

# Techfine

GUANGDONG TECHFINE ELECTRONIC CO.,LTD.

# Techfine

—20260331(V10)

## KEEPING THE WORLD ALWAYS BRIGHT

GUANGDONG TECHFINE ELECTRONIC CO.,LTD.  
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• SOLAR INVERTER

• SOLAR CHARGE CONTROLLER

• ENERGY STORAGE BATTERY

## ABOUT US



Since 2020, we prepared for public listing, and got the equity code. Then we plan to a listed company within 3 years.

### company PROFILE

Guangdong Techfine Electronic Co., Ltd. was founded in 1994, has been research, develop, produce and maintain UPS&Inverter&Solar System in China since 2003. By now it is a company which set design, manufacture and sales enterprise which located in Foshan, Guangdong Province. Techfine practices China's advanced manufacturing in the professional spirit of "ingenuity and precision", focusing on R&D and manufacturing of high-end industrial environment-friendly energy storage lead-acid batteries, lithium batteries, uninterruptible power supplies, industrial emergency power supplies, solar inverters, solar energy systems and other three major sections of the product. The business covers many countries around the world, and cooperates with customers all over the world. At present, it maintains long-term and stable cooperation with many merchants. It has three independent production bases, which are located in Malaysia, Shaoguan, China and Foshan, China.



## RICH EXPERIENCE IN TRADE AND EXPORT, WELL-QUALIFIED

01



Product packaging

02



Logistics Transportation, fast speed

03



Product containers

# 25+

25+ Manufacturing experience

# 190+

190+ countries export experience

# 10000+

10000+ Successful Cases

# OEM/ODM

OEM/ODM orders sales and service



Independent R&D team



One to One customer service consultation



Professional design team, private customization.



Perfect after-sales service system



Experienced/qualified in exporting



# 25+

25+ Manufacturing experience

# OEM/ODM

OEM/ODM orders sales and service

# SERVICES

24-hour after-sales service support



## PRECISION MANUFACTURE, GOOD QUALITY

25 Years industrial experience with three production bases in China & Malaysia. Owns advanced equipment and instruments and builds Automatic production line.

Marketing Center



1st Factory :Inverter Workshop



2nd Factory : UPS Workshop



3rd Factory:Lithium Battery Workshop



4nd Factory:Lead Acid Battery Workshop



## AUTHORITATIVE CERTIFICATE QUALITY ASSURANCE

Strictly comply with ISO quality management system , products have passed UL,CE, IEC, ROHS, SONCAP, SASO,PVOC and other certifications. We aim to provide the green,energy-saving and safe electrical energy safety emergency products for global users.



<p>listed</p>	<p>ISO 14001</p>	<p>ISO 9001</p>	<p>CNAS</p>
<p>CQC</p>	<p>SON CAP</p>	<p>ROHS</p>	<p>CE</p>
<p>PATENTS</p>	<p>NTC</p>	<p>UL</p>	<p>EMTEK</p>

# WORLDWIDE COOPERATION

We serve many customers, long-term partners and excellent distributors from dozens of countries/regions, providing OEM, ODM and advanced customization services.

## 2000

In 2000, The battery production base in Baiyun District of Guangzhou was founded, which became a milestone in the independent production of lead-acid batteries.

## 2001

In 2001, The first backup UPS was independently developed; Become a milestone in emergency power production.

## 2006

In 2006, Foshan UPS production base was built and the battery production base was moved to Wengcheng Town New Energy Industrial Zone, and then a modern production and quality system for UPS and lead-acid batteries was established which means a large-scale production was realized. Techfine Electronics Co., Ltd. was officially established in Nanhai District, Foshan City.

## 2010

In 2010, Foreign trade team was established, and Techfine looked at the world and went to the world;

## 2011

In 2011, Low frequency three-phase series UPS was successfully developed and officially entered the industrial emergency power industry;

## 2013

In 2013, the sales service centers in Shenzhen, Guangzhou, Chengdu, Shenyang and Xinjiang were successively established to build a complete domestic sales network, deepen the national market and greatly improve the domestic service quality;

## 2017

In 2017, Independently make research and development of solar inverter and solar lead-acid special battery, officially entered the new energy industry;

## 2018

In 2018, it was officially renamed as Guangdong Techfine Electronics Co., Ltd., and its corporate image and strength have been greatly improved;

## 2019

In 2019, MPPT solar controller and high-end solar deep-cycle battery were successfully developed, opening a new field of solar energy storage industry;

## 2020

In 2020, Techfine Electronics Co., Ltd was successfully listed on the New Fourth Board in Guangzhou Equity Exchange Center, becoming a high-growth enterprise and an enterprise specializing in scientific and technological innovation (enterprise code: 892667);

## 2022

In 2022, Techfine broke through the technology bottle-neck. The self-developed high-frequency inverter and household lithium battery for energy storage are officially debuted, further improving the solar energy product system.

## 2023

Successfully developed 11kw high-frequency inverter and creatively proposed industrial and commercial solar reverse storage and power supply solutions

## 2024

The second factory and third factory have been successfully expanded

## 2025

Expanding Fourth Production Base





**ENERGY STORAGE INVERTER QA 2KW~11KW**

**FEATURES**



- Lithium Battery Auto-restart Function, More Convenient for Lithium Battery Charging
- Display can be designed with a touch screen panel
- Utility Charging Voltage/PV Charging Voltage Adjustable, Match Different Battery Charging Requirements
- Support CT anti-back flow function, automatically detect the grid status, and ensure that no power is reversed to the grid
- PF1.0, High Efficiency, Lower Consumption, Energy Conservation/Environmental Protection/Electricity Saving/Cost Saving
- Allowing PV Power Generation To Be Fed Into The Grid, Saving Electricity Bills
- Communication Option: External WIFI, Supervise at Any Time
- BMS function for lithium battery

**APPLICATION**



Commercial car park



Street lighting/monitoring



Family/greenhouse



Commercial/construction

Model	QA2012MH	QA3624MH	QA6248MH	QA12048MH	
Input Formation	L+N+PE				
AC Input	220/230/240VAC				
Input Voltage Range	90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)				
Frequency	60Hz(Adaptive)				
Rated Power	1600W	3600W	6200W	11000W	
Dual Output Power	2000W	3600W	6200W	12000W	
Output Voltage(AC)	220/230/240VAC±5%				
Output Frequency	50/60Hz±0.1%				
Output Wave	Pure Sine Wave				
Transfer Time(Adjustable)	10ms for Computer Equipment, 20ms for Household Equipment				
Peak Power	3200VA	7200VA	12400VA	24000VA	
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load				
Grid connected Operation	Output Voltage	220/230/240VAC			
	Grid Voltage Range	100-280VAC			
	Grid Frequency Range	47-53±1Hz/57-62±1Hz			
	Output Current	8.7A	15.7A	26.9A	52.2A
	Power Factor Range	>0.99			
	Max efficiency (DC/AC)	98%			
Rated Voltage	12VDC	24VDC	48VDC	48VDC	
Constant Charging Voltage	14.1Vdc	28.2Vdc	56.4Vdc	56.4Vdc	
Float Charging Voltage	13.5VDC	27VDC	54VDC	54VDC	
PV Charging Method	MPPT	MPPT	MPPT	2*MPPT	
Max PV Input Power	3000W	5000W	8500W	2×8500W	
PV Input Voltage Range	60~500VDC	60~500VDC	60~500VDC	90~500VDC	
MAX PV Input Voltage	500VDC	500VDC	500VDC	500VDC	
MAX PV Input Current	15A	15A	27A	27A/27A	
MAX PV Charge Current	100A	120A	120A	150A	
MAX AC Charge Current	80A	100A	100A	150A	
MAX Charge Current	100A	120A	120A	150A	
LCD	Can display operating mode/load/input/output				
RS232	Baud Rate 2400				
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI,CT Interface (11K Incompatible with CT)				
Parallel Interface	Not Support Parallel			Parallel & Grid-connect Function	
Operating Temperature	-10°C~50°C				
Storage Temperature	-15°C~60°C				
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, IEC 62040				
Operating Environment Humidity	20%~95% Non Condensing				
Noise	≤50dB				



