%
	Rated Output Frequency	50±0.3Hz/60±0.3Hz(Adfustable)
	Parallel Capability	up to 6 units
Mains Mode	Rated Output Power	6500VA/6500W
	Rated DC Input Voltage	48V
	Input Voltage Waveform	Sinusoidal (utility or generator)
	Low Voltage Disconnect Low	230Vac
	Reconnect After Voltage Loss	90Vac±3V(For Home Appliances)/170Vac±3V(For Computers)
	Mains Mode	100Vac±3V(For HomeAppliances)/180Vac±3V(ForComputers)
	Input Voltage Range	90-280Vac
	Maximum Grid Charging Current	120A
	High Line Voltage Disconnection	280Vac±3V
	High Line Voltage Reconnection	270Vac±3V
	Maximum AC Input Voltage	280Vac±3V
	Maximum Grid Charging Current	120A
	Rated Input Frequency	50Hz /60Hz (Auto detection)
Photovoltaic Input	Maximum Open Circuit Voltage	500V
	Photovoltaic Voltage Range	85-450V
	Maximum Input Power	9000W
	Maximum Solar Charging Current	120A
	Maximum Charging Current (photovoltaic+grid)	120A
	Maximum Input Current	27A
	Minimum Starting Voltage	75V
General Specifications	Operating Temperature	-10°C~55°C
	Storage Ttemperature Range	-15°C~60°C
	Product Dimensions (length*width*height)mm	632*400*196
	Packaging Dimensions (length*width*height)mm	715*485*270

ES On/Off Grid Solar Inverter

6.2KW/12KW

MAIN FEATURES

- Built-in 1 or 2 MPPT
- Can parallel 1-6 units
- Can operate independently off the grid or in parallel with the grid
- Capable to work without battery
- Detachable dust cover for harsh environment
- Wifi remote monitoring optional

Product Specifications

Model		ES622048-M100-A	ES622048-M100-B	ES123048-M150-A	ES123048-M150-B
Parallel Mode (function reserved)	Allow Quantity	-A None/-B 1~6			
Mains Mode	Nominal Input Voltage	220/230VAC		230VAC	
	Input Voltage Range	(170~280VAC)±2%(UPS mode);(90~280VAC)±2%(APL mode)			
	Frequency	50/60Hz(Auto detect)			
	Frequency Range	47±0.3~55±0.3HZ(50Hz);57±0.3~65±0.3Hz(60Hz)			
	Max. Efficiency	>95%			
	Conversion Time (bypass and inverter)	10ms(typical)			
	Max. Bypass Overload Current	40A		60A	
Inverter Mode	Output Voltage Waveform	Pure Sine Wave			
	Nominal Output Power	6200VA/6200W		12000VA/12000W	
	Power Factor	1			
	Nominal Output Voltage	230VAC			
	Output Frequency Range	50±0.3Hz/60±0.3Hz			
	Max. Efficiency	>92%		≥93%	
	Overload Protection	(102%<load<125%) ±10%:report error and turn off the output after 5 minutes (125%<load<150%) ± 10%:report error and turn off the output after 10 seconds Load>150%±10%:report error and turn off the output after 5 seconds			
	Peak Power	12000VA		24000VA	
	Load Motor Capability	4HP		8HP	
	Nominal Batteryinput Voltage	48V(Min. start voltage 44V)			
	Battery Voltage Range	40.0~60VDC±0.6VDC(Undervoltage alarm/shutdown voltage/overvoltage alarm/overvoltage recovery...LCD screen can be set)			
	Save Power Mode	Load≤25W Enter save power mode		Load≤50W Enter save power mode	
Mains Charge	Battery Type	Lead-acid or lithium batteries			
	Max. Charge Current (configurable)	80A		150A	
	Charge Voltage Range	40~60VDC			
Solar Charge	Max. PV Open Circuit Voltage	500VDC			
	PV Operate Voltage Range	120~500VDC			
	MPPT Voltage Range	90~450VDC			
	Battery Voltage Range	40~60VDC			
	Max.PV Input Power/Current	6500W/27A		9000W*2/27A*2	
	Charge Current Range (configurable)	0~100A		0~150A	
Max, Hybrid Charge Current (PV+AC)	Max. Hybrid Charge Current (configurable)	0~100A		0~150A	
Certification	Safety Certifcation	CE(IEC62109-1,2)			
	EMC Certifcation Level	EN61000,C2			
	Operate Temperature Range	-15~55°C			
	Storage Temperature Range	-25~60°C			
	Humidity Range	5~95%(Three anti-paint protection)			
	Noise	≤60dB			
	Cooling	Forced air cooling,adjustable wind speed			
	Communicate	USB/RS485 (/WiFi/GPRS)/Dry node control			
Dimensions(L*W*H)mm		280*100*415		350*120*540	
Package Dimensions(L*W*H)mm		385*200*505		460*230*645	
Weight(KG)		7.8		18.5	

ES-IP54 On/Off Grid Solar Inverter(EURO)