# ENERGY STORAGE INVERTER

EA SERIES



## ENERGY STORAGE INVERTER EA 2000VA~11000VA

### FEATURES



- Rounded corner design, exquisite appearance
- Multiple parameters can be adjusted according to user needs to adapt to different occasions
- Minimum PV Voltage 30V, more cost-effective to use
- Support lithium battery communication, external WIFI, generator self-start dry contact function
- Real-time display of actual load power greatly improves user perception
- Pure sine wave output, can adapt to different loads
- Output short-circuit protection function
- Power factor=1

### APPLICATION



Commercial car park



Street lighting/monitoring



Family/greenhouse



Commercial/construction

## EA SERIES

PARAMETERS

Model	EA2012EMH	EA3024EMH	EA4024EMH	EA6248EMH	EA8648EMH	EA11048EMH	
Input Formation	L+N+PE						
AC Input	220/230/240VAC						
Input Voltage Range	90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)						
Frequency	50/60Hz(Adaptive)						
Rated Power	1600W	3000W	4000W	6200W	8600W	11000W	
Output Voltage	220/230/240VAC±5%						
Output Frequency	50/60Hz±0.1%						
Output Wave	Pure Sine Wave						
Transfer Time(Adjustable)	10ms for Computer Equipment,20ms for Household Equipment						
Peak Power	3200VA	6000VA	8000VA	12400VA	17200VA	22000VA	
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load						
Grid connected Operation	Output Voltage	220/230/240VAC					
	Grid Voltage Range	100-280VAC					
	Grid Frequency Range	47-53±1Hz/57-62±1Hz					
	Output Current	17.4A	26.9A	37.4A	47.8A		
	Power Factor Range	>0.99					
	Max efficiency (DC/AC)	98%					
Rated Voltage	12VDC	24VDC		48VDC			
Constant Charging Voltage	14. 1VDC	28.2VDC		56. 4VDC			
Float Charging Voltage	13. 5VDC	27VDC		54VDC			
PV Charging Method	MPPT	MPPT	MPPT	MPPT	2*MPPT	2*MPPT	
Max PV Input	2000W	3000W	5000W	6200W	2*5500W	2*5500W	
MPPT Tracking Range	30~500VDC	30~500VDC	60~500VDC	60~500VDC	90~500VDC	90~500VDC	
MAX PV Input Voltage	500VDC	500VDC	500VDC	500VDC	500VDC	500VDC	
MAX PV Charge Current	100A	100A	120A	120A	150A	150A	
MAX AC Charge Current	60A	60A	100A	100A	120A	150A	
MAX Charge Current	100A	100A	120A	120A	150A	150A	
LCD	Can display operating mode/load/input/output						
RS232	Baud Rate 2400						
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI,dry contact , etc						
Parallel Interface	Not Support Parallel			Support Parallel			
Operating Temperature	-10°C~50°C						
Storage Temperature	-15°C~60°C						
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, IEC62040						
Operating Environment Humidity	20%~95% Non Condensing						
Noise	≤50dB						

# ENERGY STORAGE INVERTER

GA SERIES



## ENERGY STORAGE INVERTER GA 4000VA~11000VA

### FEATURES



- Lithium Battery Auto-restart Function More Convenient for Lithium Battery Charging
- Intelligent Power Supply Mode, Intelligent Distribution of Solar Panel/Mains/Battery Power Shares
- Utility Charging Voltage/PV Charging Voltage Adjustable, Match Different Battery Charging Requirements
- Slim Body, Convenient Installation And Transportation
- Battery Reverse Connection Protection with Fuse Switch, Safer Installation
- PF1.0, High Efficiency, Lower Consumption, Energy Conservation/ Environmental Protection/ Electricity Saving/ Cost Saving
- Support Working without Battery: Reduce Solar System Cost
- High Precision of Output Voltage, ±5%, Take Care of Your Appliances
- Communication Option: External WIFI, Supervise at Any Time
- BMS function for lithium battery

### APPLICATION



Commercial car park



Street lighting/monitoring



Family/greenhouse



Commercial/construction

Model	GA4024SMH	GA6248SMH	GA8648SMH	GA11048SMH	
Input Formation	L+N+PE				
AC Input	220/230/240VAC				
Input Voltage Range	90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)				
Frequency	50/60Hz(Adaptive)				
Rated Power	4000W	6200W	8600W	11000W	
Dual Output Power	4000W/4500W	6200W/6500W	8600W/11000W	11000W/12000W	
Output Voltage(AC)	220/230/240VAC±5%				
Output Frequency	50/60Hz±0.1%				
Output Wave	Pure Sine Wave				
Transfer Time(Adjustable)	10ms for Computer Equipment,20ms for Household Equipment				
Peak Power	8000VA	12400VA	17200VA	22000VA	
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load				
Grid connected Operation	Output Voltage	220/230/240VAC			
	Grid Voltage Range	100-280VAC			
	Grid Frequency Range	47-53±1Hz/57-62±1Hz			
	Output Current	17.4A	26.9A	37.4A	47.8A
	Power Factor Range	>0.99			
	Max efficiency (DC/AC)	98%			
Rated Voltage	24VDC	48VDC			
Constant Charging Voltage	28.2VDC	56.4Vdc			
Float Charging Voltage	27VDC	54VDC			
PV Charging Method	MPPT		2*MPPT		
Max PV Input Power	6500W	8500W	2*6500W	2*7500W	
PV Input Voltage Range	60~500VDC	60~500VDC	90~500VDC	90~500VDC	
MAX PV Input Voltage	500VDC	500VDC	500VDC	500VDC	
MAX PV Input Current	27A	27A	27A/27A	27A/27A	
MAX PV Charge Current	120A	120A	150A	150A	
MAX AC Charge Current	100A	100A	150A	150A	
MAX Charge Current	120A	120A	150A	150A	
LCD	Can display operating mode/load/input/output				
RS232	5PIN/Pitch2.54mm,Baud Rate 2400				
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI 2×5PIN/Pitch2.54mm				
Parallel Interface	Not Support Parallel	Yes:Max 9 parallel machines			
Operating Temperature	0°C~40°C				
Storage Temperature	-15°C~60°C				
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer				
Operating Environment Humidity	Non Condensing				
Noise	<50dB				
L*W*H(mm)	495*312*125mm				



ENERGY STORAGE  
**INVERTER**  
GA pro s SERIES

**ENERGY STORAGE INVERTER GA 5500VA**

**FEATURES**



- Lithium Battery Auto-restart Function, More Convenient for Lithium Battery Charging
- Display can be designed with a touch screen panel
- Utility Charging Voltage/PV Charging Voltage Adjustable, Match Different Battery Charging Requirements
- Standard dual AC voltage output
- Battery Reverse Connection Protection with Fuse Switch, Safer Installation
- PF1.0, High Efficiency, Lower Consumption, Energy Conservation/Environmental Protection/Electricity Saving/Cost Saving
- Standard off grid function
- Input/output 110/120VAC
- Communication Option: External WIFI, Supervise at Any Time
- BMS function for lithium battery

**APPLICATION**



Commercial car park



Street lighting/monitoring



Family/greenhouse



Commercial/construction

Model	GA5548YMH	
Input Formation	L+N+PE	
AC Input	110/120VAC	
Input Voltage Range	65-145VAC±3V	
Frequency	60Hz(Adaptive)	
Rated Power	5500W	
Dual Output Power	5500W	
Output Voltage(AC)	110/120VAC±5%	
Output Frequency	60Hz±0.1%	
Output Wave	Pure Sine Wave	
Transfer Time(Adjustable)	10ms for Computer Equipment, 20ms for Household Equipment	
Peak Power	11000VA	
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load	
Grid connected Operation	Output Voltage	110/120VAC
	Grid Voltage Range	90-140VAC
	Grid Frequency Range	47-53±1Hz/57-62±1Hz
	Output Current	50A
	Power Factor Range	>0.99
Max efficiency (DC/AC)	98%	
Rated Voltage	48VDC	
Constant Charging Voltage	56.4Vdc	
Float Charging Voltage	54VDC	
PV Charging Method	MPPT	
Max PV Input Power	8500W	
PV Input Voltage Range	60~500VDC	
MAX PV Input Voltage	500VDC	
MAX PV Input Current	27A	
MAX PV Charge Current	100A	
MAX AC Charge Current	40A	
MAX Charge Current	100A	
LCD	Can display operating mode/load/input/output	
RS232	5PIN/Pitch2.54mm,Baud Rate 2400	
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI 2×5PIN/Pitch2.54mm	
Parallel Interface	Not Support Parallel	
Operating Temperature	-10°C~50°C	
Storage Temperature	-15°C~60°C	
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer	
Operating Environment Humidity	Non Condensing	
Noise	<50dB	
L*W*H(mm)	495*312*125mm	