6.2KW/12KW

MAIN FEATURES

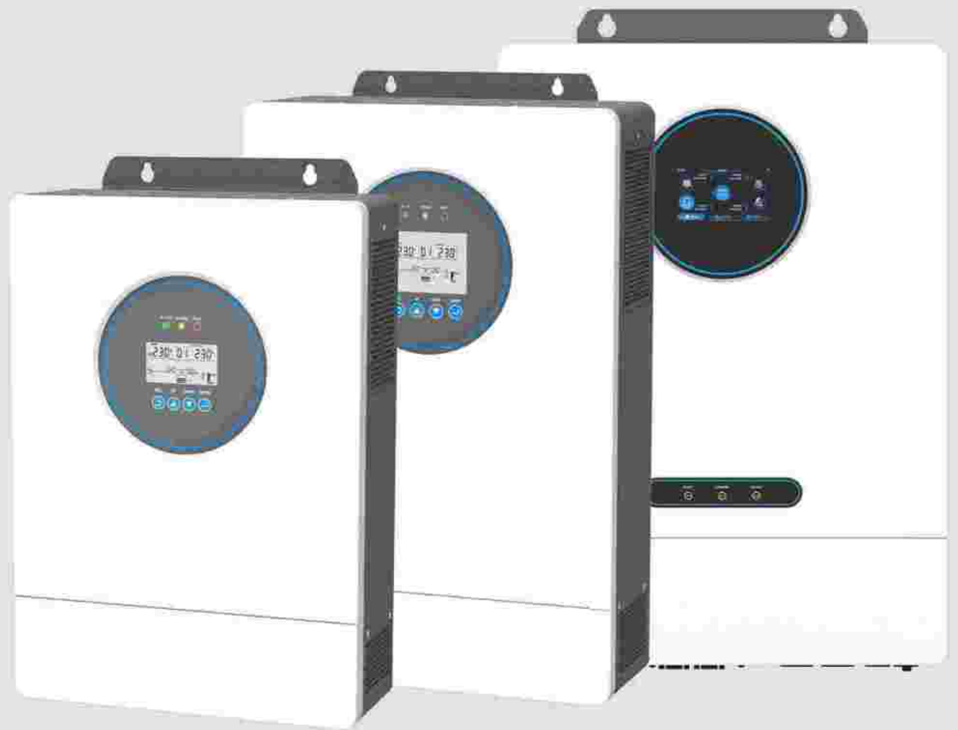
- Intelligent remote monitoring and management
- Can run 6 single-phase or three-phase parallel machines
- Flexible and adjustable input voltage range and charging current
- Dustproof and waterproof design, suitable for complex usage environments
- Wide range of communication input, with anti backflow and grid connection function
- Support battery free working conditions and have segmented intelligent charging and discharging functions

Product Specifications

Model		ES-622048-54A	ES-622048-54B	ES-123048-54A	ES-123048-54B
Parallel Mode (function reserved)	Allow Quantity	Stand-Alone	Maximum parallel operation of 6 units	Stand-Alone	Maximum parallel operation of 6 units
Mains Mode	Nominal Input Voltage	220/230VAC		230VAC	
	Input Voltage Range	(170~280VAC)±2%(UPS mode);(90~280VAC)±2%(APL mode)			
	Frequency	50/60Hz(Auto detect)			
	Frequency Range	47±0.3~55±0.3HZ(50Hz);57±0.3~65±0.3Hz(60Hz)			
	Max. Efficiency	>95%			
	Conversion Time (bypass and inverter)	10ms(typical)			
	Max. Bypass Overload Current	40A		60A	
Inverter Mode	Output Voltage Waveform	Pure Sine Wave			
	Nominal Output Power	6200VA/6200W		12000VA/12000W	
	Power Factor	1			
	Nominal Output Voltage	230VAC			
	Output Frequency Range	50±0.3Hz/60±0.3Hz			
	Max. Efficiency	>92%		>93%	
	Overload Protection	(102%<load<125%)±10%:report error and turn off the output after 5 minutes (125%<load<150%)±10%:report error and turn off the output after 10 seconds Load>150%±10%:report error and turn off the output after 5 seconds			
	Peak Power	12000VA		24000VA	
	Load Motor Capability	4HP		8HP	
	Nominal Batteryinput Voltage	48V(Min. start voltage 44V)			
	Battery Voltage Range	40.0~60VDC±0.6VDC(Undervoltage alarm/shutdown voltage/overvoltage alarm/overvoltage recovery...LCD screen can be set)			
	Save Power Mode	Load≤25W Enter save power mode		Load≤50W Enter save power mode	
Mains Charge	Battery Type	Lead-acid or lithium batteries			
	Max. Charge Current (configurable)	80A		150A	
	Charge Voltage Range	40~60VDC			
Solar Charge	Max. PV Open Circuit Voltage	500VDC			
	PV Operate Voltage Range	120~500VDC			
	MPPT Voltage Range	90~450VDC			
	Battery Voltage Range	40~60VDC			
	Max.PV Input Power/Current	6000W/22A		9000W*2/27A*2	
	Charge Current Range (configurable)	0~100A		0~150A	
Max, Hybrid Charge Current (PV+AC)	Max. Hybrid Charge Current (configurable)	0~100A		0~150A	
Certification	Safety Certifcation	CE(IEC62109-1,2)			
	EMC Certifcation Level	EN61000,C2			
	Operate Temperature Range	-15~55°C			
	Storage Temperature Range	-25~60°C			
	Humidity Range	5~95%(Three anti-paint protection)			
	Noise	≤60dB			
	Cooling	Forced air cooling,adjustable wind speed			
	Communicate	USB/RS485(/WiFi/GPRS)/Dry node control			
Other	External Dimensions:L*W*H(mm)	320*110*455		433*135*592	
	Packing Dimensions:L*W*H(mm)	415*210*525		510*230*665	

AS On/Off Grid Hybrid Inverter (US)

3.6KW/6.5KW/7.2KW/12KW



MAIN FEATURES

- Built-in 1 or 2 MPPT
- Can parallel 1-6 units
- Can operate independently off the grid or in parallel with the grid
- Capable to work without battery
- Detachable dust cover for harsh environment
- Wifi remote monitoring optional

Product Specifications

Model		AS362048-M80-A	AS362048-M80-B	AS652048-M150-A	AS652048-M150-B	AS722048-M150-A	AS722048-M150-B	AS123048-M200-A	AS123048-M200-B
Parallel Mode (function reserved)	Allow Quantity	-A None/-B 1~6							
Mains Mode	Nominal Input Voltage	120VAC±5%				120VAC(L1/N, L2/N)/240VAC(L1/L2)			
	Input Voltage Range	(90~140VAC)±2%				(85~140VAC)±2%			
	Frequency	50/60Hz(Auto Detect)							
	Frequency Range	47±0.3Hz~55±0.3Hz(50Hz); 57±0.3Hz~65±0.3Hz(60Hz)							
	Max.Efficiency	>95%							
	Conversion Time (bypass and inverter)	10ms(Typical Value)							
	Max.Bypass Overload Current	40A		60A		2pole, 50A/50A(L1/L2)		2P,63A/63A(L1/L2)	
Inverter Mode	Output Voltage Waveform	Pure Sine Wave							
	Nominal Output Power	3600VA/3600W		6500VA/6500W		Split phase:7200VA Single phase: 6000VA		Split phase:12000VA/12000W Single phase: 7200VA/7200W(limited by the wiring terminals)	
	Power Factor	1							
	Nominal Output Voltage	120VAC				120VAC(L1/N,L2/N)/240VAC(L1/L2)			
	Output Frequency Range	50±0.3Hz/60±0.3Hz							
	Max.Efficiency	>91%							
	Overload Protection	(102%<load<125%) ±10%: report error, turn off the output after 5 minutes (125%<load<150%) ±10%: report error, turn off the output after 10 seconds load>150% ±10%: report error,turn off the output after 5 seconds						(102%<load<110%) ±5%: report error and turn off the output after 5 minutes (110%<load<125%) ±5%: report error and turn off the output after 10 seconds load>125% ±5%: report error and turn off the output after 5 seconds	
	Peak Power	7200VA		12000VA		Split phase:10800VA Single phase: 10800VA		Split phase:18000VA Single phase:18000VA	
	Load Motor Capability	2HP		5HP		4HP		6HP	
	Nominal Battery Input Voltage	48V(Min. starting voltage 44V)				51.2V(Minimum starting voltage 44V)			
	Battery Voltage Range	40.0~60Vdc±0.6Vdc(Undervoltage alarm/shutdown voltage/overvoltage/alarm/overvoltage recovery...LCD screen)(can be set)				40.0~58.6Vdc±0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery...settable on LCD screen)			
	Save Power Mode	Loads 25W							
Mains Charge	Battery Type	Lead-acid or lithium batteries							
	Max.Charge Current (configurable)	40A		120A				160A	
	Charge Voltage Range	40~60VDC				40~58.6VDC			
Solar Charge	Max.PV Open Circuit Voltage	300VDC				500VDC			
	PV Operate Voltage Range	80~300VDC				90~485VDC			
	MPPT Voltage Range	90~260VDC				90~450VDC			
	Battery Voltage Range	40~60VDC				40~58.6VDC			
	Max.PV Input Power/Current	4500W/27A		4500W*2/22A*2		4500W*2		9000W*2/27A*2	
	Charge Current Range (configurable)	0~80A		0~150A		150A		300A	
Max.Hybrid Charge Current (PV+AC)	Max.Hybrid Charge Current (configurable)	0~80A		0~150A				0~220A	
Certification	Safety Certification	CE(IEC62109-1.2)				UL1741			
	EMC Certification Level	EN61000,C2				FCC part15,CLASS B			
	Operate Temperature Range	-15~55°C							
	Storage Temperature Range	-25~60°C							
	Humidity Range	5~95%(Three anti-paint protection)							
	Noise	≤60dB							
	Cooling	Forced air cooling, adjustable wind speed							
	Communicate	USB/RS485(/WiFi/GPRS)/Dry node control							
Dimensions(L*W*H)mm		280*100*415		350*120*540		580*127*359		450*132*620	
Package Dimensions(L*W*H)mm		385*200*505		460*230*645		700*252*470		545*230*715	
Weight(KG)		7.8		18.5		18.9		23.8	

AS-IP54 On/Off Grid Solar Inverter(US)

3.6KW/6.5KW/12KW

MAIN FEATURES

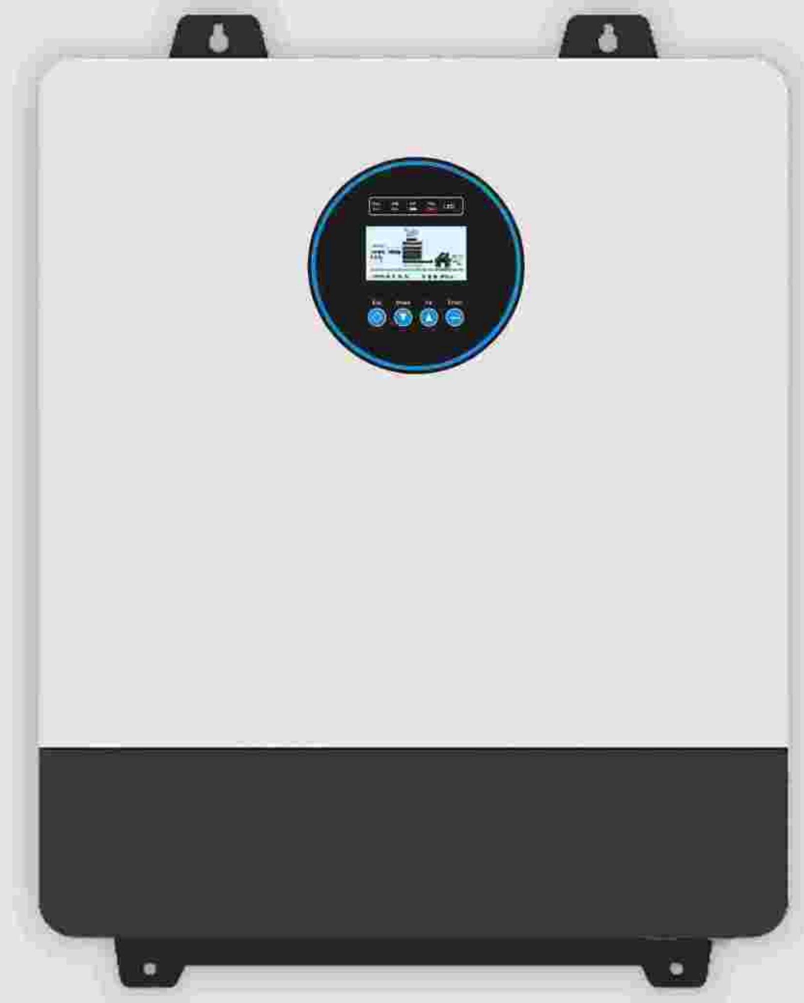
- Built-in 1 or 2 MPPT
- Can parallel 1-6 units
- Can operate independently off the grid or in parallel with the grid
- Capable to work without battery
- Detachable dust cover for harsh environment
- Wifi remote monitoring optional