**ENERGY STORAGE INVERTER YA**

**6200W**

 **THE SCREEN IS MOVABLE**



**FEATURES**

-  Screen Detachable and Extendable.
-  PF1.0, High Efficiency, Lower Consumption
-  Support CT anti-back flow function, automatically detect the grid status, and ensure that no power is reversed to the grid
-  Allowing PV Power Generation To Be Fed Into The Grid, Saving Electricity Bills
-  **BMS** function and Auto-restart Function for lithium battery

**APPLICATION**



Commercial car park



Street lighting/monitoring



Family/greenhouse



Commercial/construction

Model	YA6248SMH	
Input Formation	L+N+PE	
AC Input	220/230/240VAC	
Input Voltage Range	90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)	
Frequency	60Hz(Adaptive)	
Rated Power	6200W	
Dual Output Power	6200W	
Output Voltage(AC)	230VAC±5%	
Output Frequency	50Hz±0.1%	
Output Wave	Pure Sine Wave	
Transfer Time(Adjustable)	10ms for Computer Equipment, 20ms for Household Equipment	
Peak Power	12400VA	
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load	
Grid connected Operation	Output Voltage	220/230/240VAC
	Grid Voltage Range	100-280VAC
	Grid Frequency Range	47-53±1Hz/57-62±1Hz
	Output Current	26.9A
	Power Factor Range	>0.99
Max efficiency (DC/AC)	98%	
Rated Voltage	48VDC	
Constant Charging Voltage	56.4Vdc	
Float Charging Voltage	54VDC	
PV Charging Method	MPPT	
Max PV Input Power	8500W	
PV Input Voltage Range	60~500VDC	
MAX PV Input Voltage	500VDC	
MAX PV Input Current	27A	
MAX PV Charge Current	120A	
MAX AC Charge Current	100A	
MAX Charge Current	120A	
LCD	Can display operating mode/load/input/output	
RS232	5PIN/Pitch2.54mm,Baud Rate 2400	
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI 2×5PIN/Pitch2.54mm	
Parallel Interface	Not Support Parallel	
Operating Temperature	-10°C~50°C	
Storage Temperature	-15°C~60°C	
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer	
Operating Environment Humidity	20%~95% Non Condensing	
Noise	<50dB	
L*W*H(mm)	419*309*125.5mm	



**HYBRID SOLAR INVERTER TD**

**4000VA~11000VA**

**FEATURES**



- Ip54 protection level, waterproof, dust proof, salt spray proof, corrosion proof
- Supports CE certification, complies with EU standards
- Up to 12 units parallel connection
- Support CT anti-backflow function, self-use, legal and compliant
- Off-grid and on-grid dual Mode functionality, allowing PV power generation to be fed into the Grid, Saving Electricity Bills
- Displays 6 core parameters real time in LCD (PV input/grid status/load power/conversion efficiency/temperature/operation mode)
- Support Wi-Fi function to check power generation and grid feeding status

**APPLICATION**



Commercial car park



Street lighting/monitoring



Hospitals/Robots



office

Model	TD4024SMH	TD6248SMH	TD11048SMH	
Input Formation	L+N+PE			
AC Input	220/230/240VAC			
Input Voltage Range	90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)			
Frequency	50/60Hz(Adaptive)			
Rated Power	4000W	6200W	11000W	
Dual Output Power	4500W	6500W	12000W	
Output Voltage(AC)	220/230/240VAC±5%			
Output Frequency	50/60Hz±0.1%			
Output Wave	Pure Sine Wave			
Transfer Time(Adjustable)	10ms for Computer Equipment, 20ms for Household Equipment			
Peak Power	8000VA	12400VA	22000VA	
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load			
Grid connected Operation	Output Voltage	220/230/240VAC		
	Grid Voltage Range	180-280VAC		
	Grid Frequency Range	47-53±1Hz/57-62±1Hz		
	Output Current	17.4A	26.9A	47.8A
	Power Factor Range	>0.99		
Max efficiency (DC/AC)	98%			
Rated Voltage	24VDC	48VDC	48VDC	
Constant Charging Voltage	28.2VDC	56.4Vdc	56.4Vdc	
Float Charging Voltage	27VDC	54VDC	54VDC	
PV Charging Method	MPPT	MPPT	2*MPPT	
Max PV Input Power	6500W	8500W	2*7500W	
PV Input Voltage Range	60~500VDC	60~500VDC	90~500VDC	
MAX PV Input Voltage	500VDC	500VDC	500VDC	
MAX PV Input Current	27A	27A	27A/27A	
MAX PV Charge Current	120A	120A	150A	
MAX AC Charge Current	100A	100A	150A	
MAX Charge Current	120A	120A	150A	
LCD	Can display operating mode/load/input/output			
RS232	5PIN/Pitch2.54mm,Baud Rate 2400			
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI 2×5PIN/Pitch2.54mm			
Parallel Interface	Not Support Parallel	Support Parallel		
Operating Temperature	-10°C~50°C			
Storage Temperature	-15°C~60°C			
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer			
Operating Environment Humidity	20%~95% Non Condensing			
Noise	<50dB			
Protection level	IP54			



**ENERGY STORAGE  
INVERTER**  
BH ULTRA SERIES

**ENERGY STORAGE INVERTER BH ULTRA 4000VA~11000VA**

**FEATURES**

- Lithium Battery Auto-restart Function, More Convenient for Lithium Battery Charging
- Intelligent Power Supply Mode, Intelligent Distribution of Solar Panel/Mains/BatteryPower Shares
- Utility Charging Voltage/PV Charging Voltage Adjustable, Match Different Battery Charging Requirements
- Slim Body, Convenient Installation And Transportation
- Battery Reverse Connection Protection with Fuse Switch, Safer Installation
- PF1.0, High Efficiency, Lower Consumption, Energy Conservation/ Environmental Protection/Electricity Saving/Cost Saving
- Support Working without Battery: Reduce Solar System Cost
- Parallel Function Up to Maximum 9 Units: Enlarge More Loads
- High Precision of Output Voltage,±5%, Take Care of Your Appliances
- Communication Option: External WIFI, Supervise at Any Time
- BMS function for lithium battery

**APPLICATION**



Commercial car park

Street lighting/monitoring

Family/greenhouse

Commercial/construction

**BH ULTRA SERIES**  
PARAMETERS

Model	BH4024SMH	BH6248SMH	BH8648SMH	BH11048SMH
Input Formation	L+N+PE			
AC Input	220/230/240VAC			
Input Voltage Range	90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)			
Frequency	50/60Hz(Adaptive)			
Rated Power	4000W	6200W	8600W	11000W
Dual Output Power	4000W/4500W	6200W/6500W	8600W/11000W	8600W/12000W
Output Voltage(AC)	220/230/240VAC±5%			
Output Frequency	50/60Hz±0.1%			
Output Wave	Pure Sine Wave			
Transfer Time(Adjustable)	10ms for Computer Equipment, 20ms for Household Equipment			
Peak Power	8000VA	12400VA	17200VA	22000VA
Overload Ability	Battery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load			
Grid connected Operation	Output Voltage	220/230/240VAC		
	Grid Voltage Range	100-280VAC		
	Grid Frequency Range	47-53±1Hz/57-62±1Hz		
	Power Factor Range	>0.99		
	Max efficiency (DC/AC)	98%		
Rated Voltage	24VDC	48VDC		
Constant Charging Voltage	28.2VDC	56.4Vdc		
Float Charging Voltage	27VDC	54VDC		
PV Charging Method	MPPT		2*MPPT	
Max PV Input Power	6500W	8500W	2*6500W	2*7500W
PV Input Voltage Range	60~500VDC	60~500VDC	90~500VDC	90~500VDC
MAX PV Input Voltage	500VDC	500VDC	500VDC	500VDC
MAX PV Input Current	27A	27A	27A/27A	27A/27A
MAX PV Charge Current	120A	120A	150A	150A
MAX AC Charge Current	100A	100A	150A	150A
MAX Charge Current	120A	120A	150A	150A
LCD	Can display operating mode/load/input/output			
RS232	5PIN/Pitch2.54mm,Baud Rate 2400			
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card,WIFI 2×5PIN/Pitch2.54mm			
Parallel Interface	Not Support Parallel	Support Parallel		
Operating Temperature	-10°C~50°C			
Storage Temperature	-15°C~60°C			
Ork Altitude	No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer			
Operating Environment Humidity	Non Condensing			
Noise	<50dB			
L*W*H(mm)	483x313x143mm		570.8x471x148.2mm	