Product Specifications

Model		AS-362048-54A	AS-362048-54B	AS-652048-54A	AS-652048-54B	AS-123048-54A	AS-123048-54B
Parallel Mode (function reserved)	Allow Quantity	-A None/-B 1~6					
Mains Mode	Nominal Input Voltage	120VAC±5%				120VAC(L1/N, L2/N)/240VAC(L1/L2)	
	Input Voltage Range	(90~140VAC)±2%				(85~140VAC)±2%	
	Frequency	50/60Hz(Auto detect)					
	Frequency Range	47±0.3Hz~55±0.3Hz(50Hz); 57±0.3Hz~65±0.3Hz(60Hz)					
	Max.Efficiency	>95%					
	Conversion Time (bypass and inverter)	10ms(Typical value)					
	Max.Bypass Overload Current	40A		60A		2pole, 60A/60A(L1/L2)	
Inverter Mode	Output Voltage Waveform	Pure Sine Wave					
	Nominal Output Power	3600VA/3600W		6500VA/6500W		Split phase:12000VA/12000W Single phase: 7200VA/7200W(limited by the wiring terminals)	
	Power Factor	1					
	Nominal Output Voltage	120VAC				120VAC(L1/N, L2/N)/240VAC(L1/L2)	
	Output Frequency Range	50±0.3Hz/60±0.3Hz					
	Max.Efficiency	>91%					
	Overload Protection	(102%<load<125%)±10%: report error, turn off the output after 5 minutes (125%<load<150%)±10%: report error, turn off the output after 10 seconds load>150%±10%: report error,turn off the output after 5 seconds				(105% < load <110%) ±5%: report error and turn off the output after 5 minutes; (110% < load < 125%) ± 5%: report error and turn off the output after 10 seconds; Load >125% ±5%: report error and turn off the output after 5 seconds;	
	Peak Power	7200VA		12000VA		Split phase: 18000VA; Single phase: 18000VA	
	Load Motor Capability	2HP		5HP		6HP	
	Nominal Battery Input Voltage	48V(Min. starting voltage 44V)				51.2V (Minimum starting voltage 44V)	
	Battery Voltage Range	40.0~60VDC±0.6VDC(Undervoltage alarm/shutdown voltage/overvoltage/alarm/overvoltage recovery...LCD screen(can be set)				40.0~58.6VDC±0.6VDC (Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
	Save Power Mode	Loads 25W				Load per phase is null or less than 25W enter power-saving mode	
Mains Charge	Battery Type	Lead-acid or lithium batteries					
	Max.Charge Current (configurable)	40A		120A		160A	
	Charge Voltage Range	40~60VDC				40~58.6VDC	
Solar Charge	Max.PV Open Circuit Voltage	300VDC				500VDC	
	PV Operate Voltage Range	80~300VDC				90~500VDC	
	MPPT Voltage Range	90~260VDC				80~450VDC	
	Battery Voltage Range	40~60VDC				40~58.6VDC	
	Max.PV Input Power/Current	4000W/22A		4500W*2/22A*2		6000W*2	
	Charge Current Range (configurable)	0~80A		0~150A		220A	
Max.Hybrid Charge Current (PV+AC)	Max.Hybrid Charge Current (configurable)	0~80A		0~150A		0~220A	
Certification	Safety Certification	CE(IEC62109-1.2)				UL1741	
	EMC Certification Level	EN61000,C2				FCC part15, CLASS B	
	Operate Temperature Range	-15~55°C					
	Storage Temperature Range	-25~60°C					
	Humidity Range	5~95%(Three anti-paint protection)					
	Noise	≤60dB					
	Cooling	Forced air cooling, adjustable wind speed					
	Communicate	USB/RS485(/WiFi/GPRS)/Dry node control					
Other	External Dimensions:L*W*H(mm)	320*110*465		433*135*592		562*137*714	
	Packing Dimensions:L*W*H(mm)	425*210*535		510*230*665		640*235*785	

NKF Low Frequency Split Phases Solar Inverter

3KW/5KW/6.4KW/8KW/10KW



MAIN FEATURES

- Dual MCU intelligent control technology, excellent performance
- Input single-phase/split phase options, flexible to cope with various power environments
- The output voltage and frequency can be set, which is convenient and practical
- The unmanned function can be set, and the application scenarios are diversified
- Intelligent air-cooled heat dissipation, efficient and energy-saving
- Comprehensive protection and alarm functions, safe and reliable

Product Specifications

Model		NKF-302024	NKF-302048	NKF-502048	NKF-642048	NKF-802048	NKF-103048
Inverter	Rated Power	3KW		5KW	6.4KW	8KW	10KW
	Peak Power	9KW		15KW	19.2KW	24KW	30KW
	Rated Battery Voltage	24V	48V				
Controller MPPT	Charging Current	60A		120A			
	Photovoltaic Input Interface	60A*1 route		60A*2 route(120A)			
	Maximum Photovoltaic Input Power	1440W	2880W	2880W*2			
	Photovoltaic Input Voltage Range	30V-180V(24V system); 60V-180V(48V system)					
	Conversion Efficiency	≈99%					
	Unattended Mode	In shutdown state: MPPT rechargeable when there is sunlight, achieving unmanned photovoltaic operation					
AC Input	Municipal Power Input	(L1-N)110VAC:80~130VAC					
	Voltage Range	(L1-N-L2)220VAC:160~260VAC/130~280VAC					
	Input Frequency Of Mains Power	45Hz~65Hz(intelligent automatic detection)					
	Municipal Power Charging Current	Adjustable					
AC Output	Inverted Output Waveform	pure sine wave					
	Inverter Output Efficiency	≈90%					
	Inverter Output Voltage	(L1-N,L2-N):110VAC (L1-L2):220VAC					
	Inverter Output Frequency	50Hz/60Hz Adjustable					
	Energy Saving Mode Loss	5W					
Working Mode	Inverter Working Mode	City power priority mode, battery priority mode, energy-saving mode, unmanned operation, generator mode					
Battery Parameters	Support Battery Types	Lead acid battery/colloidal battery/lithium iron phosphate/ternary lithium battery/battery customization					
	Custom Parameters For Batteries	Constant voltage charging, float charging, battery recovery, mains power recovery, low voltage alarm, low voltage protection					
	Battery Charging Method	Lead acid: three-stage charging, constant current, constant voltage, float charging Lithium battery: constant current, constant voltage					
	The number of lithium battery strings is optional	Lithium iron phosphate: 3.2V monomer, ternary lithium battery: 3.7V monomer					
Protect	Low Battery Voltage	Battery undervoltage/overvoltage/overload protection/high temperature protection/charging method protection, etc					
Display	LED Display	Mains power status, inverter status, charging status, alarm					
	Screen Display	Working status, input/output voltage, photovoltaic information display, inverter parameter settings, etc					
	Display Language	Chinese/English					
Convert time		<10ms					
Cooling Method		Intelligent temperature control					
Communication		WIFI(RS485)/BMS(RS485) dry contact					
Operating Temperature		-10°C~40°C					
Altitude		≤3000m					

NKW/NKM Solar Inverter

1KW

MAIN FEATURES

- Wall-mounted with battery cable
- Built-in MPPT 40A PV Input 100VDC
  Built-in PWM 30A PV Input 25/50VDC
- Compatible work with LiFePO4 battery via RS485
- Low frequency(Built in ring transformer)
- Support multiple output priority: SBU,SUB
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model		NKW-1000E		NKM-1000E	
Power Rating		1000W		1000W	
Storage Battery	Rated Voltage	12VDC	24VDC	12VDC	24VDC
	Battery Type	Can be set			
AC Input	Charge Current	0~30A		0~25A	0~15A
	Voltage Range	73~138/145~275VAC			
	Frequency	45~65Hz			
AC Output	Voltage Range	100/110/120(VAC) 200/210/220/230/240(VAC)			
	Frequency	50/60Hz±1%(inversion mode)			
	Output Waveform	Pure Sine Wave			
	Change-over	<10ms(typical load)			
	Productiveness	>85%(80% resistive load)			
	Overload	110~120%/30s;>160%/300ms			
	Protection Function	Battery over voltage and low voltage protection,overload protection, short circuit protection,overtemperature protection,etc			
MPPT Solar Energy Controller	MPPT Voltage Range	/		18~100VDC	34~100VDC
	Maximum Solar Panel Input Power			570Wp	1130Wp
	Floating Charging Voltage			13.75VDC	27.5VDC
	Balanced Charging Voltage			14.2VDC	28.4VDC
	Machine Efficiency			≥99%	
	Rated Charging			40A(Max)	
The PWM Solar Energy Controller	Solar Power	420W	840W	/	
	Maximum PV Voltage	25VDC	50VDC		
	Charging Voltage Range	10~25VDC	20~50VDC		
	Rated Charging Current	30A			
	Overcharge Protection Voltage	14.2VDC	28.4VDC		
	Overcharge Recovery Voltage	14VDC	28VDC		
	Floating Charging Voltage	13.7VDC	27.4VDC		
Operating Ambient		-15~50°C			
Storage Environment		-20~50°C			
Operating/Storage		And 0~90% without condensation			
Appearance Dimensions:L*W*H(mm)		308*130*332			
Package Dimensions:L*W*H(mm)		350*200*390			
Weight(KG)		9.5/10.5		9.7/10.7	

NKM Low Frequency Solar Inverter

1KW/2KW/3KW/5KW/6KW/8KW/10KW

MAIN FEATURES

- Pure sine wave both 110V~240V
- Built-in MPPT 40A PV Input 150VDC
  Built-in MPPT 60A/100A PV Input 200VDC
- Compatible work with LiFePO4 battery via RS485
- Low frequency(Built in ring transformer)
- Communication interface:RS232/RS485/Dry contact
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model		NKM-1000	NKM-2000	NKM-3000	NKM-5000	NKM-6000	NKM-8000	NKM-10000
Power Rating		1000W	2000W	3000W	5000W	6000W	8000W	10000W
Battery	Rated Voltage	12/24VDC	24VDC	24/48VDC	48VDC		48/72/96VDC	
	AC Charge Current	12V:0~25A 24V:0~15A	0~30A	24V:0~35A 48V:0~25A	0~30A	0~35A	0~40A	
	Battery Type	Can be set						
Input	Voltage Range	73~138/145~275VAC	85~138/170~275VAC					
	Frequency	45~65Hz						
Output	Voltage Range	110V(can be set):100/110/120VAC; 220V(can be set):200/210/220/230/240VAC					220V(canbeset): 200/210/220/230/240VAC	
	Frequency	50/60Hz±1%(Inverter mode)						
	Output Wave	Pure Sine Wave						
	Conversion Time	<10ms(Typical load)						
	Efficiency	>85%(80% Resistive load)						
	Overload	110~120%/60s;120~130%/10s 130~150%/2s;>150%/500ms						
	Protection	Battery overvoltage/low voltage,overload,short circuit protection,overtemperature protection,etc.						
Solar Controller	MPPT Voltage Range	12VDC:18~200VDC;24VDC:34~200VDC;48VDC:65~200VDC						
	Max.PV Input Power	12VDC/40A:570W 24VDC/40A:1130W	12VDC/60A:900W;24VDC/60A:1700W 48VDC/60A:3400W;48VDC/100A:5400W				48VDC/100A:5400W	
	Rated Charge Current	40A(Max)	60A(Max)		100A(Max)			
	MPPT Efficiency	≥99%						
	Average Charging Voltage (lead acid battery)	12V: 14.2VDC;24V:28.4VDC;48V:56.8VDC					48V:56.8VDC	
	Floating Charge Voltage	12V:13.75VDC;24V:27.5VDC;48V:55VDC					48V:55VDC	
Operating Ambient Temperature		0~40°C						
Storage Ambient Temperature		-15~50°C						
Operating/Storage Environment		0~90°C No Condensation						
Dimensions:L*W*H(mm)		321*125*420	461*170*545				452*252*582	
Packing Size: L*W*H(mm)		380*205*515	555*260*645				525*315*650	