# POWER INVERTER

IV SERIES



## ENERGY STORAGE INVERTER IV 4000W~11000W



### FEATURES

- With lightning protection and high voltage protection functions
- Input and output safety switch design
- Increase in photovoltaic input current and power
- Increase in photovoltaic inverter power
- Higher photovoltaic utilization when photovoltaic and mains complement each other
- With EMI filtering, less interference

### APPLICATION



Mine/field



Mountain Forest/grassland



Low temperature areas

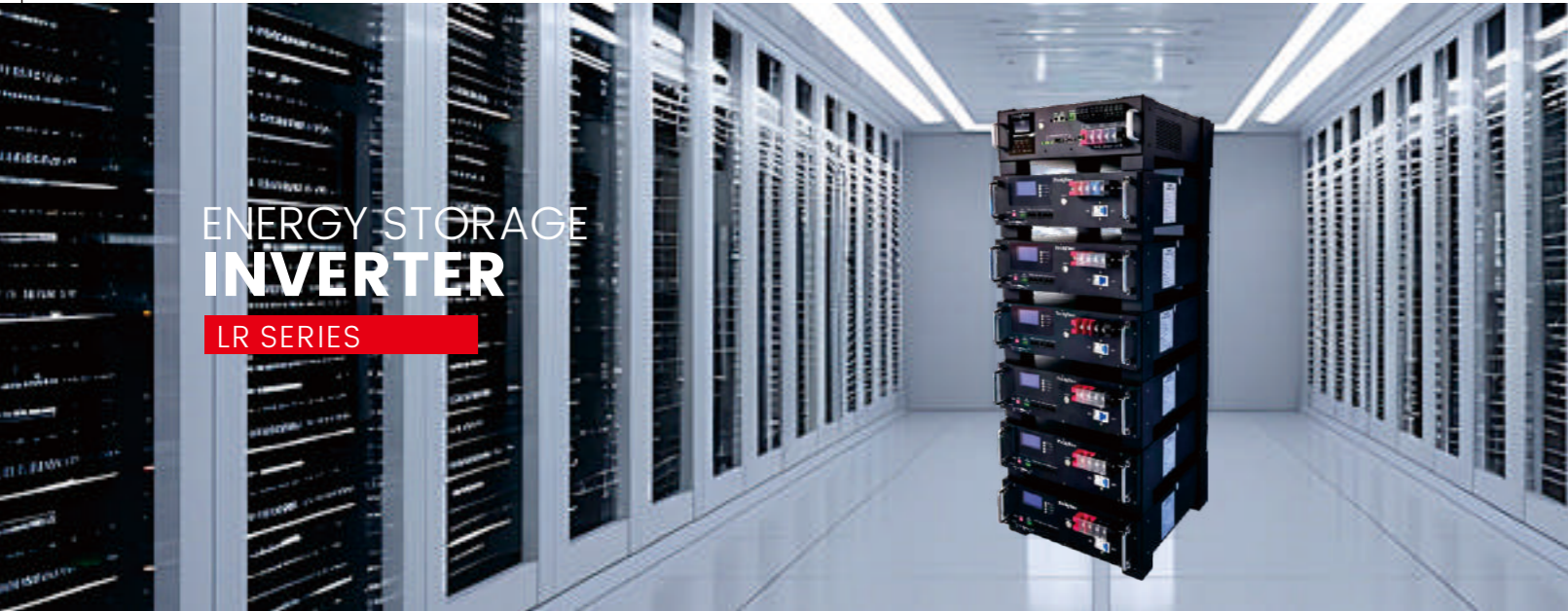


Desert/woodland

## IV SERIES

PARAMETERS

MODEL	IV4024SMH	IV6248SMH	IV11048SMH
Rated input voltage	220/230/240VAC		
Voltage range	90-280VAC±3V(normal mode) 170-280VAC±3V(UPS mode)		
Frequency range	50Hz/60Hz(Adaptive)		
<b>OUTPUT</b>			
Battery Inverter	4000W	6200W	11000W
Photovoltaic Inverter	4500W	6500W	12000W
Peak Power	8000VA	12400VA	22000VA
Output voltage	220/230/240VAC±5%		
Output frequency	50/60Hz±0.1%		
Waveform	pure Sine Wave		
Switching time (adjustable)	Computer equipment 10ms, home appliances 20ms		
Overload capacity	Battery Mode : 11s@105%~150% Load;2s@150%~200% Load;400ms@>200% Load		
<b>GRID-CONNECTED OPERATION</b>			
Output voltage	220/230/240VAC		
grid feeding voltage range	100-280VA		
grid feeding frequency range	47-53±1Hz/57-62±1Hz		
nominal output current	17.4A	26.9A	47.8A
power factor range	>0.99		
maximum conversion efficiency (DC/AC)	98%		
<b>BATTERY</b>			
Rated voltage	24Vdc	48Vdc	
constant voltage charging voltage (configurable)	28.2Vdc	56.4Vdc	
float charging voltage (configurable)	27Vdc	54Vdc	
<b>PV CHARGER</b>			
PV charging method	MPPT	MPPT	2*MPPT
Maximum input power of PV	6500W	8500W	2*7500W
MPPT input voltage range	60~500Vdc	60-500Vdc	90-500Vdc
optimal Vmp operating range	360~430Vdc	360~430Vdc	360~430Vdc
maximum PV input voltage	500Vdc	500Vdc	500Vdc
maximum PV input current	27A	27A	27A/27A
maximum PV charging current	120A	120A	150A
maximum mains charging current	100A	100A	150A
maximum charging current	120A	120A	150A
<b>DISPLAY</b>			
LCD Interface	LCD Interface: Can display operation mode/load/input/output, etc.		
<b>INTERFACE</b>			
RS232	Baud rate 2400		
Expansion slot communication interface	Lithium battery BMS communication card, WIFI card, dry contact card, etc.		
Parallel interface	No parallel function	Parallel (network) function	
<b>ENVIRONMENTAL PARAMETERS</b>			
Operating ambient temperature	-10°C~+50°C		
Operating environment humidity	20%~95%(No condensation)		
Storage temperature	-15°C~+60°C		
noise	≤50dB		
<b>PHYSICAL PARAMETERS</b>			
Depth × width × height (mm)	483*313*143 mm		
Standards and certifications	EN-IEC 60335-1, EN-IEC 60335-2-29, IEC 62109-1		










ENERGY STORAGE  
**INVERTER**  
LR SERIES

**ENERGY STORAGE SYSTEM LR 4KW~6.2KW**

**FEATURES**



-  Standard 1U rack-mount design
-  Can be used with a server rack or not, offering flexibility.
-  BMS function and Auto-restart Function for lithium battery
-  PF1.0, High Efficiency, Lower Consumption
-  BMS function for lithium battery
-  Inbuilt 120A MPPT , PV 500V Max
-  Support Parallel Connect Max. 12 Pcs (for 6.2KW model)

**APPLICATION**



Commercial car park



Street lighting/monitoring



Family/greenhouse



Commercial/construction

**LR SERIES**  
PARAMETERS

Model	LR4024SMH	LR6248SMH
Rated Power	4000W	6200W
Input		
Voltage	220/230/240VAC	
Voltage Range	170-280VAC(UPS Mode) 90-280VAC(Inverter Mode)	
Frequency Range	50Hz/60Hz(Adaptive)	
Output		
PV output	4500W	6200W
Peak Power	8000VA	124000VA
Output Frequency	50Hz±0.1%	
Overload Ability	attery Mode: 11s@105%~150% Load; 2s@150%~200% Load; 400ms@>200% Load	
Output Waveform	Pure Sine Wave	
Grid Connected Operation		
Output Voltage	220/230/240VAC	
Grid Voltage Range	170-265VAC	
Grid Frequency Range	49-51±1Hz/59-61±1Hz	
Output Current	17.4A	26.9A
Power Factor Range	>0.99	
Max efficiency (DC/AC)	98%	
Solar Charging And Mains Charging		
PV Charging Method	MPPT	MPPT
Max PV Input	6500W	8500W
PV Input Voltage Range	60~500VDC	60~500VDC
MAX PV Input Voltage	500VDC	500VDC
MAX PV Input Current	27A	27A
MAX PV Charging Current	120A	120A
MAX AC Charging Current	100A	100A
MAX Charging Current	120A	120A
Battery Model		
Battery Capacity	5888WH	11776WH
Battery Voltage	25.6VDC	51.2VDC
Battery Type	LiFePo4	
Max output power	5120W	10240W
MAX Discharge Current	200A	200A
Number of cycles	≥6000	≥6000
Charging Current (recommended)	115A	115A
Display	LCD display (non-LCD version available)	
Protection function	Charge/discharge over-current protection, over-voltage, short-circuit, MOSFET over-temperature, cell temperature and cell failure protection; ambient temperature alarm.	
Depth of Discharge (DOD)	≥95%	
Communication	RS232,RS485,CAN	



**HYBRID GRID/OFF GRID INVERTER 6200VA**

**FEATURES**



- Battery-free pure photovoltaic inverter, eliminating the need for energy storage battery packsower costs
- LCD displays 6 core parameters in real time (PVinput/grid status/loadpower/conversionefficiency/temperature/operating mode)
- Photovoltaic power grid connection, better energy saving for electrical appliances
- Support CT anti-back flow function, automatically detect the grid status, and ensure that no poweris reversed to the grid
- Unlimited load capacity,automatically adjust power according to PV output and load conditions to achieve unlimited load capacity
- External WIFI , exquisite design, easy to install, more durable

**APPLICATION**



Family/greenhouse



Street lighting/monitoring



Family/lighting

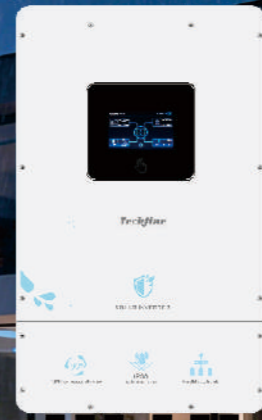


Agriculture/Irrigation

Model		HK6200
Input Formation		L+N+PE
AC Input		220/230/240VAC
Input Voltage Range		90-280VAC±3V(Normal Mode) 170-280VAC±3V (UPS Mode)
Frequency		50/60Hz(Adaptive)
Rated Power		6200W
Output Voltage(AC)		220/230/240VAC±5%
Output Frequency		50/60Hz±0.1%
Output Wave		Pure Sine Wave
Transfer Time(Adjustable)		10ms for Computer Equipment, 20ms for Household Equipment
Peak Power		13000W
Overload Ability		Battery Mode: 11s@105%~150% Load ; 2s@150%~200% Load ; 400ms@>200% Load
Grid connected Operation	Output Voltage	220/230/240VAC
	Grid Voltage Range	170-264VAC
	Grid Frequency Range	49-51±1Hz/59-61±1Hz
	Output Current	30A
	Power Factor Range	>0.99
	Max efficiency (DC/AC)	95%
PV Operating Range		70~500Vdc
Max PV Input Power		9000W
Optimal Vmp Range		300~400Vdc
MAX PV Input Voltage		500Vdc
MAX PV Input Current		27A
LCD		Can display operating mode/load/input/output
RS232		5PIN/Pitch2.54mm,Baud Rate 2400
Expansion Slot Communication Interface		WIFICard, CT Detection, etc.
Ambient Temperature		-10°C~50°C
Operating Environment Humidity		-15°C~60°C
Storage Temperature		No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer
Ork Altitude		20%~95% Non Condensing
Noise		<50dB

# HYBRID INVERTER

XA SERIES



## HYBRID SOLAR INVERTER XA

6600VA~10600VA

### FEATURES



- IP66 Protection Grade
- Max PV input current: 21A / 27A respectively
- MAX 9 Units Parallel Operation
- Built-in dual AC output modes
- Programmable power supply priority for PV, battery and grid
- Built in Dual MPPT controllers
- Automatic switching between two independent AC input sources (mains & generator)
- Built-in communication port (RS485) for Battery Management System (BMS)
- Compatible with diesel generator input

### APPLICATION



Family/lighting



Construction/housing



hotel/villa



Livestock farms/forests

Model	XA6648	XA8648	XA10648	
Phase	Single-phase Input / Single-phase Output			
Max PV Input Power	12000W	16000W	18000W	
Rated Output Power	6600VA/6600W	8600VA/8600W	10600VA/10600W	
Max Charging Power	6600W	8600W	10600W	
AC Output				
Rated Input Voltage	220/230/240 VAC			
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC or 182 - 260 VAC			
Rated Output Current	28.7A	37.4A	46.1A	
Power Factor	>0.99	>0.99	>0.99	
Max Conversion Efficiency (DC/AC)	95%	96%	96%	
Grid connected Operation				
AC Input	AC Start Voltage / Auto Restart Voltage	60 - 80 VAC / 180 VAC		
	Grid Voltage Range	90 - 280 VAC or 170 - 280 VAC		
	Grid Frequency Range	50 Hz/60 Hz (Adaptive)		
	Max Grid Current	40A	60A	60A
PV Input (DC)	Max PV Input Voltage	500 VDC	500 VDC	500 VDC
	MPPT Operating Range	120 VDC ~ 450 VDC	120 VDC ~ 450 VDC	120 VDC ~ 450 VDC
	Number of MPPT Inputs / Max PV Input Current	2 / 21A	2 / 27A	2 / 27A
Battery Mode Output (AC)				
Rated Output Voltage	220/230/240 VAC	220/230/240 VAC	220/230/240 VAC	
Output Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave	
Conversion Efficiency (DC to AC)	93%	93%	93%	
Battery & Charging				
Battery Type	Lead-acid or Lithium-ion	Lead-acid or Lithium-ion	Lead-acid or Lithium-ion	
Battery Voltage Range (V)	40-60VDC	40-60VDC	40-60VDC	
Rated DC Voltage	48 VDC	48 VDC	48 VDC	
Max PV Charging Current	135A	190A	210A	
Max AC Charging Current	135A	190A	210A	
Max Charging Current	135A	190A	210A	
Parallel Interface	Supports up to 9 units in parallel			
Expansion Slot Communication Interface	RS-232/RS485, WIFI			
Operating Temperature	0 ~ 100% RH( Non Condensing)			
Storage Temperature	-10°C to 50°C			
Standards & Certifications				
Safety / EMC Standards	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-2/4, IEC 61683, IEC62116, IEC61727			



# ENERGY STORAGE INVERTER

VS SERIES

## ENERGY STORAGE INVERTER VS 500VA~2000VA



### FEATURES

- Pure sine wave output
- DC Start & Automatic Self-Diagnostic Function
- Automatically send signal to start generator
- High efficiency design for optimized battery performance
- Selectable charging current based on applications
- lead acid battery/Lithium battery
- AC start-up voltage auto restart voltage