Note: Our company has the right of changing this user manual without any information

SN Low Frequency Inverter(IGBT)

5KW/10KW/15KW/20KW

MAIN FEATURES

- Pure sine wave 110VAC or 220VAC
- Compatible work with LiFePO4 battery via RS485
- Low frequency(Built in strip transformer)
- Support multiple output priority:SBU,SUB
- Communication interface:RS232/RS485/Dry contact
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model		SN-5000	SN-10K	SN-15K	SN-20K
Rated Power		5000W	10000W	15000W	20000W
Battery	Rated Voltage	96/192VDC		192/220/240VDC	
	Charge Current	10~20A			
	Low Voltage Protection	84/168VDC		168VDC	
	Charging Voltage	96VDC:108VDC 192VDC:217VDC		192VDC:217VDC 220VDC:248VDC 240VDC:276VDC	
Input	Voltage Range	88~132/176~264VAC			
	Frequency	45~65Hz			
Output	Voltage Range	110/220VAC±5%(Inversion mode)			
	Frequency	50/60Hz±1%(Inversion mode)			
	Output Wave	Pure Sine Wave			
	Conversion Time	<10ms(Typical load)			
	Efficiency	>85%(100% Resistive Load)	>90%(100% Resistive Load)		
	Overload	110~120%/60s;120~130%/10s 130~150%/2s;>150%/500ms			
	Protection Function	Battery overvoltage protecion, battery undervoltage protection,overload,protection, short circuit protection,overtemperature protection, etc.			
	Ambient Temperature For Operation	0~40°C			
	Ambient Temperature For Storage	-15~50°C			
	Operation/Storage Ambient	0~90% No Condensation			
	Product Dimensions:L*W*H(mm)	555*368*695			655*383*795
	Gross Weight (KG)	80	110	150	170

FT Low Frequency Inverter

1KW/2KW/3KW/5KW/6KW/8KW/10KW/12KW

MAIN FEATURES

- Pure sine wave
- Compatible work with LiFePO4 battery via RS485
- Low frequency(Built in ring transformer)
- Support multiple output priority: SBU,SUB
- Communication interface:RS232/RS485/Dry contact
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model		FT-1000	FT-2000	FT-3000	FT-5000	FT-6000	FT-8000	FT-10K	FT-12K
Rated Power		1000W	2000W	3000W	5000W	6000W	8000W	10000W	12000W
Battery	Rated Voltage	12/24/48VDC		24/48VDC		48VDC	48/72/96VDC		48V
	Charge Current	30A(default) -CO-C6							
	Battery Type	U0~U7							
AC Input	Voltage Range	85~138/170~275VAC							130~280VAC 160~260VAC
	Frequency	45~65Hz							
AC Output	Voltage Range	100/110/120VAC 200/210/220/230/240VAC					220/230/240VAC		200/210/220/230/240VAC
	Frequency	50/60Hz±1%(Inversion mode)							
	Output Wave	Pure Sine Wave							
	Conversion Time	<10ms(Typical load)							
	Efficiency	>85%(80% resistive load)							
	Overload	110~120%/60s;120~130%/10s 130~150%/2s;>150%/500ms							
	Protection Function	Battery overvoltage protection,battery undervotage protection,overload,protection, short circuit protection,overtemperature protection,etc.							
	Ambient Temperature For Operation	0~40°C							
	Ambient Temperature For Storage	-15~50°C							
	Operation/Storage Ambient	0~90% No Condensation							
Machine Size: L*W*H (mm)		486*247*179			555*307*189		653*332*260		717*230*360
Package size: L*W*H (mm)		550*310*230			640*370*240		715*365*310		785*305*415

FTB Low Frequency Inverter

0.5KW/1KW/1.5KW/2KW/3KW/4KW/5KW/6KW

MAIN FEATURES

- Pure sine wave
- Compatible work with LiFePO4 battery via RS485
- Low frequency(Built in ring transformer)
- Support multiple output priority: SBU,SUB
- Communication interface:RS232/RS485/Dry contact
- EQ function to optimize battery performance and extend lifecycle

Product Specifications

Model		FTB-500	FTB-1000	FTB-1500	FTB-2000	FTB-3000	FTB-4000	FTB-5000	FTB-6000
Rated Power		500W	1000W	1500W	2000W	3000W	4000W	5000W	6000W
Battery	Rated Voltage	12/24VDC			12/24/48VDC	24/48VDC			48VDC
Input	Voltage Range	73~138VAC 145~275VAC	85~138VAC/170~275VAC						
	Frequency	45~65Hz							
Output	Voltage Range	110/220VAC±5%(Inversion mode)							
	Frequency	50/60Hz±1%(Inversion mode)							
	Output Wave	Pure Sine Wave							
	Conversion Time	<10ms(Typical load)							
	Efficiency	>85%(80% resistive load)							
	Overload	110~120%/60s;120~130%/10s 130~150%/2s;>150%/500ms							
	Protection Function	Battery overvoltage protection, battery undervoltage protection, overload, protection, short circuit protecion, overtemperature protecion, etc.							
	Ambient Temperature For Operati	0~40°C							
	Ambient Temperature For Storage	-15~50°C							
	Operation/Storage Ambient	0~90% No Condensation							
Product Size:L*W*H(mm)		302*122*188	316*149*215	432*210*330			551*215*344		
Package Size: L*W*H(mm)		375*195*260	410*215*280	498*305*402			622*315*416		
Net Weight (KG)		5.8	8.2	16	18.5	20.7	25	32	32
Gross Weight (KG)		7	9	23	25.5	27.5	27	42	35