### APPLICATION



Courtyard Lighting



Spray System



CCTV system



Photovoltaic environmental monitoring instrument

## VS SERIES

PARAMETERS

Model	VS0512AP5	VS0812AP5	VS1012AP5	VS1512/24AP5	VS2024AP5
AC Input voltage	220VAC(standard)				
Input voltage range	154-264VAC±5V(Nor Mode) 185-264VAC±3V(UPS Mode)				
Input frequency	50/60Hz±5%				
Out put power	500VA 400W	800VA 640W	1000VA 800W	1500VA 1200W	2000VA 1600W
AC model output Voltage	220V±10%				
Battery model output frequency	The output frequency under the mains is the same as the input frequency				
Battery model output voltage	220VAC±10%				
Battery model output frequency	50HZ or 60HZ±1%				
Battery model output wave	Pure sine wave				
Battery type	External lead-acid battery, Gel battery, water battery or Lithium battery				
Battery voltage	12VDC		12/24VDC		24VDC
Battery charging voltage	13.7VDC		13.7/27.4VDC		27.4VDC
Maximum PV array power	12V:800W 24V:1600W				
Solar input voltage range	12V: PWM 15V-50VDC 24V: PWM 30V-105VDC				
Maximum PV Display Open Circuit Voltage	12V: PWM 50VDC 24V: PWM 105VDC				
Maximum solar charging current	60A				
Maximum AC Charge Current	13A	21A	27A	40A / 20A	27A
Battery charging voltage range	154-275VAC±5V				
Transfer time	≤10ms(UPS Mode) / ≤20ms(INV Mode)				
load peak ratio	(MAX)3:1				
Protective function	Under the mains: input over current fuse Under inverter: overload protection, short circuit protection, low voltage protection. (with battery anti-reverse connection board)				
Status Display	You can view parameters such as AC voltage, AC frequency, PV voltage, PV current, output voltage, output frequency, battery voltage, load current and other parameters by turning the page keys.				
Voice prompt	Low battery protection buzzer long beep Low battery buzzer beeps every second Machine fault buzzer beeps Overload buzzer beeps When the overload is less than 130%, the buzzer will sound every second, and the output will be turned off after 30S. When the overload is greater than 150%,the output will be turned off after 300mS.				
Operating temperature	-10°C~50°C				
Storage temperature	-15°C~45°C				
Relative temperature	-10°C~90°C no condensation				
Noise	<45dB				

# ENERGY STORAGE INVERTER

VS Pro SERIES



## ENERGY STORAGE INVERTER VS Pro 1500VA~12500VA



### FEATURES

- Pure sine wave output
- Can support WIFI / GPRS
- MPPT Efficiency max 98%
- Optional built-in MPPT/PWM30-60A controller
- DC Start & Automatic Self-Diagnostic Function
- Automatically send signal to start generator
- High efficiency design for optimized battery performance
- Selectable charging current based on applications
- lead acid battery/Lithium battery
- BMS function for lithium battery
- AC start-up voltage auto restart voltage/ 110V/120V Output Available

### APPLICATION



Shipping/fishing



Construction/housing



Base station/cell tower



Agriculture/animal husbandry

## VS Pro SERIES

PARAMETERS

Model	VS1512M	VS3024/48AM6	VS3824M	VS5024/48AM6	VS6348AM8	VS8048AM8	VS10048AM8	VS12548AM8
AC Input voltage	220VAC(standard)							
Input voltage range	154-264VAC±3V(Nor Mode)185-264VAC±3V(UPS mode)							
Input frequency	50/60Hz±5%							
Out put power	1500VA 1200W	3000VA 2400W	3800VA 3040W	5000VA 4000W	6300VA 5000W	8000VA 6400W	10000VA 8000W	12500VA 10000W
AC model output Voltage	The output voltage under the mains is the same as the input voltage							
Battery model output frequency	The output frequency under the mains is the same as the input frequency							
Battery model output voltage	220VAC±10%							
Battery model output frequency	50HZ or 60HZ±1%							
Battery model output wave	Pure sine wave							
Battery type	External lead-acid battery,Gel battery, water battery or Lithium battery							
Battery voltage	12VDC/24VDC/48VDC				48VDC			
Battery charging voltage	13.7VDC/27.4VDC/54.8VDC				54.8VDC			
Maximum PV array power	12V: 800W 24V:1600W 48V:3200W				6400W			
Solar input voltage range	12V: MPPT 15V-150VDC 24V: MPPT 30V-150VDC 48V: MPPT 60V-150VDC							
Maximum PV Display Open Circuit Voltage	150VDC							
Maximum solar charging current	60A	60A			120A			
Maximum AC Charge Current	50A	50A	63A	83A/41A	52A	66A	83A	104A
Transfer time	≤10ms(UPS Mode) / ≤20ms(INV Mode)							
load peak ratio	(MAX)3:1							
Protective function	Under the mains: input over current fuse Under inverter: overload protection, short circuit protection, low voltage protection. (with battery anti-reverse connection board)							
Status Display	You can view parameters such as AC voltage, AC frequency, PV voltage, PV current, output voltage, output frequency, battery voltage, load current and other parameters by turning the page keys.							
Voice prompt	Low battery protection buzzer long beep Low battery buzzer beeps every second Machine fault buzzer beeps Overload buzzer beeps When the overload is less than 130%, the buzzer will sound every second, and the output will be turned off after 30S. When the overload is greater than 150%,the output will be turned off after 300mS.							
Operating temperature	-10°C~50°C							
Storage temperature	-15°C~45°C							
Relative temperature	-10°C~90°C no condensation							
Noise	<45dB							

# VS Pro+ SERIES

PARAMETES



## ENERGY STORAGE INVERTER VS Pro+ 6300VA~12500VA



### FEATURES

- Parallel Function Up to Maximum 9 units
- Self design PCB board and cooling system
- MPPT Efficiency max 98%
- Optional MPPT solar charge controller 120A
- High Efficiency Design & "Power Saving Mode" to Conserve Energy
- Auto Restart when Ac in recovering
- Built in Transformer, overload and Ultra-high voltage protection
- Selectable charging current based on applications
- Smart battery charger design for optimized battery performance
- BMS function for lithium battery

### APPLICATION



Fisheries



Farming



Animal husbandry



Commercial buildings

Model	VS6348 AM6B (support parallel)	VS12548 AM8B (support parallel)
System Voltage	6300VA	12500VA
Nominal Voltage	230vac	
Input voltage range	90-275vac±3v ;170-275vac±3v(Selectable)	
Input frequency	50/60hz±5% Auto Sensing	
Rated power	5000W	10000W
Battery Voltage(DC)	48v	
Output frequency	50hz/60hz±1%	
Waveform	Pure Sine Wave	
Transfer Time	≤10ms ( UPS Mode ) / ≤20ms ( APL Mode )	
Load peak ratio	(max)3:1	
Bypass Mode	Yes	
Saver Mode	Yes	
Battery Type	VRLA / GEL / GEL DEEP CYCLE / LITHIUM	
Input Protection	Input Over Current Protection With Fuse	
Output Protection	Overload, Short Circuit, High & Low Voltage, Battery Reverse Protections	
AC Charging Current	50A	100A
Maximum PV array power	48v.mppt 150vdc ( Customized 200vdc )	
Maximum solar charge current	120A	120A
Maximum solar PV Watt	3200W	5400W
LCD indicator	AC input voltage/input frequency, PV voltage,/PV current /Output Voltage Frequency/Battery voltage/Load current etc.	
Low battery alarm	Audible alarm-5 seconds beeping	
Overload alarm	Audible alarm-continuous beeping	
Fault	Audible alarm-continuous beeping	
Storage temperature	-10°C~50°C	
Operating temperature	-15°C~45°C	
Relative temperature	20°C~90°C no condensation	
Noise(db)	<45dB	



**ENERGY STORAGE INVERTER JV 3800VA~10000VA**

**FEATURES**



- Low no-load loss, less than half of the high-frequency machine with the same power
- Pure sine wave output, can adapt to different loads
- Output short-circuit protection function
- Multiple parameters can be adjusted according to user needs
- Built-in MPPT can reach 245V, 100A
- Standard BMS communication function
- Standard RS232 communication function

**APPLICATION**



Mine/field



Mountain Forest/grassland



Low temperature areas



Desert/woodland

**JV SERIES**  
PARAMETERS

MODEL	JV3824AM8V	JV5048AM8V	JV6348AM8V	JV10048AM8V
Rated output power	3000W	4000W	5000W	8000W
Power Input	220VAC (standard) / 110VAC (customized)			
Input voltage range	220V model: 154-264VAC±3V (normal mode) 185-264VAC±3V (UPS mode) 110V model: 77-132VAC±3V (normal mode) 92-132VAC±3V (UPS mode)			
Input frequency	50/60Hz±5%			
<b>OUTPUT</b>				
Output voltage under AC power	The output voltage under AC power is the same as the input voltage			
Output frequency under AC power	The output frequency under AC power is the same as the input frequency			
Output voltage under inverter mode	220VAC±10% (110VAC±10%)			
Output frequency under inverter mode	50HZ or 60HZ±1%			
Output waveform under inverter mode	pure Sine Wave			
<b>BATTERY &amp; CHARGER</b>				
Battery Type	External lead-acid battery or water battery or lithium battery			
Battery voltage	24VDC		48VDC	
Battery charging voltage	27.4VDC		54.8VDC	
<b>PV INPUT</b>				
Maximum PV array power	2700W		5400W	
PV input voltage range(MPPT)	30-245VDC		60-245VDC	
Optimal Vmp operating range	30-170VDC		60-170VDC	
Maximum photovoltaic open-circuit voltage	245VDC			
Maximum solar charging current	100A			
<b>AC INPUT</b>				
Maximum AC charging current	63A	41A	52A	83A
<b>EFFICIENCY</b>				
Conversion time	≤10ms(UPS mode) / ≤20ms(normal mode)			
Load peak ratio	(MAX)3:1			
Standby power (W)	16W		32W	
<b>PROTECTION</b>				
Protection function	Under grid power: input over current circuit breaker protection Under inverter operation: overload protection, short circuit protection, low voltage protection, battery reverse polarity protection (fuse)			
Status display	color segment display with LED indicator view parameters such as AC voltage, AC frequency, PV voltage, PV current, output voltage, output frequency, battery voltage, and load current using the page turning key. LED displays mains power, charging status, inverter status, and fault status			
Audible alert	buzzer produces different alarm sounds based on the fault codes, distinguished by long and short tones			
<b>ENVIRONMENTAL PARAMETERS</b>				
Operating temperature	-10°C~+50°C			
Storage temperature	-15°C~+45°C			
Relative temperature	-10°C~90°C non-condensing			
Noise	<45dB			
<b>PHYSICAL PARAMETERS</b>				
Machine dimensions(L*W*H)mm	535*335*170mm			



**PORTABLE  
POWER  
INVERTER**  
HB SERIES

**POWER SYSTEM HB**

**400W~8000W**

**FEATURES**



- Pure sine wave output
- DC Start & Automatic Self-Diagnostic Function
- Automatically send signal to start generator
- High efficiency design for optimized battery performance
- Selectable charging current based on applications
- AC start-up voltage auto restart voltage With AVR voltage regulate function
- lead acid battery/Lithium battery

**APPLICATION**



Outdoor reconnaissance



Base station/base



Farming/animal husbandry



Fisheries

**HB SERIES**  
PARAMETERS

Model	HB0512	HB0812	HB1012	HB1512	HB1524	HB2024F	HB3024F	HB3048F	HB5048F	HB10048F
AC input voltage	220V/110V									
Input voltage range	220V(145-275VAC±3V) 110V(73-137VAC±3V)					220V:154-264VAC±3V( Normal mode) 185-264VAC±3V(UPS mode) 110V:77-132VAC±3V( Normal mode) 92-132VAC±3V( UPS mode)				
Input frequency	50/60Hz±5%									
Output rated power	400W	640W	800W	1200W	1200W	1600W	2400W	2400W	4000W	8000W
AC Mode output voltage	The Same As Input Voltage									
AC Mode output frequency	The Same As Input Frequency									
Battery Mode output voltage	220VAC±10%(110VAC±10%)									
Battery Mode output frequency	50HZ or 60HZ±1%									
Battery Mode output wave	Pure Sine Wave									
Battery type	Lead Acid Battery/water Battery/lithium Battery									
Battery voltage	12V			24V			48V			
Battery charging voltage	13.75VDC			27VDC			54VDC			
Max AC charging current	8A	13A	18A	30A	15A	20A	30A	15A	22A	56A
Transfer time	≤10ms									
Load peak ratio	(MAX)3:1									
ECO Mode(w)	6W	8W	9W	11W	12W	15W	16W	16W	23W	32W
Protection	Overload /Short circuit/Low voltage/Battery reverse connection protection									
Status display	AC voltage/AC frequency/Output frequency/Battery voltage/Load current									
Audible alarm	Low battery protection buzzer long beep Low battery buzzer every second Overload buzzer long Overload less than 130%, buzzer every second; overload more than 150%, after 300ms, it will turn off Machine fault buzzer long									
Working temperature	0°C~40°C									
Storage temperature	-15°C~45°C									
Relative temperature	-10°C~90°C No condensation									
Noise	<45dB									
Dimension(mm)	300*144*213					385*190*382				552*190*382
Net weight (kg)	7.5	7.9	7.8	9.1	9.1	15.4	17.9	17.9	22	36.1











**ENERGY STORAGE INVERTER**  
**KA SERIES**

**ENERGY STORAGE INVERTER KA 18000W~33000W**

**FEATURES**



-  Touch screen display, status is clear at a glance
-  Adapt to various load conditions
-  High power low battery voltage input
-  Grid connected power generation function
-  High power charging provides fast charging current
-  Rich communication interfaces, RS232, RS485, dry contacts.
-  Multi channel photovoltaic PV input, complementary load of photovoltaic mains power
-  Communicating with multiple lithium battery protocols for charge and discharge management

**APPLICATION**



villa



Factory



awning



Greenhouse

**KA SERIES**  
PARAMETERS

Model	KA18048SS	KA33048SS
Input Formation	L1+L2+L3+N+PE	
Rated input voltage	3 x 380VAC/400VAC (3-Phase+N line)	
voltage range	155-483VAC±3V(Normal Mode) 295-483VAC±3V(UPS Mode )	
Frequency	50Hz/60Hz(Adaptive)	
Output rated power	18000W	33000W
Output Voltage	380VAC±5%	
Output Frequency	50/60Hz±0.1%	
Output Wave	Pure Sine Wave	
Transfer time (Adjustable)	10ms for Computer Equipment , 20ms For Household Equipment	
Peak Power	36000W	66000W
Overload Ability	Battery Mode( 21s@105%~150% Load 11s@150%~200% Load 400ms@>200% Load )	
Output Voltage	380VAC	
Feed Into The Grid Voltage Range	337-437VA	
Feed Into The Grid Frequency Range	49-51±1HZ/59-61±1HZ	
Nominal Output Current	3×26.9A	3×47.8A
Power Factor Range	>0.99	
Maximum Conversion Efficiency (DC/AC)	98%	
Rated Voltage	48VDC	
Constant Voltage Charging Voltage(Adjustable)	56.4VDC	
Floating Charging Voltage(Adjustable)	54VDC	
Charging Mode	THREE ROUTES MPPT	SIX ROUTES MPPT
MAX PV Input Power	3×7500W	6×5500W
MPPT Tracking Range	60~500VDC	90~500VDC
MAX PV Input Voltage	500Vdc	
MAX PV Input current	3×27A	6×18A
MAX PV Charge Current	360A	450A
MAX AC Charge Current	300A	450A
MAX Charge Current	360A	450A
LCD	Can display operating mode/load/input/output	
RS232	Baud Rate2400	
Expansion Slot Communication Interface	Lithium Battery BMS Communication Card, WIFI , dry contact	
Operating Temperature	-10~50°C	
Operating Environment Humidity	20%~95%(Without Condensation)	
Storage Temperature	-15~60°C	
Ork Altitude	No more than 1000m,If 1000m<,Rate power will lower,Max 4000m,Refer	
Noise	≤50dB	








# ENERGY STORAGE INVERTER

LA SERIES

## ENERGY STORAGE INVERTER LA 5500VA~11000VA



### FEATURES

-  Pure sine wave output
-  PV priority, mains priority or battery priority
-  Grid-feed function is optional
-  Battery capacity is flexible for expanding if necessary
-  Using lithium iron phosphate battery pack, up to 10,000 cycles at 25°C

### APPLICATION



Farming



Ships



Family



Courts

## LA SERIES

PARAMETERS

Model	LA5548SMHG	LA11048SMHG
Rated Power	5500VA/5500W	11000VA/11000W
Input		
Voltage	230VAC	
Voltage Range	170-280VAC(UPS Mode) 90-280VAC(Inverter Mode)	
Frequency Range	50Hz/60Hz( Adaptive )	
Output		
Output Voltage	230VAC±5%	
Peak Power	11000VA	22000VA
Conversion Efficiency (maximum)	98%	
Output Frequency	50/60Hz±0.1%	
Switching time	10ms for Computer Equipment,30ms for Household Equipment	
Output Waveform	Pure Sine Wave	
Open Circuit Losses	<55W	<80W
Solar Charging And Mains Charging		
PV Charging Method	MPPT	
Max PV Input	5500W	2×5500W
MPPT Tracking Range	90-500Vdc	
MAX PV Charging Current	100A	150A
MAX AC Charging Current	60A	150A
MAX Charging Current	100A	150A
L×W×H	610x170x370mm	630x250x475mm
Battery Model		
Battery Capacity	5120WH	11776WH
Battery Voltage	51.2VDC	51.2VDC
Battery Type	LiFePo4	
Full Charge Voltage ( FC)	56V	
Full Discharge Voltage ( FD)	42V	
MAX Continuous Discharge Current	100A	200A
MAX Discharge Current	120A(1 minute)	230A(1 minute)
Protection	BMS,Relay	
Charging Voltage	56V	
Charging Current (recommended)	50A(0.5C)	115A(0.5C)
Charging Current (Max)	100A	200A
L×W×H	610X170X490mm	630X250X525mm