CM MPPT Solar Charging Controller

30A/40A/60A/100A/120A

MAIN FEATURES

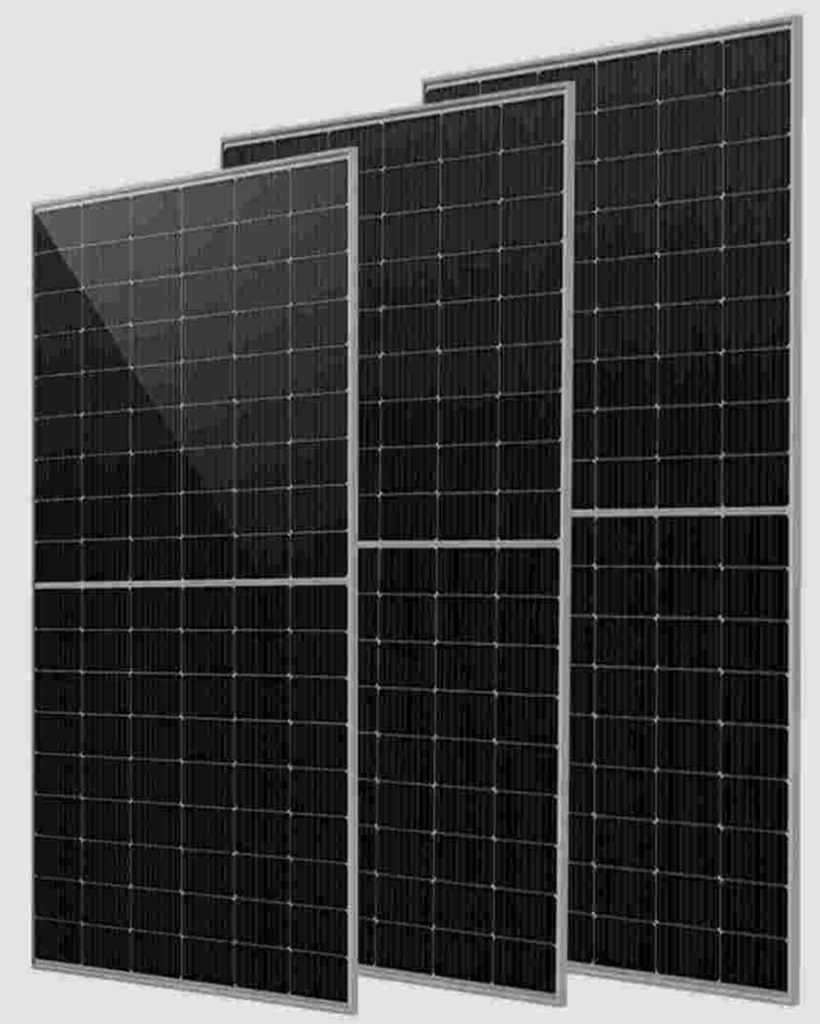
- Excellent heat dissipation design and intelligent controlled
- Innovative maximum power point tracking technology,the conversion rate of up to 97%
- Quick scan of the entire I-V curve.Efficient track the maximum power point
- Three types of lead-acid battery,sealed,colloid,open type battery and lithiumbattery series charging procedures are optional
- With the functions of over charge,over discharge,overload and short circuitautomatic protection
- With RS485 communicate interface.It can communicate with multiple and the uppercomputers,which is convenient to check the operating parameters of the controller

Product Specifications

Model			CM-30A	CM-40A	CM-60A	CM-100A	CM-120A
Charging Mode			MPPT Automatic Maximum Power Point Tracking				
Charging Method			Three stages:Constant Current (MPPT), Balanced Charging, Floating Charge				
System Type	12/24/48V		Automatic Identification/Manual Setting				
System Identification Voltage Range	12V System		9~15VDC				
	24V System		18~30VDC				
	48V System		36~60VDC				
Soft Start Time	12/24/48V		≤10s				
Dynamic Response Recovery Time	12/24/48V		≤500us				
Static Power	12/24/48V		≤2W				≤3W
Machine Efficiency	12/24/48V		≥96.5%				
PV Module Utilization	12/24/48V		≤99%				≤99.97%
Input Characteristics	MPPT Operating Voltag Range	12V System	18~150VDC		18~200VDC		
		24V System	34~150VDC		34~200VDC		
		48V System	65~150VDC		65~200VDC		
	Maximum Solar Panel Input Power	12V System	420W	570W	900W	1350W	1650W
		24V System	840W	1130W	1700W	2750W	3300W
		48V System	1650W	2270W	3400W	5400W	6600W
Output Characteristics	Optional Battery Type(Default is lead-acid maintenance-free battery)	12/24/48V	Lead-acid maintenance-free Battery,Gel Battery,Lithium Battery (Can also be customized for other types of battery)				
	Current Limiting Protection	12/24/48V	32A	42A	62A	102A	103A
	Temperature Accuracy	12/24/48V	±0.02%/°C				
	Temperature Compensation	12/24/48V	14.2V-(Maximum Temperature -25°C)*0.3				
	Output Regulation Accuracy	12/24/48V	≤±15%				
Protection	Input Low Voltage Protection		Reference Input Characteristics				
	Input High Voltage Protection		Reference Input Characteristics				
	Short Circuit Protection		After 5 trial starts will enter the protection state,Restart Recovery				
	Temperature Protection		90°C				
	Temperature Rise Protection		Reduce Power Output When Exceed 85°C				
Other Parameters	Noise		≤50dB				
	Heat Dissipation Method		Forced air cooling,fan speed is adjusted by temperature				
	Class Of Protection		IP21				
	Humidity		0~90%RH(No condensation)				
PV Module Configuration	System Battery Voltage		PV module load voltage (Recommended Value)				
	12V System		18~120V(36V module*3 string, 42V module*2 string)			18~200V(36V module*3 string, 42V module*2 string)	
	24V System		54~150V(36V module*3 string, 42V module*2 string)			36~200V(36V module*4 string, 42V module*3 string)	
	48V System		72~200V(36V module*4 string, 42V module*3 string)			65~200V(36V module*5 string, 42V module*4 string)	