# SOLAR POWER SYSTEM

SP SERIES



## SOLAR POWER SYSTEM SP

1000W~2000W



### FEATURES

- External battery design, can be loaded under the battery mode for a long time
- Starting Up Automatically when mains input
- Two working models
- High current charging function
- Wide AC input range
- Shutdown charging function
- High efficiency design for optimized battery performance
- Compatible generator
- Monitor the working status through the display
- Automatically adjust the mains boost, buck, and stabilize the voltage output
- lithium battery optional
- 110V/120V Output Available

### APPLICATION



Outdoor reconnaissance



Base station/base



Farming/animal husbandry



Fisheries

## SP SERIES

PARAMETERS

Model	SP1012-100P	SP1524-100M	SP2024-100M	SP1012-100LP	SP1524-100LM	SP2024-100LM
BATTERY						
Battery type	Lead Acid Battery			Lithium Battery		
Battery Voltage	12V	24V		12V	24V	
Optional In-built battery specification	100AH/12V	100AH/12V*2		100AH/12.8V	100AH/12.8V*2	
INVERTER						
Rated Power	1000W	1500W	2000W	1000W	1500W	2000W
Output Voltage	220VAC±10%(110VAC±10%)					
Output Frequency	50HZ/60HZ±1%					
Output Waveform	Pure Sine Wave					
Charge by a mains supply						
Rated Voltage	220VAC±10%(110VAC±10%)					
AC Charge Current	12A(10-20A)	12A(10-18A)	20A(15-30A)	20A	18A	30A
Solar Input						
Maximum Photovoltaic Voltage(VDC)	≤50V	≤145VDC		≤50V	≤145VDC	
Charge Voltage(VDC)	13.7V	27.4V		14.6V	29.2V	
PV Rated Charge Current(A)	PWM 30A	MPPT 30A		PWM 30A	MPPT 30A	
Maximum Power(Wp)	360Wp	800Wp		400Wp	800Wp	
DC Output						
5VDC USB Output Port	2units/MAX 2A					
12VDC Output Port	2 DC Ports (MAX 5A)					
Environmental Parameters						
Ambient Temperature for operation	0-40°C					
Temperature for storage	-25-55°C					
Operation/Storage Conditions	0-90%(no condensation)					

# SOLAR CONTROLLER

MG SERIES








## MPPT MG SERIES

40A-60A

### FEATURES



-  Can support WIFI
-  12/24/36/48V adaptive
-  Three-stage smart charging
-  Adjustable parameters by pressing buttons
-  It can connect Lead acid battery/lithium battery /waterbattery

### APPLICATION



Shipping/fishing



woodland



Construction/housing



Desert

## MG SERIES

PARAMETERS

Model	MG40210	MG60415	
System Voltage	12/24VDC (Adaptive)	12/24/36/48VDC (Adaptive)	
Operating Voltage Range Of Controller	9~32V	10~64V	
Lead Acid Batteries Type	Maintenance-free (default) lead Acid Battery, Gel Battery, Open Lead Acid Battery, Custom		
Lithium Battery Type	Lithium Iron Phosphate/lithium Ternary/custom		
Nominal Current	40A	60A	
Solar panel rated input power	400W/12V	800W/12V	
	800W/24V	1200W/24V	
	/	2400W/36V	
	/	3200W/48V	
Pv Input Maximum Open Circuit Voltage (voc)	100VDC	150VDC	
Maximum power point operating voltage range	12V	18~100VDC	18~150VDC
	24V	36~100VDC	36~150VDC
	36V	/	50~150VDC
	48V	/	64~150VDC
Tracking Efficiency	≥99.9%	≥99.9%	
Maximum conversion efficiency	85%~98%		
Temperature compensation coefficient	-3mv/~12V		
Static Loss	200mA/12V;100mA/24V;50mA/48V;		
DC Load Output Voltage	Same as Battery Voltage		
Rated Output Current Of DC Load	20A		
DC Load Output Control Mode	Normally ON/OFF mode/time control mode/light control mode		
Protections	PV input anti reverse connection protection, Battery input reverse connection protection, Battery overcharge protection, Battery undervoltage protection, Battery over temperature protection and Machine over temperature protection		
IP Level	IP32		
Heat Dissipation Mode	Air cooling		
Communication	RS485/RS232		
Lcd Backlight Time	The default is 60s, and the back light mode can be set		
Working Temperature	-20°C~+50°C		
Storage Temperature	-30°C ~ +70°C		
Recommended Cable	11AWG/4mm <sup>2</sup>	7AWG/10mm <sup>2</sup>	
N.W	1.4kg	1.45kg	



# SOLAR CONTROLLER

ML SERIES

## MPPT ML SERIES

40A-120A



### FEATURES

- Can support WIFI
- 12/24/36/48V adaptive
- Three-stage smart charging
- Adjustable parameters by pressing buttons
- It can connect Lead acid battery/lithium battery /waterbattery

### APPLICATION



Shipping/fishing



woodland



Construction/housing



Desert

## ML SERIES

PARAMETERS

Model	ML40415	ML60415	ML80415	ML100415	ML120415	ML60825	ML80825	ML100825	
System Voltage	12/24/36/48VDC(Adaptive)					96VDC			
Rated current	40A	60A	80A	100A	120A	60A	80A	100A	
Charging mode	MPPT maximum power point tracking								
Applicable battery type	Sealed Lead Acid Battery, Gel Lead Acid Battery, Open Lead Acid Battery (can Also Customize Parameters For Other Types Of Battery Charging)								
Charging method	Three Stages: Constant Current, Constant Voltage, Floating Charge								
PV input maximum open circuit voltage (VOC)	DC150V					DC250V			
Starting time	≤10s								
Dynamic response recovery time	≤500us								
Static power	≤4W		≤8W			≤4W		≤8W	
MPPT Tracking efficiency	≥99.5%								
Max efficiency	85%~97%								
System identified voltage range	10~64V					72~128V			
Maximum power point operating voltage range	12V	18~150VDC					128~250VDC		
	24V	36~150VDC							
	36V	48~150VDC							
	48V	64~150VDC							
Rated charging power	12V	540W	800W	1040W	1300W	1560W	/		
	24V	1080W	1600W	2080W	2600W	3120W			
	36V	1620W	2400W	3120W	3900W	4680W			
	48V	2160W	3200W	4160W	5200W	6240W			
	96V	/							6240W
Load voltage	Same as Battery Voltage					no-load output function			
Rated load current	40A								
Load control method	Normally ON/OFF mode/time control mode/light control mode								
Load undervoltage protection	10.5V*N (N stands for batteries number) Parameters can be adjustable								
Cooling	Air Cooling								
Display	HD LCD backlight display								
Protections	Input and output over&low-voltage protection, input and output anti-reverse protection, over-temperature protection, load over-current protection								
Temperature compensation coefficient	-3mV/°C~-2V								
Working temperature	-20°C~+50°C								
Storage temperature	-30°C~+70°C								
Noise (dB)	≤50dB								
Humidity	0~90%RH								
Working altitude	0~3000M								
Dimension, L*W*H	219*260*110			274*350*110		219*260*110	275*348*109		
Net Weight (KG)	2.8KG		4.6KG	5.2KG		2.8KG	4.6KG	5.2KG	
specification Suggested wire specification	10AWG/6mm <sup>2</sup>	7AWG/10mm <sup>2</sup>	5AWG/16mm <sup>2</sup>	3AWG/25mm <sup>2</sup>		7AWG/10mm <sup>2</sup>	5AWG/16mm <sup>2</sup>	3AWG/25mm <sup>2</sup>	