Solar Panel

200W/300W/430W/590W



MAIN FEATURES

- Higher powern generation better LCOE
- n-type with very Lower LID
- Better Temperature Coefficient
- Better low irradiance response
- Double electroluminescence(EL) tests, Carefully inspected before and after lamination to guarantee fault-free modules

Product Specifications

Model		200W	300W	430W	590W
Electrical Parameters at STC	Maximum Power (Pmax/W)	200	300	430	590
	Open Circuit Voltage(Voc/V)	24.18	35.73	38.49	51.02
	Short Circuit Current(Isc/A)	9.72	10.32	14.23	14.47
	Maximun Power Voltage(Vmp/V)	21.8	30.8	31.88	42.37
	Maximum Power Current(Imp/A)	9.17	9.74	13.49	13.69
	Module Efficiency(%)	19.7	20.7	22.02	22.45
Temperature Characteristics	NOCT	45±2°C			
	Temp Coefficient of Voc	-0.275%/°C			
	Temp Coefficient of Isc	+0.046%/°C			
	Temp Coefficient of Pmax	-0.350%/°C			
Maximum Rating	Output Tolerance	±3%			
	Operating Temperature	-40°C~+85°C			
Specifications	Weight(kg)	11	14.5	24.7	28.4
	Dimension(mm)	1480*680*30	1560*880*30	1722*1134*30	2278*1134*30
	Maximum System Voltage	1000V		1500V	
	Junction Box	IP67		IP68	
	Frame	Aluminum Alloy			
	Cable	4mm²/700mm	4mm²/900mm	4mm²/300mm	4mm²/350mm
	Connector	MC4 Compatible			
	Application Level	Class A			

BL Lithium Iron Phosphate Battery

2.5KWH/5KWH/10KWH/16KWH

MAIN FEATURES

- Flexible expansion, easy installation, saving time and cost
- Equipped with REPT LFP batteries and multiple safety
- UN38.3/MSDS/DG Package
- Reduce electric bill and maximize your solar investment with battery storage
- Built-in BMS safety for home
- Built-in automatic fire extinguishing device

Product Specifications

Model		BL-2500L	BL-5000LE	BL-5000L	BL-10000L	BL-15000LP
Voltage		25.6V		51.2V		
Capacity		100Ah	200Ah	100Ah	200Ah	314Ah
Rated Power		2560W	5120W		10240W	16076.8W
Maximum Number Of Parallel Machines		15	16			
Display		SOC status indicator light, LED indicator light, LCD display screen				
Communication		RS485,CAN,RS232				
Inverter Protocol (customizable)		pylon,growatt,voltronic,must,goodwe...				
Service Life		25°C ambient temperature environment @ 6000 cycles				
Recommended Charging Voltage		29.2V		58.4V		
Discharge Termination Voltage		20V		40V		
Standard Working Current	Charge	50A	100A	50A	100A	
	Discharge					
Maximum Continuous Operating Current	Charge	100A	200A	100A	200A	
	Discharge					
BMS Cut-off Voltage	Charge	29.2V (cell 3.65V)		58.4V (cell 3.65V)		
	Discharge	20V (cell 2.5V)		40V (cell 2.5V)		
Operation Temperature	Charge	0~45°C				
	Discharge	-15~55°C				
Storage Temperature		-5~35°C				
Shipping Voltage		≥25.6V(within 30 days of shipment)		≥51.2V(within 30 days of shipment)		
Shell Material		Cold rolled plate 1.2mm			Cold rolled plate 1.5mm	
Battery Size:L*W*H(mm)		380*145*500 (Excluding bracket)	440*145*640 (Excluding bracket)	440*145*640 (Excluding bracket)	480*225*700 (Excluding bracket)	480*238*780 (Excluding rollers and brackets)
Packaging Size:L*W*H(mm)		475*250*595	535*250*735	535*250*735	575*330*795	575*340*950
Net Weight(KG)		25	45	45	85	125/130
Gross Weight(KG)		27	50	50	90	130/135
Additional Features(optional)		WiFi, Bluetooth				

LiFePO4 Battery 12.8~25.6V

12.8V(50AH/100AH/200AH/300AH)/25.6V(50AH/100AH/200AH)

MAIN FEATURES

- The whole module is non-toxic, non-polluting and environmentally friendly
- Cathode material is made from LiFePO4 with safety performance and long cycle life
- Battery management system(BMS)has protection functions includingover-discharge,over-charge, over-current and high/low temperature
- Small size and light weight, comfortable for installation and maintenance

Product Specifications

Electrical Voltage		12.8V				25.6V		
Electrical Specifications	Nominal Capacity	50AH	100AH	200AH	300AH	50AH	100AH	200AH
	Energy	640WH	1280WH	2560WH	3840WH	1280WH	2560WH	5120WH
	Resistance	≤20mΩ						
	Efficiency	99%						
	Self Discharge	Monthly<3%						
Discharge Specifications	Maximum Continuous Discharge Curre	50A	100A	200A	200A	50A	100A	200A
	Peak Discharge Current	100A	200A	400A	400A	100A	200A	400A
	Discharge Cut-off Voltage	10V				20V		
Charging Specifications	Recommended Charging Current	25A	50A	100A	100A	25A	50A	100A
	Maximum Charging Current	50A	100A	200A	200A	50A	100A	200A
	Maximum Charge Voltage	14.6V		14.2~14.6V		29.2V		
	Charging Current (-20~10°C)	≤0.05°C						
Mechanical Specifications	Size (L*W*H)mm	229*138*208	260*167*210	502*186*243	384*194*255	330*175*220	521*238*218	521*268*218
	Weight(KG)	7.5	12.8	22	28	12	22	45
	Terminal Type	M8 screw						
	Housing Material	ABS shell						
	Protection Grade	IP65						
	Cell Type	Square aluminum shell						
Temperature Specifications	Discharge Temperature	-20~60°C						
	Charge Temperature	0~55°C						
	Storage Temperature	-20~40°C						
	BMS High Temperature	80°C						
	Reconnect Temperature	50°C						

Case
Show